



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

April 19, 2000

Mr. Monon Locas
TRAC Ecological
3125 John P. Curci Dr., Suite 4
Pembroke, FL 33009

Dear Mr. Locas:

We are pleased to present the enclosed acute bioassay report. The test was conducted under the guidelines prescribed in "Static Acute Bioassay Procedures for Hazardous Waste Samples" California Department of Fish and Game, 1988. The results were as follows:

CLIENT: TRAC Ecological
SAMPLE I.D.: Trac Barbacle Buster 1208-M
DATE RECEIVED: 04/03/00
ABC LAB. NO.: TRE0400.741

DOHS (TITLE 22) HAZARDOUS WASTE BIOASSAY USING FATHEAD MINNOWS

96 HOUR LC50 = >750 mg/l

STATUS = Pass

Yours very truly,

Thomas (Tim) Mikel
Laboratory Director

AQUATIC BIOASSAY AND CONSULTING LABORATORIES, INC.
29 North Olive Street
Ventura, CA 93001
(805) 643-5621

DOHS Bioassay for Hazardous Waste (Title 22)

SAMPLE INFORMATION

CLIENT:	TRAC Ecological	Date: 04/03/00
SAMPLE I.D.:	Trac Barbacle Buster 120 LAB # TRE0400.741	

WATER QUALITY

DILUTION WATER: Reconst. Fresh				AERATION: Single Bubble Air			
CONTROL HARDNESS				CONTROL ALKALINITY			
Beg:	41 mg/l	End:	41 mg/l	Beg:	29 mg/l	End:	30 mg/l
SAMPLE HARDNESS				SAMPLE ALKALINITY			
Beg:	42 mg/l	End:	44 mg/l	Beg:	94 mg/l	End:	90 mg/l

ORGANISM INFORMATION

SPECIES:	Pimephales promelas	DATE REC'D:	03/23/00
COMMON NAME:	Fathead Minnow	AVERAGE LNTH:	32 mm
SOURCE:	Thomas Fish Co.	AVERAGE WT:	0.45 gm
CARRIER:	California Overnight	NO. FISH / TANK:	10

TEST DATA

	INITIAL		24 HOURS				48 HOURS				72 HOURS				96 HOURS							
	DATE:	TIME:	Dis. Oxy.	Temp. dg.C	pH	#Fish Dead	Dis. Oxy.	Temp. dg.C	pH	#Fish Dead	Dis. Oxy.	Temp. dg.C	pH	#Fish Dead	Dis. Oxy.	Temp. dg.C	pH	#Fish Dead				
0 (Con.)	04/10/00	1430	9.1	21.1	7.5	0	7.2	20.9	7.2	0	6.9	20.3	7.2	0	8.0	20.6	7.2	0	8.1	20.8	7.2	0
400 mg/l			9.0	21.0	6.9	0	8.1	20.2	7.1	0	8.4	19.9	7.2	0	8.3	19.9	7.2	0	8.3	20.3	7.2	0
400 mg/l			9.0	21.0	6.9	0	7.7	20.2	7.1	0	8.4	19.9	7.2	0	8.2	19.9	7.2	0	8.2	20.3	7.2	0
750 mg/l			9.0	20.9	6.9	0	7.9	20.2	7.0	0	8.2	19.9	7.3	0	8.2	19.9	7.3	0	8.2	20.4	7.3	0
750 mg/l			9.0	20.9	6.9	0	7.6	20.3	7.0	0	7.3	19.9	7.4	0	8.0	20.0	7.3	0	8.2	20.5	7.3	0

Note: pH was adjusted by adding NaOH, initial was pH=3.7.

FINAL DATA

TOTAL MORTALITIES	
0 (Con.)	0
400 mg/l	0
400 mg/l	0
750 mg/l	0
750 mg/l	0

FINAL RESULTS

96 HOUR LC50 =	>750 mg/l
STATUS =	Pass
CALCULATION METHOD =	Binomial Test

Michael Machuzak, Chief Biologist

Date 4/19/00