



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 4, 2009

Mr. Jim Rumbley
City of Santa Barbara
Creeks Division
620 Laguna Street
Santa Barbara, CA 93102

Dear Mr. Rumbley:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA-821-R-02-012*.


Results were as follows:

CLIENT:	City of Santa Barbara –Creeks Division
SAMPLE I.D.:	MC Miss Cy
DATE RECEIVED:	14 Oct - 09
ABC LAB. NO.:	SAB1009.158

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50	=	100 % Survival in 100 % Sample
TU(a)	=	0.00

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

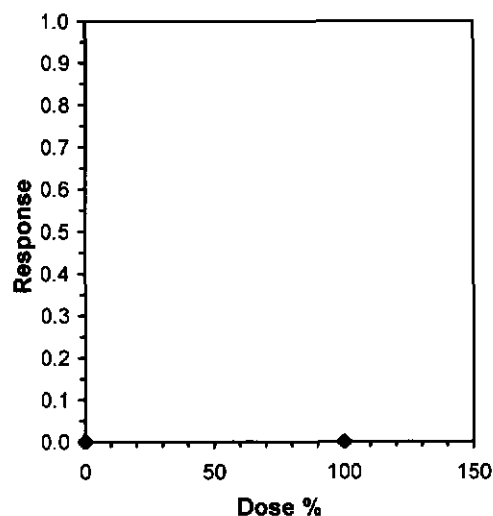
Larval Fish Growth and Survival Test-96 Hr Survival					
Start Date:	10/14/2009	Test ID:	SAB1009158	Sample ID:	CA0000000
End Date:	10/18/2009	Lab ID:	CAABC	Sample Type:	EFF1-POTW
Sample Date:	10/13/2009	Protocol:	EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:	MC MISS CY				
Conc-%	1	2	3	4	
N Control	1.0000	1.0000	1.0000	1.0000	
100	1.0000	1.0000			

Transform: Arcsin Square Root								Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	1	0.713		
Equality of variance cannot be confirmed				

Linear Interpolation (200 Resamples)

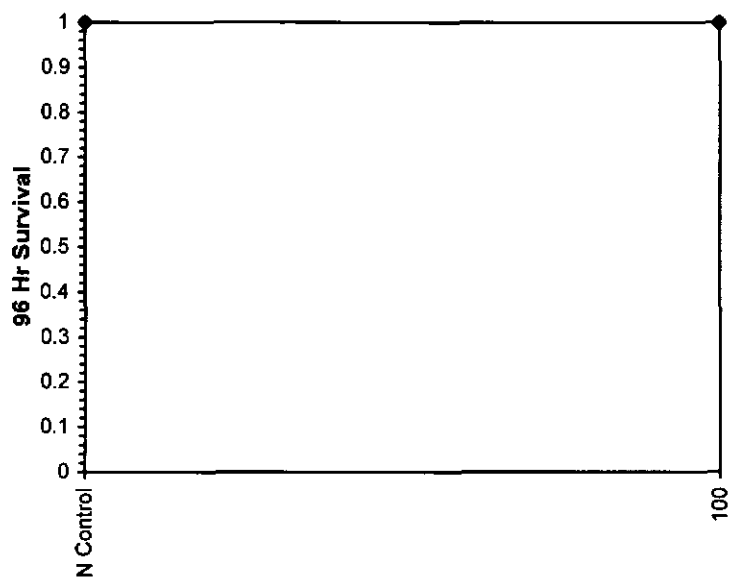
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



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Dose-Response Plot



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 Comments: MC MISS CY

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.47	24.20	24.70	0.25	2.05	3
100		24.30	24.20	24.50	0.17	1.71	3
N Control	pH	7.90	7.90	7.90	0.00	0.00	3
100		7.87	7.70	8.00	0.15	4.97	3
N Control	DO mg/L	7.47	6.90	7.90	0.51	9.59	3
100		5.97	4.20	7.90	1.86	22.83	3
N Control	Hardness mg/L	95.00	95.00	95.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Cond-umhos	355.33	355.00	356.00	0.58	0.21	3
100		1247.33	1241.00	1255.00	7.09	0.21	3
N Control	Alkalinity mg/L	62.00	62.00	62.00	0.00	0.00	3
100		187.00	187.00	187.00	0.00	0.00	3