

2021-2022 Permit Year

Ventura Countywide Stormwater Quality Management Program Annual Report

Attachment D Monitoring Appendices I - Part 1



Camarillo
County of Ventura
Fillmore
Moorpark
Ojai
Oxnard
Port Hueneme
Santa Paula
Simi Valley
Thousand Oaks

Ventura County Watershed Protection District

Appendix I. Aquatic Toxicity Testing Lab Results



Toxicity Report for Ventura County Watershed Protection District

2021/22-1 (Wet)

PROJECT: 2021/22-1 (Wet)

PO: NA

CLIENT: Ms. Kelly Hahs

VCWPD

800 South Victoria Avenue, L#1610

Ventura, CA 93009-1670

SAMPLE I.D.: MO-OXN, MO-OJA, ME-CC, MO-VEN, ME-VR2, MO-HUE, MO-MEI, MO-

FIL, MO-SPA, ME-SCR, MO-THO, MO-MPK, MO-SIM, MO-CAM

DATE RECEIVED: 10/25/2021

DATE REPORTED: 11/19/2021

ABC LAB NO.: VCF1020.151-.165

29 North Olive Street Ventura, California 93001 (805) 643-5621

INTRODUCTION

Toxicity tests using fathead (*P. promelas*), Ceriodaphnia (*C. dubia*), green algae (*S. capricornutum*), Topsmelt (*A. affinis*), and purple urchin (S. purpuratus) were performed to evaluate the quality of stormwater samples for Ventura County Watershed Protection District. The samples were collected on October 25th, 2021 and delivered the same day. Testing was conducted at Aquatic Bioassay and Consulting Labs, Inc. in Ventura California from October 25th, through November 5th, 2021.

MATERIALS AND METHODS

Test Material

Test material consisted of 14 grab samples (11 outfall and 3 receiving water sites) collected by Ventura County Watershed Protection District (VCWPD) outfall sites. Sample collection was performed by VCWPD personnel and consultants under the direction of Ms. Kelly Hahs. The samples were collected in 5-gallon low-density polyethylene buckets and were delivered to Aquatic Bioassay in immediately after sampling. Sample temperature was recorded upon acceptance at Aquatic Bioassay Laboratories and is included in the report for each station.

Samples were stored at 4°C. Upon arrival at Aquatic Bioassay, an aliquot of each sample was drawn and water quality parameters of pH, dissolved oxygen (DO), conductivity, temperature, salinity, alkalinity, and hardness were measured and recorded.

Bioassay Testing

The study was performed in accordance with the United States Environmental Protection Agency (USEPA) protocols:

Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002, US EPA-821-R-02-013.

Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition, October 2002, US EPA-821-R-02-014.

Summary of results for 100% sample concentration:

Sample ID	Test	Endpoint	Control	100% Sample	Statistically Different From Control	TST Result	*Percent Effect
MO-OXN	Chronic Fathead	Survival (%)	100	96.67	No	Pass	3.33
		Biomass (mg)	0.3398	0.3417	No	Pass	-0.54
MO-MEI	Chronic Fathead	Survival (%)	100	96.67	No	Pass	3.33
		Biomass (mg)	0.3418	0.3392	No	Pass	0.78
MO-SPA	Chronic Fathead	Survival (%)	100	98.33	No	Pass	1.67
		Biomass (mg)	0.3398	0.3590	No	Pass	-5.64
MO-CAM	Chronic Fathead	Survival (%)	100	100	No	Pass	0.00
		Biomass (mg)	0.3410	0.3452	No	Pass	-1.22
MO-OJA	Chronic Fathead	Survival (%)	100	100	No	Pass	0.00
		Biomass (mg)	0.3418	0.3450	No	Pass	-0.93
MO-VEN	Chronic Ceriodaphnia	Survival (%)	100	100	No	Pass	0.00
	Сепошрини	Reproduction #-Neonates	21.2	24.7	No	Pass	-16.51
MO-FIL	Chronic Ceriodaphnia	Survival (%)	100	100	No	Pass	0.00
	Сепошрини	Reproduction #-Neonates	24.7	23.3	No	Pass	5.67
MO-HUE	Chronic Ceriodaphnia	Survival (%)	100	100	No	Pass	0.00
	Corrodapinna	Reproduction #-Neonates	26.3	24.1	No	Pass	8.37
МО-ТНО	Chronic Ceriodaphnia	Survival (%)	100	100	No	Pass	0.00
	Corrodapinna	Reproduction #-Neonates	19.3	25.3	No	Pass	-31.09

^{*}Percent Effect at IWC = (Mean Control Response - Mean IWC Response) * 100 / Mean Control Response.

Summary of results for 100% sample concentration: (Cont.)

Sample ID	Test	Endpoint	Control	100% Sample	Statistically Different From Control	TST Result	*Percent Effect
MO-SIM	Chronic	Survival (%)	100	100	No	Pass	0.00
	Ceriodaphnia	Reproduction #-Neonates	23.6	26.4	No	Pass	-11.86
МО-МРК	Selenastrum	Cell Density	1.423E+6	1.821E+6	No	Pass	-27.97
ME-CC	Chronic Topsmelt	Survival (%)	100	96.0	No	Pass	4.00
		Biomass (mg)	1.434	1.452	No	Pass	-1.23
ME-VR2	Chronic Topsmelt	Survival (%)	100	100	No	Pass	0.00
		Biomass (mg)	1.442	1.449	No	Pass	-0.44
ME-SCR	Chronic Urchin	Fertilization (%)	94.25	92.75	No	Pass	1.59

^{*}Percent Effect at IWC = (Mean Control Response – Mean IWC Response) * 100 / Mean Control Response.

Quality Assurance

All samples were received in good condition at the appropriate temperatures, and all tests were initiated within 72 hours of sample collection. The natural seawater controls met the minimum test acceptability criterion of 80 percent mean survival. Variability among replicates was minimal, and the ability to detect a statistical difference was deemed appropriate.

Survival counts were recorded daily to ensure tests were progressing as expected. Counts were conducted daily on the control replicates. The temperatures in samples were within the recommended range for the entire test duration.

Reference Toxicant Test

A concurrent reference toxicant test using copper chloride was conducted to assess the health of the test organisms. Mean control survival met the test acceptability criterion. The median lethal concentration (LC50) calculated for this test was within two standard deviations of the internal control chart mean, indicating test organism sensitivity was typical. Reference toxicant test results are summarized in the report.

Results and Discussion

Mean survival and statistical differences from control for the tests, error bars, results summaries including individual replicate data, statistical summaries, and raw datasheets are located in in the appendix. Appropriate chain-of-custody (COC) procedures were followed during all phases of this study, and copies of the COC forms are provided in the appendix.

Data Analysis and Reporting

The response observed in this test includes survival of the test organism. Two statistical methods were employed to determine whether there was an effect between the control and test sample: 1) A standard t-test approach following the statistical analysis decision tree in EPA 2002; and 2) A more recent EPA-recommended Test of Significant Toxicity (TST) approach (EPA 2010).

References:

United States Environmental Protection Agency, 1995. Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA/R-95/136.

United States Environmental Protection Agency, 2002. Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA/821/R-02-014.

United States Environmental Protection Agency, 2002. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA/821/R-02/012.

United States Environmental Protection Agency, 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document. Office of Wastewater Management. EPA 833-R-10-003.



Ventura County Watershed Protection District

NPDES Stormwater Monitoring Program

Project: NPDES Stormwater Wet Season (Contract AE20-007)

Toxicity - ABC Laboratories

Side 2 of 2

Sampling Team:	Mich	rille	(a)	40		r		T				
	<u>F</u>	7	- topsmelt (Athennops	Chronic toxicity - inland silverside (Menidia beryllina)	- giant kelp (Macrocystis	Chronic toxicity - purple sea urchin (Strongylocentrotus purpuratus)	- fathead minnow melas)	Chronic toxicity - daphnid (Ceriodaphnia dubia)	Chronic toxicity - green alga (Raphidocelis subcapitata)	5-Gallon Buckets		
T .			xicity	xicity	xicity	xicity	xicity es pre	xicity	xicity a)	5-Ga		
SAMPLE ID	DATE/T	TED	Chronic toxicity affinis)	Chronic to beryllina)	Chronic toxicity pytifera)	Chronic to (Strongylo	Chronic toxicity - fathe (Pimephales promelas)	Chronic to dubia)	Chronic toxi subcapitata)	Number of	NOTES POR	Ceptop L
MO-CAM	10/25/21	1663	ML				Х			2	Note 1, Note 2, Note 3	3 Les
MO-SIM	10/25/21	1345	ML					Х		2	Note 1, Note 2, Note 3	3Lo
MO-MPK	10/25/21	1210							X	2	Note 1, Note 2, Note 3	= 601
MO-THO	10/25/21	1510						X		2	Note 1, Note 2, Note 3 (14)	2/0/2
MO-HUE								-X-		3	Note 1, Note 2, Note 3, Note 4	MC
											÷	
											*	
Relinquished	Printed Name Signature	_ 01	L	A	Co	rte	ev -					
	Affiliation	RIN	1601			_	Date/7	Tin	10/2	5/	121	
Received	Printed Name	Vict	or	Marg	Juez					_		
	Signature	Thele	= 7	201					101			
	Affiliation	ABC	LAC	55		_	Date/7	Cir	0/2	5/	21 /730	
Other Notes:	Note 1: Dilutio	ns - 6 25%	6 12 50	/ _{250/6}	50%	100%	Note	2. Dla	200 070	Cute	TIE if mortality > 50%	



Ventura County Watershed Protection District

NPDES Stormwater Monitoring Program

Project: NPDES Stormwater Wet Season (Contract AE20-007)

Toxicity - ABC Laboratories

Sampling Date:	10/25/21				Sic	de 1 of Projec		ber: 20	21/	22-1 (Wet)
Sampling Team:	MICHELLE C		4 (LAN	DON		V)F			
SAMPLE ID	DATE/TIME COLLECTED	Chronic toxicity - topsmelt (Atherinops affinis)	Chronic toxicity - inland silverside (Menidia betyllina)	Chronic toxicity - giant kelp (Mactocystis pytikera)	Chronic toxicity - purple sea urchin (Strongylocentrotus purpuratus)	Chronic toxicity - fathead minnow (Pimephales promelas)	Chronic toxicity - daphnid (Cetiodaphnia dubia)	Chronic toxicity - green alga (Raphidocelis subcapitata)	Number of 5-Gallon Buckets	NOTES
ME-SCR					X				1	Note 1, Note 2, Note 3
ME-VR2		X							2	Note 1, Note 2, Note 3
ME-CC		X							2	Note 1, Note 2, Note 3
MO-OXN						X			2	Note 1, Note 2, Note 3
MO-FIL							X		2	Note 1, Note 2, Note 3
MO-SPA						X			2	Note 1, Note 2, Note 3
MO-VEN							X		2	Note 1, Note 2, Note 3
MO-OJA						X			2	Note 1, Note 2, Note 3
MO-MEI						X			2	Note 1, Note 2, Note 3
Relinquished Received	Printed Name Signature Affiliation Printed Name	LA	V	Cart =	_	Date/7	Гirr	10/2	5/	ZI
Other Notes:	Signature Affiliation ABC	LAI	35)	_			0/2		
Juiet inoles:	Note 1: Dilutions - 6.259 Note 3: Notify District w								cute	TIE if mortality > 50%



Ventura County Watershed Protection District

NPDES Stormwater Monitoring Program

Project: NPDES Stormwater Wet Season (Contract AE20-007)

Toxicity - ABC Laboratories

SAMPLE ID	DATE, COLLE	CTED	Chronic toxicity - topsmelt (Atherinops affinis)	Chronic toxicity - inland silverside (Menidia beryllina)	Chronic toxicity - giant kelp (Macrocystis pytifera)	Chronic toxicity - purple sea urchin (Strongylocentrotus purpuratus)	Chronic toxicity - fathead minnow (Pimephales promelas)	Chronic toxicity - daphnid (Ceriodaphnia dubia)	Chronic toxicity - green alga (Raphidocelis subcapitata)	Number of 5-Gallon Buckets	NOTES NOTES	unofric = N
ME-SCR	10/25/21	15:45	37			X				1	Note 1, Note 2, Note 3	1 20.1 =2
ME-VR2	10/25/2	1 13:35	X							2	Note 1, Note 2, Note 3 3.3	7/01/ 1/0/
ME-CC	10/25/21	14:40	X							2	Note 1, Note 2, Note 3 4 4 (2 (01) = 1
MO-OXN							X			2	Note 1, Note 2, Note 3	
MO-FIL								X		2	Note 1, Note 2, Note 3	
MO-SPA							X			2	Note 1, Note 2, Note 3	
MO-VEN						į. I		X		2	Note 1, Note 2, Note 3	
MO-OJA							X			2	Note 1, Note 2, Note 3	
MO-MEI							Х			2	Note 1, Note 2, Note 3	
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Ventura County Watershed Protection District

NPDES Stormwater Monitoring Program

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Toxicity - ABC Laboratories

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ME-SCR					X				1	Note 1, Note 2, Note 3	_	
ME-VR2		X							2	Note 1, Note 2, Note 3		
ME-CC		X							2	Note 1, Note 2, Note 3	4	
MO-OXN	10/25/21 9:45					Х			2	Note 1, Note 2, Note 3	4.0	1 7 Los 7 2 L
MO-FIL							X		2	Note 1, Note 2, Note 3		
MO-SPA	10/25/21 11:00					X			2	Note 1, Note 2, Note 3	70	10= LO.13
MO-VEN							X		2	Note 1, Note 2, Note 3		-0
MO-OJA	10/25/21 12:45					X			2	Note 1, Note 2, Note 3	7/4	16-1011
MO-MEI	10/25/2,14:30					X			2	Note 1, Note 2, Note 3	13-0	2-1012
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Other Notes:	Affiliation Note 1: Dilutions - 6.25% Note 3: Notify District w				100%		e 2: Ple	ase exe		2 / /S 27 e TIE if mortality > 50%		



Ventura County Watershed Protection District

NPDES Stormwater Monitoring Program

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Toxicity - ABC Laboratories

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ME-SCR					Х				1	Note 1, Note 2, Note 3	
ME-VR2		X							2	Note 1, Note 2, Note 3	
ME-CC		X							2	Note 1, Note 2, Note 3	
MO-OXN						X			2	Note 1, Note 2, Note 3	
MO-FIL	10/25/21/1212						X		2	Note 1, Note 2, Note 3	5/260.13
MO-SPA						X			2	Note 1, Note 2, Note 3	
MO-VEN	10/25/21/1320						X		2	Note 1, Note 2, Note 3	15 -LON =
МО-ОЈА						X			2	Note 1, Note 2, Note 3	
MO-MEI						X			2	Note 1, Note 2, Note 3	
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Ventura County Watershed Protection District

NPDES Stormwater Monitoring Program

Project: NPDES Stormwater Wet Season (Contract AE20-007)

Toxicity - ABC Laboratories

Side 2 of 2

Sampling Date: Sampling Team:	-	*				120,00		.501. 20	,,,,	22-1 (Wet)
SAMPLE ID	DATE/TIME COLLECTED	Chronic toxicity - topsmelt (Atherinops affinis)	Chronic toxicity - inland silverside (Menidia beryllina)	Chronic toxicity - giant kelp (Macrocystis	Chronic toxicity - purple sea urchin (Strongylocentrotus purpuratus)	Chronic toxicity - fathead minnow (Pimephales promelas)	Chronic toxicity - daphnid (Ceriodaphnia dubia)	Chronic toxicity - green alga (Raphidocelis subcapitata)	Number of 5-Gallon Buckets	NOTES
MO-CAM						X			2	Note 1, Note 2, Note 3
MO-SIM							X		2	Note 1, Note 2, Note 3
MO-MPK								X	2	Note 1, Note 2, Note 3
MO-THO							X		2	Note 1, Note 2, Note 3
MO-HUE	10/25/24/14/5						X		3	Note 1, Note 2, Note 3,Note 4
delinquished	Printed Name PETE Signature Affiliation	/		2	7	Date/7	Sir_10	0.25	2-1	/1617
eceived	Printed Name Signature Affiliation ABC	to M LABS	arqui	er		Date/T	in_/0	0·25	5.2	.1 1617
Other Notes:	Note 1: Dilutions - 6.25								cute	TIE if mortality > 50%
	Note 3: Notify District v									
3	Note 4: If salinity >2 pp	t then al	so run	topsme	lt for c	ompar	ison. If	topsm	elt 1	unavailable, use <i>Hyalella</i>



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*" *EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.: DATE RECEIVED: MO-OXN 10/25/2021

ADCIAD NO.

10/25/2021

ABC LAB. NO.:

VCF1021.151

CHRONIC FATHEAD MINNOW SURVIVAL & GROWTH BIOASSAY

SURVIVAL

NOEC = 100.00 %

TUc = 1.00

EC25 = >100.00 %

EC50 = >100.00 %

BIOMASS

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly,

Scott Johnson

Laboratory Director

Report Date:

15 Nov-21 12:54 (p 1 of 2)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

	now 7-d Larva	I Survival a	and Growt	h Test				Aqua	atic Bio	oassay & C	onsulting	Labs, i	Inc.
Batch ID: Start Date: Ending Date Test Length:	06-8119-4663 26 Oct-21 14; ; 02 Nov-21 14 ; 7d 0h	:00 F :10 S	Test Type: Protocol: Species: Taxon:	Growth-Surviva EPA/821/R-02- Pimephales pro Actinopterygii	013 (2002)			Analyst: Diluent: Brine: Source:	Not A	ratory Wate applicable tic Biosyste		Age:	<24
Sample ID:	03-0000-3447	7 (Code:	VCF1021.151fn	nl			Project:	NPDE	ES Stormwa	ater Wet Se	ason	
	: 25 Oct-21 09:		Material:	Sample Water				Source:		say Report			
	: 25 Oct-21 15:		CAS (PC):	•				Station:	MO-C	- '			
Sample Age			Client:	Ventura County	Watershed	Protection	Distri						
Multiple Con	nparison Sumr	mary											
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12-6010-370	5 Mean Dry Bio	mass-mg	Steel	Many-One Rank	Sum Test		100	>100)		4.32%	1	1
Point Estima	ate Summary												
Analysis ID	Endpoint		Point	Estimate Metho	odbc	√	Lev	el %		95% LCL	95% UCL	TU	S
09-9467-859	3 7d Survival R	tate	Linea	r Interpolation (IC	CPIN)		EC.	10 >100)			<1	1
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Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-%	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio	cate omass-mg omass-mg omass-mg Count	Contr Contr Contr Contr PMSI Mean	ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL	1 0.3398 0.3398 0.04322 95% UCL 1.0000	0.8 0.8 0.25 0.25 0.12 Min 1.0000	Upj >> >> >> 0.3	Over Over Yes Yes	Err 00	Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000	iteria iteria iteria eria CV%	0.00	%
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 6 Rate Summary Code	cate comass-mg comass-mg comass-mg count 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983	ol Resp ol Resp ol Resp ol Resp ol Resp ol 10000 0 1.0000 3 0.9303	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333	Upj >> >> >> 0.3 Max 1.00	Yes Yes Yes Yes Yes Yes Yes Yes You One Yes Yes Yes Yes Yes Yes Yes Yes	Err 00 67	Passes Cr Passes Cr Passes Cr Passes Cr Below Crite Std Dev 0.0000 0.0333	iteria iteria iteria eria CV% 3.39%	0.00°	% %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25 12.5	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 6 Rate Summary Code	cate comass-mg comass-mg comass-mg count 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966	ol Resp ol Resp ol Resp ol Resp ol Resp ol 1.0000 0 1.0000 3 0.9303 7 0.9054	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333	Upj >> >> 0.3 Max 1.00 1.00	Yes Yes Yes Yes Yes Yes Yes Yes You One	Err 00 67 93	Passes Cr Passes Cr Passes Cr Passes Cr Below Crite Std Dev 0.0000 0.0333 0.0385	iteria iteria iteria eria CV% 3.39% 3.98%	0.00° 1.67° 3.33°	% % %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 12-6010-370: 0 6.25 12.5 25	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 6 Rate Summary Code	cate comass-mg comass-mg comass-mg comass-mg 4 4 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.983	ol Resp ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9303	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0360	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.9333	Upj >> >> 0.3 Max 1.00 1.00 1.00	Yes Yes Yes Yes Yes Yes Yes Yes You Yes	Err 00 67 93 67	Passes Cr Passes Cr Passes Cr Passes Cr Below Crite Std Dev 0.0000 0.0333 0.0385 0.0333	tteria iteria iteria eria CV% 3.39% 3.98% 3.39%	0.00° 1.67° 3.33° 1.67°	% % % %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370:	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 6 Rate Summary Code	cate comass-mg comass-mg comass-mg count 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966	ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9303 7 0.9054	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333	Upj >> >> 0.3 Max 1.00 1.00	Yes Yes Yes Yes Yes Yes Yes Yes You Only Only Only Only Only Only Only Only	Err 00 67 93 67 93	Passes Cr Passes Cr Passes Cr Passes Cr Below Crite Std Dev 0.0000 0.0333 0.0385	iteria iteria iteria eria CV% 3.39% 3.98%	0.00° 1.67° 3.33°	% % % % %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25 12.5 25 50 100	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 6 Mean Dry Bio 7 Rate Summary Code N	count 4 4 4 4 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.983 0.966	ol Resp ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9303 7 0.9054	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0360 1.0280	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.9333	Upj >> >> 0.3 Max 1.00 1.00 1.00	Yes Yes Yes Yes Yes Yes Yes Yes You Only One	Err 00 67 93 67 93	Passes Cr Passes Cr Passes Cr Passes Cr Below Crite Std Dev 0.0000 0.0333 0.0385 0.0333 0.0385	CV% 3.39% 3.98% 3.98%	0.00° 1.67° 3.33° 1.67° 3.33°	% % % % %
Analysis ID 02-7330-7283 09-9467-8593 02-0933-9023 12-6010-3703 12-6010-3703 7d Survival I Conc-% 0 6.25 12.5 25 50 100 Mean Dry Bi	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 6 Rate Summary Code	count 4 4 4 4 4 4 4	Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.983 0.966	ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9303 7 0.9054 7 0.9054	1 1 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0280 1.0280	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.9333 0.9333	Upj >> >> 0.3 Max 1.00 1.00 1.00	Yes Yes Yes Yes Yes Yes Yes Yes You One	Err 000 67 93 67 93 93	Passes Cr Passes Cr Passes Cr Passes Cr Below Crite Std Dev 0.0000 0.0333 0.0385 0.0333 0.0385	CV% 3.39% 3.98% 3.98%	0.00° 1.67° 3.33° 1.67° 3.33°	% % % % %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25 12.5 25 50 100 Mean Dry Bi Conc-%	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 6 Mean Dry Bio 7 Mean Dry Bio 8 Mean Nory Bio 8 Norde N	cate comass-mg comass-mg comass-mg 4 4 4 4 4 4 4 mmmary	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.983 0.966	ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9303 7 0.9054 7 0.9054	1 1 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0280 1.0280	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.9333 0.9333	Uppy >> >> 0.3 Maa: 1.00 1.00 1.00 1.00 1.00	Ves Yes Yes	Err 000 67 93 67 93 93	Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000 0.0333 0.0385 0.0385 0.0385	CV% 3.39% 3.98% 3.98% 3.98%	0.00° 1.67° 3.33° 1.67° 3.33° 3.33°	% % % % % %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25 12.5 25 50 100 Mean Dry Bi Conc-% 0	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 7 Mean Dry Bio 8 N 8 N 9 N 9 Omass-mg Sur	cate comass-mg comass-mg comass-mg 4 4 4 4 4 4 Command	Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.983 0.966 Mean	95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9054 7 0.9054 95% LCL 8 0.3317	1 1 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0280 1.0280 95% UCL	Min 1.0000 0.9333 0.9333 0.9333 0.9333	Upj >> >> 0.3 Maz 1.00 1.00 1.00 1.00	Over Ove Yes Yes Yes	Err 00 67 93 67 93 93	Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000 0.0333 0.0385 0.0385 0.0385 0.0385	CV% 3.39% 3.98% 3.98% 3.98% CV%	0.00° 1.67° 3.33° 1.67° 3.33° 3.33°	% % % % % % iect
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 12-605-% 0 6.25 12.5 25 50 100 Mean Dry Bi Conc-% 0 6.25	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 7 Mean Dry Bio 8 N 8 N 9 N 9 Omass-mg Sur	count 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.986 0.966 Mean 0.339	95% LCL 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9054 7 0.9054 95% LCL 8 0.3317 5 0.3401 3 0.339	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0280 1.0280 95% UCL 0.3479	Min 0.3353 0.3413 0.3393	Uppy >> >> >> 0.3 Maa: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ves Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes 000 0.00 000 0.01	Err 00 67 93 67 93 93 Err 2544 1371 0720	Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000 0.0333 0.0385 0.0385 0.0385 0.0385 0.0385	CV% 3.39% 3.98% 3.98% 3.98% 1.50% 0.80% 0.42%	0.00° 1.67° 3.33° 1.67° 3.33° 3.33° %Eff 0.00° -1.37	% % % % % % fect %
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25 12.5 25 50 100 Mean Dry Bi Conc-% 0 6.25 12.5	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 7 Mean Dry Bio 8 N 8 N 9 N 9 Omass-mg Sur	count 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.986 0.966 Mean 0.339 0.344	95% LCL 95% LCL 0 1.0000 3 0.9303 7 0.9054 3 0.9054 7 0.9054 95% LCL 8 0.3317 5 0.3401 3 0.339	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0280 1.0280 1.0280 0.3479 0.3489 0.3436 0.347	Min 0.3353 0.3393 0.3393 0.3393	Uppy >> >> 0.3 Max 1.00	ver Over Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes 000 0.00 000 0.01 000 0.00	Err 00 67 93 67 93 93 Err 2544 1371 0720 1424	Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000 0.0333 0.0385 0.0385 0.0385 0.0385 Std Dev 0.005088 0.002742 0.00144 0.002848	CV% 3.39% 3.98% 3.98% 3.98% 1.50% 0.80% 0.42% 0.83%	0.00° 1.67° 3.33° 1.67° 3.33° 3.33° %Eff 0.00° -1.37 -0.44	% % % % % % iect % 1%
Analysis ID 02-7330-728: 09-9467-859: 02-0933-902: 12-6010-370: 12-6010-370: 7d Survival I Conc-% 0 6.25 12.5 25 50 100	Endpoint 3 7d Survival R 3 7d Survival R 3 Mean Dry Bio 5 Mean Dry Bio 5 Mean Dry Bio 7 Mean Dry Bio 8 N 8 N 9 N 9 Omass-mg Sur	count 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Contr Contr Contr Contr PMSI Mean 1.000 0.983 0.966 0.986 0.966 0.966 Mean 0.339 0.344	ol Resp ol Res	1 1 0.3398 0.3398 0.04322 95% UCL 1.0000 1.0360 1.0280 1.0280 1.0280 95% UCL 0.3479 0.3489 0.3436	Min 0.3353 0.3413 0.3393	Uppy >> >> 0.3	ver Over Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes 000 0.00 000 0.01 000 0.00 0.00 0.00 </td <td>Err 00 67 93 67 93 93 Err 2544 1371 0720</td> <td>Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000 0.0333 0.0385 0.0385 0.0385 0.0385 0.0385</td> <td>CV% 3.39% 3.98% 3.98% 3.98% 1.50% 0.80% 0.42%</td> <td>0.00° 1.67° 3.33° 1.67° 3.33° 3.33° %Eff 0.00° -1.37</td> <td>% % % % % % * * * * * * * * * * * * * *</td>	Err 00 67 93 67 93 93 Err 2544 1371 0720	Passes Cr Passes Cr Passes Cr Passes Cr Below Crit Std Dev 0.0000 0.0333 0.0385 0.0385 0.0385 0.0385 0.0385	CV% 3.39% 3.98% 3.98% 3.98% 1.50% 0.80% 0.42%	0.00° 1.67° 3.33° 1.67° 3.33° 3.33° %Eff 0.00° -1.37	% % % % % % * * * * * * * * * * * * * *

CETIS Summary Report

Report Date:

15 Nov-21 12:54 (p 2 of 2)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

						Test Code/ID. VCI 1021.131IIII/ 12-0309-9330
Fathead Minn	ow 7-d Larval	Survival an	d Growth T	est		Aquatic Bioassay & Consulting Labs, Inc.
7d Survival Ra	ate Detail					MD5: A83452331BDDDF0F86FB29168D1EF43E
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.0000	1.0000	1.0000	1.0000	
6.25		1.0000	1.0000	1.0000	0.9333	
12.5		1.0000	0.9333	1.0000	0.9333	
25		0.9333	1.0000	1.0000	1.0000	
50		0.9333	1.0000	0.9333	1.0000	
100		1.0000	0.9333	0.9333	1.0000	
Mean Dry Bior	mass-mg Deta	ail				MD5: FBB181F13FC26297F17FB2DDEB61E5A9
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.3353	0.3407	0.3367	0.3467	
6.25		0.3447	0.3413	0.348	0.344	
12.5		0.3393	0.3427	0.3413	0.342	
25		0.3433	0.3413	0.346	0.3393	
50		0.3727	0.3387	0.3353	0.342	
100		0.3393	0.3313	0.34	0.356	
7d Survival Ra	ate Binomials					
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	15/15	15/15	15/15	15/15	
6.25		15/15	15/15	15/15	14/15	
12.5		15/15	14/15	15/15	14/15	
25		14/15	15/15	15/15	15/15	
50		14/15	15/15	14/15	15/15	
100		15/15	14/15	14/15	15/15	

Report Date:

15 Nov-21 12:54 (p 1 of 4)

Test Code/ID: VCF1021.151fml / 12-0589-9336

										tie Die			Lobe Inc
Fathead Minn	ow 7-d Lar	val Surviva	al and Growt	h Test					Aqua	IIC DIO	assay &	Consulting	Labs, inc
Analysis ID:	02-7330-72	283	Endpoint:	7d Survival Ra	ite			CI	ETIS Vers	ion:	CETISv1	.9.7	
Analyzed:	15 Nov-21	12:53	Analysis:	Nonparametri	-Control	vs T	reatments	St	atus Leve	el:	1		
Edit Date:	15 Nov-21	12:53	MD5 Hash:	A83452331BD	DDF0F8	6FB	29168D1E	F43E E	ditor ID:		000-189-	126-0	
Batch ID:	06-8119-46	63	Test Type:	Growth-Surviv	al (7d)			Aı	nalyst:				
Start Date:	26 Oct-21		Protocol:	EPA/821/R-02		02)			luent:	Lahora	atory Wat	er	
Ending Date:			Species:	Pimephales pi	•	o _ ,			rine:		plicable	O1	
Test Length:		14.70	Taxon:	Actinopterygii	Omolas				ource:		c Biosyst	ems. CO	Age: <2
		47		. ,,,	lal			D					
Sample ID: Sample Date:	03-0000-34		Code: Material:	VCF1021.151					oject:			∕ater Wet S -	eason
-				Sample Water					ource:		say Repoi	l	
Receipt Date: Sample Age:		15:27	CAS (PC): Client:	Ventura Coun	v Water	shad	Protection		ation:	MO-O	XIN		
				Veniura Coun	y waters	sileu	FTOLECTION	Distri					
Data Transfor		Alt					NOEL	LOEL	TOE		TU	MSDu	PMSD
Angular (Corre	ected)	C > .	Τ				100	>100	444	11	1	0.05722	5.72%
Steel Many-O	ne Rank Su	m Test											
Control	vs Con	c-%	Test 9		Ties	DF	P-Type	P-Valu		sion(α:			
Negative Cont	rol 6.25		16	10	1	6	CDF	0.6105		_	ant Effec		
	12.5		14	10	1	6	CDF	0.3451		_	ant Effec		
	25		16	10	1	6	CDF	0.6105		-	ant Effec		
	50		14	10	1	6	CDF	0.3451		_	ant Effec		
	100		14	10	1	6	CDF	0.3451	Non-	Signific	ant Effec		
Test Acceptat	oility Criteri	a _											
		- T	AC Limits										
Attribute	Test			r Overlap	Decis	ion							
	Test			r Overlap Yes	Decis Passe	_	iteria						
Control Resp	1	Stat Low	er Uppe			_	iteria						
Control Resp	1	Stat Low	er Uppe >>			_	iteria F Stat	P-Valu	e Deci:	sion(α:	5%)		
Control Resp ANOVA Table Source	1 Sum	Stat Low 0.8	er Uppe >>	Yes Square	Passe	_		P-Valu 0.6536			5%) ant Effec		
Control Resp ANOVA Table Source Between	1 Sum	Stat Low 0.8 Squares 14533	er Uppe >> Mean	Yes Square 8907	Passe DF	_	F Stat				-		
Control Resp ANOVA Table Source Between Error	1 Sum 0.014 0.078	Stat Low 0.8 Squares 14533	er Uppe >> Mean 0.002	Yes Square 8907	DF 5	_	F Stat				-		
Control Resp ANOVA Table Source Between Error Total	Sum 0.014 0.078 0.092	Stat Low 0.8 Squares 44533 8048 25014	er Uppe >> Mean 0.002	Yes Square 8907	DF 5 18	_	F Stat				-	1	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur	Sum 0.014 0.078 0.092	Stat Low 0.8 Squares 44533 8048 25014	er Uppe >> Mean 0.002	Yes Square 8907	DF 5 18 23	es Cr	F Stat		Non-		ant Effec		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute	1 Sum 0.014 0.078 0.092 mptions Test	Stat Low 0.8 Squares 14533 3048 25014 sts	er Uppe >> Mean 0.002 0.004	Yes Square 8907 336	DF 5 18 23	es Cr	F Stat 0.6667	0.6536	Non-	Signific	ant Effec		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute	1 Sum 0.014 0.078 0.092 mptions Te: Test Bartle	Stat Low 0.8	er Uppe >> Mean 0.002 0.004	Yes Square 8907 336	DF 5 18 23	es Cr	F Stat 0.6667 	0.6536 P-Valu	Non-	Signific sion(α: ermina	ant Effect 1%) te		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute	Sum 0.014 0.078 0.092 mptions Test Bartle Level	Squares 4533 3048 25014 sts ett Equality ne Equality	wear Mean 0.002 0.004 of Variance T of Variance T	Yes Square 8907 336 Test Test	DF 5 18 23	es Cr	F Stat 0.6667 Critical 4.248	0.6536	e Deci:	Signific sion(α: ermina	ant Effect 1%) te riances		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum 0.014 0.078 0.092 mptions Test Bartle Level	Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equ	wear Mean 0.002 0.004 of Variance Tof Variance Tof Variance Tuality of Variance Tua	Yes Square 8907 336 Test Test	DF 5 18 23 Test 5 7.2 2	es Cr	F Stat 0.6667 	0.6536 P-Valu 0.0007 0.1274	e Deci	Signific sion(a: ermina ual Vai	ant Effect 1%) te riances		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande	Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equrson-Darlin	mean 0.002 0.004 of Variance Tof Variance T	Yes Square 8907 336 Test Test	DF 5 18 23 Test 5 7.2	Stat	F Stat 0.6667 Critical 4.248	0.6536 P-Valu 0.0007	e Decision Indet Unequal Equal Non-	Signific sion(α: ermina ual Var l Variar Normal	ant Effect 1%) te riances nces		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age	Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equ rson-Darlin postino Kurto	Mean 0.002 0.004 of Variance Tof Variance T	Yes Square 8907 336 Test Test	DF 5 18 23 Test \$ 7.2 2 1.517	es Cr	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576	0.6536 P-Valu 0.0007 0.1274 0.0001	e Deci: Indet Uneq Equa Non-	sion(α: ermina ual Vai I Variai Normal	ant Effect 1%) te riances nces Distributi		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age	Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equareson-Darlin ostino Kurto ostino Skev	Mean 0.002 0.004 of Variance Tof Variance Tof Variance Totality of Vari	Yes Square 8907 336 Test Test Test Test Test	DF 5 18 23 Test \$ 7.2 2 1.517 2.477	es Cr	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576 2.576	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627	e Deci: Indet Uneq Equa Non- Norm	sion(α: ermina ual Vai I Variai Normal al Distr	ant Effect 1%) te riances nces Distribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age D'Age	Stat Low 0.8 Squares 14533 3048 25014 sts ett Equality ne Equality Levene Equality	mean 0.002 0.004 of Variance Tof Variance Tof Variance Totality of Variance States and States are sension of Variance Totality of Variance States are sension of Variance Sta	Yes Square 8907 336 Test Test Test Test Test	DF 5 18 23 Test 5 7.2 2 1.517 2.477 0.910:	es Cr	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133	e Deci: Indet Uneq Equa Non- Norm Norm	Signific sion(a: ermina ual Variar Normal val Distrial Distrial	ant Effect 1%) te riances nces Distribution ribution	on	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age Kolm	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equ rson-Darlin postino Kurto postino Skev postino-Pear ogorov-Sm	Mean 0.002 0.004 of Variance Tof Variance Tof Variance Totality of Vari	Yes Square 8907 336 Test Test Test Test Test Test Test Tes	DF 5 18 23 Test 5 7.2 2 1.517 2.477 0.910: 6.963	es Cr	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576 2.576 9.21	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308	e Deci: Indet Uneq Equa Non- Norm Norm Norm	Signific sion(a: ermina ual Variar Normal ral Distr ral Distr ral Distr ral Distr	ant Effect 1%) te riances nces Distribution ribution ribution	on	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	Sum 0.014 0.078 0.092 mptions Te: Est Bartle Level Mod Ande D'Age D'Age Kolm Shap	Stat Low 0.8 Squares 4533 8048 25014 sts ett Equality ne Equality Levene Equality Levene Equality Stan Control Stan Con	mean O.002 O.004 of Variance Tof Variance Tof Variance To Juality of Variance To Juality of Variance Tosis Test wheels Test variance Test v	Yes Square 8907 336 Test Test Test Test Test Test Test Tes	DF 5 18 23 7.2 2 1.517 2.477 0.9100 6.963 0.214	es Cr	F Stat 0.6667 Critical 4.248 4.248 4.248 2.576 2.576 9.21 0.2056	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059	e Deci: Indet Uneq Equa Non- Norm Norm Norm	Signific sion(a: ermina ual Variar Normal ral Distr ral Distr ral Distr ral Distr	ant Effect 1%) te riances nces Distribution ribution ribution Distributi	on	
ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	Sum 0.014 0.078 0.092 mptions Te: Est Bartle Level Mod Ande D'Age D'Age Kolm Shap	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equ rson-Darlin ostino Kurto ostino Skev ostino-Pear ogorov-Sm iro-Wilk W	mean 0.002 0.004 of Variance Tof Variance T	Square 8907 336 Test Test nce Test bus Test	Passe DF 5 18 23 Test \$ 7.2 2 1.517 2.477 0.910; 6.963 0.214 0.856	es Cr	F Stat 0.6667 Critical 4.248 4.248 4.248 2.576 2.576 9.21 0.2056	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059	e Deci: Indet Uneq Equa Non- Norm Norm Norm	Signific Signific Signific Ermina Ual Variar Normal Ial Distr Ial Dist Ial Distr Ial D	ant Effect 1%) te riances nces Distribution ribution ribution Distributi	on	%Effect
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age C'Age Kolm Shap	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equ rson-Darlin ostino Kurto ostino Skev ostino-Pear ogorov-Sm iro-Wilk W	mean 0.002 0.004 of Variance Tof Variance T	Yes Square 8907 336 Fest Fest Test nce Test bus Test st 95% LCL	Passe DF 5 18 23 Test \$ 7.2 2 1.517 2.477 0.910 6.963 0.214 0.856	Stat 2	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059 0.0029	e Decision Indet Uneque Equa Non-Norm Norm Norm Norm Non-Non-Max	Signific sion(α: ermina ual Variar Normal ial Distr ial Distr Normal	ant Effect 1%) te riances Distribution ribution ribution Distributi Distributi	on on on	%Effect
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution 7d Survival R Conc-%	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age Kolm Shap ate Summa	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Equality Levene Equality contino Skev contino Skev contino Skev contino Pear contino Skev contino Pear contino Skev contino S	er Uppe >> Mean 0.002 0.004 of Variance T of Variance T uality of Varia g A2 Test vness Test vne	Yes Square 8907 336 Test Test Test Test St 95% LCL 0 1.0000	DF 5 18 23 7.2 2 1.517 2.477 0.9100 6.963 0.214 0.856	Stat 2 JCL 0	F Stat 0.6667 Critical 4.248 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059 0.0029	e Decision Indet Unequestrate Variation Norm Norm Norm Non-Non-Non-Max	Signific Sig	ant Effect 1%) te riances Distribution ribution ribution Distributi Distributi	on on on CV %	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution 7d Survival R Conc-% 0 6.25	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age Kolm Shap ate Summa	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Eq	of Variance Tof Va	Yes Square 8907 336 Test Test Test Test Test Tost Dus Test 95% LCL 0 1.0000 3 0.9303	Passe DF 5 18 23 Test \$ 7.2 2 1.517 2.477 0.9100 6.963 0.214 0.8564	2 4 JCL 0 0 0 0	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 1.0000	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059 0.0029 Min 1.0000	e Decision Indet Unequestrate Variable	Signific Sig	ant Effect 1%) te riances Distribution ribution ribution Distributi Distributi	on on on CV% 0.00%	0.00%
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution 7d Survival R Conc-% 0 6.25 12.5	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age Kolm Shap ate Summa	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Eq	of Variance Tof Va	Yes Square 8907 336 Test Test Test Test Test 0 1.0000 0 0.9303 0 0.9303 0 0.9054	Passe DF 5 18 23 Test \$ 7.2 2 1.517 2.477 0.910; 6.963 0.214 0.856 95% \$ 1.0000 1.0000	2 4 4 JCL 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 1.0000 1.0000	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059 0.0029 Min 1.0000 0.9333	e Decision Indet Unequestrate Variation Norm Norm Norm Non-Non-Non-Non-Non-Non-Non-Non-Non-Non-	Signific Sig	ant Effect 1%) te riances Distribution ribution ribution Distributi Distributi Std Err 0.0000 0.0167	on on on CV% 0.00% 3.39%	0.00% 1.67%
Attribute Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution 7d Survival R Conc-% 0 6.25 12.5 25 50	Sum 0.014 0.078 0.092 mptions Test Bartle Level Mod Ande D'Age D'Age Kolm Shap ate Summa	Stat Low 0.8 Squares 4533 3048 25014 sts ett Equality ne Equality Levene Eq	of Variance Tof Va	Yes Square 8907 336 Test Test Test Test Test 0 1.0000 0 3 0.9303 7 0.9054 0 0.9303	Passe DF 5 18 23 Test \$ 7.2 2 1.517 2.477 0.910 6.963 0.214 0.856 95% L 1.000 1.000 1.000 1.000 1.000	2 4 4 JCL 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F Stat 0.6667 Critical 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 1.0000 1.0000 0.9667	0.6536 P-Valu 0.0007 0.1274 0.0001 0.0133 0.3627 0.0308 0.0059 0.0029 Min 1.0000 0.9333 0.9333	e Deci: Indet Uneq Equa Non- Norm Norm Norm Non- Non- Max 1.000 1.000 1.000	Signific Sig	ant Effect 1%) te riances Distribution ribution ribution Distributi Std Err 0.0000 0.0167 0.0192	on on CV% 0.00% 3.39% 3.98%	0.00% 1.67% 3.33%



Report Date:

15 Nov-21 12:54 (p 2 of 4)

Test Code/ID: Vo

VCF1021.151fml / 12-0589-9336

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-7330-7283

Endpoint: 7d Survival Rate

CETIS Version: CETISv1.9.7

Analyzed: Edit Date:

15 Nov-21 12:53 15 Nov-21 12:53 Analysis: Nonparametric-Control vs Treatments
MD5 Hash: A83452331BDDDF0F86FB29168D1EF43E

Status Level:

Editor ID:

el: 1

000-189-126-0

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
6.25		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
12.5		4	1.3750	1.2540	1.4960	1.3750	1.3100	1.4410	0.0380	5.53%	4.57%
25		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
50		4	1.3750	1.2540	1.4960	1.3750	1.3100	1.4410	0.0380	5.53%	4.57%
100		4	1.3750	1.2540	1.4960	1.3750	1.3100	1.4410	0.0380	5.53%	4.57%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	0.9333
12.5		1.0000	0.9333	1.0000	0.9333
25		0.9333	1.0000	1.0000	1.0000
50		0.9333	1.0000	0.9333	1.0000
100		1.0000	0.9333	0.9333	1.0000

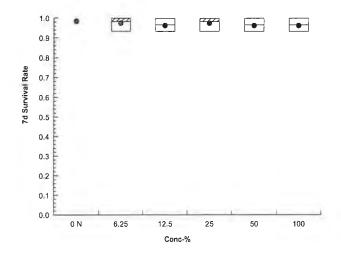
Angular (Corrected) Transformed Detail

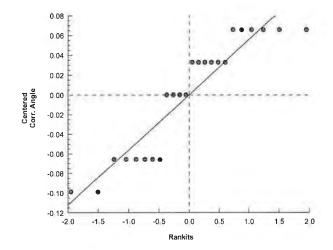
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.4410	1.4410	1.4410	1.4410
6.25		1.4410	1.4410	1.4410	1.3100
12.5		1.4410	1.3100	1.4410	1.3100
25		1.3100	1.4410	1.4410	1.4410
50		1.3100	1.4410	1.3100	1.4410
100		1.4410	1.3100	1.3100	1.4410

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
6.25		15/15	15/15	15/15	14/15
12.5		15/15	14/15	15/15	14/15
25		14/15	15/15	15/15	15/15
50		14/15	15/15	14/15	15/15
100		15/15	14/15	14/15	15/15

Graphics







Report Date:

15 Nov-21 12:54 (p 3 of 4)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

ratnead Minn	ow 7	d Larval S	urvival aı	nd Growth	n Test	t						Aquat	ic Bio	assay & (Consulting	Labs, Inc
Analysis ID:	12-6	010-3705	Er	dpoint:	Mear	Dry Biom	ass-mg				CETIS	Versi	on:	CETISv1	.9.7	
Analyzed:	15 N	ov-21 12:53	Ar Ar	alysis:	Nonp	arametric-	Control v	/s T	reatments		Status	Leve	l:	1		
Edit Date:	15 N	ov-21 12:53	3 M	D5 Hash:	FBB1	81F13FC	26297F1	7FB	2DDEB61	E5A9	Editor	ID:		000-189-	126-0	
Batch ID:	06-8	119-4663	Te	st Type:	Grow	th-Surviva	I (7d)				Analy	st:				
Start Date:	26 O	ct-21 14:00	Pr	otocol:	EPA/	821/R-02-	013 (200	2)			Diluer	nt:	Labora	itory Wate	эг	
Ending Date:	02 N	ov-21 14:10) Sp	ecies:	Pime	phales pro	melas				Brine:		Not Ap	plicable		
Test Length:	7d 0	h	Ta	xon:		opterygii					Sourc			c Biosyste	ems, CO	Age : <2
Sample ID:	03-0	000-3447	Co	de:	VCF1	1021.151fn	nl				Projec	t: I	NPDE:	S Stormw	ater Wet S	eason
Sample Date:	25 O	ct-21 09:45	M	aterial:	Samp	ole Water					Sourc		Bioass	ay Repor	t	
Receipt Date:	25 O	ct-21 15:27	C	AS (PC):							Statio		MO-OX			
Sample Age:	28h (9 °C)	CI	ient:	Ventu	ıra County	Watersh	ned	Protection	Distri						
Data Transfor	m		Alt Hyp						NOEL	LOE	L	TOEL	1	TU	MSDu	PMSD
Untransformed	1		C > T						100	>100			1		0.01469	4.32%
Steel Many-Or	ne Ra	nk Sum Te	st													
Control	vs	Conc-%		Test S	tat	Critical	Ties	DF	P-Type	P-Va	lue	Decisi	ion(α:	5%)		
Negative Contr	rol	6.25		23		10		6	CDF	0.996			<u> </u>	ant Effect		
		12.5		21		10	0	6	CDF	0.97	78		•	ant Effect		
		25		21		10	0	6	CDF	0.97			_	ant Effect		
		50		19.5		10	1	6	CDF	0.93	15		-	ant Effect		
		100		18		10	0	6	CDF	0.833			_	ant Effect		
Test Acceptab	oility	Criteria	TAC	Limits												
Attribute		Test Stat		Upper	3	Overlap	Decision	on								
Control Resp		0.3398	0.25	>>		Yes	Passes	Cri	teria							
PMSD .		0.04322	0.12	0.3	•	Yes	Below	Crite	eria							
ANOVA Table																
Source		Sum Squa	ares	Mean	Squa	re	DF		F Stat	P-Va	lue	Decisi	ion(α:	5%)		
Between		0.0001371		2.742E			5		0.3682	0.863	37	Non-S	ignifica	ant Effect		
Error		0.0013405		7.447E	E-05		18									
Total		0.0014776					23									
ANOVA Assun	nptio	ns Tests														
Attribute		Test														
							Test St	at	Critical	P-Va	lue	Decisi	ion(α:	1%)		
Variance		Bartlett Eq	uality of V	ariance T	est			at				Decis i Unequ	•			
Variance		Bartlett Eq Levene Eq					Test St 19.67 3.691	at	15.09 4.248	0.00° 0.01°	14		ıal Var	iances		
Variance			uality of \	'ariance T	est	est	19.67	at	15.09 4.248	0.00	14 79	Unequ	ial Var Varian	iances ces		
		Levene Eq	uality of \ ne Equalit	'ariance T y of Variar	est	est	19.67 3.691	at	15.09	0.00	14 79 35	Unequ Equal Equal	ial Var Varian Varian	iances ces	on	
		Levene Eq Mod Lever Anderson-	uality of \ ne Equalit Darling A	/ariance T y of Variar 2 Test	est	est	19.67 3.691 0.9856 1.431	at	15.09 4.248 4.248 3.878	0.00° 0.01° 0.45° 0.00°	14 79 35 05	Unequ Equal Equal Non-N	ial Var Varian Varian Iormal	iances ces ces		
		Levene Eq Mod Lever Anderson- D'Agostino	ruality of \ne Equalit Darling A2 Kurtosis	'ariance T y of Variar 2 Test Test	est	est	19.67 3.691 0.9856	at	15.09 4.248 4.248 3.878 2.576	0.00° 0.017 0.45° 0.00° 0.00°	14 79 35 05	Unequ Equal Equal Non-N Non-N	ial Varian Varian Varian Iormal	iances ces ces Distributio	on	
		Levene Eq Mod Lever Anderson- D'Agostino D'Agostino	uality of \ne Equalit Darling Aa Kurtosis Skewnes	Variance T y of Variar 2 Test Test is Test	est nce Te		19.67 3.691 0.9856 1.431 2.923 3.195	at	15.09 4.248 4.248 3.878 2.576 2.576	0.00° 0.01° 0.45° 0.00°	14 79 35 05 35	Unequ Equal Equal Non-N Non-N Non-N	ial Varian Varian Varian Iormal Iormal	iances ces ces Distributio	on on	
		Levene Eq Mod Lever Anderson- D'Agostino D'Agostino D'Agostino	quality of \ne Equality Darling A2 Kurtosis Skewnes Pearson	Variance T y of Variar 2 Test Test is Test K2 Omnib	est nce Te		19.67 3.691 0.9856 1.431 2.923 3.195 18.75	at	15.09 4.248 4.248 3.878 2.576 2.576 9.21	0.00° 0.01° 0.45° 0.00° 0.00° 0.00° 8.5E-	14 79 35 05 35 14 -05	Unequ Equal Equal Non-N Non-N Non-N Non-N	ual Varian Varian Varian Iormal Iormal Iormal	iances ces ces Distributio Distributio	on on on	
		Levene Eq Mod Lever Anderson- D'Agostino D'Agostino	quality of \ne Equality of \ne Equality Darling A: Kurtosis Skewnes -Pearson ov-Smirno	/ariance T y of Variar 2 Test Test ss Test K2 Omnib y D Test	est nce Te ous Te		19.67 3.691 0.9856 1.431 2.923 3.195	at	15.09 4.248 4.248 3.878 2.576 2.576	0.007 0.017 0.453 0.000 0.003	14 79 35 05 35 14 -05	Unequ Equal Equal Non-N Non-N Non-N Non-N	ial Varian Varian Varian Iormal Iormal Iormal Iormal	iances ces ces Distributio Distributio Distributio	on on on on	
Distribution	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino Kolmogoro Shapiro-W	nuality of \ ne Equality Darling A: Nurtosis Skewnes Pearson V-Smirno ilk W Nor	/ariance T y of Variar 2 Test Test ss Test K2 Omnib y D Test	est nce Te ous Te		19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223	at	15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056	0.00° 0.01° 0.45° 0.00° 0.00° 0.00° 8.5E- 0.00°	14 79 35 05 35 14 -05	Unequ Equal Equal Non-N Non-N Non-N Non-N	ial Varian Varian Varian Iormal Iormal Iormal Iormal	iances ces ces Distributio Distributio Distributio Distributio	on on on on	
Distribution Mean Dry Bior	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino Kolmogoro Shapiro-W	nuality of \ ne Equality Darling A: Nurtosis Skewnes Pearson V-Smirno ilk W Nor	/ariance T y of Variar 2 Test Test ss Test K2 Omnib y D Test	est nce Te ous Te t		19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223 0.8435		15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056	0.00° 0.01° 0.45° 0.00° 0.00° 0.00° 8.5E- 0.00°	14 79 35 05 35 14 -05 34	Unequ Equal Equal Non-N Non-N Non-N Non-N	ual Varian Varian Varian Iormal Iormal Iormal Iormal Iormal Iormal Iormal Iormal	iances ces ces Distributio Distributio Distributio Distributio	on on on on	%Effect
Variance Distribution Mean Dry Bior Conc-%	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino Colmogoro Shapiro-W	quality of \ ne Equalit Darling A: b Kurtosis c Skewnes b-Pearson by-Smirno ilk W Nor	Variance T y of Variar Test Test S Test K2 Omnib y D Test mality Tes	est nce Te ous Te t	est	19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223 0.8435		15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	0.00° 0.01° 0.45° 0.00° 0.00° 8.5E- 0.00°	14 79 35 05 35 14 -05 34	Unequ Equal Equal Non-N Non-N Non-N Non-N Non-N	varian Varian Varian Iormal Iormal Iormal Iormal	iances ces ces Distributio Distributio Distributio Distributio Distributio	on on on on	%Effect 0.00%
Distribution Mean Dry Bior Conc-%	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	quality of \ ne Equalit Darling A: b Kurtosis b Skewnes b-Pearson by-Smirno ilk W Nor hary Count	Variance T y of Variar Test Test STEST K2 Omnib v D Test mality Tes Mean	est nce Te	est 95% LCL	19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223 0.8435		15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	0.00° 0.01° 0.45° 0.00° 0.00° 8.5E 0.00° 0.00°	14 79 35 05 35 14 -05 34 17	Unequ Equal Equal Non-N Non-N Non-N Non-N Non-N	varian Varian Varian Varian Iormal Iormal Iormal Iormal Iormal	iances ices ces Distributio Distributio Distributio Distributio Distributio Distributio	on on on on on CV%	
Distribution Mean Dry Bior Conc-% 0 6.25	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	quality of \ ne Equality Darling A2 No Kurtosis Skewnes Pearson OV-Smirno Silk W Nor Hary Count	Variance T y of Variar 2 Test Test ss Test K2 Omnib v D Test mality Tes Mean 0.3398	est nce Te	95% LCL 0.3317	19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223 0.8435 95% UC 0.3479		15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 0.3387	0.00° 0.017 0.450 0.000 0.000 8.5E- 0.000 0.00° Min	14 79 35 05 35 14 -05 34 17	Unequ Equal Equal Non-N Non-N Non-N Non-N Non-N	ual Varian Varian Varian Iormal Iormal Iormal Iormal Iormal	iances ices ices Distributio Distributio Distributio Distributio Distributio Distributio Distributio	on on on on on on CV%	0.00%
Distribution Mean Dry Bior Conc-% 0 6.25 12.5	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	quality of \ ne Equalit Darling A2 Kurtosis Skewnes Pearson OV-Smirno ilik W Nor ary Count 4	Variance T y of Varian 2 Test Test is Test K2 Omnib v D Test mality Tes Mean 0.3398 0.3445	est nce Te	95% LCL 0.3317 0.3401	19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223 0.8435 95% U C 0.3479 0.3489		15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 0.3387 0.3443	0.00° 0.017 0.450 0.000 0.000° 8.5E- 0.000° 0.00° Min 0.338 0.34°	14 79 35 05 35 14 -05 34 17	Uneque Equal Equal Non-N Non-N Non-N Non-N Mon-N Max 0.3467 0.348	ual Varian Varian Varian Iormal Iormal Iormal Iormal Iormal	iances ices ices Distributio Distributio Distributio Distributio Distributio Distributio Distributio Distributio	CV% 1.50% 0.80%	0.00% -1.37%
Distribution Mean Dry Bior Conc-%	mass	Levene Eq Mod Lever Anderson- D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	quality of \ ne Equalit Darling A2 Kurtosis Skewnes Pearson ov-Smirno ilik W Nor ary Count 4 4 4	Variance T y of Variar 2 Test Test is Test K2 Omnit v D Test mality Tes Mean 0.3398 0.3445 0.3413	est pus Te	95% LCL 0.3317 0.3401 0.339	19.67 3.691 0.9856 1.431 2.923 3.195 18.75 0.2223 0.8435 95% U 0.3479 0.3489 0.3436		15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 0.3387 0.3443 0.3417	0.00° 0.017 0.450 0.000 0.000° 8.5E- 0.000° 0.00° Min 0.338 0.34° 0.338	14 79 35 05 35 14 -05 34 17	Uneque Equal Equal Non-N N Non-N N Non-N N N N N N N N N N N N N N N N N N N	varian Varian Varian Varian Iormal Iormal Iormal Iormal	iances ices ices Distributio	CV% 1.50% 0.80% 0.42%	0.00% -1.37% -0.44%

Report Date:

15 Nov-21 12:54 (p 4 of 4)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 12-6010-3705 Analyzed: 15 Nov-21 12:53 Endpoint: Mean Dry Biomass-mg

CETIS Version:

Edit Date: 15 Nov-21 12:53 Analysis: Nonparametric-Control vs Treatments MD5 Hash: FBB181F13FC26297F17FB2DDEB61E5A9

Status Level:

Editor ID:

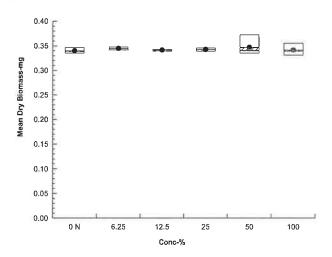
000-189-126-0

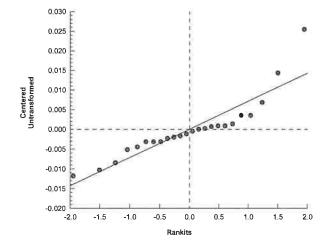
CETISv1.9.7

Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	Ν	0.3353	0.3407	0.3367	0.3467
6.25		0.3447	0.3413	0.348	0.344
12.5		0.3393	0.3427	0.3413	0.342
25		0.3433	0.3413	0.346	0.3393
50		0.3727	0.3387	0.3353	0.342
100		0.3393	0.3313	0.34	0.356

Graphics





Report Date:

15 Nov-21 12:54 (p 1 of 4)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Fathea	d Minn	ow 7-d Larval Si	urvivai and	Growth	n Test					Aquatio	BIC	assay &	Consulting	Labs, Inc.
Analysi		09-9467-8593		•	7d Survival Rat					S Versio		CETISv	1.9.7	
Analyze Edit Da		15 Nov-21 12:53 15 Nov-21 12:53		-	Linear Interpola A83452331BDI	•	•			s Level:		1 000-189	100.0	
							D29100D1E	F43E	Edito			000-188	9-126-0	
Batch I		06-8119-4663 26 Oct-21 14:00		•	Growth-Surviva	` '			Analy			-4	L.	
Start D		02 Nov-21 14:00			EPA/821/R-02-	, ,			Dilue			atory Wa	ter	
Test Le			Taxe		Pimephales pro Actinopterygii	meias			Brine			pplicable	tems, CO	A
rest Le	ingtri.	70 On	Tax	on:	Actinopterygii				Sourc	e: A	quai	ic Biosys	tems, CO	Age: <24
Sample		03-0000-3447	Cod		VCF1021.151fr	nl			Proje				water Wet S	eason
		25 Oct-21 09:45			Sample Water				Sourc	-		say Repo	ort	
		25 Oct-21 15:27		(PC):		147 1 1	I.D. ():	D:	Static	on: N	10-C	XN		
Sample	Age:	28h (9 °C)	Clie	nt:	Ventura County	vvatersne	a Protection	DISTRI						
Linear	Interpo	olation Options												
X Trans	sform	Y Transform			Resamples	Exp 95%		hod						
Linear		Linear	0		280	Yes	Two	-Point	Interpo	lation				
Test Ac	ceptab	oility Criteria	TAC L	imits										
Attribut	te	Test Stat		Upper	Overlap	Decision	<u> </u>							
Control	Resp	1	8.0	>>	Yes	Passes C	Criteria							
Point E	stimat	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL								
EC10	>100			<1										
	~100	222		<1										
EC15	>100													
EC20	>100	***	***	<1	***									
EC20 EC25	>100 >100			<1										
EC20 EC25 EC40	>100 >100 >100			<1 <1	***									
EC20 EC25 EC40 EC50	>100 >100 >100 >100	-		<1		 	ulated Vari	oto/ A/E) \				leaton	ia Variata
EC20 EC25 EC40 EC50 7d Surv	>100 >100 >100 >100 >100 vival Ra	 ate Summary	-	<1 <1 <1		 Calc	ulated Vari			0/ Effor		A/D		ic Variate
EC20 EC25 EC40 EC50 7d Surv	>100 >100 >100 >100 >100 vival Ra	ate Summary	Count	<1 <1 <1 Mean	Median	Calco	Max	CV	6	%Effec		A/B	Mean	%Effect
EC20 EC25 EC40 EC50 7d Surv Conc- %	>100 >100 >100 >100 >100 vival Ra	 ate Summary	Count 4	<1 <1 <1 <1 Mean 1.0000	Median 1.0000	Calco	Max 1.0000	CV°	%	0.00%		60/60	Mean 1.0000	%Effect 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 >100 vival Ra	ate Summary	 Count 4 4	<1 <1 <1 Mean 1.0000 0.9833	Median 0 1.0000 3 1.0000	Calco Min 1.0000 0.9333	Max 1.0000 1.0000	0.00 3.39	%)%)%	0.00% 1.67%		60/60 59/60	Mean 1.0000 0.9833	%Effect 0.00% 1.67%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100 vival Ra	ate Summary	Count 4 4 4 4	<1 <1 <1 Mean 1.0000 0.9833 0.9667	Median 0 1.0000 3 1.0000 7 0.9667	Calco Min 1.0000 0.9333 0.9333	Max 1.0000 1.0000 1.0000	0.00 3.39 3.98	% 0% 9% 8%	0.00% 1.67% 3.33%		60/60 59/60 58/60	Mean 1.0000 0.9833 0.9750	%Effect 0.00% 1.67% 2.50%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100 vival Ra	ate Summary	 Count 4 4	<1 <1 <1 Mean 1.0000 0.9833	Median 0 1.0000 8 1.0000 7 0.9667 8 1.0000	Calco Min 1.0000 0.9333 0.9333 0.9333	Max 1.0000 1.0000	0.00 3.39	% 9% 8%	0.00% 1.67%		60/60 59/60	Mean 1.0000 0.9833	%Effect 0.00% 1.67%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100 vival Ra	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 <1 Mean 1.0000 0.9833 0.9667 0.9833	Median 1.0000 1.0000 1.0000 1.0000 1.0000 0.9667 0.9667	Calco Min 1.0000 0.9333 0.9333	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.39	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67%		60/60 59/60 58/60 59/60	Mean 1.0000 0.9833 0.9750 0.9750	%Effect 0.00% 1.67% 2.50% 2.50%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50	>100 >100 >100 >100 >100	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 <1 Mean 1.0000 0.9833 0.9667 0.9833 0.9667	Median 1.0000 1.0000 1.0000 1.0000 1.0000 0.9667 0.9667	Calco Min 1.0000 0.9333 0.9333 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 4 4	<1 <1 <1 <1 Mean 1.0000 0.9833 0.9667 0.9833 0.9667	Median 1.0000 1.0000 0.9667 0.9667 0.9667	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4	<1 <1 <1 <1	Median 1.0000 1.0000 0.9667 1.0000 0.9667 0.9667 Rep 3	Calco Min 1.0000 0.9333 0.9333 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 4 7	<1 <1 <1 <1 Mean 1.0000 0.9833 0.9667 0.9867 0.9667	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 Rep 4	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 Rep 4 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000 1.0000	<pre><1 <1 <1 <1 <10 Mean 1.0000 0.9833 0.9667 0.9867 Rep 2 1.0000 1.0000</pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.9333 0.9333 0.9333 8ep 4 1.0000 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1.0000 1.0000	<pre><1 <1 <1 <1 <10 Mean 1.0000 0.9833 0.9667 0.9867 Rep 2 1.0000 1.0000 0.9333</pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 Rep 4 1.0000 0.9333 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25 50 12.5	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9333	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 8ep 4 1.0000 0.9333 0.9333 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9333	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25 50 100 7d Surv	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9333 0.9333	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9333 0.9333	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 Rep 4 1.0000 0.9333 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1	<pre></pre>	Median 1.0000	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 Rep 4 1.0000 0.9333 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1 15/15	Kep 2 1,0000	Median 1.0000	Calci Min 1.0000 0.9333 0.9333 0.9333 0.9333 Rep 4 1.0000 0.9333 1.0000 1.0000 1.0000 Rep 4 15/15	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 12.5 25 100 Conc-% 0 6.25 12.5 25 12.5 25 100 100 100 100 100 100 100 100 100 10	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1 15/15 15/15	Kep 2 1.0000	Median 1.0000	Calci Min 1.0000 0.9333 0.9333 0.9333 0.9333 0.9333 1.0000 1.0000 1.0000 Rep 4 15/15 14/15	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1 15/15 15/15	Kep 2 1.0000	Median 1.0000	Calco Min 1.0000 0.9333 0.9333 0.9333 0.9333 0.9333 1.0000 1.0000 1.0000 Rep 4 15/15 14/15	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 3.98 3.98 3.98	% 9% 9% 9% 9%	0.00% 1.67% 3.33% 1.67% 3.33%		60/60 59/60 58/60 59/60 58/60	Mean 1.0000 0.9833 0.9750 0.9750 0.9667	%Effect 0.00% 1.67% 2.50% 2.50% 3.33%



Report Date:

15 Nov-21 12:54 (p 2 of 4)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 09-94 Analyzed: 15 No

09-9467-8593 15 Nov-21 12:53 15 Nov-21 12:53 Endpoint: 7d Survival Rate

Analysis: Linear Interpolation (ICPIN)
MD5 Hash: A83452331BDDDF0F86FB29168D1EF43E

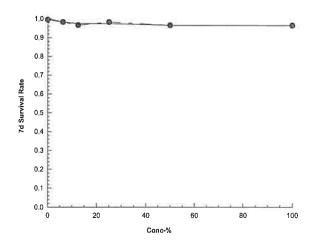
CETIS Version:

Status Level: Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

15 Nov-21 12:54 (p 3 of 4)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

									rest Code	/ID: VCF	1021.1511m17 1.	2-U589 - 933
Fathea	d Minn	ow 7-d Larval Si	urvival and	Growt	h Test				Aqu	atic Bioassa	y & Consulting	Labs, Inc.
Analys Analyz Edit Da	ed:	02-0933-9023 15 Nov-21 12:53 15 Nov-21 12:53	Ana	point: lysis: 5 Hash:	Mean Dry Biom Linear Interpola FBB181F13FC	ation (ICPIN	,	61E5A9	CETIS Ver Status Lev Editor ID:	/el: 1	ISv1.9.7 189-126-0	
Batch I Start D Ending Test Le	ate: Date:	06-8119-4663 26 Oct-21 14:00 02 Nov-21 14:10 7d 0h	Prof	tocol: cies:	Growth-Surviva EPA/821/R-02- Pimephales pro Actinopterygii	-013 (2002)			Analyst: Diluent: Brine: Source:	Laboratory Not Applica Aquatic Bio		Age: <24
Receip	e Date: ot Date:	03-0000-3447 25 Oct-21 09:45 25 Oct-21 15:27 28h (9 °C)		erial: 5 (PC):	VCF1021.151fi Sample Water Ventura County		d Protecti	on Distri	Project: Source: Station:	NPDES Sto Bioassay R MO-OXN	ormwater Wet S eport	eason
Linear	Interpo	lation Options										
X Trans	sform	Y Transform	See	d	Resamples	Exp 95%	CL M	ethod				
Linear		Linear	2872	249	280	Yes	Τ\	wo-Point	Interpolation	1		
Test Ad	cceptal	oility Criteria	TAC L	!!#								
Attribu	_	Test Stat		Uppe	r Overlap	Decision						
Control		0.3398	0.25	>>	Yes	Passes C						
Point E	 Estimat	es										
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL						
IC10	>100			<1	Tiles.	1,444						
IC15	>100			<1								
IC20	>100			<1	-							
IC25	>100			<1	***							
1C40	>100			<1								
IC50	>100	***		<1								
Mean D	Dry Bio	mass-mg Summ	ary			Ca	lculated	Variate			Isotor	nic Variate
Conc-%	%	Code	Count	Mean	Median	Min	Max	CV%	% %Et	fect	Mean	%Effect
0		N	4	0.339	8 0.3387	0.3353	0.3467	1.50	0.00)%	0.3431	0.00%
6.25			4	0.344	5 0.3443	0.3413	0.348	0.80	-1.3	7%	0.3431	0.00%
12.5			4	0.341	3 0.3417	0.3393	0.3427	0.42	-0.4	4%	0.3431	0.00%
25			4	0.342	5 0.3423	0.3393	0.346	0.83	-0.7	8%	0.3431	0.00%
										-01		0.000/

4.96%

3.02%

-2.16%

-0.54%

0.3727

0.356

Mean	Drv	Rion	nass	-ma	Detail

50

100

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3353	0.3407	0.3367	0.3467
6.25		0.3447	0.3413	0.348	0.344
12.5		0.3393	0.3427	0.3413	0.342
25		0.3433	0.3413	0.346	0.3393
50		0.3727	0.3387	0.3353	0.342
100		0.3393	0.3313	0.34	0.356

4

0.3472

0.3417

0.3403

0.3397

0.3353

0.3313

0.00%

0.41%

0.3431

0.3417

Report Date:

15 Nov-21 12:54 (p 4 of 4)

Test Code/ID:

CETIS Version:

VCF1021.151fml / 12-0589-9336

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

Analysis ID: Analyzed: Edit Date:

02-0933-9023 15 Nov-21 12:53

15 Nov-21 12:53

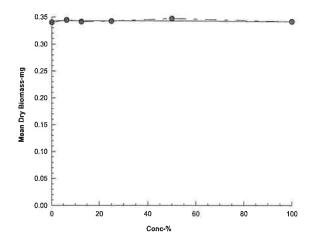
Endpoint: Mean Dry Biomass-mg Analysis:

Linear Interpolation (ICPIN)

Status Level: MD5 Hash: FBB181F13FC26297F17FB2DDEB61E5A9 Editor ID:

000-189-126-0

Graphics



Report Date:

15 Nov-21 12:54 (p 1 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

								Test Code/	D. VOI 102	1. 10 111111 /	2-0000-0000
Fathead Minn	now 7-d Larval s	Surviva	and Growt	th Test				Aqua	tic Bioassay &	Consulting	g Labs, Inc.
Batch ID: Start Date: Ending Date: Test Length:	06-8119-4663 26 Oct-21 14:0 02 Nov-21 14:1 7d 0h		Test Type: Protocol: Species: Taxon:	Growth-Surviv EPA/821/R-02 Pimephales pr Actinopterygii	2-013 (2002)			Analyst: Diluent: Brine: Source:	Laboratory Wa Not Applicable Aquatic Biosys		Age: <24
Sample ID:	03-0000-3447		Code:	VCF1021.151	fmi			Project:	NPDES Storm	water Wet S	Season
	25 Oct-21 09:4	5	Material:	Sample Water				Source:	Bioassay Repo		5000011
•	25 Oct-21 15:2		CAS (PC):					Station:	MO-OXN		
Sample Age:			Client:	Ventura Count	ty Watershe	d Protect	ion Distri				
Alkalinity (Ca	CO3)-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Coun
0	N	8	60.62	60.19	61.06	60	61	0.0646		0.85%	0
100		8	71	71	71	71	71	0	0	0.00%	0
Overall		16	65.81	62.95	68.67	60	71	1.342	5.369	8.16%	0 (0%)
Conductivity-	·µmhos										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Coun
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0
6.25		8	361.5	360	363	360	365	0.231	5 1.852	0.51%	0
12.5		8	365.6	362.9	368.4	362	369	0.411	3.292	0.90%	0
25		8	370.6	367.3	374	363	376	0.4997	7 3.998	1.08%	0
50		8	407.1	403.1	411.1	398	412	0.595	5 4.764	1.17%	0
100		8	477.9	465.6	490.2	442	488	1.838	14.7	3.08%	0
Overall		48	390.5	378	403.1	354	488	6.22	43.09	11.03%	0 (0%)
Dissolved Ox	ygen-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.022	16 0.1773	2.33%	0
6.25		8	7.488	7.318	7.657	7.2	7.8	0.0253	39 0.2031	2.71%	0
12.5		8	7.438	7.29	7.585	7.2	7.7	0.022	0.1768	2.38%	0
25		8	7.387	7.201	7.574	7.1	7.8	0.0279	0.2232	3.02%	0
50		8	7.325	7.148	7.502	7	7.7	0.026	52 0.2121	2.90%	0
100		8	7.262	7.09	7.435	7	7.6	0.0258	32 0.2066	2.84%	0
Overall		48	7.417	7.353	7.48	7	7.9	0.0317	7 0.2196	2.96%	0 (0%)
Hardness (Ca	CO3)-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.0646	69 0.5175	0.54%	0
100		8	145	145	145	145	145	0	0	0.00%	0
Overall		16	120.3	106.7	133.9	95	145	6.375	25.5	21.19%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL		Max	Std E		CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.738	7.554	7.921	7.3	7.9	0.0275	0.22	2.84%	0
12.5		8	7.688	7.53	7.845	7.3	7.9	0.0235	56 0.1885	2.45%	0
25		8	7.662	7.515	7.81	7.3	7.9	0.0221	0.1768	2.31%	0
50		8	7.575	7.331	7.819	7	7.9	0.0364	14 0.2915	3.85%	0
400			7.05	7 500	7 700	7.0	7.0	0.000	0 4770	0.000/	



2.32%

2.91%

0 (0%)

7.798

7.778

7.3

7.9

0.02216

0.03243

0.1773

0.2247

8

7.65

7.713

7.502

7.647

100

Overail

CETIS Measurement Report

Report Date:

15 Nov-21 12:54 (p 2 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.06	23.91	24.21	24	24.5	0.0221	0.1768	0.73%	0
12.5		8	24.08	23.96	24.19	24	24.4	0.01736	0.1389	0.58%	0
25		8	24.09	24.02	24.16	24	24.2	0.01042	0.08336	0.35%	0
50		8	24.1	24.02	24.18	24	24.2	0.01156	0.0925	0.38%	0
100		8	24.14	24.03	24.25	24	24.3	0.01628	0.1302	0.54%	0
Overall		48	24.08	24.04	24.11	24	24.5	0.01717	0.1189	0.49%	0 (0%)



CETIS Measurement Report

N

N

N

N

5

6

7

8

61

71

61

71

61

71

61

71

0

0

0

0

100

100

100

100

Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

15 Nov-21 12:54 (p 3 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Alkalinity (Ca	Mkalinity (CaCO3)-mg/L													
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes					
0	N	1		60										
100				71										
0	N	2		60										
100				71										
0	N	3		60										
100				71										
0	N	4		61										
100				71										

Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

15 Nov-21 12:54 (p 4 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Conductivity-µ	mhos								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				363					
12.5				365					
25				376					
50				398					
100				442					
0	N	2		360					
6.25				362					
12.5				369					
25				372					
50				402					
100			_	480					
0	N	3		354					
6.25				365					
12.5				369					
25				375					
50				410					
100				485					
0	N	4		360					
6.25				360					
12.5				367					
25				370					
50				410					
100				482					
0	N	5		364					=
6.25				360					
12.5				362					
25				369					
50				408					
100				482					
0	N	6		362					
6.25				360					
12.5				362					
25				363					
50				412					
100				488					
0	N	7		362					
6.25				362					
12.5				369					
25				370					
50				410					
100				482					
0	N	8		360					
6.25				360					
12.5				362					
25				370					
50				407					
100				482					

Report Date:

15 Nov-21 12:54 (p 5 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Fathead Minnow 7-d Larval Survival and Growth Test

Dissolved Oxy	/gen-mg/L							
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6				
6.25				7.4				
12.5				7.3				
25				7.2				
50				7.2				
100				7				
0	N	2		7.4				
6.25				7.3				
12.5				7.3				
25				7.2				
50				7.2				
100				7.2				
0	N	3		7.5				
6.25				7.4				
12.5				7.4				
25				7.4				
50				7.3				
100				7.3				
0	N	4		7.6				
6.25				7.2				
12.5				7.2				
25				7.1				
50				7				
100				7				
0	N	5		7.8				
6.25				7.7				
12.5				7.6				
25				7.5				
50				7.4				
100				7.4				
0	N	6		7.9				
6.25				7.8				
12.5				7.7				
25				7.8				
50				7.7				
100				7.6				
0	N	7		7.6				
6.25				7.6				
12.5				7.6				
25				7.5				
50				7.5				
100				7.4				
0	N	8		7.4				
6.25				7.5				
12.5				7.4				
25				7.4				
50				7.3				
100				7.2				



CETIS Measurement Report

Report Date:

15 Nov-21 12:54 (p 6 of 8)

Test Code/ID: VC

VCF1021.151fml / 12-0589-9336

	Fathead	Minnow	7-d	Larvai	Survival	and	Growth	Test
--	---------	--------	-----	--------	----------	-----	--------	------

Aquatic Bioassay	&	Consulting	Labs,	Inc.
------------------	---	------------	-------	------

Hardness (Ca	iCO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		95					
100				145					
0	N	2		95					
100				145					
0	N	3		95					
100				145					
0	N	4		96					
100				145					
0	N	5		96					
100				145					
0	N	6		96					
100				145					
0	N	7		96					
100				145					
0	N	8		96					
100				145					

Report Date:

15 Nov-21 12:54 (p 7 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Fathead Minnow	7-d Larval Survival	and Growth Test

pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8					
6.25				7.3					
12.5				7.3					
25				7.3					
50				7.3					
100				7.3					
0	N	2		8					
6.25				7.6					
12.5				7.6					
25				7.6					
50				7.6					
100				7.6					
0	N	3		7.8					
6.25				7.8					
12.5				7.7					
25				7.7					
50				7.7					
100				7.7					
0	N	4		8					
6.25				7.6					
12.5				7.6					
25				7.6					
50				7.6					
100				7.6					
0	N	5		8					
6.25				7.9					
12.5				7.8					
25				7.7					
50				7.7					
100				7.7					
0	N	6		7.9					
6.25				7.9					
12.5				7.8					
25				7.7					
50				7					
100				7.6					
0	N	7		8					
6.25				7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					
0	N	8		8					
6.25				7.9					
12.5				7.8					
25				7.8					
50				7.8					
100				7.8					



Report Date:

15 Nov-21 12:54 (p 8 of 8)

Test Code/ID:

VCF1021.151fml / 12-0589-9336

Temperature-°C									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
6.25				24					
12.5				24					
25				24.1					
50				24.1					
100				24.1					
0	N	2		24					
6.25				24					
12.5				24.1					
25				24.2					
50				24.2					
100				24.3					
0	N	3		24					
6.25				24					
12.5				24					
25				24					
50				24					
100				24					
0	N	4		24					
6.25				24.5					
12.5				24.4					
25				24.2					
50				24.2					
100				24.2					
0	N	5		24					
6.25				24					
12.5				24					
25				24.1					
50 100				24.1 24.2					
0	N	6		24					
6.25				24					
12.5 25				24.1 24.1					
50				24.1					
100				24.2					
	NI .	7							
0 6.25	N	1		24 24					
12.5				24					
25				24					
50				24 24					
100				24					
0	N	8		24					
6.25	IN	0		24 24					
12.5				24					
25				24					
50				24					
100				24					



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*" *EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-SPA

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.152

CHRONIC FATHEAD MINNOW SURVIVAL & GROWTH BIOASSAY

SURVIVAL

NOEC = 100.00 %

TUc = 1.00

EC25 = >100.00 %

EC50 = >100.00 %

BIOMASS

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly.

Scott Johnson

Laboratory Director

Report Date:

15 Nov-21 13:07 (p 1 of 2)

Test Code/ID:

VCF1021.152 / 07-3555-1020

Labs, Inc	Consulting	ioassay & C	Aquatic B					n Test	and Growtl	Survival	ow 7-d Larval S	Fathead Minn	
			yst:	Analys			l (7d)	Growth-Surviva	Test Type:		04-0845-0402	Batch ID:	
	∍r	oratory Wate	ent: Lab	Diluen			013 (2002)	EPA/821/R-02-	Protocol:	07	26 Oct-21 14:07	Start Date:	
		Applicable	e: Not	Brine:			melas	Pimephales pro	Species:	12	02 Nov-21 14:12	Ending Date:	
Age: <24	ems, CO	atic Biosyste	rce: Aqu	Source				Actinopterygii	Taxon:		7d 0h	Test Length:	
eason	ater Wet Se	ES Stormwa	ect: NPD	Projec				VCF1021.152	Code:		16-9402-7981	Sample ID:	
	t	ssay Report	rce: Bioa	Source				Sample Water	Material:		25 Oct-21 11:00	•	
		SPA	on: MO-	Statio					CAS (PC):	27	25 Oct-21 15:27	•	
				stri	Distr	Protection	Watershed	Ventura County	Client:		27h (7 °C)	Sample Age:	
										nary	parison Summa	Multiple Com	
TU	PMSD	TOEL	LOEL		/ NO	✓		arison Method			Endpoint	Analysis ID	
1	5.41%	***	>100	00	100			Many-One Rank			7d Survival Rate		
1.	8.36%	1,444)	>100	00	100		Sum Test	Many-One Rank	Steel I	mass-mg	Mean Dry Bioma	09-0753-5244	
											e Summary	Point Estimat	
	95% UCL	95% LCL	%	.evel	/ Lev	✓	od	Estimate Meth	Point		Endpoint	Analysis ID	
<1	***	***	>100	C10	/ EC	√	CPIN)	Interpolation (I	Linear	04-3370-1682 7d Survival Rate Line			
<1			>100	C15	/ EC	✓							
<1			>100	C20	/ EC	✓							
<1			>100	C25	/ EC	✓							
<1		***	>100	C40	/ EC	✓							
<1			>100	C50	/ EC	✓							
<1			>100	210	/ IC1	✓	CPIN)	Interpolation (I	Linear	nass-mg	Mean Dry Bioma	06-8377-6690	
<1		***	>100	C15	/ IC1	✓							
<1			>100			✓							
<1			>100			✓							
<1			>100	C40	/ IC4	✓							
<1			>100	C50	′ IC5	✓							
				its	imits	TAC L					oility	Test Acceptat	
		Decision	Overlap	pper	Up	Lower	Test Stat		Attrib		Endpoint	Analysis ID	
	iteria	Passes Cri	Yes	>	>>	0.8	1	l Resp	Contro	ite	7d Survival Rate	01-3625-8144	
	Passes Criteria			>	>>	8.0	1	•	Contro		7d Survival Rate		
	iteria	Yes	>	>>	0.25	0.3398		Contro	_	Mean Dry Bioma			
	iteria	Passes Cri	Yes	>	>>	0.25	0.3398	l Resp	Contro	U	Mean Dry Bioma		
	eria —————	Below Crite	Yes	.3	0.3	0.12	0.08357		PMSD	nass-mg	Mean Dry Bioma	09-0753-5244	
												7d Survival Ra	
%Effect	CV%	Std Dev	Std Err		Ma	Min		95% LCL		Coun	Code	Conc-%	
0.00%		0.0000	0.0000			1.0000	1.0000		1.0000	4	N	_	
6.67%	5.83%	0.0544	0.0272			0.8667	1.0200		0.9333	4 4		6.25 12.5	
0.00%	2 200/	0.0000	0.0000			1.0000	1.0000		1.0000			12.5 25	
1.67%	3.39%	0.0333	0.0167			0.9333	1.0360		0.9833	4		25 50	
1.67% 1.67%	3.39% 3.39%	0.0333 0.0333	0.0167 0.0167			0.9333 0.9333	1.0360 1.0360		0.9833 0.9833	4 4		100	
											nass-mg Summ		
%Effect	CV%	Std Dev	Std Err	lax	Max	Min	95% UCL	95% LCL	Mean.	Count	Code	Conc-%	
0.00%													
-1.13%													
-2.65%													
-2.21%													
1.37%													
-5.64%													
	1.50% 0.66% 4.22% 3.61% 1.15% 9.85%	0.005088 0.002277 0.01473 0.01256 0.003863 0.03535	0.002544 0.001139 0.007365 0.006278 0.001932 0.01768	.346 .3707 .3607 .3393	0.34 0.35 0.36 0.36	0.3353 0.3407 0.3393 0.3353 0.33	0.3479 0.3473 0.3723 0.3673 0.3413 0.4152	0.34 0.3254 0.3274	0.3398 0.3437 0.3488 0.3473 0.3352 0.359	4 4 4 4 4	N	0 6.25 12.5 25 50 100	



CETIS Summary Report

Report Date:

15 Nov-21 13:07 (p 2 of 2)

Test Code/ID:

VCF1021 152 / 07-3555-1020

						Test Code/ID:	VCF1021.152 / 07-3555-1020
Fathead Minn	ow 7-d Larval	Survival an	d Growth T	est		Aquatic Bi	oassay & Consulting Labs, Inc.
7d Survival Ra	ate Detail					MD5: 775260C0	70C2BB512AC867F8BF6EF0FA
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	1.0000	1.0000	1.0000	1.0000		
6.25		0.9333	0.9333	0.8667	1.0000		
12.5		1.0000	1.0000	1.0000	1.0000		
25		1.0000	1.0000	0.9333	1.0000		
50		1.0000	1.0000	0.9333	1.0000		
100		1.0000	1.0000	0.9333	1.0000		
Mean Dry Bior	mass-mg Deta	nil				MD5: 950210FD	2372EC51F346D3945D6D5A41
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	0.3353	0.3407	0.3367	0.3467		
6.25		0.3407	0.3447	0.3433	0.346		
12.5		0.3393	0.3407	0.3447	0.3707		
25		0.3607	0.338	0.3353	0.3553		
50		0.33	0.3353	0.336	0.3393		
100		0.34	0.3413	0.3427	0.412		
7d Survival Ra	ate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	15/15	15/15	15/15	15/15		
6.25		14/15	14/15	13/15	15/15		
12.5		15/15	15/15	15/15	15/15		
25		15/15	15/15	14/15	15/15		
50		15/15	15/15	14/15	15/15		
100		15/15	15/15	14/15	15/15		

Report Date:

15 Nov-21 13:07 (p 1 of 4)

Test Code/ID: VCF1021.152 / 07-3555-1020

Fathead Minnow	7-d Larval S	urvival a	nd Growth	Test						Aquat	ic Bio	assay & (Consulting	Labs, Inc.
•	-3625-8144 Nov-21 13:06			d Survival Rat		s T	reatments			Versi Leve		CETISv1.9.7 1		
Edit Date: 15	Nov-21 13:04	4 M	-	75260C070C2				FOFA	Editor	· ID:		000-189-	126-0	
Batch ID: 04	-0845-0402	Te	est Type: G	Growth-Surviva	al (7d)				Analys	st:				
Start Date: 26	Oct-21 14:07			PA/821/R-02-		2)			Diluer		Labora	atory Wate	er	
Ending Date: 02	Nov-21 14:12	2 S I		imephales pro		•			Brine:			pplicable		
Test Length: 7d	0h	Ta	axon: A	ctinopterygii					Sourc	e:	Aquati	ic Biosyste	ems, CO	Age: <24
Sample ID: 16	-9402-7981	C	ode: V	CF1021.152					Projec	et:	NPDE	S Stormw	ater Wet S	eason
Sample Date: 25	Oct-21 11:00) м	aterial: S	Sample Water					Sourc	e:	Bioass	say Repor	t	
Receipt Date: 25	Oct-21 15:27	7 C	AS (PC):						Statio	n:	MO-S	PA		
Sample Age: 27	h (7 °C)	CI	lient: ∨	entura County	y Watersh	ned	Protection	Distri						
Data Transform		Alt Hyp)				NOEL	LOEI		TOEL		TU	MSDu	PMSD
Angular (Correcte	ed)	C > T					100	>100			- 1	1	0.05413	5.41%
Steel Many-One	Rank Sum To	est												
Control vs	Conc-%		Test St	at Critical	Ties	DF	P-Type	P-Va	lue	Decis	ion(α:	:5%)		
Negative Control	6.25		12	10	1	6	CDF	0.142	24	Non-S	ignific	ant Effect		
	12.5		18	10	1	6	CDF	0.833	33	Non-S	Signific	ant Effect		
	25		16	10	1	6	CDF	0.610)5	Non-S	Signific	ant Effect		
	50		16	10	1	6	CDF	0.610)5	Non-S	Signific	ant Effect		
	100		16	10	1	6	CDF	0.610)5	Non-S	ignific	ant Effect		
Test Acceptabilit	ty Criteria	TAC	Limits											
Attribute	Test Stat		Upper	Overlap	Decisio	on								
Control Resp	1	8.0	>>	Yes	Passes	Cr	iteria							
ANOVA Table														
Source	Sum Squ	ares	Mean S	quare	DF		F Stat	P-Va	lue	Decis	ion(α:	:5%)		
Between	0.043492	7	0.00869	85	5		2.27	0.091	3	Non-S	Signific	ant Effect		
Error	0.0689638	8	0.00383	313	18									
Total	0.112456				23									
ANOVA Assump	tions Tests													
Attribute	Test				Test St	at	Critical	P-Va	lue	Decis	ion(α:	:1%)		
Variance	Bartlett Ed	quality of \	√ariance Te	st						Indete	rmina	te		
	Levene E	quality of \	Variance Te	st	2.369		4.248	0.080	9	Equal	Varia	nces		
	Mod Leve	ne Equalit	ty of Variand	e Test	0.7247		4.248	0.613	37	Equal	Varia	nces		
Distribution	Anderson	_			2.457		3.878	<1.0E		Non-N	Iormal	l Distributi	on	
	D'Agostin				1.352		2.576	0.176				ribution		
	D'Agostin				1.344		2.576	0.178				ribution		
			κ2 Omnibι	ıs Test	3.635		9.21	0.162				ribution		
	Kolmogor				0.2987		0.2056	<1.0				l Distributi L Distributi		
		VIIK VV NOI	rmality Test		0.8114	_	0.884	0.000) O	INO11-IV	omal	l Distributi	Oil	
7d Survival Rate	-											04.1.5	0) (0)	0/ 555
Conc-%	Code	Count	Mean	95% LCL		L	Median	Min	10	Max 1.000		O.0000	CV% 0.00%	%Effect 0.00%
0	N	4	1.0000	1.0000	1.0000		1.0000	1.000		1.0000		0.0000	5.83%	6.67%
6.25		4	0.9333 1.0000	0.8467 1.0000	1.0000 1.0000		0.9333 1.0000	0.866		1.0000		0.0000	0.00%	0.00%
12.5		4 4	0.9833	0.9303	1.0000		1.0000	0.933		1.0000		0.0000	3.39%	1.67%
25		4	0.3033	0.3303	1.0000		1.0000	0.500	,0	1.0000	U	0.0101	0.0076	1.07 /0

3.39%

3.39%

1.67%

1.67%

1.0000

1.0000

0.0167

0.0167

1.0000

1.0000

1.0000

1.0000

0.9333

0.9333

4

0.9833

0.9833

0.9303

0.9303

50

100

Report Date:

15 Nov-21 13:07 (p 2 of 4)

Test Code/ID:

VCF1021.152 / 07-3555-1020

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 01-3625-8144 Analyzed:

15 Nov-21 13:06

Endpoint: 7d Survival Rate

Analysis: Nonparametric-Control vs Treatments MD5 Hash: 775260C070C2BB512AC867F8BF6EF0FA **CETIS Version:**

Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date:	15 Nov-21 13:04	MD5 Ha
Angular (Co	rrected) Transforme	d Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
6.25		4	1.3140	1.1550	1.4730	1.3100	1.1970	1.4410	0.0500	7.60%	8.81%
12.5		4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
25		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
50		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
100		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
6.25		0.9333	0.9333	0.8667	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	0.9333	1.0000
50		1.0000	1.0000	0.9333	1.0000
100		1.0000	1.0000	0.9333	1.0000

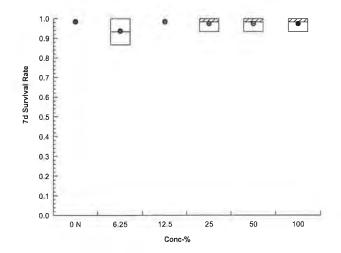
Angular (Corrected) Transformed Detail

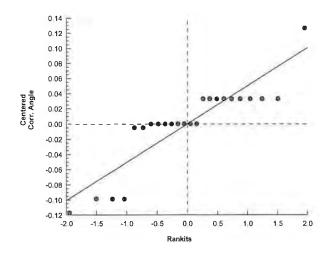
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.4410	1.4410	1.4410	1.4410
6.25		1.3100	1.3100	1.1970	1.4410
12.5		1.4410	1.4410	1.4410	1.4410
25		1.4410	1.4410	1.3100	1.4410
50		1.4410	1.4410	1.3100	1.4410
100		1.4410	1.4410	1.3100	1.4410

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	15/15	15/15	15/15	15/15	
6.25		14/15	14/15	13/15	15/15	
12.5		15/15	15/15	15/15	15/15	
25		15/15	15/15	14/15	15/15	
50		15/15	15/15	14/15	15/15	
100		15/15	15/15	14/15	15/15	

Graphics







Report Date: Test Code/ID: 15 Nov-21 13:07 (p 3 of 4) VCF1021.152 / 07-3555-1020

													. 5. 10		
Fathead Minn	ow 7	'-d Larval S	urvival	and Growt	h Te	st					Aqua	tic Bioas	ssay & (Consultin	g Labs, Inc
Analysis ID:	09-0	753-5244		Endpoint:	Mea	an Dry Biom	nass-mg)		C	ETIS Vers	sion: C	ETISv1	.9.7	
Analyzed:	15 N	Nov-21 13:06	6	Analysis:	Non	parametric	-Contro	l vs 1	reatments	S	Status Lev	el: 1			
Edit Date:	15 N	Nov-21 13:04	4	MD5 Hash:	950	210FD23 7 2	EC51F	3460	03945D6D8	5A41 E	ditor ID:	0	00-189-	126-0	
Batch ID:	04-0	845-0402		Test Type;	Gro	wth-Surviva	al (7d)			<u> </u>	Analyst:				
Start Date:	26 (Oct-21 14:07	7	Protocol:	EP/	\/821/R-02-	013 (20	02)			Diluent:	Laborato	orv Wate	er	
Ending Date:	02 N	Nov-21 14:12	2	Species:		ephales pro	•	,			Brine:	Not App	-		
Test Length:				Taxon:		nopterygii					Source:			ems, CO	Age: <2
								_		_					
Sample ID:		9402-7981		Code:		1021.152					Project:			ater Wet S	3eason
Sample Date:				Material:	San	nple Water					Source:	Bioassa		t	
Receipt Date:				CAS (PC):							Station:	MO-SPA	Ą		
Sample Age:	27h	(7 °C)		Client:	Ven	tura County	y Water	shed	Protection	Distri					
Data Transfor	m		Alt H	ур					NOEL	LOEL	TOE	L TU	J	MSDu	PMSD
Untransformed	t		C > T						100	>100	***	1	1.1	0.0284	8.36%
Steel Many-O	ne R	ank Sum Te	est												
Control	vs	Conc-%		Test	Stat	Critical	Ties	DF	P-Type	P-Valu	ue Deci	sion(α:5%	%)		
Negative Contr	rol	6.25		21.5		10	1	6	CDF	0.985	5 Non-	Significar	nt Effect		
		12.5		21.5		10	1	6	CDF	0.9858	5 Non-	Significar	nt Effect		
		25		20.5		10	1	6	CDF	0.9667	7 Non-	Significar	nt Effect		
		50		13.5		10	1	6	CDF	0.2853	3 Non-	Significar	nt Effect		
		100		22		10	0	6	CDF	0.9908	8 Non-	Significar	nt Effect		
Test Acceptat	oility	Criteria	TA	AC Limits											
Attribute		Test Stat			r	Overlap	Decis	ion							
Control Resp		0.3398	0.25	>>		Yes	Passe	es Cr	riteria						
PMSD		0.08357	0.12	0.3		Yes	Belov	v Crit	eria						
ANOVA Table															
Source		Sum Squ	ares	Mean	Squ	аге	DF		F Stat	P-Valu	ue Deci	sion(a:5%	%)		
Between		0.0013554	1	0.000	2711		5		0.9738	0.4600) Non-	Significan	nt Effect		
Error		0.0050108	3	0.000	2784		18								
Total		0.0063662	2				23								
ANOVA Assur	nptio	ons Tests													
Attribute		Test					Test :	Stat	Critical	P-Valu	ue Deci:	sion(a:1%	%)		
Variance		Bartlett Ed	quality o	f Variance 1	Γest		22.84		15.09	0.0004	4 Uneq	qual Varia	nces		
		Levene Ed	quality o	of Variance	Test		5.321		4.248	0.0036	6 Uneq	qual Varia	nces		
		Mod Leve	ne Equa	ality of Varia	nce 1	Γest	0.704	2	4.248	0.6277	7 Equa	ıl Variancı	es		
Distribution		Anderson-	-Darling	A2 Test			1.279		3.878	0.0022	2 Non-	Normal D	istributio	on	
		D'Agostino	o Kurtos	sis Test			3.325		2.576	0.0009	9 Non-	Normal D	istributio	on	
		D'Agostino	o Skewr	ness Test			3.647		2.576	0.0003	3 Non-	Normal D	istributio	on	
		D'Agostino	o-Pears	on K2 Omni	ibus 1	Гest	24.36		9.21	<1.0E-	-05 Non-	Normal D	istributio	on	
		Kolmogoro	ov-Smir	nov D Test			0.187	2	0.2056	0.0293	3 Norm	nal Distrib	ution		
		Shapiro-W	/ilk W N	lormality Te	st		0.821	6	0.884	0.0007	7 Non-	Normal D	istributio	on	
Mean Dry Bio	mass	s-mg Summ	nary												
Conc-%		Code	Coun	t Mean		95% LCL	95% l	JCL	Median	Min	Max	Ste	d Err	CV%	%Effect
0		N	4	0.339	8	0.3317	0.347	9	0.3387	0.3353	0.346	67 0.0	002544	1.50%	0.00%
6.25			4	0.343	7	0.34	0.347	3	0.344	0.3407	7 0.346	0.0	001139	0.66%	-1.13%
12.5			4	0.348	8	0.3254	0.372	3	0.3427	0.3393	3 0.370	0.0	07365	4.22%	-2.65%
25			4	0.347	3	0.3274	0.367	3	0.3467	0.3353	0.360	0.0	006278	3.61%	-2.21%
50			4	0.335	2	0.329	0.341	3	0.3357	0.33	0.339	93 0.0	001932	1.15%	1.37%
								_							

9.85%

-5.64%

0.4152

0.342

0.34

0.412

0.01768

0.359

0.3028

100

Report Date:

15 Nov-21 13:07 (p 4 of 4) VCF1021.152 / 07-3555-1020

Test Code/ID:

Aquatic Bioassay & Consulting Labs, Inc.

Fathead Minnow 7-d Larval Survival and Growth Test

15 Nov-21 13:04

Analysis ID: 09-0753-5244 Analyzed:

Endpoint: Mean Dry Biomass-mg 15 Nov-21 13:06

Analysis: Nonparametric-Control vs Treatments MD5 Hash: 950210FD2372EC51F346D3945D6D5A41 **CETIS Version:** Status Level:

Editor ID:

000-189-126-0

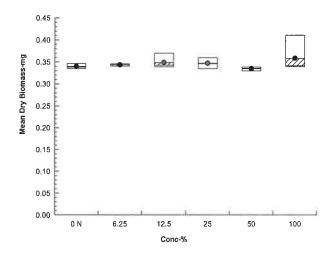
CETISv1.9.7

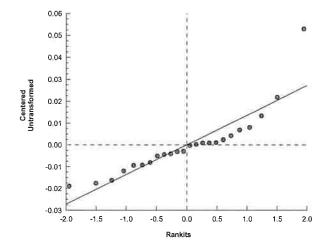
Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3353	0.3407	0.3367	0.3467
6.25		0.3407	0.3447	0.3433	0.346
12.5		0.3393	0.3407	0.3447	0.3707
25		0.3607	0.338	0.3353	0.3553
50		0.33	0.3353	0.336	0.3393
100		0.34	0.3413	0.3427	0.412

Graphics

Edit Date:





Report Date:

15 Nov-21 13:07 (p 1 of 4)

Test Code/ID:

VCF1021.152 / 07-3555-1020

									Test Code/I	D:	VCF	1021.15270	7-3000-10
Fathea	d Minn	ow 7-d Larval S	urvival and	Growth	n Test				Aqua	tic Bi	oassay &	Consulting	Labs, In
Analys	is ID:	04-3370-1682	End	point:	7d Survival Rat	te			CETIS Vers	ion:	CETISV	1.9.7	
Analyz	ed:	15 Nov-21 13:06	Ana	lysis:	Linear Interpola	ation (ICPII	N)		Status Leve	el:	1		
Edit Da	ate:	15 Nov-21 13:04	MD:	5 Hash:	775260C070C2	2BB512AC	867F8BF6E	F0FA	Editor ID:		000-189	9-126-0	
Batch í	D:	04-0845-0402	Tes	t Type:	Growth-Surviva	ıl (7d)			Analyst:				
Start D	ate:	26 Oct-21 14:07	Prof	tocol:	EPA/821/R-02-	013 (2002)		Diluent:	Labo	ratory Wa	ater	
_		02 Nov-21 14:12	Spe	cies:	Pimephales pro	omelas			Brine:	Not A	Applicable)	
Test Le	ength:	7d 0h	Tax	on:	Actinopterygii				Source:	Aqua	tic Biosys	stems, CO	Age: <2
Sample		16-9402 - 7981	Cod	e:	VCF1021.152				Project:	NPD	ES Storm	water Wet S	eason
		25 Oct-21 11:00		erial:	Sample Water				Source:	Bioas	ssay Repo	ort	
		25 Oct-21 15:27		(PC):					Station:	MO-S	SPA		
Sample	Age:	27h (7 °C)	Clie	nt:	Ventura County	/ Watershe	ed Protection	n Distri					
Linear	Interpo	lation Options											
X Trans	sform	Y Transform			Resamples	Exp 95		thod					
Linear		Linear	0		280	Yes	Two	o-Point I	nterpolation				
Test Ac	ceptab	ility Criteria	TAC L	imits									
Attribut	te	Test Stat	Lower	Upper	Overlap	Decisio	n						
Control	Resp	1	8.0	>>	Yes	Passes (Criteria						
Point E	stimate	es											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UC	L						
EC10	>100			<1	***								
EC15	>100		***	<1	-								
EC20	>100			<1	7-1								
EC25	>100	***	***	<1									
EC40	>100			<1									
EC50	>100	1999		<1	7								
7d Surv	vival Ra	ate Summary				Calc	ulated Vari	iate(A/B)		=	Isoton	nic Variate
Conc-%	6	Code	Count	Mean	Median	Min	Max	CV%			A/B	Mean	%Effec
0		N	4	1.0000		1.0000	1.0000	0.00			60/60	1.0000	0.00%
6.25			4	0.9333		0.8667	1.0000	5.83			56/60	0.9767	2.33%
12.5 25			4	1.0000 0.9833		1.0000	1.0000	0.00			60/60	0.9767	2.33%
25 50			4	0.9833		0.9333 0.9333	1.0000 1.0000	3.39 ¹			59/60 59/60	0.9767 0.9767	2.33% 2.33%
100			4	0.9833		0.9333	1.0000	3.39			59/60	0.9767	2.33%
		-t- D-t-11		0.0000	1.0000	0.9000	1.0000	0.00	70 1.07 /		33/00	0.3707	2.0076
		ate Detail	Day 4	D 0	D 0	D 4							
Conc-% 0	o .	Code	Rep 1	Rep 2	Rep 3	Rep 4							
		N	1.0000	1.0000		1.0000							
6.25			0.9333	0.9333		1.0000							
12.5			1.0000	1.0000		1.0000							
25 50			1.0000 1.0000	1.0000		1.0000 1.0000							
100			1.0000	1.0000		1.0000							
			1.0000	1,0000	. 5.5555	1.0000							
		ite Binomials	Day 4	D	D- 0	D 4							
Conc-% 0	0	Code	Rep 1	Rep 2	Rep 3	Rep 4							
		N	15/15	15/15	15/15	15/15							
6.25			14/15	14/15	13/15	15/15							
12.5			15/15	15/15	15/15	15/15							
25 50			15/15	15/15	14/15	15/15							
50 400			15/15 15/15	15/15	14/15	15/15							
100			15/15	15/15	14/15	15/15							



Report Date:

15 Nov-21 13:07 (p 2 of 4)

Test Code/ID:

VCF1021.152 / 07-3555-1020

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed:

04-3370-1682 15 Nov-21 13:06

15 Nov-21 13:04

Endpoint: 7d Survival Rate

Analysis:

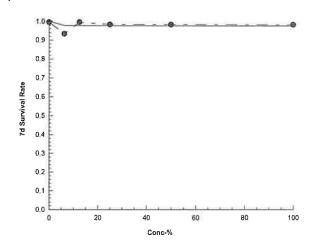
Linear Interpolation (ICPIN) MD5 Hash: 775260C070C2BB512AC867F8BF6EF0FA **CETIS Version:**

Editor ID:

CETISv1.9.7 Status Level:

000-189-126-0

Edit Date: Graphics



Report Date: Test Code/ID:

Station:

MO-SPA

15 Nov-21 13:07 (p 3 of 4) VCF1021.152 / 07-3555-1020

Fathead Minn	ow 7-d Larval Survi	val and Growt	h Test	Aquatic Bioassay & Consulting Labs, In					
Analysis ID: Analyzed: Edit Date:	06-8377-6690 15 Nov-21 13:06 15 Nov-21 13:04	Endpoint: Analysis: MD5 Hash:	Mean Dry Biomass-mg Linear Interpolation (ICPIN) 950210FD2372EC51F346D3945D6D5A41	CETIS Version Status Level: Editor ID:		CETISv1.9.7 1 000-189-126-0			
Batch ID: Start Date: Ending Date: Test Length:	04-0845-0402 26 Oct-21 14:07 02 Nov-21 14:12 7d 0h	Test Type: Protocol: Species: Taxon:	Growth-Survival (7d) EPA/821/R-02-013 (2002) Pimephales promelas Actinopterygii	Analyst: Diluent: Brine: Source:	Not A	ratory Water Applicable tic Biosystems, CO	A ge: <24		
Sample ID: Sample Date:	16-9402-7981 25 Oct-21 11:00	Code: Material:	VCF1021.152 Sample Water	Project: Source:		ES Stormwater Wet S ssay Report	Season		

Linear Interpolation Options

Sample Age: 27h (7 °C)

Receipt Date: 25 Oct-21 15:27

CAS (PC):

Client:

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method	
Linear	Linear	286845	280	Yes	Two-Point Interpolation	

Ventura County Watershed Protection Distri

		IACI	Limits			
Attribute	Test Stat Lov	Lower	Upper	Overlap	Decision	
Control Resp	0.3398	0.25	>>	Yes	Passes Criteria	

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC10	>100			<1		
IC15	>100			<1	***	
IC20	>100		***	<1		
IC25	>100		-	<1		
IC40	>100	iese.	***	<1		in the second se
IC50	>100	***		<1	***	

Mean Dry Bio	mass-mg Sum	ımary		Isotor	ic Variate					
Conc-%	Code	Count	Mean	Median	Min	Max	CV%	%Effect	Mean	%Effect
0	N	4	0.3398	0.3387	0.3353	0.3467	1.50%	0.00%	0.3456	0.00%
6.25		4	0.3437	0.344	0.3407	0.346	0.66%	-1.13%	0.3456	0.00%
12.5		4	0.3488	0.3427	0.3393	0.3707	4.22%	-2.65%	0.3456	0.00%
25		4	0.3473	0.3467	0.3353	0.3607	3.61%	-2.21%	0.3456	0.00%
50		4	0.3352	0.3357	0.33	0.3393	1.15%	1.37%	0.3456	0.00%
100		4	0.359	0.342	0.34	0.412	9.85%	-5.64%	0.3456	0.00%

Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3353	0.3407	0.3367	0.3467
6.25		0.3407	0.3447	0.3433	0.346
12.5		0.3393	0.3407	0.3447	0.3707
25		0.3607	0.338	0.3353	0.3553
50		0.33	0.3353	0.336	0.3393
100		0.34	0.3413	0.3427	0.412

Report Date:

15 Nov-21 13:07 (p 4 of 4)

Test Code/ID:

VCF1021.152 / 07-3555-1020

15 Nov-21 13:04

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 06-8377-6690 Analyzed: 15 Nov-21 13:06 Endpoint: Mean Dry Biomass-mg Analysis:

Linear Interpolation (ICPIN) MD5 Hash: 950210FD2372EC51F346D3945D6D5A41 **CETIS Version:**

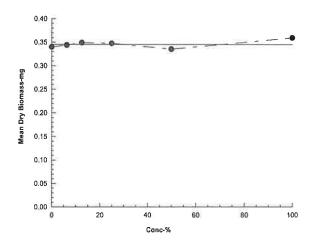
Editor ID:

Status Level:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

15 Nov-21 13:07 (p 1 of 8)

Test Code/ID: VCF1021.152 / 07-3555-1020

Fathead Minn	ow 7-d Larval S	urvival	and Growt	h Test				Aqua	tic Bioassay &	Consulting	g Labs, Inc.
Batch ID: Start Date: Ending Date: Test Length:	04-0845-0402 26 Oct-21 14:07 02 Nov-21 14:12 7d Oh		Test Type: Protocol: Species: Taxon:	Growth-Surviv EPA/821/R-02 Pimephales pr Actinopterygii	-013 (2002)			Analyst: Diluent: Brine: Source:	Laboratory Wa Not Applicable Aquatic Biosys		Age : <24
•	16-9402-7981 25 Oct-21 11:00 25 Oct-21 15:27		Code: Material: CAS (PC): Client:	VCF1021.152 Sample Water Ventura Count		d Protec	tion Dietri	Project: Source: Station:	NPDES Storm Bioassay Repo MO-SPA		Season
Alkalinity (Ca			Oliciti.	vontara count	y waterone	4110100	don bistii				
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.0646		0.85%	0
100	"	8	22	22	22	22	22	0.0041	0.5175	0.00%	0
Overall		16	41.31	30.68	51.94	22	61	4.987	19.95	48.29%	0 (0%)
Conductivity-	umhoe		11.01	00.00	01.04			4.007	10.00	40.2070	0 (070)
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	360.5	358	363	354	364	0.372		0.83%	0
6.25	IN	8	351.4	350.3	352.5	350	353	0.372		0.83%	0
12.5		8	325.9	322.4	329.3	318	330	0.102		1.26%	0
25		8	305.1	302.4	307.8	302	310	0.403		1.26%	0
50		8	243.1	239.9	246.3	237	248	0.403		1.58%	
100		8	122	120.4	123.6	120	125	0.2409		1.58%	0
Overali		48	284.7	260.5	308.8	120	364	11.99	83.08	29.19%	0 (0%)
		40	204.7	200.3	300.0	120	304	11.55	03.00	29.1970	0 (0 %)
Dissolved Ox				0.00/ 1.01			-	a =			
Conc-%	Code	Count		95% LCL		Min	Max	Std E		CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.022		2.33%	0
6.25		8	7.463	7.253	7.672	7	7.8	0.031		3.35%	0
12.5		8	7.45	7.255	7.645	7	7.8	0.029		3.13%	0
25		8	7.387	7.266	7.509	7.2	7.6	0.0182		1.97%	0
50		8	7.363	7.263	7.462	7.2	7.5	0.0148		1.61%	0
100		8	7.325	7.209	7.441	7.1	7.5	0.017		1.90%	0
Overall		48	7.431	7.374	7.488	7	7.9	0.0282	27 0.1959	2.64%	0 (0%)
Hardness (Ca	CO3)-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.0646	69 0.5175	0.54%	0
100		8	58	58	58	58	58	0	0	0.00%	0
Overall		16	76.81	66.46	87.17	58	96	4.858	19.43	25.30%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	3 0.0744	0.93%	0
6.25		8	7.738	7.538	7.937	7.3	8	0.0298	83 0.2387	3.08%	0
12.5		8	7.7	7.521	7.879	7.3	8	0.026	73 0.2138	2.78%	0
25		8	7.675	7.515	7.835	7.3	7.9	0.0238	86 0.1909	2.49%	0
50		8	7.625	7.493	7.757	7.3	7.8	0.019	76 0.1581	2.07%	0
100		8	7.6	7.474	7.726	7.3	7.8	0.0189	9 0.1512	1.99%	0
0		40	7 747	7.656	7 777	7.0	0	0.000	77 0 2077	2.600/	0 (00/)



2.69%

0 (0%)

0.2077

0.02997

7.777

7.3

8

48

7.717

7.656

Overall

Report Date:

15 Nov-21 13:07 (p 2 of 8)

Test Code/ID: VCF1021.152 / 07-3555-1020

Aquatic Bioassay & Consulting Labs, Inc.

Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.06	24	24.12	24	24.2	0.00929	0.07432	0.31%	0
12.5		8	24.09	24.03	24.14	24	24.2	0.007993	0.06395	0.27%	0
25		8	24.13	24.05	24.2	24	24.2	0.01107	0.08854	0.37%	0
50		8	24.15	24.04	24.26	24	24.3	0.01637	0.1309	0.54%	0
100		8	24.17	24.04	24.31	24	24.4	0.02087	0.1669	0.69%	0
Overall		48	24.1	24.07	24.13	24	24.4	0.01631	0.113	0.47%	0 (0%)

Report Date:

15 Nov-21 13:07 (p 3 of 8) VCF1021.152 / 07-3555-1020

Test Code/ID:

Fathead Minn	iow 7-d Larva	l Survival	and Grow	th Test				Aquatic Bioassay & Consulting Labs, Inc.					
Alkalinity (Ca	Mkalinity (CaCO3)-mg/L												
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes					
0	N	1		60									
100				22									
0	N	2		60									
100				22									
0	N	3		60									
100				22									
0	N	4		61									
100				22									
0	N	5		61									
100				22									
0	N	6		61									
100				22									
0	N	7		61									
100				22									
0	N	8		61									
100				22									

Report Date: Test Code/ID: 15 Nov-21 13:07 (p 4 of 8) VCF1021.152 / 07-3555-1020

Fathead Minnow 7-d Larval Survival and Growth Test

Conductivity-		D. 1			•	D. 144 01			
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				353					
12.5				330					
25				302					
50				237					
100				120					
0	N	2		360					
6.25				350					
12.5				327					
25				304					
50				240					
100				122					
0	N	3		354					
6.25				352					
12.5				318					
25				309					
50				245					
100				124					
0	N	4		360					
6.25	,,	'		350					
12.5				322					
25				302					
50				240					
100				120					
0	N	5		364					
6.25	IN	5		351					
12.5				325					
25				305					
50				243					
100				123					
0	N	6		362					
6.25				353					
12.5				328					
25				310					
50				248					
100				125					
0	N	7		362					
6.25				352					
12.5				327					
25				307					
50				245					
100				122					
0	N	8		360					
6.25				350					
12.5				330					
25				302					
50				247					
100				120					

Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

15 Nov-21 13:07 (p 5 of 8) VCF1021.152 / 07-3555-1020

Test Code/ID:

Dissolved Ox	ygen-mg/L							
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6			•	
6.25				7				
12.5				7				
25				7.2				
50				7.2				
100				7.3				
0	N	2		7.4				
6.25				7.6				
12.5				7.5				
25				7.4				
50				7.4				
100				7.3				
0	N	3		7.5				
6.25		J		7.4				
12.5				7.5				
25				7.5				
50				7.5				
100				7.5				
0	N	4		7.6				
6.25				7.4				
12.5				7.4				
25				7.3				
50				7.3				
100				7.2				
0	N	5		7.8				
6.25				7.7				
12.5				7.6				
25				7.5				
50				7.4				
100				7.4				
0	N	6		7.9				
6.25		•		7.8				
12.5				7.8				
25				7.6				
50				7.5				
100				7.5				
0	N	7		7.6				
6.25	. •			7.5				
12.5				7.5				
25				7.4				
50				7.4 7.4				
100				7.4 7.3				
	k1	0						
0	N	8		7.4				
6.25				7.3				
12.5				7.3				
25				7.2				
50				7.2				
100				7.1				

Report Date: Test Code/ID: 15 Nov-21 13:07 (p 6 of 8) VCF1021.152 / 07-3555-1020

Fathead Minn	ow 7-d Larva	I Survival	and Grow	th Test				Aquatic Bioassay & Consulting Labs, Inc.
Hardness (Ca	CO3)-mg/L							
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		95				
100				58				
0	N	2		95				
100				58				
0	N	3		95				
100				58				
0	N	4		96				
100				58				
0	N	5		96				
100				58				
0	N	6		96				
100				58				
0	N	7		96				
100				58				
0	N	8		96				
100				58				

Report Date: Test Code/ID: 15 Nov-21 13:07 (p 7 of 8) VCF1021.152 / 07-3555-1020

Fathead Minnow 7-d Larval Survival and Growth Test

pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8					
6.25				7.3					
12.5				7.3					
25				7.3					
50				7.3					
100				7.3					
0	N	2		8					
6.25				7.6					
12.5				7.6					
25				7.6					
50				7.6					
100				7.6					
0	N	3		7.8					
6.25				7.8					
12.5				7.7					
25				7.7					
50				7.6					
100				7.6					
0	N	4		8					
6.25				8					
12.5				7.9					
25				7.9					
50				7.8					
100				7.7					
0	N	5		8					
6.25				8					
12.5				8					
25				7.9					
50				7.8					
100				7.8					
0	N	6		7.9					
6.25				7.9					
12.5				7.8					
25				7.7					
50				7.6					
100				7.5					
0	N	7		8					
6.25				7.7					
12.5				7.7					
25				7.7					
50				7.7					
100				7.7					
0	N	8		8					
6.25				7.6					
12.5				7.6					
25				7.6					
50				7.6					
100				7.6					



Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

15 Nov-21 13:07 (p 8 of 8) VCF1021.152 / 07-3555-1020

Test Code/ID:

Temperature-°	С					
Conc-%	Code	Read Time	Measure QA	Diff-% Inst ID	Analyst Notes	
0	N	1	24			
6.25			24			
12.5			24.1			
25			24.1			
50			24			
100			24			
0	N	2	24			
6.25			24.2			
12.5			24.2			
25			24.2			
50			24.3			
100			24.3			
0	N	3	24			
6.25			24			
12.5			24			
25			24			
50			24			
100			24			
0	N	4	24			
6.25			24.1			
12.5			24.1			
25			24.2			
50			24.2			
100			24.4			
0	N	5	24			
6.25			24.1			
12.5			24.1			
25			24.1			
50			24.2			
100			24.3			
0	N	6	24			
6.25			24			
12.5			24.1			
25			24.2			
50			24.3			
100			24.3			
0	N	7	24			
6.25	14		24.1			
12.5			24.1			
25			24.2			
50			24.2			
100			24.1			
0	N	8	24			
6.25	- IN	O	24			
o.∠5 12.5						
			24 24			
25 50						
100			24 24			



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT: Ventura County Flood Control

SAMPLE I.D.: MO-OJA DATE RECEIVED: 10/25/2021 ABC LAB. NO.: VCF1021.153

CHRONIC FATHEAD MINNOW SURVIVAL & GROWTH BIOASSAY

SURVIVAL NOEC = 100.00 % TUc 1.00 EC25 =>100.00 %

EC50 =>100.00 %

BIOMASS NOEC =100.00 %

> TUc = 1.00 >100.00 % IC25 =

> IC50 =>100.00 %

Laboratory Director

Report Date: Test Code/ID: 15 Nov-21 13:10 (p 1 of 2) VCF1021.153 / 17-5430-3396

Fathead Minn	now 7-d Larval	Survival and Grov	wth Te	st					Aquatio	Bioassay &	Consulting	Labs,	Inc.
Batch ID:	17-8098-6405	Test Type	: Gro	wth-Surviva	l (7d)			Analys	st:				
Start Date:	26 Oct-21 14:1	0 Protocol:	EP/	4/821/R-02-0	013 (2002)			Diluer	nt: L	aboratory Wa	er		
Ending Date:	02 Nov-21 14:1	15 Species:	Pim	ephales pro	melas			Brine:	: N	lot Applicable			
Test Length:	7d 0h	Taxon:	Acti	nopterygii				Sourc	e: A	quatic Biosys	ems, CO	Age:	<24
Sample ID:	01-3804-3132	Code:	VCF	1021.153				Projec	ct: N	IPDES Stormy	vater Wet Se	eason	
Sample Date:	25 Oct-21 12:4	5 Material:	San	nple Water				Sourc	: е : В	ioassay Repo	rt		
•	25 Oct-21 15:2	7 CAS (PC)):					Statio	n: N	10-0JA			
Sample Age:	25h (7.5 °C)	Client:	Ven	itura County	Watershed	Protection	Dist	i					
•	parison Summ	•											
Analysis ID	Endpoint			on Method			/ NC		LOEL	TOEL	PMSD	TU	5
	7d Survival Ra			y-One Rank			10		>100		6.72%	1	
05-6979-7312	Mean Dry Bion	nass-mg Stee	el Many	y-One Rank	Sum Test		10	0	>100		12.7%	1	- 1
Point Estimat	te Summary												
Analysis ID	Endpoint			mate Metho			/ Le		%	95% LCL	95% UCL	_	S
03-1146-3617	7d Survival Ra	te Line	ear Inte	rpolation (IC	CPIN)		/ EC		>100			<1	
							/ EC		>100			<1	
							/ EC		>100			<1	
							/ EC		>100			<1	
							/ EC		>100			<1	
							/ EC		>100			<1	
16-7362-7417	Mean Dry Bion	nass-mg Line	ear Inte	rpolation (IC	CPIN)		/ IC		>100			<1	1
							/ IC		>100	***		<1	
							/ IC:		>100	***	***	<1	
							/ IC:		>100	***		<1	
							/ IC:		>100 >100			<1 <1	
							/ 10:	50	/100				_
Test Acceptal	_	•				TAC							
Analysis ID	Endpoint		ibute		Test Stat			per	Overla				_
	7d Survival Ra		trol Re	•	1	8.0	>>		Yes	Passes C			
	7d Survival Ra		trol Re	•	1	0.8	>>		Yes	Passes C			
	Mean Dry Bion	-	itrol Re	•	0.3418	0.25	>>		Yes	Passes C			
	Mean Dry Biom	-	ntrol Re	esp	0.3418	0.25	>>		Yes	Passes C			
	Mean Dry Bion	nass-mg PM	2D		0.1266	0.12	0.3)	Yes	Passes	піепа		
7d Survival R Conc-%	late Summary Code	Count Mea	an.	95% LCL	95% UCL	Min	Ma	ıv	Std Err	Std Dev	CV%	%Eff	fact
0	N	4 1.00		1.0000	1.0000	1.0000		0000	0.0000			0.00	
6.25	14	4 0.98		0.9303	1.0360	0.9333		0000	0.0167		3.39%	1.67	
12.5		4 0.95		0.8484	1.0520	0.8667			0.0319		6.72%	5.00	
25		4 0.95		0.8484	1.0520	0.8667		0000	0.0319		6.72%	5.00	
50		4 0.98		0.9303	1.0360	0.9333		0000	0.0167		3.39%	1.67	
100		4 1.00		1.0000	1.0000	1.0000		0000	0.0000	0.0000		0.00	
Mean Dry Bio	mass-mg Sum	mary											
Conc-%	Code	Count Mea	an	95% LCL	95% UCL	Min	Ма	x	Std Err	Std Dev	CV%	%Eff	fect
0	N	4 0.34	118	0.3376	0.346	0.3387			0.0013			0.00	
		4 0.34	107	0.3339	0.3474	0.3373		3467	0.00212		1.25%	0.34	
					0.4000	0.2513	0.3	352	0.0242	7 0.04854	15.00%	5.31	%
12.5		4 0.32		0.2464	0.4009								
12.5 25		4 0.32	207	0.2612	0.3801	0.2647	0.3	3413	0.01868	8 0.03737	11.65%	6.19	%
6.25 12.5 25 50 100			207 11				0.3 0.3			8 0.03737 72 0.003944	11.65% 1.16%		% %

CETIS Summary Report

Report Date:

15 Nov-21 13:10 (p 2 of 2)

Test Code/ID:	VCF1021.153 / 17-5430-3396
report bate.	10 1404-21 10.10 (P 2 01 2)

Fathead Minn	ow 7-d Larval	Survival and	d Growth T	est		Aquatic Bioassay & Consulting Labs, Inc.
7d Survival Ra	ate Detail					MD5: 19557CD16D7CD14AC1397DB15F747219
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.0000	1.0000	1.0000	1.0000	
6.25		1.0000	1.0000	0.9333	1.0000	
12.5		1.0000	0.9333	1.0000	0.8667	
25		0.9333	0.8667	1.0000	1.0000	
50		0.9333	1.0000	1.0000	1.0000	
100		1.0000	1.0000	1.0000	1.0000	
Mean Dry Bio	mass-mg Deta	il				MD5: A54737B3D3A74EA0F8D235871F487C99
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.344	0.3387	0.3407	0.344	
6.25		0.3373	0.3407	0.3467	0.338	
12.5		0.352	0.34	0.3513	0.2513	
25		0.3413	0.2647	0.3373	0.3393	
50		0.3373	0.338	0.3433	0.3453	
100		0.3527	0.336	0.3533	0.338	
7d Survival Ra	ate Binomials					
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	15/15	15/15	15/15	15/15	
6.25		15/15	15/15	14/15	15/15	
12.5		15/15	14/15	15/15	13/15	
25		14/15	13/15	15/15	15/15	
50		14/15	15/15	15/15	15/15	
100		15/15	15/15	15/15	15/15	

Report Date:

15 Nov-21 13:10 (p 1 of 4) VCF1021.153 / 17-5430-3396

rest Code/ID:	VCF1021.153 / 17-5430-3
A (1 - D) .	

Fathead Minn	ow 7-d Larval St	urvival and Growtl	h Test			Aquatic	Bioassay	& Consulting	Labs, Inc.
Analysis ID: Analyzed: Edit Date:	02-8521-8502 15 Nov-21 13:10 15 Nov-21 13:09		7d Survival Rate Nonparametric-Control vs 7 19557CD16D7CD14AC139		S Sta	TIS Versior tus Level: tor ID:	1	v1.9.7 39-126-0	
Batch ID:	17-8098-6405	Test Type:	Growth-Survival (7d)		Ana	alyst:			
Start Date:	26 Oct-21 14:10	Protocol:	EPA/821/R-02-013 (2002)		Dile	uent: La	boratory W	ater	
Ending Date:	02 Nov-21 14:15	Species:	Pimephales promelas		Bri	ne: No	t Applicabl	е	
Test Length:	7d 0h	Taxon:	Actinopterygii		Soi	urce: Ac	uatic Biosy	stems, CO	Age: <24
Sample ID:	01-3804-3132	Code:	VCF1021.153		Pro	ject: NF	DES Storr	nwater Wet S	eason
Sample Date:	25 Oct-21 12:45	Material:	Sample Water		Soi	urce: Bio	oassay Rep	oort	
Receipt Date:	25 Oct-21 15:27	CAS (PC):			Sta	tion: M	D-OJA		
Sample Age:	25h (7.5 °C)	Client:	Ventura County Watershed	Protection	n Distri				
Data Transfor	m	Alt Hyp		NOEL	LOEL	TOEL	TU	MSDu	PMSD
Angular (Corre	cted)	C > T		100	>100	Jerri.	1	0.06717	6.72%

Data Hanoloitii	7 dt Ttyp				HOLL	LOLL	IOLL	10	MISDU	LINIOD
Angular (Corrected)	C > T				100	>100	1.000	1	0.06717	6.72%
Steel Many-One Ra	ank Sum Test									
Control vs	Conc-%	Test Stat	Critical	Ties	DF P-Type	P-Value	Decision	n(α:5%)		
Negative Control	6.25	16	10	1	6 CDF	0.6105	Non-Sigr	nificant Effect		
	12.5	14	10	1	6 CDF	0.3451	Non-Sigr	nificant Effect		

110gativa contact	0.20	10	10		0	ODI	0,0100	Non-olgrinicant Enect	
	12.5	14	10	1	6	CDF	0.3451	Non-Significant Effect	
	25	14	10	1	6	CDF	0.3451	Non-Significant Effect	
	50	16	10	1	6	CDF	0.6105	Non-Significant Effect	
	100	18	10	1	6	CDF	0.8333	Non-Significant Effect	
T (A (122)									_

Test Acceptabili	ty Criteria	TAC	Limits		
Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	1	8.0	>>	Yes	Passes Criteria

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(a:5%)
Between	0.0364065	0.0072813	5	1.198	0.3494	Non-Significant Effect
Error	0.109401	0.0060778	18			
Total	0.145808		23			

ANOVA Assum	ptions Tests				
Attribute	Test	Test Stat	Critical	P-Value	Decision(a:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	6.637	4.248	0.0011	Unequal Variances
	Mod Levene Equality of Variance Test	2.91	4.248	0.0426	Equal Variances
Distribution	Anderson-Darling A2 Test	1.227	3.878	0.0032	Non-Normal Distribution
	D'Agostino Kurtosis Test	0.659	2.576	0.5099	Normal Distribution
	D'Agostino Skewness Test	1.634	2.576	0.1024	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	3.103	9.21	0.2120	Normal Distribution
	Kolmogorov-Smirnov D Test	0.25	0.2056	0.0004	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.8864	0.884	0.0112	Normal Distribution

7d Survival R	d Survival Rate Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect			
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%			
6.25		4	0.9833	0.9303	1.0000	1.0000	0.9333	1.0000	0.0167	3.39%	1.67%			
12.5		4	0.9500	0.8484	1.0000	0.9667	0.8667	1.0000	0.0319	6.72%	5.00%			
25		4	0.9500	0.8484	1.0000	0.9667	0.8667	1.0000	0.0319	6.72%	5.00%			
50		4	0.9833	0.9303	1.0000	1.0000	0.9333	1.0000	0.0167	3.39%	1.67%			
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%			

Report Date: Test Code/ID: 15 Nov-21 13:10 (p 2 of 4) VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-8521-8502 Endpoint: 7d Survival Rate CETIS Version: CETISv1.9.7

Analyzed: 15 Nov-21 13:10 Analysis: Nonparametric-Control vs Treatments Status Level: 1

Edit Date: 15 Nov-21 13:09 MD5 Hash: 19557CD16D7CD14AC1397DB15F747219 Editor ID: 000-189-126-0

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
6.25		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
12.5		4	1.3470	1.1600	1.5350	1.3750	1.1970	1.4410	0.0589	8.75%	6.52%
25		4	1.3470	1.1600	1.5350	1.3750	1.1970	1.4410	0.0589	8.75%	6.52%
50		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
100		4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	1.0000	1.0000	1.0000	1.0000		
6.25		1.0000	1.0000	0.9333	1.0000		
12.5		1.0000	0.9333	1.0000	0.8667		
25		0.9333	0.8667	1.0000	1.0000		
50		0.9333	1.0000	1.0000	1.0000		
100		1.0000	1.0000	1.0000	1.0000		

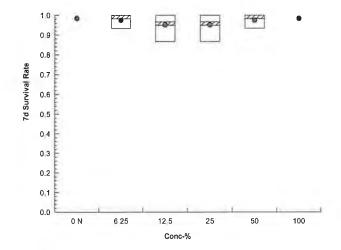
Angular (Corrected) Transformed Detail

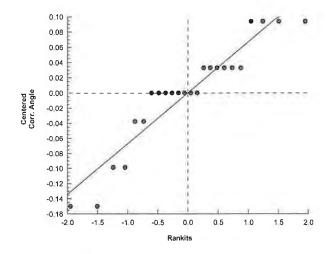
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.4410	1.4410	1.4410	1.4410
6.25		1.4410	1.4410	1.3100	1.4410
12.5		1.4410	1.3100	1.4410	1.1970
25		1.3100	1.1970	1.4410	1.4410
50		1.3100	1.4410	1.4410	1.4410
100		1.4410	1.4410	1.4410	1.4410

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	15/15	15/15	15/15	15/15	
6.25		15/15	15/15	14/15	15/15	
12.5		15/15	14/15	15/15	13/15	
25		14/15	13/15	15/15	15/15	
50		14/15	15/15	15/15	15/15	
100		15/15	15/15	15/15	15/15	

Graphics





Report Date: Test Code/ID: 15 Nov-21 13:10 (p 3 of 4) VCF1021.153 / 17-5430-3396

Fathead Minn	iow 7-d Larval Si	urvival and Growt	n Test			Aquat	ic Bioassa	y & Consulting	Labs, Inc.
Analysis ID: Analyzed: Edit Date:	05-6979-7312 15 Nov-21 13:10 15 Nov-21 13:09		Mean Dry Biomass-mg Nonparametric-Control vs A54737B3D3A74EA0F8D			CETIS Versi Status Leve Editor ID:	l: 1	FISv1.9.7 -189-126-0	
Batch ID: Start Date: Ending Date: Test Length:	17-8098-6405 26 Oct-21 14:10 02 Nov-21 14:15 7d Oh		Growth-Survival (7d) EPA/821/R-02-013 (2002) Pimephales promelas Actinopterygii			Brine:	Laboratory Not Applic Aquatic Bio		Age : <24
•	01-3804-3132 25 Oct-21 12:45 25 Oct-21 15:27 25h (7.5 °C)	Code: Material: CAS (PC): Client:	VCF1021.153 Sample Water Ventura County Watershe	d Protection	n Distri	Source:	NPDES St Bioassay F MO-OJA	ormwater Wet S Report	eason
Data Transfor	·m	Alt Hyp		NOEL	LOE	L TOEL	TU	MSDu	PMSD
Untransformed	d	C > T		100	>100		1	0.04328	12.66%

			•					100	. 100	0.04020 12.0070
Steel Many-Or	ne Ran	k Sum Te	st							
Control	vs	Conc-%		Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(a:5%)
Negative Contr	ol .	6.25		15.5	10	1	6	CDF	0.5438	Non-Significant Effect
		12.5		19	10	0	6	CDF	0.9055	Non-Significant Effect
		25		13	10	0	6	CDF	0.2311	Non-Significant Effect
		50		16	10	0	6	CDF	0.6105	Non-Significant Effect
		100		18	10	0	6	CDF	0.8333	Non-Significant Effect
Test Acceptab	ility Cr	iteria	TAC	Limits						
Attribute	T	est Stat	Lower	Upper	Overlap	Decis	sion			
Control Resp	О	.3418	0.25	>>	Yes	Passe	es Cr	iteria		
PMSD	0	.1266	0.12	0.3	Yes	Passe	es Cr	iteria		

ANOVA Table							
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(a:5%)	
Between	0.0021894	0.0004379	5	0.6774	0.6461	Non-Significant Effect	
Error	0.0116363	0.0006465	18				
Total	0.0138258		23				

ANOVA Assum	ptions Tests				
Attribute	Test	Test Stat	Critical	P-Value	Decision(a:1%)
Variance	Bartlett Equality of Variance Test	31.32	15.09	<1.0E-05	Unequal Variances
	Levene Equality of Variance Test	5.419	4.248	0.0033	Unequal Variances
	Mod Levene Equality of Variance Test	0.8432	4.248	0.5367	Equal Variances
Distribution	Anderson-Darling A2 Test	2.171	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Kurtosis Test	2.972	2.576	0.0030	Non-Normal Distribution
	D'Agostino Skewness Test	3.572	2.576	0.0004	Non-Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	21.59	9.21	2.1E-05	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.2686	0.2056	9.7E-05	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.7671	0.884	8.9E-05	Non-Normal Distribution

Mean Dry Biomass-mg Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	0.3418	0.3376	0.346	0.3423	0.3387	0.344	0.001316	0.77%	0.00%
6.25		4	0.3407	0.3339	0.3474	0.3393	0.3373	0.3467	0.002126	1.25%	0.34%
12.5		4	0.3237	0.2464	0.4009	0.3457	0.2513	0.352	0.02427	15.00%	5.31%
25		4	0.3207	0.2612	0.3801	0.3383	0.2647	0.3413	0.01868	11.65%	6.19%
50		4	0.341	0.3347	0.3473	0.3407	0.3373	0.3453	0.001972	1.16%	0.24%
100		4	0.345	0.3302	0.3598	0.3453	0.336	0.3533	0.004639	2.69%	-0.93%

Report Date:

15 Nov-21 13:10 (p 4 of 4)

Test Code/ID: VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

15 Nov-21 13:09

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 05-6979-7312 Analyzed: 15 Nov-21 13:10

Mean Dry Biomass-mg Endpoint:

Nonparametric-Control vs Treatments

MD5 Hash: A54737B3D3A74EA0F8D235871F487C99

CETIS Version:

Editor ID:

Status Level:

000-189-126-0

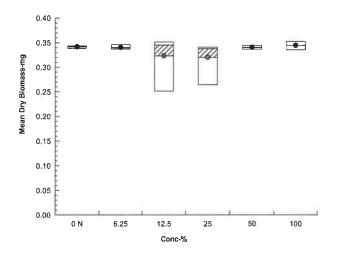
CETISv1.9.7

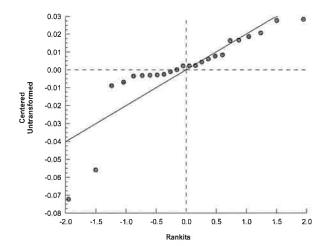
Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.344	0.3387	0.3407	0.344
6.25		0.3373	0.3407	0.3467	0.338
12.5		0.352	0.34	0.3513	0.2513
25		0.3413	0.2647	0.3373	0.3393
50		0.3373	0.338	0.3433	0.3453
100		0.3527	0.336	0.3533	0.338

Graphics

Edit Date:





Report Date:

15 Nov-21 13:10 (p 1 of 4)

Test Code/ID: VCF1021.153 / 17-5430-3396

Fathead	Minne	ow 7-d Larval Si	urvival and	Growth	Test					Aquatic	Bio	assay &	Consulting	Labs, Inc
Analysis Analyzed	d:	03-1146-3617 15 Nov-21 13:10	Ana	lysis:	7d Survival Rat Linear Interpola	ition (ICPIN	•			S Version s Level:	n:	CETISv	1.9,7	
Edit Date	e:	15 Nov-21 13:09	MD5	Hash:	19557CD16D7	CD14AC13	97DB15F74	17219	Edito	r ID:		000-189	-126-0	
Batch ID):	17-8098-6405	Test	Туре:	Growth-Surviva	l (7d)			Analy	st:				
Start Dat	te:	26 Oct-21 14:10	Prot	ocol:	EPA/821/R-02-	013 (2002)			Dilue	nt: La	abora	atory Wa	ter	
Ending [Date:	02 Nov-21 14:15	Spe	cies:	Pimephales pro	melas			Brine	: No	ot Ap	oplicable		
Test Len	igth:	7d 0h	Taxo	on:	Actinopterygii				Sourc	ce: Ad	quati	ic Biosys	tems, CO	Age: <2
Sample	ID:	01-3804-3132	Cod	e:	VCF1021.153				Proje	ct: NI	PDE	S Storm	water Wet S	eason
•		25 Oct-21 12:45	Mate	erial:	Sample Water				Source	e: Bi	oass	say Repo	rt	
		25 Oct-21 15:27		(PC):					Static	on: M	0-0	JA		
Sample	Age:	25h (7.5 °C)	Clie	nt:	Ventura County	Watershe	d Protectior	n Distri						
Linear In	nterpo	lation Options												
X Transf	orm	Y Transform			Resamples	Exp 95%		hod						
Linear		Linear	0		280	Yes	Two	-Point	Interpo	lation				
Test Acc	eptab	oility Criteria	TAC Li	mits										
Attribute		Test Stat		Upper	Overlap	Decision								
Control F	Resp	1	0.8	>>	Yes	Passes C	Criteria							
Point Es	timate	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL	-							
EC10	>100	***	1500	<1		***								
			1444	<1										
	>100													
EC20	>100	***		<1	***									
EC20 EC25	>100 >100			<1 <1	_									
EC20 EC25 EC40	>100	***		<1	***									
EC20 EC25 EC40 EC50	>100 >100 >100 >100 >100			<1 <1 <1			ulated Vari	ato(A/R	3)				lenton	ic Variato
EC20 EC25 EC40 EC50 7d Survi	>100 >100 >100 >100 >100	 ate Summary		<1 <1 <1 <1	-	 Calc	ulated Vari			%Effect		Δ/R		ic Variate
EC20 EC25 EC40 EC50 7d Survi	>100 >100 >100 >100 >100			<1 <1 <1 <1 Mean	 Median	Calc	Max	CV%	%	%Effect		A/B	Mean	%Effect
EC20 EC25 EC40 EC50 7d Survi Conc-%	>100 >100 >100 >100 >100	ate Summary	 Count	<1 <1 <1 <1	Median 1.0000	 Calc			%	%Effect 0.00% 1.67%	-	A/B 60/60 59/60		
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25	>100 >100 >100 >100 >100	ate Summary	Count 4	<1 <1 <1 <1 Mean 1.0000	Median 1.0000 1.0000	Calco	Max 1.0000	CV %	% 0% 0%	0.00%		60/60	Mean 1.0000	%Effect 0.00%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25	>100 >100 >100 >100 >100	ate Summary		<1 <1 <1 <1 Mean 1.0000 0.9833	Median 1.0000 1.0000 0.9667	Calco Min 1.0000 0.9333	Max 1.0000 1.0000	0.00 3.39	% 0% 0% 2%	0.00% 1.67%	:	60/60 59/60	Mean 1.0000 0.9833	%Effect 0.00% 1.67%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100	ate Summary	Count 4 4 4 4	<1 <1 <1 <1 *1 *1 *1 *1.0000 0.9833 0.9500	Median 1.0000 1.0000 0.9667 0.9667	Calco Min 1.0000 0.9333 0.8667	Max 1.0000 1.0000 1.0000	0.00 3.39 6.72	% 9% 2%	0.00% 1.67% 5.00%		60/60 59/60 57/60	Mean 1.0000 0.9833 0.9708	%Effect 0.00% 1.67% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25	>100 >100 >100 >100 >100	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 0.9667 0.9667 1.0000	Calco Min 1.0000 0.9333 0.8667 0.8667	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00%		60/60 59/60 57/60 57/60	Mean 1.0000 0.9833 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 0.9667 0.9667 1.0000	Calco Min 1.0000 0.9333 0.8667 0.8667 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 0.9667 0.9667 1.0000	Calco Min 1.0000 0.9333 0.8667 0.8667 0.9333	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-%	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000	Calco Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 1 1.0000 1.0000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 1 1.0000 1.0000	<pre><1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000</pre> <pre>Rep 2 1.0000 1.0000</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 1 1.0000 1.0000 1.0000 0.9333 0.9333	<pre><1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25 12.5 25 50	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 1.0000 1.0000 0.9333	<pre><1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 4 4 4 4 4 1 1.0000 1.0000 1.0000 0.9333 0.9333	<pre><1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 1 1.0000 1.0000 1.0000 0.9333 0.9333	<pre><1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000	<pre><1 <1 <1 <1 <1 <1 <1 <0000 0.9833 0.9500 0.9500 0.9833 1.0000 Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000 1.0000</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 0.9333 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survir Conc-% 0 6.25 12.5 25 50 100 7d Survir Conc-% 0 6.25 12.5 25 50 100 7d Survir Conc-%	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1	<pre><1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000 Rep 2</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 0.9333 1.0000 1.0000 1.0000 1.0000 Rep 3	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 0.8667 1.0000 1.0000 1.0000 Rep 4	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survir Conc-% 0 6.25 12.5 25 50 100 7d Survir Conc-% 0 6.25 12.5 25 50 100 7d Survir Conc-% 0 6.25	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1 15/15	<pre><1 <1 <1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000 1.0000 </pre> <pre>Rep 2 15/15</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 0.9333 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survite Conc-% 0 6.25 12.5 25 50 100 7d Survite Conc-% 0 6.25 12.5 25 50 100 7d Survite Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1 15/15 15/15	<pre></pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 1.0000 0.9333 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25 50 100 7d Survi Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 1.0000 1.0000 0.9333 0.9333 1.0000 Rep 1 15/15 15/15	<pre><1 <1 <1 <1 <1 <1 <1 </pre> <pre>Mean 1.0000 0.9833 0.9500 0.9500 0.9833 1.0000 </pre> <pre>Rep 2 1.0000 1.0000 0.9333 0.8667 1.0000 1.0000 </pre> <pre>Rep 2 15/15 15/15 14/15</pre>	Median 1.0000 1.0000 0.9667 0.9667 1.0000 1.0000 Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.40000 1.4011 1.4/15 15/15	Calci Min 1.0000 0.9333 0.8667 0.8667 0.9333 1.0000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0015 15/15 15/15 13/15	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 3.39 6.72 6.72 3.39	% 9% 9% 2% 2%	0.00% 1.67% 5.00% 5.00% 1.67%		60/60 59/60 57/60 57/60 59/60	Mean 1.0000 0.9833 0.9708 0.9708 0.9708	%Effect 0.00% 1.67% 2.92% 2.92% 2.92%



Report Date:

15 Nov-21 13:10 (p 2 of 4)

Test Code/ID:

VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed:

03-1146-3617 15 Nov-21 13:10 15 Nov-21 13:09

Endpoint: 7d Survival Rate

Linear Interpolation (ICPIN) Analysis:

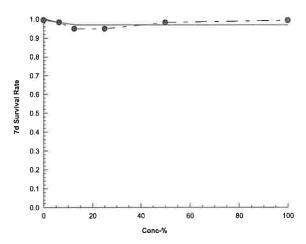
MD5 Hash: 19557CD16D7CD14AC1397DB15F747219

CETIS Version: Status Level:

Editor ID:

CETISv1.9.7 000-189-126-0

Edit Date: Graphics



Report Date:

15 Nov-21 13:10 (p 3 of 4)

VCF1021.153 / 17-5430-3396

									Test C	ode/ID:	VCF1021.153 / 1	7-5430-339
Fathea	d Minn	ow 7-d Larval St	urvival and	Growt	h Test					Aquatic Bi	oassay & Consulting	g Labs, Inc
Analysi	is ID:	16-7362-7417	End	point:	Mean Dry Biom	ass-mg			CETIS	Version:	CETISv1.9.7	
Analyz	ed:	15 Nov-21 13:10	Ana	lysis:	Linear Interpola	ition (ICPIN	1)		Status	Level:	1	
Edit Da	ate:	15 Nov-21 13:09	MD5	Hash:	A54737B3D3A	74EA0F8D	23587	1F487C99	Editor	· ID:	000-189-126-0	
Batch I	ID:	17-8098-6405	Test	Type:	Growth-Surviva	l (7d)			Analys	st:		
Start D	ate:	26 Oct-21 14:10	Prot	ocol:	EPA/821/R-02-	013 (2002)			Diluer	nt: Labo	ratory Water	
Ending	Date:	02 Nov-21 14:15	Spe	cies:	Pimephales promelas					Not A	pplicable	
Test Le	ength:	7d 0h	Taxo	on:	Actinopterygii					e: Aqua	tic Biosystems, CO	Age: <2
Sample	e ID:	01-3804-3132	Cod	e:	VCF1021.153					t: NPDI	ES Stormwater Wet S	Season
Sample	e Date:	25 Oct-21 12:45	Mate	erial:	Sample Water			Sourc	e: Bioas	ssay Report		
Receip	t Date:	25 Oct-21 15:27	CAS	(PC):				Statio	n: MO-0	DJA		
Sample	e Age:	25h (7.5 °C)	Clie	nt:	Ventura County	Watershe	d Prot	ection Distri				
Linear	Interpo	lation Options										
X Trans	sform	Y Transform	See	d	Resamples	Exp 95%	6 CL	Method				
Linear	inear Linear 1599308		308	280	Yes		Two-Point	Interpol	ation			
Attribut	te	Test Stat		Uppe	<u>.</u>	Decision						
Control	Resp	0.3418	0.25	>>	Yes	Passes C	Criteria					
Point E	Stimat	es										
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL	-					
IC10	>100	100		<1								
IC15	>100			<1								
IC20	>100	***	***	<1								
IC25	>100		***	<1								
IC40	>100			<1								
IC50	>100		***	<1								
Mean D	Dry Bio	mass-mg Summ	ary			Ca	lculat	ted Variate			Isoto	nic Variate
Conc-%	6	Code	Count	Mean	Median	Min	Max	x CV	/ o	%Effect	Mean	%Effec
0		N	4	0.341	8 0.3423	0.3387	0.34	44 0.7	7%	0.00%	0.3418	0.00%
6.25			4	0.340	7 0.3393	0.3373	0.34	467 1.25	5%	0.34%	0.3407	0.34%
12.5			4	0.323	7 0.3457	0.2513	0.3	52 15.0	00%	5.31%	0.3326	2.71%
25			4	0.320		0.2647	0.34			6.19%	0.3326	2.71%
50			4	0.341	0.3407	0.3373	0.34			0.24%	0.3326	2.71%
100			4	0.345		0.336	0.3			-0.93%	0.3326	2.71%
Mean D	Ory Bio	mass-mg Detail										
Conc-%	6	Code	Rep 1	Rep 2	Rep 3	Rep 4						
)		N	0.344	0.338		0.344						
3.25			0.3373	0.340		0.338						



0.352

0.3413

0.3373

0.3527

0.34

0.2647

0.338

0.336

0.3513

0.3373

0.3433

0.3533

0.2513

0.3393

0.3453

0.338

12.5

25

50

100

Report Date:

15 Nov-21 13:10 (p 4 of 4)

Test Code/ID:

VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d	Larval Survival a	nd Growth Test
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Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

Analysis ID: 16-7362-7417 **Analyzed:** 15 Nov-21 13:

Endpoint: Mean Dry Biomass-mg

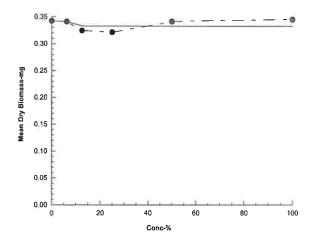
CETIS Version:

Analyzed: 15 Nov-21 13:10 **Edit Date:** 15 Nov-21 13:09

Analysis: Linear Interpolation (ICPIN)
MD5 Hash: A54737B3D3A74EA0F8D235871F487C99

Status Level: 1 **Editor ID:** 000-189-126-0

Graphics



Report Date: Test Code/ID: 15 Nov-21 13:10 (p 1 of 8) VCF1021.153 / 17-5430-3396

Fathead Minn	now 7-d Larval Survi	val and Growt	th Test	Aqı	uatic Bioassay & Consulting	g Labs, Inc.
Batch ID:	17-8098-6405	Test Type:	Growth-Survival (7d)	Analyst:		
Start Date:	26 Oct-21 14:10	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water	
Ending Date:	02 Nov-21 14:15	Species:	Pimephales promelas	Brine:	Not Applicable	
Test Length:	7d 0h	Taxon:	Actinopterygii	Source:	Aquatic Biosystems, CO	Age: <24
Sample ID:	01-3804-3132	Code:	VCF1021.153	Project:	NPDES Stormwater Wet S	Season
Sample Date:	25 Oct-21 12:45	Material:	Sample Water	Source:	Bioassay Report	
Receipt Date:	25 Oct-21 15:27	CAS (PC):		Station:	MO-OJA	
Sample Age:	25h (7.5 °C)	Client:	Ventura County Watershed Protection Distri			

Alkalinity	(CaCO3)	i-ma/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.06469	0.5175	0.85%	0
100		8	26	26	26	26	26	0	0	0.00%	0
Overall		16	43.31	33.78	52.84	26	61	4.471	17.88	41.29%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0
6.25		8	342.5	340.8	344.2	340	345	0.25	2	0.58%	0
12.5		8	352.1	350.9	353.3	350	355	0.1822	1.458	0.41%	0
25		8	346.9	342.9	350.8	337	353	0.588	4.704	1.36%	0
50		8	342.5	339.3	345.7	336	347	0.4772	3.817	1.11%	0
100		8	308.6	306.1	311.2	302	312	0.3776	3.021	0.98%	0
Overall		48	342.2	337.3	347	302	364	2.409	16.69	4.88%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.02216	0.1773	2.33%	0
6.25		8	7.413	7.187	7.638	7	7.8	0.0337	0.2696	3.64%	0
12.5		8	7.375	7.187	7.563	7	7.7	0.02815	0.2252	3.05%	0
25		8	7.337	7.177	7.498	7.1	7.6	0.02403	0.1923	2.62%	0
50		8	7.337	7.19	7.485	7.1	7.5	0.0221	0.1768	2.41%	0
100		8	7.337	7.159	7.516	7	7.6	0.02667	0.2134	2.91%	0
Overall		48	7.4	7.336	7.464	7	7.9	0.03193	0.2212	2.99%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.06469	0.5175	0.54%	0
100		8	55	55	55	55	55	0	0	0.00%	0
Overall		16	75.31	64.13	86.49	55	96	5.245	20.98	27.86%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.538	7.301	7.774	7	7.8	0.03532	0.2825	3.75%	0
12.5		8	7.487	7.281	7.694	7	7.7	0.03094	0.2475	3.31%	0
25		8	7.45	7.271	7.629	7	7.7	0.02673	0.2138	2.87%	0
50		8	7.425	7.253	7.597	7	7.7	0.02566	0.2053	2.76%	0
100		8	7.413	7.231	7.594	7	7.7	0.02709	0.2167	2.92%	0
Overal!		48	7.546	7.464	7.628	7	8	0.0406	0.2813	3.73%	0 (0%)

Report Date:

15 Nov-21 13:10 (p 2 of 8)

Test Code/ID:

VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°	C										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.04	23.98	24.1	24	24.2	0.009295	0.07436	0.31%	0
12.5		8	24.09	24	24.17	24	24.3	0.01238	0.09906	0.41%	0
25		8	24.13	24.04	24.21	24	24.3	0.01293	0.1035	0.43%	0
50		8	24.16	24.04	24.28	24	24.4	0.0176	0.1408	0.58%	0
100		8	24.18	24.04	24.31	24	24.5	0.02086	0.1669	0.69%	0
Overall		48	24.1	24.06	24.13	24	24.5	0.01774	0.1229	0.51%	0 (0%)

Report Date:

15 Nov-21 13:10 (p 3 of 8)

Test Code/ID:

VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

Alkalinity (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		60					
100				26					
0	N	2		60					
100				26					
0	N	3		60					
100				26					
0	N	4		61					
100				26					
0	N	5		61					
100				26					
0	N	6		61					
100				26					
0	N	7		61					
100				26					
0	N	8		61					
100				26					

Report Date: Test Code/ID: 15 Nov-21 13:10 (p 4 of 8) VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

Conductivity-	umhos								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				342					
12.5				352					
25				347					
50				336					
100				302					
0	N	2		360					
6.25				340					
12.5				353					
25				349					
50				339					
100				310					
0	N	3		354					
6.25				344					
12.5				355					
25				353					
50				344					
100				312					
0	N	4		360					
6.25				340					
12.5				352					
25				344					
50				342					
100				307					
0	N	5		364					
6.25		•		342					
12.5				350					
25				348					
50				344					
100				310					
0	N	6		362					
6.25				345					
12.5				351					
25				348					
50				347					
100				309					
0	N	7		362					
6.25	. •	•		345					
12.5				352					
25				337					
50				341					
100				309					
0	N	8		360					
6.25	14	J		342					
12.5				352					
25				349					
50				347					
100				310					

Report Date:

15 Nov-21 13:10 (p 5 of 8)

Test Code/ID:

VCF1021.153 / 17-5430-3396

Fathead Minno	w 7-d Larva	l Survival	and Grow	th Test				Aquatic Bioassay & Consulting Labs, Inc.			
Dissolved Oxy	gen-mg/L										
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes		
0	N	1		7.6							
6.25				7.6							
12.5				7.5							
25				7.5							
50				7.5							
100				7.5							
0	N	2		7.4							
6.25				7.3							
12.5				7.3							
25				7.4							
50				7.5							
100				7.6							
0	N	3		7.5							
6.25				7.4							
12.5				7.4							
25				7.3							
50				7.2				10			
100				7.2							
0	N	4		7.6							
6.25				7.2							
12.5				7.2							
25				7.1							
50				7.1							
100				7							
0	N	5		7.8							
6.25				7.7							
12.5				7.6							
25				7.5							
50				7.5							
100				7.5							
0	N	6		7.9							
6.25				7.8							
12.5				7.7							
25				7.6							
50				7.5							
100				7.5							
0	N	7		7.6							
6.25				7							
12.5				7							
25				7.1							
50				7.2							
100				7.2							
0	N	8		7.4							
6.25				7.3							
12.5				7.3							
25				7.2							
50				7.2							
100				7.2							



Report Date: Test Code/ID:

15 Nov-21 13:10 (p 6 of 8) VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval Survival and Growth Test

Hardness (Ca	CO3)-mg/L							
Conc-%	Code	Read	Time	Measure Q	QA Diff-%	Inst ID	Analyst	Notes
0	N	1		95				
100				55				
0	N	2		95				
100				55				
0	N	3		95				
100				55				
0	N	4		96				
100				55				
0	N	5		96				
100				55				
0	N	6		96				
100				55				
0	N	7		96				
100				55				
0	N	8		96				
100				55				

Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

15 Nov-21 13:10 (p 7 of 8) VCF1021.153 / 17-5430-3396

Test Code/ID:

pH-Units								
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8				
6.25				7				
12.5				7				
25				7				
50				7				
100				7				
0	N	2		8				
6.25				7.4				
12.5				7.4				
25				7.5				
50				7.5				
100				7.6				
)	N	3		7.8				
6.25				7.7				
12.5				7.6				
25				7.5				
50				7.5				
100				7.5				
0	N	4		8				
6.25	14			7.6				
				7.5				
12.5				7.5 7.5				
25 50								
50				7.5				
100				7.4				
0	N	5		8				
6.25				7.8				
12.5				7.7				
25				7.6				
50				7.5				
100				7.5				
0	N	6		7.9				
6.25				7.8				
12.5				7.7				
25				7.5				
50				7.4				
100				7.3				
0	N	7		8				
6.25				7.7				
12.5				7.7				
25				7.7				
50				7.7				
100				7.7				
0	N	8		8				
6.25	IN	J		7.3				
0.25 12.5				7.3				
				7.3				
25				7.3 7.3				
50								

Report Date:

15 Nov-21 13:10 (p 8 of 8)

Test Code/ID:

VCF1021.153 / 17-5430-3396

Fathead Minnow 7-d Larval	Survival and Growth Test
I dilicud minilion I-d Ediva	Out titul alla Olombi lost

Temperature-°C									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
6.25				24.1					
12.5				24.1					
25				24.2					
50				24.2					
100				24.2					
0	N	2		24					
6.25				24.2					
12.5				24.3					
25				24.3					
50				24.4					
100				24.5					
0	N	3		24					
6.25				24					
12.5				24					
25				24					
50				24					
100				24					
0	Ν	4		24					
6.25				24					
12.5				24					
25				24.1					
50				24.1					
100				24.1					
0	N	5		24					
6.25				24					
12.5				24.1					
25				24.1					
50 100				24.2 24.2					
0	N	6		24					
6.25				24					
12.5 25				24.1 24.2					
50				24.2					
100				24.3					
0	N	7		24.0					
6.25	IN	1		24					
12.5				24.1					
25				24.1					
50				24.1					
100				24.1					
0	N	8		24					
6.25	14	5		24					
12.5				24					
25				24					
50				24					
100				24					



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*" *EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-MEI

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.154

CHRONIC FATHEAD MINNOW SURVIVAL & GROWTH BIOASSAY

SURVIVAL NOEC =

100.00 %

TUc =

1.00

EC25 =

>100.00 %

EC50 =

>100.00 %

BIOMASS

NOEC = 100.00 %

TUc =

1.00

IC25 =

>100.00 %

IC50 =

>100.00 %

Yours very truly.

Scott Johnson

Laboratory Director

Report Date:

15 Nov-21 13:16 (p 1 of 2) 272

Test Code/ID:	VCF1021.154 / 15-9053-727

Fathead Minn	ow 7-d Larval Sı	urvival and Grov	vth Test					Aquatic	Bioassay & 0	Consulting	Labs,	Inc.
Batch ID: Start Date: Ending Date: Test Length:	10-9527-0381 26 Oct-21 14:15 02 Nov-21 14:19 7d 0h	Protocol:	Growth-Surviv EPA/821/R-02 Pimephales p Actinopterygii	2-013 (2002) romelas			Dilu Brir	ne: No	aboratory Wate ot Applicable quatic Biosyste		Age:	<24
•	16-7996-9723 25 Oct-21 14:30 25 Oct-21 15:27 24h (13 °C)	Code: Material: CAS (PC) Client:	VCF1021.154 Sample Wate : Ventura Coun	r	l Protection	ı Dist	Sou Stat	rce: Bi	PDES Stormw oassay Repor O-MEI		ason	
Multiple Com	parison Summai	гу										
Analysis ID	Endpoint		nparison Metho			/ NO	DEL	LOEL	TOEL	PMSD	TU	5
09-9316-9000	7d Survival Rate	Stee	el Many-One Rar	nk Sum Test		10	00	>100		8.87%	1	113
14-1010-2715	Mean Dry Bioma	iss-mg Dun	nett Multiple Cor	mparison Test	t	10	00	>100		2.39%	1	- 2
Point Estimat	e Summary											
Analysis ID	Endpoint	Poir	nt Estimate Met	hod		/ Le	evel	%	95% LCL	95% UCL	TU	
05-3267-7387	7d Survival Rate	Line	ar Interpolation ((ICPIN)		/ E	C10	>100			<1	i.
					•	/ E	215	>100			<1	
					,	/ E	C20	>100		***	<1	
						/ E	C25	>100		****	<1	
							C40	>100		***	<1	
						/ E		>100		***	<1	
01-5726-4277	Mean Dry Bioma	iss-mg Line	ar Interpolation ((ICPIN)		/ IC		>100			<1	3
					•	/ IC		>100			<1	
						/ IC		>100			<1	
						/ IC		>100		•••	<1	
						/ IC / IC		>100 >100			<1 <1	
Test Acceptat	nility					-		- 100	277			-
Analysis ID	Endpoint	Attr	ibute	Test Stat	TAC Lower		s oper	Overlap	Decision			
	7d Survival Rate		trol Resp	1	0.8	>>		Yes	Passes Ci	riteria		
	7d Survival Rate		trol Resp	1	0.8	>>		Yes	Passes Ci			
	Mean Dry Bioma		trol Resp	0.3418	0.25	>>	•	Yes	Passes Ci			
	Mean Dry Bioma	-	trol Resp	0.3418	0.25	>>		Yes	Passes Ci			
	Mean Dry Bioma	•	•	0.02389	0.12	0.3	3	Yes	Below Crit	eria		
7d Survival R	ate Summary											
Conc-%	Code	Count Mea			Min	Ma		Std Err		CV%	%Eff	_
0	N	4 1.00		1.0000	1.0000		0000	0.0000	0.0000		0.009	
6.25		4 1.00		1.0000	1.0000		0000	0.0000	0.0000	***	0.009	
12.5		4 0.93		1.1450	0.7333		0000	0.0667	0.1333	14.29%	6.679	
25 - 0		4 0.98		1.0360	0.9333		0000	0.0167	0.0333	3.39%	1.679	
50 100		4 1.00 4 0.96		1.0000 1.0730	1.0000 0.8667		0000	0.0000 0.0333	0.0000 0.0667	 6.90%	0.009 3.339	
			0.0000	1.0730	0.0007	1.1		0.0000	0.0007	0.5076	0.007	, u
	mass-mg Summ	_	0E9/ LCI	_ 95% UCL	Min	Ma	n.v	Ctd Err	Std Day	CV%	%Eff	o o t
Conc-%	Code N	4 0.34		0.346	0.3387		344	O.00131		0.77%	0.009	_
6.25	14	4 0.34		0.3407	0.336	0.3		0.00131		0.77%	1.129	
12.5		4 0.34		0.3491	0.3393		3467	0.00060		0.97%	-0.59	
25		4 0.34		0.3592	0.3393		3567	0.00100		2.62%	-0.88	
50		4 0.33		0.3448	0.3293		3413	0.00264		1.57%	1.619	
100		4 0.33		0.3435	0.336		3427	0.00207		0.81%	0.789	
		. 0.00	0.00-0	0.0 100	0.000	٠.٠		5.55 101	. 5.552172	5.5.70	3.737	. •

CETIS Summary Report

Report Date:

15 Nov-21 13:16 (p 2 of 2)

						Test Code/ID:	VCF1021.154 / 15-9053-7272
Fathead Minn	ow 7-d Larval	Survival an	d Growth T	est		Aquatic Bio	oassay & Consulting Labs, Inc.
7d Survival R	ate Detail					MD5: A3EC6290	0922159B3DE1DEC18CCB6D09A
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	1.0000	1.0000	1.0000	1.0000		
6.25		1.0000	1.0000	1.0000	1.0000		
12.5		1.0000	1.0000	1.0000	0.7333		
25		1.0000	0.9333	1.0000	1.0000		
50		1.0000	1.0000	1.0000	1.0000		
100		0.8667	1.0000	1.0000	1.0000		
Mean Dry Bio	mass-mg Deta	ail				MD5: D2315CA2	24D53B4E3E8BA28542D5E8C4E
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	0.344	0.3387	0.3407	0.344		
6.25		0.3387	0.3373	0.34	0.336		
12.5		0.3433	0.346	0.3393	0.3467		
25		0.34	0.3467	0.3567	0.336		
50		0.3413	0.3293	0.3353	0.3393		
100		0.3387	0.336	0.3427	0.3393		
7d Survival R	ate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	15/15	15/15	15/15	15/15		
6.25		15/15	15/15	15/15	15/15		
12.5		15/15	15/15	15/15	11/15		
25		15/15	14/15	15/15	15/15		
50		15/15	15/15	15/15	15/15		
100		13/15	15/15	15/15	15/15		

Report Date: Test Code/ID: 15 Nov-21 13:16 (p 1 of 4) VCF1021.154 / 15-9053-7272

											rest	Code/ID:	VCFI	021.1547 1	5-9053-72				
Fathead Minn	ow 7	'-d Larval S	urviva	al and Growt	h Te	st						Aquatic	Bioassay &	Consulting	Labs, Inc				
Analysis ID:	09-9	316-9000		Endpoint:	7d	Survival Rat	:e				CETI	S Version	: CETISV	1.9.7					
Analyzed:	15 N	lov-21 13:1	5	Analysis:	Nor	nparametric-	-Control	l vs T	reatments		Statu	us Level:	1						
Edit Date:	15 N	lov-21 13:14	4	MD5 Hash:	A38	EC62909221	159B3D	E1D	EC18CCB	6D09	Edito	or ID:	000-189	-126-0					
Batch ID:	10-9	527-0381		Test Type:	Gro	wth-Surviva	ıl (7d)				Anal	yst:							
Start Date:	26 C	oct-21 14:15	5	Protocol:		A/821/R-02-		02)			Dilue		boratory Wa	ter					
Ending Date:	02 N	lov-21 14:19	9	Species:		nephales pro	•	,			Brine		t Applicable	cory Water colicable dis Biosystems, CO dis Stormwater Wet Sea ay Report dis Colombia dis Stormwater Wet Sea ay Report dis Colombia dis					
Test Length:				Taxon:		inopterygii					Sour			tems, CO	Age: <2				
Sample ID:	16-7	996-9723		Code:	VC	F1021.154					Proje	ect: NF	DES Storm	water Wet S	eason				
Sample Date:	25 C	oct-21 14:30)	Material:		nple Water					Sour		assay Repo						
Receipt Date:				CAS (PC):							Stati		D-MEI	••					
Sample Age:				Client:	Ver	ntura County	/ Water	shed	Protection	Dietri	Otati	011.) WILI						
		(10 0)			V ():	ntara odani,	· · · · · · · · · · · · · · · · · · ·	oncu											
Data Transfor	_		Alt		_				NOEL	LOE		TOEL	TU		PMSD				
Angular (Corre	ected)	C > .	I .					100	>100)		1	0.08869	8.87%				
Steel Many-O	ne R	ank Sum Te	est																
Control	vs	Conc-%		Test	Stat	Critical	Ties	DF	P-Type	P-Va	alue	Decision	n(a:5%)						
Negative Cont	rol	6.25		18		10	1	6	CDF	0.83	33	Non-Sigr	nificant Effec	t					
		12.5		16		10	1	6	CDF	0.61	05	Non-Sigr	nificant Effec	:t					
		25		16		10	1	6	CDF	0.61	05	Non-Sigr	nificant Effec	:t					
		50		18		10	1	6	CDF	0.83	33	Non-Sigr	nificant Effec	:t					
		100		16		10	1	6	CDF	0.61	05	Non-Sigr	nificant Effec	:t					
Test Acceptat	bility	Criteria	т	AC Limits															
Attribute		Test Stat			r	Overlap	Decis	ion											
Control Resp		1	0.8	>>		Yes	Passe	es Cr	iteria										
ANOVA Table																			
Source		Sum Squ	ares	Mean	Sai	ıare	DF		F Stat	P-Va	alue	Decision	n(a:5%)						
Between		0.0359876		0.007	_		5		0.6972	0.63			nificant Effec	t .					
Error		0.185819	-	0.010			18		0.00.	0.00		rion wig.		•					
Total		0.221806					23		-										
ANOVA Assur	mptic	ons Tests						_											
Attribute		Test					Test S	Stat	Critical	P-Va	alue	Decision	n(α:1%)						
Variance		Bartlett Ed	uality	of Variance	est							Indeterm							
				of Variance	_		6.275		4.248	0.00	15		Variances						
				uality of Varia		Test	0.697	2	4.248	0.63		Equal Va							
Distribution		Anderson-		•			2.72	_	3.878		E-05		mal Distribut	ion					
		D'Agostino		_			3.165		2.576	0.00			mal Distribut						
		_		vness Test			3.709		2.576	0.00			mal Distribut						
		_		son K2 Omni	bus	Test	23.77		9.21		E-05		mal Distribut						
		Ū		irnov D Test			0.375		0.2056		E-05		mal Distribut						
		•		Normality Te	st		0.734		0.884	3.0⊟			mal Distribut						
7d Survival R	ate S	ummarv																	
Conc-%	0	Code	Cou	nt Mean		95% LCL	95% L	ICI	Median	Min		Max	Std Err	CV%	%Effect				
)		N	4	1.000		1.0000	1.000		1.0000	1.00	00	1.0000	0.0000	0.00%	0.00%				
6.25			4	1.000		1.0000	1.0000		1.0000	1.00		1.0000	0.0000	0.00%	0.00%				
40.5			-	1.000	_	0.7040	1.0000		1.0000	0.70		1.0000	0.0000	14.200/	6.0070				



14.29%

3.39%

0.00%

6.90%

6.67%

1.67%

0.00%

3.33%

0.0667

0.0167

0.0000

0.0333

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

0.7333

0.9333

1.0000

0.8667

0.7212

0.9303

1.0000

0.8606

0.9333

0.9833

1.0000

0.9667

4

4

4

12.5

25

50

100

Report Date: Test Code/ID: 15 Nov-21 13:16 (p 2 of 4) VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 09-9316-9000 Endpoint: 7d Survival Rate CETIS Version: CETISv1.9.7

Analyzed: 15 Nov-21 13:15 Analysis: Nonparametric-Control vs Treatments Status Level: 1

Edit Date: 15 Nov-21 13:14 MD5 Hash: A3EC6290922159B3DE1DEC18CCB6D09 Editor ID: 000-189-126-0

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
6.25		4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
12.5		4	1.3380	1.0090	1.6670	1.4410	1.0280	1.4410	0.1033	15.44%	7.17%
25		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
50		4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
100		4	1.3800	1.1860	1.5750	1.4410	1.1970	1.4410	0.0611	8.85%	4.24%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4			
0	N	1.0000	1.0000	1.0000	1.0000			
6.25		1.0000	1.0000	1.0000	1.0000			
12.5		1.0000	1.0000	1.0000	0.7333			
25		1.0000	0.9333	1.0000	1.0000			
50		1.0000	1.0000	1.0000	1.0000			
100		0.8667	1.0000	1.0000	1.0000			

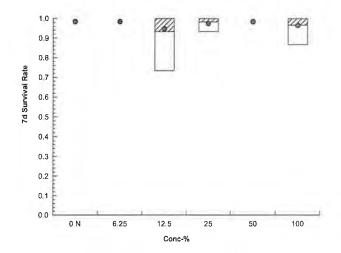
Angular (Corrected) Transformed Detail

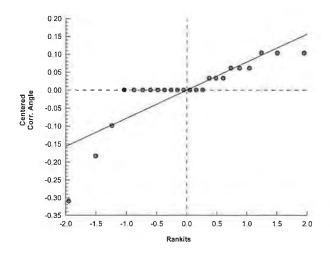
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.4410	1.4410	1.4410	1.4410
6.25		1.4410	1.4410	1.4410	1.4410
12.5		1.4410	1.4410	1.4410	1.0280
25		1.4410	1.3100	1.4410	1.4410
50		1.4410	1.4410	1.4410	1.4410
100		1.1970	1.4410	1.4410	1.4410

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
6.25		15/15	15/15	15/15	15/15
12.5		15/15	15/15	15/15	11/15
25		15/15	14/15	15/15	15/15
50		15/15	15/15	15/15	15/15
100		13/15	15/15	15/15	15/15

Graphics







Report Date:

15 Nov-21 13:16 (p 3 of 4)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minne	ead Minnow 7-d Larval Surviv			and Growth	ı Tes	st						Aquat	ic Bi	oassay & C	Consulting	Labs, Inc
•		010-2715 lov-21 13:15		Endpoint: Analysis:		in Dry Biom ametric-Con	_	reat	tments			IS Versi us Leve		CETISv1.	9.7	
Edit Date:	15 N	lov-21 13:14		MD5 Hash:	D23	15CA24D5	BB4E3E	8BA	28542D5E	8C4E	Edite	or ID:		000-189-1	126-0	
Batch ID:	10-9	527-0381		Test Type:	Grov	wth-Surviva	(7d)				Anal	yst:				
Start Date:	26 C	ct-21 14:15	F	Protocol:	EPA	/821/R-02-	013 (200	02)			Dilue	-	Laboi	ratory Wate	er	
Ending Date:	02 N	lov-21 14:19) {	Species:		ephales pro		•			Brin			pplicable		
Test Length:				Γaxon:	Acti	nopterygii					Soul	rce:	Aqua	tic Biosyste	ems, CO	Age: <24
Sample ID:	16-7	996-9723	(Code:	VCF	1021.154					Proje	ect:	NPDE	ES Stormw	ater Wet S	eason
Sample Date:						ple Water					Soul			say Report		
Receipt Date:				CAS (PC):							Stati		MO-N			
Sample Age:	24h	(13 °C)			Ven	tura County	Waters	hed	Protection	Distri						
Data Transfori	m		Alt Hy	/p					NOEL	LOE	L	TOEL		TU	MSDu	PMSD
Untransformed			C > T						100	>10)			1	0.008165	2.39%
Dunnett Multip	ple C	omparison	Test													
Control	vs	Conc-%		Test S	itat	Critical	MSD	DF	P-Type	P-V	alue	Decis	ion(a	ı:5%)		
Negative Contr	ol	6.25		1.13		2.407	0.008	6	CDF	0.36	58	Non-S	Signifi	cant Effect		
		12.5		-0.589	6	2.407	0.008	6	CDF	0.95	10	Non-S	Signifi	cant Effect		
		25		-0.884	4	2.407	0.008	6	CDF	0.97	65	Non-S	Signifi	cant Effect		
		50		1.621		2.407	800.0	6	CDF	0.19	12	Non-S	Signifi	cant Effect		
		100		0.7861	1	2.407	0.008	6	CDF	0.51	86	Non-S	Signifi	cant Effect		
Test Acceptab	ility	Criteria	TA	C Limits												
Attribute		Test Stat				Overlap	Decis	ion								
Control Resp		0.3418	0.25	>>		Yes	Passe	s Cr	iteria							
PMSD		0.02389	0.12	0.3		Yes	Below	Crit	eria							
ANOVA Table																
Source		Sum Squa	ares	Mean	Squ	are	DF		F Stat	P-V	alue	Decis	ion(o	ı:5%)		
Between		0.0002276	i	4.551	E-05		5		1.978	0.13	10	Non-S	Signifi	cant Effect		
Error		0.0004142		2.301	E-05		18									
Total		0.0006418					23		Y							
ANOVA Assun	nptic	ns Tests														
Attribute		Test					Test S	tat	Critical	P-V	alue	Decis	ion(o	r:1%)		
Variance		Bartlett Eq	uality of	Variance T	est		9.664		15.09	0.08	53	Equal	Varia	ances		
				FVariance T			3.008		4.248	0.03	81	Equal	Varia	ances		
		Mod Lever	ne Equa	lity of Variar	nce T	Γest	2.57		4.248	0.06	35	Equal	Varia	ances		
Distribution		Anderson-	Darling	A2 Test			0.4617	,	3.878	0.26	29	Norma	al Dis	tribution		
		D'Agostino	Kurtos	is Test			1.717		2.576	0.08	59	Norm	al Dis	tribution		
		D'Agostino	Skewn	ess Test			0.8385	5	2.576	0.40	17	Norm	al Dis	tribution		
		D'Agostino	-Pearso	n K2 Omnil	ous 1	Гest	3.652		9.21	0.16	10	Norma	al Dis	tribution		
		Kolmogoro	ov-Smirr	nov D Test			0.1214	ļ	0.2056	0.47	73	Norm	al Dis	tribution		
		Shapiro-W	ilk W N	ormality Tes	st		0.9547	7	0.884	0.34	22	Norm	al Dis	tribution		
Mean Dry Bior	nass	s-mg Summ	агу													
Conc-%		Code	Count			95% LCL	95% U	CL	Median	Min		Max		Std Err	CV%	%Effect
0		N	4	0.3418	3	0.3376	0.346		0.3423	0.33		0.344		0.001316	0.77%	0.00%
6.25			4	0.338		0.3353	0.3407	7	0.338	0.33		0.34		0.000860	0.51%	1.12%
12.5			4	0.3438	3	0.3385	0.3491		0.3447	0.33		0.346		0.001664	0.97%	-0.59%
25			4	0.3448	3	0.3305	0.3592	2	0.3433	0.33		0.356		0.004516	2.62%	-0.88%
50			4	0.3363	3	0.3279	0.3448	3	0.3373	0.32	93	0.341	3	0.002646	1.57%	1.61%
100			4	0.3392	2	0.3348	0.3435	5	0.339	0.33	6	0.342	7	0.001371	0.81%	0.78%

Report Date: Test Code/ID: 15 Nov-21 13:16 (p 4 of 4) VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 14-1010-2715 Endpoint: Mean Dry Biomass-mg CETIS Version: CETISv1.9.7

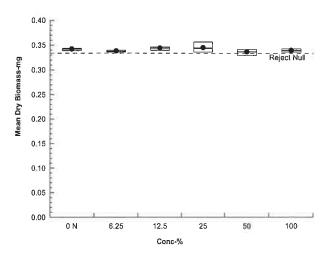
 Analyzed:
 15 Nov-21 13:15
 Analysis:
 Parametric-Control vs Treatments
 Status Level:
 1

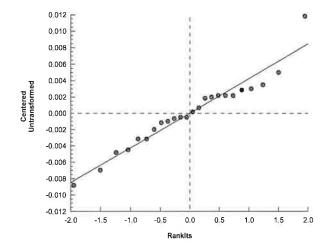
 Edit Date:
 15 Nov-21 13:14
 MD5 Hash:
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 Editor ID:
 000-189-126-0

Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.344	0.3387	0.3407	0.344
6.25		0.3387	0.3373	0.34	0.336
12.5		0.3433	0.346	0.3393	0.3467
25		0.34	0.3467	0.3567	0.336
50		0.3413	0.3293	0.3353	0.3393
100		0.3387	0.336	0.3427	0.3393

Graphics





Report Date:

15 Nov-21 13:16 (p 1 of 4)

Test Code/ID: VCF1021.154 / 15-9053-7272

Fathea	d Minn	ow 7-d Larval S	urvival and	Growt	h Test					Aquati	ic Bi	oassay &	Consulting	Labs, Inc
Analys	is ID:	05-3267-7387		lpoint:	7d Survival Ra				CET	IS Versi	on:	CETISv	1.9.7	
Analyz	ed:	15 Nov-21 13:15		lysis:	Linear Interpola		•		State	us Level	:	1		
Edit Da	ate:	15 Nov-21 13:14	MD	5 Hash:	A3EC6290922	159B3DE1	DEC18C	CB6D09	Edit	or ID:		000-189	-126-0	
Batch I	ID:	10-9527-0381	Tes	t Type:	Growth-Surviva	al (7d)			Anal	yst:				
Start D	ate:	26 Oct-21 14:15	Pro	tocol:	EPA/821/R-02-	-013 (2002))		Dilu	ent: I	_abo	ratory Wa	ter	
Ending	Date:	02 Nov-21 14:19	Spe	cies:	Pimephales pro	omelas			Brin	e: l	Not A	Applicable		
Test Le	ength:	7d 0h	Tax	on:	Actinopterygii				Sou	rce:	Aqua	itic Biosys	tems, CO	Age: <24
Sample	e ID:	16-7996-9723	Cod	le:	VCF1021.154			-	Proj	ect: i	NPD	ES Storm	water Wet S	eason
Sample	e Date:	25 Oct-21 14:30	Mat	erial:	Sample Water				Sou	rce: I	Bioas	ssay Repo	ort	
Receip	t Date:	25 Oct-21 15:27	CAS	S (PC):					Stati	ion: l	NO-I	MEI		
Sample	e Age:	24h (13 °C)	Clie	nt:	Ventura County	y Watershe	d Protec	tion Distri						
Linear	Interpo	olation Options												
X Tran	sform	Y Transform	See	d	Resamples	Exp 95%	6 CL N	lethod						
Linear		Linear	0		280	Yes	T	wo-Point	Interp	olation				
Test A	cceptal	bility Criteria	TAC L	imits										
Attribu	te	Test Stat	Lower	Uppe	r Overlap	Decision	1							
Control	Resp	1	0.8	>>	Yes	Passes (Criteria							
Point E	stimat	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCI	L							
EC10	>100	***		<1	***									
EC15	>100			<1	***	***								
EC20	>100		***	<1										
EC25	>100			<1										
EC40	>100		***	<1		***								
EC50	>100	100	-	<1	***	355								
7d Sur	vival R	ate Summary		_		Calc	ulated V	ariate(A/E	3)				Isotor	nic Variate
Conc-%	6	Code	Count	Mean	Median	Min	Max	CV	/6	%Effe		A/B	Mean	%Effect
0		N	4	1.000		1.0000	1.0000	0.00)%	0.00%		60/60	1.0000	0.00%
6.25			4	1.000		1.0000	1.0000			0.00%		60/60	1.0000	0.00%
12.5			4	0.933		0.7333	1.0000			6.67%		56/60	0.9722	2.78%
25			4	0.983		0.9333	1.0000			1.67%		59/60	0.9722	2.78%
50			4	1.000		1.0000	1.0000			0.00%		60/60	0.9722	2.78%
100			4	0.966	7 1.0000	0.8667	1.0000	0 6.90)%	3.33%		58/60	0.9667	3.33%
7d Sur	vival R	ate Detail												
Conc-%	6	Code	Rep 1	Rep 2		Rep 4								
0		N	1.0000	1.000		1.0000								
6.25			1.0000	1.000		1.0000								
12.5			1.0000	1.000		0.7333								
25			1.0000	0.933		1.0000								
50			1.0000	1.000		1.0000								
100			0.8667	1.000	0 1.0000	1.0000								
7d Sur	vival R	ate Binomials												
Conc-%	6	Code	Rep 1	Rep 2		Rep 4								
0		N	15/15	15/15		15/15								
6.25			15/15	15/15		15/15								
12.5			15/15	15/15		11/15								
25			15/15	14/15		15/15								
50			15/15	15/15		15/15								
100			13/15	15/15	15/15	15/15								



Report Date:

15 Nov-21 13:16 (p 2 of 4)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 05-3267-7387 **Analyzed:** 15 Nov-21 13:

15 Nov-21 13:15 15 Nov-21 13:14 Endpoint: 7d Survival Rate

Analysis: Linear Interpolation (ICPIN)
MD5 Hash: A3EC6290922159B3DE1DEC18CCB6D09

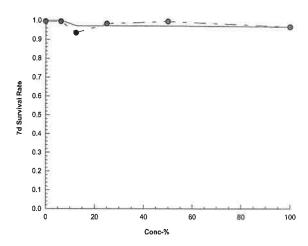
CETIS Version:

Status Level: Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

15 Nov-21 13:16 (p 3 of 4)

Test Code/ID: VCF1021.154 / 15-9053-7272

									Test Code	/ID:	VCF10	21.154 / 1	5-9053-727
Fathea	ad Minn	ad Minnow 7-d Larval Survival an			h Test			Aquatic Bioassay & Consulting Labs, Inc					
Analys	sis ID:	01-5726-4277	End	dpoint:	Mean Dry Biom	nass-mg			CETIS Ver	sion:	CETISv1.	9.7	
Analyz	zed:	15 Nov-21 13:1	5 An a	alysis:	Linear Interpola	ation (ICPIN)		Status Lev	rel:	1		
Edit D	ate:	15 Nov-21 13:1	4 M D	5 Hash:	D2315CA24D5	3B4E3E8BA	\28542D	5E8C4E	Editor ID:		000-189-1	126-0	
Batch	ID:	10-9527-0381	Tes	t Type:	Growth-Surviva	ıl (7d)			Analyst:				
Start D	Date:	26 Oct-21 14:15	Pro	tocol:	EPA/821/R-02-	013 (2002)			Diluent:	Labo	ratory Wate	r	
Ending	g Date:	02 Nov-21 14:1	9 Sp e	ecies:	Pimephales pro	omelas			Brine:	Not A	Applicable		
Test L	ength:	7d 0h	Tax	on:	Actinopterygii				Source:	Aqua	tic Biosyste	ms, CO	Age: <24
Sampl	le ID:	16-7996-9723	Co	de:	VCF1021.154				Project:	NPDE	ES Stormwa	ater Wet S	Season
Sampl	le Date:	25 Oct-21 14:30) Ma	terial:	Sample Water				Source:	Bioas	say Report		
Receip	pt Date:	25 Oct-21 15:27	CA	S (PC):					Station:	MO-N	ΛΕΙ.		
Sampl	le Age:	24h (13 °C)		ent:	Ventura County	/ Watershed	Protect	ion Distri					
Linear	Interpo	olation Options											
	sform	Y Transform	n See	ed	Resamples	Exp 95%	CL M	lethod					
Linear		Linear	165	3261	280	Yes		wo-Point	Interpolation				
Test A	cceptal	bility Criteria	TAO.	1									
Attribu	•	Test Stat		imits. Uppe	r Overlap	Decision							
Contro		0.3418	0.25	>>	Yes	Passes C	riteria						
Point I	Estimat	es											
Level	%	95% LCL	95% UCL	. TU	95% LCL	95% UCL							
IC10	>100	1		<1		100							
IC15	>100			<1									
IC20	>100			<1	***	***							
IC25	>100	 -		<1									
IC40	>100	***		<1									
IC50	>100			<1									
Mean	Dry Bio	mass-mg Sumr	nary			Cal	culated	Variate				Isoto	nic Variate
						Min	Max	CV	% %Ef	fect		Mean	%Effect
	%	Code	Count	Mean	Median	IALLII	Max						
Conc-	%	Code N	Count 4	Mean 0.341		0.3387	0.344	0.77		%		0.3421	0.00%
Conc- 0	%				8 0.3423				′% 0.00			0.3421 0.3421	0.00% 0.00%
Conc- 0 6.25	%		4	0.341	8 0.3423 0.338	0.3387	0.344	0.77 0.57	7% 0.00 1% 1.12	%			
Conc- 0 6.25 12.5	%		4 4	0.341 0.338	8 0.3423 0.338 8 0.3447	0.3387 0.336	0.344 0.34	0.77 0.57 0.97	7% 0.00 1% 1.12 7% -0.59	% 9%		0.3421	0.00%
Conc-6 0 6.25 12.5 25	%		4 4 4	0.341 0.338 0.343	8 0.3423 0.338 8 0.3447 8 0.3433	0.3387 0.336 0.3393	0.344 0.34 0.3467	0.77 0.57 0.97 2.62	7% 0.00 1% 1.12 7% -0.59 2% -0.88	% 9% 3%		0.3421 0.3421	0.00% 0.00%

Mean I	Dry Biom	ass-mg	Detail
--------	----------	--------	--------

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.344	0.3387	0.3407	0.344
6.25		0.3387	0.3373	0.34	0.336
12.5		0.3433	0.346	0.3393	0.3467
25		0.34	0.3467	0.3567	0.336
50		0.3413	0.3293	0.3353	0.3393
100		0.3387	0.336	0.3427	0.3393



Report Date:

15 Nov-21 13:16 (p 4 of 4)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 01-5726-4277 Analyzed: 15 Nov-21 13:15 Endpoint: Mean Dry Biomass-mg Analysis:

Linear Interpolation (ICPIN)

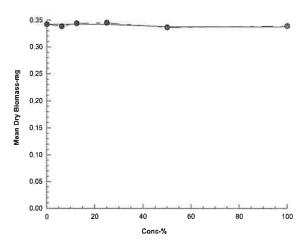
CETIS Version: Status Level:

CETISv1.9.7

Edit Date: 15 Nov-21 13:14 MD5 Hash: D2315CA24D53B4E3E8BA28542D5E8C4E Editor ID:

000-189-126-0

Graphics



Report Date:

15 Nov-21 13:16 (p 1 of 8)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minn	ow 7-d Larval S	urviva	and Growt	h Test				Aqua	tic Bioassay &	Consultin	g Labs, Inc.
Batch ID: Start Date: Ending Date; Test Length:	10-9527-0381 26 Oct-21 14:15 02 Nov-21 14:15 7d 0h		Test Type: Protocol: Species: Taxon:	Growth-Surviv EPA/821/R-02 Pimephales pr Actinopterygii	-013 (2002)			Analyst: Diluent: Brine: Source:	Laboratory Wa Not Applicable Aquatic Biosys		A ge: <24
	16-7996-9723 25 Oct-21 14:30 25 Oct-21 15:27		Code: Material: CAS (PC):	VCF1021.154 Sample Water				Project: Source: Station:	NPDES Storm ^o Bioassay Repo MO-MEI		Season
Sample Age:	24h (13 °C)		Client:	Ventura Count	y Watershe	d Protect	ion Distri				
Alkalinity (Cat	CO3)-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.0646	69 0.5175	0.85%	0
100		8	94	94	94	94	94	0	0	0.00%	0
Overall		16	77.31	68.13	86.5	60	94	4.31	17.24	22.30%	0 (0%)
Conductivity-	μmhos										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0
6.25		8	378.8	370.1	387.4	354	388	1.295	10.36	2.74%	0
12.5		8	416.6	411.9	421.4	409	425	0.710	1 5.68	1.36%	0
25		8	486.1	479.6	492.7	472	494	0.9784	4 7.827	1.61%	0
50		8	585.4	573.7	597	562	598	1.745	13.96	2.38%	0
100		8	813.2	810.3	816.2	810	820	0.447	3.576	0.44%	0
Overall		48	506.8	460.9	552.7	354	820	22.82	158.1	31.19%	0 (0%)
Dissolved Oxy	ygen-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	r Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.022	16 0.1773	2.33%	0
6.25		8	7.538	7.365	7.71	7.3	7.8	0.0258	32 0.2066	2.74%	0
12.5		8	7.462	7.302	7.623	7.2	7.7	0.0240	0.1923	2.58%	0
25		8	7.4	7.266	7.534	7.2	7.6	0.0200	0.1604	2.17%	0
50		8	7.35	7.232	7.468	7.2	7.5	0.0176	8 0.1414	1.92%	0
100		8	7.263	7.108	7.417	7	7.5	0.0230	0.1847	2.54%	0
Overall		48	7.435	7.376	7.495	7	7.9	0.0294	0.2037	2.74%	0 (0%)
Hardness (Ca	CO3)-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	r Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.0646	69 0.5175	0.54%	0
100		8	125	125	125	125	125	0	0	0.00%	0
Overall		16	110.3	102.2	118.4	95	125	3.793	15.17	13.75%	0 (0%)
pH-Units											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	r Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.45	7.209	7.691	7	7.8	0.0359	98 0.2878	3.86%	0
12.5		8	7.425	7.207	7.643	7	7.7	0.0325	6 0.2605	3.51%	0
25		8	7.425	7.231	7.619	7	7.7	0.0289	0.2315	3.12%	0
50		8	7.4	7.21	7.59	7	7.7	0.0283		3.06%	0
100		8	7.413	7.221	7.604	7	7.7	0.0286		3.10%	0
a "						_					



3.96%

0 (0%)

0.2972

0.0429

7.599

7.426

7.513

48

Overall

Report Date:

15 Nov-21 13:16 (p 2 of 8)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.03	23.97	24.08	24	24.2	0.008836	0.07069	0.29%	0
12.5		8	24.05	23.99	24.11	24	24.2	0.009442	0.07553	0.31%	0
25		8	24.09	23.98	24.19	24	24.3	0.01558	0.1246	0.52%	0
50		8	24.1	24	24.2	24	24.3	0.01494	0.1195	0.50%	0
100		8	24.11	24	24.23	24	24.3	0.01695	0.1356	0.56%	0
Overall		48	24.06	24.03	24.09	24	24.3	0.01478	0.1024	0.43%	0 (0%)

Report Date: Test Code/ID: 15 Nov-21 13:16 (p 3 of 8) VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Alkalinity (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure (QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		60					
100				94					
0	N	2		60					
100				94					
0	N	3		60					
100				94					
0	N	4		61					
100				94					
0	N	5		61					
100				94					
0	N	6		61					
100				94					
0	N	7		61					
100				94					
0	N	8		61					
100				94					

Report Date: Test Code/ID: 15 Nov-21 13:16 (p 4 of 8) VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Conductivity-	umhos								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
)	N	1		362					
5.25				382					
12.5				409					
25				472					
50				582					
100				810					
0	N	2		360					
6.25				380					
12.5				410					
25				477					
50				589					
100				816					
)	N	3		354					
6.25				384					
12.5				415					
25				484					
50				595					
100				820					
)	N	4		360					
3.25				380					
12.5				416					
25				490					
50				592					
100				810					
)	N	5		364					
5.25	IN	5							
				382					
12.5				415					
25				494					
50				598					
100		-		813					
)	N	6		362					
3.25				388					
12.5				421					
25				490					
50				598					
00				812					
	N	7		362					
5.25				354					
12.5				425					
25				492					
50				562					
100				815					
	N	8		360					
5.25				380					
2.5				422					
25				490					
50				567					
00				810					

Report Date:

15 Nov-21 13:16 (p 5 of 8)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minnow	7-d Larval	Survival and	Growth Test
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Dissolved Ox									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6					
6.25				7.4					
12.5				7.3					
25				7.3					
50				7.2					
100				7.1					
0	N	2		7.4					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7					
)	N	3		7.5					
6.25				7.7					
12.5				7.6					
25				7.5					
50				7.5					
100				7.5					
0	N	4		7.6					
6.25		•		7.5					
12.5				7.5					
25				7.4					
50				7.4					
100				7.3					
0	N	5		7.8					
6.25	14	Ü		7.8					
12.5				7.7					
25				7.6					
50				7.5					
100				7.5					
)	N	6		7.9					
5.25	14	O		7.8					
12.5				7.7					
25				7.6					
50				7.5					
100				7.3					
)	N	7		7.6					
5.25		•		7.5					
12.5				7.4					
25				7.4					
50				7.3					
100				7.3					
)	N	8		7.4					
5.25	14	U		7.4					
12.5				7.3 7.2					
2.5 25									
				7.2					
50				7.2					
100				7.1					



Report Date: Test Code/ID: 15 Nov-21 13:16 (p 6 of 8) VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Hardness (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		95					
100				125					
0	N	2		95					
100				125					
0	N	3		95					
100				125					
0	N	4		96					
100				125					
0	N	5		96					
100				125					
0	N	6		96					
100				125					
0	N	7		96					
100				125					
0	N	8		96					
100				125					

Report Date: Test Code/ID: 15 Nov-21 13:16 (p 7 of 8) VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8					
6.25				7					
12.5				7					
25				7					
50				7					
100				7					
0	N	2		8					
6.25				7.3					
12.5				7.3					
25				7.4					
50				7.4					
100				7.5					
0	N	3		7.8					
6.25				7.7					
12.5				7.6					
25				7.5					
50				7.4					
100				7.4					
0	N	4		8					
6.25				7.6					
12.5				7.6					
25				7.7					
50				7.7					
100				7.7					
0	N	5		8					
6.25				7.7					
12.5				7.7					
25				7.7					
50				7.7					
100				7.7					
0	N	6		7.9					
6.25				7.8					
12.5				7.7					
25				7.5					
50				7.4					
100				7.3					
0	N	7		8					
6.25				7.3					
12.5				7.3					
25				7.3					
50				7.3					
100				7.4					
0	N	8		8					
6.25				7.2					
12.5				7.2					
25				7.3					
50				7.3					
100				7.3					

Report Date:

15 Nov-21 13:16 (p 8 of 8)

Test Code/ID:

VCF1021.154 / 15-9053-7272

Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°									
Conc-%	Code	Read	Time	Measure (QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
6.25				24					
12.5				24.1					
25				24.2					
50				24.2					
100				24.2					
0	N	2		24					
6.25				24.2					
12.5				24.2					
25				24.3					
50				24.3					
100				24.3					
0	N	3		24					
6.25				24					
12.5				24					
25				24					
50				24					
100				24					
0	N	4		24					
6.25	• • • • • • • • • • • • • • • • • • • •			24					
12.5				24					
25				24					
50				24					
100				24					
0	N	5		24					
6.25	IN	3		24					
12.5				24.1					
25				24.2					
				24.2					
50 100				24.2					
0	N	6		24					
6.25				24					
12.5				24					
25 50				24					
50				24.1					
100				24.1					
0	N	7		24					
6.25				24					
12.5				24					
25				24					
50				24					
100				24					
0	N	8		24					
6.25				24					
12.5				24					
25				24					
50				24					
100				24					



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*" *EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-CAM

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.159

CHRONIC FATHEAD MINNOW SURVIVAL & GROWTH BIOASSAY

SURVIVAL NOEC = 100.00 %

TUc = 1.00

EC25 = >100.00 %

EC50 = >100.00 %

BIOMASS NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly.

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date: Test Code/ID: 15 Nov-21 13:22 (p 1 of 2) VCF1021.159 / 16-5569-8070

Fathead Minn												
	now 7-d Larval Surviva	I and Growt	h Test					Aquati	c Bioassay &	Consulting	Labs,	Inc
Batch ID:	10-5713-4435	Test Type:	Growth-Surviva	al (7d)			An	alyst:				
Start Date:	26 Oct-21 14:20	Protocol:	EPA/821/R-02-	013 (2002)			Dil	uent: l	_aboratory Wat	er		
Ending Date:	02 Nov-21 14:23	Species:	Pimephales pro	omelas			Bri	ne:	Not Applicable			
Test Length:	7d 0h	Taxon:	Actinopterygii				So	urce:	Aquatic Biosyst	ems, CO	Age:	<24
Sample ID:	20-9363-4841	Code:	VCF1021.159				Pro	oject: I	NPDES Stormv	vater Wet Se	ason	
Sample Date:	25 Oct-21 11:00	Material:	Sample Water				So	urce: E	Bioassay Repo	rt		
Receipt Date:	25 Oct-21 17:30	CAS (PC):					Sta	ation:	MO-CAM			
Sample Age:	27h (11 °C)	Client:	Ventura County	/ Watershed	Protection	n Dis	stri					
Multiple Com	parison Summary											
Analysis ID	Endpoint	Comp	arison Method			✓ N	NOEL	LOEL	TOEL	PMSD	TU	
14-6693-3157	7d Survival Rate	Steel	Many-One Rank	Sum Test		1	100	>100	***	6.21%	1	
11-2602-5185	Mean Dry Biomass-mg	Steel Steel	Many-One Rank	Sum Test		1	100	>100		10.1%	1	
Point Estimat	te Summary											
Analysis ID	Endpoint	Point	Estimate Meth	od		∕_ L	_evel	%	95% LCL	95% UCL	TU	
09-7189-3441	7d Survival Rate	Linea	r Interpolation (10	CPIN)		√ E	EC10	>100	***	***	<1	
						√ E	EC15	>100	***	***	<1	
						✓ E	C20	>100			<1	
						√ E	EC25	>100			<1	
						✓ E	EC40	>100			<1	
						/ E	C50	>100	***	***	<1	
05-9651-2488	Mean Dry Biomass-mg	j Linea	Interpolation (I	CPIN)		/	C10	>100		***	<1	
							C15	>100	***		<1	
					,		C20	>100	300	777	<1	
							C25	>100	***	***	<1	
							C40	>100			<1	
						/ 1	C50	>100			<1	
Test Acceptat	bility				TAC	Lim	its					
Analysis ID			uto	Test Stat		- 1	Jpper	0				
	Endpoint	Attrib				_		Overla	p Decision			
	7d Survival Rate	Contro	ol Resp	1	0.8		·>	Yes	Passes C	riteria		
14-6693-3157	7d Survival Rate 7d Survival Rate	Contro		1		>	·> ·>					
14-6693-3157 05-9651-2488	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg	Contro Contro Contro	ol Resp ol Resp ol Resp	1 0.341	0.8 0.8 0.25	>		Yes	Passes C	riteria		
14-6693-3157 05-9651-2488 11-2602-5185	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg	Contro Contro Contro Contro	ol Resp ol Resp ol Resp ol Resp	1 0.341 0.341	0.8 0.8 0.25 0.25	>	·> ·> ·>	Yes Yes	Passes C Passes C	riteria riteria		
14-6693-3157 05-9651-2488 11-2602-5185	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg	Contro Contro Contro Contro	ol Resp ol Resp ol Resp ol Resp	1 0.341	0.8 0.8 0.25	>	·> ·>	Yes Yes Yes	Passes C Passes C Passes C	riteria riteria riteria		
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Ra	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg ate Summary	Contro Contro Contro Contro PMSE	ol Resp ol Resp ol Resp ol Resp o	1 0.341 0.341 0.1005	0.8 0.8 0.25 0.25 0.12	> > >	·> ·> ·>).3	Yes Yes Yes Yes Yes	Passes C Passes C Passes C Passes C Below Cri	riteria riteria riteria teria		
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival R a Conc- %	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg ate Summary Code Cour	Contro Contro Contro Contro PMSE	ol Resp ol Resp ol Resp ol Resp ol Resp	1 0.341 0.341 0.1005 95% UCL	0.8 0.8 0.25 0.25 0.12	> > > 0	.> .> 3	Yes Yes Yes Yes Yes	Passes C Passes C Passes C Passes C Below Cri	riteria riteria riteria teria CV%	%Ef	_
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival R a Conc-%	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Tode Coul N 4	Control Control Control PMSE Mean 1.000	ol Resp ol Resp ol Resp ol Resp ol Resp ol 95% LCL	1 0.341 0.341 0.1005 95% UCL 1.0000	0.8 0.8 0.25 0.25 0.12 Min 1.0000	> > 0	*> *> 0.3 Max	Yes Yes Yes Yes Yes Yes Yes Yes O.0000	Passes C Passes C Passes C Passes C Passes C Below Cri Std Dev 0.0000	riteria riteria riteria teria CV%	0.00	%
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival R Conc-% 0 3.25	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Ate Summary Code Count N 4 4	Control Control Control PMSE Mean 1,000 0,966	ol Resp ol Resp ol Resp ol Resp ol Resp ol 1.0000 7 0.9054	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333	> > 0 0	%>	Yes Yes Yes Yes Yes Yes Yes O.0000 0.0193	Passes C Passes C Passes C Passes C Below Cri **Std Dev** 0.0000 0.0385	riteria riteria riteria teria CV% 3.98%	0.00 3.33	% %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7 d Survival R Conc-% 0 5.25	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Tode Court N 4 4 4 4	Control Control Control PMSE Mean 1.0000 0.966 0.983	95% LCL 0 1.0000 7 0.9054 3 0.9303	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333	>> >> 0 0 N 1 1	%> > > > >	Yes Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167	Passes C Passes C Passes C Passes C Below Cri T Std Dev 0.0000 0.0385 0.0333	riteria riteria riteria teria CV% 3.98% 3.39%	0.00 3.33 1.67	% % %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival R : Conc-% 0 6.25 12.5	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Tode Court N 4 4 4 4 4	Contro Contro Contro PMSE 1.000 0.966 0.983 0.900	95% LCL 0 1.0000 7 0.9054 3 0.7630	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.8000	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	%>	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430	Passes C Passes C Passes C Passes C Below Cri **Std Dev** 0.0000 0.0385 0.0333 0.0861	riteria riteria riteria teria CV% 3.98% 3.39% 9.56%	0.00 3.33 1.67 10.0	% % % 0%
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Ra Conc-% 0 3.25 12.5 25	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Tode Court N 4 4 4 4	Contro Contro Contro Contro PMSE 1.0000 0.966 0.983 0.9000 1.0000	95% LCL 0 1.0000 7 0.9054 3 0.7630 0 1.0000	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.8000 1.0000	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Aax .0000 .0000 .0000 .0000 .0000	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000	Passes C Passes C Passes C Passes C Below Cri r Std Dev 0.0000 0.0385 0.0333 0.0861 0.0000	riteria riteria riteria teria CV% 3.98% 3.39%	0.00 3.33 1.67 10.0 0.00	% % % 0% %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Ra Conc-% 0 6.25 12.5 25 50	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Tode Court N 4 4 4 4 4 4 4 4 4	Contro Contro Contro PMSE 1.000 0.966 0.983 0.900	95% LCL 0 1.0000 7 0.9054 3 0.7630 0 1.0000	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.8000	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	%>	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430	Passes C Passes C Passes C Passes C Below Cri r Std Dev 0.0000 0.0385 0.0333 0.0861 0.0000	riteria riteria riteria teria CV% 3.98% 3.39% 9.56%	0.00 3.33 1.67 10.0	% % % 0% %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Ra Conc-% 0 5.25 12.5 25 50 100	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg ate Summary Code Cour N 4 4 4 4 4 4	Contro Contro Contro PMSE Mean 1.0000 0.966 0.983 0.9000 1.0000	95% LCL 0 1.0000 7 0.9054 3 0.9303 0 1.0000 0 1.0000	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000	0.8 0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.8000 1.0000	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Max .0000 .0000 .0000 .0000 .0000	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000 0.0000	Passes C Passes C Passes C Passes C Below Cri **Std Dev** 0.0000 0.0385 0.0333 0.0861 0.0000 0.0000	riteria riteria riteria teria CV% 3.98% 3.39% 9.56%	0.00 3.33 1.67 10.0 0.00 0.00	% % 0% %
14-6693-3157 15-9651-2488 11-2602-5185 11-2602-5185 7d Survival Race Conc-% 10 10 10 10 10 10 10 10 10 10	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Ate Summary Code Cour N 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Contro Contro Contro PMSE Mean 1.0000 0.966 0.983 0.9000 1.0000	95% LCL 0 1.0000 7 0.9054 3 0.7630 0 1.0000	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000 1.0000	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Aax .0000 .0000 .0000 .0000	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000	Passes C Passes C Passes C Passes C Below Cri **Std Dev** 0.0000 0.0385 0.0333 0.0861 0.0000 0.0000 **T Std Dev** **Std Dev**	riteria riteria riteria teria CV% 3.98% 3.39% 9.56% CV%	0.00 3.33 1.67 10.0 0.00	% % 0% % %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Rac Conc-% 0 6.25 12.5 25 50 1000 Mean Dry Biol Conc-% 0	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Ate Summary Code Coun N 4 4 4 4 4 4 4 4 4 7 Code Coun Code Coun	Control Contro	95% LCL 0.3319	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000 1.0000	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.8000 1.0000 1.0000	>> >> 0 0 MM 11 11 11 11 11 11 0	Max .0000 .0000 .0000 .0000 .0000	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000 0.00000 Std Er	Passes C Passes C Passes C Passes C Passes C Below Cri **Std Dev** 0.0000 0.0385 0.0333 0.0861 0.0000 0.0000 **Std Dev** 61 0.005722	riteria riteria riteria teria CV% 3.98% 3.39% 9.56%	0.00 3.33 1.67 10.0 0.00 0.00	% % % 0% % #
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Ri Conc-% 0 6.25 12.5 25 100 Mean Dry Biol Conc-% 0 6.25	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Ate Summary Code Cour N 4 4 4 4 4 4 4 4 7 Mass-mg Summary Code Cour N 4	Contro Contro Contro Contro PMSE Mean 1.0000 0.966 0.983 0.9000 1.0000 1.0000 1.0000 1.0000	95% LCL 0.3319 3.000 Resp 0.0000 95% LCL 0.3319 3.00266	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000 1.0000 95% UCL 0.3501	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Min 0.336	>> >> 0 0 11 11 11 11 11 11 0 0	*>	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000 0.00000 Std Er	Passes C Passes C Passes C Passes C Passes C Below Cri **Std Dev** 0.0000 0.0385 0.0333 0.0861 0.0000 0.0000 **Std Dev** 61 0.005722 8 0.03476	riteria riteria riteria teria CV% 3.98% 3.39% 9.56% CV% 1.68%	0.00 3.33 1.67 10.0 0.00 0.00 %Eff 0.00 5.77	% % % 0% % %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival Rac Conc-% 0 6.25 12.5 25 50 100 Mean Dry Biol Conc-% 0 6.25 12.5 25 12.5	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Ate Summary Code Cour N 4 4 4 4 4 4 4 4 7 Mass-mg Summary Code Cour N 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Contro Contro Contro Contro PMSE 1.0000 0.966 0.983 0.9000 1.0000 1.0000	95% LCL 0.3319 0.266 0.301 Resp	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000 95% UCL 0.3501 0.3766	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.8000 1.0000 1.0000 Min 0.336 0.2693	>> >> 00 NN 11 11 11 11 11 11 11 11 11 11 11 11 1	*>	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000 0.0000 Std Er 0.0028 0.0173	Passes C Passes C Passes C Passes C Passes C Passes C Below Cri r Std Dev 0.0000 0.0385 0.0333 0.0861 0.0000 0.0000 r Std Dev 61 0.005722 8 0.03476 44 0.004087	riteria riteria riteria teria CV% 3.98% 3.39% 9.56% CV% 1.68% 10.82%	0.00 3.33 1.67 10.0 0.00 0.00 %Eff	% % 0% % %
14-6693-3157 05-9651-2488 11-2602-5185 11-2602-5185 7d Survival R : Conc-% 0 6.25 12.5 25 50 100	7d Survival Rate 7d Survival Rate Mean Dry Biomass-mg Mean Dry Biomass-mg Mean Dry Biomass-mg Ate Summary Code Cour N 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Control Contro	95% LCL 0 1.0000 7 0.9054 3 0.9303 0 1.0000 95% LCL 0.3319 3 0.266 3 0.3323 7 0.3356	1 0.341 0.341 0.1005 95% UCL 1.0000 1.0280 1.0360 1.0370 1.0000 1.0000 95% UCL 0.3501 0.3766 0.3453	0.8 0.25 0.25 0.12 Min 1.0000 0.9333 0.8000 1.0000 Min 0.336 0.2693 0.3347	>> > > 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Max .0000 .0000 .0000 .0000 .0000 .0000 .348 .348 .3413	Yes Yes Yes Yes Yes Yes O.0000 0.0193 0.0167 0.0430 0.0000 0.00000 Std Er 0.0028 0.0173 0.0020	Passes C Passes C Passes C Passes C Passes C Passes C Below Cri r Std Dev 0.0000 0.0385 0.0333 0.0861 0.0000 0.0000 r Std Dev 61 0.005722 8 0.03476 44 0.004087	riteria riteria riteria teria CV% 3.98% 3.39% 9.56% CV% 1.68% 10.82% 1.21%	0.00 3.33 1.67 10.0 0.00 0.00 %Eff 0.00 5.77 0.64	% % 0% % % fect % %

CETIS Summary Report

Report Date:

15 Nov-21 13:22 (p 2 of 2)

Test Code/ID:

VCF1021.159 / 16-5569-8070

						VOI 1021:1007 10 0000 0070
Fathead Minn	ow 7-d Larval	Survival an	d Growth T	est		Aquatic Bioassay & Consulting Labs, Inc.
7d Survival R	ate Detail					MD5: 7767473C648EC203523266AFC83774F0
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.0000	1.0000	1.0000	1.0000	
6.25		0.9333	1.0000	1.0000	0.9333	
12.5		1.0000	1.0000	0.9333	1.0000	
25		0.9333	0.8000	1.0000	0.8667	
50		1.0000	1.0000	1.0000	1.0000	
100		1.0000	1.0000	1.0000	1.0000	
Mean Dry Bio	mass-mg Deta	ail				MD5: 6C32FA5BE09B2C5C7F2DAC29B3CA2BF8
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.3433	0.336	0.3367	0.348	
6.25		0.2693	0.3413	0.3393	0.3353	
12.5		0.344	0.3367	0.3347	0.34	
25		0.3373	0.3433	0.3387	0.3393	
50		0.3353	0.346	0.2747	0.3447	
100		0.3507	0.3433	0.3427	0.344	
7d Survival R	ate Binomials					
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	15/15	15/15	15/15	15/15	
6.25		14/15	15/15	15/15	14/15	
12.5		15/15	15/15	14/15	15/15	
25		14/15	12/15	15/15	13/15	
50		15/15	15/15	15/15	15/15	
100		15/15	15/15	15/15	15/15	

Report Date: Test Code/ID:

15 Nov-21 13:22 (p 1 of 4) VCF1021.159 / 16-5569-8070

Fathead Min	now 7-d Larval Survi	ival and Growt	h Test	Aquatic Bi	oassay & Consulting Labs, Inc.
Analysis ID:	14-6693-3157	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.9.7
Analyzed:	15 Nov-21 13:22	Analysis:	Nonparametric-Control vs Treatments	Status Level:	1
Edit Date:	15 Nov-21 13:17	MD5 Hash:	7767473C648EC203523266AFC83774F0	Editor ID:	000-189-126-0

Batch ID: 10-5713-4435 Test Type: Growth-Survival (7d) Analyst: Start Date: 26 Oct-21 14:20 Protocol: EPA/821/R-02-013 (2002) Diluent: Laboratory Water Ending Date: 02 Nov-21 14:23 Species: Pimephales promelas Brine: Not Applicable

Test Length: 7d 0h Taxon: Source: Actinopterygii Aquatic Biosystems, CO Age: <24

Sample ID: 20-9363-4841 Code: VCF1021.159 Project: NPDES Stormwater Wet Season Sample Date: 25 Oct-21 11:00 Material: Sample Water Source: Bioassay Report Receipt Date: 25 Oct-21 17:30 CAS (PC): Station: MO-CAM

Sample Age: 27h (11 °C) Client: Ventura County Watershed Protection Distri

18

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	MSDu	PMSD
Angular (Corrected)	C > T	100	>100	***	1	0.06207	6.21%

Steel Many-One Rank Sum Test Control ٧s Conc-% Test Stat Critical Ties DF P-Type P-Value Decision(a:5%) **Negative Control** 6.25 14 10 1 6 CDF 0.3451 Non-Significant Effect 12.5 16 10 1 6 CDF 0.6105 Non-Significant Effect 25 12 10 1 6 CDF 0.1424 Non-Significant Effect 50 18 10 1 6 CDF 0.8333 Non-Significant Effect 100 10

Test Acceptabili	ity Criteria	TAC	Limits		
Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	1	8.0	>>	Yes	Passes Criteria

6 CDF 0.8333

Non-Significant Effect

1

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0968772	0.0193754	5	3.751	0.0168	Significant Effect
Error	0.0929734	0.0051652	18			-
Total	0.189851		23			

ANOVA Assumptions Tests Attribute Test Stat Critical P-Value Decision(a:1%) Variance Bartlett Equality of Variance Test Indeterminate Levene Equality of Variance Test 9.626 4.248 0.0001 **Unequal Variances** 0.0023 Mod Levene Equality of Variance Test 5.789 4.248 Unequal Variances Distribution Anderson-Darling A2 Test 1.67 3.878 <1.0E-05 Non-Normal Distribution D'Agostino Kurtosis Test 2.576 Normal Distribution 2.174 0.0297 2.576 Normal Distribution D'Agostino Skewness Test 0.289 0.7726 D'Agostino-Pearson K2 Omnibus Test 4.808 9.21 0.0904 Normal Distribution Kolmogorov-Smirnov D Test 0.2917 0.2056 1.2E-05 Non-Normal Distribution Shapiro-Wilk W Normality Test 0.8783 0.884 0.0077 Non-Normal Distribution

7d Survival R	ate Summary										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
6.25		4	0.9667	0.9054	1.0000	0.9667	0.9333	1.0000	0.0192	3.98%	3.33%
12.5		4	0.9833	0.9303	1.0000	1.0000	0.9333	1.0000	0.0167	3.39%	1.67%
25		4	0.9000	0.7630	1.0000	0.9000	0.8000	1.0000	0.0430	9.56%	10.00%
50		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%

Report Date: Test Code/ID:

15 Nov-21 13:22 (p 2 of 4) VCF1021.159 / 16-5569-8070

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 14-6693-3157 Analyzed:

Edit Date:

Endpoint: 7d Survival Rate 15 Nov-21 13:22 Analysis: 15 Nov-21 13:17

Nonparametric-Control vs Treatments MD5 Hash: 7767473C648EC203523266AFC83774F0 **CETIS Version:** Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
6.25		4	1.3750	1.2540	1.4960	1.3750	1.3100	1.4410	0.0380	5.53%	4.57%
12.5		4	1.4080	1.3040	1.5130	1.4410	1.3100	1.4410	0.0329	4.68%	2.28%
25		4	1.2640	1.0340	1.4940	1.2530	1.1070	1.4410	0.0722	11.43%	12.32%
50		4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%
100		4	1.4410	1.4410	1.4420	1.4410	1.4410	1.4410	0.0000	0.00%	0.00%

7d Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
6.25		0.9333	1.0000	1.0000	0.9333
12.5		1.0000	1.0000	0.9333	1.0000
25		0.9333	0.8000	1.0000	0.8667
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

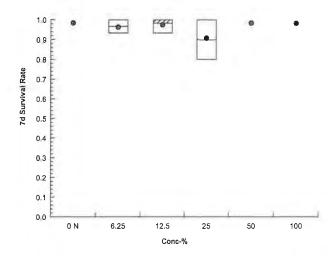
Angular (Corrected) Transformed Detail

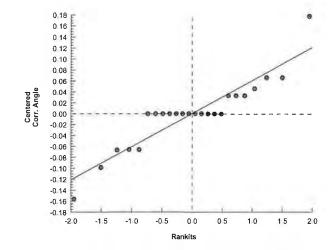
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.4410	1.4410	1.4410	1.4410	
6.25		1.3100	1.4410	1.4410	1.3100	
12.5		1.4410	1.4410	1.3100	1.4410	
25		1.3100	1.1070	1.4410	1.1970	
50		1.4410	1.4410	1.4410	1.4410	
100		1.4410	1.4410	1.4410	1.4410	

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	15/15	15/15	15/15	15/15	
6.25		14/15	15/15	15/15	14/15	
12.5		15/15	15/15	14/15	15/15	
25		14/15	12/15	15/15	13/15	
50		15/15	15/15	15/15	15/15	
100		15/15	15/15	15/15	15/15	

Graphics







Report Date: Test Code/ID: 15 Nov-21 13:22 (p 3 of 4) VCF1021.159 / 16-5569-8070

										Test	Coue/IL	J. VC	'L 10	21.1597 1	2-2208-00
Fathead Minn	ow 7-d Larval S	Survival a	nd Growt	h Test							Aquat	ic Bioassay	& 0	Consulting	Labs, In
Analysis ID:	11-2602-5185	Eı	ndpoint:	Mean Dry B	iomass-	mg				CETI	S Versi	on: CETI	 Sv1.	.9.7	
Analyzed:	15 Nov-21 13:2	2 A ı	nalysis:	Nonparame	tric-Conf	trol v	s T	reatments		Statu	ıs Level	l: 1			
Edit Date:	15 Nov-21 13:1	7 M	D5 Hash:	6C32FA5BE						Edito		000-1	89-	126-0	
Batch ID:	10-5713-4435	Te	est Type:	Growth-Sun	vival (7d)				Analy	vst:				
Start Date:	26 Oct-21 14:20		rotocol:	EPA/821/R-	•		2)			Dilue		Laboratory V	Nate	er	
	02 Nov-21 14:2		pecies:	Pimephales		•	-,			Brine		Not Applicat		21	
Test Length:			axon:	Actinoptery	•	23				Sour		Aquatic Bios		ems, CO	Age: <
	20-9363-4841													_	
Sample ID:			ode:	VCF1021.1						Proje		NPDES Stor			eason
-	25 Oct-21 11:00		aterial:	Sample Wa	ter					Sour		Bioassay Re	:pon	I	
	25 Oct-21 17:30		AS (PC):							Stati	on:	MO-CAM			
Sample Age:	27h (11 °C)	C	lient:	Ventura Cou	unty Wa	tersh	ed	Protection	Distri						
Data Transfor	m	Alt Hyp)					NOEL	LOE	L	TOEL	TU		MSDu	PMSD
Untransformed	i	C > T						100	>100)		1		0.03428	10.05%
—————Steel Many-O	ne Rank Sum T	est													
Control	vs Conc-%		Test S	Stat Critica	I Tie	s I	DF	P-Type	P-Va	alue	Decisi	ion(α:5%)			
Negative Cont	rol 6.25		14	10	0		6	CDF	0.34	51	Non-S	ignificant Ef	fect		
_	12.5		16.5	10	1		6	CDF	0.67	42		ignificant Ef			
	25		18.5	10	1	(6	CDF	0.87	29		ignificant Ef			
	50		16	10	0		6	CDF	0.61			ignificant Ef			
	100		21.5	10	1		6	CDF	0.98			ignificant Ef			
Test Acceptal	oility Criteria	TAC	Limits												
Attribute	Test Stat		Upper	r Overla	p De	cisio	n								
Control Resp	0.341	0.25	>>	Yes	Pa	sses	Cr	iteria							
PMSD .	0.1005	0.12	0.3	Yes	Bel	ow C	Crite	eria							
ANOVA Table															
Source	Sum Squ	ares	Mean	Square	DF			F Stat	P-Va	alue	Decisi	ion(α:5%)			
Between	0.001836		0.0003		5			0.9054	0.49	91		ignificant Ef	fect		
Error	0.007301	5	0.0004	4056	18							J			
Total	0.009137				23			-							
ANOVA Assur	nptions Tests														
Attribute	Test				Tes	st Sta	at	Critical	P-Va	alue	Decisi	ion(α:1%)			
Variance	Bartlett E	quality of \	√ariance T	est	29.	38		15.09	2.0E	-05	Unequ	ial Variances	ŝ		
	Levene E	quality of \	Variance T	est	5.2	24		4.248	0.00	39	Unequ	ial Variances	S		
	Mod Leve	ne Equalit	ty of Varia	nce Test	0.9	041		4.248	0.49	98	Equal	Variances			
Distribution	Anderson	-Darling A	2 Test		2.3	76		3.878	<1.0	E-05	Non-N	ormal Distrit	outic	on	
	D'Agostin	o Kurtosis	Test		2.8			2.576	0.00	45	Non-N	ormal Distrib	outic	on	
	-	o Skewne:			3.5			2.576	0.00			ormal Distrib			
	D'Agostin	o-Pearson	K2 Omni	bus Test	20.			9.21	3.8E			ormal Distrib			
	-	ov-Smirno			0.3			0.2056		E-05		ormal Distrib			
	•	Vilk W Nor		st	0.7			0.884	4.2E			ormal Distrib			
Mean Dry Bio	mass-mg Sumr	nary													
Conc-%	Code	Count	Mean	95% L	CL 95%	4 UC	;L	Median	Min		Max	Std Er	r	CV%	%Effec
0	N	4	0.341	0.3319				0.34	0.33	6	0.348	0.0028	_	1.68%	0.00%
6.25		4	0.3213	3 0.266	0.3	766		0.3373	0.26	93	0.3413	0.0173	8	10.82%	5.77%
12.5		4	0.3388					0.3383	0.33		0.344	0.0020		1.21%	0.64%
25		4	0.3397					0.339	0.33		0.3433			0.76%	0.39%
50		4	0.3252		0.3			0.34	0.27		0.346	0.017		10.46%	4.64%
400			0.0202	0.2711	0.0	- 44		0.0407	0.21		0.0-0	7 0.011		4.070/	4.0007

-1.22%

0.001853 1.07%

0.3511

0.3437

0.3427

0.3507

0.3452

0.3393

100

Report Date: Test Code/ID: 15 Nov-21 13:22 (p 4 of 4) VCF1021.159 / 16-5569-8070

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-2602-5185

Endpoint: Mean Dry Biomass-mg

CETIS Version: CETISv1.9.7

Analyzed: 15 Nov-21 13:22 **Edit Date:** 15 Nov-21 13:17

Analysis: Nonparametric-Control vs Treatments
MD5 Hash: 6C32FA5BE09B2C5C7F2DAC29B3CA2BF

Status Level:

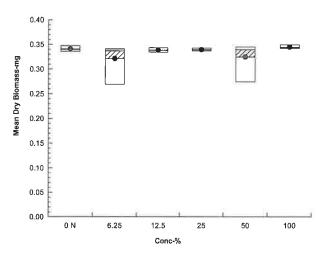
Editor ID:

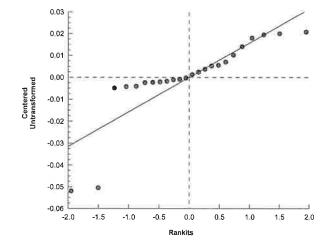
000-189-126-0

Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3433	0.336	0.3367	0.348
6.25		0.2693	0.3413	0.3393	0.3353
12.5		0.344	0.3367	0.3347	0.34
25		0.3373	0.3433	0.3387	0.3393
50		0.3353	0.346	0.2747	0.3447
100		0.3507	0.3433	0.3427	0.344

Graphics





Report Date:

15 Nov-21 13:22 (p 1 of 4)

Test Code/ID:

VCF1021.159 / 16-5569-8070

										A 47				
Fathea	d Minn	ow 7-d Larval S	urvival and	Growth	Test					Aquatic	Bio	assay o	Consulting	Labs, Inc
Analys	is ID:	09-7189-3441	End	point:	7d Survival Rat	е			CETI	S Versio	n:	CETISV	1.9.7	
Analyz	ed:	15 Nov-21 13:22		-	Linear Interpola		۷)		Statu	s Level:		1		
Edit Da	ate:	15 Nov-21 13:17	MD5	Hash:	7767473C648E	C2035232	66AFC8377	74F0	Edito	r ID:		000-189	9-126-0	
Batch I	D:	10-5713-4435	Test	Type:	Growth-Surviva	ıl (7d)			Analy	/st:				
Start D	ate:	26 Oct-21 14:20	Prot	ocol: E	EPA/821/R-02-	013 (2002)			Dilue	nt: La	abor	atory Wa	iter	
Ending	Date:	02 Nov-21 14:23	Spe	cies: F	Pimephales pro	melas			Brine	: N	ot A	pplicable		
Test Le	ength:	7d 0h	Taxo	on: /	Actinopterygii				Sour	ce: A	quat	ic Biosys	tems, CO	Age: <24
Sample	e ID:	20-9363-4841	Cod	e: \	VCF1021.159				Proje	ct: N	PDE	S Storm	water Wet S	eason
Sample	Date:	25 Oct-21 11:00	Mate	erial: S	Sample Water				Sour	ce: B	ioas	say Repo	ort	
Receip	t Date:	25 Oct-21 17:30	CAS	(PC):					Statio	on: M	O-C	AM		
Sample	e Age:	27h (11 °C)	Clie	nt: \	Ventura County	Watershe	d Protection	n Distri						
Linear	Interpo	lation Options												
X Trans	sform	Y Transform	See	d F	Resamples	Exp 95%		hod						
Linear		Linear	0	2	280	Yes	Two	-Point	Interpo	lation				
Test Ac	ceptak	oility Criteria	TAC L	imits										
Attribut		Test Stat	Lower	Upper	Overlap	Decision	1							
Control	Resp	1	8.0	>>	Yes	Passes (Criteria							
Point E	stimat	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCI								
EC10	>100		***	<1	***									
	>100		***	<1		1222								
EC15														
EC20	>100	***	***	<1		***								
EC20 EC25		***		<1 <1										
EC20 EC25 EC40	>100	***												
EC20 EC25 EC40	>100 >100	***		<1										
EC20 EC25 EC40 EC50	>100 >100 >100 >100		-	<1 <1			ulated Vari	ate(A/B	3)				Isoton	ic Variate
EC20 EC25 EC40 EC50 7d Sur v	>100 >100 >100 >100 >100	ate Summary	Count	<1 <1 <1 Mean	 Median	 Calc	Max	CV%	6	%Effec	_	A/B	Mean	%Effect
EC20 EC25 EC40 EC50 7d Surv Conc- %	>100 >100 >100 >100 >100	ate Summary	Count 4	<1 <1 <1 Mean 1.0000	Median 1.0000	 Calc Min 1.0000	Max 1.0000	CV%	6	0.00%		60/60	Mean 1.0000	%Effect 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-%	>100 >100 >100 >100 >100	ate Summary	Count	<1 <1 <1 <1 Mean 1.0000 0.9667	Median 1.0000 0.9667	Calc Min 1.0000 0.9333	Max 1.0000 1.0000	0.00 3.98	/ / 1% 5%	0.00% 3.33%		60/60 58/60	Mean 1.0000 0.9750	%Effect 0.00% 2.50%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100	ate Summary	Count 4 4 4 4	<1 <1 <1 Mean 1.0000 0.9667 0.9833	Median 1.0000 0.9667 1.0000	Calc Min 1.0000 0.9333 0.9333	Max 1.0000 1.0000 1.0000	0.00 3.98 3.39	% 8% 8%	0.00% 3.33% 1.67%		60/60 58/60 59/60	Mean 1.0000 0.9750 0.9750	%Effect 0.00% 2.50% 2.50%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000	Median 1.0000 0.9667 1.0000 0.9000	Calc Min 1.0000 0.9333 0.9333 0.8000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56	% 9% 9% 9%	0.00% 3.33% 1.67% 10.00%	:	60/60 58/60 59/60 54/60	Mean 1.0000 0.9750 0.9750 0.9667	%Effect 0.00% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25	>100 >100 >100 >100 >100	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000 1.0000	Median 1.0000 0.9667 1.0000 0.9000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50	>100 >100 >100 >100 >100	ate Summary Code N	Count 4 4 4 4 4 4	<1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000	Median 1.0000 0.9667 1.0000 0.9000	Calc Min 1.0000 0.9333 0.9333 0.8000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56	% % % % %	0.00% 3.33% 1.67% 10.00%	:	60/60 58/60 59/60 54/60	Mean 1.0000 0.9750 0.9750 0.9667	%Effect 0.00% 2.50% 2.50% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 5.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 4 4 4	<1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 0.9000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 4 7	<1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 0.9000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 Rep 2 1.0000	Median 1.0000 0.9667 1.0000 0.9000 1.0000 1.0000 Rep 3 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000 0.9333	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 0.9000 1.0000 1.0000 Rep 3 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 0.9333	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000 0.9333 1.0000 0.9333	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 0.9333 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 112.5 25 25 25 25 25 25 25 25 25 25 25 25 25	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 0.9333 1.0000 1.0000	Calc Min 1.0000 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 112.5 25 25 25 25 25 25 25 25	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 4 1 1.0000 0.9333 1.0000 0.9333	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 0.9333 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 112.5 25 50 100 Conc-% 0 6.25 112.5 25 50 1100	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000	<1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 0.9333 1.0000 1.0000	Calc Min 1.0000 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000 Rep 1	<1 <1 <1 <1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000 1.00000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.00000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000 1.0000 Rep 4	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 112.5 25 50 100 Conc-% 0 6.25 112.5 25 50 1100 7d Surv Conc-% 0 7d Surv Conc-%	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000 1.0000 Rep 1 15/15	<1 <1 <1 <1 <1 <1 .0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000 1.0000 Rep 4 15/15	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 112.5 225 50 100 Conc-% 0 6.25 112.5 225 50 1100 Conc-% 0 6.25	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000 Rep 1	<1 <1 <1 <1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000 1.00000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.00000	Median 1.0000 0.9667 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000 1.0000 Rep 4	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 112.5 225 50 100 Conc-% 0 6.25 112.5 225 50 1100 Conc-% 0 6.25	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000 1.0000 Rep 1 15/15	<1 <1 <1 <1 <1 <1 0000 0.9667 0.9833 0.9000 1.0	Median 1.0000 0.9667 1.0000 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000 1.0000 Rep 4 15/15	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000 1.0000 Rep 1 15/15 14/15	<1 <1 <1 <1 <1 Mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 0.9667 1.0000 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000 1.0000 Rep 4 15/15 14/15	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%
Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 1.0000 0.9333 1.0000 0.9333 1.0000 1.0000 Rep 1 15/15 14/15 15/15	<1 <1 <1 <1 <1 <1 mean 1.0000 0.9667 0.9833 0.9000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0011 1	Median 1.0000 0.9667 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 0.9333 0.8000 1.0000 1.0000 Rep 4 1.0000 0.9333 1.0000 0.8667 1.0000 1.0000 Rep 4 15/15 14/15 15/15	Max 1.0000 1.0000 1.0000 1.0000	0.00 3.98 3.39 9.56 0.00	% % % % %	0.00% 3.33% 1.67% 10.00% 0.00%	:	60/60 58/60 59/60 54/60 60/60	Mean 1.0000 0.9750 0.9750 0.9667 0.9667	%Effect 0.00% 2.50% 2.50% 3.33% 3.33%



Report Date:

15 Nov-21 13:22 (p 2 of 4)

Test Code/ID:

VCF1021.159 / 16-5569-8070

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 09-7189-3441 **Analyzed:** 15 Nov-21 13:

Endpoint: 7d Survival Rate

CETIS Version:

Editor ID:

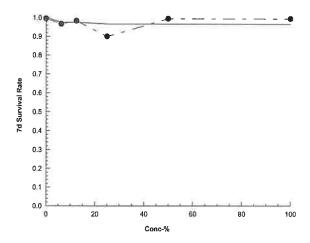
Analyzed: 15 Nov-21 13:22 **Edit Date:** 15 Nov-21 13:17

Analysis: Linear Interpolation (ICPIN) **MD5 Hash:** 7767473C648EC203523266AFC83774F0

Status Level:

CETISv1.9.7 1 000-189-126-0

Graphics



Report Date:

15 Nov-21 13:22 (p 3 of 4)

Test Code/ID:

VCF1021.159 / 16-5569-8070

									Tes	st Code/ID	:	VCF1021.15	9 / 16	3 - 5569-807
Fathea	athead Minnow 7-d Larval Survival and Growth Test									Aquatic Bioassay & Consulting Labs, Inc				
Analys	is ID:	05-9651-2488	End	lpoint:	Mean Dry Biom	ass-mg			CE	TIS Versio	n: CE	TISv1.9.7		
Analyz	ed:	15 Nov-21 13:22	Ana	lysis:	Linear Interpola	ation (ICPII	N)		Sta	itus Level:	1			
Edit Da	ate:	15 Nov-21 13:17	MD	5 Hash:	6C32FA5BE09	B2C5C7F2	2DAC2	9B3CA2E	BF Edi	itor ID:	00	0-189-126 - 0		
Batch	ID:	10-5713-4435	Tes	t Type:	Growth-Surviva	ıl (7d)			Ana	alyst:				
Start D	ate:	26 Oct-21 14:20	Pro	tocol:	EPA/821/R-02-	013 (2002))		Dil	uent: L	aborator	y Water		
Ending	Date:	02 Nov-21 14:23	Spe	cies:	Pimephales pro	melas			Bri	ne: N	lot Appli	cable		
Test Le	ength:	7d 0h	Tax	on:	Actinopterygii				So	urce: A	quatic B	iosystems, C	0	Age: <2
Sample	e ID:	20-9363-4841	Cod	de:	VCF1021.159				Pro	ject: N	IPDES S	Stormwater W	et S	eason
Sample	e Date:	25 Oct-21 11:00	Mat	erial:	Sample Water				So	urce: B	ioassay	Report		
Receip	t Date:	25 Oct-21 17:30	CAS	S (PC):					Sta	ition: N	10-CAM			
Sample	e Age:	27h (11 °C)	Clie	ent:	Ventura County	/ Watershe	d Prof	ection Dis	stri					
Linear	Interpo	olation Options												
X Tran	sform	Y Transform	See	d	Resamples	Exp 95%	% CL	Method						
Linear		Linear	179	0986	280	Yes		Two-Po	int Inter	polation				
Test A	cceptal	bility Criteria	TAC L	imits.										
Attribu	te	Test Stat	Lower	Uppe	r Overlap	Decision	1							
Control	Resp	0.341	0.25	>>	Yes	Passes (Criteria	1						
Point E	Estimat	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCI	_							
IC10	>100		***	<1	***	***								
IC15	>100	7***		<1		-								
IC20	>100		***	<1	, 490									
IC25	>100			<1		***								
IC40	>100			<1										
IC50	>100		110	<1										
Mean [Dry Bio	mass-mg Summ	ary			Ca	alcula	ted Variat	e			Is	oton	ic Variate
Conc-%	/ o	Code	Count	Mean	Median	Min	Ма	x C	V%	%Effec	t	Mea	n	%Effect
0		N	4	0.341	0.34	0.336	0.3	48 1	.68%	0.00%		0.34	1	0.00%
6.25			4	0.321	3 0.3373	0.2693	0.3	413 1	0.82%	5.77%		0.334	4	2.04%
12.5			4	0.338	0.3383	0.3347	0.3	44 1	.21%	0.64%		0.334	4	2.04%
25			4	0.339	7 0.339	0.3373	0.3	433 0	.76%	0.39%		0.334	4	2.04%
50			4	0.325	2 0.34	0.2747	0.3	46 1	0.46%	4.64%		0.334	4	2.04%
100			4	0.345	2 0.3437	0.3427	0.3	507 1	.07%	-1.22%		0.334	4	2.04%
Mean C	ry Bio	mass-mg Detail												
	,	Code	Rep 1	Rep 2	Rep 3	Rep 4								
	0													
0	70	N	0.3433	0.336	0.3367	0.348								
0 6.25	70	N	0.3433 0.2693	0.336 0.341		0.348 0.3353								
0 6.25	70	N			0.3393									
0 6.25 12.5	<u>'0</u>	N	0.2693	0.3413	0.3393 0.3347	0.3353								
<u>Conc-%</u> 0 6.25 12.5 25 50	0	N	0.2693 0.344	0.3413 0.336	0.3393 0.3347	0.3353 0.34								

Report Date:

15 Nov-21 13:22 (p 4 of 4)

Test Code/ID:

VCF1021.159 / 16-5569-8070

Fathead Minnow 7-d Larval Survival and	Growth Test
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Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed: Edit Date:

05-9651-2488 15 Nov-21 13:22

15 Nov-21 13:17

Endpoint: Mean Dry Biomass-mg Analysis:

Linear Interpolation (ICPIN) MD5 Hash: 6C32FA5BE09B2C5C7F2DAC29B3CA2BF

CETIS Version:

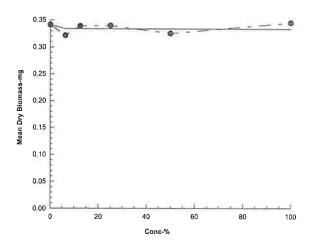
Editor ID:

Status Level:

000-189-126-0

CETISv1.9.7

Graphics



Report Date:

15 Nov-21 13:22 (p 1 of 8)

Test Code/ID:

VCF1021.159 / 16-5569-8070

Fathead Minnow	7-d Larval Survival and	Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	10-5713-4435	Test Type: Growth-Survival (7d)	Analyst:

Start Date:26 Oct-21 14:20Protocol:EPA/821/R-02-013 (2002)Diluent:Laboratory WaterEnding Date:02 Nov-21 14:23Species:Pimephales promelasBrine:Not ApplicableTest Length:7d 0hTaxon:ActinopterygiiSource:Aquatic Biosystem

Test Length: 7d 0h Taxon: Actinopterygii Source: Aquatic Biosystems, CO Age: <24

Sample ID: 20-9363-4841 Code: VCF1021.159 Project: NPDES Stormwater Wet Season

Sample ID:20-9363-4841Code:VCF1021.159Project:NPDES Stormwater Wet SeasonSample Date:25 Oct-21 11:00Material:Sample WaterSource:Bioassay Report

Receipt Date: 25 Oct-21 17:30 CAS (PC): Station: MO-CAM

Sample Age: 27h (11 °C) Client: Ventura County Watershed Protection Distri

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.06469	0.5175	0.85%	0
100		8	29	29	29	29	29	0	0	0.00%	0
Overall		16	44.81	36.11	53.52	29	61	4.084	16.33	36.45%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0
6.25		8	381.6	380.4	382.9	380	384	0.1882	1.506	0.39%	0
12.5		8	346.1	341	351.2	337	353	0.7631	6.105	1.76%	0
25		8	309.1	308.3	310	307	310	0.1239	0.991	0.32%	0
50		8	266.8	259.1	274.4	254	279	1.143	9.146	3.43%	0
100		8	154	149.3	158.7	147	162	0.7039	5.632	3.66%	0
Overall		48	303	280.6	325.4	147	384	11.15	77.23	25.49%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7,4	7.9	0.02216	0.1773	2.33%	0
6.25		8	7.337	7.128	7.547	7	7.7	0.03129	0.2504	3.41%	0
12.5		8	7.275	7.057	7.493	7	7.7	0.03256	0.2605	3.58%	0
25		8	7.275	7.122	7.428	7	7.5	0.0229	0.1832	2.52%	0
50		8	7.225	7.101	7.349	7	7.5	0.0186	0.1488	2.06%	0
100		8	7.188	7.066	7.309	7	7.4	0.01822	0.1458	2.03%	0
Overall		48	7.317	7.249	7.384	7	7.9	0.0336	0.2328	3.18%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.06469	0.5175	0.54%	0
100		8	49	49	49	49	49	0	0	0.00%	0
Overall		16	72.31	59.48	85.14	49	96	6.02	24.08	33.30%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.625	7.329	7.921	7	8	0.04419	0.3536	4.64%	0
12.5		8	7.55	7.26	7.84	7	8	0.0433	0.3464	4.59%	0
25		8	7.512	7.211	7.814	7	8	0.04504	0.3603	4.80%	0
50		8	7.487	7.183	7.792	7.1	8	0.04553	0.3643	4.86%	0
100		8	7.462	7.14	7.785	7.1	8	0.04815	0.3852	5.16%	0
Overall		48	7.6	7.496	7.704	7	8	0.05166	0.3579	4.71%	0 (0%)

Report Date:

15 Nov-21 13:22 (p 2 of 8)

Test Code/ID:

VCF1021.159 / 16-5569-8070

Fathead Minnow	7-d Larval Survival and	Growth Test

Temperature-°	С										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
6.25		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
12.5		8	24.06	24	24.12	24	24.2	0.00929	0.07432	0.31%	0
25		8	24.08	24.02	24.13	24	24.2	0.008826	0.0706	0.29%	0
50		8	24.09	24.02	24.16	24	24.2	0.01042	0.08336	0.35%	0
100		8	24.1	24.01	24.19	24	24.3	0.01336	0.1069	0.44%	0
Overall		48	24.06	24.04	24.08	24	24.3	0.01104	0.07646	0.32%	0 (0%)

Report Date:

15 Nov-21 13:22 (p 3 of 8)

Test Code/ID:

VCF1021.159 / 16-5569-8070

Fathead Minnow 7-d Larval Survival and Growth Te	st
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Alkalinity (CaCO3)-mg/L									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		60					
100				29					
0	N	2		60					
100				29					
0	N	3		60					
100				29					
0	N	4		61					
100				29					
0	N	5		61					
100				29					
0	N	6		61					
100				29					
0	N	7		61					
100				29					
0	N	8		61					
100				29					

Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

15 Nov-21 13:22 (p 4 of 8) VCF1021.159 / 16-5569-8070

Test Code/ID:

Conductivity-	µmhos								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				383					
12.5				337					
25				310					
50				254					
100				147					
0	N	2		360					
6.25				384					
12.5				340					
25				309					
50				257					
100				150					
0	N	3		354					
6.25				380					
12.5				351					
25				307					
50				262					
100				148					
0	N	4		360					
6.25				382					
12.5				340					
25				309					
50				270					
100				152					
0	N	5		364					
6.25				380					
12.5				349					
25				310					
50				278					
100				155					
0	N	6		362					
6.25	N	U		382					
12.5				353					
25				309					
50				279					
100				158					
0	N	7		362					
6.25	IN	/		362					
12.5				349					
25				310					
25 50				264					
100				160					
0	N	8		360					
6.25				382					
12.5				350					
25				309					
50				270					
100				162					

Report Date: Test Code/ID: 15 Nov-21 13:22 (p 5 of 8) VCF1021.159 / 16-5569-8070

Fathead Minnow 7-d Larval Survival and Growth Test

Dissolved Oxy	Dissolved Oxygen-mg/L									
Conc-%	Code	Read Time	Measure QA Diff-% Inst ID Analyst Notes							
0	N	1	7,6							
6.25			7.2							
12.5			7							
25			7							
50			7							
100			7							
0	N	2	7.4							
6.25			7							
12.5			7							
25			7.2							
50			7.2							
100			7.3							
0	N	3	7.5							
6.25			7.4							
12.5			7.3							
25			7.4							
50			7.2							
100			7.2							
0	N	4	7.6							
6.25			7.3							
12.5			7.3							
25			7.2							
50			7.2							
100			7.1							
0	N	5	7.8							
6.25			7.7							
12.5			7.6							
25			7.5							
50			7.5							
100			7.4							
0	N	6	7.9							
6.25			7.7							
12.5			7.7							
25			7.5							
50			7.3							
100			7.2							
)	N	7	7.6							
6.25			7.2							
12.5			7.1							
25			7.1							
50			7.1							
100			7							
)	N	8	7.4							
6.25	-		7.2							
12.5			7.2							
25			7.3							
50			7.3							
100			7.3							

100

Report Date: Test Code/ID: 15 Nov-21 13:22 (p 6 of 8) VCF1021.159 / 16-5569-8070

rest code/ib.

Fathead Minn	now 7-d Larva	l Survival	and Grow	Aquatic Bioassay & Consulting Labs, In						
Hardness (CaCO3)-mg/L										
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes		
0	N	1		95						
100				49						
0	N	2		95						
100				49						
0	N	3		95						
100				49						
0	N	4		96						
100				49						
0	N	5		96						
100				49						
0	N	6		96						
100				49						
0	N	7		96						
100				49						
0	N	8		96						

49

Fathead Minnow 7-d Larval Survival and Growth Test

Report Date:

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Test Code/ID:

pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8					
6.25				7					
12.5				7					
25				7					
50				7.1					
100				7.1					
0	N	2		8					
6.25				7.3					
12.5				7.2					
25				7.2					
50				7.2					
100				7.2					
0	N	3		7.8					
6.25				7.7					
12,5				7.5					
25				7.4					
50				7.3					
100				7.2					
0	N	4		8					
6.25				8					
12.5				8					
25				8					
50				8					
100				8					
0	N	5		8					
6.25				8					
12.5				8					
25				8					
50				8					
100				8					
0	N	6		7.9					
6.25				7.9					
12.5				7.6					
25				7.4					
50				7.2					
100				7.1					
0	N	7		8					
6.25				7.6					
12.5				7.6					
25				7.7					
50				7.7					
100				7.7					
0	N	8		8					
6.25				7.5					
12.5				7.5					
25				7.4					
50				7.4					
100				7.4					

Report Date:

15 Nov-21 13:22 (p 8 of 8) VCF1021.159 / 16-5569-8070

Aquatic Bioassay & Consulting Labs, Inc.

Test Code/ID: VCF1

Fathoad Minnow	7-d Larva	I Survival and Growth Test	

N N	2 3	Time	Measure 24.1 24 24.2 24.2 24.3 24 24 24 24 24 24 24 24	QA	Diff-%	Inst ID	Analyst	Notes
N N	2		24 24.2 24.2 24.3 24 24 24 24 24 24 24 24 24					
N			24.2 24.2 24.3 24 24 24 24 24 24 24 24 24					
N			24.2 24.3 24 24 24 24 24 24 24 24 24 24					
N			24.2 24.3 24 24 24 24 24 24 24 24 24					
N			24.3 24 24 24 24 24 24 24 24 24					
N			24.3 24 24 24 24 24 24 24 24 24					
N			24 24 24 24 24 24 24 24.1					
	3		24 24 24 24 24 24 24 24.1					
	3		24 24 24 24 24 24 24.1					
	3		24 24 24 24 24.1					
	3		24 24 24 24.1					
	3		24 24 24.1					
	3		24.1					
			24.1					
N								
N			24.1					
N			24.1					
N			24.1					
N			24.1					
	4		24					
	•		24					
A1								
N	5							
N	6							
			24.1					
N	7		24					
			24					
			24.1					
			24.1					
			24.1					
			24.1					
N	8		24					
			24					
	N N	N 6	N 6	N 5 24 24 24.1 24.1 24.1 24.1 24.1 24.1 24.	N 5 24 24 24.1 24.1 24.1 24.1 24.1 24.1 24.	N 5 24 24 24 24 24.1 24.1 24.1 24.1 24.1 24	24 24 24 24 N S S 24 24 24 24 N S S 24 24 24.1 24.1 24.1 24.2 N S S S S S S S S S S S S S S S S S S	24 24 24 24 N S S 24 24 24 24 24 24 24 24 24 24 24 24 24



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*" *EPA-821-R-02-013*. Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-FIL

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.156

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

1.00

SURVIVAL

NOEC = 100.00 %

TUc =

EC25 = >100.00 %

EC50 = >100.00 %

REPRODUCTION

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly.

M Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 14:45 (p 1 of 2)

Test Code/ID:

VCF1021.156 / 13-0727-8617

	7-d Survival and				Aqı	ıatic B	ioassay & C	Consulting	Labs,	Inc.		
Batch ID: Start Date: Ending Date: Test Length:	16-5109-9334 26 Oct-21 13:40 02 Nov-21 14:03 7d 0h	Protocol:	Reproduction-S EPA/821/R-02- Ceriodaphnia o Branchiopoda	013 (2002)			Analyst: Diluent: Brine: Source:	Not .	oratory Wate Applicable atic Biosyste		Age:	<24
•	20-1814-8516 25 Oct-21 12:12 25 Oct-21 16:17 25h (8.5°C)		VCF1021.156 Sample Water Ventura Count	, Watershed	Protection	n Nietr	Project: Source: Station:		DES Stormw assay Report FIL		ason	
	parison Summa		vontara count	, waterened	TTOLOGIGI							
Analysis ID	Endpoint	Com	parison Method			/ NC	EL LOI	EL	TOEL	PMSD	TU	5
02-1416-2411	7d Survival Rate		r Exact/Bonferro		t	100	>10	10			1	TE
11-2418-3427	Reproduction	Dunn	ett Multiple Com	parison Test	t	100			222	14.1%	1	2
Point Estimat	e Summary											
Analysis ID	Endpoint	Point	t Estimate Meth	od		/ Le	vel %		95% LCL	95% UCL	TU	5
17-5471-2430	7d Survival Rate	Linea	r Interpolation (I	CPIN)	,	/ EC	10 >10	0	***		<1	- 6
					,	/ EC	15 >10	0		***	<1	
					,	/ EC	20 >10	0	***		<1	
					,	/ EC	25 >10	0	***		<1	
					,	/ EC	40 >10	0			<1	
						/ EC	50 >10	0	***		<1	
16-7160-3468	Reproduction	Linea	r Interpolation (I	CPIN)	,	/ IC1	0 >10	0	***	***	<1	
					,	/ IC1	5 >10	0			<1	
					,	/ IC2		0	***	-	<1	
						/ IC2		0			<1	
						/ IC4		0	***		<1	
					`	/ IC5	50 >10	0	***		<1	
					TAC	Limits	i					
Test Acceptat	oility				IAG							
	eility Endpoint	Attrik	oute	Test Stat			per Ove	erlap	Decision			
Analysis ID 02-1416-2411	Endpoint 7d Survival Rate	Contr	ol Resp	Test Stat			per Ove		Decision Passes Cr	iteria		
Analysis ID 02-1416-2411 17-5471-2430	Endpoint 7d Survival Rate 7d Survival Rate	Contr Contr	ol Resp ol Resp	1	0.8 0.8	Up	Yes Yes		Passes Cr Passes Cr	iteria		
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427	Endpoint 7d Survival Rate 7d Survival Rate Reproduction	Contr Contr Contr	rol Resp rol Resp rol Resp	1 1 24.7	0.8 0.8 15	Up >>	Yes Yes Yes		Passes Cr Passes Cr Passes Cr	iteria iteria		
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction	Contr Contr Contr Contr	rol Resp rol Resp rol Resp rol Resp	1 1 24.7 24.7	0.8 0.8 15	>> >> >> >>	Yes Yes Yes		Passes Cr Passes Cr Passes Cr Passes Cr	iteria iteria iteria		
Analysis ID 02-1416-2411	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction	Contr Contr Contr	rol Resp rol Resp rol Resp rol Resp	1 1 24.7	0.8 0.8 15	>> >> >>	Yes Yes Yes		Passes Cr Passes Cr Passes Cr	iteria iteria iteria		
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary	Contr Contr Contr Contr PMSI	rol Resp rol Resp rol Resp rol Resp D	1 1 24.7 24.7 0.1406	0.8 0.8 15 15 0.13	>> >> >> 0.4	Yes Yes Yes Yes 7 Yes		Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr	iteria iteria iteria iteria		
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-%	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code	Contr Contr Contr Contr PMSI	rol Resp rol Resp rol Resp rol Resp D	1 1 24.7 24.7 0.1406	0.8 0.8 15 15 0.13	Up >> >> >> 0.4	Yes Yes Yes Yes Yes Yes X Std	Err	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr	iteria iteria iteria iteria CV%	%Eff	
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary	Contr Contr Contr Contr PMSI Count Mean 10 1.000	rol Resp rol Resp rol Resp rol Resp rol Resp D 95% LCL 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000	0.8 0.8 15 15 0.13 Min 1.0000	Up >> >> 0.4 Ma	Yes Yes Yes Yes Yes Yes X Std 000 0.00	Err	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000	iteria iteria iteria iteria CV%	0.00	%
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code	Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000	ool Resp ool Resp ool Resp ool Resp ool Resp ool Resp ool 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000	Up >> >> >> 0.4 Ma 1.0	Yes Yes Yes Yes Yes Yes Yes Yes Oo O O O O O O O O O O O O O O O O O O	Err	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000	iteria iteria iteria iteria CV%	0.00	% %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code	Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000	95% LCL 0 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000	Up >> >> 0.4 Ma 1.0 1.0	Yes Yes Yes Yes Yes Yes Yes Yes 7 Yes 000 000 000 000 000 000 000 000	Err 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV%	0.000	% % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival Re Conc-% 0 6.25 12.5 25	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code	Contr Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000 10 1.000	95% LCL 0 1.0000 0 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000	Up >> >> 0.4 Ma 1.0 1.0 1.0	Yes Yes Yes Yes Yes Yes X Std 000 0.00 000 0.00 000 0.00 000 0.00	Err 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV%	0.000	% % % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code	Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000	95% LCL 0 1.0000 0 1.0000 0 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000	Up >> >> 0.4 Ma 1.0 1.0 1.0 1.0	Yes Yes Yes Yes Yes Yes Yes Yes 7 Yes 000 000 000 000 000 000 000 000	Err 000 000 000 000 000 000 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV%	0.000	% % % % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code N	Contr Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000 10 1.000 10 1.000	95% LCL 0 1.0000 0 1.0000 0 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000	Up >> >> 0.4 Ma 1.0 1.0 1.0 1.0	Yes Yes Yes Yes Yes Yes Yes 7 Yes 000 0.00 000 0.00 000 0.00 000 0.00 000 0.00 000 0.00	Err 000 000 000 000 000 000 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV%	0.000	% % % % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100 Reproduction	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code N Summary	Contr Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000 10 1.000 10 1.000	95% LCL 0 1.0000 0 1.0000 0 1.0000 0 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Up >> >> 0.4 Maa 1.0 1.0 1.0 1.0 1.0	Yes Yes Yes Yes Yes Yes 7	Err 000 000 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV%	0.00° 0.00° 0.00° 0.00°	% % % % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-%	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction ate Summary Code N Summary Code	Count Control	95% LCL 0 1.0000 0 1.0000 0 1.0000 0 1.0000 0 1.0000 0 1.0000	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 Min	Up >> >> 0.4 Maa 1.0 1.0 1.0 1.0 1.0 1.0 Maa	Yes Yes Yes Yes Yes Yes 7 Yes 000 000 000 000 000 000 000 000 000 0	Err 000 000 000 000 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV%	0.00° 0.00° 0.00° 0.00° 0.00°	% % % % % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-% 0	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction Reproduction ate Summary Code N Summary	Count Control Control Control Control Control Control Control Count Mean 10 1.000 10	95% LCL 23.44	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Upp	Yes Yes Yes Yes Yes Yes 7	Err 000 000 000 000 000 000 Err	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000	iteria iteria iteria iteria CV% CV% 7.15%	0.00° 0.00° 0.00° 0.00° 0.00°	% % % % % %
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-% 0 6.25	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction ate Summary Code N Summary Code	Contr Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000 10 1.000 10 1.000 10 1.000 10 24.7 10 25.2	95% LCL 23.44 23.15	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 95% UCL 25.96 27.25	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 Min 22 20	Upp	Yes Yes Yes Yes Yes Yes 7 Yes 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Err 000 000 000 000 000 000 Err 588	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.767 2.86	iteria iteria iteria iteria CV%	0.00° 0.00° 0.00° 0.00° 0.00° %Eff 0.00° -2.02	% % % % % % ** ** ** ** ** ** ** ** ** *
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-%	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction ate Summary Code N Summary Code	Count Control Control Control Control Control Control Control Count Mean 10 1.000 10	95% LCL 23.44	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 95% UCL 25.96	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 Min 22	Upp	Yes Yes Yes Yes Yes Yes 7 Yes 000 000 000 000 000 000 000 000 000 0	Err 000 000 000 000 000 000 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr O.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	cv% 7.15% 11.35%	0.00° 0.00° 0.00° 0.00° 0.00° %Eff 0.00° -2.02 -5.67	% % % % % % * * * * * * * * * * * * * *
Analysis ID 02-1416-2411 17-5471-2430 11-2418-3427 16-7160-3468 11-2418-3427 7d Survival R: Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-% 0 6.25 12.5 25 50 100	Endpoint 7d Survival Rate 7d Survival Rate Reproduction Reproduction ate Summary Code N Summary Code	Contr Contr Contr Contr PMSI Count Mean 10 1.000 10 1.000 10 1.000 10 1.000 10 1.000 10 24.7 10 25.2 10 26.1	95% LCL 23.44 23.15 201 Resp	1 1 24.7 24.7 0.1406 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25.96 27.25 28.97	0.8 0.8 15 15 0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 Min 22 20 22	Up	Yes Yes Yes Yes Yes Yes 7 Yes 000 000 000 000 000 000 000 000 000 0	Err 000 000 000 000 000 000 000 000 000	Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr Passes Cr 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.767 2.86 4.012	CV%	0.00° 0.00° 0.00° 0.00° 0.00° %Eff 0.00° -2.02	% % % % % % ** ** **

Report Date:

11 Nov-21 14:45 (p 2 of 2)

Test Code/ID: VCF1021.156 / 13-0727-8617

Ceriodaphnia	7-d Survival a	nd Reprodu	iction Test					Aquatic I	Bioassay &	Consulting	Labs, Inc
7d Survival R	ate Detail						ME	5: 6DFFCF	255519977	902535414	E38EA216
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Reproduction	Detail						ME	5: 7D07A4	725A803F3	D1AD03E6	AE1AB1426
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	24	24	27	27	26	23	22	25	26	23
6.25		24	27	26	20	28	21	26	29	25	26
12.5		35	23	24	22	27	27	24	22	29	28
25		27	23	27	20	19	19	27	21	24	19
50		20	28	25	23	17	31	22	17	19	24
100		23	26	26	23	20	24	17	26	25	23
7d Survival R	ate Binomials										
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Report Date:

11 Nov-21 14:45 (p 1 of 2)

Test Code/ID: VCF1021.156 / 13-0727-8617

Ceriodaphnia	7-d Survival a	nd Repro	oduction Te	st				Δαιια	ic Bioassay &	Consulting	a labe la
Analysis ID:	11-2418-3427			Reproduction			CE	TIS Versi			a rans, ill
Analyzed:	11 Nov-21 14:4			Parametric-Co	ntrol vs Tre	atments		tus Leve		1.9.7	
Edit Date:	11 Nov-21 14:3		-	B497DDA19E2				tor ID:	000-189	-126-0	
Batch ID:	16-5109-9334		Test Type:	Reproduction-	Survival (7d)	Ana	alyst:			
Start Date:	26 Oct-21 13:4		• •	EPA/821/R-02	•	,			Laboratory Wa	tor	
Ending Date:	02 Nov-21 14:0			Ceriodaphnia d	` '		Brit		Not Applicable	101	
Test Length:			•	Branchiopoda					Aquatic Biosys	tems, CO	Age: <
Sample ID:	20-1814-8516		Code:	VCF1021.156			Pro		NPDES Storm		Posson
•	25 Oct-21 12:1			Sample Water				-	Bioassay Repo		Jeasun
•	25 Oct-21 16:1		CAS (PC):	Campio Water					MO-FIL	11	
Sample Age:				Ventura Count	y Watershe	d Protection		uon.	WO-I IL		
Data Transfor	·m	Alt Hy	vn			NOEL	LOEL	TOEL	TU	MSDu	PMSD
Untransformed		C > T	I P			100	>100		1	3.473	14.06%
Dunnett Multi	ple Compariso	n Tost									11.0070
Control	vs Conc-%		Test S	tat Critical	MSD D	F P-Type	P-Value	Dania	:/e.E0/\		
Negative Cont			-0.3296		3.473 18		0.9130		ion(α:5%) significant Effec	+	_
	12.5		-0.9228		3.473 18		0.9804		significant Effec		
	25		1.384	2.289		CDF	0.2576		significant Effec		
	50		1.384	2.289		CDF	0.2576		significant Effec		
	100		0.9228		3.473 18		0.4519		significant Effec		
Test Acceptat	oility Criteria	TA	C Limits								
Attribute	Test Stat			Overlap	Decision						
Control Resp	24.7	15	>>	Yes	Passes C						
PMSD	0.1406	0.13	0.47	Yes	Passes C						
ANOVA Table											
Source	Sum Squ	ıares	Mean S	Souare	DF	F Stat	P-Value	Decis	ion(α:5%)		
Between	107,083		21.416		5	1.861	0.1166		ignificant Effec	t	
Error	621.5		11.509		54	1.001	0.1100	11011 0	igililoant Enco		
Total	728.583				59	_					
ANOVA Assur	nptions Tests										
Attribute	Test				Test Stat	Critical	P-Value	Decis	ion(α:1%)		
/ariance	Bartlett E	quality of	Variance Te	est	8.324	15.09	0.1393		Variances		
			Variance Te		1.717	3.377	0.1465		Variances		
			lity of Varian		1.625	3.377	0.1692		Variances		
Distribution	Anderson				0.3393	3.878	0.5035	·	al Distribution		
	D'Agostin	o Kurtosi	s Test		0.6023	2.576	0.5470	Norma	al Distribution		
	D'Agostin	o Skewne	ess Test		1.099	2.576	0.2717	Norma	al Distribution		
	D'Agostin	o-Pearso	n K2 Omnib	us Test	1.571	9.21	0.4559	Norma	al Distribution		
	Kolmogor	ov-Smirn	ov D Test		0.06912	0.1331	0.6499	Norma	al Distribution		
	Shapiro-V	Vilk W No	ormality Test		0.9777	0.9459	0.3395	Norma	al Distribution		
Reproduction	Summary										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
)	N	10	24.7	23.44	25.96	24.5	22	27	0.5588	7.15%	0.00%
5.25		10	25.2	23.15	27.25	26	20	29	0.9043	11.35%	-2.02%
12.5		10	26.1	23.23	28.97	25.5	22	35	1.269	15.37%	-5.67%
25		10	22.6	20.12	25.08	22	19	27	1.097	15.36%	8.50%
F0		40	00.0	40.04	05.00	00.5	4-7		4 4= 4	00 0 00	0.500/

20.35%

12.48%

8.50%

5.67%

25.89

25.38

22.5

23.5

17

17

31

26

1.454

0.9195

10

10

22.6

23.3

19.31

21.22

50

100

Report Date: Test Code/ID: 11 Nov-21 14:45 (p 2 of 2) VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

11 Nov-21 14:37

Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

Analysis ID: 11-2418-3427 **Analyzed:** 11 Nov-21 14:42

Endpoint: Reproduction

Analysis: Parametric-Control vs Treatments

CETIS Version: Status Level:

1 000**-**189-126-0

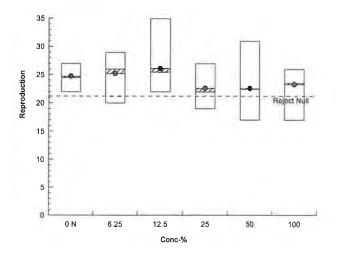
Reproduction Detail

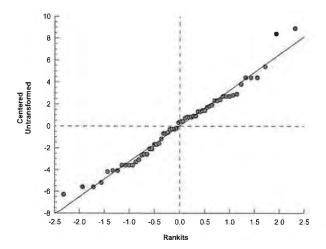
Edit Date:

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	24	24	27	27	26	23	22	25	26	23
6.25		24	27	26	20	28	21	26	29	25	26
12.5		35	23	24	22	27	27	24	22	29	28
25		27	23	27	20	19	19	27	21	24	19
50		20	28	25	23	17	31	22	17	19	24
100		23	26	26	23	20	24	17	26	25	23

MD5 Hash: B497DDA19E26E68A5E5A957FF12E18E4 Editor ID:

Graphics





Report Date:

11 Nov-21 14:45 (p 1 of 4)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Cerioda	aphnia	7-d Survival and	d Reprodu	ction Te	est					Aquati	c Bic	assay &	Consulting	g Labs, Ind
Analysi	is ID:	17-5471-2430	End	lpoint:	7d Survival Rat	е			CET	IS Versi	on:	CETISv	1.9.7	
Analyz	ed:	11 Nov-21 14:42	Ana	ılysis:	Linear Interpola	ition (ICPIN	I)		Stat	us Level	:	1		
Edit Da	ite:	11 Nov-21 14:37	MD	5 Hash:	6DFFCF255519	997790253	5414E	38EA216	Edit	or ID:		000-189	-126-0	
Batch I	D:	16-5109-9334			Reproduction-S	Survival (7d))		Ana	lyst:				
Start D		26 Oct-21 13:40		tocol:	EPA/821/R-02-	013 (2002)			Dilu	ent: l	abor	atory Wat	ter	
_		02 Nov-21 14:03	Spe	cies:	Ceriodaphnia d	ubia			Brin	ie: 1	Not A	pplicable		
Test Le	ength:	7d 0h	Тах	on:	Branchiopoda				Sou	rce: /	Aquat	ic Biosyst	tems, CO	Age: <2
Sample		20-1814-8516	Cod	le:	VCF1021.156				Proj	ject: 1	NPDE	S Stormy	vater Wet S	eason
		25 Oct-21 12:12		erial:	Sample Water				Sou	rce: E	Bioas	say Repo	rt	
		25 Oct-21 16:17	CAS	6 (PC):					Stat	ion: N	ио-г	IL		
Sample	Age:	25h (8.5 °C)	Clie	nt:	Ventura County	Watershee	d Prote	ection Distr	i					
Linear	Interpo	lation Options												
X Trans	sform	Y Transform		d	Resamples	Exp 95%	CL	Method						
inear		Linear	0		280	Yes		Two-Poin	t Interp	oolation				
Γest Ac	ceptat	oility Criteria	TAC L	imits										
Attribut	te	Test Stat	Lower	Uppe	r Overlap	Decision								
Control	Resp	1	0.8	>>	Yes	Passes C	riteria							
Point E	stimat	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL								
EC10	>100	***		<1										
EC15	>100		***	<1	***									
EC20	>100			<1		***								
EC25	>100	***		<1	***	***								
EC40 EC50	>100 >100			<1 <1		1777								

		ate Summary		_				Variate(A/						ic Variate
Conc-%	o .	Code N	Count 10	1.0000	Median 1.0000	Min 1.0000	Max		% 0%	%Effe		A/B	Mean	%Effec
3.25		IN	10	1.0000		1.0000	1.00		0%	0.00% 0.00%		10/10 10/10	1.0000 1.0000	0.00% 0.00%
12.5			10	1.0000		1.0000	1.00		0%	0.00%		10/10	1.0000	0.00%
25			10	1.0000		1.0000	1.00		0%	0.00%		10/10	1.0000	0.00%
50			10	1.0000		1.0000	1.00		0%	0.00%		10/10	1.0000	0.00%
100			10	1.0000	1.0000	1.0000	1.00		0%	0.00%		10/10	1.0000	0.00%
7d Surv	vival Ra	ate Detail												
Conc-%	, 0	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep	5 Re	p 6	Rep 7		Rep 8	Rep 9	Rep 10
)		N	1.0000	1.0000		1.0000	1.00		000	1.0000		1.0000	1.0000	1.0000
6.25			1.0000	1.0000		1.0000	1.00		000	1.0000		1.0000	1.0000	1.0000
12.5			1.0000	1.0000		1.0000	1.00		000	1.0000		1.0000	1.0000	1.0000
25			1.0000	1.0000	1.0000	1.0000	1.00	00 1.0	000	1.0000		1.0000	1.0000	1.0000
50			1.0000	1.0000	1.0000	1.0000	1.00	00 1.0	000	1.0000		1.0000	1.0000	1.0000
100			1.0000	1.0000	1.0000	1.0000	1.00	00 1.0	000	1.0000		1.0000	1.0000	1.0000
'd Surv	/ival Ra	ate Binomials												
Conc-%	0	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep	5 Re	p 6	Rep 7		Rep 8	Rep 9	Rep 10
)		N	1/1	1/1	1/1	1/1	1/1	1/1		1/1		1/1	1/1	1/1
			1/1	1/1	1/1	1/1	1/1	1/1		1/1		1/1	1/1	1/1
3.25			1/1	1/1	1/1	1/1	1/1	1/1		1/1		1/1	1/1	1/1
										4.14		4.14	4.14	1/1
12.5 25			1/1	1/1	1/1	1/1	1/1	1/1		1/1		1/1	1/1	17.1
5.25 12.5 25 50			1/1 1/1	1/1 1/1	1/1 1/1	1/1 1/1	1/1 1/1	1/1 1/1		1/1 1/1		1/1	1/1 1/1	1/1



Report Date:

11 Nov-21 14:45 (p 2 of 4)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

Analysis ID: 17-5471-2430 Endpoint: 7d Survival Rate

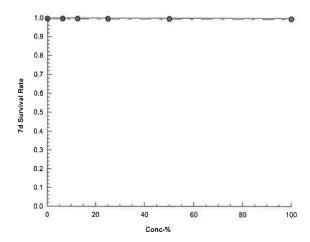
CETIS Version:

Analyzed: 11 Nov-21 14:42 **Edit Date:** 11 Nov-21 14:37

Analysis: Linear Interpolation (ICPIN) MD5 Hash: 6DFFCF255519977902535414E38EA216 Status Level:

Editor ID: 000-189-126-0

Graphics



Report Date:

11 Nov-21 14:45 (p 3 of 4)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Conc-%		Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep	5 Rep	6 F	Rep 7	Rep 8	Rep 9	Rep 10
Reproduct	ion De		D 4				_					ъ.	
100			10	23.3	23.5	17	26	12.4	8% 5	5.67%		22.83	9.87%
50			10	22.6	22.5	17	31	20.3		3.50%		22.83	9.87%
25			10	22.6	22	19	27	15.3		3.50%		22.83	9.87%
12.5			10	26.1	25.5	22	35	15.3		5.67%		25.33	0.00%
6.25			10	25.2	26	20	29	11.3		2.02%		25.33	0.00%
0		N	10	24.7	24.5	22	27	7.15	% 0	0.00%		25.33	0.00%
Conc-%		Code	Count	Mean	Median	Min	Max	CV%	6 9	6Effect		Mean	%Effec
Reproduct	ion Su	ımmary				С	alculate	d Variate				Isoto	nic Variate
IC50 >	100			<1									
	100			<1	***								
	100			<1	C -	44							
	100	- 275		<1		377							
	100	***	444	<1	***	***							
IC10 >	100	***		<1		***							
Level %	1	95% LCL	95% UCL	TU	95% LCL	95% UC	L						
Point Estir	mates												
Control Re	sp	24.7	15	>>	Yes	Passes	Criteria						
Attribute		Test Stat		Uppe		Decisio	n						
Test Acce	ptabilit	y Criteria	TAC L	imits									
Linear		Linear	143	1844	280	Yes		Two-Point	Interpola	ition			
X Transfor	rm	Y Transform			Resamples	Exp 95	% CL	Method					
Linear Inte	erpolat	ion Options											
Sample Ag	ge: 25	n (8.5 °C)	Clie	nt:	Ventura County	/ Watershe	ed Prote	ction Distri					
•		Oct-21 16:17		(PC):				5	Station	: MO-	-FIL		
•		Oct-21 12:12		erial:	Sample Water				Source		assay Rep	ort	
Sample ID		-1814-8516	Cod		VCF1021.156				Project	: NP	DES Storm	water Wet	Season
Test Lengi	tn: 70	- On	Tax	on:	Branchiopoda				Source	: Aqu	latic Biosys	stems, CO	Age: <2
_		Nov-21 14:03	•	cies:	Ceriodaphnia d	ubia			Brine:		Applicable		
Start Date:		Oct-21 13:40		tocol:	EPA/821/R-02-	,	2)		Diluent		oratory Wa		
Batch ID:		-5109-9334			Reproduction-S	,	,		Analys				
Edit Date:		Nov-21 14:37	MD	Hasn:	B497DDA19E2	DE08A5E	5A957FI	F12E18E4	Editor	ID:	000-189	9-126-0	
Analyzed:		Nov-21 14:42		lysis:	Linear Interpola	•	'		Status		1		
Analysis II	D : 16	-7160-3468	End	point:	Reproduction				CETIS	Version;	CETIS	/1.9.7	
	inia 7-0	d Survival and	a Keprodu	ction 16	est				, , ,	Aquatic B	Sioassay &	Consultin	g Labs, Ind
Coriodant	nia 7	d Sundanal and	d Bancadu	ation T									



N

6.25

12.5

Report Date:

11 Nov-21 14:45 (p 4 of 4)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 16-7160-3468 Analyzed: 11 Nov-21 14:42

11 Nov-21 14:37

Endpoint: Reproduction

Analysis:

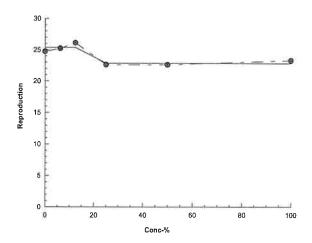
Linear Interpolation (ICPIN) MD5 Hash: B497DDA19E26E68A5E5A957FF12E18E4 **CETIS Version:** Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

11 Nov-21 14:45 (p 1 of 2)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Ceriodaphnia	7-d Su	rvival and	d Repr	oduction Te	st						Aqua	tic Bio	assay &	Consultin	g Labs, Inc.
Analysis ID:	02-141	6-2411		Endpoint:		urvival Rat				CETI	S Vers	ion:	CETISV	1.9.7	
Analyzed:		/-21 14:42		Analysis:	STP	2xK Contir	ngency Tabl	es		Statu	s Leve	d:	1		
Edit Date:	11 Nov	<i>(</i> -21 14:37		MD5 Hash:	6DF	FCF255519	9977902535	414E38EA	216	Edito	r ID:		000-189	9-126-0	
Batch ID:	16-510	9-9334		Test Type:	Rep	roduction-S	Survival (7d)			Analy	/st:				
Start Date:	26 Oct	-21 13:40		Protocol:	EPA	/821/R-02-	013 (2002)			Dilue	nt:	Labor	atory Wa	iter	
Ending Date:	02 Nov	/-21 14:03		Species:	Ceri	odaphnia d	ubia			Brine	: :	Not A	pplicable		
Test Length:	7d 0h			Taxon:	Bran	nchiopoda				Sour	ce:	Aquat	tic Biosys	tems, CO	Age: <24
Sample ID:	20-181	4-8516		Code:	VCF	1021.156				Proje	ct:	NPDE	S Storm	water Wet S	Season
Sample Date:	25 Oct	-21 12:12		Material:	Sam	ple Water				Sour	ce:	Bioas	say Repo	ort	
Receipt Date:	25 Oct	-21 16:17		CAS (PC):						Statio	on:	MO-F	IL.		
Sample Age:	25h (8	5 °C)		Client:	Vent	tura County	Watershed	Protection	Distri						
Data Transfor	m		Alt H	ур				NOEL	LOE	L	TOEL		TU		
Untransformed	i		C > T					100	>100				1		
Fisher Exact/I	Bonferi	oni-Holm	Test												
Control	vs	Conc-%		Test S	tat	P-Type	P-Value	Decision	(α:5%)						
Negative Conti	rol	6.25		1.0000		Exact	1.0000	Non-Sign		Effect					
· ·		12.5		1.0000)	Exact	1.0000	Non-Sign							
		25		1.0000)	Exact	1.0000	Non-Sign							
		50		1.0000)	Exact	1.0000	Non-Sign	ificant E	Effect					
		100		1.0000)	Exact	1.0000	Non-Sign							
Test Acceptab	oility Cr	iteria	ΤΛ	C Limits											
Attribute	1	est Stat	Lowe			Overlap	Decision								
Control Resp			0.8	>>		Yes	Passes Cr	iteria							
7d Survival R	ate Fre	quencies													
Conc-%		ode	NR	R		NR + R	Prop NR	Prop R	%Eff	ect					
0	N		10	0		10	1.0000	0.0000	0.00	%					
6.25			10	0		10	1.0000	0.0000	0.00	%					
12.5			10	0		10	1.0000	0.0000	0.00	%					
25			10	0		10	1.0000	0.0000	0.00	%					
50			10	0		10	1.0000	0.0000	0.00	%					
100			10	0		10	1.0000	0.0000	0.00	%					
7d Survival R	ate Sun	nmary													
Conc-%	C	ode	Count	Mean		95% LCL	95% UCL	Median	Min		Max		Std Err	CV%	%Effect
0						1.0000	1.0000	1.0000	1.000	00	1.000	0	0.0000	0.00%	0.00%
5	N		10	1.0000	,	110000	1.0000	1.0000							0.000/
	Ν		10 10	1.0000 1.0000		1.0000	1.0000	1.0000	1.000	00	1.000	0	0.0000	0.00%	0.00%
6.25	٨)						1.000		0.0000 0.0000	0.00% 0.00%	0.00%
6.25 12.5	٨		10	1.0000) }	1.0000	1.0000	1.0000	1.000	00		0			
6.25 12.5 25	N		10 10	1.0000 1.0000) }	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.000 1.000)0)0	1.000))	0.0000	0.00%	0.00%
6.25 12.5 25 50	N		10 10 10	1.0000 1.0000 1.0000) } 	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.000 1.000 1.000	00 00 00	1.000	0 0 0	0.0000 0.0000	0.00% 0.00%	0.00% 0.00%
3.25 12.5 25 50 100			10 10 10 10	1.0000 1.0000 1.0000 1.0000) } 	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	00 00 00	1.000 1.000 1.000	0 0 0	0.0000 0.0000 0.0000	0.00% 0.00% 0.00%	0.00% 0.00% 0.00%
3.25 12.5 25 50 100 7d Survival R a	ate Det	ail code	10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 Rep 2)	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	00 00 00 00	1.000 1.000 1.000	0 0 0 0	0.0000 0.0000 0.0000	0.00% 0.00% 0.00%	0.00% 0.00% 0.00%
3.25 12.5 25 50 100 7d Survival R a	ate Deta	ail code	10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 Rep 2)	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	00 00 00 00	1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00%
3.25 12.5 25 50 100 7d Survival Ra Conc-% 0 3.25	ate Det	ail code	10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 Rep 2		1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000 Rep	00 00 00 00 00 6	1.0000 1.0000 1.0000 Rep 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00%
6.25 12.5 25 50 100 7d Survival Ra Conc-% 0 6.25	ate Det	ail code	10 10 10 10 10 10 Rep 1	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2		1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5	1.000 1.000 1.000 1.000 Rep	00 00 00 00 00 6	1.0000 1.0000 1.0000 Rep 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 Rep 8	0.00% 0.00% 0.00% 0.00% Rep 9	0.00% 0.00% 0.00% 0.00% Rep 10
6.25 12.5 25 50 100 7d Survival Ra Conc-% 0 6.25 12.5	ate Det	ail code	10 10 10 10 10 10 10 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2 0 1.0000 0 1.0000		1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000 Rep 1.000	6 00 00 00 00 00 00	1.0000 1.0000 1.0000 1.0000 Rep 7 1.0000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 Rep 8 1.0000	0.00% 0.00% 0.00% 0.00% Rep 9 1.0000	0.00% 0.00% 0.00% 0.00% Rep 10 1.0000
6.25 12.5 25 50 100 7d Survival Ra Conc-% 0 6.25 12.5	ate Det	ail code	10 10 10 10 10 10 10 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000		1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000 1.000 1.000	6 00 00 00 00 00 00	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	000000000000000000000000000000000000000	0.0000 0.0000 0.0000 0.0000 Rep 8 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% Rep 9 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000

Report Date:

11 Nov-21 14:45 (p 2 of 2)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-1416-2411

Endpoint: 7d Survival Rate

CETIS Version:

Analyzed: 11 Edit Date: 11

11 Nov-21 14:42 11 Nov-21 14:37 Analysis: STP 2xK Contingency Tables
MD5 Hash: 6DFFCF255519977902535414E38EA216

Status Level:

Editor ID:

ei: 1

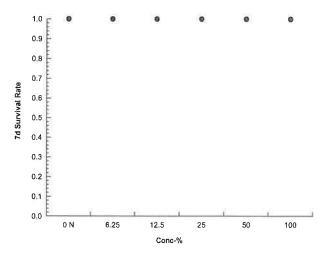
000-189-126-0

CETISv1.9.7

7d Survival Rate Binomials

Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
		N 1/1 1/1 1/1 1/1 1/1	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/	N 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/

Graphics



Report Date:

11 Nov-21 14:45 (p 1 of 8)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Age: <24

Ceriodaphnia 7-c	Survival and	Reproduction	Test
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Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	16-5109-9334	Test Type:	Reproduction-Survival (7d)	Analyst:
Start Date:	26 Oct-21 13:40	Protocol:	EPA/821/R-02-013 (2002)	Diluent:

Laboratory Water Ending Date: 02 Nov-21 14:03 Species: Ceriodaphnia dubia Brine: Not Applicable Test Length: 7d 0h Taxon: Branchiopoda Source: Aquatic Biosystems, CO

Sample ID: 20-1814-8516 Code: VCF1021.156 Project: NPDES Stormwater Wet Season

Sample Date: 25 Oct-21 12:12 Material: Sample Water Source: Bioassay Report

Receipt Date: 25 Oct-21 16:17 CAS (PC): Station: MO-FIL

Sample Age: 25h (8.5 °C) Client: Ventura County Watershed Protection Distri

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.06469	0.5175	0.85%	0
100		8	30	30	30	30	30	0	0	0.00%	0
Overall		16	45.31	36.88	53.74	30	61	3.955	15.82	34.91%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0
6.25		8	340.8	339.8	341.7	340	343	0.1456	1.165	0.34%	0
12.5		8	337.1	335.2	339.1	332	339	0.2946	2.357	0.70%	0
25		8	310.4	308.2	312.5	307	316	0.32	2.56	0.82%	0
50		8	281.5	276	287	272	290	0.821	6.568	2.33%	0
100		8	182	180.4	183.6	180	185	0.2409	1.927	1.06%	0
Overall		48	302	284.6	319.4	180	364	8.652	59.94	19.85%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.02216	0.1773	2.33%	0
6.25		8	7.488	7.312	7.663	7.2	7.8	0.02625	0.21	2.80%	0
12.5		8	7.412	7.243	7.582	7.1	7.7	0.02539	0.2031	2.74%	0
25		8	7.387	7.236	7.539	7.1	7.7	0.0226	0.1808	2.45%	0
50		8	7.35	7.166	7.534	7	7.7	0.02755	0.2204	3.00%	0
100		8	7.35	7.155	7.545	7	7.7	0.02912	0.233	3.17%	0
Overall		48	7.431	7.369	7.493	7	7.9	0.03082	0.2135	2.87%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.06469	0.5175	0.54%	0
100		8	90	90	90	90	90	0	0	0.00%	0
Overall		16	92.81	91.25	94.37	90	96	0.7315	2.926	3.15%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.725	7.477	7.973	7.2	7.9	0.03705	0.2964	3.84%	0
12.5		8	7.713	7.487	7.938	7.2	7.9	0.0337	0.2696	3.50%	0
25		8	7.688	7.49	7.885	7.3	7.9	0.02946	0.2357	3.07%	0
50		8	7.65	7.46	7.84	7.3	7.9	0.02835	0.2268	2.96%	0
100		8	7.6	7.433	7.767	7.3	7.9	0.025	0.2	2.63%	0
Overall		48	7.723	7.652	7.794	7.2	8	0.03539	0.2452	3.17%	0 (0%)



Report Date:

11 Nov-21 14:45 (p 2 of 8)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.06	23.99	24.14	24	24.2	0.01145	0.09156	0.38%	0
12.5		8	24.08	24	24.15	24	24.2	0.01107	0.08857	0.37%	0
25		8	24.11	24	24.23	24	24.3	0.01695	0.1356	0.56%	0
50		8	24.14	24	24.27	24	24.4	0.01997	0.1598	0.66%	0
100		8	24.16	24:01	24.32	24	24.4	0.02309	0.1847	0.76%	0
Overall		48	24.09	24.05	24.13	24	24.4	0.01879	0.1302	0.54%	0 (0%)

Report Date:

11 Nov-21 14:45 (p 3 of 8)

Test Code/ID:

VCF1021.156 / 13-0727-8617 Aquatic Bioassay & Consulting Labs Inc.

Ceriodaphnia	7-d Survival	and Repr	oduction 1	est			Aquatic Bioassay & Consulting Labs, Inc.		
Alkalinity (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		60					
100				30					
0	N	2		60					
100				30					
0	N	3		60					
100				30					
0	N	4		61					
100				30					
0	N	5		61					
100				30					
0	N	6		61					
100				30					
0	N	7		61					
100				30					
0	N	8		61					
100				30					

Report Date: Test Code/ID: 11 Nov-21 14:45 (p 4 of 8)

VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Conductivity-	µmhos								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				340					
12.5				336					
25				316					
50				272					
100				183					
0	N	2		360					
6.25				340					
12.5				337					
25				310					
50				277					
100				180					
0	N	3		354					
6.25				342					
12.5				339					
25				311					
50				278					
100				182					
0	N	4		360					
6.25				340					
12.5				332					
25				310					
50				277					
100				180					
0	N	5		364					
6.25	.,	v		341					
12.5				338					
25				309					
50				282					
100				184					
0	N	6		362					
6.25		Ū		343					
12.5				339					
25				310					
50				287					
100				185					
)	N	7		362					
3.25		-		340					
12.5				339					
25				307					
50				290					
100				182					
)	N	8		360					
5.25	14	U		340					
12.5									
				337					
25 50				310					
				289					
100				180					



Report Date: Test Code/ID: 11 Nov-21 14:45 (p 5 of 8) VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Dissolved Oxy										
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		7.6						
6.25				7.6						
12.5				7.5						
25				7.4						
50				7.4						
100				7.4						
0	N	2		7.4						
6.25				7.5						
12.5				7.4						
25				7.4						
50				7.3						
100				7.2						
0	N	3		7.5						
6.25				7.5						
12.5				7.5						
25				7.4						
50				7.4						
100				7.4						
0	N	4		7.6						
6.25		,		7.3						
12.5				7.3						
25				7.4						
50				7.4						
100				7.5						
0	N	5		7.8						
6.25	14	J		7.7						
12.5				7.6						
25				7.5						
50				7.5						
100				7.5						
	N	6								
0	IN	6		7.9						
6.25				7.8						
12.5				7.7						
25				7.7						
50 100				7.7						
				7.7						
)	N	7		7.6						
6.25				7.2						
12.5				7.1						
25				7.1						
50				7						
100				7						
)	N	8		7.4						
6.25				7.3						
12.5				7.2						
25				7.2						
50				7.1						
100				7.1						

Report Date:

11 Nov-21 14:45 (p 6 of 8)

Test Code/ID:

VCF1021.156 / 13-0727-8617

Hardness (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		95					
100				90					
0	N	2		95					
100				90					
0	N	3		95					
100				90					
0	N	4		96					
100				90					
0	N	5		96					
100				90					
0	N	6		96					
100				90					
0	N	7		96					
100				90					
0	N	8		96					
100				90					

Report Date: Test Code/ID: 11 Nov-21 14:45 (p 7 of 8) VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

pH-Units				
Conc-%	Code	Read Time	Measure QA Diff-% Inst ID Analyst Note	s
0	N	1	8	
6.25			7.2	
12.5			7,2	
25			7.3	
50			7.3	
100			7.3	
0	N	2	8	
6.25			7.3	
12.5			7.4	
25			7.4	
50			7.4	
100			7.4	
)	N	3	7.8	
6.25			7.8	
12.5			7.7	
25			7.6	
50			7.5	
100			7.5	
0	N	4	8	
6.25			7.9	
12.5			7.9	
25			7.9	
50			7.9	
100			7.9	
0	N	5	8	
6.25			7.9	
12.5			7.9	
25			7.9	
50			7.9	
100			7.6	
0	N	6	7.9	
5.25			7.9	
12.5			7.9	
25			7.9	
50			7.7	
100			7.6	
)	N	7	8	
5.25			7.9	
12.5			7.9	
25			7.8	
50			7.8	
100			7.8	
)	N	8	8	
3.25	• •		7.9	
12.5			7.8	
25			7.7	
50			7.7	
100			7.7	

Report Date: Test Code/ID: 11 Nov-21 14:45 (p 8 of 8) VCF1021.156 / 13-0727-8617

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-										
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		24						
6.25				24.2						
12.5				24.2						
25				24.3						
50				24.3						
100				24.4						
0	N	2		24						
6.25				24.1						
12.5				24.1						
25				24.2						
50				24.2						
100				24.3						
0	N	3		24						
6.25				24						
12.5				24.1						
25				24.1						
50				24.2						
100				24.2						
0	N	4		24						_
6.25	IN	4		24.2						
12.5				24.2						
25				24.2						
50										
100				24.4						
				24.4						
0	N	5		24						
6.25				24						
12.5				24						
25				24						
50				24						
100				24						
)	N	6		24						
3.25				24						
12.5				24						
25				24						
50				24						
100				24						
)	N	7		24						
5.25				24						
12.5				24						
25				24						
50				24						
100				24						
)	N	8		24						
3.25	. •	-		24						
12.5				24						
25				24						
50				24						
100				24 24						
100				24						





November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" EPA-821-R-02-013. Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-VEN

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.157

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL

NOEC = 100.00 %

TUc =

EC25 =>100.00 %

1.00

EC50 =>100.00 %

REPRODUCTION

100.00 % NOEC =

TUc = 1.00

IC25 =>100.00 %

IC50 =>100.00 %

tt Johnson

Laboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 14:50 (p 1 of 2)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Ceriodaphnia	7-d Survival an	d Reproduction T	est				Aqua	tic Bioassay &	Consulting		
Batch ID:	17-4720-0803	Test Type:	Reproduction-S	Survival (7d)			Analyst:				
Start Date:	26 Oct-21 13:43	Protocol:	EPA/821/R-02-	-013 (2002)			Diluent:	Laboratory Wa	ter		
Ending Date:	02 Nov-21 14:07	Species:	Ceriodaphnia d	lubia			Brine:	Not Applicable			
Test Length:	7d 0h	Taxon:	Branchiopoda				Source:	Aquatic Biosys		Age:	<24
Sample ID:	06-0782-2388	Code:	VCF1021.157				Project:	NPDES Storm	water Wet Se	eason	
Sample Date:	25 Oct-21 13:20	Material:	Sample Water				Source:	Bioassay Repo	ort		
Receipt Date:	25 Oct-21 16:17	CAS (PC):					Station:	MO-VEN			
Sample Age:	24h (8.5 °C)	Client:	Ventura County	y Watershed	l Protection	n Distri					
Multiple Com	parison Summa	гу									
Analysis ID	Endpoint		parison Method			√ NO		L TOEL	PMSD	TU	
06-6473-2828	7d Survival Rate	Fishe	er Exact/Bonferro	ni-Holm Tes	it	100	>100	***		1	
09-7041-8290	Reproduction	Dunn	ett Multiple Com	parison Tes	t	100	>100		18.3%	1	
Point Estimate	e Summary										
	Endpoint		t Estimate Meth	od		√ Lev	vel %	95% LCI	95% UCL	TU	
14-7564-2185	7d Survival Rate	Linea	r Interpolation (I	CPIN)		√ EC	10 >100		***	<1	
						√ EC				<1	
						√ EC	20 >100			<1	
						√ EC	25 >100			<1	
						√ EC	40 >100	-		<1	
						√ EC			***	<1	
21-3556-2970	Reproduction	Linea	r Interpolation (I	CPIN)		√ IC1		***		<1	
						√ IC1		***	***	<1	
						√ IC2				<1	
						√ IC2				<1	
						√ IC4				<1	
						√ IC5	0 >100	***	***	<1	
Test Acceptab	oility				TAC	Limits					
Analysis ID	Endpoint	Attrik	oute	Test Stat	Lower	Up	oer Over	lap Decision			
06-6473-2828	7d Survival Rate	Contr	ol Resp	1	0.8	>>	Yes	Passes (Criteria		
	7d Survival Rate	Contr	ol Resp	1	0.8	>>	Yes	Passes (Criteria		
09-7041-8290	•	Contr	ol Resp	21.2	15	>>	Yes	Passes (Criteria		
21-3556-2970	•	Contr	ol Resp	21.2	15	>>	Yes	Passes (Criteria		
09-7041 - 8290	Reproduction	PMS	D	0.1831	0.13	0.4	7 Yes	Passes (Criteria		
7d Survival Ra	ate Summary										
Conc-%	Code	Count Mean				Max			CV%	%Eff	
0	N	10 1.000		1.0000	1.0000	1.0			***	0.009	
6.25		10 1.000		1.0000	1.0000	1.0			***	0.009	
12.5		10 1.000		1.0000	1.0000	1.0				0.00	
25		10 1.000		1.0000	1.0000	1.0			***	0.009	
50		10 1.000		1.0000	1.0000	1.00			(****)	0.009	
100		10 1.000	1.0000	1.0000	1.0000	1.0	0.00	0.0000	***	0.00	%
Reproduction	-									a	
Conc-%	Code	Count Mean			Min	Max			CV%	%Eff	
0	N	10 21.2	18.04	24.36	12	26	1.397		20.84%	0.009	
6.25		10 23.3	19.89	26.71	17	32	1.506		20.44%	-9.91	
12.5		10 24.3	22.22	26.38	20	28	0.919		11.97%	-14.6	
25 50		10 25.8	22.83	28.77	20	33	1.315		16.12%	-21.7	
50		10 22.1	20.4	23.8	19	26	0.752		10.76%	-4.25	
100		10 24.7	22.15	27.25	19	31	1.126	3.561	14.42%	-16.5	1%



Report Date:

11 Nov-21 14:50 (p 2 of 2)

Test Code/ID: VCF1021.157 / 18-3904-8933

Ceriodaphnia	7-d Survival a	and Reprodu	uction Test					Aquatic	Bioassay &	Consulting	Labs, Inc
7d Survival R	ate Detail						МЕ	5: 6DFFCF	255519977	9025354141	E38EA216
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Reproduction	Detail						MC	5: F86E20	8516AE138	2F6E9B7B0	6D794006
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	19	20	17	12	23	25	21	23	26	26
6.25		32	25	23	23	17	17	25	21	21	29
12.5		28	26	21	25	21	26	20	25	28	23
25		28	20	24	24	21	24	31	25	33	28
50		24	21	19	20	22	24	26	24	19	22
100		30	31	25	19	25	23	24	23	25	22
7d Survival R	ate Binomials										
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Report Date:

11 Nov-21 14:50 (p 1 of 2)

											Test	Code/II	D:	VCF10	21.157 /	18-3904	-8933
Ceriodaphnia	7-d	Survival and	d Repr	oduction Te	st							Aquat	ic Bio	assay & C	onsultin	g Labs	Inc.
Analysis ID:	09-7	041-8290		Endpoint:	Rep	production					CET	IS Versi	on:	CETISv1.	9.7		
Analyzed:	11 N	lov-21 14:49)	Analysis:	Par	ametric-Con	trol vs 1	rea	tments			us Leve		1			
Edit Date:	11 N	lov-21 14:45	5	MD5 Hash:		7AF7C9042[EF80	Edit	or ID:		000-189-1	26-0		
Batch ID:	17-4	720-0803		Test Type:	Rep	production-S	urvival ((7d)			Anal	yst:					
Start Date:	26 C	Oct-21 13:43		Protocol:	EP/	4/821/R - 02-0	013 (200	02)			Dilu	ent:	Labor	atory Wate	г		
Ending Date:	02 N	lov-21 14:07	•	Species:	Cer	iodaphnia di	ubia	·			Brin	e:	Not A	pplicable			
Test Length:	7d (Oh		Taxon:	Bra	nchiopoda					Sou	rce:	Aquat	tic Biosyste	ms, CO	Age:	<24
Sample ID:	06-0	782-2388		Code:	VCF	F1021.157					Proj	ect:	NPDE	S Stormwa	ater Wet	Season	
Sample Date:	25 C	oct-21 13:20		Material:	San	nple Water					Sou	rce:	Bioas	say Report			
Receipt Date:	25 C	Oct-21 16:17		CAS (PC):							Stati	ion:	MO-V	EN			
Sample Age:	24h	(8.5 °C)		Client:	Ven	ntura County	Waters	hed	Protection	Distri							
Data Transfor	m		Alt H	ур					NOEL	LO	L	TOEL		TU	MSDu	PMS	D
Untransformed	t		C > T						100	>10	0			1.	3.882	18.3	1%
Dunnett Multi	ple C	omparison	Test														
Control	vs	Conc-%		Test S	Stat	Critical	MSD	DF	P-Type	P-V	alue	Decis	ion(α	:5%)			
Negative Cont	rol	6.25		-1.238	3	2.289	3.882	18	CDF	0.99	24	Non-S	Signific	cant Effect			
		12.5		-1.828	}	2.289	3.882	18	CDF	0.99	90	Non-S	Signific	ant Effect			
		25		-2.713	}	2.289	3.882	18	CDF	1.00	000	Non-S	Signific	ant Effect			
		50		-0.530	7	2.289	3.882	18	CDF	0.94	50	Non-S	Signific	cant Effect			
		100		-2.064		2.289	3.882	18	CDF	0.99	96	Non-S	ignific	cant Effect			
Test Acceptal	oility	Criteria	TA	AC Limits													
Attribute		Test Stat	Lowe	r Uppei	r	Overlap	Decis	ion									
Control Resp		21.2	15	>>		Yes	Passe	s Cr	iteria								

, oot , loooptabili	ily officing	TAC	Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision	
Control Resp	21.2	15	>>	Yes	Passes Criteria	
PMSD	0.1831	0.13	0.47	Yes	Passes Criteria	

ANOVA Table							
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)	
Between	146.333	29.2667	5	2.036	0.0882	Non-Significant Effect	
Error	776.4	14.3778	54				
Total	922.733		59	_			

Total	922.733	59			
ANOVA Assum	ptions Tests				
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	5.559	15.09	0.3515	Equal Variances
	Levene Equality of Variance Test	0.9146	3.377	0.4786	Equal Variances
	Mod Levene Equality of Variance Test	0.7429	3.377	0.5948	Equal Variances
Distribution	Anderson Dading A2 Test	0.2204	2 070	0.9074	Normal Distribution

	Shapiro-Wilk W Normality Test	0.9921	0.9459	0.9667	Normal Distribution
	Kolmogorov-Smirnov D Test	0.0721	0.1331	0.5795	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.04698	9.21	0.9768	Normal Distribution
	D'Agostino Skewness Test	0.143	2.576	0.8863	Normal Distribution
	D'Agostino Kurtosis Test	0.1629	2.576	0.8706	Normal Distribution
Distribution	Anderson-Darling A2 Test	0.2391	3.878	0.8074	Normal Distribution
	Mod Levene Equality of Variance Test	0.7429	3.377	0.5948	Equal Variances
	Levene Equality of Variance Test	0.9146	3.377	0.4786	Equal Variances
Variance	Bartiett Equality of Variance Test	5.559	15.09	0.3313	Equal variances

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	21.2	18.04	24.36	22	12	26	1.397	20.84%	0.00%
6.25		10	23.3	19.89	26.71	23	17	32	1.506	20.44%	-9.91%
12.5		10	24.3	22.22	26.38	25	20	28	0.9195	11.97%	-14.62%
25		10	25.8	22.83	28.77	24.5	20	33	1.315	16.12%	-21.70%
50		10	22.1	20.4	23.8	22	19	26	0.752	10.76%	-4.25%
100		10	24.7	22.15	27.25	24.5	19	31	1.126	14.42%	-16.51%

Report Date:

11 Nov-21 14:50 (p 2 of 2) VCF1021.157 / 18-3904-8933

Test Code/ID:

Aquatic Bioassay & Consulting Labs, Inc.

Ceriodaphnia 7-d Survival and Reproduction Test

11 Nov-21 14:45

Analysis ID: 09-7041-8290 **Analyzed:** 11 Nov-21 14:49

Endpoint: Reproduction

Analysis: Parametric-Control vs Treatments
MD5 Hash: EF7AF7C9042DA092722EC757AE83EF80

CETIS Version: Status Level:

Editor ID:

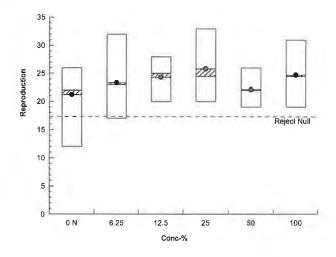
CETISv1.9.7 1 000-189-126-0

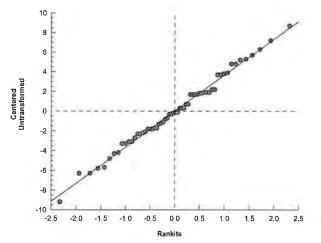
Reproduction Detail

Edit Date:

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	19	20	17	12	23	25	21	23	26	26
6.25		32	25	23	23	17	17	25	21	21	29
12.5		28	26	21	25	21	26	20	25	28	23
25		28	20	24	24	21	24	31	25	33	28
50		24	21	19	20	22	24	26	24	19	22
100		30	31	25	19	25	23	24	23	25	22

Graphics





Report Date:

11 Nov-21 14:50 (p 1 of 4)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Cerioda	aphnia	7-d Survival and	d Reprodu	ction Te	st				Ac	uatic B	lioassay 8	Consulting	Labs, Inc
Analysi	s ID:	14-7564-2185	End	lpoint:	7d Survival Rat				CETIS V	ersion:	CETIS	1.9.7	
Analyze		11 Nov-21 14:49		ılysis:	Linear Interpola				Status L	evel:	1		
Edit Da	te:	11 Nov-21 14:45	MD	5 Hash:	6DFFCF25551	997790253	35414E38	EA216	Editor ID);	000-189	9-126-0	
Batch II	D:	17-4720-0803	Tes	t Type:	Reproduction-S	Survival (7d	1)		Analyst:				
Start Da	ate:	26 Oct-21 13:43	Pro	tocol:	EPA/821/R-02-	013 (2002))		Diluent:	Lab	oratory Wa	ater	
Ending	Date:	02 Nov-21 14:07	' Spe	cies:	Ceriodaphnia d	lubia			Brine:	Not	Applicable)	
Test Le	ngth:	7d 0h	Тах	on:	Branchiopoda				Source:	Aqu	atic Biosys	stems, CO	Age: <2
Sample	ID:	06-0782-2388	Cod	le:	VCF1021.157				Project:	NPE	DES Storm	water Wet S	eason
•		25 Oct-21 13:20		erial:	Sample Water				Source:		assay Rep	ort	
•		25 Oct-21 16:17		S (PC):					Station:	MO-	-VEN	•	
Sample	Age:	24h (8.5 °C)	Clie	nt:	Ventura County	/ Watershe	d Protect	tion Distri					
Linear I	Interpo	lation Options											
X Trans	form	Y Transform		d	Resamples	Exp 95%	6CL N	lethod					
Linear		Linear	0		280	Yes	Т	wo-Point	Interpolati	on			
Test Ac	ceptal	oility Criteria	TAC L	imits									
Attribut		Test Stat	Lower	Upper	Overlap	Decision	1						
Control	Resp	1	0.8	>>	Yes	Passes (Criteria						
Point E	stimat	es											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCI							
EC10	>100			<1	-	Y-9							
EC15	>100			<1									
EC20	>100			<1									
EC25	>100			<1	***								
EC40	>100			<1									
EC50	>100	***		<1									
7d Surv	vival Ra	ate Summary					ulated V	ariate(A/E	•			Isotor	ic Variate
Conc-%		Code	Count	Mean	Median	Min	Max	CV		Effect	A/B	Mean	%Effect
0		N	10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
6.25 12.5			10 10	1.0000		1.0000 1.0000	1.0000			00% 00%	10/10 10/10	1.0000 1.0000	0.00% 0.00%
25			10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
50			10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
100			10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
_	ival D	ate Detail											
Conc-%		Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep	6 Pa	p 7	Rep 8	Rep 9	Rep 10
0		N	1.0000	1.0000		1.0000	1.0000			0000	1.0000	1.0000	1.0000
6.25			1.0000	1.0000		1.0000	1.0000			0000	1.0000	1.0000	1.0000
12.5			1.0000	1.0000		1.0000	1.0000			0000	1.0000	1.0000	1.0000
25			1.0000	1.0000		1.0000	1.0000			0000	1.0000	1.0000	1.0000
50			1.0000	1.0000		1.0000	1.0000			0000	1.0000	1.0000	1.0000
100			1.0000	1.0000		1.0000	1.0000			0000	1.0000	1.0000	1.0000
7d Surv	ival Ra	ate Binomials											
Conc-%		Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep	6 Re	p 7	Rep 8	Rep 9	Rep 10
)		N	1/1	1/1	1/1	1/1	1/1	1/1	1/1		1/1	1/1	1/1
6.25			1/1	1/1	1/1	1/1	1/1	1/1	1/1	l	1/1	1/1	1/1
			1/1	1/1	1/1	1/1	1/1	1/1	1/1	l	1/1	1/1	1/1
12.5			1/1	1/1	1/1	1/1	1/1	1/1	1/1		1/1	1/1	1/1
12.5 25													
			1/1	1/1	1/1	1/1	1/1	1/1	1/1		1/1	1/1	1/1



Report Date:

11 Nov-21 14:50 (p 2 of 4)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed:

14-7564-2185 11 Nov-21 14:49

Endpoint: 7d Survival Rate Analysis:

Linear Interpolation (ICPIN)

CETIS Version: Status Level:

11 Nov-21 14:45 **Edit Date:**

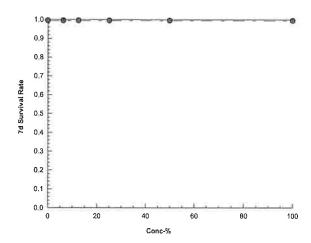
MD5 Hash: 6DFFCF255519977902535414E38EA216

Editor ID:

000-189-126-0

CETISv1.9.7

Graphics



Report Date:

11 Nov-21 14:50 (p 3 of 4)

Test Code/ID:

VCF1021.157 / 18-3904-8933

									Test C	Code/ID:	VCF	1021.157 /	18-3904	-893
Ceriod	laphnia	7-d Survival an	d Reprodu	ction To	est					Aquatic B	Bioassay 8	Consultin	g Labs,	Inc
Analys	is ID:	21-3556-2970	End	point:	Reproduction				CETIS	Version:	CETIS	/1.9.7		
Analyz	ed:	11 Nov-21 14:49	Э Апа	lysis:	Linear Interpola	ation (ICPI	N)			s Level:	1	,,,,,,		
Edit D	ate:	11 Nov-21 14:45	5 MD	Hash:	EF7AF7C9042			83EF80	Edito	r ID:	000-18	9-126-0		
Batch	ID:	17-4720-0803	Tes	t Type:	Reproduction-S	Survival (7d	d)		Analy	st:				
Start D	Date:	26 Oct-21 13:43	Prof	tocol:	EPA/821/R-02-	013 (2002	!)		Diluer	nt: Lab	oratory Wa	ater		
Ending	g Date:	02 Nov-21 14:07	⁷ Spe	cies:	Ceriodaphnia d	lubia			Brine	: Not	Applicable	9		
Test L	ength:	7d 0h	Tax	on:	Branchiopoda				Sourc	e: Aqu	atic Biosy	stems, CO	Age:	<2
Sampl	e ID:	06-0782-2388	Cod	e:	VCF1021.157				Projec	ct: NP	DES Storm	water Wet	Season	
Sampl	e Date:	25 Oct-21 13:20	Mate	erial:	Sample Water				Sourc	e: Bioa	assay Rep	ort		
Receip	ot Date:	25 Oct-21 16:17	CAS	(PC):					Statio	n: MO-	-VEN			
Sampl	e Age:	24h (8.5 °C)	Clie	nt:	Ventura County	y Watershe	ed Protecti	on Distri						
Linear	Interpo	olation Options												
X Tran	sform	Y Transform	See	d	Resamples	Exp 95	% CL M	ethod						
Linear		Linear	5189	972	280	Yes	Tv	wo-Point	Interpo	lation				
Test A	cceptal	bility Criteria	TAC L	imits										
Attribu	ite	Test Stat		Uppe	r Overlap	Decisio	n							
Control	Resp	21.2	15	>>	Yes	Passes								
Point E	Estimat	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UC	L							
IC10	>100	***		<1										
IC15	>100	Desir'		<1		***								
IC20	>100			<1										
IC25	>100	***		<1	***	***								
IC40	>100			<1		***								
IC50	>100	444		<1										
Reprod	duction	Summary				С	alculated	Variate				Isoto	nic Vari	ate
Conc-%	%	Code	Count	Mean	Median	Min	Max	CV%	6	%Effect		Mean	%Ef	fect
0		N	10	21.2	22	12	26	20.8	4%	0.00%		23.65	0.00	%
6.25			10	23.3	23	17	32	20.4	4%	-9.91%		23.65	0.00	%
12.5			10	24.3	25	20	28	11.9	7%	-14.62%		23.65	0.00	%
25			10	25.8	24.5	20	33	16.1	2%	-21.70%		23.65	0.00	%
50			10	22.1	22	19	26	10.7	6%	-4.25%		23.4	1.06	%
100			10	24.7	24.5	19	31	14.4		-16.51%		23.4	1.06	
Reprod	duction	Detail												
Conc-%	%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep	6	Rep 7	Rep 8	Rep 9	Rep	10
0		N	19	20	17	12	23	25		21	23	26	26	
6.25			32	25	23	23	17	17		25	21	21	29	
12.5			28	26	21	25	21	26		20	25	28	23	
0.5														



Report Date:

11 Nov-21 14:50 (p 4 of 4)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 21-3556-2970 **Analyzed:** 11 Nov-21 14:4

11 Nov-21 14:49 11 Nov-21 14:45 Endpoint: Reproduction

Analysis: Linear Interpolation (ICPIN)

MD5 Hash: EF7AF7C9042DA092722EC757AE83EF80

CETIS Version:

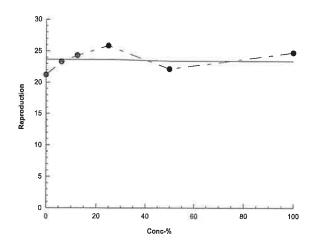
Editor ID:

Status Level:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

11 Nov-21 14:50 (p 1 of 2)

Test Code/ID:

VCF1021.157 / 18-3904-8933

0 N 10 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 6.25 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.000 0.000 12.5 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.000 0.000 50 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.000 0.000 7d Survival Rate Detail Conc-% Code Rep 1 Rep 2 Rep 3 Rep 4 Rep 5 Rep 6 Rep 7 Rep 8 Rep 8 0 N 1.0000	Ceriodaphnia	7-d	Survival and	d Repr	oductio	on Tes	t					Aquat	ic Bio	assay &	Consult	ing Labs	s, Inc
Edit Date:	Analysis ID:	06-6	6473-2828		Endpo						CETI	S Versi	on:	CETIS	1.9.7		
Start Disc 17-4720-0803	Analyzed:	11 N	Nov-21 14:49		Analys	sis: S	STP 2xK Conti	ngency Tabl	es		Statu	s Leve	i :	1			
Start Date: 26 Oct - 21 13:43	Edit Date:	11 N	Nov-21 14:45		MD5 H	lash: 6	DFFCF25551	9977902535	5414E38EA	1216	Edito	r ID:		000-189	9-126-0		
Start Date 26	Batch ID:	17-4	720-0803		Test Ty	ype: F	Reproduction-S	Survival (7d)			Analy	st:					
Part	Start Date:	26 C	Oct-21 13:43		Protoc	ol: E	PA/821/R-02-	013 (2002)					Labor	atory Wa	ater		
Sample Dic 06-0782-2388 Code: VCF1021.157 Sample Dic 06-0782-2388 Code: VCF1021.157 Sample Dic 06-0782-2388 Code: VCF1021.157 Sample Dic 25-07-21.1372 CAS (PC): Sample Dic 25-07-21.1372 CAS (PC): Sample Dic VCF1021.157 Sample Dic D	Ending Date:	02 N	lov-21 14:07		Specie	es: C	Ceriodaphnia d	lubia						-			
Material Sample Date 25 Oct 21 13 20	Test Length:	7d (Oh		Taxon:		•									Age	e: <2
Material Sample Date 25 Oct 21 13 20	Sample ID:	06-0	782-2388		Code:	V	/CF1021.157				Proie	ct:	NPDF	S Storm	water We	t Season	
Case	-	25 C	Oct-21 13:20		Materia	al: S	Sample Water				-					. 000001	
Data Transform	Receipt Date:	25 C	Oct-21 16:17														
C > T	-						entura County	y Watershed	Protection	n Distri	Otalic	,,,,	IVIO V				
C > T	Data Transfor	m		Alt H	qv				NOFI	LOF		TOFL		TII			
Negative Control 6.25																	
Negative Control 6.25	isher Exact/l	Bonfo	erroni-Holm	Test													
Negative Control 6.25					Т	est Sta	at P-Type	P-Value	Decision	ı(α:5%)							
12.5											ffect						
25	3								-								
Test Acceptability									-								
Test Acceptability Criteria Tac Limits Attribute Test Stat Lower Upper Overlap Decision									_								
Attribute Test Stat Lower Upper Overlap Decision Control Resp 1 0.8 >> Yes Passes Criteria 7d Survival Rate Frequencies Conc-% Code NR R NR + Prop NR Prop R Meffect 0 N 10 0 10 1.0000 0.0000 0.00% 6.25 100 0 10 1.0000 0.0000 0.00% 6.25 100 0 10 1.0000 0.0000 0.00% 6.26 100 0 10 1.0000 0.0000 0.00% 6.26 100 0 10 1.0000 0.0000 0.00% 6.27 100 0 10 1.0000 0.0000 0.00% 6.28 100 0 10 1.0000 0.0000 0.00% 6.29 100 0 10 1.0000 0.0000 0.00% 6.29 100 0 10 1.0000 0.0000 0.00% 6.20 100 0 10 1.0000 0.0000 0.00% 6.20 100 0 10 1.0000 0.0000 0.00% 6.20 100 0 10 1.0000 1.0000 0.0000 0.00% 6.21 10 0 0 10 1.0000 0.0000 0.00% 6.22 10 0 10 0 10 1.0000 0.0000 0.00% 6.23 10 0 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 0.0000 0.0000 6.25 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.00000 0.0000 0.0000 0.0000			100														
Attribute Test Stat Lower Upper Overlap Decision Passes Criteria	est Acceptab	oility	Criteria	т/	\C Limi	ite											
Control Resp 1 0.8 >> Yes Pases Criteria	Attribute		Test Stat				Overlap	Decision									
Conc-% Code NR R NR + R Prop NR Prop R %Effect	Control Resp		1	0.8				Passes Cr	riteria								
Conc-% Code NR R NR + R Prop NR Prop R %Effect	'd Survival R	ate F	requencies														
0 N 10 0 10 10 1.0000 0.0000 0.00% 6.25 10 0 0 10 1.0000 0.0000 0.00% 12.5 10 0 0 10 1.0000 0.0000 0.00% 12.5 10 0 0 10 1.0000 0.0000 0.00% 150 10 0 10 1.0000 0.0000 0.00% 150 10 0 10 1.0000 0.0000 0.00% 150 10 0 10 1.0000 0.0000 0.00% 150 10 0 10 1.0000 0.0000 0.00% 150 10 0 10 1.0000 0.0000 0.00% 150 10 0 10 1.0000 1.0000 1.0000 0.00% 150 N 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.00% 150 N 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0			•	NR	R	2	NR + R	Prop NR	Prop R	%Eff	ect						
10																	_
12.5 10 0 10 1.0000 0.0000 0.00% 25 10 0 0 10 1.0000 0.0000 0.00% 26 10 0 0 10 1.0000 0.0000 0.00% 27 d Survival Rate Summary Conc-% Code Count Mean 95% LCL 95% UCL Median Min Max Std Err CV% 27 0 N 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 28 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 29 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 20 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 25 10 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 25 10 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 26 10 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 26 10 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 27 d Survival Rate Detail Conc-% Code Rep 1 Rep 2 Rep 3 Rep 4 Rep 5 Rep 6 Rep 7 Rep 8 Rep 0 28	5.25																
10																	
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7d Survival Rate Summary Conc-% Code Count Mean 95% LCL 95% UCL Median Min Max Std Err CV% 0 N 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 6.25 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 12.5 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 25 10 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 100 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 7d Survival Rate Detail Conc-% Code Rep 1 Rep 2 Rep 3 Rep 4 Rep 5 Rep 6 Rep 7 Rep 8 Rep 0 N 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 7.5.25 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 7d Survival Rate Detail Conc-% Code Rep 1 Rep 2 Rep 3 Rep 4 Rep 5 Rep 6 Rep 7 Rep 8 Rep 0 N 1.0000 1.0																	
Conc-% Code Count Mean 95% LCL 95% UCL Median Min Max Std Err CV% 0 N 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 6.25 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.000 25 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.000 <td></td>																	
N 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 0.000 0.0000 0.0000 0.0000 0.0000 0.000 0.000 0.000 0.000 0.000 0	d Survival Ra	ate S	ummary										_				
10	Conc-%		Code	Coun	t M	lean	95% LCL	95% UCL	Median	Min		Max		Std Err	CV%	%Ef	ffect
10			N	10	1.	.0000	1.0000	1.0000	1.0000	1.000	00	1.0000)	0.0000	0.00%	0.00)%
12.5	.25						1.0000	1.0000		1.000	00				0.00%		
10 1.0000 1.0000 1.0000 1.0000 1.0000 0.000 0.000 0.000 0.000 0.000 1.0000 1.0000 1.0000 1.0000 0.000 0.000 0.000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000 0.000 0.0000 0.000 0.0000 0.0000 0.0000 0.	2.5														0.00%		
10	5			10	1.	.0000	1.0000								0.00%		
100 10 1.0000 1.0000 1.0000 1.0000 1.0000 0.000 0.000 0.000 7d Survival Rate Detail Conc-% Code Rep 1 Rep 2 Rep 3 Rep 4 Rep 5 Rep 6 Rep 7 Rep 8 Rep 0 N 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 63.25 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 12.5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25 1.0000 1.0	0				1.	.0000	1.0000								0.00%		
Conc-% Code Rep 1 Rep 2 Rep 3 Rep 4 Rep 5 Rep 6 Rep 7 Rep 8 Rep 8 0 N 1.0000 <td>00</td> <td></td> <td></td> <td></td> <td>1.</td> <td>.0000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.00%</td> <td></td> <td></td>	00				1.	.0000									0.00%		
N 1.0000	d Survival Ra	ate D	etail														
5.25 1.0000	onc-%		Code	Rep 1	R	ep 2	Rep 3	Rep 4	Rep 5	Rep	<u> </u>	Rep 7		Rep 8	Rep 9	Rep	p 10
12.5 1.0000			N	1.0000	0 1.	.0000	1.0000	1.0000	1.0000	1.000	0	1.0000)	1.0000	1.0000	1.00	000
12.5 1.0000	.25			1.0000	0 1.	.0000	1.0000			1.000	0	1.0000) .	1.0000	1.0000		
1.0000 1.															1.0000		
50 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.00															1.0000		
1180 - 1180 TODA TODA TODA TODA TODA TODA TODA TODA																	
1.0000 1.0	UU			1.0000	J 1.	.0000	1.0000	1.0000	1.0000	1.000	U	1.0000)	1.0000	1.0000	1.00	200



Report Date:

11 Nov-21 14:50 (p 2 of 2)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 06-6473-2828 Analyzed:

Edit Date:

11 Nov-21 14:49 11 Nov-21 14:45 Endpoint: 7d Survival Rate

Analysis: STP 2xK Contingency Tables MD5 Hash: 6DFFCF255519977902535414E38EA216

CETIS Version:

Editor ID:

Status Level:

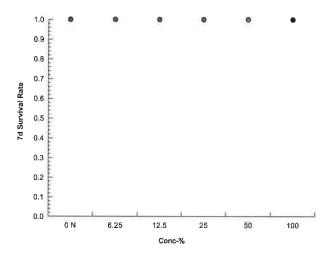
000-189-126-0

CETISv1.9.7

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



Report Date:

11 Nov-21 14:50 (p 1 of 8)

Test Code/ID: V

VCF1021.157 / 18-3904-8933

Ceriodaphnia	7-d Survival and R	eproduction T	est	Aqu	uatic Bioassay & Consulting	g Labs, Inc.
Batch ID:	17-4720-0803	Test Type:	Reproduction-Survival (7d)	Analyst:		
Start Date:	26 Oct-21 13:43	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water	
Ending Date:	02 Nov-21 14:07	Species:	Ceriodaphnia dubia	Brine:	Not Applicable	
Test Length:	7d 0h	Taxon:	Branchiopoda	Source:	Aquatic Biosystems, CO	Age: <24
Sample ID:	06-0782-2388	Code:	VCF1021.157	Project:	NPDES Stormwater Wet S	Season

Sample Date: 25 Oct-21 13:20 Material: Sample Water Source: Bioassay Report

Receipt Date: 25 Oct-21 16:17 CAS (PC): Station: MO-VEN

Sample Age: 24h (8.5 °C) Client: Ventura County Watershed Protection Distri

Alkalinity (CaC	O3)-mg	q/L
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Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.06469	0.5175	0.85%	0
100		8	24	24	24	24	24	0	0	0.00%	0
Overall		16	42.31	32.23	52.39	24	61	4.729	18.92	44.71%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0
6.25		8	338.4	337.8	339	337	339	0.093	0.744	0.22%	0
12.5		8	335.2	333	337.5	332	339	0.3391	2.712	0.81%	0
25		8	323.8	321	326.5	320	329	0.4159	3.327	1.03%	0
50		8	286.8	283.2	290.3	282	295	0.5376	4.301	1.50%	0
100		8	212	210.4	213.6	210	215	0.2409	1.927	0.91%	0
Overall		48	309.4	295.1	323.8	210	364	7.138	49.45	15.98%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.02216	0.1773	2.33%	0
6.25		8	7.45	7.289	7.611	7.3	7.8	0.02409	0.1927	2.59%	0
12.5		8	7.4	7.266	7.534	7.3	7.7	0.02004	0.1604	2.17%	0
25		8	7.363	7.222	7.503	7.2	7.7	0.02106	0.1685	2.29%	0
50		8	7.325	7.193	7.457	7.2	7.6	0.01976	0.1581	2.16%	0
100		8	7.312	7.155	7.47	7.1	7.6	0.02356	0.1885	2.58%	0
Overall		48	7.408	7.353	7.464	7.1	7.9	0.02775	0.1922	2.60%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.06469	0.5175	0.54%	0
100		8	60	60	60	60	60	0	0	0.00%	0
Overail		16	77.81	68.01	87.62	60	96	4.6	18.4	23.65%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.563	7.266	7.859	7	7.9	0.04429	0.3543	4.69%	0
12.5		8	7.55	7.26	7.84	7	7.9	0.0433	0.3464	4.59%	0
25		8	7.538	7.252	7.823	7	7.9	0.04275	0.342	4.54%	0
50		8	7.55	7.275	7.825	7	7.9	0.04119	0.3295	4.36%	0
100		8	7.55	7.275	7.825	7	7.9	0.04119	0.3295	4.36%	0
Overall		48	7.619	7.522	7.716	7	8	0.04816	0.3337	4.38%	0 (0%)



Report Date:

11 Nov-21 14:50 (p 2 of 8)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.06	23.96	24.16	24	24.3	0.01485	0.1188	0.49%	0
12.5		8	24.09	23.99	24.18	24	24.3	0.01407	0.1126	0.47%	0
25		8	24.09	23.99	24.18	24	24.3	0.01407	0.1126	0.47%	0
50		8	24.11	23.99	24.23	24	24.4	0.01822	0.1457	0.60%	0
100		8	24.13	23.98	24.27	24	24.5	0.0219	0.1752	0.73%	0
Overall		48	24.08	24.04	24.12	24	24.5	0.01785	0.1237	0.51%	0 (0%)

Report Date:

11 Nov-21 14:50 (p 3 of 8)

Test Code/ID:

VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

								riquate bloaday a consulting Labs, me.
Alkalinity (Ca	CO3)-mg/L							
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		60				
100				24				
0	N	2		60				
100				24				
0	N	3		60				
100				24				
0	N	4		61				
100				24				
0	N	5		61				
100				24				
0	N	6		61				
100				24				
0	N	7		61				
100				24				
0	N	8		61				
100				24				

Report Date: Test Code/ID: 11 Nov-21 14:50 (p 4 of 8) VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

Conductivity-									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				338					
12.5				339					
25				323					
50				286					
100				213					
0	N	2		360					
6.25				339					
12.5				336					
25				320					
50				290					
100				210					
0	N	3		354					
6.25				339					
12.5				338					
25				322					
50				295					
100				215					
0	N	4		360					
6.25		·		337					
12.5				332					
25				324					
50				282					
100				210					
0	N	5		364					
6.25		Ů		338					
12.5				333					
25				328					
50				285					
100				212					
0	N	6		362					
6.25	IN	O		339					
12.5				335					
25				329					
50				288					
100				288 214					
0	NI NI	7							
0 6.25	N	1		362 339					
12.5				337					
25				337 324					
50				324 286					
100				286					
	N	0							
0	N	8		360					
6.25				338					
12.5				332					
25				320					
50				282					
100				212					

Ceriodaphnia 7-d Survival and Reproduction Test

Report Date:

11 Nov-21 14:50 (p 5 of 8)

Test Code/ID:

VCF1021.157 / 18-3904-8933 Aquatic Bioassay & Consulting Labs, Inc.

Dissolved Oxygen-mg/L									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6					
6.25				7.4					
12.5				7.3					
25				7.3					
50				7.2					
100				7.2					
0	N	2		7.4					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7.2					
0	N	3		7.5					
6.25				7.4					
12.5				7.3					
25				7.3					
50				7.2					
100				7.2					
0	N	4		7.6					
6.25				7.3					
12.5				7.3					
25				7.4					
50				7.4					
100				7.6					
0	N	5		7.8					
6.25				7.7					
12.5				7.6					
25				7.5					
50				7.5					
100				7.5					
0	N	6		7.9					
6.25				7.8					
12.5				7.7					
25				7.7					
50				7.6					
100				7.5					
0	N	7		7.6					
6.25				7.4					
12.5				7.4					
25				7.3					
50				7.3					
100				7.2					
0	N	8		7.4					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7.1					



N

N

Ν

N

Report Date: Test Code/ID: 11 Nov-21 14:50 (p 6 of 8) VCF1021.157 / 18-3904-8933

Ceriodaphnia	7-d Survival	and Repr	oduction Te	st				Aquatic Bioassay & Consulting Labs, Inc.
Hardness (Ca	CO3)-mg/L							
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		95				
100				60				
0	N	2		95				
100				60				
0	N	3		95				
100				60				
0	N	4		96				
100				60				

Report Date: Test Code/ID: 11 Nov-21 14:50 (p 7 of 8) VCF1021.157 / 18-3904-8933

Ceriodaphnia 7-d Survival and Reproduction Test

pH-Units						
Conc-%	Code	Read Time	Measure QA	Diff-% Ins	t ID Analyst	Notes
0	N	1	8			
6.25			7			
12.5			7			
25			7			
50			7			
100			7			
0	N	2	8			
6.25			7.3			
12.5			7.3			
25			7.3			
50			7.4			
100			7.4			
0	N	3	7.8			
6.25			7.8			
12.5			7.7			
25			7.6			
50			7.5			
100			7.5			
0	N	4				
	IN	4	8			
6.25			7.9			
12.5			7.9			
25			7.9			
50			7.9			
100			7.9			
0	N	5	8			
6.25			7.9			
12.5			7.9			
25			7.9			
50			7.9			
100			7.9			
0	N	6	7.9			
6.25			7.9			
12.5			7.9			
25			7.9			
50			7.9			
100			7.9			
)	N	7	8			
6.25			7.3			
12.5			7.3			
25			7.3			
50			7.3			
100			7.3			
0	N	8	8			
6.25	. •	J	7.4			
12.5			7.4			
			7.4			
25 50						
			7.5			
100			7.5			

Ceriodaphnia 7-d Survival and Reproduction Test

Report Date:

11 Nov-21 14:50 (p 8 of 8) VCF1021.157 / 18-3904-8933

Test Code/ID:

Temperature-°C			
Conc-%	Code	Read Tin	e Measure QA Diff-% Inst ID Analyst Notes
0	N	1	24
6.25			24.2
12.5			24.2
25			24.2
50			24.2
100			24.2
0	N	2	24
6.25			24.3
12.5			24.3
25			24.3
50			24.4
100			24.5
0	N	3	24
6.25			24
12.5			24.1
25			24.1
50			24.1
100			24.1
0	N	4	24
6.25			24
12.5			24.1
25			24.1
50			24.2
100			24.2
0	N	5	24
6.25			24
12.5			24
25			24
50			24
100			24
0	N	6	24
6.25			24
12.5			24
25			24
50			24
100			24
0	N	7	24
6.25			24
12.5			24
25			24
50			24
100			24
0	N	8	24
6.25			24
12.5			24
25			24
50			24
100			24



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" EPA-821-R-02-013. Results were as follows:

CLIENT:

Ventura County Flood Control

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SAMPLE I.D.:

MO-HUE

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.158

SURVIVAL

NOEC = 100.00 %

TUc = 1.00

EC25 =>100.00 %

EC50 =>100.00 %

REPRODUCTION

NOEC = 100.00 %

TUc =1.00

IC25 =>100.00 %

IC50 =>100.00 %

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 15:00 (p 1 of 2)

Test Code/ID: VCF1021.158 / 12-0098-6500

Ceriodaphnia	7-d Survival an	d Reproduction T	est				Aqu	atic Bi	oassay & (Consulting	Labs, i	nc.
Batch ID:	18-1410-9064	Test Type:	Reproduction-	Survival (7d)			Analyst:					
Start Date:	26 Oct-21 13:52		EPA/821/R-02				Diluent:	Labo	ratory Wate	er		
Ending Date:	02 Nov-21 14:10	Species:	Ceriodaphnia d	dubia			Brine:	Not A	Applicable			
Test Length:	7d 0h	Taxon:	Branchiopoda				Source:	Aqua	tic Biosyste	ems, CO	Age:	<24
Sample ID:	07-5176-2437	Code:	VCF1021.158				Project:	NPD	ES Stormw	ater Wet Se	ason	
Sample Date:	25 Oct-21 14:15	Material:	Sample Water				Source:	Bioas	ssay Repor	t		
Receipt Date:	: 25 Oct-21 16:17	CAS (PC):					Station:	MO-l	HUE			
Sample Age:	24h (8.5 °C)	Client:	Ventura Count	y Watershed	Protection	Distri						
Multiple Com	parison Summa	ry										
Analysis ID	Endpoint		parison Method			/ NO			TOEL	PMSD	TU	S
	7d Survival Rate		er Exact/Bonferro			100		0	***	***	1	11
13-5718-0339	Reproduction	Dunr	nett Multiple Com	parison Tes	t	100	>10	0	***	13.0%	1	1
Point Estimat	te Summary											
Analysis ID	Endpoint		t Estimate Meth	nod		/ Lev	el %		95% LCL	95% UCL	TU	S
16-1294-2510	7d Survival Rate	Linea	ar Interpolation (I	CPIN)	,	/ EC	10 >10	0			<1	1
						/ EC			***	***	<1	
						/ EC		0		***	<1	
						/ EC			***		<1	
						/ EC			***		<1	
						/ EC			***		<1	
18-6301-5261	Reproduction	Linea	r Interpolation (I	CPIN)		/ IC1					<1	1
						/ IC1					<1	
						/ IC2					<1	
						/ IC2					<1	
						/ IC4			***		<1	
						/ IC5	0 >10	U	***	***	<1	
Test Acceptal	bility				TAC	_imits						
Analysis ID	Endpoint	Attril		Test Stat		Up		•	Decision			
	7d Survival Rate		rol Resp	1	8.0	>>	Yes		Passes Cr			
	7d Survival Rate		rol Resp	1	0.8	>>	Yes		Passes Cr			
	Reproduction		rol Resp	26.3	15	>>	Yes		Passes Cr			
	Reproduction		rol Resp	26.3	15	>>	Yes		Passes Cr			
	Reproduction	PMS	D .	0.1298	0.13	0.4	7 Yes		Below Crit	eria		_
7d Survival R		Caumh Mann	050/ 1.01	059/ 1101	88:	Ma	. 044	F	CAN Davi	C) (0/	0/ E-es	4
Conc-% 0	Code N	10 1.000		95% UCL 1.0000	Min 1.0000	Ma :			O.0000	CV%	%Effe	
6.25	IN	10 1.000		1.0000	1.0000	1.0			0.0000		0.00%	
12.5		10 1.000		1.0000	1.0000	1.0			0.0000		0.00%	
25		10 1.000		1.0000	1.0000	1.0			0.0000		0.00%	
		10 1.000		1.0000	1.0000	1.0			0.0000		0.00%	
50									0.0000		0.00%	
		10 1.000		1.0000	1.0000	1.0	0.00					
100	Summary			1.0000	1.0000	1.00	0.00					
100 Reproduction	Summary Code		1.0000		1.0000 Min	1.00 Ma:			Std Dev	CV%	%Effe	ect
100 Reproduction Conc-%		10 1.000 Count Mear 10 26.3	95% LCL 24.36	95% UC L 28.24	Min 21	Ma :	Std 0.85	Err 7	2.71	10.30%	0.00%	6
100 Reproduction Conc-% 0 6.25	Code	Count Mear 10 26.3 10 23.1	95% LCL 24.36 19.93	95% UCL 28.24 26.27	Min 21 18	Ma : 30 30	Std 0.85 1.40	Err 7	2.71 4.433	10.30% 19.19%	0.00% 12.17	% '%
Reproduction Conc-% 0 6.25 12.5	Code	Count Mear 10 26.3 10 23.1 10 23.1	95% LCL 24.36 19.93 20.48	95% UCL 28.24 26.27 25.72	Min 21 18 18	Ma : 30 30 29	x Std 0.85 1.40 1.15	Err 7 2	2.71 4.433 3.665	10.30%	0.00%	% '%
100 Reproduction Conc-% 0 6.25 12.5 25	Code	Count Mear 10 26.3 10 23.1 10 23.1 10 26.6	95% LCL 24.36 19.93 20.48 24.6	95% UCL 28.24 26.27 25.72 28.6	Min 21 18 18 23	Max 30 30 29 32	Std 0.85 1.40 1.15 0.88	Err 7 2 9	2.71 4.433 3.665 2.797	10.30% 19.19% 15.87% 10.51%	0.00% 12.17 12.17 -1.149	% '% '%
50 100 Reproduction Conc-% 0 6.25 12.5 25 50 100	Code	Count Mear 10 26.3 10 23.1 10 23.1	95% LCL 24.36 19.93 20.48	95% UCL 28.24 26.27 25.72	Min 21 18 18	Ma : 30 30 29	x Std 0.85 1.40 1.15	Err 7 2 9	2.71 4.433 3.665	10.30% 19.19% 15.87%	0.00% 12.17 12.17	% '% '%

Report Date:

11 Nov-21 15:00 (p 2 of 2)

VCF1021.158 / 12-0098-656

Ceriodaphnia	N 1.0000										
7d Survival R	ate Detail						ME	5: 6DFFCF	255519977	902535414	E38EA216
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Reproduction	Detail						ME	5: 5CB671	F6EA18297	3DD90D32F	-31B3A7[
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	29	24	28	21	26	27	28	26	30	24
6.25		26	30	30	20	20	18	19	20	24	24
12.5		28	29	23	21	19	21	22	24	18	26
25		28	26	24	26	26	24	27	30	23	32
50		32	26	25	27	27	28	33	31	29	31
100		22	20	25	32	25	25	23	25	23	21
7d Survival R	ate Binomials										
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Report Date: Test Code/ID: 11 Nov-21 15:00 (p 1 of 2) VCF1021.158 / 12-0098-6500

Ceriodaphnia	7-d	Survival an	d Repr	oduction T	est							Aquat	ic Bi	oassay & C	Consulting	Labs, Inc
Analysis ID:	13-5	5718-0339		Endpoint:	Rei	oroduction					CETI	S Versi	on:	CETISv1.	9.7	
Analyzed:		Nov-21 14:59)	Analysis:		ametric-Cor	ntrol vs T	reat	tments			ıs Leve		1	.0.1	
Edit Date:	11 N	Nov-21 14:54	1	-		7702B74565				E73		or ID:		000-189-	126-0	
Batch ID:	18-1	1410-9064		Test Type:	Rer	production-S	Survival C	7d)			Anal	vet:				
Start Date:		Oct-21 13:52		Protocol:		A/821/R-02-	,	,			Dilue	-	Labor	ratory Wate	\r_	
Ending Date:				Species:		iodaphnia d	•	/2)			Brine			atory wate	51	
Test Length:			,	•		nchiopoda	иыа								00	A 40
rest Length.	7 u	Off		Taxon:	ыа	пспюрова					Sour	ce:	Aqua	tic Biosyste	erns, CO	Age: <2
Sample ID:		5176-2437		Code:		F1021.158					Proje	ect:	NPD	ES Stormw	ater Wet S	Season
Sample Date:				Material:	Sar	mple Water					Sour			say Repor	t	
Receipt Date:	25 C	Oct-21 16:17		CAS (PC):							Stati	on:	MO-H	IUE		
Sample Age:	24h	(8.5 °C)		Client:	Ver	ntura County	Watersl	hed	Protection	Distri						
Data Transfor	m		Alt H	lур					NOEL	LOE		TOEL		TU	MSDu	PMSD
Untransformed	d		C > T						100	>100				1	3.413	12.98%
Dunnett Multi	iple (Comparison	Test													
Control	vs	Conc-%		Test	Stat	Critical	MSD	DF	P-Type	P-Va	lue	Decis	ion(a	r.5%)		
Negative Cont		6.25		2.146		2.289		_	CDF	0.06				cant Effect		
		12.5		2.146		2.289	3.413			0.06			_	cant Effect		
		25		-0.20		2.289	3.413		CDF	0.886			_	cant Effect		
		50		-1.74		2.289	3.413	18		0.998			_	cant Effect		
		100		1.476		2.289	3.413			0.22			•	cant Effect		
Test Acceptal	hility	Criteria	_													
Attribute	onity	Test Stat		AC Limits	_	Overlap	Decisi	on								
Control Resp		26.3	15	er Uppe >>		Yes	Passes		iteria							
PMSD		0.1298	0.13	0.47		Yes	Below									
ANOVA Table								-								
		Sum Sau		Maan	P		DF		F Stat	P-Va	lua	Doolo	:an/a	E0/\		
Source		Sum Squa 267,55	ares	Mean 53.51		iare	5		4.815	0.00		Decis Signifi	<u> </u>			
Between									4.615	0.00	10	Signiii	icant i	Епесі		
Error Total		600.1 867.65		11.11	3		54 59	-	-							
	m nái							-			-		_			
ANOVA Assur Attribute	mptic	Test					Test St		Critical	P-Va	lua	Dania	ion/a	.40/1		
Variance			uality c	of Variance	Foet		3.613	ıaı	15.09	0.606		Decis Equal		·		
v ananoe				of Variance			1.161		3.377	0.340		Equal				
				ality of Varia		Test	1.064		3.377	0.390		Equal				
Distribution		Anderson-		•	1100	1001	0.5139		3.878	0.196				tribution		
ווטווטעווטוו		D'Agostino	-				0.2543		2.576	0.799				tribution		
		D'Agostino					1.666		2.576	0.09				tribution		
		_		ness rest son K2 Omn	ihue	Tast	2.84		9.21	0.24				tribution		
		_		nov D Test	מטעו	1031	0.091		0.1331	0.23				tribution		
		_		Normality Te	st		0.9677		0.1331	0.23				tribution		
Reproduction	Sun	_														
Conc-%	. Juil	Code	Coun	ıt Mean		95% LCL	95% U	CI	Median	Min		Max		Std Err	CV%	%Effect
0		N	10	26.3	_	24.36	28.24		26.5	21		30		0.857	10.30%	0.00%
6.25			10	23.1		19.93	26.27		22	18		30		1.402	19.19%	12.17%
40.5			40	23.1		70.40	20.27		22	40		20		1.402	15.1570	12.1770



15.87%

10.51%

9.43%

13.75%

1.159

0.8844

0.8622

1.048

12.17%

-1.14%

-9.89%

8.37%

25.72

28.6

30.85

26.47

22.5

26

24

28.5

18

23

25

20

29

32

33

32

12.5

25

50

100

10

10

10

10

23.1

26.6

28.9

24.1

20.48

24.6

26.95

21.73

Report Date: Test Code/ID:

11 Nov-21 15:00 (p 2 of 2) VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 13-5718-0339 Analyzed:

11 Nov-21 14:59

11 Nov-21 14:54

Endpoint: Reproduction

Analysis: Parametric-Control vs Treatments

MD5 Hash: CB7702B74565EF7295134E960A131E73

CETIS Version: Status Level:

Editor ID:

000-189-126-0

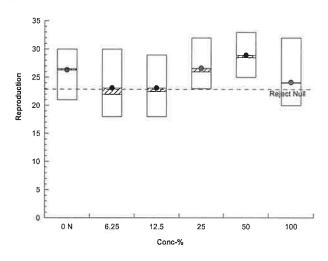
CETISv1.9.7

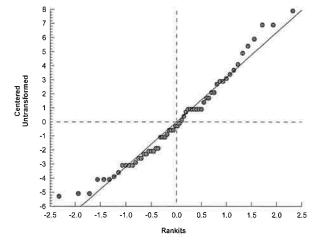
Reproduction Detail

Edit Date:

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	29	24	28	21	26	27	28	26	30	24
6.25		26	30	30	20	20	18	19	20	24	24
12.5		28	29	23	21	19	21	22	24	18	26
25		28	26	24	26	26	24	27	30	23	32
50		32	26	25	27	27	28	33	31	29	31
100		22	20	25	32	25	25	23	25	23	21

Graphics





Report Date:

11 Nov-21 15:00 (p 1 of 4)

Test Code/ID: VCF1021.158 / 12-0098-6500

								Test Co	de/ID:	VCF1	021.158 / 1	2-0098-6500
Ceriodaphnia	a 7-d Survival an	st			Ad	quatic E	Bioassay &	Consulting	J Labs, Inc.			
Analysis ID:	16-1294-2510	End	•	7d Survival Rat				CETIS V	ersion:	CETISv	1.9.7	-
Analyzed:	11 Nov-21 14:59			Linear Interpola				Status L	evel:	1		
Edit Date:	11 Nov-21 14:54	MD:	Hash:	6DFFCF25551	997790253	5414E38E	EA216	Editor II): 	000-189	-126-0	
Batch ID:	18-1410-9064			Reproduction-S	•	•		Analyst:				
Start Date:	26 Oct-21 13:52			EPA/821/R-02-	' ')		Diluent:		oratory Wa	ter	
_	02 Nov-21 14:10	•		Ceriodaphnia d	ubia			Brine:		Applicable		
Test Length:	7d 0h	Tax	on:	Branchiopoda				Source:	Aqu	ıatic Biosys	tems, CO	Age: <24
Sample ID:	07-5176-2437	Cod	e:	VCF1021.158				Project:	NPI	DES Storm	water Wet S	eason
•	: 25 Oct-21 14:15		erial:	Sample Water				Source:	Bio	assay Repo	ort	
Receipt Date:	: 25 Oct-21 16:17	CAS	(PC):					Station:	MO	-HUE		
Sample Age:	24h (8.5 °C)	Clie	nt:	Ventura County	Watershe	d Protecti	on Distri					
Linear Interp	olation Options											
X Transform	Y Transform	See	d	Resamples	Exp 95%	6 CL M	ethod					
Linear	Linear	0		280	Yes	Τv	wo-Point	Interpolati	ion			
Test Accepta	bility Criteria	TAC L	imits									
Attribute	Test Stat	Lower	Upper	Overlap	Decision	1						
Control Resp	1	8.0	>>	Yes	Passes (Criteria						
Point Estimat	tes											
Level %	95% LCL	95% UCL	TU	95% LCL	95% UCI	_						
EC10 >100			<1	***	-							
EC15 >100			<1									
EC20 >100			<1		1000							
EC25 >100			<1	-								
EC40 >100			<1									
EC50 >100		***	<1									
7d Survival R	tate Summary				Calc	ulated Va	riate(A/B)			Isotor	ic Variate
Conc-%	Code	Count	Mean	Median	Min	Max	CV%	6 %	Effect	A/B	Mean	%Effect
0	N	10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
6.25		10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
12.5		10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
25		10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
50		10	1.0000		1.0000	1.0000			00%	10/10	1.0000	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	0.00	% 0.	00%	10/10	1.0000	0.00%
7d Survival R												
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep		ep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000		1.0000	1.0000	1.00		0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000		1.0000	1.0000	1.00		0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000		1.0000	1.0000	1.00		0000	1.0000	1.0000	1.0000
25		1.0000	1.0000		1.0000	1.0000	1.00		0000	1.0000	1.0000	1.0000
50		1.0000	1.0000		1.0000	1.0000	1.00		0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.00	00 1.	0000	1.0000	1.0000	1.0000

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1



7d Survival Rate Binomials

Report Date:

11 Nov-21 15:00 (p 2 of 4)

Test Code/ID:

VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed: 11 Nov-21 14:59

16-1294-2510

Endpoint: 7d Survival Rate

CETIS Version: Status Level:

CETISv1.9.7

Edit Date:

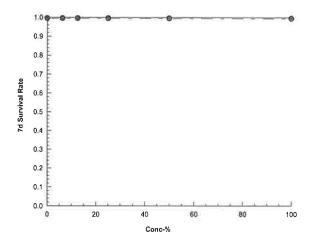
11 Nov-21 14:54

Analysis: Linear Interpolation (ICPIN) MD5 Hash: 6DFFCF255519977902535414E38EA216

Editor ID:

000-189-126-0

Graphics



Report Date:

11 Nov-21 15:00 (p 3 of 4)

Test Code/ID: VCE1021 158 / 12-0008 6500

									Test Co	de/ID:	VCF	1021.158 / 1	2-0098-650
Ceriod	laphnia	7-d Survival an	d Reprodu	ction T	est				A	quatic E	lioassay 8	Consultin	g Labs, Inc
Analys	is ID:	18-6301-5261		point:	Reproduction				CETIS	Version:	CETIS	/1.9.7	
Analyz		11 Nov-21 14:59		lysis:	Linear Interpola	`	,		Status	Level:	1		
Edit Da	ate:	11 Nov-21 14:54	4 MD:	Hash:	CB7702B7456	5EF72951	34E960A	\131E73	Editor I	D:	000-189	9-126-0	
Batch	ID:	18-1410-9064	Tes	t Type:	Reproduction-S	Survival (7	d)		Analyst	:			
Start D	ate:	26 Oct-21 13:52	2 Prof	ocol:	EPA/821/R-02-	013 (2002	2)		Diluent	: Lab	oratory Wa	ater	
Ending	g Date:	02 Nov-21 14:10	O Spe	cies:	Ceriodaphnia d	ubia			Brine:	Not	Applicable)	
Test L	ength:	7d 0h	Tax	on:	Branchiopoda				Source	: Aqu	atic Biosys	stems, CO	Age: <2
Sampl	e ID:	07-5176-2437	Cod	e:	VCF1021.158				Project	: NPI	DES Storm	water Wet S	Season
Sampl	e Date:	25 Oct-21 14:15	Mat	erial:	Sample Water				Source	: Bioa	assay Rep	ort	
Receip	t Date:	25 Oct-21 16:17	CAS	(PC):					Station	: MO	-HUE		
Sampl	e Age:	24h (8.5 °C)	Clie	nt:	Ventura County	/ Watersh	ed Protec	ction Distri					
_inear	Interpo	olation Options											
X Tran	sform	Y Transform	n See	d	Resamples	Exp 95	% CL	Method					
_inear		Linear	1873	3552	280	Yes		Two-Point	Interpola	tion			
Test A	cceptal	bility Criteria	TAC L	imits									
Attribu	ite	Test Stat	Lower	Uppe	r Overlap	Decisio	n						
Control	Resp	26.3	15	>>	Yes	Passes	Criteria						
Point E	Estimat	es											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UC	L						
C10	>100		Prese	<1			_						
C15	>100			<1		***							
C20	>100	***		<1									
C25	>100			<1		***							
C40	>100			<1	***								
C50	>100	-		<1	***								
Reprod	duction	Summary				С	alculate	d Variate				Isoto	nic Variate
Conc-%	/	Code	Count	Mean	Median	Min	Max	CV%	9	Effect		Mean	%Effect
)		N	10	26.3	26.5	21	30	10.3	0% 0	.00%		26.3	0.00%
3.25			10	23.1	22	18	30	19.1	9% 1	2.17%		25.42	3.33%
12.5			10	23.1	22.5	18	29	15.8	7% 1	2.17%		25.42	3.33%
25			10	26.6	26	23	32	10.5	1% -	1.14%		25.42	3.33%
50			10	28.9	28.5	25	33	9.43	% -9	9.89%		25.42	3.33%
100			10	24.1	24	20	32	13.7	5% 8	.37%		24.1	8.37%
Reprod	duction	Detail											
Conc-%	6	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	5 Rep	6 R	ep 7	Rep 8	Rep 9	Rep 10
0		N	29	24	28	21	26	27	2	8	26	30	24

6.25

12.5

Report Date:

11 Nov-21 15:00 (p 4 of 4)

Test Code/ID:

VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

11 Nov-21 14:54

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 18-6301-5261 Analyzed: 11 Nov-21 14:59

Endpoint: Reproduction

Analysis: Linear Interpolation (ICPIN)

MD5 Hash: CB7702B74565EF7295134E960A131E73

CETIS Version:

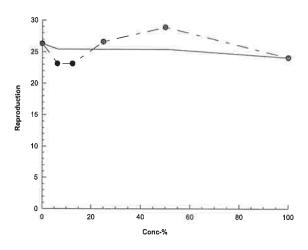
Editor ID:

Status Level:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

11 Nov-21 15:00 (p 1 of 2)

Test Code/ID:

VCF1021.158 / 12-0098-6500

Ceriodaphnia	a 7-d Survival an	d Repr	oduction Te	est						Aqua	tic Bioa	assay &	Consultin	g Labs, In
Analysis ID:	08-5709-5962		Endpoint:	7d Surviva	l Rate	_			CETI	S Vers		CETISV	_	
Analyzed:	11 Nov-21 14:59)	Analysis:	STP 2xK (jency Tabl	es			s Leve		1		
Edit Date:	11 Nov-21 14:54	1	MD5 Hash:						Edito			000-189	-126-0	
Batch ID:	18-1410-9064		Test Type:	Reproduct	ion-Su	rvival (7d)			Analy	/st:				
Start Date:	26 Oct-21 13:52		Protocol:	EPA/821/F	R-02-01	13 (2002)			Dilue		Labora	tory Wa	ter	
Ending Date:	02 Nov-21 14:10)	Species:	Ceriodaph	nia dul	oia			Brine			plicable		
Test Length:	7d 0h		Taxon:	Branchiop	oda				Sour			-	tems, CO	Age: <
Sample ID:	07-5176-2437		Code:	VCF1021.	158				Proje	ct:	NPDES	S Storm	water Wet S	Season
Sample Date:	25 Oct-21 14:15		Material:	Sample W	ater				Sour	ce:	Bioass	ay Repo	ort	
Receipt Date:	: 25 Oct-21 16:17		CAS (PC):						Statio	on:	MO-HU	JE		
Sample Age:	24h (8.5 °C)		Client:	Ventura C	ounty V	Watershed	Protection	n Distri						
Data Transfoi	rm	Alt H	ур				NOEL	LOE	_	TOEL	. т	U		
Untransformed	d	C > T					100	>100			1			
	Bonferroni-Holm	Test												
Control	vs Conc-%		Test \$	Stat P-Typ	oe l	P-Value	Decision	η(α:5%)						
Negative Cont	rol 6.25		1.000	0 Exact		1.0000	Non-Sigr	nificant E	ffect					
	12.5		1.000	0 Exact		1.0000	Non-Sigr	nificant E	ffect					
	25		1.000	D Exact		1.0000	Non-Sigr	nificant E	ffect					
	50		1.000	0 Exact		1.0000	Non-Sigr	nificant E	Effect					
	100		1.000) Exact		1.0000	Non-Sigr	nificant E	ffect					
Test Acceptal	bility Criteria	TA	AC Limits											
Attribute	Test Stat			r Over	ар	Decision								
Control Resp	1	0.8	>>	Yes		Passes Ci	riteria							
7d Survival R	ate Frequencies													
Conc-%	Code	NR	R	NR +	R I	Prop NR	Prop R	%Eff	ect					
0	N	10	0	10	•	1.0000	0.0000	0.009	6					
6.25		10	0	10		1.0000	0.0000	0.009	6					
12.5		10	0	10		1.0000	0.0000	0.009	6					
25		10	0	10	•	1.0000	0.0000	0.009	6					
50		10	0	10	•	1.0000	0.0000	0.009	6					
100		10	0	10		1.0000	0.0000	0.009	6					
7d Survival R	ate Summary													
Conc-%	Code	Coun		95%		95% UCL	Median	Min		Max		td Err	CV%	%Effect
)	N	10	1.000			1.0000	1.0000	1.000		1.000		.0000	0.00%	0.00%
5.25		10	1.0000			1.0000	1.0000	1.000		1.000		.0000	0.00%	0.00%
12.5		10	1.0000			1.0000	1.0000	1.000		1.000		.0000	0.00%	0.00%
25		10	1.0000			1.0000	1.0000	1.000		1.000		.0000	0.00%	0.00%
50		10	1.0000			1.0000	1.0000	1.000		1.000		.0000	0.00%	0.00%
100		10	1.0000	1.000	0 -	1.0000	1.0000	1.000	00	1.000	0 0	.0000	0.00%	0.00%
d Survival R	ate Detail													
Conc-%	Code	Rep 1				Rep 4	Rep 5	Rep		Rep 7		ep 8	Rep 9	Rep 10
)	N	1.000				1.0000	1.0000	1.000		1.000		.0000	1.0000	1.0000
6.25		1.000				1.0000	1.0000	1.000		1.000		.0000	1.0000	1.0000
12.5		1.000	0 1.0000	1.000	0 ′	1.0000	1.0000	1.000	0	1.000	0 1	.0000	1.0000	1.0000
25		1.000	0 1.0000	1.000	0 ′	1.0000	1.0000	1.000	0	1.000	0 1	.0000	1.0000	1.0000
50		1.0000	0 1.0000	1.000	0 ′	1.0000	1.0000	1.000	0	1.000	0 1	.0000	1.0000	1.0000
400		4 000			_				_					



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Report Date:

11 Nov-21 15:00 (p 2 of 2)

Test Code/ID:

VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

11 Nov-21 14:54

Aquatic Bioassay & Consulting Labs, Inc. CETISv1.9.7

Analysis ID: 08-5709-5962 Analyzed: 11 Nov-21 14:59

Endpoint: 7d Survival Rate Analysis:

STP 2xK Contingency Tables MD5 Hash: 6DFFCF255519977902535414E38EA216 **CETIS Version:** Status Level:

Editor ID:

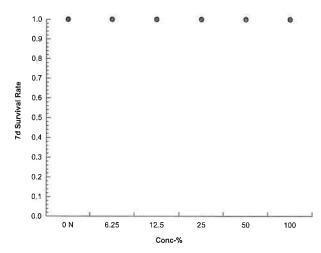
000-189-126-0

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics

Edit Date:



Report Date:

11 Nov-21 15:00 (p 1 of 8)

Test Code/ID: VCF1021.158 / 12-0098-6500

Ceriodaphnia	7-d Survival ar	nd Repr	oduction To	est				Aquatic Bioassay & Consulting Labs, Inc.					
Batch ID: Start Date: Ending Date: Test Length:	18-1410-9064 26 Oct-21 13:5: 02 Nov-21 14:1 7d 0h		Test Type: Protocol: Species: Taxon:	Reproduction- EPA/821/R-02 Ceriodaphnia Branchiopoda	2-013 (2002)	•		Analyst: Diluent: Brine: Source:	Laboratory Water Not Applicable Aquatic Biosystems, CO Age:				
Sample ID:	07-5176-2437		Code:	VCF1021.158				Project:	NPDES Storm	water Wet	Season		
	25 Oct-21 14:1		Material:	Sample Water	-			Source:	Bioassay Repo	ort			
•	25 Oct-21 16:11	7	CAS (PC):					Station:	MO-HUE				
Sample Age:	24h (8.5 °C)		Client:	Ventura Count	ty Watershe	d Protection	on Distri						
Alkalinity (Ca	CO3)-mg/L												
Conc-%	Code	Count	t Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count		
0	N	8	60.62	60.19	61.06	60	61	0.064	69 0.5175	0.85%	0		
100		8	76	76	76	76	76	0	0	0.00%	0		
Overall		16	68.31	64.08	72.55	60	76	1.987	7.947	11.63%	0 (0%)		
Conductivity-	µmhos												
Conc-%	Code	Count	t Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count		
0	N	8	360.5	358	363	354	364	0.372	2.976	0.83%	0		
6.25		8	380.2	378.9	381.6	378	382	0.2086	3 1.669	0.44%	0		
12.5		8	446.4	439.5	453.2	432	460	1.022	8.176	1.83%	0		
25		8	494.5	490.7	498.3	485	499	0.5669	9 4.536	0.92%	0		
50		8	642.4	638.7	646.1	636	650	0.5548	3 4.438	0.69%	0		
100		8	932.5	929.2	935.8	927	940	0.4864	4 3.891	0.42%	0		
Overall		48	542.8	484.9	600.6	354	940	28.76	199.2	36.71%	0 (0%)		
Dissolved Ox	ygen-mg/L												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	rr Std Dev	CV%	QA Count		
0	N	8	7.6	7.452	7.748	7.4	7.9	0.022	16 0.1773	2.33%	0		
6.25		8	7.438	7.219	7.656	7.2	7.9	0.0326	39 0.2615	3.52%	0		
12.5		8	7.388	7.218	7.557	7.2	7.8	0.0253	39 0.2031	2.75%	0		
25		8	7.312	7.131	7.494	7	7.7	0.0270	0.2167	2.96%	0		
50		8	7.312	7.137	7.488	7	7.7	0.0262	25 0.21	2.87%	0		
100		8	7.25	7.077	7.423	7	7.6	0.0258	38 0.207	2.86%	0		
Overall		48	7.383	7.316	7.451	7	7.9	0.0336	0.2328	3.15%	0 (0%)		
Hardness (Ca	CO3)-mg/L												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	r Std Dev	CV%	QA Count		
0	N	8	95.62	95.19	96.06	95	96	0.0646	39 0.5175	0.54%	0		
100		8	205	205	205	205	205	0	0	0.00%	0		
Overall		16	150.3	120.2	180.4	95	205	14.12	56.48	37.58%	0 (0%)		
pH-Units													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Ei	r Std Dev	CV%	QA Count		
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0		
6.25		8	7.588	7.349	7.826	7.2	7.9	0.0356	0.285	3.76%	0		
12.5		8	7.6	7.368	7.832	7.2	7.9	0.0347	72 0.2777	3.65%	0		
25		8	7.588	7.349	7.826	7.2	7.9	0.0356	3 0.285	3.76%	0		
50		8	7.575	7.362	7.788	7.3	7.9	0.0318	37 0.2549	3.37%	0		
100		8	7.588	7.376	7.799	7.3	7.9	0.0316	0.2532	3.34%	0		
Ougasti		40	7.05	7 57	7.70	7.0	^	0.000		0.000/	0 (00()		



3.60%

0 (0%)

7.73

7.2

8

0.03972

0.2752

48

7.65

7.57

Overali

Report Date:

11 Nov-21 15:00 (p 2 of 8)

Test Code/ID:

VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassa	y &	Consulting	Labs,	Inc.
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Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.1	24	24.2	24	24.3	0.01494	0.1195	0.50%	0
12.5		8	24.1	24	24.2	24	24.3	0.01494	0.1195	0.50%	0
25		8	24.14	24.01	24.26	24	24.3	0.01883	0.1506	0.62%	0
50		8	24.14	24.01	24.26	24	24.3	0.01883	0.1506	0.62%	0
100		8	24.11	23.98	24.24	24	24.3	0.01941	0.1553	0.64%	0
Overall		48	24.1	24.06	24.14	24	24.3	0.01871	0.1296	0.54%	0 (0%)

Report Date: Test Code/ID:

11 Nov-21 15:00 (p 3 of 8) VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Alkalinity (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		60					
100				76					
0	N	2		60					
100				76					
0	N	3		60					
100				76					
0	N	4		61					
100				76					
0	N	5		61					
100				76					
0	N	6		61					
100				76					
0	N	7		61					
100				76					
0	N	8		61					
100				76					

Report Date: Test Code/ID: 11 Nov-21 15:00 (p 4 of 8) VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Conductivity-	µmhos								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				378					
12.5				432					
25				485					
50				640					
100				932					
0	N	2		360					
6.25				380					
12.5				440					
25				492					
50				640					
100				927					
0	N	3		354					
6.25				378					
12.5				444					
25				498					
50				636					
100				932					
0	N	4		360					
6.25				382					
12.5				447					
25				493					
50				640					
100				933					
0	N	5		364					
6.25				380					
12.5				448					
25				497					
50				643					
100				929					
0	N	6		362					
6.25				382					
12.5				450					
25				495					
50				643					
100				935					
0	N	7		362					
6.25				380					
12.5				450					
25				499					
50				647					
100				940					
0	N	8		360					
6.25				382					
12.5				460					
25				497					
50				650					
100				932					

Report Date: Test Code/ID: 11 Nov-21 15:00 (p 5 of 8) VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Dissolved Ox	ygen-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7.1					
0	N	2		7.4		_			
6.25	14	2		7.6					
12.5				7.5					
25				7.5					
50									
				7.4					
100				7.3					
0	N	3		7.5					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7.1					
0	N	4		7.6					
6.25				7.2					
12.5				7.2					
25				7					
50				7					
100				7					
	NI -								
0	N	5		7.8					
6.25				7.7					
12.5				7.5					
25				7.4					
50				7.4					
100				7.4					
0	N	6		7.9					
6.25				7.9					
12.5				7.8					
25				7.7					
50				7.7					
100				7.6					
0	N	7		7.6					
6.25		•		7.2					
12.5				7.2					
25				7.3					
50				7.3 7.4					
100				7.4 7.4					
0	N	8		7.4					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7.1					



Report Date:

11 Nov-21 15:00 (p 6 of 8) VCF1021.158 / 12-0098-6500

Test Code/ID: VCF1

Ceriodaphnia 7-d Survival and Reproduction Test

Hardness (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	inst ID	Analyst	Notes
0	N	1		95					
100				205					
0	N	2		95					
100				205					
0	N	3		95					
100				205					
0	N	4		96					
100				205					
0	N	5		96					
100				205					
0	N	6		96					
100				205					
0	N	7		96					
100				205					
0	N	8		96					
100				205					

Report Date: Test Code/ID: 11 Nov-21 15:00 (p 7 of 8) VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Si	urvival and R	eproduction Test
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pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8					
6.25				7.2					
12.5				7.2					
25				7.2					
50				7.3					
100				7.3					
0	N	2		8					
6.25				7.3					
12.5				7.3					
25				7.3					
50				7.3					
100				7.3					
0	N	3		7.8					
6.25				7.5					
12.5				7.5					
25				7.4					
50				7.4					
100				7.4					
0	N	4		8	-				
6.25				7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					
0	N	5		8					
6.25	IN	3		7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					
0	N	6		7.9					
6.25	IN	U		7.9					
12.5				7.9 7.9					
25				7. 9 7.9					
25 50									
100				7.8 7.8					
	N1	7							
0 6.25	N	7		8 7.4					
12.5				7.5					
25 50				7.5					
50				7.5					
100				7.6					
0	N	8		8					
6.25				7.6					
12.5				7.6					
25				7.6					
50				7.5					
100				7.5					



Report Date: Test Code/ID: 11 Nov-21 15:00 (p 8 of 8) VCF1021.158 / 12-0098-6500

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-	C								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
6.25				24.3					
12.5				24.3					
25				24.3					
50				24.3					
100				24.3					
0	N	2		24					
6.25				24.2					
12.5				24.2					
25				24.3					
50				24.3					
100				24.3					
0	N	3		24					
6.25				24.1					
12.5				24.1					
25				24.2					
50				24.2					
100				24					
0	N	4		24					
6.25				24.2					
12.5				24.2					
25				24.3					
50				24.3					
100				24.3					
0	N	5		24					
6.25				24					
12.5				24					
25				24					
50				24					
100				24					
0	N	6		24					
3.25				24					
12.5				24					
25				24					
50				24					
100				24					
)	N	7		24					
5.25				24					
12.5				24					
25				24					
50				24					
100				24					
)	N	8		24					
3.25				24					
12.5				24					
25				24					
50				24					
00				24					



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" EPA-821-R-02-013. Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-SIM

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.160

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL NOEC = 100.00 %

TUc =

1.00

EC25 =

>100.00 %

EC50 =

>100.00 %

REPRODUCTION

NOEC =

100.00 %

TUc =

1.00

IC25 =

>100.00 %

IC50 =

>100.00 %

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 15:14 (p 1 of 2)

Test Code/ID:

Ceriodaphnia	7-d Survival an	d Reproduction	Test	iodaphnia 7-d Survival and Reproduction Test									
Batch ID: Start Date: Ending Date: Test Length:	00-7118-6001 26 Oct-21 13:54 02 Nov-21 14:13 7d 0h	Protocol				D B	Brine:	Laboratory Wat Not Applicable Aquatic Biosyst		Age:	<24		
-	13-9493-3340 25 Oct-21 13:20 25 Oct-21 17:30 25h (14 °C)):		d Protection	S S	Source:	NPDES Stormv Bioassay Repo MO-SIM		ason			
Multiple Com	parison Summa	ry											
Analysis ID	Endpoint	Co	mparison Meth	nod	√	NOEL	LOEL	TOEL	PMSD	TU	5		
15-0336-7328	7d Survival Rate	Fisl	ner Exact/Bonfe	erroni-Holm Tes	st	100	>100			1	77		
20-0340-3580	Reproduction	Dur	nett Multiple C	omparison Tes	t	100	>100	-	15.3%	1	1		
Point Estimat	e Summary												
Analysis ID	Endpoint	Poi	nt Estimate M	ethod	✓	Level	%	95% LCL	95% UCL	TU			
10-2176-5922	7d Survival Rate	Line	ear Interpolation	n (ICPIN)		′ EC10	>100	Ann	***	<1			
					✓	' EC15	>100			<1			
					√	' EC20	>100	***		<1			
					✓	' EC25	>100	***	***	<1			
					✓	EC40	>100			<1			
					√	EC50	>100			<1			
08-6191-6911	Reproduction	Line	ear Interpolation	n (ICPIN)	√	′ IC10	>100	***	***	<1			
					✓	′ IC15	>100	***	***	<1			
					✓	1C20	>100			<1			
					✓	C25	>100	iene:		<1			
					✓	1C40	>100	***	***	<1			
					✓	IC50	>100	-		<1			
Test Acceptab	oility				TAC L	imits							
	Endpoint		ibute	Test Stat	Lower	Upper	Overla	ap Decision					
10-2176-5922	7d Survival Rate	Cor	trol Resp	1	0.8	>>	Yes	Passes C	riteria				
15-0336-7328	7d Survival Rate	Cor	itrol Resp	1	8.0	>>	Yes	Passes C	riteria				
08-6191-6911	Reproduction	Cor	itrol Resp	23.6	15	>>	Yes	Passes C	riteria				
20-0340-3580	Reproduction	Cor	itrol Resp	23.6	15	>>	Yes	Passes C	riteria				
20 0240 2590	Reproduction												
20-0340-3560	rtoproduction	PM	SD ————————————————————————————————————	0.1533	0.13	0.47	Yes	Passes C	riteria				
7d Survival R	ate Summary				0.13	0.47	Yes						
7d Survival Ra	ate Summary Code	Count Mea	an 95% L	CL 95% UCL	0.13 Min	0.47 Max	Yes Std Er	r Std Dev	riteria	%Effe	_		
7d Survival Ra	ate Summary	Count Me : 10 1.00	an 95% L	CL 95% UCL 1.0000	0.13 Min 1.0000	0.47 Max 1.0000	Yes Std Er 0.0000	r Std Dev 0 0.0000		0.00%	6		
7d Survival Ra Conc-% 0 6.25	ate Summary Code	Count Mea 10 1.00 10 1.00	95% L	CL 95% UCL 1.0000 1.0000	0.13 Min 1.0000 1.0000	0.47 Max 1.0000 1.0000	Std Er 0 0.0000 0.0000	Std Dev 0.0000 0.0000	CV%	0.00%	6 6		
7d Survival R a Conc-% 0 6.25 12.5	ate Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00	an 95% L 000 1.0000 000 1.0000	CL 95% UCL 1.0000 1.0000 1.0000	0.13 Min 1.0000 1.0000 1.0000	0.47 Max 1.0000 1.0000	Std Er 0 0.0000 0 0.0000 0 0.0000	Std Dev 0.0000 0.0000 0.0000 0.0000	CV%	0.00% 0.00% 0.00%	% % %		
7d Survival Ra Conc-% 6.25 12.5 25	ate Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00	95% L 000 1.0000 000 1.0000 000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	0.13 Min 1.0000 1.0000 1.0000 1.0000	0.47 Max 1.0000 1.0000 1.0000	Std Er 0.0000 0.0000 0.0000 0.0000 0.0000	Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000	CV%	0.00% 0.00% 0.00% 0.00%	% % %		
7d Survival Ra Conc-% 0 6.25 12.5 25	ate Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00	95% L 000 1.0000 000 1.0000 000 1.0000 000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000	0.47 Max 1.0000 1.0000 1.0000 1.0000	Std Er 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	CV%	0.00% 0.00% 0.00% 0.00% 0.00%	% % % % %		
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100	ate Summary Code N	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00	95% L 000 1.0000 000 1.0000 000 1.0000 000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	0.13 Min 1.0000 1.0000 1.0000 1.0000	0.47 Max 1.0000 1.0000 1.0000	Std Er 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	CV%	0.00% 0.00% 0.00% 0.00%	% % % % %		
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 Reproduction	Code N Summary	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00	95% L 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.47 Max 1.0000 1.0000 1.0000 1.0000 1.0000	Std Er 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	CV%	0.00% 0.00% 0.00% 0.00% 0.00%	/o /o /o /o /o		
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-%	Code N Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 Count Mea	95% L 000 1.0000 000 1.0000 000 1.0000 000 1.0000 000 1.0000 000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 Min	0.47 Max 1.0000 1.0000 1.0000 1.0000 Max	Yes Std Er 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 Std Er	Tr Std Dev 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Tr Std Dev	CV%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	% % % % %		
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-%	Code N Summary	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 23.6	95% L 000 1.0000 000 1.0000 000 1.0000 000 1.0000 000 1.0000 000 1.0000 000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25.92	0.13 Min 1.0000 1.0000 1.0000 1.0000 1.0000 Min 19	0.47 Max 1.0000 1.0000 1.0000 1.0000 Max 31	Yes Std Er 0.00000 0.00000 0.00000 0.00000 0.00000 Std Er 1.024	Tr Std Dev 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 Tr Std Dev 3.239	CV% CV% 13.72%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	% % % % %		
7d Survival Racconc-% 0 6.25 12.5 25 50 100 Reproduction Conc-% 0 6.25	Code N Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 Count Mea 10 23.6 10 24	95% L 000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 200 1.0000 200 1.0000 200 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25.92 27.44	Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Min 19	0.47 Max 1.0000 1.0000 1.0000 1.0000 Max 31 29	Std Er 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 Std Er 1.024 1.52	Std Dev 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	CV% CV% 13.72% 20.03%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	% % % % & ect		
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-% 0 6.25 12.5	Code N Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 Count Mea 10 23.6 10 24 10 24.7	95% L 000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 200 1.0000 200 1.0000 200 1.0000 200 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25.92 27.44 26.4	Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Min 19 15 20	0.47 Max 1.0000 1.0000 1.0000 1.0000 Max 31 29 27	Std Er 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 1 0.0000 1 1.024 1.52 1.016	Std Dev 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	CV% CV% 13.72% 20.03% 13.33%	0.00% 0.00% 0.00% 0.00% 0.00% -1.69° -2.12°	% % % ect % %		
7d Survival Race Conc-% 0 6.25 12.5 25 50 100 Reproduction Conc-% 0 6.25 12.5 25	Code N Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 Count Mea 10 23.6 10 24 10 24.6	95% L 000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 200 1.0000 200 1.0000 200 1.0000 201 21.28 20.56 21.8 3 19.31	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25.92 27.44 26.4 23.89	Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Min 19 15 20 17	0.47 Max 1.0000 1.0000 1.0000 1.0000 Max 31 29 27 27	Std Er 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 1.024 1.52 1.016 1.013	Std Dev 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	CV% CV% 13.72% 20.03% 13.33% 14.83%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -1.69 -2.12 8.47%	% 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		
	Code N Summary Code	Count Mea 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 10 1.00 Count Mea 10 23.6 10 24 10 24.7	95% L 000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 200 1.0000 200 1.0000 200 1.0000 201 21.28 20.56 21.8 3 19.31 4 22.08	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 25.92 27.44 26.4	Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Min 19 15 20	0.47 Max 1.0000 1.0000 1.0000 1.0000 Max 31 29 27	Std Er 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 0 0.0000 1 0.0000 1 1.024 1.52 1.016	Std Dev 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	CV% CV% 13.72% 20.03% 13.33%	0.00% 0.00% 0.00% 0.00% 0.00% -1.69° -2.12°	% % % ect % % % %		



0

6.25

12.5

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Report Date: Test Code/ID:

11 Nov-21 15:14 (p 2 of 2)

Ceriodaphnia	7-d Survival a	ınd Reprodu	uction Test					Aquatic	Bioassay &	Consulting	Labs, Inc.
7d Survival R	ate Detail						ME	5: 6DFFCF	255519977	9025354141	E38EA216
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Reproduction	Detail						ME)5: B87A12	1B68E4361	A17AF12B6	672A9D40
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	23	23	23	23	22	26	21	31	25	19
6.25		17	15	24	28	26	24	26	22	29	29
12.5		27	27	26	22	20	20	25	20	27	27
25		25	20	20	17	19	20	25	23	20	27
50		26	26	24	25	21	23	20	21	28	30
100		30	27	29	26	25	25	31	27	24	20
7d Survival Ra	ate Binomials										
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10

Report Date:

11 Nov-21 15:13 (p 1 of 2)

Test Code/ID:

	7-d Survival a	nd Repro	duction Te	st				Aquatio	Bioassay &	Consulting	g Labs, Inc
Analysis ID: Analyzed: Edit Date:	20-0340-3580 11 Nov-21 15:1 11 Nov-21 15:0	3 🛕	nalysis:	Reproduction Parametric-Co 6D55FA4B852			Star	ΓIS Versio tus Level: tor ID:			
	00-7118-6001			Reproduction-S					000-168	-120-0	
	26 Oct-21 13:5					•		llyst:		4	
	02 Nov-21 14:1	-		EPA/821/R-02-	, ,				aboratory Wa		
_				Ceriodaphnia d	lubia		Brir		ot Applicable		
Test Length:	7d Un	I	axon:	Branchiopoda			Sou	ırce: A	quatic Biosys	tems, CO	Age: <2
•	13-9493-3340			VCF1021.160			Pro	ject: N	PDES Storm	water Wet S	Season
•	25 Oct-21 13:20			Sample Water			Sou	rce: B	ioassay Repo	ort	
=	25 Oct-21 17:3		AS (PC):					tion: M	IO-SIM		
Sample Age:	25h (14 °C)	C	lient:	Ventura County	y Watershe	d Protection	n Distri				
Data Transfor	m	Alt Hy	р			NOEL	LOEL	TOEL	TU	MSDu	PMSD
Untransformed		C > T				100	>100		1	3.618	15.33%
Dunnett Multip	ole Compariso	n Test									
Control	vs Conc-%		Test S	tat Critical	MSD D	F P-Type	P-Value	Decisio	on(α:5%)		
Negative Contr			-0.253		3.618 1		0.8977		nificant Effec	+	
	12.5		-0.316			B CDF	0.9105	_	nificant Effec		
	25		1.265	2.289	3.618 1		0.3030	_	nificant Effec		
	50		-0.5062			B CDF	0.9417		nificant Effec		
-	100		-1.772	2.289	3.618 1		0.9988		nificant Effec		
Test Acceptab	ility Criteria										
Attribute			Limits	O l	D ! - !						
Control Resp	23.6	Lower 15	Upper >>	Overlap Yes	Decision Passes (
PMSD	0.1533	0.13	0.47	Yes	Passes (
ANOVA Table											
	C., C				DE	F 04-4	D.V. I				
Source Between	Sum Squ	ares	Mean 9 23.696		DF 5	F Stat	P-Value 0.1100		n(α:5%)		
								14011-210	nificant Effec	:1	
	118.483 674.5					1.897	0.1100	_			
Error	674.5		12.490		54	- 1.897	0.1100				
Error Total	674.5 792.983					1.897 —					
Error Total ANOVA Assum	674.5 792.983				54	1.897	0.1100				
Error Total ANOVA Assur r	674.5 792.983 Inptions Tests Test		12.490	7	54 59 Test Stat	-	P-Value	Decisio	on(α:1%)		
Error Total ANOVA Assum Attribute	674.5 792.983 pptions Tests Test Bartlett Ed		12.490 Variance Te	7 est	54 59	-			en(α:1%) ariances		
Error Total ANOVA Assum Attribute	674.5 792.983 ptions Tests Test Bartlett Education	quality of	12.490 Variance Te Variance Te	7 est	54 59 Test Stat	Critical	P-Value	Equal V			
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 ptions Tests Test Bartlett Education	quality of	12.490 Variance Te	7 est	54 59 Test Stat 2.734	Critical 15.09	P-Value 0.7410	Equal V Equal V	ariances		
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 Iptions Tests Test Bartlett Education E	quality of ne Equali -Darling A	12.490 Variance Te Variance Te ty of Varian 2 Test	7 est	54 59 Test Stat 2.734 0.5816	Critical 15.09 3.377	P-Value 0.7410 0.7139	Equal V Equal V Equal V	ariances ariances		
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 nptions Tests Test Bartlett Educence Edu	quality of ne Equali -Darling A	12.490 Variance Te Variance Te ty of Varian 2 Test	7 est	54 59 Test Stat 2.734 0.5816 0.5075	Critical 15.09 3.377 3.377	P-Value 0.7410 0.7139 0.7693	Equal V Equal V Equal V Normal	ariances ariances ariances		
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 Iptions Tests Test Bartlett Education E	quality of ne Equali -Darling A o Kurtosis	12.490 Variance Te Variance Te ty of Varian 2 Test Test	7 est	54 59 Test Stat 2.734 0.5816 0.5075 0.2397	Critical 15.09 3.377 3.377 3.878	P-Value 0.7410 0.7139 0.7693 0.8053	Equal V Equal V Equal V Normal Normal	ariances ariances ariances Distribution		
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 nptions Tests Test Bartlett Educe Edu	quality of the Equali -Darling A o Kurtosis o Skewne o-Pearsor	Variance Te Variance Te ty of Varian 2 Test 5 Test ss Test n K2 Omnib	est ce Test	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255	Critical 15.09 3.377 3.377 3.878 2.576	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661	Equal V Equal V Equal V Normal Normal Normal	ariances ariances ariances Distribution Distribution		
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 nptions Tests Test Bartlett Education Education Education D'Agostine D'Agostine Education	quality of the Equali -Darling A o Kurtosis o Skewne o-Pearsor	Variance Te Variance Te ty of Varian 2 Test 5 Test ss Test n K2 Omnib	est ce Test	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723	Critical 15.09 3.377 3.377 3.878 2.576 2.576	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400	Equal V Equal V Equal V Normal Normal Normal	ariances (ariances (ariances (ariances Distribution Distribution Distribution		
Error Total ANOVA Assurr Attribute Variance	674.5 792.983 nptions Tests Test Bartlett Educe Edu	quality of one Equaling A one Equaling A one of Kurtosis one of Skewner or Pearsor ov-Smirno	Variance Te Variance Te ty of Varian 2 Test 5 Test ss Test n K2 Omnib	est est ce Test us Test	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982	15.09 3.377 3.377 3.878 2.576 2.576 9.21	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415	Equal V Equal V Equal V Normal Normal Normal Normal	ariances ariances ariances Distribution Distribution Distribution Distribution		
Error Total	674.5 792.983 nptions Tests Test Bartlett Educe Edu	quality of one Equaling A one Equaling A one of Kurtosis one of Skewner or Pearsor ov-Smirno	Variance Te Variance Te ty of Varian 2 Test 3 Test 5 Ss Test 6 K2 Omnib 6 D Test	est est ce Test us Test	54 59 Test State 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058	15.09 3.377 3.377 3.878 2.576 2.576 9.21 0.1331	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641	Equal V Equal V Equal V Normal Normal Normal Normal	ariances ariances ariances Distribution Distribution Distribution Distribution Distribution		
Error Total ANOVA Assum Attribute Variance Distribution	674.5 792.983 nptions Tests Test Bartlett Educe Edu	quality of one Equaling A one Equaling A one of Kurtosis one of Skewner or Pearsor ov-Smirno	Variance Te Variance Te ty of Varian 2 Test 3 Test 5 Ss Test 6 K2 Omnib 6 D Test	est est ce Test us Test	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058 0.9894	Critical 15.09 3.377 3.377 3.878 2.576 2.576 9.21 0.1331 0.9459	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641	Equal V Equal V Equal V Normal Normal Normal Normal	ariances ariances ariances Distribution Distribution Distribution Distribution Distribution	CV%	%Effect
Error Total ANOVA Assurr Attribute Variance Distribution Reproduction	674.5 792.983 nptions Tests Test Bartlett Ed Levene Ed Mod Leve Anderson D'Agostin D'Agostin Kolmogor Shapiro-W	quality of one Equali -Darling A o Kurtosis o Skewne o-Pearsor ov-Smirno Vilk W No	Variance Te Variance Te ty of Varian 2 Test 5 Test ss Test n K2 Omnib ov D Test rmality Test	est est ce Test us Test	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058 0.9894	Critical 15.09 3.377 3.377 3.878 2.576 2.576 9.21 0.1331 0.9459	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641 0.8812	Equal V Equal V Equal V Normal Normal Normal Normal Normal	ariances ariances ariances Distribution Distribution Distribution Distribution Distribution Distribution		%Effect 0.00%
Error Total ANOVA Assurr Attribute Variance Distribution Reproduction	674.5 792.983 nptions Tests Test Bartlett Educene E	quality of one Equali -Darling A o Kurtosis o Skewne o-Pearsor ov-Smirno Vilk W No	Variance Te Variance Te ty of Varian 2 Test 5 Test ss Test n K2 Omnib ov D Test rmality Test	est est ce Test us Test	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058 0.9894	Critical 15.09 3.377 3.377 3.878 2.576 2.576 9.21 0.1331 0.9459 Median	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641 0.8812	Equal V Equal V Equal V Normal Normal Normal Normal Normal	ariances ariances ariances Distribution Distribution Distribution Distribution Distribution Distribution Distribution Distribution Distribution	CV%	
Error Total ANOVA Assurr Attribute Variance Distribution Reproduction Conc-% 0 6.25	674.5 792.983 nptions Tests Test Bartlett Educene E	quality of une Equality of the Equality of Count 10	Variance Te Variance Te ty of Varian 2 Test 5 Test ss Test n K2 Omnib ov D Test rmality Test Mean 23.6	est est ce Test us Test 95% LCL 21.28	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058 0.9894 95% UCL 25.92	Critical 15.09 3.377 3.377 3.878 2.576 2.576 9.21 0.1331 0.9459 Median 23	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641 0.8812 Min 19 15	Equal V Equal V Normal Normal Normal Normal Normal Normal	ariances ariances ariances Distribution	CV% 13.72%	0.00% -1.69%
Error Total ANOVA Assurr Attribute Variance Distribution Reproduction Conc-% 0 6.25 12.5	674.5 792.983 nptions Tests Test Bartlett Educene E	quality of one Equality of one Equality of one Equality of Count 10 10	Variance Televariance Televaria	95% LCL 21.28 20.56 21.8	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058 0.9894 95% UCL 25.92 27.44 26.4	Critical 15.09 3.377 3.878 2.576 2.576 9.21 0.1331 0.9459 Median 23 25 25.5	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641 0.8812 Min 19 15 20	Equal V Equal V Rormal Normal Normal Normal Normal Normal 29 27	ariances ariances ariances Distribution	CV% 13.72% 20.03% 13.33%	0.00% -1.69% -2.12%
Error Total ANOVA Assum Attribute Variance Distribution	674.5 792.983 nptions Tests Test Bartlett Educene E	quality of one Equali -Darling A o Kurtosis o Skewne o-Pearsor ov-Smirno Vilk W No Count 10 10 10	Variance Te Variance Te ty of Varian 2 Test Test ss Test n K2 Omnib by D Test rmality Test Mean 23.6 24	est est ce Test 95% LCL 21.28 20.56	54 59 Test Stat 2.734 0.5816 0.5075 0.2397 0.04255 0.7723 0.5982 0.06058 0.9894 95% UCL 25.92 27.44	Critical 15.09 3.377 3.377 3.878 2.576 2.576 9.21 0.1331 0.9459 Median 23 25	P-Value 0.7410 0.7139 0.7693 0.8053 0.9661 0.4400 0.7415 0.8641 0.8812 Min 19 15	Equal V Equal V Normal Normal Normal Normal Normal Normal	ariances ariances ariances Distribution	CV% 13.72% 20.03%	0.00% -1.69%

Report Date: Test Code/ID:

11 Nov-21 15:13 (p 2 of 2) VCF1021.160 / 06-7399-8337

Ceriodaphnia 7-d Survival and Reproduction Test

11 Nov-21 15:00

Aquatic Bioassay & Consulting Labs, Inc.

20-0340-3580 Analysis ID: Analyzed:

11 Nov-21 15:13 Analysis:

Endpoint: Reproduction

Parametric-Control vs Treatments MD5 Hash: 6D55FA4B85231158C4D5BB93339CD21D

CETIS Version:

Status Level:

Editor ID:

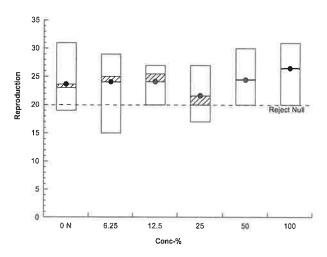
CETISv1.9.7 000-189-126-0

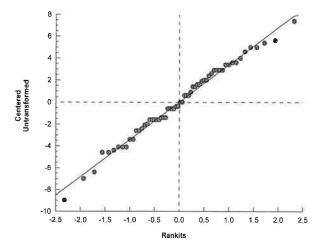
Reproduction Detail

Edit Date:

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	23	23	23	23	22	26	21	31	25	19
6.25		17	15	24	28	26	24	26	22	29	29
12.5		27	27	26	22	20	20	25	20	27	27
25		25	20	20	17	19	20	25	23	20	27
50		26	26	24	25	21	23	20	21	28	30
100		30	27	29	26	25	25	31	27	24	20

Graphics





Report Date:

11 Nov-21 15:13 (p 1 of 4)

Test Code/ID: VCF1021.160 / 06-7399-8337

									Т	est Code/ID); V	CF1021.160 / 0	16-7399-833
Ceriod	aphnia	7-d Survival and	d Reproduc	ction Te	est					Aquati	c Bioassa	y & Consulting	g Labs, Inc
Analys	is ID:	10-2176-5922	End	point:	7d Survival Rat	te			C	ETIS Version	on: CET	ISv1.9.7	
Analyz	ed:	11 Nov-21 15:13		lysis:	Linear Interpola		N)			tatus Level			
Edit Da	ite:	11 Nov-21 15:00) MD5	Hash:	6DFFCF25551	•	,	38EA21		ditor ID:		189-126-0	
Batch I	D:	00-7118-6001	Test	t Type;	Reproduction-S	Survival (7d	d)		Α	nalyst:			
Start D	ate:	26 Oct-21 13:54	Prot	locol:	EPA/821/R-02-	013 (2002))		D	iluent: L	aboratory	Water	
Ending	Date:	02 Nov-21 14:13	Spe	cies:	Ceriodaphnia d	lubia			В		Not Applica		
Test Le	ngth:	7d 0h	Taxe	on:	Branchiopoda				s			systems, CO	Age: <2
Sample	e ID:	13-9493-3340	Cod	e:	VCF1021.160				Р	roject: N	NPDES Sto	ormwater Wet S	
Sample	Date:	25 Oct-21 13:20	Mate	erial:	Sample Water					-	Bioassay R		
Receip	t Date:	25 Oct-21 17:30	CAS	(PC):							MO-SIM		
Sample	Age:	25h (14 °C)	Clie	nt:	Ventura County	y Watershe	ed Prot	ection D	istri				
Linear	Interpo	olation Options											
X Trans	sform	Y Transform	See	d	Resamples	Exp 95%	% CL	Metho	d				
Linear		Linear	0		280	Yes		Two-P	oint Int	erpolation			
Test Ac	ceptak	oility Criteria	TAC L	imita									
Attribut	te	Test Stat		Uppe	r Overlap	Decision	1						
Control	Resp	1	0.8	>>	Yes	Passes (Criteria						
Point E	stimat	es											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL	L						
EC10	>100			<1		***							
EC15	>100	-		<1									
EC20	>100	U 275	***	<1	355	***							
EC25	>100			<1									
EC40	>100		***	<1		***							
EC50	>100	***	***	<1									
7d Surv	vival Ra	ate Summary				Calc	ulated	Variate	(A/B)			Isotor	nic Variate
Conc-%	0	Code	Count	Mean	Median	Min	Max	(CV%	%Effec	t A/B	Mean	%Effect
0		N	10	1.000	1.0000	1.0000	1.00	000	0.00%	0.00%	10/10	1.0000	0.00%
6.25			10	1.000	1.0000	1.0000	1.00	000	0.00%	0.00%	10/10	1.0000	0.00%
12.5			10	1.000	1.0000	1.0000	1.00	000	0.00%	0.00%	10/10	1.0000	0.00%
25			10	1.000	1.0000	1.0000	1.00	000	0.00%	0.00%	10/10	1.0000	0.00%
50			10	1.000	1.0000	1.0000	1.00	000	0.00%	0.00%	10/10	1.0000	0.00%
100			10	1.000	1.0000	1.0000	1.00	000	0.00%	0.00%	10/10	1.0000	0.00%
7d Surv	/ival Ra	ate Detail											
Conc-%	0	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep	5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0		N	1.0000	1.0000	1.0000	1.0000	1.00	000	1.0000	1.0000	1.000	0 1.0000	1.0000

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

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7d Survival Rate Binomials

Report Date:

11 Nov-21 15:13 (p 2 of 4)

Test Code/ID:

VCF1021.160 / 06-7399-8337

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 10-2 Analyzed: 11 N

10-2176-5922 11 Nov-21 15:13 11 Nov-21 15:00 Endpoint: 7d Survival Rate

Analysis: Linear Interpolation (ICPIN)

MD5 Hash: 6DFFCF255519977902535414E38EA216

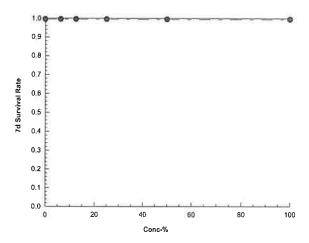
CETIS Version: Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date:

11 Nov-21 15:13 (p 3 of 4)

Test Code/ID:

VCF1021.160 / 06-7399-8337

									Test (Code/ID:	VCF	1021.160 / ()6-7399-83
Ceriod	aphnia	7-d Survival an	d Reprodu	ction To	est					Aquatic B	ioassay &	Consultin	g Labs, Inc
Analys	is ID:	08-6191-6911	End	point:	Reproduction				CETIS	S Version:	CETISV	1.9.7	
Analyz	ed:	11 Nov-21 15:13	3 Ana	lysis:	Linear Interpol	ation (ICPI	N)		Statu	s Level:	1		
Edit Da	ate:	11 Nov-21 15:00	MD:	5 Hash:	6D55FA4B852			339CD21D	Edito	r ID:	000-189	9-126-0	
Batch	ID:	00-7118-6001	Tes	t Type:	Reproduction-	Survival (7	d)		Analy	st:			
Start D	ate:	26 Oct-21 13:54	Pro	tocol:	EPA/821/R-02	-013 (2002	?)		Dilue	nt: Lab	oratory Wa	ater	
Ending	Date:	02 Nov-21 14:13	Spe	cies:	Ceriodaphnia d	dubia			Brine	: Not	Applicable)	
Test Le	ength:	7d 0h	Тах	on:	Branchiopoda				Source	ce: Aqu	atic Biosys	stems, CO	Age: <2
Sample	e ID:	13-9493-3340	Cod	le:	VCF1021.160				Proje	ct: NPE	ES Storm	water Wet S	 Season
Sample	e Date:	25 Oct-21 13:20	Mat	erial:	Sample Water				Sourc	ce: Bioa	ssay Repo	ort	
Receip	t Date:	25 Oct-21 17:30	CAS	(PC):					Static	n: MO-	SIM		
Sample	e Age:	25h (14 °C)	Clie	nt:	Ventura Count	y Watersh	ed Prot	ection Distr					
Linear	Interpo	olation Options											
X Tran	sform	Y Transform	See	d	Resamples	Exp 95	% CL	Method					
Linear		Linear	146	4271	280	Yes		Two-Point	Interpo	lation			
Test A	cceptal	oility Criteria	TAC L	imits									
Attribu	te	Test Stat	Lower	Uppe	r Overlap	Decisio	n						
Control	Resp	23.6	15	>>	Yes	Passes	Criteria						
Point E	stimat	es											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UC	L						
IC10	>100	***	***	<1	***								
IC15	>100			<1	***								
IC20	>100	***		<1									
IC25	>100		***	<1									
IC40	>100			<1	1000	***							
IC50	>100	, ree	***	<1	***	***							
Reproc	luction	Summary				С	alculat	ed Variate				Isoto	nic Variate
Conc-%	6	Code	Count	Mean	Median	Min	Max			%Effect		Mean	%Effec
0		N	10	23.6	23	19	31		72%	0.00%		24.02	0.00%
6.25			10	24	25	15	29		03%	-1.69%		24.02	0.00%
12.5			10	24.1	25.5	20	27		33%	-2.12%		24.02	0.00%
25			10	21.6	20	17	27		83%	8.47%		24.02	0.00%
50			10	24.4	24.5	20	30		27%	-3.39%		24.02	0.00%
100			10	26.4	26.5	20	31	12.	14%	-11.86%		24.02	0.00%
Reprod	luction	Detail											
Conc-%	6	Code	Rep 1	Rep 2		Rep 4	Rep		6	Rep 7	Rep 8	Rep 9	Rep 10
0		N	23	23	23	23	22	26		21	31	25	19
6.25			17	15	24	28	26	24		26	22	29	29
12.5			27	27	26	22	20	20		25	20	27	27
25			25	20	20	17	19	20		25	23	20	27



Report Date:

11 Nov-21 15:13 (p 4 of 4)

Test Code/ID:

VCF1021.160 / 06-7399-8337

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

000-189-126-0

Analysis ID: Analyzed: Edit Date:

08-6191-6911 11 Nov-21 15:13

11 Nov-21 15:00

Endpoint: Reproduction

Analysis: Linear Interpolation (ICPIN)

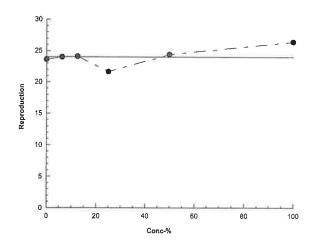
MD5 Hash: 6D55FA4B85231158C4D5BB93339CD21D

CETIS Version: Status Level:

Editor ID:

1

Graphics



Report Date:

11 Nov-21 15:13 (p 1 of 2)

Test Code/ID:

Ceriodaphnia	a 7-d \$	Survival and	d Repro	duction Te	st				Aqu	atic Bi	oassay &	Consultin	g Labs, Inc
Analysis ID:	15-0	336-7328	Е	ndpoint:	7d Survival R	ate			CETIS Ve	sion:	CETISv	1.9.7	
Analyzed:	11 N	lov-21 15:13			STP 2xK Con				Status Le	/el:	1		
Edit Date:	11 N	lov-21 15:00	N	1D5 Hash:	6DFFCF2555	19977902535	5414E38EA	216	Editor ID:		000-189	-126-0	
Batch ID:	00-7	118-6001	Т	est Type:	Reproduction	-Survival (7d)			Analyst:				
Start Date:	26 C	ct-21 13:54	P	rotocol:	EPA/821/R-02	2-013 (2002)			Diluent:	Labo	ratory Wa	iter	
Ending Date:	02 N	ov-21 14:13	s	pecies:	Ceriodaphnia	dubia			Brine:	Not A	Applicable		
Test Length:	7d ()h	Т	axon:	Branchiopoda	1			Source:	Aqua	itic Biosys	stems, CO	Age : <2
Sample ID:	13-9	493-3340	С	ode:	VCF1021.160)			Project:	NPD	ES Storm	water Wet S	Season
Sample Date:	25 C	ct-21 13:20	N	laterial:	Sample Wate	г			Source:	Bioas	ssay Repo	ort	
Receipt Date:	25 C	ct-21 17:30	- 0	AS (PC):				:	Station:	MO-S	SIM		
Sample Age:	25h	(14 °C)	С	lient:	Ventura Coun	ity Watershed	Protection	Distri					
Data Transfor	rm		Alt Hy	р			NOEL	LOEL	. TOE	EL.	TU		
Untransformed	d		C > T				100	>100			1		
Fisher Exact/	Bonfe	erroni-Holm	Test										
Control	vs	Conc-%		Test S	tat P-Type	P-Value	Decision	ι(α:5%)					
Negative Cont	trol	6.25		1.0000	Exact	1.0000	Non-Sign	ificant E	ffect				
		12.5		1.0000	Exact	1.0000	Non-Sign	ificant E	ffect				
		25		1.0000	Exact	1.0000	Non-Sign						
		50		1.0000	Exact	1.0000	Non-Sign	ificant E	ffect				
		100		1.0000	Exact	1.0000	Non-Sign	ificant E	ffect				
Test Acceptal	bility	Criteria	TAC	Limits									
Attribute		Test Stat	Lower	Upper	Overlap	Decision							
Control Resp		1	0.8	>>	Yes	Passes Ci	riteria						
7d Survival R	ate F	requencies											
Conc-%		Code	NR	R	NR + R	Prop NR	Prop R	%Effe	ect				
0		N	10	0	10	1.0000	0.0000	0.00%	0				
6.25			10	0	10	1.0000	0.0000	0.00%	, D				
12.5			10	0	10	1.0000	0.0000	0.00%	b				
25			10	0	10	1.0000	0.0000	0.00%	D				
50			10	0	10	1.0000	0.0000	0.00%	D				
100			10	0	10	1.0000	0.0000	0.00%	, D				
7d Survival R	ata S												
	ale 3	ummary											
	ale 5	Code	Count	Mean	95% LCL			Min	Max		Std Err	CV%	
0	ale 5	•	10	1.0000	1.0000	1.0000	1.0000	1.000	0 1.00	00	0.0000	0.00%	0.00%
0 6.25	ate 5	Code	10 10	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.000 1.000	0 1.00 0 1.00	00 00	0.0000	0.00% 0.00%	0.00% 0.00%
0 6.25 12.5	ale 5	Code	10 10 10	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.000 1.000 1.000	0 1.00 0 1.00 0 1.00	00 00 00	0.0000 0.0000 0.0000	0.00% 0.00% 0.00%	0.00% 0.00% 0.00%
0 6.25 12.5 25	ale 3	Code	10 10 10 10	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	0 1.00 0 1.00 0 1.00 0 1.00	00 00 00 00	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00%
0 6.25 12.5 25 50	ale 3	Code	10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00	00 00 00 00 00	0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00%
0 6.25 12.5 25 50	ate 3	Code	10 10 10 10	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00	00 00 00 00 00	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00%
0 6.25 12.5 25 50 100		Code N	10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00	00 00 00 00 00	0.0000 0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00%
0 6.25 12.5 25 50 100 7d Survival R :		Code N	10 10 10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00	00 00 00 00 00 00 00	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
0 6.25 12.5 25 50 100 7d Survival R Conc-%		Code N	10 10 10 10 10 10 10 10	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5	1.000 1.000 1.000 1.000 1.000 Rep 6	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 1.00	00 00 00 00 00 00 00 7	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Rep 8	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10
0 6.25 12.5 25 50 100 7d Survival R Conc-% 0 5.25		Code N	10 10 10 10 10 10 10 Rep 1 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000 1.000 Rep 6	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 1.00	00 00 00 00 00 00 00 7	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Rep 8 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000
0 6.25 12.5 25 50 100 7d Survival R Conc-% 0 6.25		Code N	10 10 10 10 10 10 10 10 Rep 1 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000 Rep 6	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 1.00	00 00 00 00 00 00 00 7	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Rep 8	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10
Conc-% 0 6.25 12.5 25 50 100 7d Survival R Conc-% 0 6.25 12.5		Code N	10 10 10 10 10 10 10 Rep 1 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000 1.000 Rep 6	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 1.00	00 00 00 00 00 00 00 7 00 00 00	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Rep 8 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000
0 6.25 12.5 25 50 100 7d Survival R Conc-% 0 6.25		Code N	10 10 10 10 10 10 10 10 Rep 1 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	1.000 1.000 1.000 1.000 1.000 1.000 Rep 6 1.000 1.000	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 1.00	00 00 00 00 00 00 00 7 00 00 00	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Rep 8 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000



Report Date:

11 Nov-21 15:13 (p 2 of 2)

Test Code/ID:

VCF1021.160 / 06-7399-8337

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 15-0336-7328 Analyzed:

11 Nov-21 15:13 11 Nov-21 15:00 Endpoint: 7d Survival Rate

STP 2xK Contingency Tables Analysis:

MD5 Hash: 6DFFCF255519977902535414E38EA216

CETIS Version: Status Level:

Editor ID:

000-189-126-0

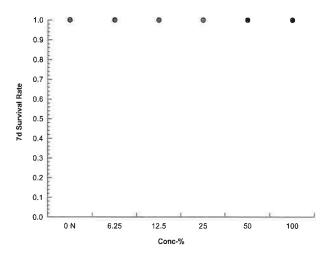
CETISv1.9.7

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics

Edit Date:



Report Date:

11 Nov-21 15:13 (p 1 of 8)

Test Code/ID:

VCF1021.160 / 06-7399-8337

Ceriodaphnia	7-d Survival an	d Repi	oduction Te	est				Aqua	tic Bioassay &	Consultin	g Labs, Inc.
Batch ID: Start Date: Ending Date: Test Length:	00-7118-6001 26 Oct-21 13:54 02 Nov-21 14:13 7d 0h		Test Type: Protocol: Species: Taxon:	Reproduction- EPA/821/R-02 Ceriodaphnia Branchiopoda	2-013 (2002)			Analyst: Diluent: Brine: Source:	Laboratory Wa Not Applicable Aquatic Biosys	,	Age : <24
•	13-9493-3340 25 Oct-21 13:20 25 Oct-21 17:30		Code: Material: CAS (PC): Client:	VCF1021.160 Sample Water Ventura Count		d Proto	otion Distri	Project: Source: Station:	NPDES Storm Bioassay Repo MO-SIM		Season
Alkalinity (Ca			Onent.	Ventura ocum	ly Watershe	a i iote	CHOIT DISHT				
Conc-%	Code	Count	: Mean	95% LCL	95% UCL	Min	Max	Std E	er Std Day	CV%	OA Cauma
0	N	8	60.62	60.19	61.06	60					QA Count
100	IN	8	32	32	32	32	61	0.064		0.85%	0
Overall		16	46.31	38.43	54.19	32	32 61	0	0	0.00%	0 (00()
		10	40.51	30.43	54.19	32	01	3.697	14.79	31.93%	0 (0%)
Conductivity-	•	C	Maaa	050/ 1.01	050/ 1101	B.0.2		0.45	0.15	21/0/	
Conc-%	Code N	Count 8		95% LCL	95% UCL		Max	Std E		CV%	QA Count
6.25	N		360.5	358	363	354	364	0.372	2.976	0.83%	0
12.5		8	407	404.2	409.8	401	410	0.422		0.83%	0
25		8	457.1	424.2	490	360	477	4.921	39.37	8.61%	0
50		8	397	383.6	410.4	358	407	2.003	16.03	4.04%	0
100		8	393.8	381.6	405.9	362	410	1.81	14.48	3.68%	0
Overall		48	395.2 401.8	383.2 391.8	407.3	362	413	1.809	14.47	3.66%	0 (00()
		40	401.0	391.0	411.7	354	477	4.943	34.25	8.52%	0 (0%)
Dissolved Oxy	-										
Conc-%	Code	Count		95% LCL	95% UCL	Min	Max	Std E		CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.022		2.33%	0
6.25		8	7.337	7.085	7.59	7	7.8	0.037		4.12%	0
12.5		8	7.3	7.116	7.484	7	7.7	0.027		3.02%	0
25		8	7.325	7.209	7.441	7.2	7.6	0.0173		1.90%	0
50		8	7.338	7.249	7.426	7.2	7.5	0.0132		1.45%	0
100		8	7.363	7.254	7.471	7.1	7.5	0.0162		1.77%	0
Overall		48	7.377	7.317	7.437	7	7.9	0.0299	96 0.2076	2.81%	0 (0%)
Hardness (Ca	CO3)-mg/L										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std E	r Std Dev	CV%	QA Count
0	Ν	8	95.62	95.19	96.06	95	96	0.0646	9 0.5175	0.54%	0
100		8	100	100	100	100	100	0	0	0.00%	0
Overall		16	97.81	96.59	99.03	95	100	0.5717	2.287	2.34%	0 (0%)
pH-Units											
Conc-%		Count		95% LCL	95% UCL		Max	Std E	r Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093		0.93%	0
6.25		8	7.663	7.431	7.894	7.2	7.9	0.0346		3.62%	0
12.5		8	7.663	7.431	7.894	7.2	7.9	0.0346	88 0.2774	3.62%	0
25		8	7.675	7.453	7.897	7.2	7.9	0.0332		3.46%	0
50		8	7.675	7.462	7.888	7.2	7.9	0.0318	0.2549	3.32%	0
100		8	7.688	7.467	7.908	7.2	7.9	0.0330	0.2642	3.44%	0



3.34%

0 (0%)

0.2576

0.03718

7.796

7.2

8

48

7.721

7.646

Overall

Report Date:

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Test Code/ID:

VCF1021.160 / 06-7399-8337

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.09	24	24.17	24	24.2	0.01238	0.09904	0.41%	0
12.5		8	24.1	24.01	24.19	24	24.2	0.01336	0.1068	0.44%	0
25		8	24.12	24.01	24.24	24	24.3	0.01736	0.1389	0.58%	0
50		8	24.15	24.03	24.27	24	24.3	0.01768	0.1414	0.59%	0
100		8	24.16	24.03	24.3	24	24.4	0.01998	0.1598	0.66%	0
Overall		48	24.1	24.07	24.14	24	24.4	0.0181	0.1254	0.52%	0 (0%)

Report Date:

11 Nov-21 15:13 (p 3 of 8) VCF1021.160 / 06-7399-8337

Test Code/ID: VCF1021.160 / 06-7399-8337

Aquatic Bioassay & Consulting Labs, Inc.

Ceriodaphnia 7-d Survival and Reproduction Test

Alkalinity (Ca	CO3)-mg/L							
Conc-%	Code	Read	Time	Measure Q	A Diff-%	Inst ID	Analyst	Notes
0	N	1		60				
100				32				
0	N	2		60				
100				32				
0	N	3		60				
100				32				
0	N	4		61				
100				32				
0	N	5		61				
100				32				
0	N	6		61				
100				32				
0	N	7		61				
100				32				
0	N	8		61				
100				32				

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Ceriodaphnia 7-d Survival and Reproduction Test

Conductivity-									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				401					
12.5				360					
25				358					
50				362					
100				362					
0	N	2		360					
6.25				403					
12.5				467					
25				400					
50				410					
100				413					
0	N	3		354					
6.25				410					
12,5				468					
25				400					
50				385					
100				399					
0	N	4		360					
6.25				407					
12.5				469					
25				400					
50				399					
100				397					
0	N	5		364				_	
6.25	.,			408					
12.5				473					
25				407					
50				398					
100				399					
	M								
0	N	6		362					
6.25				410					
12.5				471					
25				402					
50				398					
100				398					
)	N	7		362					
6.25				410					
12.5				477					
25				407					
50				399					
100				397					
)	N	8		360					
5.25				407					
12.5				472					
25				402					
50				399					
100				397					



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Ceriodaphnia 7-d Survival and Reproduction Test

Dissolved Oxy	/gen-mg/L									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		7.6						
6.25				7						
12.5				7						
25				7.2						
50				7.2						
100				7.3						
0	N	2		7.4						
6.25				7.2						
12.5				7.2						
25				7.3						
50				7.3						
100				7.3						
0	N	3		7.5						
6.25				7.5						
12.5				7.4						
25				7.4						
50				7.4						
100				7.4						
0	N	4		7.6						
6.25	14	7		7						
12.5				7.2						
25				7.2						
50				7.3						
100				7.4						
0		-								
0 6.25	N	5		7.8 7.7						
12.5										
25				7.5						
25 50				7.4						
100				7.4						
				7.5						
0	N	6		7.9						
6.25				7.8						
12.5				7.7						
25				7.6						
50				7.5						
100				7.4						
0	N	7		7.6						
6.25				7.2						
12.5				7.2						
25				7.3						
50				7.4						
100				7.5						
)	N	8		7.4						
5.25				7.3						
12.5				7.2						
25				7.2						
50				7.2						
100				7.1						

CETIS Measurement Report

Report Date:

11 Nov-21 15:13 (p 6 of 8) VCF1021.160 / 06-7399-8337

Test Code/ID:

								oud/ib.	V O1 102 1.100 / 00 1 000-000 /
Ceriodaphnia	7-d Survival	and Repr	oduction 1		Aquatic Bioassay & Consulting Labs,				
Hardness (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		95					
100				100					
0	N	2		95					
100				100					
0	N	3		95					
100				100					
0	N	4		96					
100				100					
0	N	5		96					
100				100					
0	N	6		96					
100				100					
0	N	7		96					
100				100					
0	N	8		96					
100				100					

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Ceriodaphnia 7-d Survival and Reproduction Test

pH-Units										
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes		
0	N	1		8						
6.25				7.2						
12.5				7.2						
25				7.2						
50				7.2						
100				7.2						
0	N	2		8						
6.25				7.4						
12.5				7.4						
25				7.5						
50				7.5						
100				7.5						
0	N	3		7.8						
6.25				7.5						
12.5				7.5						
25				7.5						
50				7.5						
100				7.5						
0	N	4		8						
6.25				7.9						
12.5				7.9						
25				7.9						
50				7.9						
100				7.9						
0	N	5		8						
6.25				7.9						
12.5				7.9						
25				7.9						
50				7.9						
100				7.9						
0	N	6		7.9						
6.25				7.9						
12.5				7.9						
25				7.9						
50				7.8						
100				7.9						
0	N	7		8						
6.25				7.9						
12.5				7.9						
25				7.9						
50				7.9						
100				7.9						
0	N	8		8						
6.25				7.6						
12.5				7.6						
25				7.6						
50				7.7						
100				7.7						

11 Nov-21 15:13 (p 8 of 8) VCF1021.160 / 06-7399-8337

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-°C									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
6.25				24.2					
12.5				24.2					
25				24.3					
50				24.3					
100				24.3					
)	N	2		24					
3.25				24.2					
12.5				24.2					
25				24.2					
50				24.2					
100				24.2					
)	N	3		24					
3.25				24.1					
12.5				24.2					
25				24.2					
50				24.3					
100				24.3					
)	N	4		24					
3.25				24.2					
12.5				24.2					
25				24.3					
50				24.3					
100				24.4					
)	N	5		24					
5.25				24					
12.5				24					
25				24					
50				24					
100				24					
	N	6		24					
3.25				24					
2.5				24					
.5				24					
50				24.1					
00				24.1					
	N	7		24					
3.25				24					
2.5				24					
:5				24					
0				24					
00				24					
	N	8		24					
.25				24					
2.5				24					
5				24					
0				24					
00				24					





November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" EPA-821-R-02-013. Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.: DATE RECEIVED: MO-THO 10/25/2021

ABC LAB. NO.:

VCF1021.162

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL

NOEC = 100.00 %

TUc = 1.00

EC25 =>100.00 %

EC50 =

>100.00 %

REPRODUCTION

NOEC = 100.00 %

TUc = 1.00

IC25 =>100.00 %

IC50 =>100.00 %

ott Johnson

aboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 15:35 (p 1 of 2)

Test Code/ID: VCF1021.162 / 19-7072-3839

Cariodanhnia	7-d Survival and	d Reproduction T	net					Agusti	ic Bioassay & C	onculting	Labe	Inc
									ic bloassay & C	onsumg	Laus,	inc.
Batch ID:	04-5672-9951	• •	Reproduction-S	` '			Analys					
Start Date:	26 Oct-21 14:11	Protocol:	EPA/821/R-02-	` ,			Diluent		Laboratory Wate	er		
_	02 Nov-21 14:17	•	Ceriodaphnia d	lubia			Brine:		Not Applicable			
Test Length:	7d 0h	Taxon:	Branchiopoda				Source	e: /	Aquatic Biosyste	ems, CO	Age:	<24
Sample ID:	10-5619-1624	Code:	VCF1021.162				Project	t: I	NPDES Stormw	ater Wet Se	eason	
•	25 Oct-21 15:10	Material:	Sample Water				Source	e: l	Bioassay Report	:		
•	25 Oct-21 17:30	CAS (PC):					Station	n: [MO-THO			
Sample Age:	23h (12.5 °C)	Client:	Ventura County	/ Watershed	l Protection	n Distr	i					
Multiple Com	parison Summai	ry										
Analysis ID	Endpoint		parison Method			√ NC		LOEL	TOEL	PMSD	TU	S
	7d Survival Rate		r Exact/Bonferro			10		>100			1	1
13-8475-6292	Reproduction	Dunn	ett Multiple Com	parison Test	t	10) >	>100	***	16.4%	1	1
Point Estimat	te Summary											
Analysis ID	Endpoint		Estimate Meth			√ Le		%	95% LCL	95% UCL	TU	S
09-9402-8332	7d Survival Rate	Linea	r Interpolation (I	CPIN)		√ EC		>100	***		<1	1
						√ EC		>100		222	<1	
						√ EC		>100			<1	
						√ EC		>100	202		<1	
						√ EC		>100			<1	
						√ EC		>100	***		<1	
09-1094-2153	Reproduction	Linea	r Interpolation (I	CPIN)		√ IC		>100			<1	1
						√ IC		>100	***		<1	
						√ IC2		>100	***		<1	
						√ IC2		>100	***	***	<1	
						√ IC4		>100	***		<1	
						√ IC	>00	>100	***		<1	
Test Acceptal	<u>-</u>			_		Limits						
Analysis ID	Endpoint	Attrik		Test Stat		_	-	Overla				
	7d Survival Rate		ol Resp	1	0.8	>>		Yes	Passes Cr			
	7d Survival Rate		ol Resp	1	0.8	>>		Yes	Passes Cr			
09-1094-2153	•		ol Resp	19.3	15	>>		Yes	Passes Cr			
13-8475-6292	•		ol Resp	19.3	15	>>		Yes	Passes Cr			
13-8475-6292	Reproduction	PMSI)	0.1645	0.13	0.4	./	Yes	Passes Cr	iteria		_
7d Survival R	-		0.50/ 1.01	050/ 1101				24.5	0/15	0) (0)	0/ = /	
Conc-%	Code	Count Mean		95% UCL		Ma		Std Er		CV%		fect
0	N	10 1.000		1.0000	1.0000			0.000.0			0.00	
6.25		10 1.000		1.0000	1.0000			0.000.C 0000.C			0.00	
12.5		10 1.000 10 1.000		1.0000 1.0000	1.0000 1.0000			0.0000 0.0000			0.00	
25 50		10 1.000		1.0000	1.0000			0.0000 0.0000			0.00	
100		10 1.000		1.0000	1.0000			0.0000			0.00	
Reproduction	Summary	.5 7,000										-
Conc-%	Code	Count Mean	95% LCL	95% UCL	Min	Ma	х 5	Std Er	r Std Dev	CV%	%Ef	fect
0	N	10 19.3	17.25	21.35	15	24		0.9074		14.87%	0.00	_
6.25	• •	10 23.8	22.55	25.05	22	27		0.5538		7.36%	-23.	
12.5		10 22.1	20.15	24.05	19	27		0.8622		12.34%	-14.	
25		10 21.7	19.95	23.45	19	26		0.7753		11.30%	-12.	
50		10 22.4	19.42	25.38	14	27		1.318	4.169	18.61%	-16.	
											-	

15.59%

-31.09%

3.945

1.248

28.12

19

33

10

25.3

22.48

100

Report Date:

11 Nov-21 15:35 (p 2 of 2)

Test Code/ID: VCF1021.162 / 19-7072-3839

Ceriodaphnia	eriodaphnia 7-d Survival and Reproduction Test								Bioassay &	Consulting	Labs, Inc.			
7d Survival R	ate Detail						MD5: 6DFFCF255519977902535414E38E							
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10			
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
12,5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
25		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
50		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
Reproduction	Detail						MC	5: 37782D	87E0A608C	2A07DCD8	5AD2576B1			
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10			
0	N	23	21	24	19	21	17	18	17	18	15			
6.25		26	22	23	27	23	22	24	24	25	22			
12.5		20	23	24	21	19	20	19	27	23	25			
25		21	21	20	23	19	19	26	25	23	20			

7d Survival R	ate Binomials										
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Report Date:

11 Nov-21 15:35 (p 1 of 2)

Test Code/ID: VCF1021.162 / 19-7072-3839

Ceriodaphnia	7-d Survival and	d Reproduction Te	est			Aquatio	Bioassay	& Consulting	g Labs, Inc.
Analysis ID: Analyzed: Edit Date:	13-8475-6292 11 Nov-21 15:34 11 Nov-21 15:27		Reproduction Parametric-Control vs T 695F9DE2E8DB3E967		s	ETIS Versio tatus Level: ditor ID:	1	Sv1.9.7 89-126-0	
Batch ID:	04-5672-9951	Test Type:	Reproduction-Survival ((7d)	Α	nalyst:			
Start Date:	26 Oct-21 14:11	Protocol:	EPA/821/R-02-013 (200	02)	D	iluent: L	aboratory V	Vater	
Ending Date:	02 Nov-21 14:17	Species:	Ceriodaphnia dubia		В	rine: N	ot Applicat	ole	
Test Length:	7d 0h	Taxon:	Branchiopoda		S	ource: A	quatic Bios	systems, CO	Age: <24
Sample ID:	10-5619-1624	Code:	VCF1021.162		Р	roject: N	PDES Stor	mwater Wet S	Season
Sample Date:	25 Oct-21 15:10	Material:	Sample Water		S	ource: B	ioassay Re	port	
Receipt Date:	25 Oct-21 17:30	CAS (PC):			s	tation: M	O-THO		
Sample Age:	23h (12.5 °C)	Client:	Ventura County Waters	hed Protection	Distri				
Data Transfor	m	Alt Hyp		NOEL	LOEL	TOEL	TU	MSDu	PMSD
Untransformed		C > T		100	>100		1	3.174	16.45%

Control vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(a:5%)
Negative Control	6.25	-3.245	2.289	3.174	18	CDF	1.0000	Non-Significant Effect
	12.5	-2.019	2.289	3.174	18	CDF	0.9995	Non-Significant Effect
	25	-1.731	2.289	3.174	18	CDF	0.9986	Non-Significant Effect
	50	-2.236	2.289	3.174	18	CDF	0.9998	Non-Significant Effect
	100	-4.327	2.289	3.174	18	CDF	1.0000	Non-Significant Effect

Test Acceptabili	ty Criteria	TAC I	Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision	
Control Resp	19.3	15	>>	Yes	Passes Criteria	
PMSD	0.1645	0.13	0.47	Yes	Passes Criteria	

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	205.533	41.1067	5	4.275	0.0024	Significant Effect
Error	519.2	9.61481	54			-
Total	724.733		59			

ANOVA Assum	ptions Tests				
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	8.206	15.09	0.1453	Equal Variances
	Levene Equality of Variance Test	1.813	3.377	0.1257	Equal Variances
	Mod Levene Equality of Variance Test	1.481	3.377	0.2113	Equal Variances
Distribution	Anderson-Darling A2 Test	0.5072	3.878	0.2043	Normal Distribution
	D'Agostino Kurtosis Test	0.707	2.576	0.4796	Normal Distribution
	D'Agostino Skewness Test	0.04124	2.576	0.9671	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.5015	9.21	0.7782	Normal Distribution
	Kolmogorov-Smirnov D Test	0.09028	0.1331	0.2433	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9805	0.9459	0.4516	Normal Distribution

Reproduction	Summary										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	19.3	17.25	21.35	18.5	15	24	0.9074	14.87%	0.00%
6.25		10	23.8	22.55	25.05	23.5	22	27	0.5538	7.36%	-23.32%
12.5		10	22.1	20.15	24.05	22	19	27	0.8622	12.34%	-14.51%
25		10	21.7	19.95	23.45	21	19	26	0.7753	11.30%	-12.44%
50		10	22.4	19.42	25.38	23.5	14	27	1.318	18.61%	-16.06%
100		10	25.3	22.48	28.12	25	19	33	1.248	15.59%	-31.09%

Report Date: Test Code/ID:

11 Nov-21 15:35 (p 2 of 2) VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 13-8475-6292 Analyzed:

11 Nov-21 15:34

11 Nov-21 15:27

Endpoint: Reproduction

Analysis: Parametric-Control vs Treatments

CETIS Version:

Status Level:

000-189-126-0

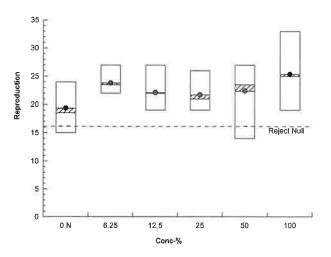
CETISv1.9.7

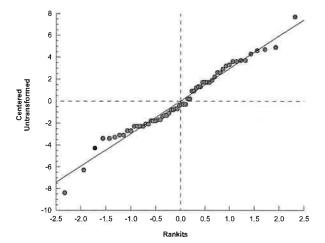
Reproduction Detail

Edit Date:

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	23	21	24	19	21	17	18	17	18	15
6.25		26	22	23	27	23	22	24	24	25	22
12.5		20	23	24	21	19	20	19	27	23	25
25		21	21	20	23	19	19	26	25	23	20
50		21	26	27	25	26	25	22	19	19	14
100		19	23	27	22	29	33	25	23	27	25

Graphics





Report Date:

11 Nov-21 15:35 (p 1 of 4)

Test Code/ID: VCF1021.162 / 19-7072-3839

Сепоцарі	nnia 7	7-d Survival and	d Reprodu	ction Te	st				Aqu	atic B	ioassay &	Consulting	J Labs, Inc
Analysis l	D: (09-9402-8332	End	point:	7d Survival Rat	te			CETIS Ve	sion:	CETISV	1.9.7	
Analyzed:	1	11 Nov-21 15:34	Ana	lysis:	Linear Interpola	ation (ICPIN	1)		Status Le	vel:	1		
Edit Date:	1	11 Nov-21 15:27	MD	5 Hash:	6DFFCF25551	997790253	5414E38E	A216	Editor ID:		000-189	-126-0	
Batch ID:		04-5672-9951	Tes	t Type:	Reproduction-S	Survival (7d)		Analyst:				
Start Date	: 2	26 Oct-21 14:11	Pro	tocol:	EPA/821/R-02-	013 (2002)	١		Diluent:	Labo	oratory Wa	ter	
_		02 Nov-21 14:17	Spe	cies:	Ceriodaphnia d	ubia			Brine:	Not	Applicable		
Test Leng	th: 7	7d 0h	Tax	on:	Branchiopoda				Source:	Aqu	atic Biosys	tems, CO	Age: <2
Sample ID		10-5619-1624	Cod	le:	VCF1021.162				Project:	NPC	ES Storm	water Wet S	eason
-		25 Oct-21 15:10	Mat	erial:	Sample Water				Source:	Bioa	issay Repo	rt	
•		25 Oct-21 17:30		(PC):					Station:	MO-	THO		
Sample A	ge: 2	23h (12.5 °C)	Clie	nt:	Ventura County	/ Watershe	d Protection	on Distri					
Linear Inte	erpol	ation Options											
X Transfo	rm	Y Transform		d	Resamples	Exp 95%		thod					
Linear		Linear	0		280	Yes	Tw	o-Point I	Interpolation	1			
Test Acce	ptabi	lity Criteria	TAC L	imits									
Attribute		Test Stat	Lower	Upper		Decision							
Control Re	sp	1	0.8	>>	Yes	Passes (Criteria						
Point Esti	mate	s											
Level %	6	95% LCL	95% UCL	TU	95% LCL	95% UCL							
	100		***	<1		***							
	100	leady.	***	<1	***	***							
	100	***		<1	***	***							
	100			<1	300								
	100			<1									
	100	**	***	<1									
	ai Rat	te Summary					ulated Var					Isoton	ic Variate
Conc-% 0		Code N	Count	Mean	Median	Min	Max	CV%		fect	A/B	Mean	%Effect 0.00%
6.25		IN .	10 10	1.0000		1.0000	1.0000	0.00			10/10	1.0000	
0.23					1 0000	1.0000	1 0000	0.00	0/ 0.00	10/	10/10	1.0000	
						1.0000	1.0000	0.00			10/10 10/10	1.0000	0.00%
12.5			10	1.0000	1.0000	1.0000	1.0000	0.00	% 0.00)%	10/10	1.0000	0.00% 0.00%
12.5 25			10 10	1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	0.00 0.00	% 0.00 % 0.00)%)%	10/10 10/10	1.0000 1.0000	0.00% 0.00% 0.00%
12.5 25 50			10	1.0000	1.0000 1.0000 1.0000	1.0000	1.0000	0.00	% 0.00 % 0.00 % 0.00)%)%)%	10/10	1.0000	0.00% 0.00%
12.5 25 50 100	al Rat	te Detail	10 10 10	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	0.00 0.00 0.00	% 0.00 % 0.00 % 0.00)%)%)%	10/10 10/10 10/10	1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00%
12.5 25 50 100 7d Surviv a	al Rat	te Detail Code	10 10 10 10	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00	% 0.00 % 0.00 % 0.00 % 0.00)%)%)%)%	10/10 10/10 10/10 10/10	1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00%
12.5 25 50 100 7d Surviv a Conc-%	al Rat		10 10 10	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	0.00 0.00 0.00	% 0.00 % 0.00 % 0.00 % 0.00)%)%)%)%	10/10 10/10 10/10	1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00%
12.5 25 50 100 7d Surviva Conc-%	al Rat	Code	10 10 10 10	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00	% 0.00	0% 0% 0% 0% 0% 07	10/10 10/10 10/10 10/10 Rep 8	1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00%
12.5 25 50 100 7d Surviva Conc-% 0 6.25	al Rat	Code	10 10 10 10 10 Rep 1 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 2	1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 4	1.0000 1.0000 1.0000 1.0000 Rep 5	0.00 0.00 0.00 0.00 Rep	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00	9% 9% 9% 9% 97	10/10 10/10 10/10 10/10 10/10 Rep 8 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 9	0.00% 0.00% 0.00% 0.00% 0.00% Rep 10
12.5 25 50 100 7d Surviva Conc-% 0 6.25 12.5	al Rat	Code	10 10 10 10 Rep 1 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 2 1.0000	Rep 3 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000	0.00 0.00 0.00 0.00 Rep 1.00	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00	9% 9% 9% 9% 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 9 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000
12.5 25 50 100 7d Surviva Conc-% 0 6.25 12.5	al Rat	Code	10 10 10 10 Rep 1 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 2 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	0.00 0.00 0.00 0.00 Rep 1.00 1.00	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00	0% 0% 0% 0% 0% 000 000	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 9 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.000 1.0000 1.0000
12.5 25 50 100 7d Surviva Conc-% 0 5.25 12.5 25	al Rat	Code	10 10 10 10 Rep 1 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 .000 Rep 1.000 1.000	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	9% 9% 9% 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.000 1.0000 1.0000 1.0000
12.5 25 50 100 7d Surviva Conc-% 0 6.25 12.5 25 50		Code	10 10 10 10 10 Rep 1 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 1.000 1.000 1.000	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	9% 9% 9% 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000 1.0000 1.0000
12.5 25 50 100 7d Surviva Conc-% 0 6.25 12.5 25 50 100		Code N	10 10 10 10 10 Rep 1 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 1.000 1.000 1.000	% 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	9% 9% 9% 6.7 900 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000 1.0000 1.0000
12.5 25 50 1000 7d Surviva 0 6.25 12.5 25 50 1000 7d Surviva		Code N	10 10 10 10 10 Rep 1 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00	% 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	9% 9% 9% 6.7 900 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000 1.0000 1.0000 1.0000
12.5 25 50 100 7d Surviva Conc-% 0 6.25 12.5 50 100 7d Surviva		Code N te Binomials Code	Rep 1 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.10000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5	0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00	% 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 6 Rep	9% 9% 9% 6.7 900 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 8	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 9	0.00% 0.00% 0.00% 0.00% 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 10
12.5 25 50 100 7d Surviva 0 6.25 12.5 25 50 100 7d Surviva Conc-% 0 6.25		Code N te Binomials Code	Rep 1 1.0000 1.0000 1.0000 1.0000 1.0000 1.10000 1.10000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	9% 9% 9% 6.7 900 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000 1.0000 1.0000 1.010000 1/1
12.5 25 50 1000 7d Surviva Conc-% 0 6.25 12.5 25 50 1000 7d Surviva Conc-% 0 6.25		Code N te Binomials Code	Rep 1 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.10000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000 1.01000	0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	9% 9% 9% 6.7 900 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 1.0000 1.0000 1.0000 1.0000 1.10000 1.01000
12.5 25 50 100 7d Surviva Conc-% 0 6.25 12.5 25 50		Code N te Binomials Code	10 10 10 10 10 Rep 1 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000 1.01000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000 1.01000 1.01000	Rep 3 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000 1.01000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.10000	1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01	0.00 0.00 0.00 0.00 Rep 1.000 1.000 1.000 1.000 1.000 1.1000 1.000 1.1000	% 0.00 % 0.00 % 0.00 % 0.00 6 Rep 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 1.00	9% 9% 9% 6.7 900 900 900 900 900	10/10 10/10 10/10 10/10 Rep 8 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000 1.01000	1.0000 1.0000 1.0000 1.0000 Rep 9 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.01000 1.01000	0.00% 0.00% 0.00% 0.00% 0.00% 1.0000 1.0000 1.0000 1.0000 1.10000 1.0000



Report Date:

11 Nov-21 15:35 (p 2 of 4)

Test Code/ID:

VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed: Edit Date:

: 09-9402-8332 11 Nov-21 15:34

11 Nov-21 15:27

Endpoint: 7d Survival Rate

Analysis: Linear Interpolation (ICPIN)
MD5 Hash: 6DFFCF255519977902535414E38EA216

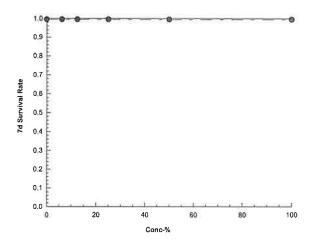
CETIS Version:

Status Level: Editor ID:

000-189-126-0

CETISv1.9.7

Graphics



Report Date:

11 Nov-21 15:35 (p 3 of 4)

Test Code/ID:

VCF1021.162 / 19-7072-3839

Analysis ID: 09-1094-2153 Analyzed: 11 Nov-21 15:2 Edit Date: 11 Nov-21 15:2 Batch ID: 04-5672-9951	En	ction Te	est								
Analyzed: 11 Nov-21 15:3 Edit Date: 11 Nov-21 15:2							P	Aquatic B	ioassay &	Consultin	ig Labs, Ind
Edit Date: 11 Nov-21 15:2		dpoint:	Reproduction				CETIS	Version:	CETISV	1.9.7	
		alysis:	Linear Interpola	` ,			Status		1		
Batch ID: 04-5672-9951	27 MD	5 Hash:	695F9DE2E8D	B3E967854C	1EA	52FCD56A	Editor	ID:	000-189	9-126-0	
	Tes	t Type:	Reproduction-S	Survival (7d)			Analys	t:			
Start Date: 26 Oct-21 14:1	1 Pro	tocol:	EPA/821/R-02-	013 (2002)			Diluent	: Labo	oratory Wa	ater	
Ending Date: 02 Nov-21 14:1	17 Sp e	ecies:	Ceriodaphnia d	lubia			Brine:	Not .	Applicable	1	
Test Length: 7d 0h	Tax	on:	Branchiopoda				Source	: Aqua	atic Biosys	stems, CO	Age: <2
Sample ID: 10-5619-1624	Co	de:	VCF1021.162				Project	: NPC	ES Storm	water Wet	Season
Sample Date: 25 Oct-21 15:1	0 Ma	terial:	Sample Water				Source	: Bioa	ssay Repo	ort	
Receipt Date: 25 Oct-21 17:3	0 CA	S (PC):					Station	: MO-	THO		
Sample Age: 23h (12.5 °C)	Clie	ent:	Ventura County	/ Watershed I	⊃rote	ction Distri					
Linear Interpolation Options	•										
X Transform Y Transform	m See	ed	Resamples	Exp 95% (CL	Method					
Linear Linear	194	4255	280	Yes		Two-Point	Interpola	tion			
Test Acceptability Criteria	TAC I	imits									
Attribute Test Stat	t Lower	Upper	Overlap	Decision							
Control Resp 19.3	15	>>	Yes	Passes Crit	eria						
Point Estimates											
Level % 95% LCL	. 95% UCL	. TU	95% LCL	95% UCL							
IC10 >100		<1	nat.	***							
IC15 >100		<1									
IC20 >100		<1									
IC25 >100		<1									
IC40 >100		<1	1909								
IC50 >100		<1	***								
Reproduction Summary				Calc	ulate	d Variate				Isoto	nic Variate
Conc-% Code	Count	Mean	Median	Min	Max	CV%	6 9	6Effect		Mean	%Effec
) N	10	19.3	18.5	15	24	14.8	7% C	.00%		22.43	0.00%
ô.25	10	23.8	23.5	22	27	7.36	% -	23.32%		22.43	0.00%
12.5	10	22.1	22	19	27	12.3	4% -	14.51%		22.43	0.00%
25	10	21.7	21	19	26	11.3	0% -	12.44%		22.43	0.00%
50	10	22.4	23.5		27	18.6	1% -	16.06%		22.43	0.00%
100	10	25.3	25	19	33	15.5	9% -	31.09%		22.43	0.00%
		Rep 2	Rep 3	Rep 4	Rep			Rep 7	Rep 8	Rep 9	Rep 10
Reproduction Detail	Rep 1						4	_			
Reproduction Detail Conc-% Code	23	21	24		21	17	1	8	17	18	15
Reproduction Detail Conc-% Code O N 3.25		21 22			21 23	17 22		8 4	17 24	18 25	15 22
Reproduction Detail Conc-% Code	23	21	24	27			2				
Reproduction Detail Conc-% Code O N 3.25	23 26	21 22	24 23	27 21	23	22	2 1	4	24	25	22
Reproduction Detail Conc-% Code O N 6.25	23 26 20	21 22 23	24 23 24	27 21 23	23 19	22 20	2 1 2	4 9	24 27	25 23	22 25



Report Date:

11 Nov-21 15:35 (p 4 of 4)

Test Code/ID:

VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 09-1094-2153 Analyzed:

11 Nov-21 15:34 11 Nov-21 15:27

Endpoint: Reproduction

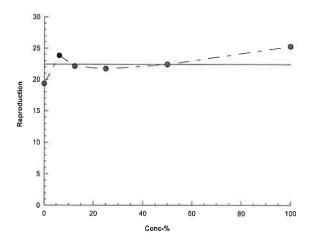
Analysis: Linear Interpolation (iCPIN)

MD5 Hash: 695F9DE2E8DB3E967854C1EA52FCD56A Editor ID:

CETIS Version: Status Level:

CETISv1.9.7 000-189-126-0

Edit Date: Graphics



Report Date:

11 Nov-21 15:35 (p 1 of 2)

Test Code/ID:

VCF1021.162 / 19-7072-3839

Ceriodaphnia	7-d Su	rvival an	d Repro	duction Te	st					Aquat	ic Bio	assay &	Consulting	g Labs, Inc.
Analysis ID:		75-5676		-	7d Survival Ra				CETIS	Versi	on:	CETISv	1.9.7	
Analyzed:		/-21 15:34		•	STP 2xK Cont	•			Status			1		
Edit Date:	11 Nov	/-21 15:27	_		6DFFCF2555		414E38EA	216	Editor	ID:		000-189	J-126-0	
Batch ID:		2-9951			Reproduction-	` '			Analys					
Start Date:		-21 14:11		rotocol:	EPA/821/R-02	, ,			Diluen			atory Wa		
Ending Date:		/-21 14:17		pecies:	Ceriodaphnia	dubia			Brine:			plicable		
Test Length:	7d 0h		Т.	axon:	Branchiopoda				Source	e:	Aquatio	c Biosys	stems, CO	Age : <24
Sample ID:	10-561	9-1624	С	ode:	VCF1021.162				Projec	t:	NPDE	S Storm	water Wet S	Season
Sample Date:	25 Oct	-21 15:10			Sample Water	•			Source	e:	Bioass	ay Repo	ort	
Receipt Date:			С	AS (PC):					Statior	a:	MO-TH	10		
Sample Age:	23h (1	2.5 °C)	С	lient:	Ventura Count	ty Watershed	Protection	Distri						
Data Transfor	m		Alt Hy	0			NOEL	LOEL		TOEL	. 1	ги		
Untransformed	d		C > T				100	>100			1			
Fisher Exact/I	Bonferi	roni-Holm	Test			7								
Control	vs	Conc-%		Test S	tat P-Type	P-Value	Decision	(α:5%)						
Negative Conti		6.25		1.0000		1.0000	Non-Sign		ffect					
J		12.5		1.0000		1.0000	Non-Sign							
		25		1.0000		1.0000	Non-Sign							
		50		1.0000	Exact	1.0000	Non-Sign							
		100		1.0000	Exact	1.0000	Non-Sign							
Test Acceptat	oility Cr	iteria	TAC	Limits										
Attribute		est Stat		Upper	Overlap	Decision								
Control Resp	1		0.8	>>	Yes	Passes Cr	iteria							
7d Survival R	ate Fre	quencies												
Conc-%		Code	NR	R	NR + R	Prop NR	Prop R	%Effe	ect					
0		1	10	0	10	1.0000	0.0000	0.00%						
6.25			10	0	10	1.0000	0.0000	0.00%						
12.5			10	0	10	1.0000	0.0000	0.00%	6					
25			10	0	10	1.0000	0.0000	0.00%	6					
50			10	0	10	1.0000	0.0000	0.00%	,					
100								0.007	'O					
			10	0	10	1.0000	0.0000	0.00%						
	ate Sur	nmary	10	0	10	1.0000	0.0000							
7d Survival R		nmary Code	10 Count	0 Mean	10 95% LC L				<u> </u>	Max	s	Std Err	CV%	%Effect
7d Survival Ra	C	-			95% LCL			0.00%	/ ₆	Max		Std Err 0.0000	CV%	%Effect 0.00%
7d Survival Ra Conc-%	C	ode	Count	Mean	95% LCL	. 95% UCL	Median	0.00% Min	/ 00		0 0			
7d Survival Ra Conc-% 0 6.25	C	ode	Count	Mean 1.0000	95% LCL 1.0000 1.0000	. 95% UC L 1.0000	Median 1.0000	0.00% Min 1.000	6 1 00 :	1.0000	0 0 0 0	0.0000	0.00%	0.00%
7d Survival Ra Conc-% 0 6.25 12.5	C	ode	Count 10 10	Mean 1.0000	95% LCL 1.0000 1.0000 1.0000	. 95% UCL 1.0000 1.0000	Median 1.0000 1.0000	0.00% Min 1.000	6 00 00	1.0000 1.0000	0 0 0 0 0 0	0.0000	0.00% 0.00%	0.00% 0.00%
7d Survival Ra Conc-% 0 6.25 12.5 25	C	ode	Count 10 10 10	Mean 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000	95% UCL 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000	0.00% Min 1.000 1.000	00	1.0000 1.0000 1.0000	0 0 0 0 0 0	0.0000 0.0000 0.0000	0.00% 0.00% 0.00%	0.00% 0.00% 0.00%
7d Survival Ra Conc-% 0 6.25 12.5 25	C	ode	10 10 10 10	Mean 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000	. 95% UCL 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000	0.00% Min 1.000 1.000 1.000	00	1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00%
7d Survival Ra Conc-% 0 6.25 12.5 25 50	N	Code	Count 10 10 10 10 10	Mean 1.0000 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000	95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% Min 1.000 1.000 1.000 1.000	00	1.0000 1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00%
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 7d Survival Ra	o N	Code	Count 10 10 10 10 10	Mean 1.0000 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000	95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% Min 1.000 1.000 1.000 1.000	600	1.0000 1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00%
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 7d Survival Ra Conc-%	o N	code	Count 10 10 10 10 10 10 10	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.009 Min 1.000 1.000 1.000 1.000	6 I I	1.0000 1.0000 1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
7d Survival Ra Conc-% 0 3.25 12.5 25 50 100 7d Survival Ra Conc-%	ote Det	code	Count 10 10 10 10 10 10 10 Rep 1	Mean 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000	95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.009 Min 1.000 1.000 1.000 1.000 Rep 6	100	1.0000 1.0000 1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
7d Survival Ra Conc-% 0 3.25 12.5 25 50 100 7d Survival Ra Conc-%	ote Det	code	Count 10 10 10 10 10 10 10 10 11 10 10	Mean 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 2	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000	95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000	0.00% Min 1.000 1.000 1.000 1.000 1.000 1.000	1 1 1 1 1 1 1 1 1 1	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 7d Survival Ra Conc-% 0 6.25 12.5	ote Det	code	Count 10 10 10 10 10 10 10 10 10 10 10 10 00 Rep 1	Mean 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	. 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	0.00% Min 1.000 1.000 1.000 1.000 1.000 1.000 1.000	6 I I I I I I I I I I I I I I I I I I I	1.0000 1.0000 1.0000 1.0000 1.0000 Rep 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Rep 8	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000
7d Survival Ra Conc-% 0 6.25 12.5 25 50 100 7d Survival Ra Conc-% 0 6.25	ote Det	code	Count 10 10 10 10 10 10 10 10 10 10 10 1.0000 1.0000 1.0000	Mean 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	95% LCL 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 1.0000 1.0000	. 95% UCL 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% Min 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	6 I I I I I I I I I I I I I I I I I I I	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 9 1.0000 1.0000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Rep 10 1.0000 1.0000

Report Date:

11 Nov-21 15:35 (p 2 of 2)

Test Code/ID:

VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 15-6575-5676 Analyzed:

Edit Date:

11 Nov-21 15:27

11 Nov-21 15:34

Endpoint: 7d Survival Rate Analysis:

STP 2xK Contingency Tables MD5 Hash: 6DFFCF255519977902535414E38EA216

Status Level: Editor ID:

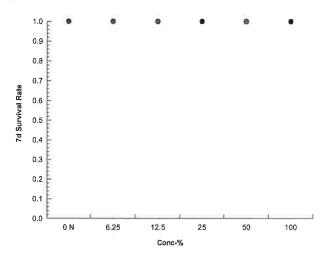
CETIS Version:

CETISv1.9.7 000-189-126-0

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Graphics



CETIS Measurement Report

Report Date:

11 Nov-21 15:35 (p 1 of 8)

Test Code/ID: VC

VCF1021.162 / 19-7072-3839

Ceriodaphnia	a 7-d Survival and Re	eproduction To	est	Aqu	iatic Bioassay & Consultin	g Labs, Inc.
Batch ID:	04-5672-9951	Test Type:	Reproduction-Survival (7d)	Analyst:		
Start Date:	26 Oct-21 14:11	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water	
Ending Date:	02 Nov-21 14:17	Species:	Ceriodaphnia dubia	Brine:	Not Applicable	
Test Length:	7d 0h	Taxon:	Branchiopoda	Source:	Aquatic Biosystems, CO	Age: <24

Sample ID: 10-5619-1624 Code: VCF1021.162 Project: NPDES Stormwater Wet Season

Sample Date: 25 Oct-21 15:10Material:Sample WaterSource:Bioassay ReportReceipt Date: 25 Oct-21 17:30CAS (PC):Station:MO-THO

Sample Age: 23h (12.5 °C) Client: Ventura County Watershed Protection Distri

Alkalinity	(CaCO3)	-mg/L
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Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	60.62	60.19	61.06	60	61	0.06469	0.5175	0.85%	0
100		8	53	53	53	53	53	0	0	0.00%	0
Overall		16	56.81	54.71	58.92	53	61	0.9883	3.953	6.96%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	323	234.1	411.9	60	364	13.29	106.3	32.91%	0
6.25		8	371.9	369.9	373.9	370	376	0.3021	2.416	0.65%	0
12.5		8	383.8	381.8	385.7	380	387	0.2969	2.375	0.62%	0
25		8	416.5	411.7	421.3	412	427	0.7227	5.782	1.39%	0
50		8	480	473.9	486.1	469	490	0.9112	7.29	1.52%	0
100		8	621.4	606.2	636.5	602	662	2.266	18.13	2.92%	0
Overall		48	432.8	401.9	463.6	60	662	15.36	106.4	24.58%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.6	7.452	7.748	7.4	7.9	0.02216	0.1773	2.33%	0
6.25		8	7.438	7.214	7.661	7	7.8	0.03337	0.2669	3.59%	0
12.5		8	7.375	7.176	7.574	7	7.7	0.02969	0.2375	3.22%	0
25		8	7.35	7.202	7.498	7.1	7.6	0.02216	0.1773	2.41%	0
50		8	7.337	7.212	7.463	7.1	7.5	0.01882	0.1506	2.05%	0
100		8	7.325	7.201	7.449	7.1	7.5	0.0186	0.1488	2.03%	0
Overall		48	7.404	7.343	7.465	7	7.9	0.03036	0.2103	2.84%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	95.62	95.19	96.06	95	96	0.06469	0.5175	0.54%	0
100		8	154	154	154	154	154	0	0	0.00%	0
Overall		16	124.8	108.7	140.9	95	154	7.537	30.15	24.15%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.963	7.9	8.025	7.8	8	0.0093	0.0744	0.93%	0
6.25		8	7.738	7.528	7.947	7.3	7.9	0.03129	0.2504	3.24%	0
12.5		8	7.725	7.521	7.929	7.3	7.9	0.03044	0.2435	3.15%	0
25		8	7.7	7.495	7.905	7.3	7.9	0.03062	0.2449	3.18%	0
50		8	7.663	7.418	7.907	7.2	7.9	0.03656	0.2925	3.82%	0
100		8	7.65	7.405	7.895	7.2	7.9	0.0366	0.2928	3.83%	0
Overall		48	7.74	7.666	7.813	7.2	8	0.03668	0.2541	3.28%	0 (0%)

CETIS Measurement Report

Report Date:

11 Nov-21 15:35 (p 2 of 8)

Test Code/ID:

VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-°C											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
6.25		8	24.05	23.99	24.11	24	24.2	0.009442	0.07553	0.31%	0
12.5		8	24.06	24	24.12	24	24.2	0.00929	0.07432	0.31%	0
25		8	24.1	24	24.2	24	24.3	0.01494	0.1195	0.50%	0
50		8	24.11	23.99	24.23	24	24.4	0.01822	0.1457	0.60%	0
100		8	24.14	23.98	24.29	24	24.5	0.02308	0.1847	0.77%	0
Overall		48	24.08	24.04	24.11	24	24.5	0.01717	0.1189	0.49%	0 (0%)

Report Date:

11 Nov-21 15:35 (p 3 of 8) VCF1021.162 / 19-7072-3839

Test Code/ID:

Ceriodaphnia	odaphnia 7-d Survival and Reproduction Test								Aquatic Bioassay & Consulting Labs, Inc			
Alkalinity (Ca	CO3)-mg/L											
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes			
0	N	1		60								
100				53								
0	N	2		60								
100				53								
0	N	3		60								
100				53								
0	N	4		61								
100				53								
0	N	5		61								
100				53								
0	N	6		61								
100				53								
0	N	7		61								
100				53								
0	N	8		61								
100				53								

11 Nov-21 15:35 (p 4 of 8) VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Conductivity-									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
6.25				376					
12.5				387					
25				413					
50				477					
100				602					
0	N	2		360					
6.25				370					
12.5				380					
25				412					
50				469					
100				610					
0	N	3		354					
6.25				370					
12.5				382					
25				415					
50				473					
100				615					
0	N	4		360					
6.25				372					
12.5				383					
25				416					
50				477					
100				613					
0	N	5		364					
6.25	14	ŭ		375					
12.5				385					
25				424					
50				484					
100				622					
0	N	6		362				_	
6.25	IN	U		370					
12.5				385					
25				427					
25 50				488					
100				627					
0	N	7	_	362					
6.25	IN	,		372					
12.5				382					
25				413					
50				482					
100				620					
0	N	8		60					
6.25				370					
12.5				386					
25				412					
50				490					
100				662					

11 Nov-21 15:35 (p 5 of 8) VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Dissolved Ox									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6					
6.25				7					
12.5				7					
25				7.1					
50				7.1					
100				7.2					
0	N	2		7.4					
6.25				7.3					
12.5				7.2					
25				7.2					
50				7.2					
100				7.2					
0	N	3		7.5					
6.25				7.5					
12.5				7.5					
25				7.4					
50				7.4					
100				7.4					
0	N	4		7.6					
6.25				7.2					
12.5				7.2					
25				7.3					
50				7.4					
100				7.5					
0	N	5		7.8					
6.25		Ü		7.7					
12.5				7.6					
25				7.5					
50				7.5					
100				7.5					
0	N	6		7.9					
6.25	IN	O		7.8					
12.5				7.7					
25				7.6					
50				7.5					
100				7.4					
)	N	7		7.6					
6.25	11	,		7.4					
12.5				7.3					
25				7.2					
50				7.2					
100				7.2 7.1					
0	N	8		7.4					
6.25				7.6					
12.5				7.5					
25				7.5					
50				7.4					
100				7.3					

CETIS Measurement Report

Report Date: Test Code/ID: 11 Nov-21 15:35 (p 6 of 8) VCF1021.162 / 19-7072-3839

Aquatic Bioassay & Consulting Labs, Inc.

Ceriodaphnia 7-d Survival and Reproduction Test

Hardness (Ca	CO3)-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		95					
100				154					
0	N	2		95					
100				154					
0	N	3		95					
100				154					
0	N	4		96					
100				154					
0	N	5		96					
100				154					
0	N	6		96					
100				154					
0	N	7		96					
100				154					
0	N	8		96					
100				154					

11 Nov-21 15:35 (p 7 of 8) VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		8					
6.25				7.3					
12.5				7.3					
25				7.3					
50				7.2					
100				7.2					
0	N	2		8					
6.25				7.4					
12.5				7.4					
25				7.4					
50				7.3					
100				7.3					
0	N	3		7.8					
6.25				7.7					
12.5				7.7					
25				7.6					
50				7.5					
100				7.5					
0	N	4		8	-				
6.25				7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					
0	N	5		8					
6.25				7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					
0	N	6		7.9					
6.25				7.9					
12.5				7.8					
25				7.7					
50				7.7					
100				7.6					
)	N	7		8					
6.25				7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					
0	N	8		8					
6.25				7.9					
12.5				7.9					
25				7.9					
50				7.9					
100				7.9					

11 Nov-21 15:35 (p 8 of 8) VCF1021.162 / 19-7072-3839

Ceriodaphnia 7-d Survival and Reproduction Test

Temperature-°C									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
6.25				24.2					
12.5				24.2					
25				24.3					
50				24.4					
100				24.5					
0	N	2		24					
6.25				24.1					
12.5				24.1					
25				24.2					
50				24.2					
100				24.2					
)	N	3		24					
6.25				24					
12.5				24.1					
25				24.1					
50				24.1					
100				24.1					
0	N	4		24					
6.25		· ·		24.1					
12.5				24.1					
25				24.2					
50				24.2					
100				24.3					
0	N	5		24					
6.25	IN	3		24					
12.5				24					
25				24					
50				24					
100				24					
)	N	6		24					
3.25				24					
12.5				24					
25				24					
50				24					
00				24					
)	N	7		24					
3.25				24					
12.5				24					
25				24					
50				24					
100				24					
)	N	8		24					
5.25				24					
2.5				24					
25				24					
50				24					
00				24					



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013 Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

MO-MPK

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.161

CHRONIC SELENASTRUM ALGAE GROWTH BIOASSAY

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours yery truly,

Scott Johnson

Laboratory Director

CETIS Summary Report

Selenastrum Growth Test

Report Date:

02 Nov-21 13:13 (p 1 of 1)

Age: 5d

Test Code/ID:	VCF1021.161sel / 06-9190-0388
Aquatic B	ioassay & Consulting Labs, Inc.

 Batch ID:
 02-5688-0648
 Test Type:
 Cell Growth
 Analyst:

 Start Date:
 26 Oct-21 13:18
 Protocol:
 EPA/821/R-02-013 (2002)
 Diluent:

Start Date:26 Oct-21 13:18Protocol:EPA/821/R-02-013 (2002)Diluent:Laboratory WaterEnding Date:30 Oct-21 13:00Species:Selenastrum capricornutumBrine:Not ApplicableTest Length:96hTaxon:ChlorophytaSource:Aquatic Biosystems, CO

Sample ID: 09-9951-0595 Code: VCF1021.161sel Project: NPDES Stormwater Wet Season

Sample Date: 25 Oct-21 12:10Material:Sample WaterSource:Bioassay ReportReceipt Date: 25 Oct-21 17:30CAS (PC):Station:MO-MPK

Sample Age: 25h (11 °C) Client: Ventura County Watershed Protection Distri

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	√ NOEL	LOEL	TOEL	PMSD	TU	S
15-6151-5041	Cell Density	Dunnett Multiple Comparison Test	100	>100		12.5%	1	1

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	√ Level	%	95% LCL	95% UCL	TU	s
09-9042-7602	Cell Density	Linear Interpolation (ICPIN)	IC10	>100			<1	1
			IC15	>100			<1	
			IC20	>100			<1	
			IC25	>100			<1	
			IC40	>100			<1	
			IC50	>100	***	***	<1	

Test Acceptability			TAC Limits		
Analysis ID Endpoint	Attribute	Test Stat Lo	ower Upper	Overlap	Decision
00 0040 7000 O-II DII	011 0)/	0.00507			- 0"

Analysis ID Endpoint	Attribute	rest Stat	Lower	Upper	Overlap	Decision
09-9042-7602 Cell Density	Control CV	0.03597	<<	0.2	Yes	Passes Criteria
15-6151-5041 Cell Density	Control CV	0.03597	<<	0.2	Yes	Passes Criteria
09-9042-7602 Cell Density	Control Resp	1.42E+6	1000000	>>	Yes	Passes Criteria
15-6151-5041 Cell Density	Control Resp	1.42E+6	1000000	>>	Yes	Passes Criteria

Cell Density Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.423E+6	1.341E+6	1.504E+6	1.361E+6	1.471E+6	2.559E+4	5.118E+4	3.60%	0.00%
6.25		4	1.762E+6	1.607E+6	1.917E+6	1.646E+6	1.849E+6	4.868E+4	9.736E+4	5.52%	-23.86%
12.5		4	1.812E+6	1.644E+6	1.979E+6	1.699E+6	1.953E+6	5.256E+4	1.051E+5	5.80%	-27.32%
25		4	1.961E+6	1.786E+6	2.136E+6	1.829E+6	2.098E+6	5.493E+4	1.099E+5	5.60%	-37.83%
50		4	2.042E+6	1.938E+6	2.145E+6	1.946E+6	2.087E+6	3.252E+4	6.504E+4	3.19%	-43.51%
100		4	1.821E+6	1.561E+6	2.080E+6	1.648E+6	2.027E+6	8.148E+4	1.630E+5	8.95%	-27.97%

Cell Density Detail MD5: 221D354ED16ED9A8D7FB37F17BB658BB

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.361E+6	1.471E+6	1.401E+6	1.458E+6
6.25		1.718E+6	1.646E+6	1.836E+6	1.849E+6
12.5		1.699E+6	1.792E+6	1.953E+6	1.802E+6
25		1.957E+6	1.960E+6	1.829E+6	2.098E+6
50		2.077E+6	1.946E+6	2.087E+6	2.057E+6
100		1.648E+6	2.027E+6	1.746E+6	1.862E+6

Report Date:

02 Nov-21 13:12 (p 1 of 2)

Test Code/ID:

VCF1021.161sel / 06-9190-0388

Selenastrum	Grow	th Test								Aquat	tic Bi	oassay & C	onsulting	Labs, In
Analysis ID:	15-6	151-5041	Er	dpoint:	Cell	I Density			CE	IS Versi	ion:	CETISv1.	9.7	
Analyzed:	02 N	ov-21 13:12	Ar	alysis:	Par	ametric-Con	itrol vs Trea	tments	Sta	us Leve	el:	1		
Edit Date:	02 N	ov-21 13:08	M	D5 Hash:	E27	62B2FE82E	6FC262508	38D5CE142	AAE Ed i	tor ID:		000-189-1	126-0	
Batch ID:	02-5	688-0648	Te	st Type:	Cell	I Growth			Ana	lyst:				
Start Date:	26 C	ct-21 13:18		otocol:		A/821/R-02-	013 (2002)				Labo	ratory Wate	er	
Ending Date:	30 C	ct-21 13:00	Sr	ecies:		enastrum ca	` ,		Bri			Applicable		
Test Length:				xon:		orophyta						itic Biosyste	ems, CO	Age: 5
Sample ID:	09-9	951-0595	Co	ode:	VCF	F1021.161se	اد		Pro	ject:	NPD	ES Stormw	ater Wet S	eason
Sample Date:				aterial:		nple Water	J1					ssay Report		cason
Receipt Date:				AS (PC):	Qui	iipio vratoi					MO-I	• .		
Sample Age:				ient:	Ven	ntura County	Watershed	Protection I			IVIO-I	VIII		
Data Transfor		<u> </u>								TOEL		TIL	MCD	DMCD
Untransformed			Alt Hyp					NOEL 100	>100 >100	TOEL		TU 1	MSDu 178500	PMSD 12.55%
	_				-				100				170000	12.55%
Dunnett Multi			lest											
Control	vs	Conc-%		Test S		Critical		P-Type	P-Value	Decis				
Negative Cont	rol	6.25		-4.578		2.407	2E+05 6	CDF	1.0000		-	icant Effect		
		12.5		-5.242		2.407	2E+05 6	CDF	1.0000		_	icant Effect		
		25		-7.258		2.407	2E+05 6	CDF	1.0000		-	cant Effect		
		50		-8.346		2.407	2E+05 6	CDF	1.0000		_	cant Effect		
		100		-5.366		2.407	2E+05 6	CDF	1.0000	Non-S	Signiti	cant Effect		
Test Acceptal	bility	Criteria	TAC	Limits										
A 44-71 4														
		Test Stat	Lower	Upper	-	Overlap	Decision							
Control CV		Test Stat 0.03597	Lower <<	Upper 0.2		Overlap Yes	Decision Passes Cr	iteria						
Control CV				0.2		-								
Control CV Control Resp		0.03597	<<	0.2		Yes	Passes Cr							
Control CV Control Resp ANOVA Table Source		0.03597 1.42E+6 Sum Squa	<< 1000000	0.2) >> Mean	Squ	Yes Yes	Passes Cr Passes Cr DF	iteria F Stat	P-Value	Decis				
Control CV Control Resp ANOVA Table Source		0.03597 1.42E+6 Sum Squa 9.144E+11	<< 1000000	0.2	Squ	Yes Yes	Passes Cr Passes Cr	iteria	P-Value <1.0E-05			x:5%) Effect		
Control CV Control Resp ANOVA Table Source Between Error		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11	<< 1000000	0.2) >> Mean	Squ E+11	Yes Yes	Passes Cr Passes Cr DF 5 18	iteria F Stat						
Control CV Control Resp ANOVA Table Source Between Error		0.03597 1.42E+6 Sum Squa 9.144E+11	<< 1000000	0.2) >> Mean 1.829	Squ E+11	Yes Yes	Passes Cr Passes Cr DF	iteria F Stat						
Control CV Control Resp ANOVA Table Source Between Error Total		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12	<< 1000000	0.2) >> Mean 1.829	Squ E+11	Yes Yes	Passes Cr Passes Cr DF 5 18	iteria F Stat						
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12	<< 1000000	0.2) >> Mean 1.829	Squ E+11	Yes Yes	Passes Cr Passes Cr DF 5 18	F Stat 16.62			icant	Effect		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12	<< 1000000 ires	0.2) >> Mean 1.829 1.100	Squ E+11 E+10	Yes Yes	Passes Cr Passes Cr DF 5 18 23	F Stat 16.62	<1.0E-05	Signif	icant	Effect		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests	1000000	0.2) >> Mean 1.829 1.100	Squ E+11 E+10	Yes Yes	Passes Cr Passes Cr DF 5 18 23	F Stat 16.62 Critical	<1.0E-05	Signif Decis	icant	Effect x:1%) ances		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq	1000000	0.2) >> Mean 1.829 1.100 /ariance T	Squ E+11 E+10	Yes Yes	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146	F Stat 16.62 Critical 15.09	<1.0E-05 P-Value 0.5285	Signif Decis Equal	icant ion(c Varia	Effect x:1%) ances ances		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq	uality of Vuality of Vue Equality	0.2) >> Mean 1.829 1.100 /ariance T /ariance T	Squ E+11 E+10	Yes Yes	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093	F Stat 16.62	P-Value 0.5285 0.3977	Decis Equal Equal	icant ion(c Varia Varia	Effect x:1%) ances ances		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 ns Tests Test Bartlett Eq Levene Eq Mod Lever	uality of Vuality of Vale Equality	0.2) >> Mean 1.829 1.100 /ariance T /ariance T y of Variat 2 Test	Squ E+11 E+10	Yes Yes	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006	F Stat 16.62 Critical 15.09 4.248 4.248	P-Value 0.5285 0.3977 0.4423	Decis Equal Equal Equal Norma	icant icant Varia Varia Varia	x:1%) ances ances ances		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq Mod Leven Anderson-I	uality of Vuality of Vale Equality Darling A2 Kurtosis	0.2) >> Mean 1.829 1.100 fariance T fariance T for Variance T y of Variance T Test Test	Squ E+11 E+10	Yes Yes	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815	F Stat 16.62 Critical 15.09 4.248 4.248 3.878	P-Value 0.5285 0.3977 0.4423 0.9695	Decis Equal Equal Norma	icant icant Varia Varia Varia	x:1%) ances ances ances stribution		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino	uality of Vuality of Vuality of Vuality of Kurtosis	0.2) >> Mean 1.829 1.100 fariance T fariance T for Variance T to of Variance T Test Test Test Test	Squ E+11 E+10	Yes Yes Yes Test	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431	Decis Equal Equal Norma	icant icant Varia Varia Varia I Dis	Effect x:1%) ances ances ances arribution stribution		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq Mod Leven Anderson-I D'Agostino D'Agostino	uality of Vuality of Vue Equality Darling Az Kurtosis Skewnes -Pearson	0.2) >> Mean 1.829i 1.100i Variance T v of Variance T ey of Variance T est Test Est Test K2 Omnii	Squ E+11 E+10	Yes Yes Yes Test	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402	Decis Equal Equal Norma	icant icant Varia Varia Varia I Dis al Dis al Dis	Effect x:1%) ances ances ances tribution stribution		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance		0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq Mod Leven Anderson-I D'Agostino D'Agostino	uality of Vuality of Vuality of Vue Equality Darling Az Kurtosis Skewnes-Pearson v-Smirno	0.2) >> Mean 1.829 1.100 i dariance T dariance T y of Varian 2 Test Test is Test K2 Omnil y D Test	Squ E+11 E+10	Yes Yes Yes Test	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942	Decis Equal Equal Norma Norma Norma	sion(c Varia Varia Varia al Dis al Dis al Dis al Dis	Effect x:1%) ences ences ences entribution etribution etribution etribution		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	uality of Vuality of Vuality of Vue Equality Darling Az Kurtosis Skewnes-Pearson v-Smirno	0.2) >> Mean 1.829 1.100 i dariance T dariance T dariance T dariance T sy of Varian 2 Test Test tes Test K2 Omnil v D Test	Squ E+11 E+10	Yes Yes Yes Test	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614	Decis Equal Equal Norma Norma Norma	sion(c Varia Varia Varia al Dis al Dis al Dis al Dis	Effect x:1%) ances ances ances artibution stribution stribution stribution		
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	uality of Vuality of Vuality of Vue Equality Darling Az Kurtosis Skewnes-Pearson v-Smirno	0.2) >> Mean 1.829 1.100 i dariance T dariance T dariance T dariance T sy of Varian 2 Test Test tes Test K2 Omnil v D Test	Squ E+11 E+10	Yes Yes Yes Test	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319 0.9852	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614	Decis Equal Equal Norma Norma Norma	sion(c Varia Varia Varia al Dis al Dis al Dis al Dis	Effect x:1%) ances ances ances artibution stribution stribution stribution	CV%	%Effec
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Cell Density S Conc-%	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Test Bartlett Eq Levene Eq Mod Leven Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W	uality of Vuality of V	0.2 Mean 1.829 1.100 Variance T Variance T y of Varia 2 Test Test Test Ss Test K2 Omnil v D Test mality Tes	Squ E+11 E+10 est est nce	Yes Yes Yes Test	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319 0.9852	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614 0.9695	Decis Equal Equal Norma Norma Norma Norma Norma	sion(c Varia Varia Varia I Dis al Dis al Dis al Dis al Dis	Effect x:1%) ances ances ances arribution atribution atribution atribution atribution atribution		%Effec 0.00%
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Cell Density S Conc-% 0	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W Iary Code	uality of Vuality of V	0.2) >> Mean 1.829 1.100 1.1	Squ E+11 E+10 Fest Fest Ince	Yes Yes Yes Yes Test Test 95% LCL 1.341E+6	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319 0.9852 95% UCL 1.504E+6	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614 0.9695	Decis Equal Equal Norma Norma Norma Norma Norma	sion(c Varia Varia Varia I Varia I Dis I Dis I Dis I Dis	x:1%) ances ances ances arribution atribution atribution atribution stribution	3.60%	0.00%
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Cell Density S Conc-% 0 6.25	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W Iary Code	uality of Vuality of V	0.2) >> Mean 1.829 1.100 fariance T fariance T fariance T for Variance T to ST Committed Test ST Committed Test Mean 1.423 1.7628	Squ =+11 =+10 est est nce	Yes Yes Yes Yes Test Test 95% LCL 1.341E+6	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319 0.9852 95% UCL 1.504E+6 1.917E+6	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 1.430E+6	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614 0.9695 Min 1.361E++ 1.646E+6	Decis Equal Equal Norma Norma Norma Norma Norma 1.4471	sion(d Variation(d Variation) Variation Variat	Effect x:1%) ances ances ances arribution atribution atribution stribution Stribution Std Err 2.559E+4	3.60% 5.52%	0.00%
Attribute Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Cell Density S Conc-% 0 6.25 12.5 25	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W Iary Code	uality of Vuality of V	0.2) >> Mean 1.829 1.100 fariance T fariance T fariance T for Variance T to ST Committed Test ST Committed Test Mean 1.423 1.7628	Squ =+11 =+10 ==+10 =======================	Yes Yes Yes Yes 100 Test Test 95% LCL 1.341E+6 1.607E+6	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319 0.9852 95% UCL 1.504E+6 1.917E+6 1.979E+6	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 1.430E+6 1.777E+6	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614 0.9695 Min 1.361E++ 1.646E+6	Decis Equal Equal Norma Norma Norma Norma 10 1.4711 13 1.849 13 1.953	sion(d Varia Varia Varia I Varia I Dis I Dis I Dis I Dis I Dis I Dis I Dis I Dis I Dis	a:1%) ances ances ances ances arribution atribution atribution stribution stribution stribution Std Err 2.559E+4 4.868E+4	3.60% 5.52% 5.80%	%Effect 0.00% -23.86% -27.32% -37.83%
Control CV Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Cell Density S Conc-% 0 6.25 12.5	mptio	0.03597 1.42E+6 Sum Squa 9.144E+11 1.980E+11 1.112E+12 Ins Test Bartlett Eq Levene Eq Mod Lever Anderson-I D'Agostino D'Agostino D'Agostino Kolmogoro Shapiro-W Iary Code	uality of Vuality of V	Mean 1.829 1.100 Ariance T Ariance	Squ =+11 =+10 ==+10 =======================	Yes Yes Yes Yes Yes 100 Test Test 95% LCL 1.341E+6 1.607E+6 1.644E+6	Passes Cr Passes Cr DF 5 18 23 Test Stat 4.146 1.093 1.006 0.1815 0.07131 0.4674 0.2236 0.09319 0.9852 95% UCL 1.504E+6 1.917E+6 1.917E+6 2.136E+6	F Stat 16.62 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 1.430E+6 1.777E+6 1.797E+6 1.958E+6	P-Value 0.5285 0.3977 0.4423 0.9695 0.9431 0.6402 0.8942 0.9614 0.9695 Min 1.361E++ 1.699E++ 1.829E++	Decis Equal Equal Norma Norma Norma Norma Norma 1.4711 1.849 1.953 1.953 2.098	icant sion(c Varia Varia Varia I Varia I Dis al Dis al Dis al Dis al Dis E+6 E+6 E+6 E+6	a:1%) ances ances ances ances aribution atribution atribution atribution atribution atribution atribution 4.868E+4 5.256E+4	3.60% 5.52% 5.80% 5.60%	0.00% -23.86% -27.32%

Report Date:

02 Nov-21 13:12 (p 2 of 2)

Test Code/ID:

VCF1021.161sel / 06-9190-0388

Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analyzed: **Edit Date:**

Analysis ID: 15-6151-5041 02 Nov-21 13:12 02 Nov-21 13:08

Endpoint: Cell Density

Analysis:

Parametric-Control vs Treatments MD5 Hash: E2762B2FE82E6FC2625088D5CE142AAE

CETIS Version: Status Level:

Editor ID:

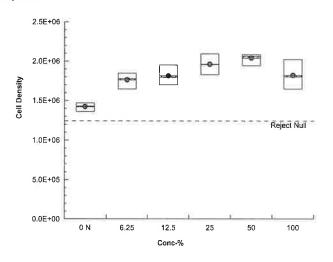
000-189-126-0

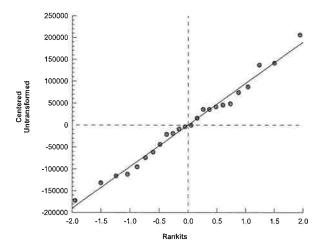
CETISv1.9.7

Cell Density Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.361E+6	1.471E+6	1.401E+6	1.458E+6	
6.25		1.718E+6	1.646E+6	1.836E+6	1.849E+6	
12.5		1.699E+6	1.792E+6	1.953E+6	1.802E+6	
25		1.957E+6	1.960E+6	1.829E+6	2.098E+6	
50		2.077E+6	1.946E+6	2.087E+6	2.057E+6	
100		1.648E+6	2.027E+6	1.746E+6	1.862E+6	

Graphics





Report Date:

02 Nov-21 13:13 (p 1 of 2)

Test Code/ID:

VCF1021.161sel / 06-9190-0388

									Test Code/	ID:	VCF1021	l.161sel / 06	- 9190-038
Selena	strum	Growth Test							Aqua	itic Bi	oassay &	Consulting	Labs, Inc
Analys	is ID:	09-9042-7602	End	point:	Cell Density				CETIS Vers	sion:	CETISv1	.9.7	
Analyz	ed:	02 Nov-21 13:12	Ana	lysis:	Linear Interpola	ation (ICPIN)		Status Lev	el:	1		
Edit Da	ate:	02 Nov-21 13:08	MD	Hash:	E2762B2FE82I	E6FC26250	88D5CE1	42AAE	Editor ID:		000-189-	126-0	
Batch	ID:	02-5688-0648	Test	Type:	Cell Growth				Analyst:				
Start D	ate:	26 Oct-21 13:18	Prof	ocol:	EPA/821/R-02-	013 (2002)			Diluent:	Labo	ratory Wat	er	
Ending	g Date:	30 Oct-21 13:00	Spe	cies:	Selenastrum ca	apricornutun	n		Brine:		Applicable		
Test Le	ength:	96h	Tax	on:	Chlorophyta				Source:		itic Biosyst	ems, CO	Age: 5d
Sample	e ID:	09-9951-0595	Cod	e: '	VCF1021.161s	el			Project:	NPD	ES Stormw	ater Wet Se	ason
Sample	e Date:	25 Oct-21 12:10	Mate	erial:	Sample Water				Source:		say Repor		
Receip	t Date:	25 Oct-21 17:30	CAS	(PC):					Station:	MO-N	MPK .		
Sample	e Age:	25h (11 °C)	Clie	nt:	Ventura County	/ Watershed	Protectio	n Distri					
Linear	Interpo	olation Options											
X Tran	sform	Y Transform	See	d l	Resamples	Exp 95%	CL Me	thod					
Linear		Linear	0		280	Yes	Tw	o-Point I	Interpolation				
Test A	cceptal	bility Criteria	TAC L	imits									
Attribu	ite	Test Stat	Lower	Upper	Overlap	Decision							
Control	CV	0.03597	<<	0.2	Yes	Passes C	riteria						
Control	Resp	1.42E+6	1000000	>>	Yes	Passes C	riteria						
Point E	Estimat	es											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL							
IC10	>100	***		<1									
IC15	>100	***		<1	-	***							
IC20	>100	***	***	<1		***							
IC25	>100		***	<1	***								
IC40	>100		***	<1	***	***							
IC50	>100			<1	***								
Cell De	ensity S	Summary				Cal	culated V	'ariate				Isotoni	c Variate
Conc-%	%	Code	Count	Mean	Median	Min	Max	CV%	%Eff	ect		Mean	%Effect
)		N	4	1.423E	+6 1.430E+6	1.361E+6	1.471E+	6 3.60	% 0.009	%		1.803E+6	0.00%
6.25			4	1.762E	+6 1.777E+6	1.646E+6	1.849E+	6 5.52	% -23.8	6%		1.803E+6	0.00%
12.5			4	1.812E	+6 1.797E+6	1.699E+6	1.953E+	6 5.80	% -27.3	2%		1.803E+6	0.00%
25			4	1.961E	+6 1.958E+6	1.829E+6	2.098E+	6 5.60	% -37.8	3%		1.803E+6	0.00%
50			4	2.042E	+6 2.067E+6	1.946E+6	2.087E+	6 3.19	% -43.5	1%		1.803E+6	0.00%
100			4	1.821E	+6 1.804E+6	1.648E+6	2.027E+	6 8.95	% -27.9	7%		1.803E+6	0.00%
Cell De	ensity C	etail											
Conc-%	6	Code	Rep 1	Rep 2	Rep 3	Rep 4							
0		N	1.361E+6	1.471E	+6 1.401E+6	1.458E+6							
5.25			1.718E+6	1.646E	+6 1.836E+6	1.849E+6							
12.5			1.699E+6	1.792E	+6 1.953E+6	1.802E+6							
25			1.957E+6	1.960E	+6 1.829E+6	2.098E+6							
50					+6 2.087E+6								
400			4.0405.0	0.0075	.0 4.7405.0	1.000=.0							



1.648E+6 2.027E+6 1.746E+6 1.862E+6

100

Report Date:

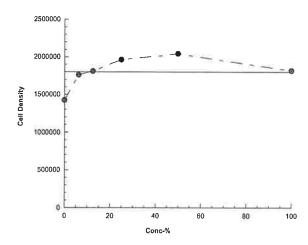
02 Nov-21 13:13 (p 2 of 2)

Test Code/ID:

VCF1021.161sel / 06-9190-0388

Selenastrum	Growth Test			Aquatic Bi	oassay & Consulting Labs, Inc.
Analysis ID:	09-9042-7602	Endpoint:	Cell Density	CETIS Version:	CETISv1.9.7
Analyzed:	02 Nov-21 13:12	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1
Edit Date:	02 Nov-21 13:08	MD5 Hash:	E2762B2EE82E6EC2625088D5CE142AAE	Editor ID:	000-189-126 0

Graphics



CETIS Measurement Report

Report Date:

02 Nov-21 13:13 (p 1 of 4)

Test Code/ID:

VCF1021.161sel / 06-9190-0388

Sele	nastrum	Growth	Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	02-5688-0648	Test Type: Cell Growth	Analyst:
-----------	--------------	------------------------	----------

Start Date:26 Oct-21 13:18Protocol:EPA/821/R-02-013 (2002)Diluent:Laboratory WaterEnding Date:30 Oct-21 13:00Species:Selenastrum capricornutumBrine:Not Applicable

Test Length: 96h Taxon: Chlorophyta Source: Aquatic Biosystems, CO A

Sample ID: 09-9951-0595 Code: VCF1021.161sel Project: NPDES Stormwater Wet Season

Sample Date:25 Oct-21 12:10Material:Sample WaterSource:Bioassay ReportReceipt Date:25 Oct-21 17:30CAS (PC):Station:MO-MPK

Sample Age: 25h (11 °C) Client: Ventura County Watershed Protection Distri

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	1	70			70	70	124-	0	***	0
6.25		1	85	***		85	85	-	0		0
12.5		1	77			77	77		0		0
25		1	73			73	73		0		0
50		1	63			63	63		0		0
100		1	57			57	57		0		0
Overall		6	70.83	60.37	81.29	57	85	4.07	9.968	14.07%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	451	429.9	472.1	430	464	3.4	17	3.77%	0
6.25		5	465.6	460	471.2	461	470	0.9011	4.506	0.97%	0
12.5		5	446	441	451	439	449	0.8	4	0.90%	0
25		5	427.2	424.5	429.9	424	429	0.4336	2.168	0.51%	0
50		5	390.4	383.7	397.1	384	398	1.083	5.413	1.39%	0
100		5	308.2	299.7	316.7	298	315	1.367	6.834	2.22%	0
Overall		30	414.7	394.3	435.1	298	470	9.972	54.62	13.17%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	1	138	***		138	138		0	***	0
6.25		1	140	944		140	140		0	***	0
12.5		1	131	242		131	131		0		0
25		1	105		***	105	105		0		0
50		1	84			84	84		0	***	0
100		1	80		***	80	80		0	***	0
Overali		6	113	84.56	141.4	80	140	11.06	27.1	23.98%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count		
0	N	5	7.46	7.349	7.571	7.4	7.6	0.01789	0.08945	1.20%	0		
6.25		5	7.26	7.072	7.448	7.1	7.5	0.03033	0.1517	2.09%	0		
12.5		5	7.2	7.048	7.352	7.1	7.4	0.0245	0.1225	1.70%	0		
25		5	7.16	7.049	7.271	7.1	7.3	0.01789	0.08944	1.25%	0		
50		5	7.1	7.012	7.188	7	7.2	0.01414	0.07072	1.00%	0		
100		5	7.08	6.944	7.216	6.9	7.2	0.02191	0.1095	1.55%	0		
Overall		30	7.21	7 149	7 271	6.9	7.6	0.02969	0.1626	2.26%	0 (0%)		

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	25.58	25.42	25.74	25.5	25.8	0.02608	0.1304	0.51%	0
6.25		5	25.58	25.42	25.74	25.5	25.8	0.02608	0.1304	0.51%	0
12.5		5	25.58	25.42	25.74	25.5	25.8	0.02608	0.1304	0.51%	0
25		5	25.58	25.42	25.74	25.5	25.8	0.02608	0.1304	0.51%	0
50		5	25.58	25.42	25.74	25.5	25.8	0.02608	0.1304	0.51%	0
100		5	25.58	25.42	25.74	25.5	25.8	0.02608	0.1304	0.51%	0
Overall		30	25.58	25.54	25.62	25.5	25.8	0.02166	0.1186	0.46%	0 (0%)

Report Date:

02 Nov-21 13:13 (p 2 of 4)

Test Code/ID:

VCF1021.161sel / 06-9190-0388

								Test (Code/ID:	VCF1021.161sel / 06-9190-038
Selenastrum C	Frowth Test								Aquatic I	Bioassay & Consulting Labs, Inc.
Alkalinity (CaC	O3)-mg/L									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		70						
6.25				85						
12.5				77						
25				73						
50				63						
100				57						
Conductivity-µ	ımhos									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		464						
6.25				461						
12.5				447						
25				426						
50				384						
100				298						
0	N	2		464						
6.25				461						
12.5				439						
25				424						
50				387						
100				305						
0	N	3		462						
6.25				466						
12.5				449						
25				429						
50				390						
100				310						
0	N	4		430						
6.25				470						
12.5				447						
25				428						
50				393						
100				313						
0	N	5		435						
6.25				470						
12.5				448						
25				429						
50				398						
100				315						
Hardness (CaC	O3)-mg/L									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		138						
6.25				140						
12.5				131						
25				105						

84

80

50

100

CETIS Measurement Report

Report Date:

02 Nov-21 13:13 (p 3 of 4) VCF1021.161sel / 06-9190-0388

Test Code/ID:

Selenastrum (Growth Test								Aquatic Bioassay & Consulting Labs, Inc.
pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.4					
6.25				7.3					
12.5				7.2					
25				7.1					
50				7					
100				6.9					
0	N	2		7.4					
6.25				7.2					
12.5				7.1					
25				7.1					
50				7.1					
100				7.1					
0	N	3		7.6					
6.25				7.2					
12.5				7.2					
25				7.2					
50				7.1					
100				7.1					
0	N	4		7.4					
6.25				7.1					
12.5				7.1					
25				7.1					
50				7.1					
100				7.1					
0	N	5		7.5					
6.25				7.5					
12.5				7.4					
25				7.3					
50				7.2					
100				7.2					

Selenastrum Growth Test

Report Date:

02 Nov-21 13:13 (p 4 of 4) VCF1021.161sel / 06-9190-0388

Test Code/ID:

									, idea to bloadedy a containing Labo, inc.
Temperature-°C									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		25.8					
6.25				25.8					
12.5				25.8					
25				25.8					
50				25.8					
100				25.8					
0	N	2		25.6					
6.25				25.6					
12.5				25.6					
25				25.6					
50				25.6					
100				25.6					
0	N	3		25.5					
6.25				25.5					
12.5				25.5					
25				25.5					
50				25.5					
100				25.5					
0	N	4		25.5					
6.25				25.5					
12.5				25.5					
25				25.5					
50				25.5					
100				25.5					
0	N	5		25.5					
6.25				25.5					
12.5				25.5					
25				25.5					
50				25.5					
100				25.5					



November 15, 2021

Mr. Arnie Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA-600/R95/136, 1995*. Results were as follows:

CLIENT:

County of Ventura

SAMPLE I.D.:

ME-SCR

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.163

CHRONIC SEA URCHIN FERTILIZATION BIOASSAY

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 15:26 (p 1 of 1)

Test Code/ID:

VCF1021.163 / 09-6369-4626

Purple Sea Ui	rchin Sperm C	ell Fertiliza	tion Test						Aquati	c Bioassay &	Consulting	Labs,	lnc.	
Batch ID: Start Date: Ending Date: Test Length:		01 Pr 11 S p	st Type: otocol: ecies: xon:	Fertilization EPA/600/R-95/ Strongylocentro Echinoidea		tus	Analys Diluent us Brine: Source			Laboratory Seawater Not Applicable Ventura Dive				
•	08-4136-3719 25 Oct-21 15:4 25 Oct-21 17:3 24h (8.5 °C)	15 Ma	ode: aterial: AS (PC): ient:	VCF1021.163 Sample Water Ventura County	v Watershed	Protecti	on	Proj Sou Stat Distri	rce: E	NPDES Stormw Bioassay Repor ME-SCR		ason		
Multiple Com	parison Summ	ary										-		
Analysis ID	Endpoint		Comp	arison Method			✓	NOEL	LOEL	TOEL	PMSD	TU	,	
18-5282-9044	Fertilization Ra	ate	Dunne	ett Multiple Comp	parison Test			100	>100		3.78%	1		
Point Estimat	e Summary													
Analysis ID	Endpoint		Point	Estimate Metho	od		√	Level	%	95% LCL	95% UCL	TU	:	
13-2400-0256		ate		Interpolation (IC				EC10	>100			<1	19	
					,			EC15	>100	***	***	<1		
								EC20	>100	***		<1		
								EC25	>100	back.		<1		
								EC40	>100			<1		
								EC50	>100			<1		
Test Acceptab	oility					TAC	: L	imits						
Analysis ID	Endpoint		ute	Test Stat			Upper	Overla	p Decision					
13-2400-0256	Fertilization Ra	ate	Contro	ol Resp	0.9425	0.7		>>	Yes	Passes C	riteria			
18-5282-9044	Fertilization Ra	ate	Contro	ol Resp	0.9425	0.7		>>	Yes	Passes C	Passes Criteria			
18-5282-9044	Fertilization Ra	ate	PMSD)	<<		0.25	No Passes Criteria		riteria				
Fertilization R	ate Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min		Max	Std Er	r Std Dev	CV%	%Effe	ect	
0	N	4	0.942	5 0.9124	0.9726	0.9300		0.9700	0.0095	0.0189	2.01%	0.00%	6	
6.25		4	0.937	5 0.9103	0.9647	0.9200		0.9600	0.0085	0.0171	1.82%	0.53%	6	
12.5		4	0.922		0.9464	0.9100		0.9400	0.0075		1.63%	2.12%	6	
25		4	0.942		0.9664	0.9300		0.9600	0.0075		1.59%	0.00%		
50		4	0.9350		0.9809	0.9100		0.9600	0.0144		3.09%	0.80%		
100		4	0.927	0.8947	0.9603	0.9100		0.9500	0.0103	0.0206	2.22%	1.59%	6	
						0.9100	_						F5	
Fertilization R	ate Detail					0.9100		MD	5: 7 9210	C84F7A91610	DE92665AC	8B327		
	ate Detail Code	Rep 1	Rep 2	Rep 3	Rep 4	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	8B327		
Conc-%		Rep 1	Rep 2		Rep 4 0.9700	0.9100		MD	5: 7 9210	CC84F7A91610	DE92665AC	8B327		
Conc-%	Code			0.9400		0.9100		MD	5: 79210	CC84F7A91610	DE92665AC	88327		
Conc-% 0 6.25	Code	0.9300	0.9300	0.9400 0.9400	0.9700	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	8B327		
Conc-% 0 6.25 12.5	Code	0.9300 0.9300	0.9300	0.9400 0.9400 0.9100	0.9700 0.9200	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	8B327		
Conc-% 0 6.25 12.5 25	Code	0.9300 0.9300 0.9100	0.9300 0.9600 0.9400	0.9400 0.9400 0.9100 0.9300	0.9700 0.9200 0.9300	0.9100		MD:	5: 7 921C	C84F7A91610	DE92665AC	8B327		
Conc-% 3.25 12.5 25	Code	0.9300 0.9300 0.9100 0.9600	0.9300 0.9600 0.9400 0.9500	0.9400 0.9400 0.9100 0.9300 0.9100	0.9700 0.9200 0.9300 0.9300	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	28B327		
Conc-% 0 6.25 12.5 25 50	Code N	0.9300 0.9300 0.9100 0.9600 0.9100	0.9300 0.9600 0.9400 0.9500 0.9600	0.9400 0.9400 0.9100 0.9300 0.9100	0.9700 0.9200 0.9300 0.9300 0.9600	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	28B327		
Conc-% 0 6.25 12.5 25 50 100 Fertilization R	Code N	0.9300 0.9300 0.9100 0.9600 0.9100	0.9300 0.9600 0.9400 0.9500 0.9600	0 0.9400 0 0.9400 0 0.9100 0 0.9300 0 0.9100 0 0.9100	0.9700 0.9200 0.9300 0.9300 0.9600	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	28B327		
Conc-% 3.25 12.5 50 100 Fertilization R Conc-%	N N ate Binomials	0.9300 0.9300 0.9100 0.9600 0.9100 0.9400	0.9300 0.9600 0.9400 0.9500 0.9600 0.9100	0 0.9400 0 0.9400 0 0.9100 0 0.9300 0 0.9100 0 0.9100 Rep 3	0.9700 0.9200 0.9300 0.9300 0.9600 0.9500	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	C8B327		
Conc-% 0 6.25 12.5 25 50 100 Fertilization R Conc-%	Code N ate Binomials Code	0.9300 0.9300 0.9100 0.9600 0.9100 0.9400	0.9300 0.9600 0.9400 0.9500 0.9600 0.9100	0 0.9400 0 0.9400 0 0.9100 0 0.9300 0 0.9100 0 0.9100 Rep 3	0.9700 0.9200 0.9300 0.9300 0.9600 0.9500	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	c8B327		
Conc-% 0 6.25 12.5 25 50 100 Fertilization R Conc-% 0 6.25	Code N ate Binomials Code	0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 Rep 1	0.9300 0.9600 0.9400 0.9500 0.9100 Rep 2 93/100 96/100	0 0.9400 0 0.9400 0 0.9100 0 0.9300 0 0.9100 0 0.9100 Rep 3 0 94/100 9 94/100	0.9700 0.9200 0.9300 0.9300 0.9600 0.9500 Rep 4 97/100 92/100	0.9100		MD:	5: 79210	C84F7A91610	DE92665AC	c8B327		
Conc-% 0 6.25 12.5 25 50 100 Fertilization R Conc-% 0 6.25 12.5	Code N ate Binomials Code	0.9300 0.9300 0.9100 0.9600 0.9400 Rep 1 93/100 93/100	0.9300 0.9600 0.9500 0.9600 0.9100 Rep 2 93/100 94/100	0 0.9400 0 0.9400 0 0.9100 0 0.9300 0 0.9100 0 0.9100 Rep 3 0 94/100 9 94/100	0.9700 0.9200 0.9300 0.9300 0.9600 0.9500 Rep 4 97/100 92/100 93/100	0.9100		MD	5: 79210	C84F7A91610	DE92665AC	c8B327		
Fertilization R Conc-% 0 6.25 12.5 25 50 100 Fertilization R Conc-% 0 6.25 12.5 25 50	Code N ate Binomials Code	0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 Rep 1 93/100 93/100 91/100	0.9300 0.9600 0.9400 0.9500 0.9100 Rep 2 93/100 96/100	0 0.9400 0 0.9400 0 0.9100 0 0.9300 0 0.9100 0 0.9100 Rep 3 9 94/100 9 94/100 9 93/100	0.9700 0.9200 0.9300 0.9300 0.9600 0.9500 Rep 4 97/100 92/100	0.9100		MD	5: 79210	C84F7A91610	DE92665AC	c8B327		



Report Date: Test Code/ID: 11 Nov-21 15:25 (p 1 of 2) VCF1021.163 / 09-6369-4626

													. D.		Consulting	
Purple Sea U	rchin	Sperm Cel	I Fertili	zation Test								Aquat	IIC BIC	passay &	Oursaiting	j Labs, li
Analysis ID:	18-5	282-9044		Endpoint:	Fert	ilization Ra	te				CETIS	Versi	ion:	CETISv1	9.7	
Analyzed:	11 N	ov-21 15:25		Analysis:		ametric-Cor		eat	ments		Status			1	.0.1	
Edit Date:	11 N	ov-21 15:24		MD5 Hash:							Editor			000-189-	126-0	
Batch ID:	15-1	835-0403		Test Type:	Fert	ilization					Analys	24.				
Start Date:		ct-21 16:01		Protocol:		//600/R-95/	136 (1995	51			Diluen		Lahor	atory Sea	water	
Ending Date:				Species:		ngylocentro			116		Brine:			atory Sea pplicable	water	
Test Length:		00 21 10.41		Taxon:		inoidea	nus puipi	ııaı	us					pplicable ira Dive		
	70111			Taxon,	Loni	IIIOIdea					Source	e:	ventu	ira Dive		Age:
Sample ID:		136-3719		Code:	VCF	1021.163					Projec	et:	NPDE	S Stormw	ater Wet S	Season
Sample Date:				Material:	Sam	nple Water				:	Source	e:	Bioas	say Repor	t	
Receipt Date:			(CAS (PC):						;	Statio	n:	ME-S	CR		
Sample Age:	24h ((8.5 °C)		Client:	Vent	tura County	Watersh	ed	Protection	Distri						
Data Transfor	m		Alt Hy	/p					NOEL	LOEL		TOEL		TU	MSDu	PMSD
Angular (Corre	cted)		C > T						100	>100				1	0.03565	3.78%
Dunnett Multi	ple C	omparison	Test													
Control	vs	Conc-%		Test S	tat	Critical	MSD	DF	P-Type	P-Val	lue	Decis	ion(a	:5%)		
Negative Contr	rol	6.25		0.3928	3	2.407	0.071		CDF	0.693				ant Effect		
		12.5		1.422		2.407	0.071	6	CDF	0.253			-	ant Effect		
		25		0.045	18	2.407	0.071	6	CDF	0.819			_	ant Effect		
		50		0.4672	2	2.407	0.071	6	CDF	0.661			-	ant Effect		
		100		1.064		2.407	0.071	ô	CDF	0.394			-	ant Effect		
Test Acceptab	. 1114	0-141-														
rest Asseptut	mity (Criteria	ТΔ	Climite												
	onity (Test Stat	TA Lower	C Limits Upper		Overlap	Decisio	n								
Attribute	onity (Overlap Yes	Decisio Passes		teria							
Attribute Control Resp PMSD	———	Test Stat	Lower	Upper				Cri								
Attribute Control Resp PMSD	onity (Test Stat 0.9425	Lower 0.7	Upper		Yes	Passes	Cri								
Attribute Control Resp PMSD ANOVA Table	onity (Test Stat 0.9425 0.03782	0.7 <<	Upper		Yes No	Passes	Cri		P-Val	ue	Decis	ion(α:	:5%)		
Attribute Control Resp	onity (Test Stat 0.9425	Lower 0.7 <<	Upper >> 0.25	Squa	Yes No	Passes Passes	Cri	teria F Stat			Decis Non-S	_			
Attribute Control Resp PMSD ANOVA Table Source Between	onity (Test Stat 0.9425 0.03782 Sum Squa	Lower 0.7 <<	Upper >> 0.25	Squ a	Yes No	Passes Passes DF	Cri	teria	P-Val 0.668			_	:5%) eant Effect		
Attribute Control Resp PMSD ANOVA Table Source Between Error	onity (Test Stat 0.9425 0.03782 Sum Squa 0.0055928	Lower 0.7 <<	>> 0.25 Mean 0.0011	Squ a	Yes No	Passes Passes DF	Cri	teria F Stat				_			
Attribute Control Resp PMSD ANOVA Table Source Between Error Total		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054	Lower 0.7 <<	>> 0.25 Mean 0.0011	Squ a	Yes No	Passes Passes DF 5 18	Cri	teria F Stat				_			
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assum		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests	Lower 0.7 <<	>> 0.25 Mean 0.0011	Squ a	Yes No	Passes Passes DF 5 18 23	Cri	F Stat 0.6451	0.668	7	Non-S	ignific	ant Effect		
Attribute Control Resp PMSD ANOVA Table Source Between Error Fotal ANOVA Assun		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test	Lower 0.7 << ares	- Upper >> 0.25 - Mean 0.0017	Squ a 186 '340	Yes No	Passes Passes DF 5 18 23	Cri	F Stat 0.6451	0.668 P-Val	ue l	Non-S	ignific	ant Effect		
Attribute Control Resp PMSD ANOVA Table Source Between Error Fotal ANOVA Assun		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq	Lower 0.7 << ares 6 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	- Upper >> 0.25 Mean 0.0017 0.0017	Squ a 186 '340	Yes No	Passes Passes DF 5 18 23 Test Sta 1.859	Cri Cri	F Stat 0.6451 Critical 15.09	0.668 P-Val	ue	Non-S Decis Equal	ignific ion(α: Varia	ant Effect		
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Attribute Control Resp PMSD ANOVA Table Source Between Error Fotal ANOVA Assun Attribute Variance		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever	Lower 0.7 << ares uality of quality of ne Equal	Mean 0.0017 Variance T Variance T ity of Variance T	Squ : 186 '340 est	Yes No are	Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248	P-Val 0.868 0.124 0.366		Decis Equal Equal Equal	ignific ion(α: Variai Variai Variai	1%) nces nces		
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq	Lower 0.7 << ares in a lity of quality of puality of ne Equal Darling a	Mean 0.0017 Variance T Variance T Variance T lity of Variar	Squ : 186 '340 est	Yes No are	Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878	0.668 P-Val 0.868 0.124 0.366 0.012		Decis Equal Equal Equal Equal Norma	ignific ion(α: Variai Variai Variai	1%) nces nces nces ribution		
Attribute Control Resp PMSD ANOVA Table Source Between Error Fotal ANOVA Assun Attribute Variance		Test Stat 0.9425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-	Lower 0.7 << ares in a lity of quality of puality of puality of puality of the Equal Darling a Kurtosi	Mean 0.0017 Variance T Variance T Variance T lity of Variat A2 Test s Test	Squ : 186 '340 est	Yes No are	Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878 2.576	0.668 P-Val 0.868 0.124 0.366 0.012 0.015	ue	Decis Equal Equal Equal Norma	ignific ion(α: Variai Variai Variai I Disti	ant Effect 1%) nces nces nces ribution		
Attribute Control Resp PMSD ANOVA Table Source Between Error Fotal ANOVA Assun Attribute Variance		Sum Squa 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-D'Agostino D'Agostino	uality of puality of puality of Equal Darling of Kurtosi of Skewnowski	Wean 0.0017 Variance T Variance T ity of Variar A2 Test s Test ess Test	Squa 186 '340 est est ecc T	Yes No are	Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878 2.576 2.576	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443	ue	Decis Equal Equal Equal Norma Norma	ignific ion(α: Variai Variai Variai I Disti al Disti	1%) nces nces nces ribution		
Attribute Control Resp PMSD ANOVA Table Source Between Error Fotal ANOVA Assun Attribute Variance		Sum Squa 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-D'Agostino D'Agostino	uality of ne Equal Darling A Kurtosi o Skewno-Pearso	Wean 0.0017 Variance T Variance T Variance T lity of Varian A2 Test s Test ess Test in K2 Omnib	Squa 186 '340 est est ecc T	Yes No are	Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665	Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878 2.576	0.668 P-Val 0.868 0.124 0.366 0.012 0.015	ue	Decis Equal Equal Equal Norma Norma Norma	ignific ion(α: Variai Variai Variai I Disti II Disti	ant Effect 1%) nces nces nces ribution ribution		
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance		Sum Squa 0.0425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Leven Anderson-lo'Agostino D'Agostino D'Agostino Kolmogoro	uality of puality of puality of puality of puality of puality of the Equal Darling of Kurtosi of Skewno-Pearsoov-Smirn	Wean 0.0017 Variance T Variance T Variance T lity of Varian A2 Test s Test ess Test in K2 Omnib	Squa 186 7340 est est est oce T	Yes No are	Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665 6.442	Cri	F Stat 0.6451 15.09 4.248 4.248 3.878 2.576 2.576 9.21	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443 0.039	ue	Decisi Equal Equal Equal Norma Norma Norma Norma	ignific ion(α: Variai Variai Variai I Distr al Distr al Distr al Distr al Distr	ant Effect 1%) nces nces nces ribution ribution ribution		
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Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance Distribution Fertilization R Conc-%	nptio	Sum Squa 0.0425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 rs Tests Bartlett Eq Levene Eq Mod Lever Anderson- D'Agostino D'Agostino D'Agostino Colmogoro Shapiro-W ummary	Lower 0.7 <	Mean 0.0017 Variance T Variance T Variance T Ity of Variance T Set Test Se	Squa 186 '340 est est oce T	Yes No are	Passes Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665 6.442 0.1969 0.9081	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443 0.039 0.016 0.032		Decisi Equal Equal Equal Norma Norma Norma Norma	ion(α Varian Varian Varian I Distr I Distr I Distr I Distr I Distr I Distr I Distr	eant Effect 1%) nces nces ribution ribution ribution ribution ribution		
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance Distribution Fertilization R Conc-% 0 6.25	nptio	Sum Squa 0.0425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-D'Agostino D'Agostino D'Agostino D'Agostino Cohapiro-W ummary Code	uality of quality of ne Equal Darling of Kurtosio Skewno-Pearsoov-Smirn ilk W No	Mean 0.0017 Variance T Variance T Variance T Variance T Variance T Variance T Commit Some T S	Squa 186 '340 est est nce T	Yes No are	Passes Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665 6.442 0.1969 0.9081	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443 0.039 0.016 0.032		Decisi Equal Equal Equal Norma Norma Norma Norma	ion(α Varian Varian Varian I Distrial Distrial I Distrial Distrial I Distrial Distrial I Distrial	ent Effect 11%) Inces Inces Inces Inces Incidention Indution Indu	CV%	%Effe 0.00% 0.53%
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance Distribution Fertilization R Conc-% 0 3.25 12.5	nptio	Sum Squa 0.0425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-D'Agostino D'Agostino D'Agostino D'Agostino Cohapiro-W ummary Code	uality of quality of quality of ne Equal Darling a Kurtosio Skewno-Pearsoov-Smirn ilk W No	Mean 0.0017 Variance T Variance T Variance T Variance T Variance T Overlance T	Squa 186 '340 est est est oce T	Yes No are Fest 95% LCL 0.9124	Passes Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665 6.442 0.1969 0.9081 95% UC 0.9726	Cri Cri	F Stat 0.6451 Critical 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 0.9350	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443 0.039 0.016 0.032 Min 0.930		Decisi Equal Equal Equal Norma Norma Norma Norma	ion(a: io	ant Effect 11%) Inces Inces Inces Inces Incidention Indution Indu	CV% 2.01%	0.00%
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance Distribution Fertilization R Conc-% 0 3.25 12.5	nptio	Sum Squa 0.0425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-D'Agostino D'Agostino D'Agostino D'Agostino Cohapiro-W ummary Code	uality of quality of quality of puality of puality of the Equal Darling of Kurtosi of Skewnor-Pearson ov-Smirn ilk W No	Mean 0.0017 Variance T Variance T Variance T Variance T State of	Squa 186 '340 est est oce T	Yes No No are Sest Sest Sest Sest Sest Sest Sest Ses	Passes Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665 6.442 0.1969 0.9081 95% UC 0.9726 0.9647	Cri Cri	F Stat 0.6451 5.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 0.9350 0.9350	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443 0.039 0.016 0.032 Min 0.930 0.920	ue	Decisi Equal Equal Equal Norma Norma Norma Norma	ion(a: io	ant Effect 11%) Inces Inces Inces Inces Incidention Indution Indu	CV% 2.01% 1.82%	0.00% 0.53%
Attribute Control Resp PMSD ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance Distribution Fertilization R Conc-% 0 3.25 12.5	nptio	Sum Squa 0.0425 0.03782 Sum Squa 0.0055928 0.0312126 0.0368054 ns Tests Test Bartlett Eq Levene Eq Mod Lever Anderson-D'Agostino D'Agostino D'Agostino D'Agostino Cohapiro-W ummary Code	uality of quality of quality of pe Equal Darling of Kurtosi of Skewnor-Pearson ov-Smirn ilk W Notate 4 4 4 4	Mean 0.0017 Variance T Variance T Variance T Variance T Silvariance T S	Squa 186 '340 est est est oce T	Yes No are 	Passes Passes Passes DF 5 18 23 Test Sta 1.859 2.021 1.16 0.9963 2.42 0.7665 6.442 0.1969 0.9081 95% UC 0.9726 0.9647 0.9464	Cri	F Stat 0.6451 15.09 4.248 4.248 3.878 2.576 2.576 9.21 0.2056 0.884 Median 0.9350 0.9350 0.9200	0.668 P-Val 0.868 0.124 0.366 0.012 0.015 0.443 0.039 0.016 0.032 Min 0.9300 0.9200 0.9100	ue	Decisi Equal Equal Equal Norma Norma Norma Norma O.9700	ion(a: Variar Variar Varial Distr I Di	ant Effect 11%) Inces I	CV% 2.01% 1.82% 1.63%	0.00% 0.53% 2.12%

Report Date: Test Code/ID:

11 Nov-21 15:25 (p 2 of 2) VCF1021.163 / 09-6369-4626

Purple Sea Urchin Sperm Cell Fertilization Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 18-5282-9044 Analyzed:

Edit Date:

11 Nov-21 15:25 Analysis:

Endpoint: Fertilization Rate

Parametric-Control vs Treatments

MD5 Hash: 7921CC84F7A91610DE92665AC8B327F5

CETIS Version: Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

11 Nov-21 15:24 Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.3320	1.2610	1.4020	1.3130	1.3030	1.3970	0.0223	3.34%	0.00%
6.25		4	1.3200	1.2620	1.3780	1.3130	1.2840	1.3690	0.0183	2.78%	0.87%
12.5		4	1.2900	1.2440	1.3350	1.2850	1.2660	1.3230	0.0142	2.20%	3.15%
25		4	1.3300	1.2780	1.3830	1.3240	1.3030	1.3690	0.0164	2.47%	0.10%
50		4	1.3180	1.2230	1.4130	1.3180	1.2660	1.3690	0.0298	4.53%	1.03%
100		4	1.3000	1.2360	1.3640	1.2950	1.2660	1.3450	0.0202	3.11%	2.35%

Fertilization Rate Detail

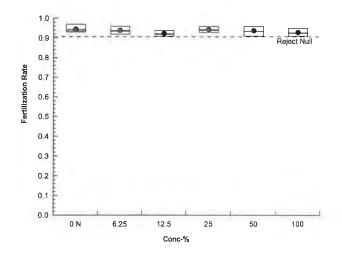
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.9300	0.9300	0.9400	0.9700	
6.25		0.9300	0.9600	0.9400	0.9200	
12.5		0.9100	0.9400	0.9100	0.9300	
25		0.9600	0.9500	0.9300	0.9300	
50		0.9100	0.9600	0.9100	0.9600	
100		0.9400	0.9100	0.9100	0.9500	

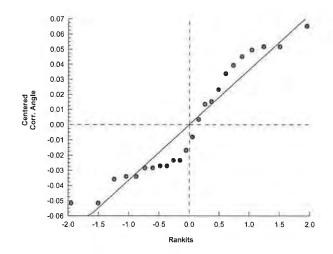
Angular (Corrected) Transformed Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.3030	1.3030	1.3230	1.3970
6.25		1.3030	1.3690	1.3230	1.2840
12.5		1.2660	1.3230	1.2660	1.3030
25		1.3690	1.3450	1.3030	1.3030
50		1.2660	1.3690	1.2660	1.3690
100		1.3230	1.2660	1.2660	1.3450

Fertilization Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	93/100	93/100	94/100	97/100	Т
6.25		93/100	96/100	94/100	92/100	
12.5		91/100	94/100	91/100	93/100	
25		96/100	95/100	93/100	93/100	
50		91/100	96/100	91/100	96/100	
100		94/100	91/100	91/100	95/100	





Report Date:

11 Nov-21 15:26 (p 1 of 2)

Test Code/ID:

VCF1021.163 / 09-6369-4626

urple S	Sea Ur	chin Sperm Cell	Fertilizati	on Test					Ac	_l uatic Bi	oassay &	Consulting	Labs, In
nalysis	ID:	13-2400-0256	End	point:	Fertilization Ra	te			CETIS V	ersion:	CETISv1	.9.7	
nalyzed	d:	11 Nov-21 15:25		•	Linear Interpola)		Status L		1		
dit Date	e:	11 Nov-21 15:24	MD		7921CC84F7A			327F5	Editor ID):	000-189-	126-0	
atch ID):	15-1835-0403	Test	Type:	Fertilization				Analyst:				
art Dat	te:	26 Oct-21 16:01	Prof	ocol:	EPA/600/R-95/	136 (1995)			Diluent:	Labo	ratory Sea	water	
nding [Date:	26 Oct-21 16:41	Spe	cies:	Strongylocentro	otus purpura	atus		Brine:	Not A	Applicable		
st Len	ngth:	40m	Tax	on:	Echinoidea				Source:	Vent	ura Dive		Age:
ample I	ID:	08-4136-3719	Cod	e:	VCF1021.163				Project:	NPD	ES Stormw	ater Wet S	eason
ample l	Date:	25 Oct-21 15:45	Mate	erial:	Sample Water				Source:	Bioa	ssay Repor	t	
eceipt l	Date:	25 Oct-21 17:35	CAS	(PC):					Station:	ME-S			
ample /	Age:	24h (8.5 °C)	Clie	nt:	Ventura County	Watershed	d Protectio	n Distri					
near In	nterpo	lation Options											
Transf	form	Y Transform	See	d	Resamples	Exp 95%	CL Me	thod					
near		Linear	0		280	Yes	Tw	o-Point	Interpolati	on			
st Acc	eptab	ility Criteria	TAC L	imits									
tribute	9	Test Stat	Lower	Upper	Overlap	Decision							
ontrol R	Resp	0.9425	0.7	>>	Yes	Passes C	riteria						
int Est	timate	es											
vel	%	95% LCL	95% UCL	TU	95% LCL	95% UCL							
210	>100	***		<1									
215				<1									
	>100												
20	>100			<1									
020 025	>100 >100			<1 <1		-							
020 025 040	>100 >100 >100		 	<1 <1 <1	-								
020 025 040 050	>100 >100 >100 >100	=		<1 <1		_	ulated Veri	into(A/P	n			lootom	ia Variata
020 025 040 050 ertilizat	>100 >100 >100 >100	ate Summary	 	<1 <1 <1 <1	=======================================	Calcu	ılated Vari			=#fact	A/D		
020 025 040 050	>100 >100 >100 >100	ate Summary	 Count	<1 <1 <1 <1 Mean	 Median	Calcu	Max	CV%	% %l	Effect	A/B	Mean	ic Variate
020 025 040 050 ertilizat	>100 >100 >100 >100	ate Summary	Count 4	<1 <1 <1 <1 Mean 0.9425	Median 0.9350	Calcu Min 0.9300	Max 0.9700	CV %	% %I	00%	377/400	Mean 0.9425	%Effect
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020 025 040 050 ertilizat onc-%	>100 >100 >100 >100	ate Summary	Count 4 4 4 4	<1 <1 <1 <1 Mean 0.9425 0.9375 0.9225	Median 0.9350 0.9350 0.9200	Calcu Min 0.9300 0.9200 0.9100	Max 0.9700 0.9600 0.9400	2.01 1.82 1.63	% 0.6 % 0.8 % 2.6	00% 53% 12%	377/400 375/400 369/400	Mean 0.9425 0.9375 0.9333	%Effection 0.00% 0.53% 0.97%
020 025 040 050 ertilizat onc-%	>100 >100 >100 >100	ate Summary	Count 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400	Calcu Min 0.9300 0.9200 0.9100 0.9300	Max 0.9700 0.9600 0.9400 0.9600	2.01 1.82 1.63 1.59	% 0.6 % 0.5 % 2.6 % 0.6 % 0.6	00% 53% 12% 00%	377/400 375/400 369/400 377/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effect 0.00% 0.53% 0.97% 0.97%
020 025 040 050 ertilizat onc-%	>100 >100 >100 >100	ate Summary	Count 4 4 4 4	<1 <1 <1 <1 Mean 0.9425 0.9375 0.9225	Median 0.9350 0.9350 0.9200 0.9400 0.9350	Calcu Min 0.9300 0.9200 0.9100	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400	Mean 0.9425 0.9375 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
020 025 040 050 ertilizat onc-% 25 .5	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 4	<1 <1 <1 <1 <1 Mean 0.9425 0.9375 0.9425 0.9350	Median 0.9350 0.9350 0.9200 0.9400 0.9350	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100	Max 0.9700 0.9600 0.9400 0.9600	2.01 1.82 1.63 1.59	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effect 0.00% 0.53% 0.97% 0.97%
020 025 040 050 ortilizat onc-% 0 rtilizat	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
020 025 040 050 ertilizat onc-% 25 .5	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
020 025 040 050 ertilizat onc-% 0	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 7 8 8 7 7 7 7 7 7 7 7 7 7 7	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
020 025 040 050 ertilizat onc-% 0 rtilizati	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 0.9300 0.9300	<pre><1 <1 <1 <1 <1 </pre> <pre>Mean 0.9425 0.9375 0.9225 0.9425 0.9350 0.9275</pre> <pre>Rep 2 0.9300 0.9600</pre>	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9200	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
020 025 040 050 ertilizat onc-% 0 rtilizati onc-%	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 7 8 8 7 7 7 7 7 7 7 7 7 7 7	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9250 Rep 3 0.9400 0.9400 0.9400 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
220 225 240 250 250 25 .5	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 7 8 8 9 1 0.9300 0.9300 0.9100 0.9600	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9250 Rep 3 0.9400 0.9400 0.9400 0.9100 0.9300	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300 0.9300	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
020 025 040 050 ertilizat onc-% 0 rtilizati onc-%	>100 >100 >100 >100 tion R	ate Summary Code N	Count 4 4 4 4 4 4 7 8 8 7 7 7 7 7 7 7 7 7 7 7	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9400 0.9100 0.9300 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
220 225 240 250 25 25 .5 0 rtilizatione-% 25 .5	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 7 8 8 9 1 0.9300 0.9300 0.9100 0.9600 0.9100	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9400 0.9100 0.9300 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300 0.9300 0.9300 0.9600	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%
c20 c25 c40 c50 rtilizat onc-% c5 .5	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	<1 <1 <1 <1 <1 <1 <1 <0.9425 <0.9375 <0.9225 <0.9425 <0.9350 <0.9275 Rep 2 <0.9300 <0.9600 <0.9400 <0.9500 <0.9600 <0.9600 <0.9100	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9100 0.9300 0.9100 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300 0.9300 0.9300 0.9500	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effec 0.00% 0.53% 0.97% 0.97%
220 225 240 250 25 25 .5 0 rtilizatione-% 25 .5	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 7 8 8 9 1 0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 Rep 1	<1 <1 <1 <1 <1 <1 <0.9425 <0.9375 <0.9225 <0.9425 <0.9350 <0.9275 Rep 2 <0.9300 <0.9600 <0.9400 <0.9500 <0.9600 <0.9100 Rep 2 Rep 2	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9100 0.9300 0.9100 0.9100 0.9100 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300 0.9300 0.9500 Rep 4	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effec 0.00% 0.53% 0.97% 0.97%
c20 c25 c40 c50 ertilizat onc-% c5 .5	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 4 0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 Rep 1 93/100	Kep 2 0.9300 0.9400 0.9500 0.9600 0.9600 0.9600 0.9600 0.9600 0.9600 0.9600 0.9600 0.9100 Rep 2 93/100	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9200 0.9300 0.9300 0.9500 Rep 4 97/100	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effec 0.00% 0.53% 0.97% 0.97%
c20 c25 c40 c50 ertilizat onc-% 25 .5 0 rtilizati onc-%	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 4 4 7 8 8 9 1 0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 8 9 1 9 3/100 9 3/100	Kep 2 0.9300 0.9400 0.9500 0.9600	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9100 0.9100 0.9100 0.9100 0.9500 0.9500 0.9500 0.9500 0.9500	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effec 0.00% 0.53% 0.97% 0.97%
25 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 4 7 8 8 9 1 0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 8 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9100 0.9300 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9300 0.9100 0.9100 Rep 4 0.9700 0.9300 0.9300 0.9300 0.9500 Rep 4 97/100 92/100 93/100	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effec 0.00% 0.53% 0.97% 0.97%
c20 c25 c40 c50 ertilizat onc-% 25 .5 0 rtilizati onc-%	>100 >100 >100 >100 tion R	ate Summary Code N ate Detail Code N	Count 4 4 4 4 4 4 4 4 7 8 8 9 1 0.9300 0.9300 0.9100 0.9600 0.9100 0.9400 8 9 1 9 3/100 9 3/100	Kep 2 0.9400 0.9400 0.9500 0.9600 0.9600 0.9600 0.9100 Rep 2 93/100 96/100	Median 0.9350 0.9350 0.9200 0.9400 0.9350 0.9250 Rep 3 0.9400 0.9400 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100 0.9100	Calcu Min 0.9300 0.9200 0.9100 0.9100 0.9100 0.9100 0.9100 0.9500 0.9500 0.9500 0.9500 0.9500	Max 0.9700 0.9600 0.9400 0.9600 0.9600	2.01 1.82 1.63 1.59 3.09	% 0.6 % 0.6 % 2.7 % 0.6 % 0.6	00% 53% 12% 00% 80%	377/400 375/400 369/400 377/400 374/400	Mean 0.9425 0.9375 0.9333 0.9333	%Effection 0.00% 0.53% 0.97% 0.97% 0.97%



Report Date:

11 Nov-21 15:26 (p 2 of 2)

Test Code/ID:

VCF1021.163 / 09-6369-4626

Purple Sea Urchin Sperm Cell Fertilization Test

Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

Analyzed: Edit Date:

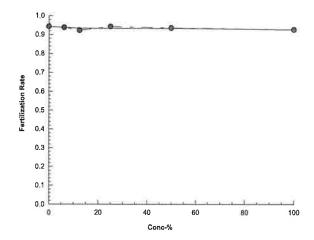
Analysis ID: 13-2400-0256 11 Nov-21 15:25 11 Nov-21 15:24 Endpoint: Fertilization Rate

Analysis: Linear Interpolation (ICPIN)

MD5 Hash: 7921CC84F7A91610DE92665AC8B327F5

CETIS Version: Status Level:

Editor ID: 000-189-126-0



CETIS Measurement Report

Overall

Report Date:

11 Nov-21 15:26 (p 1 of 3)

Test Code/ID: VCF1021.163 / 09-6369-4626

Purple Sea Urchin Sperm Cell Fertilization Test Aquatic Bioassay & Consulting Labs, Inc. Batch ID: 15-1835-0403 Test Type: Fertilization Analyst: Start Date: 26 Oct-21 16:01 Protocol: EPA/600/R-95/136 (1995) Diluent: Laboratory Seawater Ending Date: 26 Oct-21 16:41 Species: Strongylocentrotus purpuratus Brine: Not Applicable Test Length: 40m Taxon: Echinoidea Source: Ventura Dive Age: 08-4136-3719 Sample ID: Code: VCF1021.163 Project: NPDES Stormwater Wet Season Sample Date: 25 Oct-21 15:45 Material: Sample Water Source: Bioassay Report Receipt Date: 25 Oct-21 17:35 CAS (PC): Station: ME-SCR Sample Age: 24h (8.5 °C) Client: Ventura County Watershed Protection Distri Parameter Acceptability Criteria **TAC Limits** Parameter Min Lower Max Upper Overlap Decision Salinity 34 34 36 32 Yes Passes Criteria Temperature 15.7 15.7 11 13 Above Criteria Yes Dissolved Oxygen-mg/L Count 95% UCL Conc-% Code Mean 95% LCL Min Max Std Err Std Dev CV% **QA Count** 0 Ν 2 7.2 7.188 7.212 7.2 7.2 0 0 0.00% 0 6.25 2 7 7 7 7 7 0 0 0.00% 0 12.5 2 7.1 7.086 7.1 7.1 0 7.114 0 0.00% 0 2 25 7.1 7.086 7.114 7.1 7.1 0 0 0.00% 0 50 2 7.1 7.086 7.114 7.1 7.1 0 0 0.00% 0 100 2 7 7 O 0 0.00% 7 7 0 12 7.083 7.038 7.129 7 7.2 0.07177 Overall 0.02072 1.01% 0 (0%) pH-Units Conc-% Code Count Mean 95% LCL 95% UCL Min Max Std Err Std Dev CV% **QA Count** 0 Ν 2 7.9 7.884 7.9 7.916 7.9 0 0 0.00% 0 2 6.25 8 8 8 8 8 0 0 0.00% 0 2 12.5 7.9 7.884 7.916 7.9 7.9 0 0 0.00% 0 2 7.9 0 25 7.884 7.916 7.9 7.9 0 0.00% 0 2 0 50 7.8 7.787 7.813 7.8 7.8 0 0.00% 0 100 2 7.7 7.698 7.702 7.7 7.7 0 0 0.00% 0

Salinity-ppt											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	2	34	34	34	34	34	0	0	0.00%	0
6.25		2	34	34	34	34	34	0	0	0.00%	0
12.5		2	34	34	34	34	34	0	0	0.00%	0
25		2	34	34	34	34	34	0	0	0.00%	0
50		2	34	34	34	34	34	0	0	0.00%	0
100		2	34	34	34	34	34	0	0	0.00%	0
Overall		12	34	34	34	34	34	0	0	0.00%	0 (0%)

7.929

7.7

8

0.02843

0.09847

1.25%

0 (0%)

Temperature-	,C										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
6.25		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
12.5		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
25		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
50		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
100		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
Overall		12	15.7	15.7	15.7	15.7	15.7	0	0	0.00%	0 (0%)



12

7.867

7.804

Purple Sea Urchin Sperm Cell Fertilization Test

Report Date:

11 Nov-21 15:26 (p 2 of 3)

Test Code/ID:

VCF1021.163 / 09-6369-4626

Dissolved Oxyg	jen-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.2					
6.25				7					
12.5				7.1					
25				7.1					
50				7.1					
100				7					
0	N	2		7.2					
6.25				7					
12.5				7.1					
25				7.1					
50				7.1					
100				7					
pH-Units									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.9					
6.25				8					
12.5				7.9					
25				7.9					
50				7.8					
100				7.7					
0	N	2		7.9					
6.25				8					
12.5				7.9					
25				7.9					
				7.8					
50				7.7					
50 100									

Salinity-ppt										
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		34						
6.25				34						
12.5				34						
25				34						
50				34						
100				34						
0	N	2		34						
6.25				34						
12.5				34						
25				34						
50				34						
100				34						

CETIS Measurement Report

Report Date:

11 Nov-21 15:26 (p 3 of 3) VCF1021.163 / 09-6369-4626

Test Code/ID:

Purple Sea Urchi	n Sperm (Cell Fertili	zation Test					Aquatic Bioassay & Consulting Labs, Inc.
Temperature-°C								
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		15.7				
6.25				15.7				
12.5				15.7				
25				15.7				
50				15.7				
100				15.7				
0	N	2		15.7				
6.25				15.7				
12.5				15.7				
25				15.7				
50				15.7				
100				15.7				



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receving Waters to West Coast Estuarine Organisms, EPA/821/R-02-014*. Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

ME-VR2

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.164

CHRONIC TOPSMELT SURVIVAL AND GROWTH BIOASSAY

Survival

NOEC = 100.00

TUc = 1.00

EC25 = >100.00 %

EC50 = >100.00 %

Biomass

NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly,

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date: Test Code/ID: 15 Nov-21 13:31 (p 1 of 2) VCF1021.164 / 21-0902-0154

								Te	est Code/I	D:	VCF10	21.164 / 21	-0902-0	154
Pacific Topsn	nelt 7-d Surviva	I and Growt	h Test						Aqua	tic B	ioassay & (Consulting	Labs, I	nç.
Batch ID:	20-5944-2962	Test	Туре:	Growth-Surviva	al (7d)			Α	nalyst:					
Start Date:	26 Oct-21 12:30	Prote	ocol:	EPA/600/R-95/	136 (1995)			D	iluent:	Labo	oratory Seav	vater		
Ending Date:	02 Nov-21 12:3	7 Spec	cies:	Atherinops affir	nis			В	rine:	Not.	Applicable			
Test Length:	7d 0h	Taxo	n:	Actinopterygii				S	ource:		atic Biosyste	ems, CO	Age:	9d
Sample ID:	08-6580-7779	Code	e:	VCF1021.164				P	roject:	NPC	DES Stormw	ater Wet Se	ason	
Sample Date:	25 Oct-21 13:35	5 Mate	rial:	Sample Water				S	ource:	Bioa	assay Repor	t		
Receipt Date:	25 Oct-21 17:35	5 CAS	(PC):					S	tation:	ME-	VR2			
Sample Age:	23h (3.5 °C)	Clier	nt:	Ventura County	/ Watershed	Protection	n [Distri						
Multiple Com	parison Summa	ary												
Analysis ID	Endpoint		Comp	arison Method			✓	NOEL	LOEL		TOEL	PMSD	TU	
14-7661-2060	7d Survival Rate	е	Steel	Many-One Rank	Sum Test			100	>100		***		1	
16-4357-7673	Mean Dry Biom	ass-mg	Steel	Many-One Rank	Sum Test			100	>100		1 ***	4.83%	1	
Point Estimat	e Summary													
Analysis ID	Endpoint		Point	Estimate Meth	od		√	Level	%		95% LCL	95% UCL	TU	5
17-7092-1907	7d Survival Rate	е	Linear	Interpolation (I	CPIN)			EC10	>100		(100)		<1	13
								EC15	>100		***		<1	
								EC20	>100				<1	
							✓.	EC25	>100				<1	
									>100				<1	
00 0000 7450	5 5:			1 1 1 1 1	0500			EC50	>100		(40)	***	<1	
03-6020-7156	Mean Dry Biom	ass-mg	Linear	Interpolation (I	CPIN)			IC10	>100				<1	1
								IC15	>100		****		<1	
								IC20	>100		-		<1	
								IC25	>100			***	<1	
								IC40 IC50	>100 >100				<1 <1	
Test Acceptat	pility													
Analysis ID	Endpoint		Attrib	ute	Test Stat	TAC Lower	LI	mits Upper	Overl	lap	Decision			
	7d Survival Rate	e	Contro	ol Resp	1	0.8	_	>>	Yes		Passes Cr	iteria		
17-7092-1907	7d Survival Rate	е	Contro	ol Resp	1	0.8		>>	Yes		Passes Cr	iteria		
03-6020-7156	Mean Dry Biom	ass-mg		ol Resp	1.442	0.85		>>	Yes		Passes Cr			
	Mean Dry Bioma	_	Contro	ol Resp	1.442	0.85		>>	Yes		Passes Cr	iteria		
7d Survival R	ate Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min		Max	Std E		Std Dev	CV%	%Effe	_
0	N	5	1.0000	1.0000	1.0000	1.0000		1.0000	0.000	0	0.0000		0.00%	6
6.25		5	1.0000	1.0000	1.0000	1.0000		1.0000	0.000	0	0.0000		0.00%	6
12.5		5	1.0000		1.0000	1.0000		1.0000	0.000	0	0.0000		0.00%	6
25		5	1.0000	1.0000	1.0000	1.0000		1.0000	0.000	0	0.0000		0.00%	6
50		5	1.0000		1.0000	1.0000		1.0000	0.000	0	0.0000		0.00%	ó
100		5	1.0000	1.0000	1.0000	1.0000		1.0000	0.000	0	0.0000	***	0.00%	6
Mean Dry Bio	mass-mg Sumn	nary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min		Max	Std E		Std Dev	CV%	%Effe	
0	N	5	1.442	1.386	1.499	1.406		1.522	0.020		0.04559	3.16%	0.00%	
6.25		5	1.416	1.396	1.436	1.396		1.43	0.007		0.01575	1.11%	1.83%	
12.5		5	1.436	1.42	1.453	1.422		1.458	0.006		0.01345	0.94%	0.42%	
25		5	1.43	1.415	1.444	1.42		1.45	0.005		0.01195	0.84%	0.89%	
50		5	1.398	1.347	1.449	1.33		1.434	0.018	42	0.04118	2.95%	3.08%	o O



6.44%

-0.44%

1.565

1.388

1.614

0.0417

0.09324

5

1.449

1.333

100

CETIS Summary Report

Report Date: Test Code/ID:

15 Nov-21 13:31 (p 2 of 2) VCF1021.164 / 21-0902-0154

Pacific Topsm	nelt 7-d Surviv	al and Grov	th Test				Aquatic Bioassay & Consulting Labs, Inc
7d Survival Ra	ate Detail						MD5: 4298CEFA14016A9551DEF9751A7C89A1
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	
12.5		1.0000	1.0000	1.0000	1.0000	1.0000	
25		1.0000	1.0000	1.0000	1.0000	1.0000	
50		1.0000	1.0000	1.0000	1.0000	1.0000	
100		1.0000	1.0000	1.0000	1.0000	1.0000	
Mean Dry Bio	mass-mg Deta	iil					MD5: 5B5830798F10A5EE514B35B4853C7D3E
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.428	1.522	1.424	1.432	1.406	
6.25		1.402	1.426	1.43	1.426	1.396	
12.5		1.43	1.438	1.434	1.422	1.458	
25		1.428	1.428	1.42	1.45	1.422	
50		1.426	1.406	1.434	1.394	1.33	
100		1.404	1.42	1.388	1.614	1.418	
7d Survival Ra	ate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	5/5	5/5	5/5	5/5	5/5	
6.25		5/5	5/5	5/5	5/5	5/5	
12.5		5/5	5/5	5/5	5/5	5/5	
25		5/5	5/5	5/5	5/5	5/5	
50		5/5	5/5	5/5	5/5	5/5	
100		5/5	5/5	5/5	5/5	5/5	

Report Date: Test Code/ID:

15 Nov-21 13:31 (p 1 of 4) VCF1021.164 / 21-0902-0154

						COL GOGGI		VOI 1021.1047	21-0302-013
Pacific Topsn	nelt 7-d Survival	and Growth Test				Aqua	tic Bio	assay & Consultin	g Labs, Inc
Analysis ID: Analyzed: Edit Date:	14-7661-2060 15 Nov-21 13:30 15 Nov-21 13:29		7d Survival Rate Nonparametric-Control vs : 4298CEFA14016A9551D		s \$	CETIS Vers Status Leve Editor ID:	el:	CETISv1.9.7 1 000-189-126-0	
Batch ID:	20-5944-2962	Test Type:	Growth-Survival (7d)		-	Analyst:			
Start Date:	26 Oct-21 12:30	Protocol:	EPA/600/R-95/136 (1995))		Diluent:	Labora	atory Seawater	
Ending Date:	02 Nov-21 12:37	Species:	Atherinops affinis			3rine:	Not Ap	plicable	
Test Length:	7d 0h	Taxon:	Actinopterygii			Source:	Aquati	c Biosystems, CO	Age: 9d
Sample ID:	08-6580-7779	Code;	VCF1021.164		F	Project:	NPDE	S Stormwater Wet	Season
Sample Date:	25 Oct-21 13:35	Material:	Sample Water			Source:	Bioass	ay Report	
Receipt Date:	25 Oct-21 17:35	CAS (PC):			5	Station:	ME-VF	R2	
Sample Age:	23h (3.5 °C)	Client:	Ventura County Watershe	ed Protectio	n Distri				
Data Transfor	'n	Alt Hyp		NOEL	LOEL	TOEL	. 1	ΓU	
Angular (Corre	ected)	C > T		100	>100		13		

Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
6.25	27.5	16	1	8	CDF	0.8333	Non-Significant Effect
12.5	27.5	16	1	8	CDF	0.8333	Non-Significant Effect
25	27.5	16	1	8	CDF	0.8333	Non-Significant Effect
50	27.5	16	1	8	CDF	0.8333	Non-Significant Effect
100	27.5	16	1	8	CDF	0.8333	Non-Significant Effect
	6.25 12.5 25 50	6.25 27.5 12.5 27.5 25 27.5 50 27.5	6.25 27.5 16 12.5 27.5 16 25 27.5 16 50 27.5 16	6.25 27.5 16 1 12.5 27.5 16 1 25 27.5 16 1 50 27.5 16 1	6.25 27.5 16 1 8 12.5 27.5 16 1 8 25 27.5 16 1 8 50 27.5 16 1 8	6.25 27.5 16 1 8 CDF 12.5 27.5 16 1 8 CDF 25 27.5 16 1 8 CDF 50 27.5 16 1 8 CDF	6.25 27.5 16 1 8 CDF 0.8333 12.5 27.5 16 1 8 CDF 0.8333 25 27.5 16 1 8 CDF 0.8333 50 27.5 16 1 8 CDF 0.8333

rest Acceptabili	ty Criteria	TAC	Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision	
Control Resp	1	8.0	>>	Yes	Passes Criteria	

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	5			Indeterminate
Error	0	0	24			
Total	0		29			

ANOVA Assum	ptions Tests				
Attribute	Test	Test Stat Critical	P-Value	Decision(α:1%)	
Variance	Bartlett Equality of Variance Test			Indeterminate	
Distribution	Shapiro-Wilk W Normality Test			Indeterminate	

7d Survival R	ate Summary										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
6.25		5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
12.5		5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
25		5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
50		5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
100		5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
6.25		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
12.5		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
25		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
50		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
100		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%



Report Date: Test Code/ID: 15 Nov-21 13:31 (p 2 of 4) VCF1021.164 / 21-0902-0154

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 14-7661-2060

Endpoint: 7d Survival Rate

CETIS Version: CETISv1.9.7

Analyzed: 15 Nov-21 13:30 **Edit Date:** 15 Nov-21 13:29

Analysis: Nonparametric-Control vs Treatments
MD5 Hash: 4298CEFA14016A9551DEF9751A7C89A1

Status Level:

Editor ID:

000-189-126-0

7d Survival Rate Detail

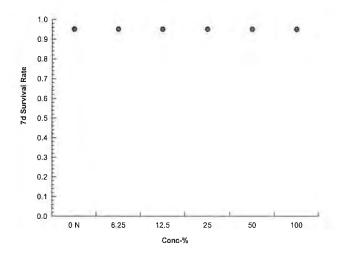
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.0000	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000

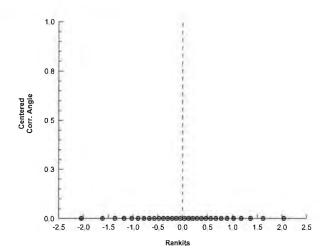
Angular (Corrected) Transformed Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.3450	1.3450	1.3450	1.3450	1.3450	
6.25		1.3450	1.3450	1.3450	1.3450	1.3450	
12.5		1.3450	1.3450	1.3450	1.3450	1.3450	
25		1.3450	1.3450	1.3450	1.3450	1.3450	
50		1.3450	1.3450	1.3450	1.3450	1.3450	
100		1.3450	1.3450	1.3450	1.3450	1.3450	

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	5/5	5/5	5/5	5/5	5/5	
6.25		5/5	5/5	5/5	5/5	5/5	
12.5		5/5	5/5	5/5	5/5	5/5	
25		5/5	5/5	5/5	5/5	5/5	
50		5/5	5/5	5/5	5/5	5/5	
100		5/5	5/5	5/5	5/5	5/5	





Report Date:

15 Nov-21 13:31 (p 3 of 4)

Test Code/ID: VCF1021.164 / 21-0902-0154

Pacific Topsn	nelt 7	-d Survival	and Gr	owth Test								Aquat	ic Bioassay &	Consulting	Labs. In	
Analysis ID:	16-4	357-7673	E	ndpoint:	Me	an Dry Biom	nass-mo	,			CETI	S Versi				
Analyzed:	15 N	lov-21 13:30		Analysis:		nparametric			Freatments			s Level				
Edit Date:	15 N	lov-21 13:29	9 N	/ID5 Hash:		5830798F10					E Editor ID: 000-189-126-0					
Batch ID:	20-5	944-2962	1	est Type:	Gro	wth-Surviva	ıl (7d)				Analy	/st:				
Start Date:	26 C	Oct-21 12:30) F	Protocol:	EP,	A/600/R-95/	136 (19	95)			Dilue		Laboratory Sea	water		
Ending Date:	02 N	lov-21 12:37	7 5	Species:		erinops affir		,			Brine		Not Applicable			
Test Length:				axon:		inopterygii					Sour		Aquatic Biosyst	ems, CO	Age : 9	
Sample ID:	08-6	580-7779	(Code:	VC	F1021.164					Proje	ct.	NPDES Stormw	ater Wet S	eason	
Sample Date:	25 C	ot-21 13:35		/laterial:		mple Water					Sour		Bioassay Repor		000011	
Receipt Date:				CAS (PC):	Oui	iipio vvatoi					Statio		ME-VR2	·		
Sample Age:				Client:	Ver	ntura County	/ Water	shed	l Protection		Statil	JII. 1	IVIE-V NZ			
Data Transfor			Alt Hy	'n				-	NOEL	LOE		TOEL	TU	MSDu	PMSD	
Untransformed			C > T	þ					100	>100			10	0.06963	4.83%	
Steel Many-O		ank Cum Ta													1.0070	
Control	vs	Conc-%	:51	Test S	Stat	Critical	Ties	DE	P-Type	P-Va	مبيا	Dagie	iam/m.E9/)			
Negative Cont		6.25		22	otat	16	0	8	CDF	0.34			ion(α:5%) ignificant Effect			
riogaliro comi		12.5		31		16	0	8	CDF	0.96			ignificant Effect			
		25		26		16	1	8	CDF	0.723			ignificant Effect			
		50		21.5		16	1	8	CDF	0.303			ignificant Effect			
		100		22		16	0	8	CDF	0.34			ignificant Effect			
								_					igililiount Endot			
Test Acceptak	oility	Criteria	TAG	C Limits												
Attribute		Test Stat	Lower	Upper	r	Overlap	Decis	ion								
Control Resp		1.442	0.85	>>		Yes	Pass	es Cı	riteria							
ANOVA Table																
Source		Sum Squa	ares	Mean	Squ	iare	DF		F Stat	P-Va	lue	Decisi	ion(α:5%)			
Between		0.0087771		0.001	7554	ļ	5		0.8077	0.55	55	Non-S	ignificant Effect			
Error		0.0521584		0.002	1733	3	24									
Total		0.0609355					29									
ANOVA Assur	nptic	ns Tests														
Attribute		Test					Test :	Stat	Critical	P-Va	lue	Decisi	ion(α:1%)			
Variance		Bartlett Eq	uality of	Variance T	est		22.92		15.09	0.000)4	Unequ	al Variances			
		Levene Eq	uality of	Variance T	est		2.965		3.895	0.03	19	Equal	Variances			
		Mod Lever	ne Equal	ity of Varia	nce	Test	0.813	4	4.248	0.55	55	Equal	Variances			
Distribution		Anderson-	Darling A	A2 Test			1.688		3.878	<1.0	E-05	Non-N	ormal Distributi	on		
		D'Agostino	Kurtosi	s Test			3.639		2.576	0.000	03	Non-N	ormal Distributi	on		
		D'Agostino	Skewne	ess Test			3.938		2.576	8.2E	-05	Non-N	ormal Distributi	on		
		D'Agostino	-Pearso	n K2 Omni	bus '	Test	28.75		9.21	<1.0	E-05	Non-N	ormal Distributi	on		
Kolmogorov-Smirnov D Test							0.173	5	0.1853	0.021	17	Norma	I Distribution			
		Shapiro-W	ilk W No	rmality Tes	st		0.816	4	0.9031	0.000)1	Non-N	ormal Distributi	on		
Mean Dry Bio	mass	s-mg Summ	агу													
Conc-%		Code	Count	Mean		95% LCL	95% เ	JCL	Median	Min		Max	Std Err	CV%	%Effec	
)		N	5	1.442		1.386	1.499		1.428	1.406	3	1.522	0.02039	3.16%	0.00%	
6.25			5	1.416		1.396	1.436		1.426	1.396	3	1.43	0.007043	1.11%	1.83%	
12.5			5	1.436		1.42	1.453		1.434	1.422	2	1.458	0.006014	0.94%	0.42%	
25			5	1.43		1.415	1.444		1.428	1.42		1.45	0.005344	0.84%	0.89%	
50			5	1.398		1.347	1.449		1.406	1.33		1.434	0.01842	2.95%	3.08%	
100			_	4 4 4 6		4 000	4 = 0 =		4 440	4.000		4 0 4 4	0.0447	0 4 404	0.440/	

6.44%

-0.44%

0.0417

1.565

1.388

1.614

1.418

100

5

1.449

1.333

Report Date: Test Code/ID:

15 Nov-21 13:31 (p 4 of 4) VCF1021.164 / 21-0902-0154

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	16-4357-7673
Analyzed:	15 Nov-21 13:30

Endpoint: Mean Dry Biomass-mg

CETIS Version: CETISv1.9.7 Nonparametric-Control vs Treatments

Edit Date: 15 Nov-21 13:29

MD5 Hash: 5B5830798F10A5EE514B35B4853C7D3E

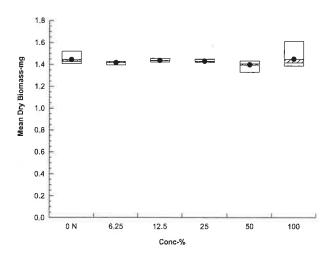
Status Level:

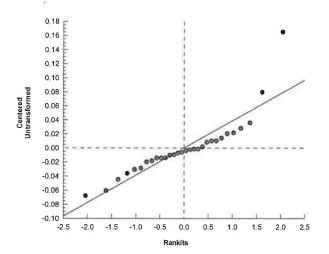
Editor ID:

000-189-126-0

Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.428	1.522	1.424	1.432	1.406
6.25		1.402	1.426	1.43	1.426	1.396
12.5		1.43	1.438	1.434	1.422	1.458
25		1.428	1.428	1.42	1.45	1.422
50		1.426	1.406	1.434	1.394	1.33
100		1.404	1.42	1.388	1.614	1.418





Report Date:

15 Nov-21 13:31 (p 1 of 4)

Test Code/ID: VCF1021.164 / 21-0902-0154

Pacific T	Topsm	nelt 7-d Survival	and Growt	h Test						Aquatio	Bio	assay 8	Consulting	Labs, Ind
Analysis	iD:	17-7092-1907	End	•	7d Survival Rat				CETIS	Versio	n:	CETIS	1.9.7	
Analyzed		15 Nov-21 13:30	Ana	lysis:	Linear Interpola	ation (ICPIN	٧)		Status	Level:		1		
Edit Date	e:	15 Nov-21 13:29	MD	Hash:	4298CEFA140	16A9551DE	EF9751A7C	39A1	Editor	ID:		000-189	9-126-0	
Batch ID);	20-5944-2962	Test	Type:	Growth-Surviva	ıl (7d)			Analys	t:				
Start Dat	te:	26 Oct-21 12:30	Prof	ocol:	EPA/600/R-95/	136 (1995)			Diluen	t: La	abor	atory Se	awater	
Ending [Date:	02 Nov-21 12:37	Spe	cies:	Atherinops affir	nis			Brine:	Ν	ot A _l	pplicable)	
Test Len	igth:	7d 0h	Tax	on:	Actinopterygii				Source	e: A	quat	ic Biosys	stems, CO	Age: 90
Sample	ID:	08-6580-7779	Cod	e:	VCF1021.164				Projec	t: N	PDE	S Storm	water Wet S	eason
Sample i	Date:	25 Oct-21 13:35	Mate	erial:	Sample Water				Source	e: B	ioass	say Rep	ort	
Receipt	Date:	25 Oct-21 17:35	CAS	(PC):					Station	n: M	E-VI	R2		
Sample A	Age:	23h (3.5 °C)	Clie	nt:	Ventura County	Watershe	d Protection	Distri						
Linear In	nterpo	lation Options												
X Transf	form	Y Transform	See	d	Resamples	Exp 95%	6 CL Metl	nod						
Linear		Linear	0		280	Yes		-Point	Interpola	ation				
Test Acc	eptab	oility Criteria	TAC L	imite										
Attribute	•	Test Stat		ımıts Upper	Overlap	Decision	1							
Control R		1	0.8	>>	Yes	Passes (
Point Es	timate	26						-						
			05% 1101	TH	059/ 1.01	0.50/ 11.01								
	% >100	95% LCL	95% UCL	TU	95% LCL	95% UCL								
				<1										
F(.15														
	>100				***									
EC20	>100			<1 <1										
EC20 EC25				<1										
EC20 EC25 EC40	>100 >100			<1 <1	***									
EC20 EC25 EC40 EC50	>100 >100 >100 >100	-		<1 <1 <1			ulated Varia	ite(A/B	3)				Isoton	nic Variate
EC20 EC25 EC40 EC50 7d Survi	>100 >100 >100 >100			<1 <1 <1			ulated Varia Max	ite(A/B		%Effec	t .	A/B	Isoton Mean	
EC20 EC25 EC40 EC50 7d Survi '	>100 >100 >100 >100	ate Summary		<1 <1 <1 <1	Median	Calc		_	6	%Effec 0.00%		A/B 25/25		
EC20 EC25 EC40 EC50 7d Survi Conc-%	>100 >100 >100 >100	 ate Summary Code	Count	<1 <1 <1 <1 Mean	Median 1.0000	Calc	Max	CV%	% 1%				Mean	%Effec
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25	>100 >100 >100 >100	 ate Summary Code	 Count 5	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000	Calc	Max 1.0000	CV%	% 1%	0.00%		25/25	Mean 1.0000	%Effec
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25	>100 >100 >100 >100	 ate Summary Code	Count 5 5	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0 1.0000 0 1.0000 0 1.0000	Calc Min 1.0000 1.0000	Max 1.0000 1.0000	0.00 0.00	% 1% 1%	0.00%		25/25 25/25	Mean 1.0000 1.0000	%Effect 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5	>100 >100 >100 >100	 ate Summary Code	Count 5 5 5 5	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 0 1.0000 0 1.0000 0 1.0000 0 1.0000	Calc Min 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000	0.00 0.00 0.00	% 9% 9%	0.00% 0.00% 0.00%	:	25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survi Conc-% 0 6.25 12.5 25	>100 >100 >100 >100	 ate Summary Code	Count 5 5 5 5 5 5	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50	>100 >100 >100 >100 val Ra	 ate Summary Code	Count 5 5 5 5 5 5 5	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survi ' Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 5 7 5 7 7 8 8 9 1	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survi [*] Conc-% 0 6.25 12.5 25 50 100 7d Survi [*] Conc-%	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 5 1 1.0000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 7d Surviv Conc-% 0 6.25	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 5 1 1.0000 1.0000	<pre> <1 <1 <1 <1 <1 <1 <1 <1</pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 4 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survive Conc-% 0 6.25 12.5 25 50 100 7d Survive Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 5 1 1.0000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 5 1 1.0000 1.0000	<pre> <1 <1 <1 <1 <1 <1 <1 <1</pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 1.0000	Calce Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 1 1.0000 1.0000 1.0000	<pre> <1 <1 <1 <1 <1 <1 <1 <1</pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survit Conc-% 0 6.25 12.5 25 50 100 7d Survit Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calce Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N	Count 5 5 5 5 5 7 8ep 1 1.0000 1.0000 1.0000 1.0000 1.0000	<1 <1 <1 <1 <1 <1 <1 <1	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effec 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 7d Surviv 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 7 8ep 1 1.0000 1.0000 1.0000 1.0000 1.0000	<1 <1 <1 <1 <1 <1 <1 <1	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 7d Surviv Conc-% 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calce Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surviv Conc-% 0 6.25 12.5 25 50 100 7d Surviv Conc-% 12.5 25 50 100 7d Surviv Conc-%	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	<1 <1 <1 <1 <1 <1 <1 <1	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calce Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survive Conc-% 0 6.25 12.5 25 50 100 7d Survive Conc-% 12.5 25 50 100 7d Survive Conc-% 0 6.25	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 5 7 8ep 1 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 1 5/5	Color Color	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survive Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 7d Survive Conc-% 0 6.25 12.5	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 1 5/5 5/5	Color Color	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calc Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Survive Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 val Ra	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.05/5 5/5 5/5	Color Color	Median 1.0000	Calc Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00	% 1% 1% 1%	0.00% 0.00% 0.00% 0.00% 0.00%	:	25/25 25/25 25/25 25/25 25/25	Mean 1.0000 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%



Report Date:

15 Nov-21 13:31 (p 2 of 4)

Test Code/ID:

VCF1021.164 / 21-0902-0154

Pacific	Topsmelt 7-d	Survival and	Growth Test
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Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed: **Edit Date:**

17-7092-1907 15 Nov-21 13:30 15 Nov-21 13:29 Endpoint: 7d Survival Rate

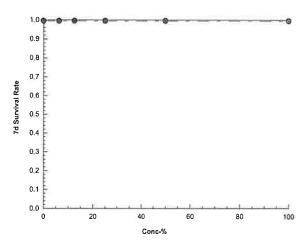
Analysis: Linear Interpolation (ICPIN)

MD5 Hash: 4298CEFA14016A9551DEF9751A7C89A1

CETIS Version: Status Level: **Editor ID:**

000-189-126-0

CETISv1.9.7



Report Date:

15 Nov-21 13:31 (p 3 of 4)

Test Code/ID: VCF1021.164 / 21-0902-0154

									rest code	יטווי:	V C F 102	11.104/2	21-0902-01
Pacific	Topsn	nelt 7-d Survival	and Grow	th Test					Aqu	atic Bi	ioassay & C	onsultin	g Labs, Inc
Analys	is ID:	03-6020-7156	End	lpoint:	Mean Dry Bion	nass-mg			CETIS Ve	rsion:	CETISv1.9	9.7	
Analyz	ed:	15 Nov-21 13:30) Ana	lysis:	Linear Interpola	ation (ICPI	N)		Status Le	vel:	1		
Edit Da	ate:	15 Nov-21 13:29	MD.	5 Hash:	5B5830798F10	A5EE514	B35B48	53C7D3E	Editor ID:		000-189 - 1	26-0	
Batch	ID:	20-5944-2962	Tes	t Type:	Growth-Surviva	al (7d)			Analyst:				
Start D	ate:	26 Oct-21 12:30	Pro	tocol:	EPA/600/R-95	/136 (1995	5)		Diluent:	Labo	ratory Seaw	ater	
		02 Nov-21 12:37	7 Spe	cies:	Atherinops affi	nis			Brine:	Not /	Applicable		
Test Le	ength:	7d 0h	Tax	on:	Actinopterygii				Source:	Aqua	atic Biosyste	ms, CO	Age: 90
Sample	e ID;	08-6580-7779	Cod	le:	VCF1021.164				Project:	NPD	ES Stormwa	ter Wet S	Season
Sample	e Date:	25 Oct-21 13:35	Mat	erial:	Sample Water				Source:	Bioa	ssay Report		
Receip	t Date:	25 Oct-21 17:35	CAS	6 (PC):					Station:	ME-\	√R2		
Sample	e Age:	23h (3.5 °C)	Clie	nt:	Ventura Count	y Watersh	ed Prote	ction Distri					
Linear	Interpo	olation Options											
X Tran	sform	Y Transform	n See	d	Resamples	Exp 95	% CL	Method					
Linear		Linear	189	6211	280	Yes		Two-Point	Interpolation	n			
Test A	cceptal	bility Criteria	TAC L	imits									
Attribu	te	Test Stat		Uppe	r Overlap	Decisio	n						
Control	Resp	1.442	0.85	>>	Yes	Passes	Criteria						
Point E	Estimat	tes											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UC	L						
IC10	>100	1		<1		***							
IC15	>100	(<1									
IC20	>100		***	<1									
IC25	>100		***	<1	-								
IC40	>100	-		<1									
IC50	>100	(44)		<1									
Mean [Ory Bio	mass-mg Summ	nary			С	alculate	ed Variate				Isoto	nic Variate
Conc-%	%	Code	Count	Mean	Median	Min	Max	CV	% %E	ffect		Mean	%Effec
0		N	5	1.442	1.428	1.406	1.52	2 3.16	3% 0.00)%		1.442	0.00%
6.25			5	1.416	1.426	1.396	1.43	1.11	1% 1.83	3%		1.427	1.04%
12.5			5	1.436	1.434	1.422	1.45	8 0.94	1% 0.42	2%		1.427	1.04%
25			5	1.43	1.428	1.42	1.45	0.84	4% 0.89	9%		1.427	1.04%
50			5	1.398	1.406	1.33	1.43	4 2.95	5% 3.08	3%		1.423	1.32%
100			5	1.449	1.418	1.388	1.61	4 6.4	1% -0.4	4%		1.423	1.32%
Mean [Dry Bio	mass-mg Detail											
Conc-%	%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep	5					
0		N	1.428	1.522	1.424	1.432	1.40	6					
6.25			1.402	1.426		1.426	1.39	6					
12.5			1.43	1.438		1.422	1.45						
25			1.428	1.428		1.45	1,42						
			4.400	4.400	4.404	1.001	4.00	_					

1.426

1,404

1.406

1.42

1.434

1.388

1.394

1.614

1.33

1.418

50

100

Report Date:

15 Nov-21 13:31 (p 4 of 4)

Test Code/ID:

VCF1021.164 / 21-0902-0154

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analyzed: **Edit Date:**

Analysis ID: 03-6020-7156

15 Nov-21 13:30 15 Nov-21 13:29

Endpoint: Mean Dry Biomass-mg

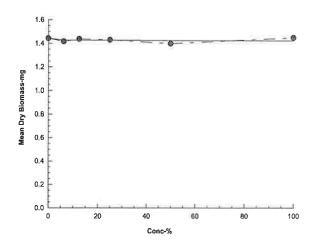
Linear Interpolation (ICPIN) Analysis: MD5 Hash: 5B5830798F10A5EE514B35B4853C7D3E **CETIS Version:**

Editor ID:

Status Level:

000-189-126-0

CETISv1.9.7



CETIS Measurement Report

Report Date:

15 Nov-21 13:31 (p 1 of 5)

Test Code/ID: VC

VCF1021.164 / 21-0902-0154

								Test Code/I	D: VCF	1021.164 / 2	21-0902-0154
Pacific Topsn	nelt 7-d Survival	and G	Frowth Test					Aqua	tic Bioassay &	Consultin	g Labs, Inc.
Batch ID:	20-5944-2962		Test Type:	Growth-Surviv	al (7d)			Analyst:			
Start Date:	26 Oct-21 12:30	ı	Protocol:	EPA/600/R-95	(1995)			Diluent:	Laboratory Sea	awater	
Ending Date:	02 Nov-21 12:37	7	Species:	Atherinops affi	inis			Brine:	Not Applicable		
Test Length:	7d 0h		Taxon:	Actinopterygii				Source:	Aquatic Biosys		Age: 9d
Sample ID:	08-6580-7779		Code:	VCF1021.164				Project:	NPDES Storm	water Wet 8	Season
Sample Date:	25 Oct-21 13:35		Material:	Sample Water				Source:	Bioassay Repo	ort	
Receipt Date:	25 Oct-21 17:35		CAS (PC):					Station:	ME-VR2		
Sample Age:	23h (3.5 °C)		Client:	Ventura Count	ty Watershe	d Protect	ion Distri				
Dissolved Ox	ygen-mg/L										
Conc-%	Code	Coun	t Mean	95% LCL	95% UCL	Min	Max	Std Er	r Std Dev	CV%	QA Coun
0	N	8	7.313	7.23	7.395	7.2	7.5	0.0123	39 0.0991	1.36%	0
6.25		8	7.237	7.104	7.371	7	7.5	0.0199	97 0.1598	2.21%	0
12.5		8	7.225	7.085	7.365	7	7.5	0.0208		2.31%	0
25		8	7.212	7.083	7.342	7	7.5	0.0194		2.15%	0
50		8	7.237	7.112	7.363	7	7.4	0.0188		2.08%	0
100		8	7.2	7.027	7.373	7	7.5	0.0258		2.88%	0
Overall		48	7.237	7.192	7.283	7	7.5	0.0224	11 0.1552	2.15%	0 (0%)
pH-Units											
Conc-%	Code	Count		95% LCL	95% UCL		Max	Std Er		CV%	QA Count
0	N	8	7.687	7.658	7.717	7.6	7.7	0.0044		0.46%	0
6.25		8	7.487	7.318	7.657	7.2	7.7	0.0253		2.71%	0
12.5		8	7.487	7.318	7.657	7.2	7.7	0.0253		2.71%	0
25		8	7.462	7.296	7.629	7.2	7.7	0.0249		2.67%	0
50		8	7.437	7.29	7.585	7.2	7.6	0.0221		2.38%	0
100		8	7.412	7.275	7.55	7.2	7.6	0.0205		2.22%	0
Overall		48	7.496	7.441	7.55	7.2	7.7	0.0271	0.1879	2.51%	0 (0%)
Salinity-ppt	0 - 1	0		050/ 1.01	05% 1101			0.15	0.15	61 (0)	
Conc-%	Code N	Count 8	Mean 25	95% LCL	95% UCL		Max	Std Er		CV%	QA Count
5.25	IN	8	25 25	25 25	25 25	25 25	25 25	0 0	0	0.00% 0.00%	0 0
12.5		8	25	25 25	25	25 25	25 25	0	0	0.00%	0
25		8	25	25	25	25	25 25	0	0	0.00%	0
50		8	25	25	25	25	25	0	0	0.00%	0
100		8	25	25	25	25	25	0	0	0.00%	0
Overall		48	25	25	25	25	25	0	0	0.00%	0 (0%)
Temperature-	°C										
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Er	r Std Dev	CV%	QA Count
)	N	8	21	21	21	21	21	0	0	0.00%	0
3.25		8	21	21	21	21	21	0	0	0.00%	0
12.5		8	21	21	21	21	21	0	0	0.00%	0
25		8	21	21	21	21	21	0	0	0.00%	0
		_									



0.00%

0.00%

0.00%

0 (0%)

Overall

Report Date: Test Code/ID:

15 Nov-21 13:31 (p 2 of 5) VCF1021.164 / 21-0902-0154

Pacific Topsmelt 7-d Survival and Growth Test

Dissolved Oxy	ygen-mg/L								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.3					
6.25				7					
12.5				7.1					
25				7.1					
50				7.2					
100				7.2					
0	N	2		7.3					
6.25				7.2					
12.5				7.2					
25				7.3					
50				7.4					
100				7.4					
0	N	3		7.3					
6.25				7.4					
12.5				7.4					
25				7.3					
50				7.4					
100				7.5					
0	N	4		7.2					
6.25				7.3					
12.5				7.3					
25				7.2					
50				7.2					
100				7					
0	N	5		7.5					
6.25				7.5					
12.5 25				7.5 7.5					
50				7.5 7.4					
100				7.4					
	NI NI								
0	N	6		7.4					
6.25 12.5				7.2 7.1					
25				7.1					
50				7.2					
100				7.1					
0	N	7							
6.25	IN	ı		7.3 7.2					
12.5				7.2					
25				7.1					
50				7.1					
100				7					
0	N	8		7.2					
6.25	IN	U		7.2 7.1					
12.5				7.1					
25				7					
50				7					
100				7					

Pacific Topsmelt 7-d Survival and Growth Test

Report Date:

15 Nov-21 13:31 (p 3 of 5) VCF1021.164 / 21-0902-0154

Test Code/ID:

pH-Units								
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.7				
6.25				7.2				
12.5				7.2				
25				7.2				
50				7.2				
100				7.2				
0	N	2		7.7				
6.25				7.2				
12.5				7.2				
25				7.2				
50				7.2				
100				7.2				
0	N	3		7.7				
6.25				7.4				
12.5				7.4				
25				7.3				
50				7.3				
100				7.3				
0	N	4		7.7				
6.25				7.6				
12.5				7.6				
25				7.6				
50				7.6				
100				7.6				
0	N	5		7.7				
6.25				7.7				
12.5				7.7				
25				7.7				
50				7.6				
100				7.5				
0	N	6		7.7				
6.25				7.7				
12.5				7.7				
25				7.6				
50				7.5				
100				7.4				
0	N	7		7.7				
6.25				7.6				
12.5				7.6				
25				7.6				
50				7.6				
100				7.6				
0	N	8		7.6				
6.25				7.5				
12.5				7.5				
25				7.5				
50				7.5				
100				7.5				

Report Date: Test Code/ID: 15 Nov-21 13:31 (p 4 of 5) VCF1021.164 / 21-0902-0154

Pacific Topsmelt 7-d Survival and Growth Test

Salinity-ppt										_	
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes		
0	N	1		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							
0	N	2		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							
0	N	3		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25			_				
0	N	4		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							
0	N	5		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							
0	N	6		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							
0	N	7		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							
0	N	8		25							
6.25				25							
12.5				25							
25				25							
50				25							
100				25							

Pacific Topsmelt 7-d Survival and Growth Test

Report Date:

15 Nov-21 13:31 (p 5 of 5) VCF1021.164 / 21-0902-0154

Test Code/ID:

Temperature-	°C								
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	2		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	3		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	4		21					
6.25		·		21					
12.5				21					
25				21					
50				21					
100				21					
0	N	5		21					
6.25	IN .	J		21					
12.5				21					
25				21					
50				21					
100				21					
0	N	6		21					
6.25	IN	O		21					
12.5									
25				21 21					
50				21					
100				21					
)	N	7		21					
3.25				21					
12.5				21					
25				21					
50				21					
100				21					
)	N	8		21					
3.25				21					
12.5				21					
25				21					
50				21					
100				21					



November 15, 2021

Mr. Arne Anselm Ventura County Watershed Protection District 800 South Victoria Ave Ventura, CA 93009

Dear Mr. Anselm:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Measuring the Chronic Toxicity of Effluents and Receving Waters to West Coast Estuarine Organisms, EPA/821/R-02-014.* Results were as follows:

CLIENT:

Ventura County Flood Control

SAMPLE I.D.:

ME-CC

DATE RECEIVED:

10/25/2021

ABC LAB. NO.:

VCF1021.165

CHRONIC TOPSMELT SURVIVAL AND GROWTH BIOASSAY

Survival NOEC = 100.00

TUc = 1.00

EC25 = >100.00 % EC50 = >100.00 %

Biomass NOEC = 100.00 %

TUc = 1.00

IC25 = >100.00 % IC50 = >100.00 %

Yours very truly

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date:

15 Nov-21 15:19 (p 1 of 2)

Test Code/ID: VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test								Aquatic Bioassay & Consulting Labs, Inc							
Batch ID: Start Date: Ending Date: Test Length:	10-6793-2878 26 Oct-21 12:40 : 02 Nov-21 12:48 7d Oh) Pro	tocol: cies:	Growth-Surviva EPA/600/R-95/ Atherinops affil Actinopterygii	/136 (1995)			Dilu Brir	ne: N	aboratory Sea lot Applicable quatic Biosys		Age: 9)d		
Receipt Date	11-4845-2833 : 25 Oct-21 14:40 : 25 Oct-21 17:35 22h (5.5 °C)		erial: S (PC):	VCF1021.165 Sample Water Ventura County	y Watershed	l Protectio	n [Sou Stat	rce: B	IPDES Storm ioassay Repo IE-CC		ason			
Multiple Con	nparison Summa	ry											-		
Analysis ID	Endpoint		Comp	arison Method			✓	NOEL	LOEL	TOEL	PMSD	TU			
21-1164-2606	7d Survival Rate)	Steel	Many-One Rank	Sum Test			100	>100		8.2%	1			
11-6645-3103	Mean Dry Bioma	ass-mg	Steel	Many-One Rank	Sum Test			100	>100		5.17%	1			
Point Estima	te Summary												_		
Analysis ID	Endpoint		Point	Estimate Meth	od		✓	Level	%	95% LCL	. 95% UCL	TU	9		
08-6588-7706	7d Survival Rate	-	Linea	Interpolation (I	CPIN)		√	EC10	>100	***	***	<1			
							✓	EC15	>100			<1			
							✓	EC20	>100			<1			
							\checkmark	EC25	>100			<1			
							\checkmark	EC40	>100			<1			
				***			√	EC50	>100	***	444	<1			
11-9269-4640	Mean Dry Bioma	ass-mg	Linea	Interpolation (I	CPIN)		√	IC10	>100		***	<1			
							\checkmark	IC15	>100			<1			
							\checkmark	IC20	>100	-	322	<1			
							\checkmark		>100			<1			
							\checkmark	IC40	>100		***	<1			
_							✓	IC50	>100		***	<1			
Test Accepta	bility					TAC	Li	mits							
Analysis ID	Endpoint		Attrib	ute	Test Stat	Lower		Upper	Overla	p Decision					
08-6588-7706	7d Survival Rate	9	Contro	ol Resp	1	0.8		>>	Yes	Passes 0	Criteria				
21-1164-2606	7d Survival Rate)	Contro	ol Resp	1	0.8		>>	Yes	Passes (Criteria				
11-6645-3103	Mean Dry Bioma	ass-mg	Contro	ol Resp	1.434	0.85		>>	Yes	Passes (Criteria				
11-9269-4640	Mean Dry Bioma	ass-mg	Contro	ol Resp	1.434	0.85		>>	Yes	Passes (Criteria				
21-1164-2606	7d Survival Rate	•	PMSE)	0.08202	<<		0.25	No	Passes (Criteria				
7d Survival F	Rate Summary														
Conc-%	Code	Count	Mean					Max	Std Err		CV%	%Effe	_		
0	N	5	1.000		1.0000	1.0000		1.0000	0.0000	0.0000	-	0.00%			
6.25		5	1.000		1.0000	1.0000		1.0000	0.0000	0.0000		0.00%			
12.5		5	1.000		1.0000	1.0000		1.0000	0.0000	0.0000		0.00%			
25		5	1.000		1.0000	1.0000		1.0000	0.0000	0.0000		0.00%			
						1.0000		1.0000	0.0000	0.0000		0.00%			
50		5	1.0000		1.0000							4 000/			
50		5	0.960		1.0000	0.8000		1.0000	0.0400	0.0894	9.32%	4.00%			
50 100 Mean Dry Bio	omass-mg Summ	5 nary	0.960	0.8489	1.0710	0.8000									
50 100 Mean Dry Bio Conc-%	Code	5 nary Count	0.9600 Mean	0 0.8489 95% LCL	1.0710 95% UCL	0.8000 Min		Max	Std Err	Std Dev	CV%	%Effe	ct		
50 100 Mean Dry Bio Conc-%	-	5 nary Count	0.9600 Mean 1.434	0 0.8489 95% LCL 1.424	1.0710 95% UCL 1.444	0.8000 Min 1.422		Max 1.442	Std Err 0.00352	Std Dev 21 0.007874	CV% 0.55%	%Effe	ct		
50 100 Mean Dry Bio Conc-% 0 6.25	Code	5 nary Count 5 5	0.9600 Mean 1.434 1.483	95% LCL 1.424 1.405	1.0710 95% UCL 1.444 1.56	0.8000 Min 1.422 1.416		Max 1.442 1.55	Std Err 0.00352 0.0279	Std Dev 21 0.007874 0.0624	CV% 0.55% 4.21%	%Effe 0.00% -3.40%	ct		
50 100 Mean Dry Bio Conc-% 0 6.25 12.5	Code	5 Count 5 5 5	0.9606 Mean 1.434 1.483 1.439	95% LCL 1.424 1.405 1.395	1.0710 95% UCL 1.444 1.56 1.483	0.8000 Min 1.422 1.416 1.414		Max 1.442 1.55 1.5	Std Err 0.00352 0.0279 0.01583	Std Dev 21 0.007874 0.0624 3 0.0354	CV% 0.55% 4.21% 2.46%	%Effe 0.00% -3.40% -0.33%	ct %		
50 100 Mean Dry Bio Conc-% 0 6.25 12.5 25	Code	5 Count 5 5 5 5 5	0.9606 Mean 1.434 1.483 1.439 1.52	95% LCL 1.424 1.405 1.395 1.409	95% UCL 1.444 1.56 1.483 1.631	0.8000 Min 1.422 1.416 1.414 1.432		Max 1.442 1.55 1.5 1.656	Std Err 0.00352 0.0279 0.01583 0.03997	Std Dev 21 0.007874 0.0624 3 0.0354 7 0.08939	CV% 0.55% 4.21% 2.46% 5.88%	%Effe 0.00% -3.40% -0.33% -6.00%	ct %		
50 100	Code	5 Count 5 5 5	0.9606 Mean 1.434 1.483 1.439	95% LCL 1.424 1.405 1.395	1.0710 95% UCL 1.444 1.56 1.483	0.8000 Min 1.422 1.416 1.414		Max 1.442 1.55 1.5	Std Err 0.00352 0.0279 0.01583	Std Dev 21 0.007874 0.0624 3 0.0354 7 0.08939 29 0.008786	CV% 0.55% 4.21% 2.46% 5.88%	%Effe 0.00% -3.40% -0.33%	6 6		

CETIS Summary Report

Report Date: Test Code/ID: 15 Nov-21 15:19 (p 2 of 2) VCF1021.165 / 00-2973-7402

							rest Code/ID. VCF 1021.1037 00-2973-7402
Pacific Topsm	nelt 7-d Surviv	al and Grov	vth Test				Aquatic Bioassay & Consulting Labs, Inc.
7d Survival Ra	ate Detail						MD5: BB17F45C43703E06476AD25419AF9030
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	
6.25		1.0000	1.0000	1.0000	1.0000	1.0000	
12.5		1.0000	1.0000	1.0000	1.0000	1.0000	
25		1.0000	1.0000	1.0000	1.0000	1.0000	
50		1.0000	1.0000	1.0000	1.0000	1.0000	
100		1.0000	0.8000	1.0000	1.0000	1.0000	
Mean Dry Bion	mass-mg Deta	ıil					MD5: AD0BFED745EBE5D7F863ECEB109EC1C
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.432	1.44	1.422	1.434	1.442	
6.25		1.468	1.434	1.416	1.546	1.55	
12.5		1.5	1.418	1.424	1.414	1.438	
25		1.514	1.45	1.656	1.548	1.432	
50		1.426	1.434	1.422	1.432	1.412	
100		1.43	1.518	1.42	1.45	1.44	
7d Survival Ra	ate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	5/5	5/5	5/5	5/5	5/5	
6.25		5/5	5/5	5/5	5/5	5/5	
12.5		5/5	5/5	5/5	5/5	5/5	
25		5/5	5/5	5/5	5/5	5/5	
50		5/5	5/5	5/5	5/5	5/5	
100		5/5	4/5	5/5	5/5	5/5	

Report Date: Test Code/ID:

15 Nov-21 15:19 (p 1 of 4) VCF1021.165 / 00-2973-7402

											01 000071		1021.1007	70 2010 1-
Pacific Topsn	nelt 7	-d Survival	and Gro	owth Test							Aqua	tic Bioassay	& Consulting	g Labs, In
Analysis ID:	21-1	164-2606	E	ndpoint:	7d S	urvival Rat	e			CE	TIS Vers	ion: CETIS	Sv1.9.7	
Analyzed:	15 N	ov-21 15:19		Analysis:					Freatments		atus Leve	el: 1		
Edit Date:	15 N	ov-21 15:18	3 N	/ID5 Hash:	BB17	F45C437	03E064	76A[D25419AF9	9030 Ed	itor ID:	000-18	39-126-0	
Batch ID:	10-6	793-2878	Т	est Type:	Grow	th-Surviva	ıl (7d)			An	alyst:			
Start Date:	26 C	ct-21 12:40	P	Protocol:	EPA	600/R-95/	136 (19	95)			luent:	Laboratory S	eawater	
Ending Date:	02 N	ov-21 12:48	3 S	Species:	Athe	rinops affir	nis	·		Br	ine:	Not Applicabl		
Test Length:	7d 0)h	Т	axon:		opterygii					urce:	Aquatic Biosy		Age: 9
Sample ID:	11-4	845-2833	-	ode:	VCF	1021.165				Pr	oject:	NPDES Storr	nwater Wet S	Season
Sample Date:	25 C	ct-21 14:40	N	/laterial:		ole Water					urce:	Bioassay Reg		
Receipt Date:				CAS (PC):							ation:	ME-CC		
Sample Age:				Client:	Vent	ura County	/ Water	shed	Protection					
Data Transfor	rm		Alt Hy	'n					NOEL	LOEL	TOEI	L TU	MSDu	PMSD
Angular (Corre			C > T	þ					100	>100	TOEL	1	0.08202	
									100	- 100			0.00202	0.2070
Steel Many-O			est											
Control Negative Cont	vs	6.25		27.5		Critical 16	Ties 1	8 8	CDF	0.8333		sion(α:5%) Significant Effe		
Negative Cont	101	12.5		27.5		16	1	8	CDF	0.8333		_		
		25		27.5		16	1	8	CDF	0.8333		Significant Effe Significant Effe		
		50		27.5		16	1	8	CDF	0.8333		Significant Effe		
		100		27.5 25		16	1	8	CDF	0.6353		Significant Effe		
		_				10	-	Ŭ		0.0000	HOII-	Olgrinicant En		
Test Acceptal	bility			C Limits		_								
Attribute		Test Stat		Uppe		Overlap	Decis	_						
Control Resp		1	8.0	>>		Yes	Pass							
PMSD		0.08202	<<	0.25		No	Pass	es Cr	riteria					
ANOVA Table)													
Source		Sum Squ	ares	Mean	Squa	re	DF		F Stat	P-Value	Decis	sion(α:5%)		
Between		0.0094513	3	0.0018	8903		5		1	0.4389	Non-	Significant Effe	ect	
Error		0.0453663		0.0018	8903		24							
Total		0.0548176	5				29							
ANOVA Assur	mptio	ns Tests												
Attribute		Test					Test	Stat	Critical	P-Value	Decis	sion(α:1%)		
√ariance		Bartlett Ed	uality of	Variance T	est						Indet	erminate		
		Levene Ed	quality of	Variance T	est		7.111		3.895	0.0003	Uneq	ıual Variances		
		Mod Lever	ne Equal	ity of Varia	nce T	est	1		4.248	0.4457	Equa	l Variances		
Distribution		Anderson-	Darling A	A2 Test			7.95		3.878	<1.0E-0	5 Non-l	Normal Distrib	ution	
		D'Agostino	Kurtosis	s Test			4.912		2.576	<1.0E-0	5 Non-l	Normal Distrib	ution	
		D'Agostino					5.58		2.576	<1.0E-0		Normal Distrib	ution	
		_		n K2 Omni	bus T	est	55.27		9.21	<1.0E-0		Normal Distrib		
		Kolmogoro					0.466		0.1853	<1.0E-0		Normal Distrib		
		Shapiro-W	/ilk W No	ormality Tes	st		0.406	3	0.9031	<1.0E-0	5 Non-l	Normal Distrib	ution	
7d Survival R	ate S	ummary												
Conc-%		Code	Count	Mean		95% LCL	95% l		Median	Min	Max	Std Err		%Effec
)		N	5	1.0000		1.0000	1.000		1.0000	1.0000	1.000			0.00%
5.25			5	1.0000		1.0000	1.000		1.0000	1.0000	1.000		0.00%	0.00%
12.5			5	1.0000		1.0000	1.000		1.0000	1.0000	1.000		0.00%	0.00%
25			5	1.0000		1.0000	1.000	0	1.0000	1.0000	1.000		0.00%	0.00%
50			5	1.0000	0	1.0000	1.000	0	1.0000	1.0000	1.000	0.0000	0.00%	0.00%
100			_	0.000	`	0.0400	4 000	^	4 0000	0.0000	4 000	0.0400	0.220/	4.000/



9.32%

4.00%

1.0000

1.0000

0.8000

1.0000

0.0400

0.9600

0.8489

100

Report Date: Test Code/ID:

15 Nov-21 15:19 (p 2 of 4) VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

21-1164-2606 Analysis ID: Analyzed: 15 Nov-21 15:19

Endpoint: 7d Survival Rate

Analysis:

Nonparametric-Control vs Treatments MD5 Hash: BB17F45C43703E06476AD25419AF9030 **CETIS Version:** Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date:	15 Nov-21 15:18	MD5 Ha
Angular (Co	rrected) Transformed	Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
6.25		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
12.5		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
25		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
50		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	0.00%
100		5	1.2980	1.1650	1.4300	1.3450	1.1070	1.3450	0.0476	8.21%	3.54%

7d Survival Rate Detail

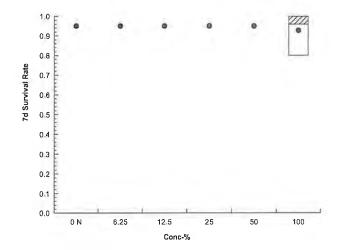
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.0000	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000	1.0000
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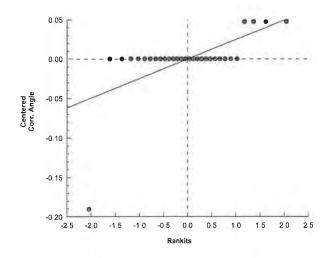
Angular (Corrected) Transformed Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.3450	1.3450	1.3450	1.3450	1.3450
6.25		1.3450	1.3450	1.3450	1.3450	1.3450
12.5		1.3450	1.3450	1.3450	1.3450	1.3450
25		1.3450	1.3450	1.3450	1.3450	1.3450
50		1.3450	1.3450	1.3450	1.3450	1.3450
100		1.3450	1.1070	1.3450	1.3450	1.3450

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	5/5	5/5	5/5	5/5	5/5
6.25		5/5	5/5	5/5	5/5	5/5
12.5		5/5	5/5	5/5	5/5	5/5
25		5/5	5/5	5/5	5/5	5/5
50		5/5	5/5	5/5	5/5	5/5
100		5/5	4/5	5/5	5/5	5/5





Report Date: Test Code/ID: 15 Nov-21 15:19 (p 3 of 4) VCF1021.165 / 00-2973-7402

racine ropsii	nelt 7-d Survival ar	nd Growth Test						Aquatio	c Bioassay & (Consulting	Labs, Inc
Analysis ID:	11-6645-3103	Endpoint:	Mean Dry Bion	nass-mg			CET	IS Versio	n: CETISv1	.9.7	
Analyzed:	15 Nov-21 15:19	Analysis:	Nonparametric	-Control	vs Tre	eatments	Stat	us Level:	1		
Edit Date:	15 Nov-21 15:18	MD5 Hash:	AD0BFED745	BE5D7F	F863E	CEB109	EC1C Edit	or ID:	000-189-	126-0	
Batch ID:	10-6793-2878	Test Type:	Growth-Surviva	al (7d)			Ana	yst:			
Start Date:	26 Oct-21 12:40	Protocol:	EPA/600/R-95/	136 (199	95)		Dilu		aboratory Sea	water	
Ending Date:	02 Nov-21 12:48	Species:	Atherinops affin	nis .	•		Brin		lot Applicable		
Test Length:	7d 0h	Taxon:	Actinopterygii				Sou	rce: A	quatic Biosyst	ems, CO	Age: 9
Sample ID:	11-4845-2833	Code:	VCF1021.165				Proj	ect: N	IPDES Stormw	ater Wet S	eason
Sample Date:	25 Oct-21 14:40	Material:	Sample Water				Sou		lioassay Repor	t	
Receipt Date:	25 Oct-21 17:35	CAS (PC):					Stat		1E-CC		
Sample Age:	22h (5.5 °C)	Client:	Ventura County	y Waters	hed F	rotection	Distri				
Data Transfor	m A	Alt Hyp				NOEL	LOEL	TOEL	TU	MSDu	PMSD
Untransformed		> T				100	>100	1022	1	0.07413	5.17%
Stool Many O	ne Rank Sum Test										011170
Steel Many-Ol Control	vs Conc-%	Test S	Stat Critical	Ties	DE I	D. Tuna	D. Value	Desial	an/a: E0/ \		
Negative Contr		32.5	16	1		P-Type CDF	P-Value 0.9870		on(α:5%) gnificant Effect		
rvegative Conti	12.5	24	16	0		CDF	0.5394	•	gnificant Effect		
	25	36.5	16	1		CDF	0.9994	-	gnificant Effect		
	50	20.5	16	3		CDF	0.2245		gnificant Effect		
	100	29.5	16	1		CDF	0.2243	-	gnificant Effect		
T4 A4-1			10			001	0.0200	14011-016	grimoarit Encol		
Test Acceptab	· · · · · · · · · · · · · · · · · · ·	TAC Limits									
Attribute											
		ower Upper		Decisi		orio.					
Control Resp	1.434 0	.85 >>	Yes	Passe:		eria					
Control Resp	1.434 0	.85 >>	Yes	Passe	s Crite						
Control Resp ANOVA Table Source	1.434 0 Sum Square	.85 >> s Mean	Yes Square	Passe:	s Crite	F Stat	P-Value		on(a:5%)		
Control Resp ANOVA Table Source Between	1.434 0 Sum Square 0.0325863	.85 >> s Mean 0.006	Yes Square 5173	DF 5	s Crite		P-Value 0.0484		on(α:5%) ant Effect		
Control Resp ANOVA Table Source Between Error	1.434 0 Sum Square 0.0325863 0.0591136	.85 >> s Mean	Yes Square 5173	DF 5 24	s Crite	F Stat					
Control Resp ANOVA Table Source Between Error	1.434 0 Sum Square 0.0325863	.85 >> s Mean 0.006	Yes Square 5173	DF 5	s Crite	F Stat					
Control Resp ANOVA Table Source Between Error Total	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998	.85 >> s Mean 0.006	Yes Square 5173	DF 5 24	s Crite	F Stat					
Control Resp ANOVA Table Source Between Error Total ANOVA Assur	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test	.85 >> •s Mean 0.006: 0.002-	Yes Square 5173 4631	DF 5 24	s Crite	F Stat		Signific			
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test	.85 >> s Mean 0.006	Yes Square 5173 4631	DF 5 24 29	S Crite	F Stat 2.646	0.0484	Signific	ant Effect		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa	.85 >> •s Mean 0.006: 0.002-	Yes Square 5173 4631	DF 5 24 29	s Crite	F Stat 2.646 Critical	0.0484 P-Value	Signific Decision Unequal	ant Effect on(α:1%)		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa	.85 >> s Mean 0.006 0.002	Yes Square 5173 4631 Fest	DF 5 24 29 Test S 24.35	s Crite	F Stat 2.646 Critical	0.0484 P-Value 0.0002	Decision Unequal	on(α:1%) al Variances		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene	.85 >> s Mean 0.006 0.002 lity of Variance T lity of Variance T	Yes Square 5173 4631 Fest	DF 5 24 29 Test S 24.35 4.134	s Crite	F Stat 2.646 Critical 15.09 3.895	0.0484 P-Value 0.0002 0.0075	Decision Unequal Unequal Unequal Unequal	on(α:1%) al Variances al Variances	on	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	1.434 0 Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene	.85 >> S Mean 0.006: 0.002- lity of Variance T lity of Variance T Equality of Varia	Yes Square 5173 4631 Fest	DF 5 24 29 Test S 24.35 4.134 4.396	s Crite	F Stat 2.646 Critical 15.09 3.895 4.248	0.0484 P-Value 0.0002 0.0075 0.0086	Decision Unequate Unequate Unequate Unequate Unequate Non-No	on(α:1%) al Variances al Variances al Variances	on	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K	.85 >> S Mean 0.006: 0.002- lity of Variance T lity of Variance T Equality of Varia	Yes Square 5173 4631 Fest	DF 5 24 29 Test S 24.35 4.134 4.396 1.263	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878	0.0484 P-Value 0.0002 0.0075 0.0086 0.0025	Decision Unequate Unequate Unequate Non-No	on(α:1%) al Variances al Variances ormal Distributi	on	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino S	Ility of Variance T Equality of Variance T Equality of Variance T Equality of Variance T In the second seco	Yes Square 5173 4631 Fest Fest Fest From Test	DF 5 24 29 Test S 24.35 4.134 4.396 1.263 1.92	s Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548	Decision Unequal Unequal Unequal Non-No	on(a:1%) al Variances al Variances al Variances ormal Distribution	on	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum Square 0.0325863 0.0591136 0.0916998 nptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino-P Kolmogorov-	Iity of Variance Tolity of Varia	Yes Square 5173 4631 Fest Fest Force Test	DF 5 24 29 Test S 24.35 4.134 4.396 1.263 1.92 1.949	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576 2.576	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513	Decision Unequal Unequal Unequal Non-Non Normal Normal	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance	Sum Square 0.0325863 0.0591136 0.0916998 nptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino-P Kolmogorov-	Iity of Variance Tequality of Variance Tequality of Variance Tequality of Variaring A2 Test urtosis Test kewness Test earson K2 Omni	Yes Square 5173 4631 Fest Fest Force Test	DF 5 24 29 24.35 4.134 4.396 1.263 1.92 1.949 7.485	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237	Decision Unequal Unequal Non-Note Normal Normal Normal Normal	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	Sum Square 0.0325863 0.0591136 0.0916998 nptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino-P Kolmogorov-	lity of Variance T lity of Variance T Equality of Variance T Equality of Variance T Equality of Variance T set urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test	Yes Square 5173 4631 Fest Fest Force Test	DF 5 24 29 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21 0.1853	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006	Decision Unequal Unequal Non-Note Normal Normal Normal Normal	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution Distribution Distribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino S D'Agostino-P Kolmogorov- Shapiro-Wilk	lity of Variance T lity of Variance T Equality of Variance T Equality of Variance T Equality of Variance T set urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test	Yes Square 5173 4631 Fest Fest Force Test	DF 5 24 29 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227 0.9141	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21 0.1853	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006	Decision Unequal Unequal Non-Note Normal Normal Normal Normal	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution Distribution Distribution		%Effec
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Mean Dry Bion Conc-%	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino S D'Agostino-P Kolmogorov- Shapiro-Wilk	lity of Variance T lity of Variance T lity of Variance T Equality of Varia rling A2 Test urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test y count Mean	Yes Square 5173 4631 Fest Fest Fince Test bus Test	DF 5 24 29 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227 0.9141	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21 0.1853 0.9031	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006 0.0189	Decision Unequa Unequa Non-No Normal Normal Normal Normal Normal	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution Distribution Distribution Distribution Distribution Distribution	on	%Effec 0.00%
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Mean Dry Bion Conc-%	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino S D'Agostino-P Kolmogorov- Shapiro-Wilk mass-mg Summar Code 0	lity of Variance T lity of Variance T lity of Variance T Equality of Varia rrling A2 Test urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test y count Mean 1.434	Yes Square 5173 4631 Fest Fest Fest Dus Test St 95% LCL	DF 5 24 29 Test S 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227 0.9141 95% U	S Crite	F Stat 2.646 Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21 0.1853 0.9031	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006 0.0189	Decision Unequate Unequate Non-Normale Normale Normale Normale Normale Normale Normale Normale Normale Normale Max	on(a:1%) al Variances al Variances al Variances ormal Distribution	on CV%	
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Mean Dry Bion Conc-% 0 6.25	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equal Levene Equal Mod Levene Anderson-Dal D'Agostino K D'Agostino S D'Agostino-P Kolmogorov- Shapiro-Wilk mass-mg Summar Code N 5	lity of Variance T lity of Variance T lity of Variance T Equality of Varia rrling A2 Test urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test y Sount Mean 1.434 1.483	Yes Square 5173 4631 Fest Fest Fest Fest Force Test 95% LCL 1.424	Passe DF 5 24 29 Test S 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227 0.9141 95% U 1.444	S Crite	Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21 0.1853 0.9031	0.0484 P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006 0.0189 Min 1.422	Decision Unequa Unequa Unequa Non-No Normal Normal Normal Normal Normal	on(α:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution Distribution Distribution Distribution Official Distribution Official Distribution Distribution Distribution Std Err 0.003522	ON CV%	0.00% -3.40%
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino-P Kolmogorov- Shapiro-Wilk mass-mg Summar Code Code Code S	lity of Variance T lity of Variance T lity of Variance T Equality of Variance T Equality of Variance T set urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test W Normality Test W Normality Test Mean 1.434 1.483 1.439	Yes Square 5173 4631 est est est ous Test 95% LCL 1.424 1.405	Passe DF 5 24 29 Test S 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227 0.9141 95% U 1.444 1.56	S Crite	Critical 15.09 3.895 4.248 3.878 2.576 2.576 9.21 0.1853 0.9031 Median 1.434 1.468	0.0484 P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006 0.0189 Min 1.422 1.416	Decision Unequal Unequal Unequal Non-Non Normal Normal Normal Normal Normal 1.442	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution Distribution Distribution Distribution Std Err 0.003522 0.0279	CV% 0.55% 4.21%	0.00%
Control Resp ANOVA Table Source Between Error Total ANOVA Assur Attribute Variance Distribution Mean Dry Bion Conc-% 0 6.25 12.5	Sum Square 0.0325863 0.0591136 0.0916998 mptions Tests Test Bartlett Equa Levene Equa Mod Levene Anderson-Da D'Agostino K D'Agostino S D'Agostino-P Kolmogorov- Shapiro-Wilk mass-mg Summar Code N 5 5	lity of Variance T lity of Variance T lity of Variance T Equality of Varia rling A2 Test urtosis Test kewness Test earson K2 Omni Smirnov D Test W Normality Test y count Mean 1.434 1.483 1.439 1.52	Yes Square 5173 4631 Fest Fest Fest Force Test 95% LCL 1.424 1.405 1.395	Passe. DF 5 24 29 Test S 24.35 4.134 4.396 1.263 1.92 1.949 7.485 0.2227 0.9141 95% U 1.444 1.56 1.483	S Crite	Critical 15.09 3.895 4.248 3.878 2.576 9.21 0.1853 0.9031 Median 1.434 1.468 1.424	P-Value 0.0002 0.0075 0.0086 0.0025 0.0548 0.0513 0.0237 0.0006 0.0189 Min 1.422 1.416 1.414	Decision Unequal Unequal Unequal Non-Normal Normal Normal Normal Normal 1.442 1.55 1.5	on(a:1%) al Variances al Variances al Variances ormal Distribution Distribution Distribution Distribution Distribution Ormal Distributi Distribution Std Err 0.003522 0.0279 0.01583	CV% 0.55% 4.21% 2.46%	0.00% -3.40% -0.33%



Report Date: Test Code/ID:

15 Nov-21 15:19 (p 4 of 4) VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test Aquatic Bioassay & Consulting Labs, Inc.

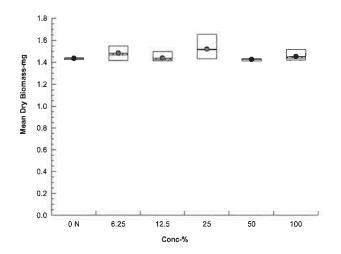
Analysis ID: 11-6645-3103 Endpoint: Mean Dry Biomass-mg CETIS Version: CETISv1.9.7

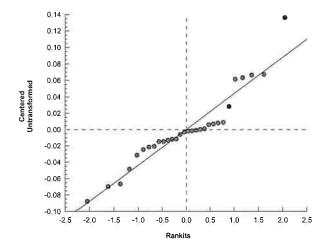
Analyzed: 15 Nov-21 15:19 Analysis: Nonparametric-Control vs Treatments Status Level: 1

Edit Date: 15 Nov-21 15:18 MD5 Hash: AD0BFED745EBE5D7F863ECEB109EC1C Editor ID: 000-189-126-0

Mean Dry Biomass-mg Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.432	1.44	1.422	1.434	1.442
6.25		1.468	1.434	1.416	1.546	1.55
12.5		1.5	1.418	1.424	1.414	1.438
25		1.514	1.45	1.656	1.548	1.432
50		1.426	1.434	1.422	1.432	1.412
100		1.43	1.518	1.42	1.45	1.44





Report Date:

15 Nov-21 15:19 (p 1 of 4)

Test Code/ID: VCF1021.165 / 00-2973-7402

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	_	nelt 7-d Survival									_		Consulting	∟abs, ind
Analysi		08-6588-7706		_	d Survival Rat					Version		ETISv1	.9.7	
Analyze		15 Nov-21 15:19		-	inear Interpola	•	•		Status		1	0.400	100.0	
Edit Da	ne:	15 Nov-21 15:18	MDS	Hasn: B	B17F45C4370	03EU0476A	D25419AFS	1030	Editor	ט:	00	0-189-	126-0	
Batch I		10-6793-2878			rowth-Surviva				Analys					
Start D		26 Oct-21 12:40			PA/600/R-95/	` '			Diluent			ry Seav	water	
_	•	02 Nov-21 12:48	•		therinops affin	is			Brine:		t Appli			
Test Le	ength:	7d 0h	Тахо	on: A	ctinopterygii				Source	: Aq	uatic E	Biosyste	ems, CO	Age: 90
Sample	e ID:	11-4845-2833	Cod	e: V	CF1021.165				Project	: NP	DES S	Stormw	ater Wet S	eason
-		25 Oct-21 14:40	Mate	erial: S	ample Water				Source	: Bio	assay	Repor	t	
•		25 Oct-21 17:35	CAS	(PC):					Station	: ME	-CC			
Sample	e Age:	22h (5.5 °C)	Clie	nt: V	entura County	Watershe	d Protection	Distri				_		
Linear	Interpo	lation Options												
X Trans	sform	Y Transform	Seed	d R	esamples	Exp 95%	CL Meth	nod						
Linear		Linear	0	2	80	Yes	Two	-Point I	nterpola	tion				
Test Ac	cceptab	oility Criteria	TAC Li	imits										
Attribut	te	Test Stat		Upper	Overlap	Decision								
Control	Resp	1	0.8	>>	Yes	Passes C	Criteria							
Point F	Stimate	es												
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL								
EC10	>100			<1										
		***		<1	100									
EC15	>100													
	>100 >100			<1	***									
EC20			-	<1 <1		-								
EC20 EC25	>100													
EC15 EC20 EC25 EC40 EC50	>100 >100			<1										
EC20 EC25 EC40 EC50	>100 >100 >100 >100	=		<1 <1	-		ulated Varia	ite(A/B)				Isoton	ic Variate
EC20 EC25 EC40 EC50 7d Sur	>100 >100 >100 >100 >100 vival Ra			<1 <1	-		ulated Varia Max	ite(A/B		%Effect	A/E	3	lsoton Mean	
EC20 EC25 EC40 EC50 7d Sur	>100 >100 >100 >100 >100 vival Ra	 ate Summary		<1 <1 <1	<u></u>	Calc			0 0	% Effect	A/E 25/			
EC20 EC25 EC40 EC50 7d Sur Conc- %	>100 >100 >100 >100 >100 vival Ra	 ate Summary Code	Count	<1 <1 <1 Mean	 Median	Calc	Max	CV%	% (25	Mean	%Effec
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 >100 vival Ra	 ate Summary Code		<1 <1 <1 Mean 1.0000	Median 1.0000	Calco Min 1.0000	Max 1.0000	CV%	% (0.00%	25/	25 25	Mean 1.0000	%Effec
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5	>100 >100 >100 >100 >100 vival Ra	 ate Summary Code		<1 <1 <1 <1 Mean 1.0000 1.0000	Median 1.0000 1.0000	Calco Min 1.0000 1.0000	Max 1.0000 1.0000	0.00°	% (% ().00%).00%	25/ 25/	25 25 25	Mean 1.0000 1.0000	%Effection 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25	>100 >100 >100 >100 >100 vival Ra	 ate Summary Code	Count 5 5 5 5	<1 <1 <1 <1 <1 Mean 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25	>100 >100 >100 >100 >100 vival Ra	 ate Summary Code	Count 5 5 5 5 5 5	<1 <1 <1 <1 Mean 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surr Conc-% 0 6.25 12.5 25 50	>100 >100 >100 >100 vival R a	 ate Summary Code	Count 5 5 5 5 5 5	<1 <1 <1 <1 <1 Mean 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 5 5 5 5 5 5	<1 <1 <1 <1 <1 Mean 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra	ate Summary Code N	Count 5 5 5 5 5 5 5 5	<1 <1 <1 <1 mean 1.0000 1.0000 1.0000 1.0000 1.0000 0.9600	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000	Max 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code	Count 5 5 5 5 5 5 5 5 7 5 7 7 8 8 9 1	<1 <1 <1 <1 mean 1.0000 1.0000 1.0000 1.0000 1.0000 0.9600 Rep 2	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code	Count 5 5 5 5 5 5 5 5 1 1.0000	<1 <1 <1 <1 mean 1.0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 3 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code	Count 5 5 5 5 5 1 1.0000 1.0000	<1 <1 <1 <1 mean 1.0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 5 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Sur Conc- % 0 6.25 100 7d Sur Conc- % 0 6.25 12.5	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code	Count 5 5 5 5 5 1.0000 1.0000 1.0000	<1 <1 <1 <1 <1 Mean 1.0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25 50	>100 >100 >100 >100 vival Ra	ate Summary Code N ate Detail Code	Count 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000	<pre></pre>	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calco Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code	Count 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000	<1 <1 <1 <1 <1 <1 .0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000 1.	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000	<1 <1 <1 <1 <1 <1 .0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000 1.	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 7d Surv 0 6.25 12.5 25 50 100 7d Surv Conc-%	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 1	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 1 5/5	<1 <1 <1 <1 <1 mean 1.0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 8000 Rep 2 5/5	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 4 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 5 5 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 1 5/5 5/5	<1 <1 <1 <1 <1 <1 0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 2 5/5 5/5	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effection 0.00% 0.00% 0.00% 0.00% 0.00%
EC20 EC25 EC40 EC50 7d Surv 0 6.25 12.5 25 50 100 Conc-% 0 6.25 12.5 25 50 100 7d Surv Conc-% 0 6.25	>100 >100 >100 >100 vival Ra 6	ate Summary Code N ate Detail Code N	Count 5 5 5 5 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Rep 1 5/5 5/5 5/5	<1 <1 <1 <1 <1 <1 0000 1.0000 1.0000 1.0000 0.9600 Rep 2 1.0000 1.0000 1.0000 1.0000 0.8000 Rep 2 5/5 5/5	Median 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Calci Min 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Max 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.055 5/5 5/5 5/5	0.00° 0.00° 0.00° 0.00° 0.00°	% (% % (% % (% % (%	0.00% 0.00% 0.00% 0.00%	25/ 25/ 25/ 25/ 25/	25 25 25 25 25 25	Mean 1.0000 1.0000 1.0000 1.0000	%Effect 0.00% 0.00% 0.00% 0.00% 0.00%



Report Date:

15 Nov-21 15:19 (p 2 of 4)

Test Code/ID:

VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 08-6588-7706 Analyzed:

15 Nov-21 15:19 15 Nov-21 15:18 Endpoint: 7d Survival Rate Analysis:

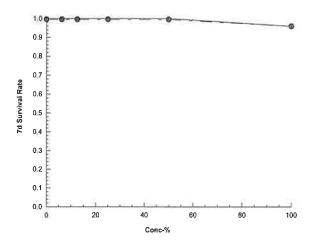
Linear Interpolation (ICPIN) MD5 Hash: BB17F45C43703E06476AD25419AF9030

CETIS Version: Status Level: Editor ID:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



Report Date: Test Code/ID: 15 Nov-21 15:19 (p 3 of 4) VCF1021.165 / 00-2973-7402

									Test Cod	e/ID: V	CF 1021.165 / 0	00-2973-740
Pacific	Topsn	nelt 7-d Survival	and Growt	h Test					Aq	uatic Bioassa	y & Consulting	g Labs, Inc
Analys Analyz Edit Da	ed:	11-9269-4640 15 Nov-21 15:19 15 Nov-21 15:18) Ana	point: lysis: 5 Hash:	Mean Dry Biom Linear Interpola AD0BFED745E	ation (ICPI	,	109EC1C	CETIS Ve Status Le Editor ID	evel: 1	FISv1.9.7 -189-126-0	
Batch	ID:	10-6793-2878	Test	Type:	Growth-Surviva	al (7d)			Analyst:			
Start D	ate:	26 Oct-21 12:40		ocol:	EPA/600/R-95/	` '	5)		Diluent:	Laboratory	Seawater	
Ending	Date:	02 Nov-21 12:48	Spe	cies:	Atherinops affir	nis	,		Brine:	Not Applica		
		7d 0h	Tax		Actinopterygii				Source:		osystems, CO	Age: 9d
Sample	e ID:	11-4845-2833	Cod	e:	VCF1021.165				Project:	NPDES St	ormwater Wet S	Season
•		25 Oct-21 14:40		erial:	Sample Water				Source:	Bioassay F		
•		25 Oct-21 17:35		(PC):					Station:	ME-CC		
Sample	e Age:	22h (5.5 °C)	Clie	nt:	Ventura County	y Watersh	ed Protec	tion Distri				
Linear	Interpo	olation Options										
X Tran		Y Transform	See	d	Resamples	Exp 95	% CL I	Method				
Linear		Linear	145	1111	280	Yes		√wo-Point	Interpolation	on		
Test A	cceptal	bility Criteria	TAC L	imite								
Attribu	te	Test Stat		Uppe	r Overlap	Decisio	n					
Control	Resp	1.434	0.85	>>	Yes	Passes	Criteria					
Point E	Estimat	es										
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UC	L					
IC10	>100	***		<1	***							
IC15	>100			<1	-							
IC20	>100		****	<1		277						
IC25	>100			<1	***							
IC40	>100	***	***	<1								
IC50	>100		-	<1								
Mean [Dry Bio	mass-mg Summ	ary			С	alculated	l Variate			Isoto	nic Variate
Conc-9	/ ₀	Code	Count	Mean	Median	Min	Max	CV		ffect	Mean	%Effect
0		N	5	1.434	1.434	1.422	1.442			00%	1.469	0.00%
6.25			5	1.483	1.468	1.416	1.55	4.2	I% -3.	40%	1.469	0.00%
12.5			5	1.439	1.424	1.414	1.5	2.46	6% -0.	33%	1.469	0.00%
25			5	1.52	1.514	1.432	1.656	5.88	3% -6.	00%	1.469	0.00%
50			5	1.425	1.426	1.412	1.434	0.62	2% 0.6	61%	1.438	2.08%
			_						-0.4	000/	4 400	0.000/

2.67%

-1.23%

1.518

Mean	Drv	Biomass-mg	Detail

100

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.432	1.44	1.422	1.434	1.442	
6.25		1.468	1.434	1.416	1.546	1.55	
12.5		1.5	1.418	1.424	1.414	1.438	
25		1.514	1.45	1.656	1.548	1.432	
50		1.426	1.434	1.422	1.432	1.412	
100		1.43	1.518	1.42	1.45	1.44	

1.452

1.44

1.42

5

1.438

2.08%

Report Date:

15 Nov-21 15:19 (p 4 of 4)

Test Code/ID:

VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-9269-4640 **Analyzed:** 15 Nov-21 15:

15 Nov-21 15:19 15 Nov-21 15:18 **Endpoint:** Mean Dry Biomass-mg **Analysis:** Linear Interpolation (ICI

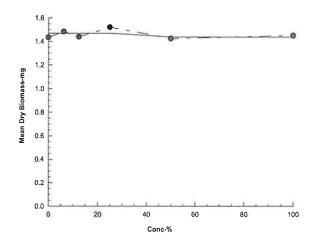
Analysis: Linear Interpolation (ICPIN) Status Let MD5 Hash: AD0BFED745EBE5D7F863ECEB109EC1C Editor ID:

CETIS Version: Status Level:

000-189-126-0

CETISv1.9.7

Edit Date: Graphics



CETIS Measurement Report

Report Date:

15 Nov-21 15:19 (p 1 of 5)

Test Code/ID: VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test Aquatic Bioassay & Consulting Labs, Inc. Batch ID: 10-6793-2878 Test Type: Growth-Survival (7d) Analyst: Start Date: 26 Oct-21 12:40 Protocol: EPA/600/R-95/136 (1995) Diluent: Laboratory Seawater Ending Date: 02 Nov-21 12:48 Species: Atherinops affinis Brine: Not Applicable Test Length: 7d 0h Taxon: Actinopterygii Source: Aquatic Biosystems, CO Age: 9d Sample ID: 11-4845-2833 Code: VCF1021.165 NPDES Stormwater Wet Season Project: Sample Date: 25 Oct-21 14:40 Material: Sample Water Source: Bioassay Report CAS (PC): Receipt Date: 25 Oct-21 17:35 Station: ME-CC Sample Age: 22h (5.5 °C) Client: Ventura County Watershed Protection Distri Dissolved Oxygen-mg/L Conc-% 95% LCL 95% UCL CV% Count Mean Min Max Std Err Std Dev **QA Count** 0 8 7.313 7.23 7.395 7.2 7.5 0.01239 0.0991 1.36% 7 6.25 8 7.163 6.99 7.335 7.5 0.02582 0.2066 2.88% 0 12.5 8 7.15 7.024 7.276 7 7.4 0.0189 0.1512 2.11% 0 25 8 7.162 7.022 7.303 0.1685 0 6.9 7.5 0.02106 2.35% 8 50 7.187 7.05 7.325 6.9 7.5 0.02053 0.1642 2.28% 0 8 100 7.2 7.059 7.341 6.9 7.5 0.02113 0.169 2.35% 0 Overall 48 7.196 7.148 7.243 6.9 7.5 0.02363 0.1637 2.28% 0 (0%) pH-Units Conc-% Code Count Mean 95% LCL 95% UCL Min Max Std Dev CV% **QA Count** Std Err 0 8 7.687 7.658 7.717 7.6 7.7 0.004419 0.03536 0.46% 6.25 8 7.525 7,409 7.641 7.3 7.7 0.01736 0.1389 1.85% 0 8 12.5 7.5 7.4 7.6 7.3 7.6 0.01494 0.1195 1.59% 0 25 8 7.463 7.374 7.551 7.3 7.6 0.01326 0.1061 1.42% 0 50 8 7.45 7.361 7.539 7.3 7.6 0.01336 0.1069 1.43% 0 100 8 7.438 7.338 7.537 7.3 7.6 0.01485 0.1188 1.60% 0 Overall 48 7.51 7.471 7.549 7.3 7.7 0.01935 0.1341 1.79% 0 (0%) Salinity-ppt Code 95% LCL 95% UCL Min Std Dev CV% **QA Count** Conc-% Count Mean Max Std Err 0 Ν 8 25 25 25 25 25 0 0 0.00% 0 8 25 25 25 25 25 0 0 0.00% 0 6.25 8 25 25 25 0 0 0 12.5 25 25 0.00% 8 25 25 25 25 25 0 0 0.00% 0 25 50 8 25 25 25 25 25 0 0 0.00% 0 25 25 0 100 8 25 25 25 0 0.00% 0 Overali 48 25 25 25 25 25 0 0 0.00% 0 (0%) Temperature-°C Conc-% Code Count 95% LCL 95% UCL Min Max Std Err Std Dev CV% **QA Count** Mean 0 8 21 21 21 0.00% N 21 21 0 0 0 8 21 0 0 0 6.25 21 21 21 21 0.00% 8 21 21 21 0 0 0.00% 0 12.5 21 21 8 21 21 0 0 0.00% 0 25 21 21 21 8 21 21 21 21 0 0 0 50 21 0.00%

0.00%

0.00%

0 (0%)

21

21

21

21

21

21

0

0

0

0

8

48

21

21

21

21

100

Overall

Report Date: Test Code/ID: 15 Nov-21 15:19 (p 2 of 5) VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

Dissolved Oxygen-mg/L									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.3					
6.25				7					
12.5				7					
25				7.1					
50				7.1					
100				7.2					
0	N	2		7.3					
6.25				7					
12.5				7					
25				6.9					
50				6.9					
100				6.9					
0	N	3		7.3					
6.25				7.3					
12.5				7.2					
25				7.2					
50				7.2					
100				7.1					
0	N	4		7.2					
6.25				7					
12.5				7					
25				7.1					
50				7.2					
100				7.2					
0	N	5		7.5					
6.25				7.5					
12.5				7.4					
25				7.5					
50				7.5					
100				7.5					
0	N	6		7.4					
6.25				7.4					
12.5				7.3					
25				7.2					
50				7.2					#
100				7.2					
0	N	7		7.3					
6.25				7.1					
12.5				7.2					
25				7.2					
50				7.2					
100				7.3					
0	N	8		7.2					
6.25				7					
12.5				7.1					
25				7.1					
50				7.2					
100				7.2					

Report Date:

15 Nov-21 15:19 (p 3 of 5)

Test Code/ID:

VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

pH-Units									
Conc-%	Code	Read	Time	Measure (QA D	iff-%	Inst ID	Analyst	Notes
0	N	1		7.7					
6.25				7.3					
12.5				7.3					
25				7.3					
50				7.3					
100				7.3					
0	Ν	2		7.7					
6.25				7.4					
12.5				7.4					
25				7.4					
50				7.4					
100				7.4					
0	N	3		7.7					
6.25				7.7					
12.5				7.6					
25				7.5					
50				7.5					
100				7.5					
0	N	4		7.7					
6.25				7.6					
12.5				7.6					
25				7.6					
50				7.6					
100				7.6					
0	N	5		7.7				_	
6.25				7.7					
12.5				7.6					
25				7.5					
50				7.4					
100				7.4					
0	N	6		7.7					
6.25				7.5					
12.5				7.4					
25				7.4					
50				7.4					
100				7.3					
0	N	7		7.7					
6.25				7.5					
12.5				7.6					
25				7.6					
50				7.6					
100				7.6					
0	N	8		7.6					
6.25				7.5					
12.5				7.5					
25				7.4					
50				7.4					
100				7.4					



Report Date: Test Code/ID: 15 Nov-21 15:19 (p 4 of 5) VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

Salinity-ppt									
Conc-%	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		25					
6.25				25					
12.5				25					
25				25					
50				25					
100				25					
0	N	2		25					
6.25				25					
12.5				25					
25				25					
50				25					
100				25					
0	N	3		25					
6.25				25					<i>a</i>
12.5				25					
25				25					
50				25					
100				25					
0	N	4		25					
6.25				25					
12.5				25					
25				25					
50				25					
100				25					
0	N	5		25					
6.25				25					
12.5				25					
25				25					
50				25					
100				25					
0	N	6		25					
6.25				25					
12.5				25					
25				25					
50				25					
100				25					
0	N	7		25					
6.25	• •	·		25					
12.5				25					
25				25					
50				25					
100				25					
0	N	8		25					
6.25	14	J		25					
12.5				25					
25				25					
50				25					
100				25					

Report Date: Test Code/ID: 15 Nov-21 15:19 (p 5 of 5) VCF1021.165 / 00-2973-7402

Pacific Topsmelt 7-d Survival and Growth Test

Temperature-°	С								
Conc-%	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes	
0	N	1		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	2		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	3		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	4		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	5		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	6		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	7		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					
0	N	8		21					
6.25				21					
12.5				21					
25				21					
50				21					
100				21					



CHRONIC SEA URCHIN FERTILIZATION BIOASSAY

DATE:

26 October 2021

STANDARD TOXICANT:

Copper Chloride

NOEC =

18.00 ug/l

EC25 =

34.83 ug/l

EC50 =

45.71 ug/l

Yours very truly,

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date:

11 Nov-21 15:23 (p 1 of 1)

Test Code/ID: URC102621 / 11-3453-2991

Purple Sea Urchin Sperm Cell Fertilization Test									Aqua	tic B	Bioassay & 0	Consulting	Labs, Inc.
Batch ID: Start Date: Ending Date: Test Length:	15-0142-5550 26 Oct-21 16:00 26 Oct-21 16:40 40m) F	Test Type: Protocol: Species: Taxon:	Fertilization EPA/600/R-95 Strongylocentr Echinoidea		atus		D B	nalyst: iluent: rine: ource:	Not	oratory Seav Applicable tura Dive	water	Age:
Sample ID: Sample Date: Receipt Date: Sample Age:) [Code: Material: CAS (PC): Client:	URC102621 Copper chlorid	е			s	roject: ource: tation:		erence Toxio	cant	
	parison Summa			mioma Lab			_						
Analysis ID	Endpoint	,	Comr	parison Method			./	NOEL	LOEI		TOEL	PMSD	
	Fertilization Rat	e		ett Multiple Com		t	_	18	32	_	24	4.44%	
Point Estimat	e Summary												
Analysis ID	Endpoint		Point	Estimate Meth	od		1	Level	μg/L		95% LCL	95% UCL	
	Fertilization Rat	e		r Interpolation (I				EC10 EC15 EC20 EC25 EC40 EC50	25.56 29.35 32.65 34.83 41.36 45.71	; ; ;	24.15 27.3 30.69 33.33 40.05 44.52	27.07 31.6 34.04 36.12 42.4 46.75	
								E030	45.71		44.52	40.75	
Test Acceptat	oility						C Li	mits					
Analysis ID	Endpoint		Attrib		Test Stat			Upper		lap	Decision		
05-6827-1771 Fertilization Rate Control Resp 11-1827-6916 Fertilization Rate Control Resp 11-1827-6916 Fertilization Rate PMSD				ol Resp	0.9275 0.9275 0.0444	0.7 0.7 <<		>> >> 0.25	Yes Yes No		Passes Cr Passes Cr Passes Cr	riteria	
Fertilization R			1 WOL	,	0.0444			0.23	140		1 85565 01	iteria	
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min		Max	Std E	rr	Std Dev	CV%	%Effect
0	N	4	0.927		0.9475	0.9100		0.9400		_	0.0126	1.36%	0.00%
18		4	0.9500	0.9089	0.9911	0.9200		0.9800	0.012	9	0.0258	2.72%	-2.43%
32		4	0.7650	0.7250	0.8050	0.7300		0.7900	0.012	6	0.0252	3.29%	17.52%
56		4	0.247	5 0.2077	0.2873	0.2100		0.2600	0.012	5	0.0250	10.10%	73.32%
100		4	0.0500	0.0110	0.0890	0.0300		0.0800	0.012	:3	0.0245	48.99%	94.61%
180		4	0.0000	0.0000	0.0000	0.0000		0.0000	0.000	0	0.0000	***	100.00%
Fertilization R	ate Detail							٨	MD5: 60D0	03B3	9C1A683F8	42A843697	DC95FFF
Conc-µg/L	Code	Rep 1	Rep 2		Rep 4								
0	N	0.9300			0.9100								
18		0.9600	0.9800	0.9400	0.9200								
32		0.7700	0.7900	0.7300	0.7700								
56		0.2600	0.2600	0.2600	0.2100								
100		0.0300	0.0800	0.0600	0.0300								
180		0.0000	0.0000	0.0000	0.0000								
Fertilization R	ate Binomials												
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4								
0	N	93/100			91/100								
18		96/100	98/100	94/100	92/100								
32		77/100	79/100	73/100	77/100								
56		26/100	26/100	26/100	21/100								
100		3/100	8/100	6/100	3/100								
180		0/100	0/100	0/100	0/100								

Report Date: Test Code/ID:

11 Nov-21 15:23 (p 1 of 2) URC102621 / 11-3453-2991

Purple Sea Urchin Sperm Cell Fertilization Test Aquatic Bioassay & Consulting Labs, Inc. Analysis ID: 11-1827-6916 Endpoint: Fertilization Rate **CETIS Version:** CETISv1.9.7 Analyzed: 11 Nov-21 15:23 Analysis: Parametric-Control vs Treatments Status Level: Edit Date: 11 Nov-21 15:22 MD5 Hash: 60D03B39C1A683F842A843697DC95FFF Editor ID: 000-189-126-0 Batch ID: 15-0142-5550 Test Type: Fertilization Analyst: Start Date: 26 Oct-21 16:00 EPA/600/R-95/136 (1995) Protocol: Diluent: Laboratory Seawater Ending Date: 26 Oct-21 16:40 Species: Strongylocentrotus purpuratus Brine: Not Applicable Test Length: 40m Taxon: Echinoidea Source: Ventura Dive Age: Sample ID: 11-9277-7508 Code: URC102621 Project: Sample Date: 26 Oct-21 16:00 Material: Copper chloride Source: Reference Toxicant Receipt Date:

CAS (PC): Station: **REF TOX**

2.356

35.29

Sample Age: ---Client: Internal Lab

100*

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	MSDu	PMSD
Angular (Corrected)	C > T	18	32	24		0.04118	4.44%

Dunnett Multiple Comparison Test Control Conc-µg/L Test Stat Critical MSD DF P-Type P-Value Decision(a:5%) Negative Control 18 -1.72 2.356 0.072 6 CDF 0.9963 Non-Significant Effect 32* 7.652 2.356 0.072 6 CDF <1.0E-05 Significant Effect 56* 25.48 2.356 0.072 6 CDF <1.0E-05 Significant Effect

0.072 6

CDF

<1.0E-05

Significant Effect

Test Acceptabili	ty Criteria	TAC Limits			
Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	0.9275	0.7	>>	Yes	Passes Criteria
PMSD	0.0444	<<	0.25	No	Passes Criteria

ANOVA Table Source Sum Squares Mean Square DF F Stat P-Value Decision(α:5%) Between 3.98206 0.995514 4 533.3 <1.0E-05 Significant Effect 0.0280012 0.0018668 15 Error

Total 4.01006 19 **ANOVA Assumptions Tests**

Attribute	Test	Test Stat	Critical	P-Value	Decision(a:1%)
Variance	Bartlett Equality of Variance Test	3.877	13.28	0.4229	Equal Variances
	Levene Equality of Variance Test	2.507	4.893	0.0861	Equal Variances
	Mod Levene Equality of Variance Test	2.04	4.893	0.1402	Equal Variances
Distribution	Anderson-Darling A2 Test	0.6491	3.878	0.0907	Normal Distribution
	D'Agostino Kurtosis Test	0.2084	2.576	0.8349	Normal Distribution
	D'Agostino Skewness Test	0.2395	2.576	0.8107	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.1008	9.21	0.9508	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1931	0.2235	0.0489	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9424	0.866	0.2661	Normal Distribution

Fertilization Ra	ate Summary										
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	0.9275	0.9075	0.9475	0.9300	0.9100	0.9400	0.0063	1.36%	0.00%
18		4	0.9500	0.9089	0.9911	0.9500	0.9200	0.9800	0.0129	2.72%	-2.43%
32		4	0.7650	0.7250	0.8050	0.7700	0.7300	0.7900	0.0126	3.29%	17.52%
56		4	0.2475	0.2077	0.2873	0.2600	0.2100	0.2600	0.0125	10.10%	73.32%
100		4	0.0500	0.0110	0.0890	0.0450	0.0300	0.0800	0.0123	48.99%	94.61%
180		4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%

Report Date: Test Code/ID: 11 Nov-21 15:23 (p 2 of 2)

URC102621 / 11-3453-2991

Purple Sea Urchin Sperm Cell Fertilization Test

Aquatic Bioassay & Consulting Labs, Inc. CETISv1.9.7

Analysis ID: 11-1827-6916 Analyzed: 11 Nov-21 15:23

Edit Date:

Endpoint: Fertilization Rate Analysis:

Parametric-Control vs Treatments MD5 Hash: 60D03B39C1A683F842A843697DC95FFF **CETIS Version:** Status Level:

Editor ID:

000-189-126-0

11 Nov-21 15:22 Angular (Corrected) Transformed Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.2990	1.2610	1.3370	1.3030	1.2660	1.3230	0.0119	1.84%	0.00%
18		4	1.3510	1.2520	1.4510	1.3460	1.2840	1.4290	0.0312	4.61%	-4.05%
32		4	1.0650	1.0180	1.1120	1.0710	1.0240	1.0950	0.0147	2.76%	18.00%
56		4	0.5203	0.4733	0.5673	0.5351	0.4760	0.5351	0.0148	5.67%	59.94%
100		4	0.2206	0.1314	0.3098	0.2108	0.1741	0.2868	0.0280	25.41%	83.02%
180		4	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0000	0.00%	96.15%

Fertilization Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.9300	0.9400	0.9300	0.9100	
18		0.9600	0.9800	0.9400	0.9200	
32		0.7700	0.7900	0.7300	0.7700	
56		0.2600	0.2600	0.2600	0.2100	
100		0.0300	0.0800	0.0600	0.0300	
180		0.0000	0.0000	0.0000	0.0000	

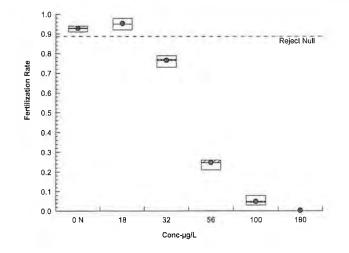
Angular (Corrected) Transformed Detail

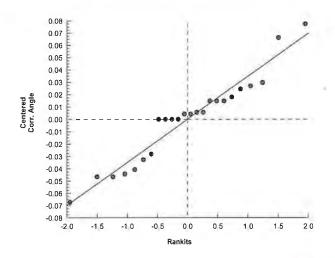
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.3030	1.3230	1.3030	1.2660	
18		1.3690	1.4290	1.3230	1.2840	
32		1.0710	1.0950	1.0240	1.0710	
56		0.5351	0.5351	0.5351	0.4760	
100		0.1741	0.2868	0.2475	0.1741	
180		0.0500	0.0500	0.0500	0.0500	

Fertilization Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	93/100	94/100	93/100	91/100
18		96/100	98/100	94/100	92/100
32		77/100	79/100	73/100	77/100
56		26/100	26/100	26/100	21/100
100		3/100	8/100	6/100	3/100
180		0/100	0/100	0/100	0/100

Graphics





Report Date:

11 Nov-21 15:23 (p 1 of 2)

Test Code/ID: URC102621 / 11-3453-2991 Purple Sea Urchin Sperm Cell Fertilization Test Aquatic Bioassay & Consulting Labs, Inc. 05-6827-1771 Analysis ID: Fertilization Rate **CETIS Version:** CETISv1.9.7 Endpoint: 11 Nov-21 15:23 Analyzed: Analysis: Linear Interpolation (ICPIN) Status Level: **Edit Date:** 11 Nov-21 15:22 MD5 Hash: 60D03B39C1A683F842A843697DC95FFF Editor ID: 000-189-126-0 Batch ID: 15-0142-5550 Test Type: Fertilization Analyst: Start Date: 26 Oct-21 16:00 Protocol: EPA/600/R-95/136 (1995) Diluent: Laboratory Seawater Ending Date: 26 Oct-21 16:40 Species: Strongylocentrotus purpuratus Brine: Not Applicable Test Length: 40m Taxon: Ventura Dive Echinoidea Source: Age: Sample ID: 11-9277-7508 Code: URC102621 Project: Sample Date: 26 Oct-21 16:00 Material: Copper chloride Source: Reference Toxicant REF TOX Receipt Date: CAS (PC): Station: Sample Age: ---Client: Internal Lab **Linear Interpolation Options** X Transform Y Transform Seed Resamples Exp 95% CL Method Linear Linear 0 280 Yes Two-Point Interpolation **Test Acceptability Criteria TAC Limits** Test Stat Overlap Decision Lower Upper Control Resp 0.9275 0.7 >> Yes Passes Criteria **Point Estimates** 95% UCL Level μg/L 95% LCL EC10 25.56 24.15 27.07 EC15 29.35 27.3 31.6 EC20 32.65 30.69 34.04 33.33 EC25 34.83 36.12 EC40 41.36 40.05 42.4 EC50 45.71 44.52 46.75 **Fertilization Rate Summary** Calculated Variate(A/B) Isotonic Variate Median Mean %Effect Code Min CV% %Effect A/B Conc-µg/L Count Mean Max 0 Ν 4 0.9275 0.9300 0.9100 0.9400 1.36% 0.00% 371/400 0.9388 0.00% 18 4 0.9500 0.9500 0.9200 0.9800 2.72% -2.43% 380/400 0.9388 0.00% 32 4 0.7650 0.7700 0.7300 0.7900 3.29% 17.52% 306/400 0.7650 18.51% 56 4 0.2475 0.2600 0.2100 0.2600 10.10% 73.32% 99/400 0.2475 73.64% 100 4 0.0500 0.0450 0.0300 0.0800 48.99% 94.61% 20/400 0.0500 94.67% 4 180 0.0000 0.0000 0.0000 0.0000 100.00% 0/400 0.0000 100.00% Fertilization Rate Detail Conc-µg/L Code Rep 1 Rep 2 Rep 3 Rep 4 0 Ν 0.9300 0.9400 0.9300 0.9100 18 0.9600 0.9800 0.9400 0.9200 0.7700 32 0.7900 0.7300 0.7700 0.2600 0.2600 0.2600 0.2100 56 100 0.0300 0.0800 0.0600 0.0300 180 0.0000 0.0000 0.0000 0.0000 **Fertilization Rate Binomials** Conc-µg/L Code Rep 1 Rep 2 Rep 3 Rep 4 0 N 93/100 94/100 93/100 91/100 18 96/100 98/100 94/100 92/100 77/100 73/100 77/100 32 79/100 56 26/100 26/100 26/100 21/100

3/100

0/100

6/100

0/100

100

180

3/100

0/100

8/100

0/100

Report Date:

11 Nov-21 15:23 (p 2 of 2)

Test Code/ID:

URC102621 / 11-3453-2991

Purple	Sea	Urchin	Sperm	Cell	Fertilization 1	Test

Aquatic Bioassay & Consulting Labs, Inc.

CETISv1.9.7

Analysis ID: 05-0 Analyzed: 11 I Edit Date: 11 I

05-6827-1771 11 Nov-21 15:23 11 Nov-21 15:22 Endpoint: Fertilization Rate

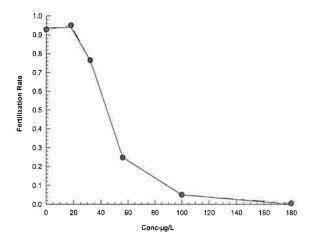
Analysis: Linear Interpolation (ICPIN)

MD5 Hash: 60D03B39C1A683F842A843697DC95FFF

CETIS Version: Status Level:

Editor ID: 000-189-126-0

Graphics



Test Length: 40m

Purple Sea Urchin Sperm Cell Fertilization Test

Report Date:

Source:

11 Nov-21 15:23 (p 1 of 3)

Age:

Test Code/ID: URC102621 / 11-3453-2991

Aquatic Bioassay & Consulting Labs, Inc.

D-4-E ID	. 45 0440 5550	T 4 T	Enablished to a		

Taxon:

Diluent:

Ventura Dive

Analyst: Batch ID: 15-0142-5550 Test Type: Fertilization 26 Oct-21 16:00 Protocol:

Start Date: EPA/600/R-95/136 (1995) Laboratory Seawater Ending Date: 26 Oct-21 16:40 Strongylocentrotus purpuratus Species: Brine: Not Applicable

Sample ID: 11-9277-7508 Code: URC102621 Project:

Echinoidea

Sample Date: 26 Oct-21 16:00 Material: Copper chloride Source: Reference Toxicant

Receipt Date: CAS (PC): Station: **REF TOX**

Sample Age: ---Client: Internal Lab

Parameter Acceptability Criteria			TAC	Limits				
Parameter	Min	Max	Lower	Upper	Overlap	Decision		
Salinity	34	34	32	36	Yes	Passes Criteria		
Temperature	15.7	15.7	11	13	Yes	Above Criteria		

Dissolved Oxygen-mg/L													
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count		
0	N	2	7.2	7.188	7.212	7.2	7.2	0	0	0.00%	0		
18		2	7.15	5.244	9.056	7	7.3	0.1061	0.2121	2.97%	0		
32		2	7.2	7.188	7.212	7.2	7.2	0	0	0.00%	0		
56		2	7.2	7.188	7.212	7.2	7.2	0	0	0.00%	0		
100		2	7.1	7.086	7.114	7.1	7.1	0	0	0.00%	0		
180		2	7.1	7.086	7.114	7.1	7.1	0	0	0.00%	0		
Overall		12	7.158	7.108	7.209	7	7.3	0.02289	0.0793	1.11%	0 (0%)		

pH-Units											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	2	7.9	7.884	7.916	7.9	7.9	0	0	0.00%	0
18		2	7.9	7.884	7.916	7.9	7.9	0	0	0.00%	0
32		2	8	8	8	8	8	0	0	0.00%	0
56		2	8	8	8	8	8	0	0	0.00%	0
100		2	8	8	8	8	8	0	0	0.00%	0
180		2	8	8	8	8	8	0	0	0.00%	0
Overall		12	7.967	7.935	7.998	7.9	8	0.01421	0.04924	0.62%	0 (0%)

Salinity-ppt												
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count	
0	N	2	34	34	34	34	34	0	0	0.00%	0	
18		2	34	34	34	34	34	0	0	0.00%	0	
32		2	34	34	34	34	34	0	0	0.00%	0	
56		2	34	34	34	34	34	0	0	0.00%	0	
100		2	34	34	34	34	34	0	0	0.00%	0	
180		2	34	34	34	34	34	0	0	0.00%	0	
Overall		12	34	34	34	34	34	0	0	0.00%	0 (0%)	

Temperature-°C											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
18		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
32		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
56		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
100		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
180		2	15.7	15.68	15.72	15.7	15.7	0	0	0.00%	0
Overall		12	15.7	15.7	15.7	15.7	15.7	0	0	0.00%	0 (0%)

Report Date:

11 Nov-21 15:23 (p 2 of 3)

Test Code/ID:

URC102621 / 11-3453-2991

Purple Sea I	Urchin Sperm	Cell	Fertilization	Test
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Aquatic Bios	assay & Co	onsulting	Labs,	Inc.
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Dissolved Oxy	gen-mg/L								
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.2					
18				7.3					
32				7.2					
56				7.2					
100				7.1					
180				7.1					
0	N	2		7.2					
18				7					
32				7.2					
56				7.2					
100				7.1					
180				7.1					

pH-Units

Conc-µg/L	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.9				
18				7.9				
32				8				
56				8				
100				8				
180				8				
0	N	2		7.9				
18				7.9				
32				8				
56				8				
100				8				
180				8				

Salinity-ppt

ounnity ppt								
Conc-µg/L	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		34				
18				34				
32				34				
56				34				
100				34				
180				34				
0	N	2		34				
18				34				
32				34				
56				34				
100				34				
180				34				



Report Date: Test Code/ID: 11 Nov-21 15:23 (p 3 of 3) URC102621 / 11-3453-2991

Purple Sea Urchin Sperm Cell Fertilization Test

Temperature-°0	3								
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		15.7					
18				15.7					
32				15.7					
56				15.7					
100				15.7					
180				15.7					
0	N	2		15.7					
18				15.7					
32				15.7					
56				15.7					
100				15.7					
180				15.7					



CHRONIC TOPSMELT SURVIVAL AND GROWTH BIOASSAY

DATE:

26 October - 2021

STANDARD TOXICANT:

Copper Chloride

ENDPOINT:

SURVIVAL

NOEC =

180.00 ug/l

EC25 =

166.70 ug/l

EC50 =

221.20 ug/l

ENDPOINT:

GROWTH

NOEC =

100.00 ug/l

IC25 =

136.00 ug/l

IC50 =

172.70 ug/l

Yours very truly

lu

Scott Johnson

Laboratory Director

*25ppt

CETIS Summary Report

Report Date: Test Code/ID: 15 Nov-21 12:29 (p 1 of 2) TOPS102621 / 17-2646-6053

Pacific Topsi	melt 7-d Surviva	Land Grov											
		allu Glo	vth Test						Aqua	itic B	lioassay & 0	Consulting	Labs, Inc.
Batch ID: Start Date: Ending Date: Test Length:	00-1515-9415 26 Oct-21 13:15 02 Nov-21 12:20 6d 23h	5 Pr 0 S p	st Type: otocol: ecies: xon:	Growth-Surviva EPA/600/R-95/ Atherinops affir Actinopterygii	136 (1995)			Di Br	nalyst: luent: rine: ource:	Not	oratory Seav Applicable atic Biosyste		Age: 9d
Receipt Date		5 Ma	de: aterial: aS (PC):	TOPS102621 Copper chloride	9			Sc	oject: ource: ation:	Ref	TOX erence Toxic TOX	ant	
Sample Age:			ent:	Internal Lab									
	nparison Summa	ary											
Analysis ID	Endpoint			parison Method		•		NOEL	LOE	L	TOEL	PMSD	S
	7d Survival Rate			Many-One Rank				180	320		240	17.0%	
08-3001-4194 	Mean Dry Biom	ass-mg	Steel	Many-One Rank	Sum Test	•	/	100	180		134.2	15.4%	1
Point Estima	te Summary												
Analysis ID	Endpoint		Point	Estimate Meth	od		/	Level	μg/L		95% LCL	95% UCL	S
00-2935-7520	7d Survival Rate	е	Linea	Interpolation (I	CPIN)			EC10	118.		77.47	162.7	1
					•			EC15	134.	7	93.17	198.8	
								EC20	150.	7	111.8	205.9	
								EC25	166.	7	122.2	210.3	
								EC40	201.4	1	152.5	230.2	
								EC50	221.2	2	175.6	245.2	
18-0144 - 8912	Mean Dry Biom	ass-mg	Linear	Interpolation (I	CPIN)	,	/	IC10	114		104.8	122.8	1
						,	/	IC15	121.3	3	110.9	134	
						,	/	IC20	128.	7	116.3	145.2	
						,	/	IC25	136		120.9	158	
						,	/	IC40	158.	1	136.1	194.5	
							/	IC50	172.	7	146.4	221.6	
Test Accepta	bility					TAC	lin	nite					
Analysis ID	Endpoint		Attrib	ute	Test Stat	Lower		Upper	Over	lap	Decision		
00-2935-7520	7d Survival Rate	9	Contro	ol Resp	0.92	0.8		>>	Yes		Passes Cr	iteria	
15-8083-8163	7d Survival Rate	Э	Contro	ol Resp	0.92	0.8		>>	Yes		Passes Cr	iteria	
08-3001-4194	Mean Dry Bioma	ass-mg	Contro	ol Resp	1.405	0.85		>>	Yes		Passes Cr	iteria	
18-0144-8912	Mean Dry Bioma	ass-mg	Contro	ol Resp	1.405	0.85		>>	Yes		Passes Cr	iteria	
15-8083-8163	7d Survival Rate	Э	PMSE)	0.1696	<<		0.25	No		Passes Cr	iteria	
7 d Commissed D													
i a Survivai R	late Summary												
	Rate Summary Code	Count	Mean	95% LCL	95% UCL	Min		Max	Std E	rr	Std Dev	CV%	%Effect
Conc-µg/L		Count 5	Mean 0.9200		95% UCL 1.0560	Min 0.8000		Max 1.0000	Std E 0.049		Std Dev 0.1095	CV% 11.91%	%Effect 0.00%
Conc-µg/L	Code			0.7840						90			
Conc-μg/L 0 56	Code	5	0.920	0.7840 0.1.0000	1.0560	0.8000		1.0000	0.049	90 00	0.1095	11.91%	0.00%
Conc-µg/L 0 56 100	Code	5 5	0.9200	0 0.7840 0 1.0000 0 0.7840	1.0560 1.0000	0.8000 1.0000		1.0000 1.0000	0.049	90 90	0.1095 0.0000	11.91%	0.00% -8.70%
Conc-μg/L 0 56 100 180	Code	5 5 5	0.9200 1.0000 0.9200	0.7840 0.1.0000 0.7840 0.4579	1.0560 1.0000 1.0560	0.8000 1.0000 0.8000		1.0000 1.0000 1.0000	0.049 0.000 0.049	90 90 90	0.1095 0.0000 0.1095	11.91% 11.91%	0.00% -8.70% 0.00%
Conc-µg/L 0 56 100 180 320	Code	5 5 5 5	0.9200 1.0000 0.9200 0.6800	0.7840 0.1.0000 0.7840 0.4579 0.0000	1.0560 1.0000 1.0560 0.9021	0.8000 1.0000 0.8000 0.4000		1.0000 1.0000 1.0000 0.8000	0.049 0.000 0.049 0.080	90 90 90 90	0.1095 0.0000 0.1095 0.1789	11.91% 11.91% 26.31%	0.00% -8.70% 0.00% 26.09%
Conc-µg/L 0 56 100 180 320 560	Code	5 5 5 5 5 5	0.9200 1.0000 0.9200 0.6800 0.0000	0.7840 0.1.0000 0.7840 0.4579 0.0000	1.0560 1.0000 1.0560 0.9021 0.0000	0.8000 1.0000 0.8000 0.4000 0.0000		1.0000 1.0000 1.0000 0.8000 0.0000	0.049 0.000 0.049 0.080 0.000	90 90 90 90	0.1095 0.0000 0.1095 0.1789 0.0000	11.91% 11.91% 26.31%	0.00% -8.70% 0.00% 26.09% 100.00%
Conc-µg/L 0 56 100 180 320 560 Mean Dry Bio	Code N	5 5 5 5 5 5	0.9200 1.0000 0.9200 0.6800 0.0000	0.7840 0.1.0000 0.7840 0.4579 0.0000	1.0560 1.0000 1.0560 0.9021 0.0000	0.8000 1.0000 0.8000 0.4000 0.0000		1.0000 1.0000 1.0000 0.8000 0.0000	0.049 0.000 0.049 0.080 0.000	90 90 90 90 90	0.1095 0.0000 0.1095 0.1789 0.0000	11.91% 11.91% 26.31%	0.00% -8.70% 0.00% 26.09% 100.00%
Conc-µg/L 0 56 100 180 320 560 Mean Dry Bio Conc-µg/L	Code N	5 5 5 5 5 5	0.9200 1.0000 0.9200 0.6800 0.0000	0 0.7840 0 1.0000 0 0.7840 0 0.4579 0 0.0000 0 0.0000	1.0560 1.0000 1.0560 0.9021 0.0000 0.0000	0.8000 1.0000 0.8000 0.4000 0.0000 0.0000		1.0000 1.0000 1.0000 0.8000 0.0000 0.0000	0.049 0.000 0.049 0.080 0.000	90 90 90 90 90 90 90	0.1095 0.0000 0.1095 0.1789 0.0000 0.0000	11.91% 11.91% 26.31% 	0.00% -8.70% 0.00% 26.09% 100.00%
Conc-µg/L 0 56 100 180 320 560 Mean Dry Bio Conc-µg/L	Code N omass-mg Summ Code	5 5 5 5 5 5 5 Count	0.9200 1.0000 0.9200 0.6800 0.0000 0.0000	0 0.7840 0 1.0000 0 0.7840 0 0.4579 0 0.0000 0 0.0000	1.0560 1.0000 1.0560 0.9021 0.0000 0.0000	0.8000 1.0000 0.8000 0.4000 0.0000 0.0000		1.0000 1.0000 1.0000 0.8000 0.0000 0.0000	0.049 0.000 0.049 0.080 0.000 0.000	90 90 90 90 90 90 90	0.1095 0.0000 0.1095 0.1789 0.0000 0.0000	11.91% 11.91% 26.31% 	0.00% -8.70% 0.00% 26.09% 100.00% 100.00%
Conc-µg/L 0 56 100 180 320 560	Code N omass-mg Summ Code	5 5 5 5 5 5 5 Count	0.9200 1.0000 0.9200 0.6800 0.0000 0.0000 Mean	0 0.7840 0 1.0000 0 0.7840 0 0.4579 0 0.0000 0 0.0000 95% LCL 1.375	1.0560 1.0000 1.0560 0.9021 0.0000 0.0000 95% UCL	0.8000 1.0000 0.8000 0.4000 0.0000 0.0000 Min 1.378		1.0000 1.0000 1.0000 0.8000 0.0000 0.0000 Max 1.43	0.048 0.000 0.048 0.000 0.000 0.000	90 90 90 90 90 90 90 90	0.1095 0.0000 0.1095 0.1789 0.0000 0.0000 Std Dev	11.91% 11.91% 26.31% CV% 1.75%	0.00% -8.70% 0.00% 26.09% 100.00% 0.00%
Conc-µg/L 0 56 100 180 320 560 Mean Dry Bio Conc-µg/L 0 56	Code N omass-mg Summ Code	5 5 5 5 5 5 5 Count	0.9200 1.0000 0.9200 0.6800 0.0000 0.0000 Mean 1.405 1.446	0 0.7840 0 1.0000 0 0.7840 0 0.4579 0 0.0000 0 0.0000 95% LCL 1.375 1.386 1.341	1.0560 1.0000 1.0560 0.9021 0.0000 0.0000 95% UCL 1.436 1.506	0.8000 1.0000 0.8000 0.4000 0.0000 0.0000 Min 1.378 1.416		1.0000 1.0000 1.0000 0.8000 0.0000 0.0000 Max 1.43 1.532	0.048 0.000 0.048 0.000 0.000 0.000 Std E	90 90 90 90 90 90 90 90	0.1095 0.0000 0.1095 0.1789 0.0000 0.0000 Std Dev 0.0246 0.04828	11.91% 11.91% 26.31% CV% 1.75% 3.34%	0.00% -8.70% 0.00% 26.09% 100.00% 100.00% %Effect 0.00% -2.93%

100.00%

560

CETIS Summary Report

560

Report Date: Test Code/ID: 15 Nov-21 12:29 (p 2 of 2) TOPS102621 / 17-2646-6053

							Test Code/ID:	TOPS102621 / 17-2646-6053
Pacific Topsm	elt 7-d Surviv	al and Grov	th Test				Aquatic Bi	oassay & Consulting Labs, Inc.
7d Survival Ra	te Detail						MD5: D8B71F2A	\27BF1D955925BFDBFF3FE85B
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5		
0	N	1.0000	0.8000	1.0000	1.0000	0.8000		
56		1.0000	1.0000	1.0000	1.0000	1.0000		
100		1.0000	0.8000	1.0000	1.0000	0.8000		
180		0.8000	0.8000	0.4000	0.8000	0.6000		
320		0.0000	0.0000	0.0000	0.0000	0.0000		
560		0.0000	0.0000	0.0000	0.0000	0.0000		
Mean Dry Bion	nass-mg Deta	nil					MD5: 083515B2	CC037868AABD6E16B87D986C
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5		
0	N	1.43	1.378	1.424	1.414	1.38		
56		1.424	1.426	1.434	1.532	1.416		
100		1.468	1.314	1.41	1.454	1.45		
180		0.874	0.792	0.368	0.9	0.278		
320		0	0	0	0	0		
560		0	0	0	0	0		
7d Survival Ra	te Binomials							
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5		
0	N	5/5	4/5	5/5	5/5	4/5		
56		5/5	5/5	5/5	5/5	5/5		
100		5/5	4/5	5/5	5/5	4/5		
180		4/5	4/5	2/5	4/5	3/5		
320		0/5	0/5	0/5	0/5	0/5		

0/5

0/5

0/5

0/5

0/5

Report Date: Test Code/ID:

15 Nov-21 12:29 (p 1 of 4) TOPS102621 / 17-2646-6053

					_						1631	Code/IL	101	310202171	7-2040-00
Pacific Topsn	nelt 7	d Surviva	l and G	rowth Test	t							Aquati	c Bioassay &	Consulting	g Labs, In
Analysis ID: Analyzed:		083-8163 ov-21 12:28	2	Endpoint: Analysis:		Survival Rat		l vo T	Frankm anta			IS Versions		1.9.7	
Edit Date:		ov-21 12:28		-		B71F2A27B						us Level or ID:	: 1 000-189	a-126 - 0	
Batch ID:	_	515-9415					_							7 120 0	
Start Date:		ct-21 13:15	;	Protocol:		owth-Surviva A/600/R-95/	` '	05)			Anal	•	abaratan, Sa	nuotor	
Ending Date:				Species:		erinops affir	,	95)			Dilu		_aboratory Sea		
Test Length:			,	Taxon:		inopterygii	113								Age: 9
				Taxon.	AUL	mopterygn				Source:			ce: Aquatic Biosystems, CO		
•		313-9310		Code:		PS102621					Proj	ect: F	REF TOX		
Sample Date:	26 O	ct-21 13:15		Material:		oper chloride)				Soul		Reference Tox	ticant	
Receipt Date:				CAS (PC):							Stati	on: F	REF TOX		
Sample Age:				Client:	Inte	ernal Lab									
Data Transfor			Alt H						NOEL	LOE	L	TOEL	TU	MSDu	PMSD
Angular (Corre	cted)		C > T						180	320		240		0.156	16.96%
Steel Many-O	ne Ra	nk Sum Te	est												
	vs	Conc-µg	/L		Stat		Ties		P-Type	P-Va			on(α:5%)		
Negative Contr	ol	56		32.5		17	1	8	CDF	0.96			ignificant Effec		
		100		27.5		17	2	8	CDF	0.75			gnificant Effec		
		180		18		17	1	8	CDF	0.05	95 ——	Non-Si	gnificant Effec	ot	
Test Acceptab	ility (Criteria	T/	AC Limits											
Attribute		Test Stat	Lowe	r Uppe	er	Overlap	Decis	ion							
Control Resp		0.92	8.0	>>		Yes	Passe	es Cr	riteria						
PMSD		0.1696	<<	0.25		No	Passe	es Cr	riteria						
ANOVA Table															
Source		Sum Squa	ares	Mear	n Squ	ıare	DF		F Stat	P-Va	lue	Decisi	on(α:5%)		
Between		0.375283		0.125	5094		3		7.133	0.00	29	Signific	cant Effect		
Error		0.2806		0.017	75375	5	16		_						
Total		0.655882					19								
ANOVA Assun	nptio	ns Tests													
Attribute		Test					Test S	Stat	Critical	P-Va	lue	Decisi	on(α:1%)		
Variance		Bartlett Eq	uality o	f Variance	Test							Indeter	minate		
				of Variance			11.56		5.292	0.00	03	Unequ	al Variances		
		Mod Lever	ne Equa	ality of Varia	ance '	Test	0.973	5	5.953	0.43	73	Equal \	Variances		
Distribution		Anderson-	-				1.239		3.878	0.00			ormal Distribut	tion	
		D'Agostino					0.164		2.576	0.86			I Distribution		
		D'Agostino				- .	1.677		2.576	0.09			I Distribution		
		_		on K2 Omn		lest	2.841		9.21	0.24			l Distribution		
		•		nov D Test Iormality Te			0.233		0.2235 0.866	0.00		Non-Normal Distribution Non-Normal Distribution			
7.1.0	4. 0		TIK VV IV	ioinianty re	,51		0.003		0.000	0.00	03	INOTHIN	Jilliai Distribu	lion	
7d Survival Ra Conc-µg/L	ie Sl	Code	Coun	t Mear		95% LCL	95% L	וכו	Median	NA:⊷		Max	Std Err	CV9/	0/, E#a a*
One-pg/L		N	5	0.920		0.7840	1.0000		1.0000	Min 0.80	00	Max 1.0000		CV% 11.91%	%Effect 0.00%
56			5	1.000		1.0000	1.0000		1.0000	1.00		1.0000		0.00%	-8.70%
100			5	0.920		0.7840	1.0000		1.0000	0.80		1.0000		11.91%	0.00%
180			5	0.680		0.4579	0.902		0.8000	0.40		0.8000		26.31%	26.09%
320			5	0.000		0.0000	0.0000		0.0000	0.00		0.0000			100.009
T00			_	0.000		0.0000		_	0.0000	0.00					400.000



100.00%

0.0000

0.0000

0.0000

0.0000

0.0000

5

0.0000

0.0000

560

Report Date: Test Code/ID:

15 Nov-21 12:29 (p 2 of 4) TOPS102621 / 17-2646-6053

7d Survival Rate

Pacific	Topsmelt	7-d	Survival	and	Growth	Test

CETIS Version: CETISv1.9.7

Analysis ID: 15-8083-8163 Analyzed:

Edit Date:

15 Nov-21 12:28 Analysis: 15 Nov-21 12:28

Endpoint:

Nonparametric-Control vs Treatments MD5 Hash: D8B71F2A27BF1D955925BFDBFF3FE85B Editor ID:

Status Level:

000-189-126-0

Aquatic Bioassay & Consulting Labs, Inc.

Angular (Corrected) Transformed Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	5	1.2500	1.0880	1.4120	1.3450	1.1070	1.3450	0.0583	10.43%	0.00%
56		5	1.3450	1.3450	1.3460	1.3450	1.3450	1.3450	0.0000	0.00%	-7.62%
100		5	1.2500	1.0880	1.4120	1.3450	1.1070	1.3450	0.0583	10.43%	0.00%
180		5	0.9784	0.7425	1.2140	1.1070	0.6847	1.1070	0.0850	19.43%	21.73%
320		5	0.2255	0.2255	0.2256	0.2255	0.2255	0.2255	0.0000	0.00%	81.96%
560		5	0.2255	0.2255	0.2256	0.2255	0.2255	0.2255	0.0000	0.00%	81.96%

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.0000	0.8000	1.0000	1.0000	0.8000
56		1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	0.8000	1.0000	1.0000	0.8000
180		0.8000	0.8000	0.4000	0.8000	0.6000
320		0.0000	0.0000	0.0000	0.0000	0.0000
560		0.0000	0.0000	0.0000	0.0000	0.0000

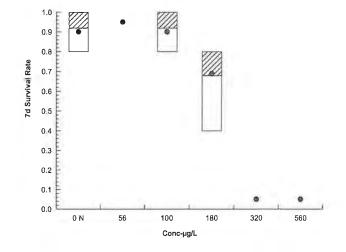
Angular (Corrected) Transformed Detail

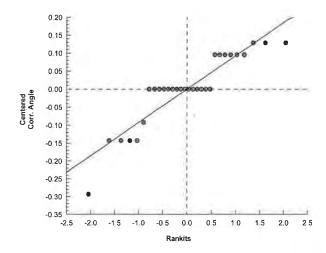
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.3450	1.1070	1.3450	1.3450	1.1070
56		1.3450	1.3450	1.3450	1.3450	1.3450
100		1.3450	1.1070	1.3450	1.3450	1.1070
180		1.1070	1.1070	0.6847	1.1070	0.8861
320		0.2255	0.2255	0.2255	0.2255	0.2255
560		0.2255	0.2255	0.2255	0.2255	0.2255

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	5/5	4/5	5/5	5/5	4/5	
56		5/5	5/5	5/5	5/5	5/5	
100		5/5	4/5	5/5	5/5	4/5	
180		4/5	4/5	2/5	4/5	3/5	
320		0/5	0/5	0/5	0/5	0/5	
560		0/5	0/5	0/5	0/5	0/5	

Graphics







Report Date: Test Code/ID: 15 Nov-21 12:29 (p 3 of 4) TOPS102621 / 17-2646-6053

· -	ieit /-u Jui	vivai and	Growth Test	t							Aqua	tic Bi	oassay &	Consulting	j Labs, Ind
Analysis ID:	- ,										S Vers	2.0	CETISV	1.9.7	
Analyzed:			-		nparametric-						s Leve	el:	1		
Edit Date:	15 Nov-21	12:28	MD5 Hash	: 083	515B2CC03	7868A	ABD	6E16B87D	986C	Edito	r ID:		000-189	-126-0	
Batch ID:	00-1515-94	15	Test Type	Gro	wth-Survival	(7d)				Analy	/st:				
Start Date:	26 Oct-21	13:15	Protocol:	EPA	4/600/R - 95/1	136 (19	95)		1	Dilue	nt:	Labo	ratory Sea	water	
Ending Date:	02 Nov-21	12:20	Species:	Ath	erinops affin	is			1	Brine):	Not A	Applicable		
Test Length:	6d 23h		Taxon:	Acti	inopterygii				:	Sour	ce:	Aqua	tic Biosys	tems, CO	Age: 90
Sample ID:	11-6813-93	10	Code:	TOF	PS102621					Proje	ct:	REF	TOX		
Sample Date:	26 Oct-21	13:15	Material:	Cop	per chloride					Sour			ence Toxi	cant	
Receipt Date:			CAS (PC):							Statio		REF			
Sample Age:			Client:		rnal Lab										
Data Transfor	m	Alt	Нур					NOEL	LOEL		TOEL		TU	MSDu	PMSD
Untransformed		C >						100	180		134.2		and the second	0.2165	15.41%
Steel Many-Or	ne Rank Su	m Test													
Control	vs Con	c-µg/L	Test	Stat	Critical	Ties	ÐF	P-Type	P-Val	lue	Decis	sion(a	ı:5%)		
Negative Contr			35.5		17	1	8	CDF	0.995	55			cant Effec	t	
	100		32		17	0	8	CDF	0.960)6	Non-S	Signifi	cant Effec	t	
	180*		15		17	0	8	CDF	0.012	23	Signif	icant	Effect		
Test Acceptab	ility Criteri	a	TAC Limits												
	Toct	Stat Lov			Overden	Dania	:								
Attribute	Test	Stat LOV	sei obbe	er	Overlap	Decis	1011								
	1.405		- 13	er	Yes	Passe		iteria							
Control Resp			- 13	er				iteria							
Control Resp	1.405		5 >>	er n Squ	Yes			iteria F Stat	P-Val	lue	Decis	sion(a	:5%)		
Control Resp ANOVA Table Source	1.405	0.8 Squares	5 >>	n Squ	Yes	Passe			P-Val <1.0E		Decis Signif	<u> </u>			
Control Resp ANOVA Table Source Between	1.405 Sum	0.88 Squares 91	5 >> Mear 0.764	n Squ	Yes	Passe		F Stat				<u> </u>			
Control Resp ANOVA Table Source Between Error	1.405 Sum 2.292	0.88 Squares 91 896	5 >> Mear 0.764	n Squ 4305	Yes	DF 3		F Stat				<u> </u>			
Control Resp ANOVA Table Source Between Error Total	1.405 Sum 2.292 0.377 2.670	0.85 Squares 91 896 81	5 >> Mear 0.764	n Squ 4305	Yes	DF 3 16		F Stat				<u> </u>			
Control Resp ANOVA Table Source Between Error Total ANOVA Assur	1.405 Sum 2.292 0.377 2.670 nptions Test	Squares 91 896 81	Mean 0.764 0.023	n Squ 4305 36185	Yes	DF 3 16	es Cr	F Stat		E-05		icant	Effect		
Control Resp ANOVA Table Source Between Error Total ANOVA Assun Attribute	1.405 Sum 2.292 0.377 2.670 nptions Test Bartle	Squares 91 896 81 sts	Mean 0.764 0.023	n Squ 1305 36185 Test	Yes	DF 3 16 19	es Cr	F Stat 32.36	<1.0E	E-05	Signif Decis Unequ	icant l	Effect i:1%) ariances		
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Control Resp ANOVA Table Source Between Error Total ANOVA Assure Attribute Variance	Sum 2.292 0.377 2.670 nptions Test Bartle Lever	Squares 91 896 81 sts ett Equality ne Equality Levene Eq	Mean 0.764 0.023 of Variance of Variance uality of Variance	n Squ 1305 36185 Test	Yes	DF 3 16 19 Test S 23.42 30.16 4.53	es Cr	F Stat 32.36 Critical 11.34 5.292 5.953	P-Val 3.3E- <1.0E 0.024	ue 05 -05	Decis Uneque Uneque Equal	icant lision(α ual Va ual Varia	Effect I:1%) ariances ariances ances		
Control Resp ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I	Squares 91 896 81 sts ett Equality ne Equality Levene Equares	Mear 0.764 0.023 of Variance of Variance quality of Variance quality of Variance	n Squ 1305 36185 Test	Yes	DF 3 16 19 Test S 23.42 30.16 4.53 1.268	es Cr	F Stat 32.36 Critical 11.34 5.292 5.953 3.878	P-Val 3.3E- <1.0E 0.024 0.002	Uue 05 E-05	Decis Unequ Unequ Equal Non-N	icant liston(a ual Va ual Varia	Effect 1:1%) ariances ariances ances al Distribut	ion	
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Control Resp ANOVA Table Source Between Error Total ANOVA Assure Attribute Variance	Sum 2.292 0.377 2.670 nptions Test Bartle Level Mod I Ande D'Age D'Age	Squares 91 896 81 sts ett Equality ne Equality evene Equality rson-Darling	Mean 0.764 0.023 v of Variance v of Variance puality of Variance puality of Variance puality of Variance pusitive for the control of the con	n Squ 1305 36185 Test Test	Yes rare	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514	es Cr	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130	05 E-05 1	Decis Uneque Equal Non-N Norma	icant lision(a ual Va ual Varia Vorma al Disi	Effect a:1%) ariances ariances ances ances al Distribut tribution tribution	ion	
Control Resp ANOVA Table Source Between Error Total ANOVA Assure Attribute Variance	Sum 2.292 0.377 2.670 nptions Test Bartle Level Mod I Ande D'Age D'Age D'Age	Squares 91 896 81 sts ett Equality ne Equality Levene Equality stino Kurt ostino Sker	Mean 0.764 0.023 of Variance of Variance unuality of Variance upality of Variance the A2 Test the A2 Test whees Test whees Test wress Test	n Squ 4305 36185 Test Test Test ance	Yes rare	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57	Stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061	Uue 05 E-05 -1 -1 -1 -1 -1 -1 -1 -1	Decis Unequ Unequ Equal Non-N Norma Norma	sion(a ual Va ual Varia Varia Norma al Disi al Disi	Effect a:1%) ariances ariances ances al Distribut tribution tribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assure Attribute Variance	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Age D'Age Kolm	Squares 91 896 81 sts ett Equality ne Equality Levene Equarion Curt ostino Kurt ostino Ske ostino-Pea	Mean 0.764 0.023 of Variance of Variance undity of Variance undity of Variance the A2 Test the A2 Test whese Test whese Test rson K2 Omr nirnov D Test	n Squ 4305 36185 Test Test Test ance	Yes rare	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647	Stat .	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000	05 E-05 1 4 12 17	Decis Uneque Equal Non-N Norma Norma Norma	icant liston(aual Varial Varial Discal Disca	Effect 1:1%) ariances ariances ances al Distribut tribution tribution tribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Age D'Age Kolm	Squares 91 896 81 sts ett Equality ne Equality Levene Equarion Curt ostino Kurt ostino Ske ostino-Pea	Mean 0.764 0.023 of Variance of Variance unuality of Variance upality of Variance the A2 Test the A2 Test whees Test whees Test wress Test	n Squ 4305 36185 Test Test Test ance	Yes rare	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57	Stat .	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061	05 E-05 1 4 12 17	Decis Uneque Equal Non-N Norma Norma Norma	icant liston(aual Varial Varial Discal Disca	Effect a:1%) ariances ariances ances al Distribut tribution tribution		
Control Resp ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance Distribution	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Ago D'Ago Kolm Shap	Squares 91 896 81 sts ett Equality ne Equality Levene Equasion Kurt ostino Kurt ostino Ske ostino-Pea ogorov-Sm ro-Wilk W	Meal 0.764 0.025 of Variance of Variance puality of Variance puality of Variance pusits Test cosis Test wness Test rson K2 Omr nirnov D Test	n Squ 4305 66185 Test Test Test ance	Yes rare Test	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647 0.8827	stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235 0.866	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000 0.019	05 E-05 1 4 12 17	Decis Uneque Equal Non-N Norma Norma Norma Norma Norma	sion(a ual Va ual Varia Norma al Dis al Dis Norma al Dis	Effect Effect E:1%) Eriances Ences El Distribut Eribution Eribution Eribution Eribution Eribution Eribution	ion	
Control Resp ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance Distribution	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Age D'Age Kolm Shap mass-mg S Code	Squares 91 896 81 sts ett Equality are Equality evene Equality evene Equality estino Kurt estino Ske estino-Pea egorov-Sm ro-Wilk W ummary Cou	Mean 0.764 0.023 of Variance of Variance quality of Variance qual	n Squ 4305 66185 Test Test Test ance	Yes Test Fest 95% LCL	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647 0.8827	stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235 0.866 Median	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000 0.019	iue 05 E-05 1 14 12 11 7	Decis Uneque Equal Non-N Norma Norma Norma Norma Norma	sion(a ual Varia Norma al Disi al Disi Norma	Effect Effect Ei:1%) Ariances Ar	ion	
Control Resp ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance Distribution Mean Dry Bior Conc-µg/L	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Ago D'Ago Kolm Shap	Squares 91 896 81 sts ett Equality ne Equality Levene Equation Skert stino Skert stino Skert stino-Pea sogorov-Smro-Wilk W ummary Cou	Mean 0.764 0.023 of Variance of Variance quality of Variance qual	n Squ 4305 36185 Test Test ance Tables	Yes Test 95% LCL 1.375	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647 0.8827 95% U 1.436	stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235 0.866 Median 1.414	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000 0.019 Min 1.378	iue 05 E-05 1 14 22 11 7	Decis Uneque Equal Non-N Norma Norma Norma Norma Norma 1,43	sion(α ual Varia Norma al Disi al Disi Norma	Effect Effect Ei:1%) Ariances Ar	CV% 1.75%	0.00%
Control Resp ANOVA Table Source Between Error Total ANOVA Assum Attribute Variance Distribution Mean Dry Bior Conc-µg/L	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Age D'Age Kolm Shap mass-mg S Code	Squares 91 896 81 sts ett Equality ne Equality Levene Equation Skert stino Skert stino Skert stino-Pea sogorov-Smro-Wilk W ummary Cou	Mear 0.764 0.023 of Variance of Variance of Variance puality of Variance puality of Variance puality of Variance puality of Variance vosis Test wness Test wness Test wness Test vness Test Normality Te	Test Test ance Tables	Yes Test 95% LCL 1.375 1.386	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647 0.8827 95% U 1.436 1.506	stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235 0.866 Median 1.414 1.426	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000 0.019 Min 1.378 1.416	iue 05 E-05 1 14 22 11 7	Decis Uneque Equal Non-N Norma Norma Norma Norma 1.43 1.532	sion(α ual Varia Norma al Disi al Disi Norma	Effect Effect Ei:1%) Ariances Ar	CV% 1.75% 3.34%	0.00% -2.93%
Control Resp ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance Distribution Mean Dry Bior Conc-µg/L 0 56 100	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Age D'Age Kolm Shap mass-mg S Code	Squares 91 896 81 sts ett Equality ne Equality evene Equality estino Kurt ostino Sker ostino-Pea ogorov-Sm ro-Wilk W ummary Cou	Mear 0.764 0.023 of Variance of Variance	Test Test Test Test Test Test Test Test	Yes Test 95% LCL 1.375 1.386 1.341	Passe DF 3 16 19 Test S 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647 0.8827 95% U 1.436 1.506 1.497	stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235 0.866 Median 1.414 1.426 1.45	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000 0.019 Min 1.378 1.416 1.314	Uue 05 6-05 11 44 22 11 7 7 7 8	Decis Uneque Equal Non-N Norma Norma Norma Norma 1.43 1.532 1.468	sion(α ual Varia Norma al Dis al Dis al Dis al Diss	Effect Effect Ei:1%) Ariances Ar	CV% 1.75% 3.34% 4.41%	0.00% -2.93% -1.00%
Attribute Control Resp ANOVA Table Source Between Error Total ANOVA Assun Attribute Variance Distribution Mean Dry Bior Conc-µg/L 0 56 100 180 320	Sum 2.292 0.377 2.670 nptions Test Bartle Lever Mod I Ande D'Age D'Age Kolm Shap mass-mg S Code	Squares 91 896 81 sts ett Equality ne Equality Levene Equation Skert stino Skert stino Skert stino-Pea sogorov-Smro-Wilk W ummary Cou	Mear 0.764 0.023 of Variance of Variance of Variance puality of Variance puality of Variance puality of Variance puality of Variance vosis Test wness Test wness Test wness Test vness Test Normality Te	Test Test Test Test Test Test Test Test	Yes Test 95% LCL 1.375 1.386	DF 3 16 19 23.42 30.16 4.53 1.268 1.811 1.514 5.57 0.2647 0.8827 95% U 1.436 1.506	stat	F Stat 32.36 Critical 11.34 5.292 5.953 3.878 2.576 2.576 9.21 0.2235 0.866 Median 1.414 1.426	P-Val 3.3E- <1.0E 0.024 0.002 0.070 0.130 0.061 0.000 0.019 Min 1.378 1.416	Uue 05 6-05 11 44 22 11 7 7 7 8	Decis Uneque Equal Non-N Norma Norma Norma Norma 1.43 1.532	sion(α ual Varia Norma al Dis al Dis al Dis al Diss	Effect Effect Ei:1%) Ariances Ar	CV% 1.75% 3.34%	-2.93%

Report Date: Test Code/ID:

Editor ID:

15 Nov-21 12:29 (p 4 of 4) TOPS102621 / 17-2646-6053

Aquatic Bioassay & Consulting Labs, Inc.

Pacific Topsmelt 7-d Survival and Growth Test

Mean Dry Biomass-mg Endpoint:

08-3001-4194 Analysis ID: Analyzed: 15 Nov-21 12:28

Analysis: 15 Nov-21 12:28 MD5 Hash: 083515B2CC037868AABD6E16B87D986C

Nonparametric-Control vs Treatments

CETIS Version:

CETISv1.9.7

000-189-126-0

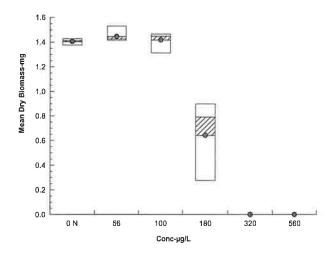
Status Level:

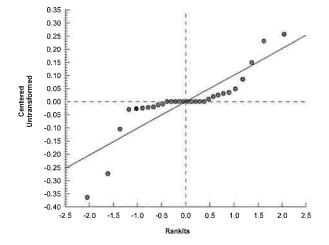
Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	N	1.43	1.378	1.424	1.414	1.38
56		1.424	1.426	1.434	1.532	1.416
100		1.468	1.314	1.41	1.454	1.45
180		0.874	0.792	0.368	0.9	0.278
320		0	0	0	0	0
560		0	0	0	0	0

Graphics

Edit Date:





Report Date:

15 Nov-21 12:29 (p 1 of 4)

Test Code/ID:

TOPS102621 / 17-2646-6053

									rest	Joue/ID:		IOPSI	02021/1	1-2040-00
Pacific	Topsn	nelt 7-d Survival	and Grow	th Test						Aquatic	Bioass	say & C	onsulting	g Labs, In
Analysi	is ID:	00-2935-7520	End	dpoint:	7d Survival Ra	ıte			CETIS	S Version	: CF	ETISv1.9	9.7	
Analyze	ed:	15 Nov-21 12:29	Ana Ana	lysis:	Linear Interpol	ation (ICPII	N)		Statu	s Level:	1			
Edit Da	ate:	15 Nov-21 12:28	MD.	5 Hash:	D8B71F2A27E	3F1D95592	5BFDBFF3	FE85B	Edito	r ID:	00	0-189-1	26-0	
Batch I	ID:	00-1515-9415	Tes	t Type:	Growth-Surviv	al (7d)			Analy	st:				
Start D	ate:	26 Oct-21 13:15		tocol:	EPA/600/R-95)		Dilue		oorator	ry Seaw	ater	
Ending	Date:	02 Nov-21 12:20	Spe	cies:	Atherinops affi				Brine		t Applie	•		
Test Le	ength:	6d 23h	Tax	on:	Actinopterygii				Sourc			Biosyster	ms, CO	Age: 9
Sample	e ID:	11-6813-9310	Cod	de:	TOPS102621				Proje	ct: RE	F TOX	(
Sample	e Date:	26 Oct-21 13:15	Mat	erial:	Copper chlorid	le			Source			e Toxica	ant	
Receip	t Date:		CAS	S (PC):					Static		F TOX			
Sample	e Age:		Clie	nt:	Internal Lab									
Linear	Interpo	lation Options												
X Trans	sform	Y Transform	See	d	Resamples	Exp 95°	% CL Met	thod						
Linear		Linear	0		280	Yes	Two	o-Point	Interpo	lation				
Test Ac	ceptab	ility Criteria	TAC L	imits.										
Attribut	te	Test Stat		Uppe	r Overlap	Decision	1							
Control	Resp	0.92	0.8	>>	Yes	Passes (Criteria							
Point E	stimate	es												
Level	μg/L	95% LCL	95% UCL											
EC10	118.7	77.47	162.7											
EC15	134.7	93.17	198.8											
EC20	150.7		205.9											
EC25	166.7		210.3											
EC40	201.4		230.2											
EC50	221.2	175.6	245.2											
		ate Summary		-			ulated Vari						Isoton	nic Variate
<mark>Conc-μ</mark> 0	ıg/L	Code	Count	Mean	Median	Min	Max	CV%		%Effect	A/B		Mean	%Effec
		N	5	0.9200		0.8000	1.0000	11.9		0.00%	23/2		0.9600	0.00%
56 100			5	1.0000		1.0000	1.0000	0.00		-8.70%	25/2		0.9600	0.00%
100			5	0.9200		0.8000	1.0000	11.9		0.00%	23/2		0.9200	4.17%
180			5	0.6800		0.4000	0.8000	26.3	1%	26.09%	17/2		0.6800	29.17%
320 560			5 5	0.0000		0.0000	0.0000			100.00%	0/25		0.0000	100.00
			5	0.0000	0.0000	0.0000	0.0000			100.00%	0/25	<u> </u>	0.0000	100.00
		ate Detail			-									
Conc-µ	g/L	Code N	Rep 1 1.0000	Rep 2		1.0000	Rep 5 0.8000		_					
5 56		14	1.0000	1.0000		1.0000	1.0000							
100			1.0000	0.8000		1.0000	0.8000							
180			0.8000											
				0.8000		0.8000	0.6000							
320 560			0.0000	0.0000		0.0000	0.0000							
	dive I D	As Div!-!	3.0000											
		ate Binomials Code	Rep 1	Don 2	Don 2	Don 4	Don 5							
Conc-µ _!	y/L	N	5/5	Rep 2 4/5	Rep 3 5/5	Rep 4 5/5	Rep 5 4/5							
56		IN	5/5 5/5	4/5 5/5	5/5 5/5									
						5/5 5/5	5/5							
100			5/5	4/5	5/5	5/5	4/5							
180			4/5	4/5	2/5	4/5	3/5							
320			0/5	0/5	0/5	0/5	0/5							
560			0/5	0/5	0/5	0/5	0/5							



Report Date:

15 Nov-21 12:29 (p 2 of 4)

Test Code/ID:

TOPS102621 / 17-2646-6053

Pacific Topsmelt 7-d Survival and Growth Test

15 Nov-21 12:28

Aquatic Bioassay & Consulting Labs, Inc.

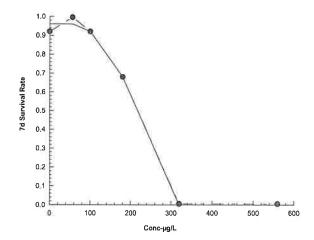
Analysis ID: 00-2935-7520 **Analyzed:** 15 Nov-21 12:29

935-7520 Endpoint: 7d Survival Rate ov-21 12:29 Analysis: Linear Interpolati

Analysis: Linear Interpolation (ICPIN) Status Lev MD5 Hash: D8B71F2A27BF1D955925BFDBFF3FE85B Editor ID:

CETIS Version: Status Level: CETISv1.9.7 1 000-189-126-0

Edit Date: Graphics



Report Date:

15 Nov-21 12:29 (p 3 of 4)

Test Code/ID:

TOPS102621 / 17-2646-6053

									Test Code	/ID:	TOPS1	02621 / 1	7-2646-605
Pacific	Topsn	nelt 7-d Survival	and Growt	h Test					Aqu	atic Bi	oassay & Co	onsultin	g Labs, Inc
Analys		18-0144-8912		point:	Mean Dry Bion	-			CETIS Ver		CETISv1.9).7	
Analyz Edit Da		15 Nov-21 12:29 15 Nov-21 12:28		lysis:	Linear Interpol	•	,	2070000	Status Lev	/el:	1		
Ean Da	ate:	15 NOV-21 12:28	NID:	Hasn:	083515B2CC0	37868AAB	D6E16	387D986C	Editor ID:		000-189-12	26-0	
Batch	ID:	00-1515-9415	Test	Type:	Growth-Surviva	al (7d)			Analyst:				
Start D	Date:	26 Oct-21 13:15	Prot	ocol:	EPA/600/R-95	/136 (1995))		Diluent:	Labo	ratory Seawa	ater	
Ending	g Date:	02 Nov-21 12:20	Spe	cies:	Atherinops affi	nis			Brine:	Not A	Applicable		
Test Le	ength:	6d 23h	Taxo	on:	Actinopterygii				Source:	Aqua	itic Biosyster	ns, CO	Age: 9d
Sample	e ID:	11-6813-9310	Cod	e:	TOPS102621				Project:	REF	TOX		
Sample	e Date:	26 Oct-21 13:15	Mate	erial:	Copper chlorid	е			Source:	Refe	rence Toxica	ınt	
Receip	ot Date:		CAS	(PC):					Station:	REF	TOX		
Sample	e Age:		Clie	nt:	Internal Lab								
Linear	Interpo	olation Options											
X Tran	sform	Y Transform	Seed	d	Resamples	Exp 95%	% CL	Method					
Linear		Linear	1683	3511	280	Yes		Two-Point	Interpolation	1			
Test A	cceptak	oility Criteria	TAC Li	imite									
Attribu	ite	Test Stat		Uppe	r Overlap	Decision	n						
Control		1.405	0.85	>>	Yes	Passes							
Doint F	Estimat	0.5					_						
Level	μg/L	95% LCL	95% UCL										
C10	114	104.8	122.8										
IC15	121.3		134										
IC20	128.7		145.2										
C25	136	120.9	158										
IC40	158.1		194.5										
IC50	172.7		221.6										
Mean D	Dry Bio	mass-mg Summ	агу			Ca	alculate	ed Variate				Isotoi	nic Variate
Conc-µ	ıg/L	Code	Count	Mean	Median	Min	Max	CV%	% %Ef	fect		Mean	%Effect
0	-	NI	E	1 10E	4 444	4 270	4.40	4 75	0/ 0.00	0/		4.400	0.000/

Mean Dry Biom	ean Dry Biomass-mg Summary				Isotonic Variate					
Conc-µg/L	Code	Count	Mean	Median	Min	Max	CV%	%Effect	Mean	%Effect
0	N	5	1.405	1.414	1.378	1.43	1.75%	0.00%	1.426	0.00%
56		5	1.446	1.426	1.416	1.532	3.34%	-2.93%	1.426	0.00%
100		5	1.419	1.45	1.314	1.468	4.41%	-1.00%	1.419	0.46%
180		5	0.6424	0.792	0.278	0.9	46.08%	54.28%	0.6424	54.94%
320		5	0	0	0	0		100.00%	0	100.00%
560		5	0	0	0	0		100.00%	0	100.00%

Mean Dr	Biomass-mg	Detail
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Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	N	1.43	1.378	1.424	1.414	1.38	
56		1.424	1.426	1.434	1.532	1.416	
100		1.468	1.314	1.41	1.454	1.45	
180		0.874	0.792	0.368	0.9	0.278	
320		0	0	0	0	0	
560		0	0	0	0	0	



Report Date:

15 Nov-21 12:29 (p 4 of 4)

Test Code/ID:

TOPS102621 / 17-2646-6053

Pacific	Topsmelt 7-d	Survival and	Growth Test
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Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed: Edit Date:

18-0144-8912 15 Nov-21 12:29 15 Nov-21 12:28

Endpoint: Mean Dry Biomass-mg Analysis:

Linear Interpolation (ICPIN)

MD5 Hash: 083515B2CC037868AABD6E16B87D986C

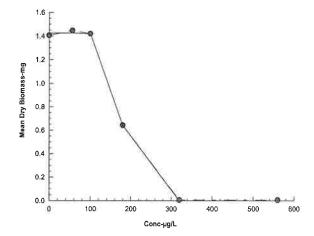
CETIS Version: Status Level:

Editor ID:

000-189-126-0

CETISv1.9.7

Graphics



Report Date:

15 Nov-21 12:29 (p 1 of 5)

Test Code/ID:

TOPS102621 / 17-2646-6053

Pacific	Topsmelt	7-d	Survival	and	Growth	Test
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Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: Start Date:

00-1515-9415 26 Oct-21 13:15

Protocol: Species:

Test Type: Growth-Survival (7d) EPA/600/R-95/136 (1995) Analyst: Diluent: Brine: Source:

Laboratory Seawater

Aquatic Biosystems, CO

Not Applicable

Age: 9d

Sample ID: 11-6813-9310

Test Length: 6d 23h

Taxon: Code:

Actinopterygii TOPS102621

Atherinops affinis

Project:

REF TOX

Sample Date: 26 Oct-21 13:15

Ending Date: 02 Nov-21 12:20

Material:

Copper chloride

Source: Reference Toxicant

Receipt Date:

CAS (PC): Client:

REF TOX

Sample Age: ---

Internal Lab

Station:

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.313	7.23	7.395	7.2	7.5	0.01239	0.0991	1.36%	0
56		8	7.225	7.109	7.341	7	7.4	0.01736	0.1389	1.92%	0
100		8	7.212	7.083	7.342	7	7.4	0.01941	0.1553	2.15%	0
180		8	7.2	7.074	7.326	7	7.4	0.0189	0.1512	2.10%	0
320		7	7.243	7.125	7.361	7.1	7.4	0.01818	0.1272	1.76%	0
560		2	7	7	7	7	7	0	0	0.00%	0
Overali		41	7.227	7.182	7.271	7	7.5	0.02209	0.1415	1.96%	0 (0%)

р	Н	-U	n	i	t
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Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.675	7.636	7.714	7.6	7.7	0.005786	0.04629	0.60%	0
56		8	7.65	7.587	7.713	7.5	7.7	0.009449	0.07559	0.99%	0
100		8	7.637	7.549	7.726	7.4	7.7	0.01326	0.1061	1.39%	0
180		8	7.587	7.483	7.692	7.4	7.7	0.01558	0.1246	1.64%	0
320		7	7.614	7.515	7.713	7.4	7.7	0.01527	0.1069	1.40%	0
560		2	7.65	7.015	8.285	7.6	7.7	0.03535	0.07071	0.92%	0
Overall		41	7.634	7.605	7.664	7.4	7.7	0.01465	0.09383	1.23%	0 (0%)

Salinity-ppt

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	25	25	25	25	25	0	0	0.00%	0
56		8	25	25	25	25	25	0	0	0.00%	0
100		8	25	25	25	25	25	0	0	0.00%	0
180		8	25	25	25	25	25	0	0	0.00%	0
320		8	25	25	25	25	25	0	0	0.00%	0
560		2	25	25	25	25	25	0	0	0.00%	0
Overall		42	25	25	25	25	25	0	0	0.00%	0 (0%)

Temperature-°C

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	21	21	21	21	21	0	0	0.00%	0
56		8	21	21	21	21	21	0	0	0.00%	0
100		8	21	21	21	21	21	0	0	0.00%	0
180		8	21	21	21	21	21	0	0	0.00%	0
320		8	21	21	21	21	21	0	0	0.00%	0
560		2	21	21	21	21	21	0	0	0.00%	0
Overall		42	21	21	21	21	21	0	0	0.00%	0 (0%)



Report Date: Test Code/ID: 15 Nov-21 12:29 (p 2 of 5) TOPS102621 / 17-2646-6053

Pacific Topsmelt 7-d Survival and Growth Test

Dissolved Oxy	Dissolved Oxygen-mg/L										
Conc-µg/L	Code	Read	Time	Measure QA Diff-% Inst ID Analyst Notes							
0	N	1		7.3							
56				7.2							
100				7.2							
180				7.1							
320				7.1							
560				7							
0	N	2		7.3							
56				7.2							
100				7.2							
180				7.3							
320				7.3							
560				7							
0	N	3		7.3							
56				7.4							
100				7.4							
180				7.4							
320				7.4							
0	N	4		7.2							
56				7							
100				7							
180				7.1							
320				7.2							
0	N	5		7.5							
56				7.4							
100				7.4							
180				7.4							
320				7.4							
0	N	6		7.4							
56				7.3							
100				7.3							
180				7.2							
320				7.2							
0	N	7		7.3							
56				7.2							
100				7.2							
180				7.1							
320				7.1							
0	N	8		7.2							
56				7.1							
100				7							
180				7							

Report Date: Test Code/ID: 15 Nov-21 12:29 (p 3 of 5) TOPS102621 / 17-2646-6053

Pacific Topsmelt 7-d Survival and Growth Test

pH-Units			
Conc-µg/L	Code	Read Time	Measure QA Diff-% Inst ID Analyst Notes
0	N	1	7.7
56			7.7
100			7.7
180			7.6
320			7.6
560			7.6
0	N	2	7.7
56			7.7
100			7.7
180			7.7
320			7.7
560			7.7
0	N	3	7.7
56			7.7
100			7.7
180			7.7
320			7.7
0	N	4	7.6
56		•	7.6
100			7.6
180			7.6
320			7.6
0	N	5	7.7
56			7.7
100			7.7
180			7.6
320			7.6
0	N	6	7.7
56			7.7
100			7.7
180			7.7
320			7.7
0	N	7	7.7
56			7.6
100			7.6
180			7.4
320			7.4
0	N	8	7.6
56			7.5
100			7.4
180			7.4



Report Date: Test Code/ID:

15 Nov-21 12:29 (p 4 of 5) TOPS102621 / 17-2646-6053

Pacific Topsmelt 7-d Survival and Growth Test

Salinity-ppt									
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		25					
56				25					
100				25					
180				25					
320				25					
560				25					
0	N	2		25					
56				25					
100				25					
180				25					
320				25					
560				25					
0	N	3		25					
56				25					
100				25					
180				25					
320				25					
0	N	4		25					
56				25					
100				25					
180				25					
320				25					
0	N	5		25					
56				25					
100				25					
180				25					
320				25					
0	N	6		25					
56				25					
100				25					
180				25					
320				25					
0	N	7		25					
56				25					
100				25					
180				25					
320				25					
0	N	8		25					
56				25					
100				25					
180				25					
320				25					



Report Date: Test Code/ID: 15 Nov-21 12:29 (p 5 of 5)

TOPS102621 / 17-2646-6053

Pacific Topsmelt 7-d Survival and Growth Test

Temperature-°C									
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		21					
56				21					
100				21					
180				21					
320				21					
560				21					
0	N	2		21					
56				21					
100				21					
180				21					
320				21					
560				21					
0	N	3		21					
56				21					
100				21					
180				21					
320				21					
0	N	4		21					
56				21					
100				21					
180				21					
320				21					
0	N	5		21					
56				21					
100				21					
180				21					
320				21					
0	Ν	6		21					
56				21					
100				21					
180				21					
320				21					
0	N	7		21					
56				21					
100				21					
180				21					
320				21					
0	N	8		21					
56				21					
100				21					
180				21					
320				21					





CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE:

26 October 2021

STANDARD TOXICANT:

Copper Chloride

ENDPOINT:

SURVIVAL

NOEC =

38.00 ug/l

EC25 =

61.64 ug/l

EC50 =

110.30 ug/l

ENDPOINT:

GROWTH

NOEC =

10.00 ug/l

IC25 =

31.64 ug/l

IC50 =

63.26 ug/l

Yours very truly

Scott Johnson

Laboratory Director

CETIS Summary Report

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 1 of 2) FML102621 / 02-5685-1639

Fathead Minn	now 7-d Larval Su	rvival and Grov	vth Test				Aqua	itic Bioas	ssay & C	Consulting	Labs, Inc.
Batch ID:	02-3240-9253		: Growth-Surviv	/al (7d)			Analyst:				
Start Date:	26 Oct-21 15:40	Protocol:	EPA/821/R-0	2-013 (2002)			Diluent;	Laborate	ory Wate	er	
_	02 Nov-21 14:23	Species:	Pimephales p				Brine:	Not App			
Test Length:	6d 23h	Taxon:	Actinopterygii				Source:	Aquatic	Biosyste	ems, CO	Age: <24
Sample ID:	15-3630-3073	Code:	FML102621				Project:	REF TO	X		
•	26 Oct-21 15:40	Material:	Copper chlori	de			Source:	Referen	ce Toxic	ant	
Receipt Date:		CAS (PC)					Station:	REF TO	X		
Sample Age:		Client:	ABC Labs								
Multiple Com	parison Summar	y									
Analysis ID	Endpoint		nparison Metho			NO			DEL	PMSD	
	7d Survival Rate		nett Multiple Cor			38	75		3.39	14.3%	
02-4606-2737	Mean Dry Biomas	ss-mg Stee	el Many-One Rar	k Sum Test		10	19	13	3.78	15.0%	4
Point Estimat	e Summary										
Analysis ID	Endpoint	Poi	nt Estimate Met	hod	√	Lev	el µg/L	95	% LCL	95% UCL	5
15-0669-1917	7d Survival Rate	Line	ar Interpolation (ICPIN)		EC1			2.77	55.86	
						EC1			.56	65.6	
						EC2	0 55.68	3 40).14	79.12	
						EC2		45	5.03	91.77	
						EC4).52	130.5	
						EC5			5.75	162.7	
10-5451-2610	Mean Dry Biomas	ss-mg Line	ar Interpolation (ICPIN)	✓	C10			2.18	25.73	
						IC1			5.22	29.13	
						IC20			.53	32.56	
					✓	IC2		1 26	5.82	37.02	
					✓			2 36	5.23	66.56	
						1C50	63.26	3 47	'.16	99.32	
Test Acceptat	oility				TAC L	imits					
Analysis ID	Endpoint		bute	Test Stat	Lower	Upp	er Over	lap De	ecision		
	7d Survival Rate		trol Resp	0.9667	0.8	>>	Yes		asses Cr		
	7d Survival Rate		trol Resp	0.9667	0.8	>>	Yes		asses Cr		
	Mean Dry Biomas	ū	trol Resp	0.3467	0.25	>>	Yes		asses Cr		
	Mean Dry Biomas	_	trol Resp	0.3467	0.25	>>	Yes		isses Cr		
02-4606-2737	Mean Dry Biomas	ss-mg PMS	SD	0.1499	0.12	0.3	Yes	Pa	asses Cr	iteria	
7d Survival R	ate Summary										
Conc-µg/L	Code	Count Mea				Max			d Dev	CV%	%Effect
Conc-µg/L 0	Code N	4 0.96	67 0.9054	1.0280	0.9333	1.00	00 0.019	0.0	0385	3.98%	0.00%
Conc-µg/L 0 10	Code N	4 0.96 4 0.96	67 0.9054 67 0.9054	1.0280 1.0280	0.9333 0.9333	1.00 1.00	00 0.019 00 0.019	0.0	0385 0385	3.98% 3.98%	0.00%
Conc-µg/L 0 10 19	Code N	4 0.96 4 0.96 4 0.95	67 0.9054 67 0.9054 00 0.8484	1.0280 1.0280 1.0520	0.9333 0.9333 0.8667	1.00 1.00 1.00	00 0.019 00 0.019 00 0.031	9 0.0 9 0.0	0385 0385 0638	3.98% 3.98% 6.72%	0.00% 0.00% 1.72%
Conc-µg/L 0 10 19 38	Code N	4 0.96 4 0.96 4 0.95 4 0.91	67 0.9054 67 0.9054 00 0.8484 67 0.7832	1.0280 1.0280 1.0520 1.0500	0.9333 0.9333 0.8667 0.8000	1.00 1.00 1.00 1.00	00 0.019 00 0.019 00 0.031 00 0.041	0.0 9 0.0 9 0.0	0385 0385 0638 0839	3.98% 3.98% 6.72% 9.15%	0.00% 0.00% 1.72% 5.17%
Conc-µg/L 0 10 19 38 75	Code N	4 0.96 4 0.96 4 0.95	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999	1.0280 1.0280 1.0520 1.0500 0.9334	0.9333 0.9333 0.8667	1.00 1.00 1.00	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099	93 0.0 9 0.0 9 0.0 9 0.0	0385 0385 0638	3.98% 3.98% 6.72% 9.15% 32.28%	0.00% 0.00% 1.72%
Conc-µg/L 0 10 19 38 75	Code N	4 0.96 4 0.95 4 0.91 4 0.61 4 0.33	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999	1.0280 1.0280 1.0520 1.0500	0.9333 0.9333 0.8667 0.8000 0.3333	1.00 1.00 1.00 1.00 0.80	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099	93 0.0 9 0.0 9 0.0 9 0.0	0385 0385 0638 0839 1991	3.98% 3.98% 6.72% 9.15%	0.00% 0.00% 1.72% 5.17% 36.21%
Conc-µg/L 0 10 19 38 75 150 Mean Dry Biol	Code N mass-mg Summa	4 0.96 4 0.96 4 0.95 4 0.91 4 0.61 4 0.33	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999 33 0.1042	1.0280 1.0280 1.0520 1.0500 0.9334 0.5625	0.9333 0.9333 0.8667 0.8000 0.3333 0.2000	1.00 1.00 1.00 1.00 0.80 0.53	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099 33 0.072	03 0.0 93 0.0 9 0.0 9 0.0 95 0.7	0385 0385 0638 0839 1991 1440	3.98% 3.98% 6.72% 9.15% 32.28% 43.20%	0.00% 0.00% 1.72% 5.17% 36.21% 65.52%
Conc-µg/L 0 10 19 38 75 150 Mean Dry Biol	Code N mass-mg Summa Code	4 0.96 4 0.95 4 0.91 4 0.61 4 0.33	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999 33 0.1042 n 95% LCL	1.0280 1.0280 1.0520 1.0500 0.9334 0.5625	0.9333 0.9333 0.8667 0.8000 0.3333 0.2000	1.00 1.00 1.00 1.00 0.80 0.53	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099 33 0.072	03 0.0 03 0.0 9 0.0 9 0.0 9 0.0 20 0.7	0385 0385 0638 0839 1991 1440	3.98% 3.98% 6.72% 9.15% 32.28% 43.20%	0.00% 0.00% 1.72% 5.17% 36.21% 65.52%
Conc-µg/L 0 10 19 38 75 150 Mean Dry Biot Conc-µg/L	Code N mass-mg Summa Code N	4 0.96 4 0.95 4 0.91 4 0.61 4 0.33 Try Count Mea	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999 33 0.1042 n 95% LCL 67 0.3423	1.0280 1.0280 1.0520 1.0500 0.9334 0.5625 95% UCL 0.3511	0.9333 0.9333 0.8667 0.8000 0.3333 0.2000 Min 0.3433	1.00 1.00 1.00 1.00 0.80 0.53 Max 0.35	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099 33 0.072 Std E	03 0.0 03 0.0 9 0.0 9 0.0 9 0.0 5 0.7 Err Sto	0385 0385 0638 0839 1991 1440 d Dev	3.98% 3.98% 6.72% 9.15% 32.28% 43.20% CV% 0.80%	0.00% 0.00% 1.72% 5.17% 36.21% 65.52% %Effect 0.00%
Conc-µg/L 0 10 19 38 75 150 Mean Dry Bior Conc-µg/L 0 10	Code N mass-mg Summa Code N	4 0.96 4 0.96 4 0.91 4 0.61 4 0.33 Try Count Mea 4 0.34 4 0.34	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999 33 0.1042 n 95% LCL 67 0.3423 17 0.3331	1.0280 1.0280 1.0520 1.0500 0.9334 0.5625 - 95% UCL 0.3511 0.3503	0.9333 0.9333 0.8667 0.8000 0.3333 0.2000 Min 0.3433 0.3367	1.00 1.00 1.00 1.00 0.80 0.53 Max 0.35	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099 33 0.072 Std E 0.001 67 0.002	03 0.0 9 0.0 9 0.0 9 0.0 05 0.7 00 0.7	0385 0385 0638 0839 1991 1440 d Dev 002776 005402	3.98% 3.98% 6.72% 9.15% 32.28% 43.20% CV% 0.80% 1.58%	0.00% 0.00% 1.72% 5.17% 36.21% 65.52% %Effect 0.00% 1.44%
Conc-µg/L 0 10 19 38 75 150 Mean Dry Bion Conc-µg/L 0 10	Code N mass-mg Summa Code N	4 0.96 4 0.96 4 0.95 4 0.91 4 0.61 4 0.33 Try Count Mea 4 0.34 4 0.34 4 0.32	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999 33 0.1042 n 95% LCL 67 0.3423 17 0.3331 03 0.2735	1.0280 1.0280 1.0520 1.0500 0.9334 0.5625 95% UCL 0.3511 0.3503 0.3672	0.9333 0.9333 0.8667 0.8000 0.3333 0.2000 Min 0.3433 0.3367 0.278	1.00 1.00 1.00 0.80 0.53 Max 0.35 0.34	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099 33 0.072 Std E 0.001 67 0.002 07 0.014	03 0.0 9 0.0 9 0.0 9 0.0 05 0.7 00 0.7 388 0.0 701 0.0	0385 0385 0638 0839 1991 1440 d Dev 002776 005402 02943	3.98% 3.98% 6.72% 9.15% 32.28% 43.20% CV% 0.80% 1.58% 9.19%	0.00% 0.00% 1.72% 5.17% 36.21% 65.52% %Effect 0.00% 1.44% 7.60%
Conc-µg/L 0 10 19 38 75	Code N mass-mg Summa Code N	4 0.96 4 0.95 4 0.91 4 0.61 4 0.33 Try Count Mea 4 0.34 4 0.34 4 0.32	67 0.9054 67 0.9054 00 0.8484 67 0.7832 67 0.2999 33 0.1042 n 95% LCL 67 0.3423 17 0.3331 03 0.2735 97 0.1929	1.0280 1.0280 1.0520 1.0500 0.9334 0.5625 - 95% UCL 0.3511 0.3503	0.9333 0.9333 0.8667 0.8000 0.3333 0.2000 Min 0.3433 0.3367	1.00 1.00 1.00 1.00 0.80 0.53 Max 0.35	00 0.019 00 0.019 00 0.031 00 0.041 00 0.099 33 0.072 Std E 0.001 67 0.002 07 0.014 07 0.011	03 0.0 9 0.0 9 0.0 9 0.0 95 0.7 20 0.7 388 0.0 7701 0.0 771 0.0 56 0.0	0385 0385 0638 0839 1991 1440 d Dev 002776 005402	3.98% 3.98% 6.72% 9.15% 32.28% 43.20% CV% 0.80% 1.58%	0.00% 0.00% 1.72% 5.17% 36.21% 65.52% %Effect 0.00% 1.44%

CETIS Summary Report

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 2 of 2) FML102621 / 02-5685-1639

						rest coderib.	FINIL 102021 / 02-3003-1039
Fathead Minne	ow 7-d Larval	Survival an	d Growth T	est		Aquatic E	Bioassay & Consulting Labs, Inc.
7d Survival Ra	ite Detail					MD5: 0DF6A66	63A531DA491F0EB29D2AD222B0
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4		
0	N	0.9333	1.0000	0.9333	1.0000		
10		0.9333	1.0000	0.9333	1.0000		
19		0.9333	0.8667	1.0000	1.0000		
38		0.9333	0.8000	0.9333	1.0000		
75		0.3333	0.6667	0.6667	0.8000		
150		0.2667	0.5333	0.2000	0.3333		

Mean Dry Biom	nass-mg Deta	ii				MD5: 4651F3821D6807F88FFB8DA6373F939D
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.3433	0.346	0.3473	0.35	
10		0.3467	0.3373	0.346	0.3367	
19		0.3227	0.278	0.3407	0.34	
38		0.2207	0.2313	0.2607	0.206	
75		0.08267	0.1453	0.1513	0.2093	
150		0.03733	0.098	0.01867	0.08733	

7d	Survival	Rate	Bino	mials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	14/15	15/15	14/15	15/15
10		14/15	15/15	14/15	15/15
19		14/15	13/15	15/15	15/15
38		14/15	12/15	14/15	15/15
75		5/15	10/15	10/15	12/15
150		4/15	8/15	3/15	5/15

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 1 of 4) FML102621 / 02-5685-1639

Fathead Minn	ow 7-d Larva	l Survival	and Growth	Test				Aquatic	Bioassay &	Consulting	g Labs, Ind
Analysis ID:	03-7142-384	2 I	Endpoint: 7	d Survival Ra	te		CET	IS Version	: CETISV	1.9.7	
Analyzed:	15 Nov-21 12	2:37	Analysis: F	arametric-Co	ntrol vs Tre	atments	State	us Level:	1		
Edit Date:	15 Nov-21 12	2:37	MD5 Hash: 0	DF6A663A53	1DA491F0	EB29D2AD	222B0 Edit	or ID:	000-189	9-126-0	
Batch ID:	02-3240-925	3 -	Test Type: G	Frowth-Surviva	al (7d)		Anal	yst:			
Start Date:	26 Oct-21 15	:40	Protocol: E	PA/821/R-02	-013 (2002)		Dilu	-	poratory Wa	iter	
Ending Date:	02 Nov-21 14	1:23	Species: P	imephales pr	omelas		Brin		t Applicable		
Test Length:	6d 23h	-	Taxon: A	ctinopterygii			Sour	r ce : Aq	uatic Biosys	stems, CO	Age: <
Sample ID:	15-3630-307	3 (Code: F	ML102621			Proje	ect: RE	F TOX		
Sample Date:	26 Oct-21 15	:40 I	Material: C	opper chlorid	е		Soui		ference Tox	cicant	
Receipt Date:			CAS (PC):				Stati		F TOX		
Sample Age:				BC Labs					,		
Data Transfor	m	Alt Hy	/p			NOEL	LOEL	TOEL	TU	MSDu	PMSD
Angular (Corre		C > T				38	75	53.39		0.138	14.27%
Dunnett Multi	ple Comparis	on Test									
Control	vs Conc-		Test Sta	at Critical	MSD D	F P-Type	P-Value	Decision	n(a:5%)		
Negative Conti			0	2.407	0.231 6	CDF	0.8333		ificant Effec	ct .	
	19		0.2929	2.407	0.231 6	CDF	0.7330	-	ificant Effe		
	38		0.869	2.407	0.231 6	CDF	0.4807	_	nificant Effec		
	75*		4.859	2.407	0.231 6	CDF	0.0003	Significa	nt Effect		
	150*		7.961	2.407	0.231 6	CDF	2.7E-05	Significa	nt Effect		
Test Acceptat	oility Criteria	т.	0.1.114								
Attribute	Test St		C Limits Upper	Overlap	Decision						
Control Resp	0.9667	0.8	>>	Yes	Passes C						
ANOVA Table											
Source	Sum S	quares	Mean S	quare	DF	F Stat	P-Value	Decision	ı(α:5%)		
Between	2.04253		0.40850		5	22.1	<1.0E-05	Significa	1		
Error	0.33274	45	0.01848	58	18			Ū			
Total	2.37527	7			23	_					
ANOVA Assur	nptions Tests	5									
Attribute	Test				Test Stat	Critical	P-Value	Decision	ι(α:1%)		
Variance	Bartlett	Equality of	Variance Tes	st	3.996	15.09	0.5500	Equal Va	riances		
			Variance Tes		0.6671	4.248	0.6533	Equal Va	riances		
	Mod Le	vene Equa	lity of Varianc	e Test	0.2566	4.248	0.9309	Equal Va	riances		
Distribution		on-Darling			0.4042	3.878	0.3590	Normal D	istribution		
		tino Kurtosi			0.5471	2.576	0.5843		istribution		
	_	tino Skewn			0.9735	2.576	0.3303		istribution		
	_		n K2 Omnibu	s lest	1.247	9.21	0.5360		istribution		
	_	orov-Smirn	ופא ט וest ormality Test		0.1207 0.9663	0.2056 0.884	0.4879 0.5763		istribution istribution		
			Jilliality 168t		0.9003	0.004	0.5765	Normai L	ristribution		
7d Survival Ra	ate Summary Code		Maan	050/. 1.01	05% 1101	Median	Min	May	C+4 E	CV9/	0/ E#= c4
Conc-µg/L	N	Count 4	Mean 0.9667	95% LCL 0.9054	95% UCL 1.0000	0.9667	Min 0.9333	Max 1.0000	Std Err 0.0192	CV% 3.98%	%Effect 0.00%
10	14	4	0.9667	0.9054	1.0000	0.9667	0.9333	1.0000	0.0192	3.98%	0.00%
19		4	0.9500	0.8484	1.0000	0.9667	0.8667	1.0000	0.0192	6.72%	1.72%
38		4	0.9167	0.7832	1.0000	0.9333	0.8000	1.0000	0.0319	9.15%	5.17%
75		4	0.6167	0.2999	0.9334	0.6667	0.3333	0.8000	0.0995	32.28%	36.21%
		•			•					, _	

43.20% 65.52%

0.0720

0.5333

0.5625

0.3000

0.2000

0.3333

0.1042

150

Report Date: Test Code/ID:

15 Nov-21 12:39 (p 2 of 4) FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 03-7142-3842 Analyzed:

Edit Date:

15 Nov-21 12:37

Endpoint: 7d Survival Rate

Analysis: Parametric-Control vs Treatments **CETIS Version:**

Status Level:

000-189-126-0

CETISv1.9.7

15 Nov-21 12:37 Angular (Corrected) Transformed Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	4	1.3750	1.2540	1.4960	1.3750	1.3100	1.4410	0.0380	5.53%	0.00%
10		4	1.3750	1.2540	1.4960	1.3750	1.3100	1.4410	0.0380	5.53%	0.00%
19		4	1.3470	1.1600	1.5350	1.3750	1.1970	1.4410	0.0589	8.75%	2.05%
38		4	1.2920	1.0720	1.5110	1.3100	1.1070	1.4410	0.0690	10.68%	6.07%
75		4	0.9083	0.5775	1.2390	0.9553	0.6155	1.1070	0.1040	22.89%	33.96%
150		4	0.6101	0.3678	0.8524	0.5791	0.4636	0.8188	0.0761	24.96%	55.64%

MD5 Hash: 0DF6A663A531DA491F0EB29D2AD222B0 Editor ID:

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	0.9333	1.0000	0.9333	1.0000	
10		0.9333	1.0000	0.9333	1.0000	
19		0.9333	0.8667	1.0000	1.0000	
38		0.9333	0.8000	0.9333	1.0000	
75		0.3333	0.6667	0.6667	0.8000	
150		0.2667	0.5333	0.2000	0.3333	

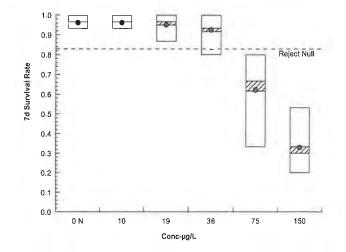
Angular (Corrected) Transformed Detail

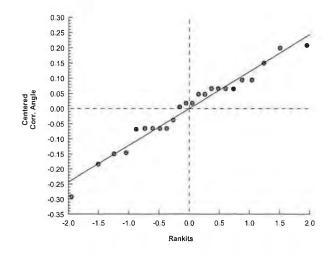
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	1.3100	1.4410	1.3100	1.4410	
10		1.3100	1.4410	1.3100	1.4410	
19		1.3100	1.1970	1.4410	1.4410	
38		1.3100	1.1070	1.3100	1.4410	
75		0.6155	0.9553	0.9553	1.1070	
150		0.5426	0.8188	0.4636	0.6155	

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	
0	N	14/15	15/15	14/15	15/15	
10		14/15	15/15	14/15	15/15	
19		14/15	13/15	15/15	15/15	
38		14/15	12/15	14/15	15/15	
75		5/15	10/15	10/15	12/15	
150		4/15	8/15	3/15	5/15	

Graphics





Report Date: Test Code/ID: 15 Nov-21 12:39 (p 3 of 4) FML102621 / 02-5685-1639

Analyzed: 15 No Edit Date: 15 No Batch ID: 02-32 Start Date: 26 Oc Ending Date: 02 No Test Length: 6d 2	606-2737 ov-21 12:37 ov-21 12:37 240-9253 ot-21 15:40 ov-21 14:23 3h 630-3073 ot-21 15:40 nk Sum Ter	End And MD Tes Pro Spo Tax Co Ma CA	dpoint: alysis: 5 Hash: t Type: tocol: ecies: con: de: terial: S (PC):	Mean Dry Bio. Nonparametri 4651F3821D6 Growth-Surviv EPA/821/R-02 Pimephales p Actinopterygii FML102621 Copper chlorio	c-Contro 6807F88f val (7d) 2-013 (20 romelas	i vs T FB8		St 39D Ec Ar Di Br	Aqua ETIS Vers atus Leve ditor ID: nalyst: duent: rine: purce:	sion: C	CETISv1 I 000-189- cory Wate	-126-0 er	
Analyzed: 15 No Edit Date: 15 No Edit Date: 15 No Edit Date: 26 Oo Ending Date: 02 No Test Length: 6d 2 Sample ID: 15-36 Sample Date: 26 Oo Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	ov-21 12:37 ov-21 12:37 240-9253 ot-21 15:40 ov-21 14:23 3h 630-3073 ot-21 15:40 nk Sum Ter	And MD Test Processor Sport Tax Continued Material Continued CA Click Alt Hyp	alysis: 5 Hash: 4 5 Hash: 5 Ha	Nonparametri 4651F3821D6 Growth-Surviv EPA/821/R-02 Pimephales p Actinopterygii FML102621 Copper chlorio	c-Contro 6807F88f val (7d) 2-013 (20 romelas	i vs T FB8		St 39D Ec Ar Di Br	atus Leve ditor ID: nalyst: duent: rine:	rel: 1 0 Laborate Not App	000-189- cory Wate	-126-0 er	
Edit Date: 15 No Batch ID: 02-32 Start Date: 26 Oc Ending Date: 02 No Test Length: 6d 2 Sample ID: 15-36 Sample Date: 26 Oc Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	ov-21 12:37 240-9253 ct-21 15:40 ov-21 14:23 3h 330-3073 ct-21 15:40 nk Sum Ter	And MD Test Processor Sport Tax Continued Material Continued CA Click Alt Hyp	alysis: 5 Hash: 4 5 Hash: 5 Ha	Nonparametri 4651F3821D6 Growth-Surviv EPA/821/R-02 Pimephales p Actinopterygii FML102621 Copper chlorio	c-Contro 6807F88f val (7d) 2-013 (20 romelas	i vs T FB8		St 39D Ec Ar Di Br	atus Leve ditor ID: nalyst: duent: rine:	rel: 1 0 Laborate Not App	000-189- cory Wate	-126-0 er	
Batch ID: 02-32 Start Date: 26 Of Ending Date: 02 No Test Length: 6d 2 Sample ID: 15-36 Sample Date: 26 Of Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	240-9253 ct-21 15:40 ov-21 14:23 3h 630-3073 ct-21 15:40 nk Sum Ter	Tes Pro Spo Tax Co Ma CA Clic	et Type: otocol: lecies: lecie	Growth-Surviv EPA/821/R-02 Pimephales p Actinopterygii FML102621 Copper chlorid	/al (7d) 2-013 (20 romelas		DA6373F9	Ar Di Br	nalyst: luent: rine:	Laborate Not App	ory Wate	er	
Start Date: 26 Or Ending Date: 02 Not Test Length: 6d 2 Sample ID: 15-36 Sample Date: 26 Or Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	ct-21 15:40 ov-21 14:23 3h 330-3073 ct-21 15:40 nk Sum Te:	Pro Spo Tax Co Ma CA Clic	otocol: ecies: con: de: terial: S (PC):	EPA/821/R-02 Pimephales p Actinopterygii FML102621 Copper chloric	2-013 (20 romelas	002)		Di Br	luent: rine:	Not App	olicable		
Ending Date: 02 No Test Length: 6d 2 Sample ID: 15-36 Sample Date: 26 Oc Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	ov-21 14:23 3h 330-3073 ot-21 15:40 nk Sum Te: Conc-µg/l	Spo Tax Co Ma CA Clic	de: terial: (S (PC):	Pimephales p Actinopterygli FML102621 Copper chlorid	romelas	002)		Di Br	luent: rine:	Not App	olicable		
Test Length: 6d 2 Sample ID: 15-36 Sample Date: 26 Oc Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	30-3073 ct-21 15:40 nk Sum Te: Conc-µg/l	Tax Co Ma CA Clid	de: terial: (S (PC):	Pimephales p Actinopterygli FML102621 Copper chlorid	romelas			Br	rine:	Not App	olicable		
Sample ID: 15-36 Sample Date: 26 Octoor Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	330-3073 ct-21 15:40 nk Sum Te: Conc-µg/l	Tax Co Ma CA Clid	de: terial: (S (PC):	Actinopterygli FML102621 Copper chlorid									
Sample Date: 26 Oc Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	nk Sum Te Conc-µg/l	Co Ma CA Clid	de: l terial: (S (PC):	FML102621 Copper chloric							. BIOSVStr	ems. CO	Age: <2
Sample Date: 26 Oc Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	nk Sum Te Conc-µg/l	Ma CA Clic	terial:	Copper chlorid	de			_					7.90.
Receipt Date: Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	nk Sum Te: Conc-µg/l	CA Clic Alt Hyp	S (PC):		de				oject:	REF TO			
Sample Age: Data Transform Untransformed Steel Many-One Ra Control vs	Conc-µg/l	Clic Alt Hyp		ADO 1					ource:		nce Toxio	cant	
Data Transform Untransformed Steel Many-One Ra Control vs	Conc-µg/l	Alt Hyp	ent: /					St	ation:	REF TO	ΣX		
Untransformed Steel Many-One Ra Control vs	Conc-µg/l			ABC Labs									
Steel Many-One Ra Control vs	Conc-µg/l	C > T					NOEL	LOEL	TOE		IJ	MSDu	PMSD
Control vs	Conc-µg/l						10	19	13.78	8		0.05196	14.99%
		st											
Negative Control			Test St	tat Critical	Ties	DF	P-Type	P-Value	e Deci	ision(α:5°	%)		
	10		13.5	10	1	6	CDF	0.2853	Non-	Significar	nt Effect		
	19*		10	10	0	6	CDF	0.0417	Signi	ificant Eff	fect		
	38*		10	10	0	6	CDF	0.0417	Signi	ificant Eff	fect		
	75*		10	10	0	6	CDF	0.0417	Signi	ificant Eff	fect		
	150*		10	10	0	6	CDF	0.0417	Signi	ificant Eff	fect		
Test Acceptability (riteria	TACI	imits										
Attribute	Test Stat	Lower	Upper	Overlap	Decis	sion							
Control Resp	0.3467	0.25	>>	Yes	Passe	es Cr	iteria						
PMSD	0.1499	0.12	0.3	Yes	Passe	es Cr	iteria						
ANOVA Table													
Source	Sum Squa	res	Mean S	Square	DF		F Stat	P-Value	e Deci	sion(α:5°	%)		
Between	0.276666		0.05533		5		59.38	<1.0E-0		ificant Eff			
Error	0.0167719		0.00093	318	18				Ü				
Total	0.293438				23		-						
ANOVA Assumption	ns Tests												
Attribute	Test				Test !	Stat	Critical	P-Value	e Deci	sion(a:1	9/4)		
Variance	Bartlett Equ	ality of Va	riance Te	est	19.58		15.09	0.0015		qual Varia		_	
Variation	Levene Equ				2.428		4.248	0.0753		al Varianc			
	Mod Leven				2.11		4.248	0.1112		al Varianc			
Distribution	Anderson-E			50 1000	0.752	9	3.878	0.0498		nal Distrib			
Didiribation	D'Agostino				1.259		2.576	0.2079		nal Distrib			
	D'Agostino				0.450		2.576	0.6523		nal Distrib			
	D'Agostino			ue Teet	1.789		9.21	0.4088		nal Distrib			
	Kolmogoro			45 1051	0.176		0.2056	0.0513		nal Distrib			
	Shapiro-Wi				0.951		0.884	0.2955		nal Distrib			
Mean Dry Biomass-													
•	Code	Count	Mean	95% LCL	. 95% l	ICI	Median	Min	Max	64	td Err	CV%	%Effect
	N	4	0.3467		0.351		0.3467	0.3433	0.35		001388	0.80%	0.00%
		4	0.3417		0.350		0.3417	0.3367	0.346		001300	1.58%	1.44%
0			0.3203		0.367				3.010				, . , .
0 10		4		3,2,00		_	0.3313	0.278	0.340				
Conc-µg/L 0 10 19 38		4					0.3313	0.278 0.206	0.340	0.0	01471	9.19%	7.60%
0 10		4 4 4	0.2297 0.1472	0.1929	0.266	5	0.3313 0.226 0.1483	0.278 0.206 0.08267	0.260	0.0 0.0			

Report Date:

15 Nov-21 12:39 (p 4 of 4)

Test Code/ID:

FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: Analyzed: Edit Date:

02-4606-2737 15 Nov-21 12:37 15 Nov-21 12:37 Endpoint: Mean Dry Biomass-mg

Analysis: Nonparametric-Control vs Treatments
MD5 Hash: 4651F3821D6807F88FFB8DA6373F939D

CETIS Version: Status Level:

Status Level: Editor ID:

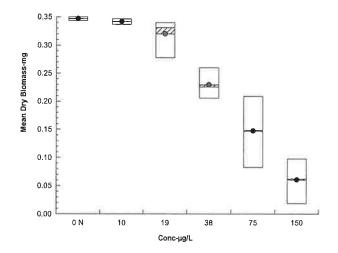
000-189-126-0

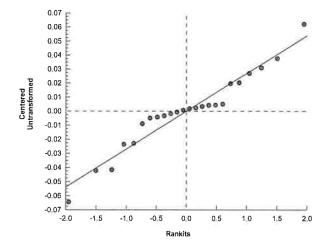
CETISv1.9.7

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3433	0.346	0.3473	0.35
10		0.3467	0.3373	0.346	0.3367
19		0.3227	0.278	0.3407	0.34
38		0.2207	0.2313	0.2607	0.206
75		0.08267	0.1453	0.1513	0.2093
150		0.03733	0.098	0.01867	0.08733

Graphics





Report Date:

15 Nov-21 12:39 (p 1 of 4)

Test Code/ID:

FML102621 / 02-5685-1639

Fathea	d Minno	w 7-d Larval S		Aq	uatic B	ioassay &	& Consulting	Labs, Inc.					
Analys	is ID:	15-0669-1917	End	lpoint:	7d Survival Ra	te			CETIS V	ersion:	CETIS	v1.9.7	
Analyz	ed:	15 Nov-21 12:38	B Ana	lysis:	Linear Interpola	ation (ICPII	N)		Status Lo	evel:	1		
Edit Da	ate: '	15 Nov-21 12:37	7 MD	5 Hash:	0DF6A663A53	1DA491F0	EB29D2AD	222B0	Editor ID	:	000-18	9-126-0	
Batch	ID: (02-3240-9253	Tes	t Type:	Growth-Surviva	al (7d)			Analyst:				
Start D	ate: 2	26 Oct-21 15:40	Pro	tocol:	EPA/821/R-02-	013 (2002)		Diluent:	Lab	oratory Wa	ater	
Ending	Date: (02 Nov-21 14:23	S Spe	cies:	Pimephales pro	omelas			Brine:	Not	Applicable	e	
Test Le	ength: 6	6d 23h	Tax	on:	Actinopterygii				Source:			stems, CO	Age: <24
Sample	e ID:	15-3630-3073	Cod	le:	FML102621				Project:	REF	TOX		
Sample	e Date: 2	26 Oct-21 15:40	Mat	erial:	Copper chlorid	е			Source:	Refe	erence Tox	xicant	
Receip	t Date:		CAS	6 (PC):					Station:	REF	TOX		
Sample	e Age: -	-	Clie	nt:	ABC Labs								
Linear	Interpol	ation Options											
X Tran	sform	Y Transform	n See	d	Resamples	Exp 959	% CL Met	thod					
Linear		Linear	0		280	Yes	Two	o-Point	Interpolation	on			
Test A	cceptabi	lity Criteria	TAC L	imits									
Attribu	te	Test Stat		Uppe	r Overlap	Decision	n						
Control	Resp	0.9667	0.8	>>	Yes	Passes (Criteria						
Point E	Estimate	s											
Level	μg/L	95% LCL	95% UCL										
EC10	43.76	22.77	55.86										
EC15	49.72	34.56	65.6										
EC20	55.68	40.14	79.12										
EC25	61.64	45.03	91.77										
EC40	84.71	50.52	130.5										
EC50	110.3	45.75	162.7										
7d Sur	vival Ra	te Summary				Calc	ulated Vari	ate(A/E	3)			Isotor	ic Variate
Conc-µ	ıg/L	Code	Count	Mean	Median	Min	Max	CV	% %E	Effect	A/B	Mean	%Effect
0		N	4	0.966	7 0.9667	0.9333	1.0000	3.98	3% 0.0	00%	58/60	0.9667	0.00%
10			4	0.966	7 0.9667	0.9333	1.0000	3.98	3% 0.0	00%	58/60	0.9667	0.00%
19			4	0.9500	0.9667	0.8667	1.0000	6.72	2% 1.7	72%	57/60	0.9500	1.72%
38			4	0.916		0.8000	1.0000	9.15	5% 5.1	7%	55/60	0.9167	5.17%
75			4	0.616		0.3333	0.8000	32.2		.21%	37/60	0.6167	36.21%
150			4	0.3333	3 0.3000	0.2000	0.5333	43.2	20% 65	.52%	20/60	0.3333	65.52%
7d Sur	vival Rat	te Detail											
Conc-µ	ıg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4							
0		N	0.9333	1.0000		1.0000							
10			0.9333	1.0000		1.0000							
19			0.9333	0.866		1.0000							
38			0.9333	0.8000		1.0000							
75 450			0.3333	0.6667		0.8000							
150			0.2667	0.5333	3 0.2000	0.3333							
7d Sur	vival Rat	te Binomials											
Conc-µ	ıg/L	Code	Rep 1	Rep 2		Rep 4							
0		N	14/15	15/15	14/15	15/15							
10			14/15	15/15	14/15	15/15							
19			14/15	13/15	15/15	15/15							
38			14/15	12/15	14/15	15/15							
~-			E I A E	40145	40145	40/45							

12/15

5/15

5/15

4/15

10/15

8/15

10/15

3/15

75

150

Report Date:

15 Nov-21 12:39 (p 2 of 4)

Test Code/ID:

FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analyzed: **Edit Date:**

Analysis ID: 15-0669-1917 15 Nov-21 12:38

15 Nov-21 12:37

Endpoint: 7d Survival Rate

Analysis: Linear Interpolation (ICPIN)

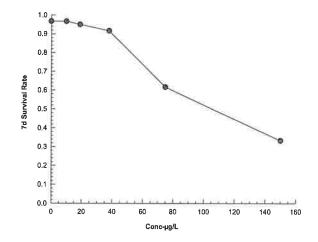
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CETIS Version:

Status Level:

CETISv1.9.7 000-189-126-0

Graphics



Report Date: Test Code/ID: 15 Nov-21 12:39 (p 3 of 4) FML102621 / 02-5685-1639

								Test Code/I	D:	FML102621 / 0	2-5685 -	1639
Fathea	d Minr	now 7-d Larval S	urvival and (Growt	h Test			Aqua	tic Bi	oassay & Consulting	Labs,	Inc.
Analys	is ID:	10-5451-2610	Endp	oint:	Mean Dry Biom	nass-mg		CETIS Vers	ion:	CETISv1.9.7		
Analyz	ed:	15 Nov-21 12:38	S Analy	/sis:	Linear Interpola	ation (ICPIN)		Status Leve	ıl:	1		
Edit Da	ate:	15 Nov-21 12:37	MD5	Hash:	4651F3821D68	807F88FFB8DA6	373F939D	Editor ID:		000-189-126-0		
Batch	ID:	02-3240-9253	Test ⁻	Туре:	Growth-Surviva	al (7d)		Analyst:				
Start D	ate:	26 Oct-21 15:40	Proto	col:	EPA/821/R-02-	-013 (2002)		Diluent:	Labo	ratory Water		
Ending	Date:	02 Nov-21 14:23	Speci	ies:	Pimephales pro	omelas		Brine:	Not A	Applicable		
Test Le	ength:	6d 23h	Taxo	n:	Actinopterygii			Source:	Aqua	tic Biosystems, CO	Age:	<24
Sample	e ID:	15-3630-3073	Code	:	FML102621			Project:	REF	TOX		
Sample	e Date:	26 Oct-21 15:40	Mate	rial:	Copper chloride	e		Source:	Refe	rence Toxicant		
Receip	t Date:		CAS	(PC):				Station:	REF	TOX		
Sample	e Age:		Clien		ABC Labs							
Linear	Interpo	olation Options										
X Tran	•	Y Transform	Seed		Resamples	Exp 95% CL	Method					
Linear	0.01	Linear	50069		280	Yes		Interpolation				
Test A	cceptal	bility Criteria	T4011	••								
Attribu	•	-	TAC Lin			Danining						
Control		7est Stat 0.3467		Upper		Decision						
Control	Resp	0.3467	0.25	>>	Yes	Passes Criteria						
Point E	stimat	tes										
Level	μg/L	95% LCL	95% UCL									
IC10	20.75	5 12.18	25.73									
IC15	24.38	3 15.22	29.13									
IC20	28.01	1 21.53	32.56									
IC25	31.64	4 26.82	37.02									
IC40	47.72	2 36.23	66.56									
IC50	63.26	6 47.16	99.32									

Mean Dry Biomass-mg Summary					Isoton	ic Variate				
Conc-µg/L	Code	Count	Mean	Median	Min	Max	CV%	%Effect	Mean	%Effect
0	N	4	0.3467	0.3467	0.3433	0.35	0.80%	0.00%	0.3467	0.00%
10		4	0.3417	0.3417	0.3367	0.3467	1.58%	1.44%	0.3417	1.44%
19		4	0.3203	0.3313	0.278	0.3407	9.19%	7.60%	0.3203	7.60%
38		4	0.2297	0.226	0.206	0.2607	10.07%	33.75%	0.2297	33.75%
75		4	0.1472	0.1483	0.08267	0.2093	35.19%	57.55%	0.1472	57.55%
150		4	0.06033	0.06233	0.01867	0.098	63.57%	82.60%	0.06033	82.60%

Mean Dry Biomass-mg De	tail
------------------------	------

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3433	0.346	0.3473	0.35
10		0.3467	0.3373	0.346	0.3367
19		0.3227	0.278	0.3407	0.34
38		0.2207	0.2313	0.2607	0.206
75		0.08267	0.1453	0.1513	0.2093
150		0.03733	0.098	0.01867	0.08733



Report Date:

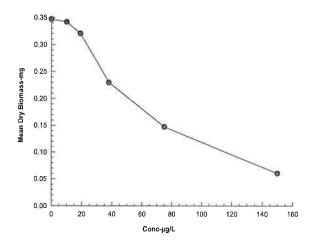
15 Nov-21 12:39 (p 4 of 4)

Test Code/ID:

FML102621 / 02-5685-1639

Fathead Mini	now 7-d Larval Survi	val and Growt	Aquatic Bioassay & Consulting Labs, Inc.			
•	10-5451-2610	•	Mean Dry Biomass-mg	CETIS Version:	CETISv1.9.7	
Analyzed:	15 Nov-21 12:38	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1	
Edit Date:	15 Nov-21 12:37	MD5 Hash:	4651F3821D6807F88FFB8DA6373F939D	Editor ID:	000-189-126-0	

Graphics



Report Date:

15 Nov-21 12:39 (p 1 of 8)

Test Code/ID: FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test Aquatic Bioassay & Consulting Labs, Inc. Batch ID: 02-3240-9253 Test Type: Growth-Survival (7d) Analyst: Start Date: 26 Oct-21 15:40 Protocol: EPA/821/R-02-013 (2002) Diluent: Laboratory Water Ending Date: 02 Nov-21 14:23 Species: Pimephales promelas Brine: Not Applicable Test Length: 6d 23h Taxon: Actinopterygii Source: Aquatic Biosystems, CO Age: <24 Sample ID: 15-3630-3073 Code: FML102621 Project: **REF TOX** Sample Date: 26 Oct-21 15:40 Material: Copper chloride Source: Reference Toxicant CAS (PC): Receipt Date: Station: **REF TOX** Sample Age: ---Client: ABC Labs Alkalinity (CaCO3)-mg/L Conc-µg/L Count 95% UCL Std Dev Code Mean 95% LCL Min Max Std Err CV% **QA Count** 0 N 8 60.62 60.19 61.06 60 61 0.06469 0.5175 0.85% 150 8 60 60 60 60 60 0 0.00% Overall 16 60.31 60.06 60.57 60 61 0.1197 0.4787 0.79% 0 (0%) Conductivity-µmhos Conc-µg/L Code Count Mean 95% LCL 95% UCL Min Std Err Std Dev CV% Max **QA** Count 0 8 N 360.5 354 358 363 364 0.372 2.976 0.83% 10 8 361.4 0.47% 360 358.6 358 363 0.2113 1.69 0 19 8 358.5 357.2 359.8 357 361 0.189 0.42% 1.512 0 38 8 357.2 356 358.5 356 360 0.186 1.488 0.42% 0 75 8 354.1 352 356.3 352 359 0.3235 2.588 0.73% 0 150 8 352 349.6 354.4 350 358 0.3536 2.828 0.80% 0 48 Overall 357.1 356 358.2 350 364 0.5453 3.778 1.06% 0 (0%) Dissolved Oxygen-mg/L Conc-µg/L Code Mean Count 95% LCL 95% UCL Min Max Std Err Std Dev CV% **QA Count** 0 Ν 8 7.6 7.452 7.748 7.9 7.4 0.02216 0.1773 2.33% 0 7.525 10 8 7.702 7,348 7.3 7.9 0.02652 0.2121 2.82% 0 19 8 7.525 7.359 7.691 7.3 7.9 0.02478 0.1982 2.63% 0 38 8 7.438 7.277 7.598 7.2 7.8 0.02403 0.1923 2.59% 0 75 8 7.425 7.259 7.591 7.2 7.8 0.02478 0.1982 2.67% 0 150 8 7.425 7.259 7.591 7.2 7.8 0.02478 0.1982 2.67% 48 Overall 7.49 7.432 7.547 7.2 7.9 0.02844 0.197 2.63% 0 (0%) Hardness (CaCO3)-mg/L Conc-µg/L Code Count Mean 95% LCL 95% UCL Min Max Std Err Std Dev CV% **QA Count** 0 Ν 8 7.387 7.218 7.557 7.1 7.7 0.02539 0.2031 2.75% 0 150 8 95.62 95.19 96.06 95 96 0.06469 0.5175 0.54% 0 Overall 16 51.51 27.23 75.79 7.1 96 11.39 45.57 88.47% 0 (0%) pH-Units Conc-µg/L Code Count Mean 95% LCL 95% UCL Min Max Std Err Std Dev CV% **QA Count** 0 8 7.963 7.9 8.025 7.8 0.0744 N 8 0.0093 0.93% 0 8 10 7.913 7.843 7.982 7.8 8 0.01043 0.08345 1.05% 0 19 8 7.913 7.843 7.982 7.8 8 0.01043 0.08345 1.05% 0 8 38 7.925 7.866 7.984 7.8 8 0.008838 0.0707 0.89% 0 8 75 7.925 7.866 7.984 7.8 8 0 0.008838 0.0707 0.89%



0.89%

0.93%

0 (0%)

7.984

7.948

7.8

7.8

8

8

0.008838

0.01063

0.0707

0.07363

8

48

7.925

7.927

7.866

7.906

150

Overall

Report Date:

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Test Code/ID:

FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°C	;										
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
19		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
38		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
75		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
150		8	24.04	23.99	24.08	24	24.1	0.006459	0.05167	0.21%	0
Overall		48	24.02	24.01	24.03	24	24.1	0.005924	0.04104	0.17%	0 (0%)

Report Date:

15 Nov-21 12:39 (p 3 of 8) FML102621 / 02-5685-1639

Test Code/ID:

Fathead Minnow 7-d Larval Survival and Growth Test

Alkalinity (CaC	O3)-mg/L							
Conc-µg/L	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		60				
150				60				
0	N	2		60				
150				60				
0	N	3		60				
150				60				
0	N	4		61				
150				60				
0	N	5		61				
150				60				
0	N	6		61				
150				60				
0	N	7		61				
150				60				
0	N	8		61				
150				60				

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 4 of 8) FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

Conductivity-µ	mhos								
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		362					
10				360					
19				359					
38				357					
75				356					
150				352					
0	N	2		360					
10				359					
19				357					
38				356					
75				352					
150				350					
0	N	3		354					
10				358					
19				358					
38				357					
75				355					
150				354					
0	N	4		360					
10				359					
19				357					
38				356					
75				352					
150				350					
0	N	5		364					
10				362					
19				360					
38				359					
75				355					
150				352					
0	N	6		362					
10				363					
19				361					
38				360					
75				359					
150				358					
ס	N	7		362					
10				360					
19				359					
38				357					
75				352					
150				350					
)	N	8		360					
10				359					
19				357					
38				356					
75				352					
150				350					

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 5 of 8) FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

Dissolved Oxygen-mg/L									
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		7.6					
10				7.6					
19				7.5					
38				7.4					
75				7.4					
150				7.4					
0	N	2		7.4					
10				7.6					
19				7.6					
38				7.5					
75				7.5					
150				7.5					
)	N	3		7.5					
10				7.4					
19				7.4					
38				7.3					
75				7.3					
150				7.3					
0	N	4		7.6					
10	IN.	4		7.4					
19				7.4					
38				7.3					
75 450				7.2					
150				7.2					
0	N	5		7.8					
10				7.7					
19				7.7					
38				7.6					
75				7.5					
150				7.5					
)	N	6		7.9					
10				7.9					
19				7.9					
38				7.8					
75				7.8					
150				7.8					
)	N	7		7.6					
10				7.3					
19				7.4					
38				7.4					
75				7.5					
150				7.5					
)	N	8		7.4					
10	• •	•		7.3					
19				7.3					
38				7.2					
7 5				7.2					
150				7.2					

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 6 of 8) FML102621 / 02-5685-1639

Agustic Biosessy & Consulting Labe Inc.

Fathead Minnow 7-d Larval Survival and Growth Test								Aquatic Bioassay & Consulting Labs, Inc.		
Hardness (CaCO3)-mg/L										
Conc-µg/L	Code	Read	Time	Measure QA	Diff-%	Inst ID	Analyst	Notes		
0	N	1		7.3						
150				95						
0	N	2		7.4						
150				95						
0	N	3		7.3						
150				95						
0	N	4		7.2						
150				96						
0	N	5		7.5						
150				96						
0	N	6		7.7						
150				96						
0	N	7		7.6						
150				96						
0	N	8		7.1						
150				96						

Report Date: Test Code/ID: 15 Nov-21 12:39 (p 7 of 8) FML102621 / 02-5685-1639

Fathead Minnow 7-d Larval Survival and Growth Test

pH-Units								
Conc-µg/L	Code	Read	Time	Measure QA	A Diff-%	Inst ID	Analyst	Notes
0	N	1		8				
10				8				
19				7.9				
38				7.9				
75				7.9				
150				7.9				
0	N	2		8				
10				7.9				
19				7.9				
38				7.9				
75				7.9				
150				7.9				
0	N	3		7.8				
10				7.8				
19				7.8				
38				7.9				
75				7.9				
150				7.9				
0	N	4		8				
10				8				
19				8				
38				8				
75				8				
150				8				
0	N	5		8				
10				8				
19				8				
38				8				
75				8				
150				8				
0	N	6		7.9				
10				7.9				
19				8				
38				8				
75				8				
150				8				
)	N	7		8				
10				7.8				
19				7.8				
38				7.8				
75				7.8				
150				7.8				
)	N	8		8				
10				7.9				
19				7.9				
38				7.9				
75				7.9				
150				7.9				

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Fathead Minnow 7-d Larval Survival and Growth Test

Temperature-°0	C								
Conc-µg/L	Code	Read	Time	Measure	QA	Diff-%	Inst ID	Analyst	Notes
0	N	1		24					
10				24					
19				24					
38				24					
75				24					
150				24					
0	N	2		24					
10				24					
19				24					
38				24					
75				24					
150				24					
0	N	3		24					
10				24					
19				24					
38				24					
75				24					
150				24					
0	N	4		24					
10				24.1					
19				24.1					
38				24.1					
75				24.1					
150				24.1					
0	N	5		24					
10				24					
19				24					
38				24					
75				24					
150				24.1					
0	N	6		24					
10				24					
19				24					
38				24					
75				24					
150				24					
0	N	7		24					
10				24					
19				24.1					
38				24.1					
75				24.1					
150				24.1					
0	N	8		24					
10				24					
19				24					
38				24					
75				24					
150				24					