

# AMBIENT TOXICITY TEST REPORT FORM

GENERAL INFORMATION									
PROJECT NAME: <b>Slaughterhouse Creek Ambients</b>			LABORATORY NAME: Wisconsin State Laboratory of Hygiene						
			REPORT NUMBER: FX000044-047						
SAMPLE INFORMATION									
SAMPLE NO.	LAB NO.	FIELD NO.	SITE DESCRIPTION				STATION NO. (SWIMS, STORET or LAT/LONG)		
1	FX000044	SCW-11	Slaughterhouse Creek - at Hewell Rd				443418		
2	FX000045	SCW-13	Slaughterhouse Creek - downstream from wetland restoration				10030233		
3	FX000046	SCW-12	Slaughterhouse Creek - backwater/wetland restoration				10030232		
4	FX000047	SCW-01	Slaughterhouse Creek - upper, by old foundation				443426		
SAMPLE NO.	SAMPLE COLLECTION			SAMPLE TEMP. °C		pH at LAB	HAND DELIVER? (If Yes, ≤ 4 hr?)	HOLD TIME ≤ 36 HR?	SAMPLE ACCEP- TABLE?
	SAMPLE TYPE	SAMPLING DATE	DATE at LAB	COLLECTION	AT LAB				
1	Grab	7/17/2012	7/18/2012	21.7	6.4	6.89	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Grab	7/17/2012	7/18/2012	21.8	7.4	6.84	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Grab	7/17/2012	7/18/2012	16.8	7.7	6.88	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	Grab	7/17/2012	7/18/2012	20.3	6.7	7.30	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Describe any unusual conditions during sampling that may influence test results. (see Part 6.1.2 of the Methods Manual for examples.)									
COMMENTS:									
TEST INFORMATION									
			ACUTE			CHRONIC			
Date Test Initiated:			7/18/2012			7/18/2012			
QA/QC CONDITIONS									
						ACUTE		CHRONIC	
Temperatures maintained during test? (20 ± 1°C or 25 ± 1°C)						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Dissolved oxygen ≥ 4.0 mg/l throughout test?						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
pH maintained within 6.0 - 9.0 s.u. throughout test?						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Concurrent or monthly reference tests within acceptable limits?						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Tests conducted in a carbon dioxide atmosphere throughout test?						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Light intensity for <i>Selenastrum</i> maintained throughout test? (4,300 ± 430 lux)						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Were samples modified prior to testing? (ex. filtration, aeration, chem addition)						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
COMMENTS:									
WATER CHEMISTRY									
(All values reported in mg/L, except pH and Conductivity)									
SAMPLE TYPE	SAMPLE NO.	HARDNESS	ALKALINITY	TOTAL AMMONIA	TOTAL CHLORINE	DISSOLVED OXYGEN	pH (s.u.) After Warming	Conductivity (µS)	
SITES	1	152	95	1.93	0.2	6.32	7.19	378	
	2	136	100	3.68	0.06	6.29	7.02	364	
	3	152	180	12.00	0.08	5.62	7.09	483	
	4	92	95	0.041	0.04	8.18	7.51	363	
LAB WATER	KEG	216	180	NA	NA	7.46	8.52	523	
	DC	232	330	NA	NA	8.36	8.05	685	
COMMENTS: KEG = Lake Kegonsa Water was used as the lab control water for the <i>Ceriodaphnia dubia</i> test. DC = Dechlorinated Madison tap water is used as the lab control for the fathead minnow test. For ammonia analysis, limit of detection (LOD) = 0.015 mg/L, limit of quantification (LOQ) = 0.048 mg/L NA= Not Applicable									

## ACUTE TEST CONTROL PERFORMANCE

### LAB WATER CONTROLS

Fathead Minnow	<i>Ceriodaphnia dubia</i>
Survival $\geq$ 90% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival $\geq$ 90% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

COMMENTS:

### ACUTE TEST DATA

SPECIES	SITE DESCRIPTION		Percent Survival By Replicate				Mean Percent Survival	Statistical Significance*
			1	2	3	4		
Fathead Minnow  Age of Organism: 9 Days	LC	LW Control	100	100	100	100	100.0	A
	1	SCW-11	100	100	90	100	97.5	A
	2	SCW-13	100	100	100	100	100.0	A
	3	SCW-12	100	100	100	90	97.5	A
	4	SCW-01	100	100	100	90	97.5	A

*Please describe any unusual behavior and/or appearance of organisms.(see Part 6.1.2 of the Methods Manual for ex.)*

COMMENTS: \* Samples with the same letter are not statistically different from each other.

SPECIES	SITE DESCRIPTION		Percent Survival By Replicate				Mean Percent Survival	Statistical Significance*
			1	2	3	4		
<i>Ceriodaphnia dubia</i>  Age of Organism: < 24 Hours Old	LC	LW Control	100	100	100	100	100.0	A
	1	SCW-11	100	100	100	100	100.0	A
	2	SCW-13	100	100	100	100	100.0	A
	3	SCW-12	100	100	100	100	100.0	A
	4	SCW-01	100	100	100	100	100.0	A

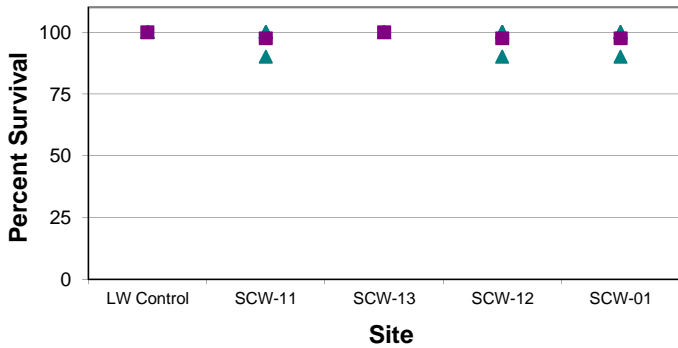
*Please describe any unusual behavior and/or appearance of organisms.(see Part 6.1.2 of the Methods Manual for ex.)*

COMMENTS: \* Samples with the same letter are not statistically different from each other.

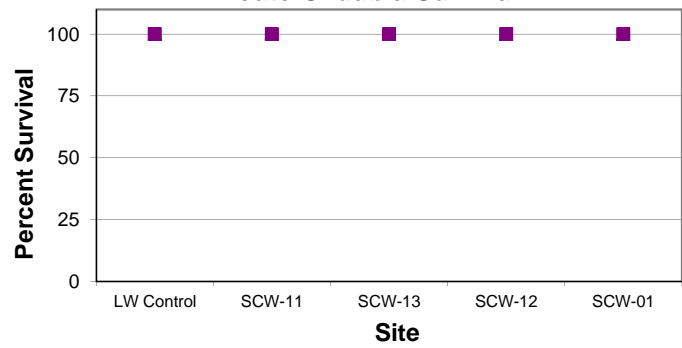
▲ = Individual Data

■ = Mean

**Acute Fathead Minnow Survival**



**Acute C. dubia Survival**



Project Name : Slaughterhouse Creek Ambients  
 Report # : FX000044-047  
 Acute Test Date : 7/18/2012

## CHRONIC TEST CONTROL PERFORMANCE

### LAB WATER CONTROLS

Fathead Minnow	<i>Ceriodaphnia dubia</i>
Survival > 80% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival > 80% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
> 0.25 mg/fish <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	> 15 neonates/female <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Survival Weight CV < 40% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reproduction CV < 40% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Survival Weight % CV = 7	Reproduction %CV = 8
	> 80% 3rd brood <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	< 20% males <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

COMMENTS:

### CHRONIC TEST DATA

SPECIES	SITE DESCRIPTION		MEAN % SURVIVAL	MEAN DRY BIOMASS PER REPLICATE PAIR (mg)					MEAN BIOMASS (mg)	Statistical Significance*
				1	2	3	4	5		
Fathead Minnow Growth & Survival Test	LC	LW Control	95	0.385	0.453	0.457	0.425	0.478	0.440	B
	<i>LW Survival Weight</i>			0.513	0.453	0.457	0.425	0.478		
	1	SCW-11	100	0.430	0.448	0.463	0.378	0.393	0.422	B
	2	SCW-13	100	0.508	0.500	0.600	0.500	0.445	0.511	A
	3	SCW-12	90	0.435	0.360	0.428	0.283	0.440	0.389	B
	4	SCW-01	95	0.410	0.388	0.460	0.405	0.493	0.431	B

*Please describe any unusual behavior and/or appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*

COMMENTS: \* Samples with the same letter are not statistically different from each other.

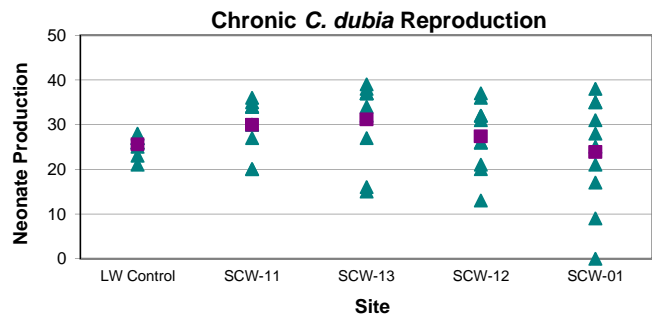
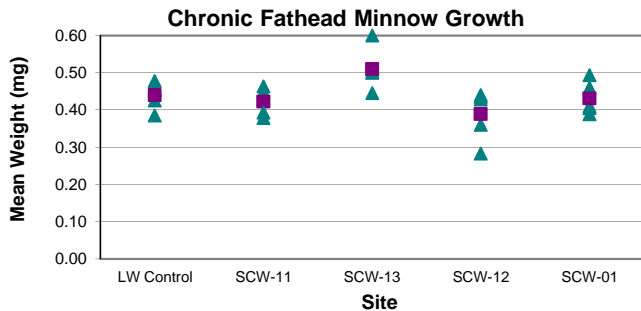
SPECIES	SITE	NEONATE PRODUCTION BY REPLICATE										MEAN NEONATES	% ADULT SURVIVAL	Statistical Significance*
		1	2	3	4	5	6	7	8	9	10			
<i>C. dubia</i> Reproduction & Survival Test	LC	27	26	26	23	21	25	28	26	27	27	26	100	A
	1	34	34	27	36	35	30	20	34	20	30	30	100	A
	2	15	34	38	16	37	32	39	37	27	37	31	100	A
	3	21	32	13	36	26	20	37	32	31	26	27	90	A
	4	28	31	35	38	17	0	25	35	21	9	24	90	A

Male Production ≤ 20% Over All Treatments?  Yes  No

*Please describe any unusual behavior and/or appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*

COMMENTS: \* Samples with the same letter are not statistically different from each other.

▲ = Individual Data      ■ = Mean



Project Name : Slaughterhouse Creek Ambients

Report # : FX000044-047

Chronic Test Date : 7/18/2012

**CHRONIC TEST CONTROL PERFORMANCE**

<b>LAB WATER CONTROLS</b>	
<i>Selenastrum</i>	
$\leq 1 \times 10^6$ cells/ml	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
CV $\leq$ 20%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
%CV = 10	

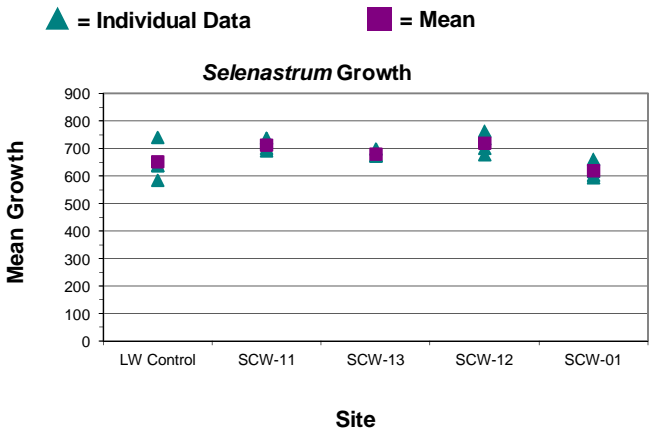
**GROWTH MEASUREMENT PER REPLICATE**

SPECIES	SITE DESCRIPTION		1	2	3	4	MEAN GROWTH	%CV	Statistical Significance*
			Initial	Initial	Initial	Initial			
<i>Selenastrum capricornutum</i> GROWTH TEST	LC	LW Control	742	640	586	639	652	10	AB
	1	SCW-11	738	723	702	692	714	3	A
	2	SCW-13	674	676	673	699	680	2	AB
	3	SCW-12	764	736	702	678	720	5	A
	4	SCW-01	662	595	619	603	620	5	B

Test Type:  flask  microplate    Endpoint:  count  spec.  fluor.

*Please describe any unusual appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*

COMMENTS: \* Samples with the same letter are not statistically different from each other.



Project Name : Slaughterhouse Creek Ambients  
 Report # : FX000044-047  
 Chronic Test Date : 7/18/2012

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I also certify that these results relate only to these samples.

LAB REPRESENTATIVE:	Mallory Berrey	SIGNATURE:	
DATE:	8/10/2012		
PHONE:	(608) 224-6230	WDNR LAB CERT #:	113133790
LAB ADDRESS:	Wisconsin State Laboratory of Hygiene, 2601 Agriculture Drive, Madison, WI 53718		
REVIEWED BY:	Steve Geis	DATE:	8/17/2012
PERMITTEE		SIGNATURE:	
PHONE:		DATE:	

Project Name : Slaughterhouse Creek Ambients  
 Report # : FX000044-047  
 Test Date : 7/18/2012