Table C1. Test Results for the 10-day Acute Toxicity Test with *A. abdita*.

Treatment	Replicate	Number Initiated	Number Surviving	Number Missing or Dead	Percentage Survival	Mean Percentage Survival	SD
Control	1	20	18	2	90		
	2	20	19	1	95		
	3	20	18	2	90		
	4	20	19	1	95		
	5	20	17	3	85	91.0	4.2
Area 1	1	20	19	1	95		
	2	20	17	3	85		
	3	20	20	0	100		
	4	20	17	3	85		
	5	20	19	1	95	92.0	6.7
Area 2	1	20	20	0	100		
	2	20	17	3	85		
	3	20	18	2	90		
	4	20	19	1	95		
	5	20	18	2	90	92.0	5.7
Area 4A	1	20	19	1	95		
	2	20	19	1	95		
	3	20	15	5	75		
	4	20	17	3	85		
	5	20	20	0	100	90.0	10.0
Area 4B	1	20	18	2	90		
	2	20	16	4	80		
	3	20	19	1	95		
	4	20	17	3	85		
	5	20	17	3	85	87.0	5.7
Area 4B-acclimated	1	20	19	1	95		
	2	20	17	3	85		
	3	20	20	0	100		
	4	20	18	2	90		
	5	20	20	0	100	94.0	6.5
Ref. Comp.	1	20	19	1	95		
	2	20	18	2	90		
	3	20	19	1	95		
	4	20	18	2	90		
	5	20	19	1	95	93.0	2.7
Ref. Comp. - acclimated	1	20	16	4	80		
	2	20	18	2	90		
	3	20	20	0	100		
	4	20	18	2	90		
	5	20	18	2	90	90.0	7.1

Treatment	Replicate	Number Initiated	Number Surviving	Number Missing or Dead	Percentage Survival	Mean Percentage Survival	SD
Lower Comp.	1	20	15	5	75		
	2	20	19	1	95		
	3	20	13	7	65		
	4	20	14	6	70		
	5	20	15	5	75	76.0	11.4
Lower Comp. - acclimated	1	20	18	2	90		
	2	20	18	2	90		
	3	20	20	0	100		
	4	20	18	2	90		
	5	20	20	0	100	94.0	5.5
Ref X	1	20	17	3	85		
	2	20	20	0	100		
	3	20	20	0	100		
	4	20	19	1	95		
	5	20	19	1	95	95.0	6.1
Ref X - acclimated	1	20	18	2	90		
	2	20	20	0	100		
	3	20	19	1	95		
	4	20	19	1	95		
	5	20	20	0	100	96.0	4.2

Table C2. Water Quality Summary for the 10-Day Acute Test with *Ampelisca abdida*

Treatment	Dissolved Oxygen (mg/L)			Temperature (°C)			pH (units)			Salinity (ppt)		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control	7.8	7.4	8.1	19.4	19.0	19.8	8.0	7.7	8.3	29.4	29.0	31.0
Area 1	7.8	6.8	8.0	19.4	19.0	19.8	8.1	7.9	8.3	29.5	29.0	31.0
Area 2	7.8	7.2	8.0	19.5	19.0	19.9	8.1	7.9	8.4	29.6	29.0	31.0
Area 4A	7.8	7.4	8.1	19.4	19.0	19.8	8.0	7.7	8.3	29.4	29.0	31.0
Area 4B	7.8	6.8	8.0	19.4	19.0	19.8	8.1	7.9	8.3	29.5	29.0	31.0
Area 4B-acclimated	7.8	7.2	8.0	19.5	19.0	19.9	8.1	7.9	8.4	29.6	29.0	31.0
Ref. Comp.	7.8	7.4	8.1	19.4	19.0	19.8	8.0	7.7	8.3	29.4	29.0	31.0
Ref. Comp. - acclimated	7.8	6.8	8.0	19.4	19.0	19.8	8.1	7.9	8.3	29.5	29.0	31.0
Lower Comp.	7.8	7.3	8.1	19.4	18.9	19.9	8.0	7.7	8.2	29.3	29.0	31.0
Lower Comp. - acclimated	7.7	6.5	8.0	19.4	19.0	19.0	8.0	7.8	8.1	31.0	30.0	33.0
Ref X	7.8	7.3	8.0	19.5	19.2	19.2	8.0	7.9	8.2	29.6	29.0	31.0
Ref X - acclimated	7.8	6.8	8.1	19.4	19.0	19.0	8.0	7.9	8.3	30.6	29.0	34.0

NEWFIELDS

10 DAY SOLID PHASE
ENDPOINT DATA AND OBSERVATIONS

CLIENT	PROJECT	NEWFIELDS JOB NO.	PROJECT MAN.	NEWFIELDS LAB	PROTOCOL	SPECIES
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 6	USEPA/USCOE 1991	*Ampelisca abdida*

ENDPOINT DATA & OBSERVATIONS

#E = Emergence
#M = Number of Mortality
G = Growth
(fungal, bacterial, or algal)
D = No Air Flow (DO?)
N = Normal

INITIAL # OF ORGANISMS

CLIENT/ NEWFIELDS ID	REP	JAR #	INITIAL #	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER ALIVE
				DATE 1/10	DATE 1/11	DATE 1/12	DATE 1/13	DATE 1/14	DATE 1/15	DATE 1/16	DATE 1/17	DATE 1/18	DATE 1/19	
				TECHNICIAN CR	TECHNICIAN CR	TECHNICIAN CR	TECHNICIAN CR	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN ✓	
				OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	
Control /	1	45		N	N	N	N	2	2	2	2	2	N	18
	2	14		↓	↓	↓	↓	↓	2	↓	↓	↓	↓	19
	3	15		↓	↓	↓	↓	↓	1E	↓	↓	↓	↓	18
	4	54		↓	↓	↓	↓	1E	2	↓	↓	↓	↓	19
	5	51		↓	↓	↓	↓	1E	2	↓	↓	↓	↓	17
Area 1 /	1	43		↓	↓	↓	↓	2	2	↓	↓	↓	↓	19
	2	62		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17
	3	26		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	20
	4	30		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17
	5	32		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19
Area 2 /	1	65		↓	↓	↓	↓	↓	↓	↓	↓	1E	↓	20
	2	19		↓	↓	↓	↓	↓	↓	↓	↓	2	↓	17
	3	4		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18
	4	49		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19
	5	17		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18
Area 4A /	1	28		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19
	2	25		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19
	3	6		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	15
	4	24		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17
	5	13		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	20

NEWFIELDS

10 DAY SOLID PHASE
ENDPOINT DATA AND OBSERVATIONS

CLIENT	PROJECT	NEWFIELDS JOB NO.	PROJECT MAN.	NEWFIELDS LAB	PROTOCOL	SPECIES
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 6	USEPA/USCOE 1991	*Ampelisca abdida*

ENDPOINT DATA & OBSERVATIONS

#E = Emergence
#M = Number of Mortality
G = Growth
(fungal, bacterial, or algal)
D = No Air Flow (DO?)
N = Normal

INITIAL # OF ORGANISMS

CLIENT/ NEWFIELDS ID	REP	JAR #	INITIAL #	DAY 1 DATE 1/10 TECHNICIAN CR OBSERVNS.	DAY 2 DATE 1/11 TECHNICIAN CR OBSERVNS.	DAY 3 DATE 1/12 TECHNICIAN CR OBSERVNS.	DAY 4 DATE 1/13 TECHNICIAN CR OBSERVNS.	DAY 5 DATE 1/14 TECHNICIAN MMB OBSERVNS.	DAY 6 DATE 1/15 TECHNICIAN MMB OBSERVNS.	DAY 7 DATE 1/16 TECHNICIAN MMB OBSERVNS.	DAY 8 DATE 1/17 TECHNICIAN MMB OBSERVNS.	DAY 9 DATE 1/18 TECHNICIAN MMB OBSERVNS.	DAY 10 DATE 1/19 TECHNICIAN OBSERVNS.	NUMBER ALIVE
Area 4B /	1	29		N	N	N	N	N	N	N	N	N	2E	18
	2	42		↓	↓	↓	↓	↓	1E	2E	4E	2E	1E	16 1m
	3	36		↓	↓	↓	↓	↓	1E	N	2E	2E	1E	19
	4	53		↓	↓	↓	↓	↓	N	N	1E	3E	N	17
	5	23		↓	↓	↓	↓	↓	N	5E	1E	4E	1E	17
Area 4B-acclimated /	1	31		DGN	↓	↓	↓	↓	N	N	N	N	G	19
	2	66		↓	↓	↓	↓	↓	↓	↓	↓	N	↓	17
	3	8		↓	↓	↓	↓	↓	↓	↓	↓	1E	↓	20
	4	50		↓	↓	↓	↓	↓	↓	↓	↓	N	↓	18
	5	3		↓	↓	↓	↓	1E	↓	↓	↓	N	↓	20
Ref. Comp. /	6	52		↓	↓	↓	↓	N	↓	↓	↓	N	N	19
	7	59		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18
	8	18		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19
	9	48		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18
	10	9		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19
Ref. Comp. - acclimated /	1	22		DN	↓	↓	↓	↓	↓	↓	↓	↓	↓	16
	2	67		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18
	3	33		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	20
	4	5		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18
	5	21		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18 1m

DWC CR 1/10

NEWFIELDS

10 DAY SOLID PHASE
ENDPOINT DATA AND OBSERVATIONS

CLIENT	PROJECT	NEWFIELDS JOB NO.	PROJECT MAN.	NEWFIELDS LAB	PROTOCOL	SPECIES
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 6	USEPA/USCOE 1991	*Ampelisca abdida*

ENDPOINT DATA & OBSERVATIONS

#E = Emergence
#M = Number of Mortality
G = Growth (fungal, bacterial, or algal)
D = No Air Flow (DO?)
N = Normal

INITIAL # OF ORGANISMS

CLIENT/ NEWFIELDS ID	REP	JAR #	INITIAL #	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER ALIVE
				DATE 1/10	DATE 1/11	DATE 1/12	DATE 1/13	DATE 1/14	DATE 1/15	DATE 1/16	DATE 1/17	DATE 1/18	DATE 1/19	
				TECHNICIAN CR	TECHNICIAN CR	TECHNICIAN CR	TECHNICIAN CR	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN ✓	
				OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	
Lower Comp. /	1	7		N	N	N	N	1E	N	N	1E	N	N	15
	2	35		↓	↓	↓	↓	N	↓	↓	N	N	↓	19
	3	57						1E			↓	2E		13
	4	68						N	↓			1E		14
	5	10		↓	↓	↓	↓	N	1E	↓	↓	N	↓	15
Lower Comp. - acclimated /	1	11		① GN	G	G	G	G	G	G	G	G	G	18
	2	55		↓	↓	↓	↓	↓	G	↓	↓	↓	↓	18
	3	34							1E, G					20
	4	1							G					18
	5	16		↓	↓	↓	↓	↓	G	↓	↓	↓	↓	20
Ref X /	1	70			N	N	N	N	N	N	N	N	N	17
	2	20			↓	↓	↓	↓	↓	↓	↓	↓	↓	20
	3	40												20
	4	56												19
	5	41		↓										19
Ref X - acclimated / .	1	12		① GN										18
	2	64		↓										20
	3	38												19
	4	39												19
	5	69		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	20

① WC CR 1/10

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Control /	0	1	4	8.0	4	19.1	1	29	1	8.0	TS	1/9/09
Control /	0	2	↓	8.1	↓	19.0	↓	29	↓	8.1	↓	↑
Control /	0	3		7.9		19.3		29		8.1		
Control /	0	4		8.0		19.1		29		8.0		
Control /	0	5	↓	8.0	↓	19.1	↓	29	↓	8.1	↓	↓
Control /	1	1	4	7.8	4	19.4	1	29	1	7.9	CR	1/10
Control /	2	2	3	7.4	3	19.3	3	30	3	7.9	CR	1/11
Control /	3	3	4	7.9	4	19.5	1	29	1	8.0	CR	1/12
Control /	4	4	4	7.8	4	19.8	1	29	1	8.1	CR	1/13
Control /	5	5	4	7.8	4	19.8	1	29	1	7.9	MMB	1/14
Control /	6	1	4	7.7	4	19.3	1	29	1	7.8	MMB	1/15
Control /	7	2	4	7.8	4	19.7	1	29	1	8.1	MMB	1/16
Control /	8	3	4	7.8	4	19.6	1	30	1	8.3	MMB	1/17
Control /	9	4	4	7.7	4	19.4	1	29	1	8.1	MMB	1/18
Control /	10	1	4	7.5	4	19.5	1	30	1	7.7	TS	1/19
Control /	10	2	↓	7.7	↓	19.6	↓	30	↓	7.9	↓	↓
Control /	10	3		7.7		19.6		31		7.9		
Control /	10	4		7.7		19.6		30		8.0		
Control /	10	5	↓	7.7	↓	19.6	↓	30	↓	8.0	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	**PROJECT**	**SPECIES**	**TEST START DATE**	**TEST START DATE**	**TEST END DATE**
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O.		TEMP		SALINITY		pH			
			meter	mg/L	meter	°C	meter	ppt	meter	unit		
Area 1 /	0	1	4	7.9	4	19.1	1	29	1	8.0	TS	1/9
Area 1 /	0	2	↓	8.0	↓	19.2	↓	29	↓	8.0	↓	↓
Area 1 /	0	3	↓	7.9	↓	19.2	↓	29	↓	8.0	↓	↓
Area 1 /	0	4	↓	7.8	↓	19.2	↓	29	↓	7.9	↓	↓
Area 1 /	0	5	↓	7.9	↓	19.0	↓	29	↓	8.1	↓	↓
Area 1 /	1	1	4	7.8	4	19.4	1	30	1	7.9	CR	1/10
Area 1 /	2	2	3	6.8	3	19.4	3	30	3	8.0	CR	1/11
Area 1 /	3	3	4	8.0	4	19.4	1	29	1	8.0	CR	1/12
Area 1 /	4	4	4	7.9	4	19.8	1	29	1	8.1	CR	1/13
Area 1 /	5	5	4	7.8	4	19.8	1	29	1	8.1	MMB	1/14
Area 1 /	6	1	4	7.7	4	19.5	1	29	1	7.9	MMB	1/15
Area 1 /	7	2	4	7.7	4	19.6	1	29	1	8.3	MMB	1/16
Area 1 /	8	3	4	7.8	4	19.5	1	~~31~~ 29 ①	1	~~8.2~~ 8.3 ①	MMB	1/17
Area 1 /	9	4	4	7.8	4	19.3	1	30	1	8.2	MMB	1/18
Area 1 /	10	1	4	7.7	4	19.6	1	30	1	8.1	TS	1/19
Area 1 /	10	2	↓	7.7	↓	19.6	↓	30	↓	8.2	↓	↓
Area 1 /	10	3	↓	7.8	↓	19.6	↓	30	↓	8.2	↓	↓
Area 1 /	10	4	↓	7.7	↓	19.6	↓	30	↓	8.2	↓	↓
Area 1 /	10	5	↓	7.7	↓	19.5	↓	31	↓	8.3	↓	↓

① WP, MMB 1/17/09

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	**PROJECT**	**SPECIES**	**TEST START DATE**	**TEST START DATE**	**TEST END DATE**
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Area 2 /	0	1	4	7.9	4	19.0	1	29	1	8.0	TS	1/9
Area 2 /	0	2	↓	7.9	↓	19.2	↓	29	↓	8.0	↓	↓
Area 2 /	0	3	↓	7.9	↓	19.1	↓	30	↓	8.0	↓	↓
Area 2 /	0	4	↓	7.9	↓	19.0	↓	29	↓	8.0	↓	↓
Area 2 /	0	5	↓	7.8	↓	19.4	↓	30	↓	8.0	↓	↓
Area 2 /	1	1	4	7.8	4	19.5	1	29	1	7.9	CR	1/10
Area 2 /	2	2	3	7.2	3	19.4	3	29	3	8.0	CR	1/11
Area 2 /	3	3	4	8.0	4	19.6	1	29	1	8.1	CR	1/12
Area 2 /	4	4	4	7.9	4	19.9	1	29	1	8.1	CR	1/13
Area 2 /	5	5	4	7.8	4	19.9	1	29	1	7.9	MMB	1/14
Area 2 /	6	1	4	7.7	4	19.5	1	29	1	8.0	MMB	1/15
Area 2 /	7	2	4	7.7	4	19.6	1	29	1	8.4	MMB	1/16
Area 2 /	8	3	4	7.8	4	19.6	1	30	1	8.3	MMB	1/17
Area 2 /	9	4	4	7.8	4	19.5	1	30	1	8.2	MMB	1/18
Area 2 /	10	1	4	7.7	4	19.5	1	30	1	8.4	TS	1/19
Area 2 /	10	2	↓	7.6	↓	19.7	↓	30	↓	8.4	↓	↓
Area 2 /	10	3	↓	7.6	↓	19.6	↓	31	↓	8.3	↓	↓
Area 2 /	10	4	↓	7.7	↓	19.7	↓	30	↓	8.3	↓	↓
Area 2 /	10	5	↓	7.7	↓	19.7	↓	31	↓	8.2	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O.		TEMP		SALINITY		pH			
			meter	mg/L	meter	°C	meter	ppt	meter	unit		
Area 4A /	0	1	4	7.9	4	19.2	1	29	1	8.0	JS	1/9
Area 4A /	0	2	1	8.0	1	19.1	1	29	1	8.1		
Area 4A /	0	3		7.9		19.2		30		8.0		
Area 4A /	0	4		8.0		19.1		29		8.0		
Area 4A /	0	5	↓	7.9	↓	19.0	↓	29	↓	8.0	↓	↓
Area 4A /	1	1	4	7.9	4	19.5	1	30	1	7.9	CR	1/10
Area 4A /	2	2	3	7.5	3	19.4	3	30	3	8.0	CR	1/11
Area 4A /	3	3	4	8.1	4	19.5	1	30	1	8.2	CR	1/12
Area 4A /	4	4	4	8.0	4	19.8	1	30	1	8.1	CR	1/13
Area 4A /	5	5	4	7.9	4	19.9	1	31	1	8.0	MMB	1/14
Area 4A /	6	1	4	7.7	4	19.3	1	31	1	8.1	MMB	1/15
Area 4A /	7	2	4	7.8	4	19.5	1	31	1	8.3	MMB	1/16
Area 4A /	8	3	4	7.9	4	19.2	1	31	1	8.5	MMB	1/17
Area 4A /	9	4	4	7.8	4	19.4	1	31	1	8.4	MMB	1/18
Area 4A /	10	1	4	7.6	4	19.6	1	31	1	8.5	JS	1/19
Area 4A /	10	2	1	7.6	1	19.6	1	32	1	8.5		
Area 4A /	10	3		7.7		19.6		32		8.5		
Area 4A /	10	4		7.7		19.6		32		8.5		
Area 4A /	10	5	↓	7.8	↓	19.6	↓	34	↓	8.5	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	**PROJECT**	**SPECIES**	**TEST START DATE**	**TEST START DATE**	**TEST END DATE**
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Area 4B /	0	1	4	7.6	4	19.1	1	29	1	7.9	TS	1/9
Area 4B /	0	2	↓	7.9	↓	19.0	↓	29	↓	8.0	↓	↓
Area 4B /	0	3		7.8		19.1		29		7.9		
Area 4B /	0	4		7.8		19.2		29		8.0		
Area 4B /	0	5	↓	7.5	↓	19.0	↓	29	↓	7.9	↓	
Area 4B /	1	1	4	7.9	4	19.4	1	29	1	8.0	CR	1/10
Area 4B /	2	2	3	6.8	3	19.2	3	30	3	8.1	CR	1/11
Area 4B /	3	3	4	7.9	4	19.3	1	①329	1	8.1	CR	1/12
Area 4B /	4	4	4	7.9	4	19.9	1	29	1	8.2	CR	1/13
Area 4B /	5	5	4	~~7.8 7.7~~ ②	4	~~19.9 19.6~~ ②	1	~~29 30~~ ②	1	~~8.2 8.3~~ ②	MMB	1/14
Area 4B /	6	1	4	7.7	4	19.2	1	31	1	8.3	MMB	1/15
Area 4B /	7	2	4	7.7	4	19.5	1	29	1	8.5	MMB	1/16
Area 4B /	8	3	4	7.6	4	19.6	1	29	1	8.7	MMB	1/17
Area 4B /	9	4	4	7.7	4	19.5	1	29	1	8.6	MMB	1/18
Area 4B /	10	1	4	7.7	4	19.5	1	32	1	8.5	TS	1/19
Area 4B /	10	2	↓	7.7	↓	19.5	↓	30	↓	8.6	↓	↓
Area 4B /	10	3		7.6		19.5		30		8.7		
Area 4B /	10	4		7.6		19.5		30		8.6		
Area 4B /	10	5	↓	7.6	↓	19.5	↓	31	↓	8.6	↓	↓

① IE CR 1/12 ② WP, MMB 1/14

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	**PROJECT**	**SPECIES**	**TEST START DATE**	**TEST START DATE**	**TEST END DATE**
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Area 4B-acclimated /	0	1	4	8.0	4	19.0	1	30	1	8.1	TS	1/9
Area 4B-acclimated /	0	2	〃	8.0	〃	19.1	〃	30	〃	8.0	〃	〃
Area 4B-acclimated /	0	3	〃	7.9	〃	19.3	〃	30	〃	8.1	〃	〃
Area 4B-acclimated /	0	4	〃	8.0	〃	19.1	〃	30	〃	8.1	〃	〃
Area 4B-acclimated /	0	5	〃	7.9	〃	19.1	〃	30	〃	8.0	〃	〃
Area 4B-acclimated /	1	1	4	7.9	4	19.3	1	31 ~~30~~ (1)	1	8.0	CR	1/10
Area 4B-acclimated /	2	2	3	6.8	3	19.4	3	31	3	8.1	CR	1/11
Area 4B-acclimated /	3	3	4	7.2	4	19.5	1	30	1	8.2	CR	1/12
Area 4B-acclimated /	4	4	4	7.9	4	19.9	1	30	1	8.4	CR	1/13
Area 4B-acclimated /	5	5	4	7.7	4	19.6	1	30	1	8.3	MMB	1/14
Area 4B-acclimated /	6	1	4	7.7	4	19.1	1	32	1	8.3	MMB	1/15
Area 4B-acclimated /	7	2	4	7.7	4	19.5	1	31	1	8.5	MMB	1/16
Area 4B-acclimated /	8	3	4	7.5	4	19.7	1	30	1	8.6	MMB	1/17
Area 4B-acclimated /	9	4	4	7.7	4	19.4	1	30	1	8.4	MMB	1/18
Area 4B-acclimated /	10	1	4	7.7	4	19.5	1	34	1	~~8.4~~	TS	1/19
Area 4B-acclimated /	10	2	〃	7.7	〃	19.5	〃	32	〃	8.4	〃	〃
Area 4B-acclimated /	10	3	〃	7.6	〃	19.6	〃	31	〃	8.5	〃	〃
Area 4B-acclimated /	10	4	〃	7.6	〃	19.6	〃	31	〃	8.4	〃	〃
Area 4B-acclimated /	10	5	〃	7.6	〃	19.6	〃	31	〃	8.5	〃	〃

(1) WC CR 1/10

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Ref. Comp. /	0	1	4	8.0	4	19.1	1	29	1	8.0	TS	1/9
Ref. Comp. /	0	2	1	8.0	1	19.1	1	29	1	8.0		
Ref. Comp. /	0	3		7.9		19.3		30		8.0		
Ref. Comp. /	0	4		8.0		19.2		30		8.1		
Ref. Comp. /	0	5	↓	8.0	↓	19.1	↓	29	↓	8.1	↓	↓
Ref. Comp. /	1	1	4	7.9	4	19.5	1	30	1	7.9	CR	1/10
Ref. Comp. /	2	2	3	6.9	3	19.3	3	31	3	8.0	CR	1/11
Ref. Comp. /	3	3	4	7.4	4	19.4	1	30	1	7.9	CR	1/12
Ref. Comp. /	4	4	4	8.0	4	19.8	1	30	1	8.1	CR	1/13
Ref. Comp. /	5	5	4	7.9	4	19.7	1	29	1	8.0	MMB	1/14
Ref. Comp. /	6	1	4	7.8	4	19.5	1	30	1	7.9	MMB	1/15
Ref. Comp. /	7	2	4	7.8	4	19.4	1	32	1	8.2	MMB	1/16
Ref. Comp. /	8	3	4	7.8	4	19.5	1	31	1	8.2	MMB	1/17
Ref. Comp. /	9	4	4	7.9	4	19.5	1	30	1	8.0	MMB	1/18
Ref. Comp. /	10	1	4	7.7	4	19.6	1	31	1	8.2	TS	1/19
Ref. Comp. /	10	2	1	7.8	1	19.5	1	34	1	8.1		
Ref. Comp. /	10	3		7.8		19.5		32		8.1		
Ref. Comp. /	10	4		7.8		19.5		31		8.1		
Ref. Comp. /	10	5	↓	7.8	↓	19.6	↓	30	↓	8.1	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Ref. Comp. - acclimated /	0	1	4	8.0	4	19.1	1	30	1	8.0	TS	1/9
Ref. Comp. - acclimated /	0	2	1	8.0	1	19.1	1	30		8.1		
Ref. Comp. - acclimated /	0	3		8.0		19.0		30		8.1		
Ref. Comp. - acclimated /	0	4		7.9		19.2		30		8.1		
Ref. Comp. - acclimated /	0	5		7.9		19.4		30		8.1		
Ref. Comp. - acclimated /	1	1	4	7.9	4	19.5	1	31	1	7.9	CR	1/10
Ref. Comp. - acclimated /	2	2	3	6.7	3	19.4	3	31	3	8.1	CR	1/11
Ref. Comp. - acclimated /	3	3	4	8.1	4	19.3	1	30	1	8.1	CR	1/12
Ref. Comp. - acclimated /	4	4	4	8.0	4	19.8	1	30	1	8.0	CR	1/13
Ref. Comp. - acclimated /	5	5	4	7.8	4	19.9	1	31	1	7.9	MMB	1/14
Ref. Comp. - acclimated /	6	1	4	7.7	4	19.4	1	30	1	7.9	MMB	1/15
Ref. Comp. - acclimated /	7	2	4	7.8	4	19.2	1	30	1	7.8	MMB	1/16
Ref. Comp. - acclimated /	8	3	4	7.8	4	19.4	1	30	1	8.2	MMB	1/17
Ref. Comp. - acclimated /	9	4	4	7.8	4	19.6	1	31	1	8.2	MMB	1/18
Ref. Comp. - acclimated /	10	1	4	7.8	4	19.6	1	31	1	8.1	TS	1/19
Ref. Comp. - acclimated /	10	2	1	7.8		19.6	1	31		8.1		
Ref. Comp. - acclimated /	10	3		7.8		19.5		31		8.1		
Ref. Comp. - acclimated /	10	4		7.8		19.6		31		8.1		
Ref. Comp. - acclimated /	10	5	1	7.8	1	19.6	1	32	1	8.1		

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Lower Comp. /	0	1	4	7.9	4	19.3	1	29	1	8.0	TS	1/9
Lower Comp. /	0	2	"	8.0	"	19.1	"	29	"	8.0	"	"
Lower Comp. /	0	3	"	8.0	"	19.2	"	29	"	8.1	"	"
Lower Comp. /	0	4	"	8.1	"	19.1	"	29	"	8.1	"	"
Lower Comp. /	0	5	"	8.0	"	19.3	"	29	"	8.1	"	"
Lower Comp. /	1	1	4	8.1	4	19.0	1	29	1	7.7	CR	1/10
Lower Comp. /	2	2	3	7.3	3	19.1	3	29	3	8.0	CR	1/11
Lower Comp. /	3	3	4	8.0	4	19.4	1	29	1	8.1	CR	1/12
Lower Comp. /	4	4	4	7.9	4	19.9	1	29	1	8.1	CR	1/13
Lower Comp. /	5	5	4	7.8	4	19.9	1	29	1	7.9	MMB	1/14
Lower Comp. /	6	1	4	7.7	4	19.6	1	29	1	7.9	MMB	1/15
Lower Comp. /	7	2	4	7.7	4	19.4	1	29	1	8.2	MMB	1/16
Lower Comp. /	8	3	4	7.8	4	19.4	1	29	1	8.2	MMB	1/17
Lower Comp. /	9	4	4	7.9	4	18.9	1	29	1	7.8	MMB	1/18
Lower Comp. /	10	1	4	7.7	4	19.6	1	30	1	8.1	TS	1/19
Lower Comp. /	10	2	"	7.8	"	19.5	"	30	"	8.1	"	"
Lower Comp. /	10	3	"	7.8	"	19.5	"	31	"	8.1	"	"
Lower Comp. /	10	4	"	7.8	"	19.6	"	29	"	8.1	"	"
Lower Comp. /	10	5	"	7.8	"	19.6	"	30	"	8.1	"	"

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	PROJECT MANAGER	NEWFIELDS LABORATORY	DILUTION WATER BATCH	START TIME	END TIME
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O.		TEMP		SALINITY		pH			
			meter	mg/L	meter	°C	meter	ppt	meter	unit		
Lower Comp. - acclimated /	0	1	4	7.8	4	19.2	1	30	1	8.0	JS	1/9
Lower Comp. - acclimated /	0	2		6.5		19.2		30		8.0		
Lower Comp. - acclimated /	0	3		8.0		19.1		30		8.1		
Lower Comp. - acclimated /	0	4		7.9		19.0		30		7.9		
Lower Comp. - acclimated /	0	5		8.0		19.3		30		8.1		
Lower Comp. - acclimated /	1	1	4	8.0	4	19.2	1	31	1	7.8	CR	1/10
Lower Comp. - acclimated /	2	2	3	6.9	3	19.3	3	32	3	8.0	CR	1/11
Lower Comp. - acclimated /	3	3	4	8.0	4	19.3	1	30	1	8.0	CR	1/12
Lower Comp. - acclimated /	4	4	4	8.0	4	19.4	1	30	1	7.9	CR	1/13
Lower Comp. - acclimated /	5	5	4	7.9	4	19.8	1	31	1	7.9	MMB	1/14
Lower Comp. - acclimated /	6	1	4	7.8	4	19.5	1	31	1	7.9	MMB	1/15
Lower Comp. - acclimated /	7	2	4	7.8	4	19.5	1	32	1	8.1	MMB	1/16
Lower Comp. - acclimated /	8	3	4	7.8	4	19.6	1	31	1	8.1	MMB	1/17
Lower Comp. - acclimated /	9	4	4	7.8	4	19.6	1	31	1	8.1	MMB	1/18
Lower Comp. - acclimated /	10	1	4	7.8	4	19.6	1	32	1	8.0	JS	1/19
Lower Comp. - acclimated /	10	2		7.8		19.6		33		8.0		
Lower Comp. - acclimated /	10	3		7.8		19.5		31		8.0		
Lower Comp. - acclimated /	10	4		7.8		19.5		32		8.0		
Lower Comp. - acclimated /	10	5		7.8		19.6		32		8.0		

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	PROTOCOL / TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	USEPA/USCOE 1991 / 19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Ref X /	0	1	4	8.0	4	19.2	1	29	1	8.1	TS	1/9
Ref X /	0	2	↓	7.9	↓	19.3	↓	29	↓	8.0	↓	↓
Ref X /	0	3	↓	8.0	↓	19.2	↓	29	↓	8.0	↓	↓
Ref X /	0	4	↓	8.0	↓	19.2	↓	29	↓	8.1	↓	↓
Ref X /	0	5	↓	7.9	↓	19.2	↓	29	↓	8.0	↓	↓
Ref X /	1	1	4	8.0	4	19.3	1	~~31~~ ① 31	1	7.9	CR	1/10
Ref X /	2	2	3	7.3	3	19.5	3	30	3	8.0	CR	1/11
Ref X /	3	3	4	8.0	4	19.4	1	29	1	8.0	CR	1/12
Ref X /	4	4	4	7.9	4	19.9	1	29	1	8.1	CR	1/13
Ref X /	5	5	4	7.8	4	19.6	1	29	1	7.9	MMB	1/14
Ref X /	6	1	4	7.7	4	19.5	1	30	1	7.9	MMB	1/15
Ref X /	7	2	4	7.8	4	19.7	1	29	1	8.2	MMB	1/16
Ref X /	8	3	4	7.8	4	19.8	1	29	1	8.2	MMB	1/17
Ref X /	9	4	4	7.8	4	19.4	1	30	1	7.9	MMB	1/18
Ref X /	10	1	4	7.8	4	19.6	1	31	1	8.0	TS	1/19
Ref X /	10	2	↓	7.8	↓	19.6	↓	30	↓	8.0	↓	↓
Ref X /	10	3	↓	7.7	↓	19.6	↓	30	↓	8.0	↓	↓
Ref X /	10	4	↓	7.8	↓	19.6	↓	30	↓	8.1	↓	↓
Ref X /	10	5	↓	7.8	↓	19.5	↓	30	↓	8.1	↓	↓

① WC CR 1/10

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble	09Jan09	19Jan09
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble	FSW010809.01		

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Ref X - acclimated / .	0	1	4	8.1	4	19.0	1	29	1	8.0	TS	1/9
Ref X - acclimated / .	0	2	1	8.0	1	19.1	1	29	1	8.0		
Ref X - acclimated / .	0	3	1	7.9	1	19.2	1	29	1	8.0		
Ref X - acclimated / .	0	4	1	7.8	1	19.2	1	29	1	8.0		
Ref X - acclimated / .	0	5	1	8.0	1	19.1	1	30	1	8.1		
Ref X - acclimated / .	1	1	4	8.0	4	19.3	1	31	1	7.9	CR	1/10
Ref X - acclimated / .	2	2	3	6.8	3	19.4	3	31	3	8.0	CR	1/11
Ref X - acclimated / .	3	3	4	8.1	4	19.4	1	30	1	8.1	CR	1/12
Ref X - acclimated / .	4	4	4	8.0	4	19.7	1	31	1	8.1	CR	1/13
Ref X - acclimated / .	5	5	4	7.9	4	19.7	1	30	1	7.9	MMB	1/14
Ref X - acclimated / .	6	1	4	7.7	4	19.5	1	32	1	7.9	MMB	1/15
Ref X - acclimated / .	7	2	4	7.7	4	19.6	1	30	1	8.0	MMB	1/16
Ref X - acclimated / .	8	3	4	7.7	4	19.7	1	30	1	8.3	MMB	1/17
Ref X - acclimated / .	9	4	4	7.9	4	19.5	1	31	1	8.1	MMB	1/18
Ref X - acclimated / .	10	1	4	7.8	4	19.5	1	34	1	8.0	TS	1/19
Ref X - acclimated / .	10	2	1	7.8	1	19.4	1	31	1	8.1		
Ref X - acclimated / .	10	3	1	7.8	1	19.6	1	31	1	8.1		
Ref X - acclimated / .	10	4	1	7.8	1	19.5	1	32	1	8.1		
Ref X - acclimated / .	10	5	1	7.8	1	19.5	1	32	1	8.1		

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND/Juneau Douglas Harbor	Amps	1414-001-860	10

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST:** 0
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature	
Date:	**Temperature:**
09 January 2009	17.0

Sample temperature should be within ±1°C of standards temperature at time and date of analysis.

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
Control	Surr.	1/9/09 MMB	4.97	16.5	1/9/09 MMB	N			0.022
Area 1	↓	↓	3.65	↓	↓	↓			0.007
Area 2			2.09						0.035
Area 4A			2.96						0.013
Area 4B			4.36						0.004
Area 4B-acclimated			4.95						0.000
Ref. Comp.			0.869						0.053
Ref. Comp. - acclimated			0.746						0.053
Lower Comp.			<0.5						0.024
Lower Comp. - acclimated	↓	↓	<0.5	↓	↓	↓			0.005

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND/Juneau Douglas Harbor	Amps	1414-001-860	10

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST:** 0
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within ±1°C of standards temperature at time and date of analysis.
Date:	**Temperature:**	
09 January 2009	17.0	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. ④ mg/L
Control	Surr.	1/9/09 MMB	12.4	16.5	1/9/09 MMB	N	7.1	29	0.364
Area 1			9.96				7.2	29	0.648
Area 2			5.78				7.4	29	0.512
Area 4A			10.7				7.4	30	0.426
Area 4B			45.9				7.6	29	0.398
Area 4B-acclimated			6.22				7.7	30	0.440
Ref. Comp.			2.42				7.7	30	0.490
Ref. Comp. - acclimated			1.71				7.6	31	0.400
Lower Comp.			~~1.53~~ ~~<0.5~~ ③				7.6	~~29~~ ~~22~~ ①	②
Lower Comp. - acclimated			<0.5				7.6	31	②

① Rechecked w/ refractometer, sal. = 29 ppt. MMB 1/9/09

② Not enough PW to measure S^{2-}. MMB 1/9/09

③ UC, MMB 1/9/09

④ Used 2x multiplier, MMB 1/9/09

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND/Juneau Douglas Harbor	Amps	1414-001-860	10

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST:** 10
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within ±1°C of standards temperature at time and date of analysis.
Date:	**Temperature:**	
19 January 2009	17.0	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
Control	Surr.	1/19/09 MMB	<0.5	18.0	1/19/09 MMB	N			0.004
Area 1			<0.5						0.007
Area 2			3.13						0.004
Area 4A			3.05						0.004
Area 4B			5.43						0.004
Area 4B-acclimated			4.42						0.003
Ref. Comp.			<0.5						0.014
Ref. Comp. - acclimated			<0.5						0.008
Lower Comp.			0.632 ~~<0.5~~ ①						0.011
Lower Comp. - acclimated			<0.5						0.003

① WC, MMB 1/19/09 Ammonia value = 0.632 mg/L

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND/Juneau Douglas Harbor	Amps	1414-001-860	10

PRETEST / INITIAL / FINAL / OTHER ~~(circle one)~~ **DAY of TEST:** 10
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within ±1°C of standards temperature at time and date of analysis.
Date:	**Temperature:**	
19 January 2009	17.0	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
Control	Surr.	1/19/09 MMB	<0.5	18.0	1/19/09 MMB	N	7.1	32	0.196
Area 1			1.61				7.3	32	0.071
Area 2			3.26				7.7	31	0.092
Area 4A			4.75				7.0	34	0.298
Area 4B			6.77				6.8	34	0.138
Area 4B-acclimated			6.08				7.0	32	0.277
Ref. Comp.			1.24				7.3	32	0.417
Ref. Comp. - acclimated			<0.5				7.3	32	0.157
Lower Comp.			1.17				7.3	33	0.353
Lower Comp. - acclimated			0.597				7.2	32	0.310

NEWFIELDS

ORGANISM RECEIPT LOG

Date:	Time:	NewFields Batch No.
1/6/08	1430	JB 8865

Organism:	Source:
Ampelisca	John Brezina

Address:	Invoice Attached
On File	Yes (No)

Phone:	Contact:
On File	John Brezina

No. Ordered:	No. Received:	Source Batch:
1500	1500 +	Field

Condition of Organisms:	Approximate Size or Age:
Good	3-5 mm

Shipper:	B of L (Tracking No.)
FedEx	8862 6888 8865

Condition of Container:	Received By:
Good	BH

Confirmation of ID of Organism:	Technician (Initials):
Yes (No)	BH

Notes:

pH (Units)	Temp. (°C)	D.O. (mg/L)	Conductivity or (Salinity) (Include Units)	Technician (Initials)
7.0	11.8	>20.0	26	BH

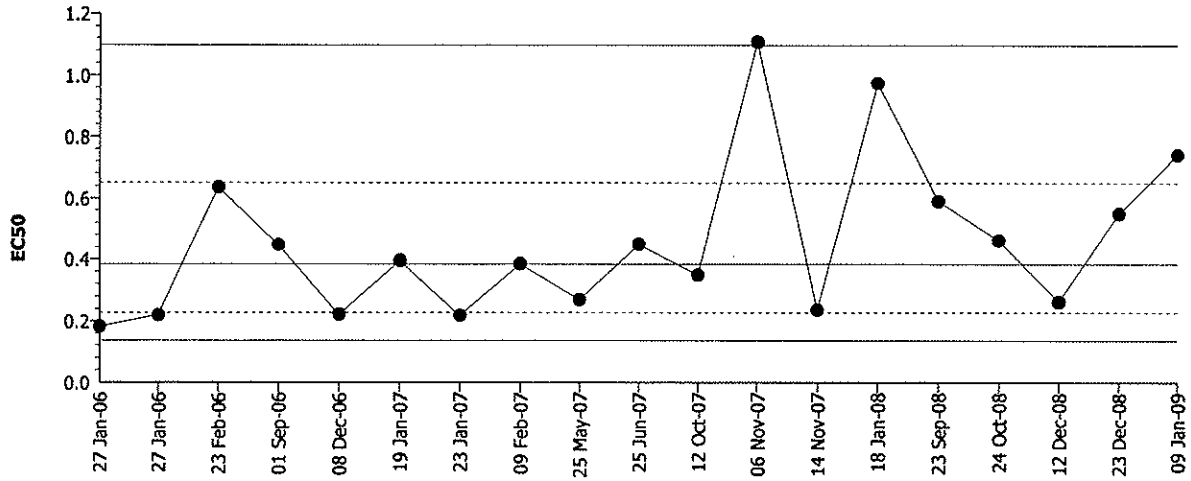
Notes:

CETIS QC Chart

Report Date: 14 Jan-09 10:24 AM

Reference Toxicant 96-h Acute Survival Test — **NewFields**

Test Type: Survival | **Organism:** Ampelisca abdita (Amphipod) | **Material:** Cadmium chloride
Protocol: PSEP (1995) | **Endpoint:** Proportion Survived | **Source:** Reference Toxicant-REF



Mean:	0.38480	**Count:**	18	**-1s Warning Limit:**	0.22782	**-2s Action Limit:**	0.13488
Sigma:		**CV:**	68.91%	**+1s Warning Limit:**	0.64996	**+2s Action Limit:**	1.09782

Quality Control Data

Point	Year	Month	Day	Data	Delta	Sigma	Warning	Action	Test Link	Analysis
1	2006	Jan	27	0.18090	-0.20390	-1.43992	(-)		07-5435-8129	06-2014-1066
2			27	0.21846	-0.16634	-1.07999	(-)		02-3876-2955	12-1597-4541
3		Feb	23	0.63498	0.25018	0.95552			17-3687-3273	06-7672-2441
4		Sep	1	0.44694	0.06214	0.28560			11-8706-7493	01-2691-7469
5		Dec	8	0.22112	-0.16368	-1.05693	(-)		01-8163-5765	09-7294-9655
6	2007	Jan	19	0.39559	0.01078	0.05273			05-1919-0451	04-7876-6509
7			23	0.21727	-0.16753	-1.09043	(-)		13-4550-6899	02-3067-5161
8		Feb	9	0.38474	-0.00006	-0.00032			04-8872-6896	02-4257-0063
9		May	25	0.26923	-0.11557	-0.68139			16-5938-6055	08-1846-1770
10		Jun	25	0.44847	0.06367	0.29210			02-7818-3113	07-6434-4735
11		Oct	12	0.34850	-0.03630	-0.18902			07-2723-0368	03-4167-3848
12		Nov	6	1.10809	0.72329	2.01777	(+)	(+)	02-8822-1003	13-2266-5070
13			14	0.23515	-0.14966	-0.93962			10-0087-4493	11-2555-9069
14	2008	Jan	18	0.97369	0.58889	1.77110	(+)		16-7804-5373	13-2534-3341
15		Sep	23	0.58928	0.20448	0.81305			03-2847-7880	18-3138-3652
16		Oct	24	0.46182	0.07702	0.34806			14-6257-4714	01-6783-1439
17		Dec	12	0.26177	-0.12303	-0.73499			17-4134-1431	08-7847-9030
18			23	0.54863	0.16383	0.67668			21-3281-1872	04-2474-4340
19	2009	Jan	9	0.74026	0.35546	1.24819	(+)		02-0370-2618	03-6596-7598

CETIS Analysis Detail

Reference Toxicant 96-h Acute Survival Test — **NewFields**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Linear Regression	02-0370-2618	02-0370-2618	14 Jan-09 10:20 AM	CETISv1.1.2

Linear Regression Options

Model Function	Threshold Option	Threshold	Threshold Opt	Reweighted	Pooled Groups	Het Corr
Log-Normal [NED=A+B*log(X)]	Control Threshold	0.03333334	Yes	Yes	No	No

Regression Summary

Iters	Log Likelihood	Mu	Sigma	G	Chi-Sq	Critical	P-Value	Decision(0.05)
22	-75.04803	0.96591	0.16706	0.20652	9.42358	22.36203	0.74025	Non-Significant Heterogeneity

Point Estimates

% Effect	Conc-mg/L	95% LCL	95% UCL
10	0.4521551	0.2527701	0.5799527
15	0.496863	0.2982765	0.623324
20	0.5355276	0.3396823	0.6611375
25	0.5710876	0.3791796	0.696459
40	0.6715194	0.4954585	0.8018042
50	0.7402571	0.5757825	0.8820573

Regression Parameters

Parameter	Estimate	Std Error	95% LCL	95% UCL	t Statistic	P-Value	Decision(0.05)
Threshold	0.1318939	0.03616537	0.06100981	0.2027781	3.647	0.00295	Significant
Slope	5.985896	1.387892	3.265628	8.706163	4.313	0.00084	Significant
Intercept	5.781862	0.2564296	5.27926	6.284464	22.548	0.00000	Significant

Residual Analysis

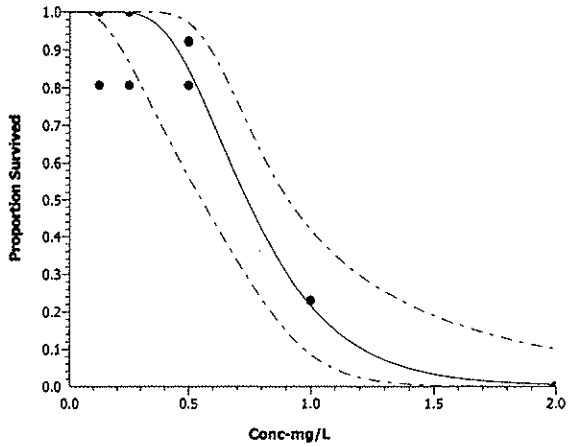
Attribute	Method	Statistic	Critical	P-Value	Decision(0.05)
Variances	Modified Levene	4.12001	3.47805	0.03158	Unequal Variances
Distribution	Shapiro-Wilk W	0.8699051		0.03363	Non-normal Distribution

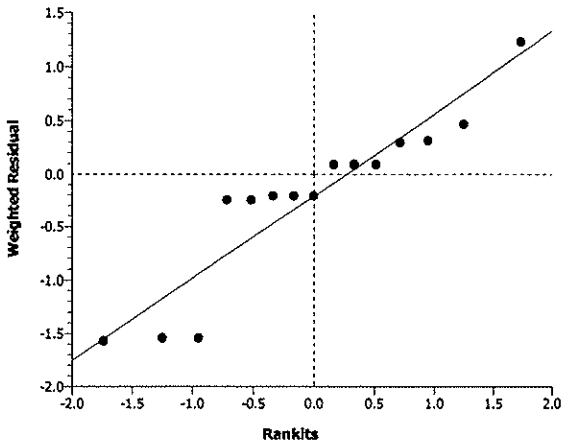
Data Summary

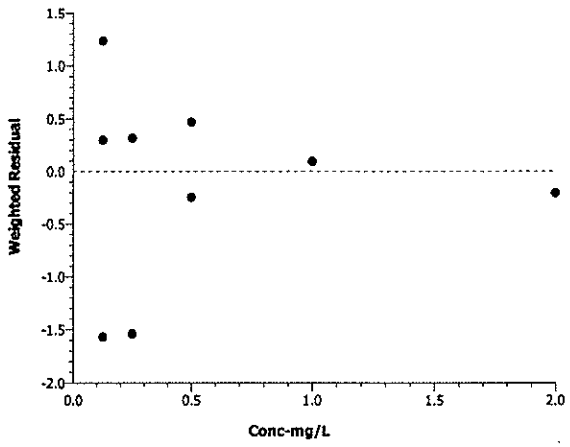
			Calculated Variate(A/B)						
Conc-mg/	Control Type	Count	Mean	Minimum	Maximum	SE	SD	A	B
0	Dilution Water	3	0.96667	0.90000	1.00000	0.01179	0.05773	29	30
0.125		3	0.86667	0.70000	1.00000	0.03118	0.15275	26	30
0.25		3	0.76667	0.70000	0.90000	0.02357	0.11547	23	30
0.5		3	0.73333	0.70000	0.80000	0.01179	0.05774	22	30
1		3	0.20000	0.20000	0.20000	0.00001	0.00005	6	30
2		3	0.00000	0.00000	0.00000	0.00000	0.00000	0	30

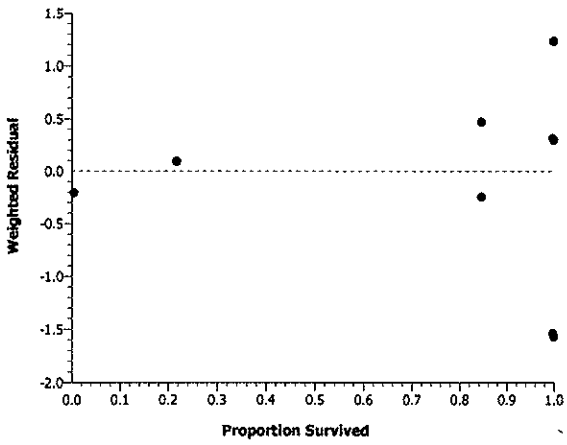
CETIS Analysis Detail

Graphics









CETIS Analysis Detail

Reference Toxicant 96-h Acute Survival Test — **NewFields**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Comparison	02-0370-2618	02-0370-2618	14 Jan-09 10:20 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Dunnett's Multiple Comparison	C > T	Angular (Corrected)		0.125	0.25	800	0.17678	17.65%

Group Comparisons

Control	vs	Conc-mg/L	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Water		0.125	1.35377	2.46559	0.2570	0.25550	Non-Significant Effect
		0.25	2.70754	2.46559	0.0338	0.25550	Significant Effect
		0.5	3.16398	2.46559	0.0160	0.25550	Significant Effect
		1	8.62758	2.46559	0.0000	0.25550	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	1.396425	0.3491064	4	21.67	0.00006	Significant Effect
Error	0.1610765	0.0161077	10			
Total	1.55750202	0.3652140	14			

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Bartlett	57.06145	13.27670	0.00000	Unequal Variances
Distribution	Shapiro-Wilk W	0.97052		0.86571	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-mg/L	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Water	3	0.96667	0.90000	1.00000	0.05773	1.35769	1.24905	1.41202	0.09409
0.125		3	0.86667	0.70000	1.00000	0.15275	1.21741	0.99116	1.41202	0.21221
0.25		3	0.76667	0.70000	0.90000	0.11547	1.07712	0.99116	1.24905	0.14889
0.5		3	0.73333	0.70000	0.80000	0.05774	1.02982	0.99116	1.10715	0.06697
1		3	0.20000	0.20000	0.20000	0.00005	0.46365	0.46365	0.46365	0.00006

Data Detail

Conc-mg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1.00000	1.00000	0.90000							
0.125		0.90000	0.70000	1.00000							
0.25		0.90000	0.70000	0.70000							
0.5		0.80000	0.70000	0.70000							
1		0.20000	0.20000	0.20000							

NEWFIELDS

REFERENCE TOXICANT TEST
WATER QUALITY DATASHEET

Cadmium

CLIENT	PROJECT	SPECIES	NEWFIELDS LABORATORY	PROTOCOL
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble Bath 6	USEPA/USCOE 1991

NEWFIELDS JOB NUMBER	PROJECT MANAGER	QUANTITY OF STOCK TARGET: 0.3 mL	QUANTITY OF DILUENT: 1500mL	INIT
1414-001-860	M. Pinza	ACTUAL: 0.3001g	ACTUAL: 1500.0g	MMB
				DATE PREP 1/9/09

TEST ID	LOT #:	TEST START DATE	TIME	TEST END DATE	TIME
P080418.40	~~06~~	09Jan09	1600	13Jan09	1640

WATER QUALITY DATA

DILTIN.WAT.BATCH	TEMP REC#	REFERENCE TOX. MATERIAL	REFERENCE TOXXICANT	LOT NO.	96-H LC_{50}
FSW010809.01	NA	cadmium chloride	cadmium		

TEST CONDITIONS					DO (mg/L)		TEMP(C)		SAL (ppt)		pH		TECHNICIAN	AMMONIA			SULFIDES		
					≥ 4.5		20 ± 1		30 ± 2		7.8 ± 0.5								
CLIENT/ NEWFIELDS ID	CONCENTRATION value	CONCENTRATION units	DAY	REP	D.O. meter	D.O. mg/L	TEMP. meter	TEMP. °C	SALINITY meter	SALINITY ppt	pH meter	pH unit	TECHNICIAN / DATE	AMMONIA METER	AMMONIA mg/L	Tech	SULFIDES meter	SULFIDES mg/L	Tech
Ref.Tox.-cadmium	0	mg/L	0	Stock	3	7.7	3	19.1	3	30	3	7.9	TS 1/9						
			1	Surr	4	7.0	4	19.1	1	30	1	7.8	CR 1/10						
			2	Surr															
			3	Surr															
			4	Surr	4	7.7	4	19.5	1	29	1	7.6	J 1/13						
Ref.Tox.-cadmium	0.125	mg/L	0	Stock	3	8.2	3	19.1	3	30	3	7.9	TS 1/9						
			1	Surr	4	7.2	4	19.1	1	30	1	7.8	CR 1/10						
			2	Surr															
			3	Surr															
			4	Surr	4	7.6	4	19.8	1	29	1	7.7	J 1/13						
Ref.Tox.-cadmium	0.25	mg/L	0	Stock	3	7.5	3	19.0	3	30	3	8.0	TS 1/9						
			1	Surr	4	7.1	4	19.1	1	30	1	7.9	CR 1/10						
			2	Surr															
			3	Surr															
			4	Surr	4	7.2	4	19.9	1	29	1	7.8	J 1/13						
Ref.Tox.-cadmium	0.5	mg/L	0	Stock	3	7.0	3	19.1	3	30	3	8.0	TS 1/9						
			1	Surr	4	7.1	4	19.1	1	30	1	7.9	CR 1/10						
			2	Surr															
			3	Surr															
			4	Surr	4	7.5	4	19.9	1	29	1	7.8	J 1/13						
Ref.Tox.-cadmium	1	mg/L	0	Stock	3	7.4	3	19.1	3	30	3	8.0	TS 1/9						
			1	Surr	4	7.1	4	19.1	1	30	1	7.9	CR 1/10						
			2	Surr															
			3	Surr															
			4	Surr	4	7.5	4	20.0	1	29	1	7.9	J 1/13						
Ref.Tox.-cadmium	2	mg/L	0	Stock	3	7.2	3	19.0	3	30	3	8.0	TS 1/9						
			1	Surr	4	7.0	4	19.1	1	30	1	7.8	CR 1/10						
			2	Surr															
			3	Surr															
			4	Surr	4	7.5	4	20.0	1	29	1	7.9	J 1/13						

NEWFIELDS

REFE ENCE TOXICANT TEST SUR..VAL DATASHEET

SPECIES
Ampelisca abdida

CLIENT	PROJECT	NEWFIELDS JOB #	PROJECT MANAGER	NEWFIELDS LABORATORY	PROTOCOL
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 6	USEPA/USCOE 1991

SURVIVAL & BEHAVIOR DATA

OBSERVATION KEY
N = normal
LOE= loss of equilibrium
Q = quiescent
DC = discoloration
NB = no body
F= Floating on Surface

INITIAL # OF ORGANISMS

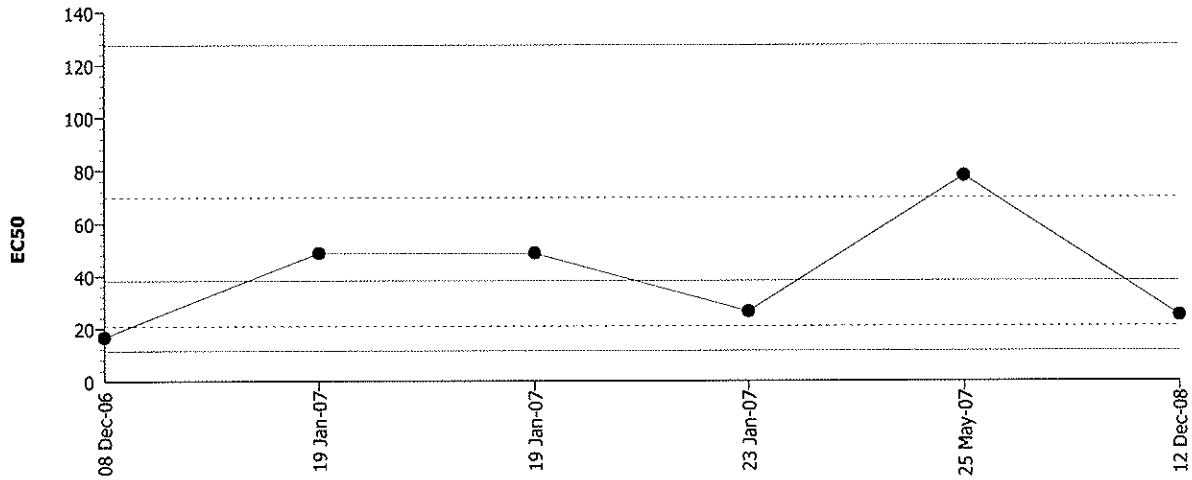
CLIENT/ NEWFIELDS ID	CONC. value	CONC. units	REP	INITIAL NUMBER	DAY 1 DATE 1/10 TECHNICIAN CR #ALIVE	DAY 1 #DEAD	DAY 1 OBS	DAY 2 DATE 1/11 TECHNICIAN CR #ALIVE	DAY 2 #DEAD	DAY 2 OBS	DAY 3 DATE 1/12 TECHNICIAN CR #ALIVE	DAY 3 #DEAD	DAY 3 OBS	DAY 4 DATE 1/13 TECHNICIAN CR #ALIVE	DAY 4 #DEAD	DAY 4 OBS
Ref.Tox.-cadmium	0	mg/L	1		10	0	1F	10	0	2F	10	0	1F	10	0	N
			2		10	0	2F	10	0	N	10	0	1F	10	0	1F
			3		10	0	1F	9	1	1F	9	0	1F	9	0	1F
Ref.Tox.-cadmium	0.125	mg/L	1		10	0	2F	10	0	2F	9	1	1F	9	0	N
			2		10	0	3F	9	1	2F	8	1	1F	7	1	N
			3		10	0	3F	10	0	2F	10	0	2F	10	0	3F
Ref.Tox.-cadmium	0.25	mg/L	1		10	0	1F	10	0	N	9	0	1NB	9	0	N
			2		10	0	4F	9	1	1F	8	1	1F	7	0	1F,1NB
			3		10	0	1F	9	1	3F	8	0	1NB	7	1	1F
Ref.Tox.-cadmium	0.5	mg/L	1		10	0	N	8	2	N	8	0	N	8	0	N
			2		10	0	N	10	0	2F	10	0	N	7	3	2F
			3		10	0	1F	10	0	N	10	0	2F	7	2	3F,1NB
Ref.Tox.-cadmium	1	mg/L	1		10	0	N	9	1	2F	6	3	2F	2	4	N
			2		10	0	3F	9	1	2F	8	1	2F	2	6	N
			3		10	0	3F	10	0	2F	9	1	3F	2	7	1F
Ref.Tox.-cadmium	2	mg/L	1		9	1	1F	6	3	4F	5	1	2F	0	5	N
			2		10	0	1F	8	2	3F	7	1	1F	0	7	N
			3		9	1	4F	7	2	2F	5	2	1F	0	5	N

CETIS QC Chart

Report Date: 14 Jan-09 11:08 AM

Reference Toxicant 96-h Acute Survival Test — **NewFields**

Test Type:	Survival	**Organism:**	Ampelisca abdita (Amphipod)	**Material:**	Ammonium chloride
Protocol:	PSEP (1995)	**Endpoint:**	Proportion Survived	**Source:**	Reference Toxicant-REF



Mean:	38.1212	**Count:**	5	**-1s Warning Limit:**	20.84	**-2s Action Limit:**	11.3927
Sigma:		**CV:**	82.92%	**+1s Warning Limit:**	69.7326	**+2s Action Limit:**	127.557

Quality Control Data

Point	Year	Month	Day	Data	Delta	Sigma	Warning	Action	Test Link	Analysis
1	2006	Dec	8	16.56615	-21.5550	-1.38005	(-)		07-4916-9791	09-2220-9407
2	2007	Jan	19	48.58769	10.46653	0.40172			04-0867-8538	03-7515-9235
3			19	48.58769	10.46653	0.40172			04-0867-8538	05-5328-6021
4			23	26.40728	-11.7138	-0.60793			03-1168-2630	04-9690-0118
5		May	25	77.95302	39.83186	1.18453	(+)		20-2307-8462	10-6781-0786
6	2008	Dec	12	24.73191	-13.3892	-0.71647			03-9393-0024	18-3424-6501

CETIS Analysis Detail

Reference Toxicant 96-h Acute Survival Test — **NewFields**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Trimmed Spearman-Karber	03-9393-0024	03-9393-0024	14 Jan-09 10:54 AM	CETISv1.1.2

Spearman-Karber Options

Threshold Option	Lower Threshold	Trim	Mu	Sigma
Control Threshold	0.2333333	0.00%	1.393258	0.03333754

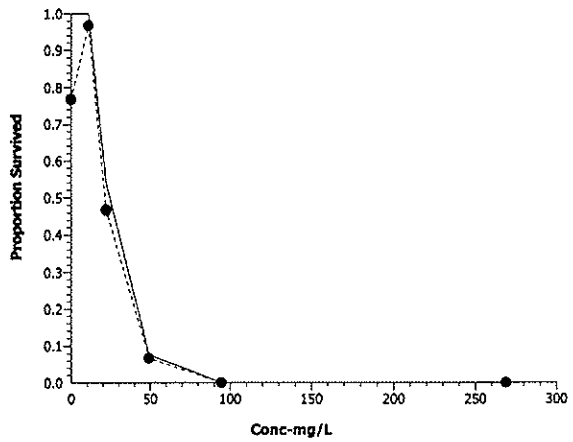
Point Estimates

EC50/LC50	95% LCL	95% UCL
24.73191	21.21204	28.83584

Data Summary

			Calculated Variate(A/B)						
Conc-mg/	Control Type	Count	Mean	Minimum	Maximum	SE	SD	A	B
0	Dilution Water	3	0.76667	0.70000	0.80000	0.01179	0.05774	23	30
11		3	0.96667	0.90000	1.00000	0.01179	0.05773	29	30
22.2		3	0.46667	0.30000	0.80000	0.05893	0.28868	14	30
49.2		3	0.06667	0.00000	0.20000	0.02357	0.11547	2	30
94.7		3	0.00000	0.00000	0.00000	0.00000	0.00000	0	30
269		3	0.00000	0.00000	0.00000	0.00000	0.00000	0	30

Graphics



CETIS Analysis Detail

Reference Toxicant 96-h Acute Survival Test NewFields

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Comparison	03-9393-0024	03-9393-0024	14 Jan-09 10:53 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Dunnett's Multiple Comparison	C > T	Angular (Corrected)		22.2	49.2	4.50450	33.0491	45.45%

Group Comparisons

Control	vs	Conc-mg/L	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Water		11	-1.9134	2.41651	0.9938	0.36525	Non-Significant Effect
		22.2	2.07087	2.41651	0.0833	0.36525	Non-Significant Effect
		49.2	5.34629	2.41651	0.0009	0.36525	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	1.984815	0.661605	3	19.31	0.00051	Significant Effect
Error	0.2741489	0.0342686	8			
Total	2.25896391	0.6958736	11			

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Bartlett	4.12489	11.34487	0.24829	Equal Variances
Distribution	Shapiro-Wilk W	0.89136		0.12270	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-mg/L	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Water	3	0.76667	0.70000	0.80000	0.05774	1.06848	0.99116	1.10715	0.06697
11		3	0.96667	0.90000	1.00000	0.05773	1.35769	1.24905	1.41202	0.09409
22.2		3	0.46667	0.30000	0.80000	0.28868	0.75548	0.57964	1.10715	0.30456
49.2		3	0.06667	0.00000	0.20000	0.11547	0.26040	0.15878	0.46365	0.17602

Data Detail

Conc-mg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	0.80000	0.80000	0.70000							
11		1.00000	1.00000	0.90000							
22.2		0.80000	0.30000	0.30000							
49.2		0.00000	0.20000	0.00000							

NEWFIELDS

REFERENCE TOXICANT TEST
WATER QUALITY DATASHEET

CLIENT	PROJECT	SPECIES	NEWFIELDS LABORATORY	PROTOCOL
PND	Juneau/Douglas Harbor	*Ampelisca abdida*	Port Gamble Bath 4	USEPA/USCOE 1991

NEWFIELDS JOB NUMBER	PROJECT MANAGER	QUANTITY OF STOCK TARGET: ~~675 mL~~ 675	QUANTITY OF DILUENT: 1500mL	INIT TS
1414-001-860	M. Pinza	ACTUAL: 675mL	ACTUAL: 1500.00	DATE PREP 12/12/08

TEST ID	LOT #:	TEST START DATE	TIME	TEST END DATE	TIME
PQ60224.45	06530 KC	12Dec08	1130 BH	16Dec08	1120

WATER QUALITY DATA

DILTIN.WAT.BATCH	TEMP REC#	REFERENCE TOX. MATERIAL	REFERENCE TOXXICANT	LOT NO.	96-H LC_{50}
PGL121108.01	NA	ammonia	ammonium chloride		

TEST CONDITIONS	DO (mg/L) ≥ 4.5	TEMP(C) 20 ± 1	SAL (ppt) 30 ± 2	pH 7.8 ± 0.5	TECHNICIAN	AMMONIA	SULFIDES

CLIENT/NEWFIELDS ID	CONCENTRATION value	CONCENTRATION units	DAY	REP	D.O. meter	D.O. mg/L	TEMP. meter	TEMP. °C	SALINITY meter	SALINITY ppt	pH meter	pH unit	TECHNICIAN / DATE	AMMONIA METER	AMMONIA mg/L	AMMONIA Tech	SULFIDES meter	SULFIDES mg/L	SULFIDES Tech
Ref.Tox.-	0	mg/L	0	Stock	3	7.7	3	19.3	3	29	3	7.5	BH 12/12						
			1	Surr															
			2	Surr															
			3	Surr															
			4	Surr	3	6.5	3	19.3	3	31	3	8.3	MMB 12/16						
Ref.Tox.-	15	mg/L	0	Stock	3	7.8	3	19.4	3	29	3	7.6	BH 12/12						
			1	Surr															
			2	Surr															
			3	Surr															
			4	Surr	3	6.5	3	19.5	3	31	3	8.3	MMB 12/16						
Ref.Tox.-	30	mg/L	0	Stock	3	7.8	3	19.4	3	29	3	7.7	BH 12/12						
			1	Surr															
			2	Surr															
			3	Surr															
			4	Surr	3	6.6	3	19.4	3	30	3	8.3	MMB 12/16						
Ref.Tox.-	60	mg/L	0	Stock	3	7.9	3	19.4	3	30	3	7.7	BH 12/12						
			1	Surr															
			2	Surr															
			3	Surr															
			4	Surr	3	6.6	3	19.5	3	30	3	8.1	MMB 12/16						
Ref.Tox.-	120	mg/L	0	Stock	3	7.9	3	19.4	3	30	3	7.6	BH 12/12						
			1	Surr															
			2	Surr															
			3	Surr															
			4	Surr															
Ref.Tox.-	240	mg/L	0	Stock	3	7.9	3	19.5	3	30	3	7.5	BH 12/12						
			1	Surr															
			2	Surr															
			3	Surr															
			4	Surr															

NEWFIELDS

REFERENCE TOXICANT TEST SURVIVAL DATASHEET

SPECIES					
Ampelisca abdida					
CLIENT	**PROJECT**	**NEWFIELDS JOB #**	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**PROTOCOL**
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 4	USEPA/USCOE 1991

SURVIVAL & BEHAVIOR DATA

OBSERVATION KEY
N = normal
LOE= loss of equilibrium
Q = quiescent
DC = discoloration
NB = no body
F= Floating on Surface

INITIAL # OF ORGANISMS: 10

CLIENT/ NEWFIELDS ID	CONC. value	CONC. units	REP	INITIAL NUMBER	DAY 1 DATE: 12/13 TECHNICIAN: BH			DAY 2 DATE: 12/14 TECHNICIAN: MR			DAY 3 DATE: 12/15 TECHNICIAN: MMB			DAY 4 DATE: 12/16 TECHNICIAN: MMB		
					#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS
Ref.Tox.-ammonia	0	mg/L	1		10	0	6F	10	0	N	9	1	N	8	1	3F
			2		10	0	7F	9	1	N	8	1	2F	8	Ø	1F
			3		10	0	8F	10	0	2F	10	Ø	N	7	3	3F
Ref.Tox.-ammonia	15	mg/L	1		10	0	5F	10	0	N	10	Ø	N	10	Ø	3F
			2		10	0	6F	10	0	N	10	Ø	N	10	Ø	N
			3		10	0	6F	10	0	N	10	Ø	N	9	1	3F
Ref.Tox.-ammonia	30	mg/L	1		10	0	3F	10	0	N	10	Ø	N	8	2	2F
			2		9	1	4F	8	1	N	6	2	N	3	3	2F
			3		9	1	3F	8	1	1F	6	2	1F	3	3	2F
Ref.Tox.-ammonia	60	mg/L	1		9	1	2F	7	2	Q	1	6	Q	0	1	N
			2		8	2	4F	6	2	Q	4	2	Q	2	2	1F
			3		8	2	1F	5	3	Q/DC	3	2	Q	0	3	1F
Ref.Tox.-ammonia	120	mg/L	1		6	4	2F/R	3	3	Q/DC	Ø	3	N	—	—	—
			2		8	2	1F/R	5	3	Q/DC	0	5	N	—	—	—
			3		9	1	3F/R	6	3	Q/DC	Ø	6	N	—	—	—
Ref.Tox.-ammonia	240	mg/L	1		0	10	2F	—	—	—	—	—	—	—	—	—
			2		0	10	—	—	—	—	—	—	—	—	—	—
			3		1	9	Q	1	9	Q	0	1	N	—	—	—

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
Douglas Harbor	Amps - RT	NH3	

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST: ____**
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature	
Date:	**Temperature:**
12/12/08	18.5

Sample temperature should be within ±1°C of standards temperature at time and date of analysis.

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
ϕ	comp	TB 12/12/08	ϕ	19.0	TB 12/12/08	N	NA →		
15	↓	↓	11.0	↓	↓	↓	↓	↓	
30			22.2						
60			49.2						
120			94.7						
240			269						

Reference Toxicant
Ammmonia Spiking Worksheet

Ampelisca NH_3 RT 12/12/08

Assumptions in Model
Stock ammonia concentration is 9,000 mg/L = 9 mg/mL

Actual Reading
8000

Test Solutions			Volume of stock to reach desired concentration	
Measured Concentration mg/L	Desired Concentration mg/L	Volume mL	mL stock to increase FRESH WATER	SALT WATER
	240	1500	45.000	67.5
	120		0.000	0
	60		0.000	0
	30		0.000	0
	15		0.000	0
	0		0.000	0

Table C3. Test Results for the 10-day Acute Toxicity Test with *N. arenaceodentata*

Treatment	Replicate	Number Initiated	Number Surviving	Number Missing or Dead	Percentage Survival	Mean Percentage Survival	SD
Control	1	5	5	0	100		
	2	5	5	0	100		
	3	5	5	0	100		
	4	5	5	0	100		
	5	5	5	0	100	100.0	0.0
Area 1	1	5	5	0	100		
	2	5	4	1	80		
	3	5	5	0	100		
	4	5	5	0	100		
	5	5	5	0	100	96.0	8.9
Area 2	1	5	3	2	60		
	2	5	5	0	100		
	3	5	4	1	80		
	4	5	5	0	100		
	5	5	5	0	100	88.0	17.9
Area 4A	1	5	5	0	100		
	2	5	4	1	80		
	3	5	5	0	100		
	4	5	5	0	100		
	5	5	4	1	80	92.0	11.0
Area 4B	1	5	5	0	100		
	2	5	5	0	100		
	3	5	5	0	100		
	4	5	5	0	100		
	5	5	5	0	100	100.0	0.0
Lower Comp.	1	5	4	1	80		
	2	5	5	0	100		
	3	5	4	1	80		
	4	5	3	2	60		
	5	5	5	0	100	84.0	16.7
Ref. Comp.	1	5	4	1	80		
	2	5	5	0	100		
	3	5	5	0	100		
	4	5	5	0	100		
	5	5	5	0	100	96.0	8.9
Ref. X	1	5	4	1	80		
	2	5	4	1	80		
	3	5	5	0	100		
	4	5	5	0	100		
	5	5	5	0	100	92.0	11.0

Table C4. Water Quality Summary for the 10-Day Acute Test with *Neanthes arenaceodentata*

Treatment	Dissolved Oxygen (mg/L)			Temperature (°C)			pH (units)			Salinity (ppt)		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control	6.9	6.4	7.7	19.6	19.2	19.9	8.1	7.9	8.3	30.3	29.0	32.0
Area 1	6.6	5.0	8.0	19.6	19.0	20.0	8.1	7.7	8.5	29.7	29.0	31.0
Area 2	6.8	6.2	7.7	19.5	19.0	19.8	8.2	7.9	8.7	29.7	29.0	31.0
Area 4A	6.9	6.4	7.7	19.6	19.2	19.9	8.1	7.9	8.3	30.3	29.0	32.0
Area 4B	6.6	5.0	8.0	19.6	19.0	20.0	8.1	7.7	8.5	29.7	29.0	31.0
Lower Comp.	6.8	6.2	7.7	19.5	19.0	19.8	8.2	7.9	8.7	29.7	29.0	31.0
Ref. Comp.	6.9	6.4	7.7	19.6	19.2	19.9	8.1	7.9	8.3	30.3	29.0	32.0
Ref. X	6.6	5.0	8.0	19.6	19.0	20.0	8.1	7.7	8.5	29.7	29.0	31.0

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

CLIENT	PROJECT	NEWFIELDS JOB N0.	PROJECT MAN.	NEWFIELDS LAB	PROTOCOL	SPECIES
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 4	USEPA/USCOE 1991	*Neanthes arenaceodentata*

ENDPOINT DATA & OBSERVATIONS

#S= Number on the Surface
#M= Number of Mortality
L=Anoxic Surface
F=Fungal Patches
D=No Air Flow (DO?)
U=Excess food
N=Normal
B=No Burrows

INITIAL # OF ORGANISMS

CLIENT/ NEWFIELDS ID	REP	JAR #	INITIAL #	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER REMAINING
				DATE 12/14	DATE 12/15	DATE 12/16	DATE 12/17	DATE 12/18	DATE 12/19	DATE 12/20	DATE 12/21	DATE 12/22	DATE 12/23	
				TECHNICIAN BH	TECHNICIAN CR	TECHNICIAN B	TECHNICIAN [illegible]	TECHNICIAN [illegible]	TECHNICIAN SW	TECHNICIAN BH	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	
				OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	
Control /	1	16		N	N	N	N	N	N	N	N	N	N	5
	2	19												5
	3	27												5
	4	31												5
	5	33												5
Area 1 /	1	38												5
	2	13												4
	3	29												5
	4	22												5
	5	30												5
Area 2 /	1	37												3
	2	3												5
	3	1												4
	4	10												5
	5	36												5
Area 4A /	1	17												5
	2	25												4
	3	2												5
	4	24												5
	5	34												4

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

CLIENT	PROJECT	NEWFIELDS JOB NO.	PROJECT MAN.	NEWFIELDS LAB	PROTOCOL	SPECIES
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 4	USEPA/USCOE 1991	*Neanthes arenaceodentata*

ENDPOINT DATA & OBSERVATIONS

#S= Number on the Surface
#M= Number of Mortality
L=Anoxic Surface
F=Fungal Patches
D=No Air Flow (DO?)
U=Excess food
N=Normal
B=No Burrows

INITIAL # OF ORGANISMS

CLIENT/ NEWFIELDS ID	REP	JAR #	INITIAL #	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER REMAINING
				DATE 12/14	DATE 12/15	DATE 12/16	DATE 12/17	DATE 12/18	DATE 12/19	DATE 12/20	DATE 12/21	DATE 12/22	DATE 12/23	
				TECHNICIAN BH	TECHNICIAN CR	TECHNICIAN TS	TECHNICIAN ✓	TECHNICIAN ✓	TECHNICIAN SW	TECHNICIAN BH	TECHNICIAN MMB	TECHNICIAN MMB	TECHNICIAN MMB	
				OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	OBSERVNS.	
Area 4B /	1	39		N	N	N	N	N	N	N	N	N	N	5
	2	7												5
	3	40												5
	4	23												5
	5	28												5
Lower Comp. /	1	8												4
	2	80												5
	3	15												4
	4	6												3
	5	5												5
Ref. Comp. /	6	4												4
	7	14												5
	8	12												5
	9	18												5
	10	9												5
Ref. X /	1	26												4
	2	35												4
	3	11												5
	4	32												5
	5	21												5

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	PROJECT MANAGER	NEWFIELDS LABORATORY	DILUTION WATER BATCH	START TIME	END TIME
1414-001-860	M. Pinza	Port Gamble		1700	

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Control /	0	1	3	7.1	3	19.9	3	29	3	8.0	BH	12/13/08
Control /	0	2		7.1		19.9		29		8.0		
Control /	0	3		7.2		19.8		29		8.0		
Control /	0	4		7.3		19.7		29		8.1		
Control /	0	5		7.4		19.8		30		8.1		
Control /	1	1	3	6.4	3	19.8	3	30	3	8.0	BH	12/14/08
Control /	2	2	3	6.8	3	19.6	3	30	3	8.1	MMB	12/15/08
Control /	3	3	3	6.8	3	19.2	3	30	3	8.0	"	12/16/08
Control /	4	4	3	7.7	3	19.7	3	30	3	8.0	"	12/17/08
Control /	5	5	3	7.1	3	19.6	3	30	3	8.1	"	12/18
Control /	6	1	3	7.1	3	19.6	3	30	3	7.9	SW	12/19
Control /	7	2	3	7.1	3	19.5	3	31	3	8.1	BH	12/20
Control /	8	3	3	7.1	3	19.5	3	30	3	8.2	MMB	12/21
Control /	9	4	3	6.9	3	19.5	3	32	3	8.3	MMB	12/22
Control /	10	1	3	6.6	3	19.6	3	32	3	8.1	MMB	12/23
Control /	10	2		6.6		19.6		32		8.1		
Control /	10	3		6.6		19.5		30		8.1		
Control /	10	4		6.6		19.6		31		8.1		
Control /	10	5		6.4		19.6		31		8.1		

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL					
					USEPA/USCOE 1991
CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	PROJECT MANAGER	NEWFIELDS LABORATORY	DILUTION WATER BATCH	START TIME	END TIME
1414-001-860	M. Pinza	Port Gamble			

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Area 1 /	0	1	3	7.3	3	19.7	3	29	3	8.0	BH	12/13/08
Area 1 /	0	2	↓	6.4	↓	19.8	↓	29	↓	7.9	↓	↓
Area 1 /	0	3		7.0		19.7		29		7.9		
Area 1 /	0	4		7.0		19.7		29		8.0		
Area 1 /	0	5	↓	6.9	↓	19.7	↓	29	↓	8.0	↓	↓
Area 1 /	1	1	3	5.0 ①	3	20.0	3	29	3	7.7	BH	12/14/08
Area 1 /	2	2	3	6.6	3	19.7	3	29	3	8.0	MMB	12/15/08
Area 1 /	3	3	3	6.0	3	19.5	3	29	3	8.0	✓	12/16/08
Area 1 /	4	4	3	8.0	3	19.7	3	30	3	8.0	✓	12/17/08
Area 1 /	5	5	3	6.9	3	19.5	3	30	3	8.1	✓	12/18
Area 1 /	6	1	3	6.8	3	19.0	3	30	3	8.2	SW	12/19
Area 1 /	7	2	3	6.9	3	19.5	3	30	3	8.1	BH	12/20
Area 1 /	8	3	3	6.8	3	19.5	3	30	3	8.4	MMB	12/21
Area 1 /	9	4	3	6.8	3	19.6	3	30	3	8.5	MMB	12/22
Area 1 /	10	1	3	6.5	3	19.6	3	31	3	8.4	MMB	12/23
Area 1 /	10	2	↓	6.4	↓	19.6	↓	30	↓	8.3	↓	↓
Area 1 /	10	3		5.4		19.6		31		8.3		
Area 1 /	10	4		6.4		19.6		30		8.4		
Area 1 /	10	5	↓	6.4	↓	19.5	↓	31	↓	8.4	↓	↓

① Air not flowing, restored 12/14/08 BH

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble			

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) >4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Area 2 /	0	1	3	6.8	3	19.7	3	29	3	8.0	BH	12/13/08
Area 2 /	0	2	↓	6.9	↓	19.6	↓	29	↓	8.0	↓	↓
Area 2 /	0	3	↓	7.0	↓	19.7	↓	29	↓	8.0	↓	↓
Area 2 /	0	4	↓	7.0	↓	19.8	↓	29	↓	8.0	↓	↓
Area 2 /	0	5	↓	7.0	↓	19.6	↓	29	↓	8.1	↓	↓
Area 2 /	1	1	3	6.2	3	19.4	3	29	3	7.9	BH	12/14/08
Area 2 /	2	2	3	6.9	3	19.5	3	29	3	8.1	MMB	12/15/08
Area 2 /	3	3	3	6.9	3	19.3	3	29	3	8.0	✓	12/16/08
Area 2 /	4	4	3	7.7	3	19.7	3	29	3	8.0	✓	12/17/08
Area 2 /	5	5	3	6.9	3	19.5	3	30	3	8.1	✓	12/18
Area 2 /	6	1	3	6.5	3	19.0	3	30	3	8.2	JW	12/19
Area 2 /	7	2	3	7.1	3	19.4	3	30	3	8.2	BH	12/20
Area 2 /	8	3	3	6.8	3	19.5	3	30	3	8.4	MMB	12/21
Area 2 /	9	4	3	6.6	3	19.6	3	30	3	8.7	MMB	12/22
Area 2 /	10	1	3	6.4	3	19.6	3	31	3	8.5	MMB	12/23
Area 2 /	10	2	↓	6.5	↓	19.6	↓	31	↓	8.4	↓	↓
Area 2 /	10	3	↓	6.4	↓	19.6	↓	30	↓	8.6	↓	↓
Area 2 /	10	4	↓	6.3	↓	19.6	↓	30	↓	8.6	↓	↓
Area 2 /	10	5	↓	6.4	↓	19.5	↓	31	↓	8.6	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble			

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Area 4A /	0	1	3	6.9	3	19.7	3	29	3	8.0	BH	12/13/08
Area 4A /	0	2	↓	6.7	↓	19.7	↓	30	↓	8.0	↓	↓
Area 4A /	0	3		6.9		19.5		29		7.9		
Area 4A /	0	4		7.0		19.7		30		8.0		
Area 4A /	0	5	↓	7.0	↓	19.6	↓	30	↓	8.0	↓	↓
Area 4A /	1	1	3	6.4	3	19.8	3	29	3	8.1	BH	12/14/08
Area 4A /	2	2	3	6.6	3	19.6	3	30	3	8.1	MMB	12/15/08
Area 4A /	3	3	3	6.7	3	19.3	3	30	3	8.0	✓	12/16/08
Area 4A /	4	4	3	7.6	3	19.7	3	30	3	8.1	✓	12/17/08
Area 4A /	5	5	3	7.2	3	19.6	3	30	3	8.2	✓	12/18
Area 4A /	6	1	3	6.7	3	19.2	3	29	3	8.4	SW	12/19
Area 4A /	7	2	3	6.6	3	19.2	3	31	3	8.4	BH	12/20
Area 4A /	8	3	3	6.7	3	19.6	3	31	3	8.7	MMB	12/21
Area 4A /	9	4	3	6.4	3	19.4	3	32	3	8.7	MMB	12/22
Area 4A /	10	1	3	6.4	3	19.6	3	30	3	8.7	MMB	12/23
Area 4A /	10	2	↓	6.3	↓	19.6	↓	31	↓	8.8	↓	↓
Area 4A /	10	3		6.3		19.6		32		8.7		
Area 4A /	10	4		4.1 ①		19.5		31		8.7		
Area 4A /	10	5	↓	6.2	↓	19.6	↓	32	↓	8.8	↓	↓

① Airline out of water prior to ending test. MMB 12/23/08

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble			

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Area 4B /	0	1	3	7.1	3	①~~29~~ 19.6	3	29	3	8.0	BH	12/13/08
Area 4B /	0	2	↓	7.0	↓	19.7	↓	29	↓	8.0	↓	↓
Area 4B /	0	3		6.9		19.4		29		8.0		
Area 4B /	0	4		7.0		19.7		29		8.0		
Area 4B /	0	5	↓	6.9	↓	19.7	↓	29	↓	8.1	↓	↓
Area 4B /	1	1	3	6.6	3	19.8	3	29	3	8.1	BH	12/14/08
Area 4B /	2	2	3	6.6	3	19.7	3	29	3	8.2	MMB	12/15/08
Area 4B /	3	3	3	6.8	3	19.3	3	29	3	8.0	↓	12/16/08
Area 4B /	4	4	3	7.7	3	19.6	3	29	3	8.1	↓	12/17/08
Area 4B /	5	5	3	4.3 ②w	3	19.6	3	30	3	8.3	↓	12/18
Area 4B /	6	1	3	6.9	3	19.0	3	30	3	8.2	SW	12/19
Area 4B /	7	2	3	7.0	3	19.5	3	30	3	8.6	BH	12/20
Area 4B /	8	3	3	6.7	3	19.5	3	30	3	8.8	MMB	12/21
Area 4B /	9	4	3	6.7	3	19.4	3	32	3	8.8	MMB	12/22
Area 4B /	10	1	3	6.1	3	19.6	3	30	3	8.8	MMB	12/23
Area 4B /	10	2	↓	6.2	↓	19.7	↓	30	↓	8.8	↓	↓
Area 4B /	10	3		6.2		19.6		30		8.8		
Area 4B /	10	4		6.3		19.5		32		8.7		
Area 4B /	10	5	↓	6.3	↓	19.5	↓	32	↓	8.8	↓	↓

① WC 12.13.08 BK

② flow line not working 12/18/08 ↓ fixed

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

					PROTOCOL: USEPA/USCOE 1991
CLIENT: PND	PROJECT: Juneau/Douglas Harbor	SPECIES: *Neanthes arenaceodentata*	TEST START DATE: Port Gamble	TEST START DATE: 13Dec08	TEST END DATE: 23Dec08
NEWFIELDS JOB NUMBER: 1414-001-860	PROJECT MANAGER: M. Pinza	NEWFIELDS LABORATORY: Port Gamble	DILUTION WATER BATCH:	START TIME:	END TIME:

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O. meter	D.O. mg/L	TEMP meter	TEMP °C	SALINITY meter	SALINITY ppt	pH meter	pH unit		
Lower Comp. /	0	1	3	7.0	3	19.7	3	29	3	8.0	BH	12/13/08
Lower Comp. /	0	2	↓	7.1	↓	19.6	↓	29	↓	8.0	↓	↓
Lower Comp. /	0	3		7.0		19.7		29		8.1		
Lower Comp. /	0	4		7.1		19.5		29		8.1		
Lower Comp. /	0	5	↓	7.1	↓	19.6	↓	29	↓	8.1	↓	↓
Lower Comp. /	1	1	3	6.8	3	19.8	3	29	3	8.0	BH	12/14/08
Lower Comp. /	2	2	3	6.8	3	19.7	3	30	3	8.2	MMB	12/15/08
Lower Comp. /	3	3	3	6.7	3	19.6	3	30	3	8.1	✓	12/16/08
Lower Comp. /	4	4	3	7.6	3	19.7	3	30	3	8.1	✓	12/17/08
Lower Comp. /	5	5	3	7.0	3	19.6	3	30	3	8.1	✓	12/18
Lower Comp. /	6	1	3	7.0	3	19.3	3	30	3	8.1	SW	12/19
Lower Comp. /	7	2	3	7.1	3	19.4	3	30	3	8.4	BH	12/20
Lower Comp. /	8	3	3	7.0	3	19.6	3	30	3	8.2	MMB	12/21
Lower Comp. /	9	4	3	6.9	3	19.5	3	30	3	8.2	MMB	12/22
Lower Comp. /	10	1	3	6.5	3	19.6	3	30	3	8.3	MMB	12/23
Lower Comp. /	10	2	↓	6.6	↓	19.6	↓	30	↓	8.3	↓	↓
Lower Comp. /	10	3		6.6		19.6		30		8.2		
Lower Comp. /	10	4		6.5		19.5		30		8.3		
Lower Comp. /	10	5	↓	6.4	↓	19.6	↓	30	↓	8.2	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble			

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
CLIENT/NEWFIELDS ID	DAY	REP	D.O.		TEMP		SALINITY		pH			
			meter	mg/L	meter	°C	meter	ppt	meter	unit		
Ref. Comp. /	0	1	3	6.8	3	19.6	3	29	3	8.0	BH	12/13/08
Ref. Comp. /	0	2		7.0		19.7		30		8.0		
Ref. Comp. /	0	3		7.0		19.6		30		8.0		
Ref. Comp. /	0	4		7.0		19.6		30		8.1		
Ref. Comp. /	0	5		7.1		19.6		30		8.1		
Ref. Comp. /	1	1	3	6.6	3	19.7	3	29	3	8.0	BH	12/14/08
Ref. Comp. /	2	2	3	6.8	3	19.7	3	30	3	8.1	MMB	12/15/08
Ref. Comp. /	3	3	3	6.9	3	19.5	3	30	3	8.0	✓	12/16/08
Ref. Comp. /	4	4	3	7.8	3	19.7	3	30	3	8.0	✓	12/17/08
Ref. Comp. /	5	5	3	7.0	3	19.6	3	30	3	8.1	✓	12/18
Ref. Comp. /	6	1	3	7.1	3	19.3	3	30	3	8.0	SW	12/19
Ref. Comp. /	7	2	3	7.0	3	19.5	3	30	3	8.2	BH	12/20
Ref. Comp. /	8	3	3	7.0	3	19.6	3	30	3	8.3	MMB	12/21
Ref. Comp. /	9	4	3	6.9	3	19.6	3	31	3	8.3	MMB	12/22
Ref. Comp. /	10	1	3	6.4	3	19.6	3	31	3	8.2	MMB	12/23
Ref. Comp. /	10	2		6.5		19.6		31		8.2		
Ref. Comp. /	10	3		6.6		19.5		31		8.2		
Ref. Comp. /	10	4		6.4		19.5		31		8.1		
Ref. Comp. /	10	5	↓	6.4	↓	19.5	↓	31	↓	8.1	↓	↓

NEWFIELDS

10 DAY SOLID PHASE TEST DATA

PROTOCOL
USEPA/USCOE 1991

CLIENT	PROJECT	SPECIES	TEST START DATE	TEST START DATE	TEST END DATE
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble	13Dec08	23Dec08
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**DILUTION WATER BATCH**	**START TIME**	**END TIME**
1414-001-860	M. Pinza	Port Gamble			

WATER QUALITY DATA

TEST CONDITIONS			D.O. (mg/L) > 4.6		TEMP (°C) 20 ± 1		SALINITY (ppt) 30 ± 2		pH (pH units) 7.8 ± 0.5		TECH.	Date
			D.O.		TEMP		SALINITY		pH			
CLIENT/NEWFIELDS ID	DAY	REP	meter	mg/L	meter	°C	meter	ppt	meter	unit		
Ref. X / Ref01	0	1	3	7.0	3	19.7	3	30	3	7.9	BH	12/13/08
Ref. X / Ref02	0	2	↓	7.0	↓	19.7	↓	30	↓	8.0	↓	↓
Ref. X / Ref03	0	3	↓	6.9	↓	19.5	↓	30	↓	8.0	↓	↓
Ref. X / Ref04	0	4	↓	6.8	↓	19.7	↓	30	↓	8.1	↓	↓
Ref. X / Ref05	0	5	↓	7.2	↓	19.7	↓	29	↓	8.0	↓	↓
Ref. X /	1	1	3	6.4	3	19.6	3	30	3	8.0	BH	12/14/08
Ref. X /	2	2	3	6.9	3	19.5	3	30	3	8.2	MMB	12/15/08
Ref. X /	3	3	3	6.8	3	19.3	3	30	3	7.9	↓	12/16/08
Ref. X /	4	4	3	7.7	3	19.7	3	30	3	8.0	↓	12/17/08
Ref. X /	5	5	3	6.8	3	19.5	3	31	3	8.0	↓	12/17/08
Ref. X /	6	1	3	7.9	3	19.1	3	30	3	8.2	SW	12/19
Ref. X /	7	2	3	7.0	3	19.4	3	31	3	8.1	BH	12/20
Ref. X /	8	3	3	7.0	3	19.6	3	30	3	8.2	MMB	12/21
Ref. X /	9	4	3	6.9	3	19.5	3	31	3	8.2	MMB	12/22
Ref. X /	10	1	3	6.4	3	19.5	3	30	3	8.2	MMB	12/23
Ref. X /	10	2	↓	6.5	↓	19.5	↓	31	↓	8.2	↓	↓
Ref. X /	10	3	↓	6.5	↓	19.5	↓	31	↓	8.2	↓	↓
Ref. X /	10	4	↓	6.4	↓	19.5	↓	31	↓	8.1	↓	↓
Ref. X /	10	5	↓	6.4	↓	19.5	↓	32	↓	8.1	↓	↓

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND / Juneau Douglas Harbor	Amps / Neanthes		10

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST:** 10
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature	
Date:	**Temperature:**
23 Dec. '08	19.0

Sample temperature should be within ±1°C of standards temperature at time and date of analysis.

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
⊘	Surr.	12/23/08 MMB	1.91 *	19.0	12/23/08 MMB	N	6.6	33	
Area 1			13.2				6.7	31	②
Area 2			49.7				6.8	32	③
Area 4A			127				7.0	31	②
Area 4B			235				6.8	32	②
Lower Comp.			420				7.2	30	①
Ref. Comp.			60.5				7.3	32	②
* Ammonia Values suspect. Probe membrane replaced & recalibrated									
Composite of 4A+4B was measured @ 0.276 mg									

① Not enough PW to run sulfides, MMB 12/23/08
② Used 2 x multiplier, MMB 12/23/08
③ Used 10 x multiplier, MMB 12/23/08

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND / Juneau Douglas Harbor	Amps / Neanthes		10

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST: ____**
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within ±1°C of standards temperature at time and date of analysis.
Date:	Temperature:	
23 Dec. '08	19.0	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
Ø	Surf.	12/23/08 MMB	<0.5	19.0	12/23/08 MMB	N	6.6	33	
Area 1			<0.5				6.7	31	
Area 2			0.614				6.8	32	
Area 4A			2.00				7.0	31	
Area 4B			3.33				6.8	32	
Lower Comp.			①				7.2	30	
Ref. Comp.			<0.5				7.3	32	

① Unable to collect enough to test, MMB 12/23/08

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
PND1 Juneau Douglas Harbor	Ames/ Neanthes		10

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST: _____**
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within ±1°C of standards temperature at time and date of analysis.
Date:	Temperature:	
23 Dec. '08	19.0	

	Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
OV	Ref. 1	Surr.	12/23/08 MMB	<0.5	18.0	12/23/08 MMB	N			0.004
	Ref. 2	↓	↓	<0.5	↓	↓	↓			0.039
	Ref. 3			<0.5						0.003
	Ref. 4			<0.5						0.005
	Ref. 5	↓	↓	<0.5	↓	↓	↓			0.002
PW	Ref. 1	Surr.	12/23/08 MMB	<0.5	19.0	12/23/08 MMB	N	7.4	31	0.495
	Ref. 2	↓	↓	<0.5	↓	↓	↓	7.4	32	0.303
	Ref. 3			0.558				7.4	32	0.510 ① ~~0.255~~
	Ref. 4			<0.5				7.5	31	0.177
	Ref. 5	↓	↓	<0.5	↓	↓	↓	7.5	30	0.402

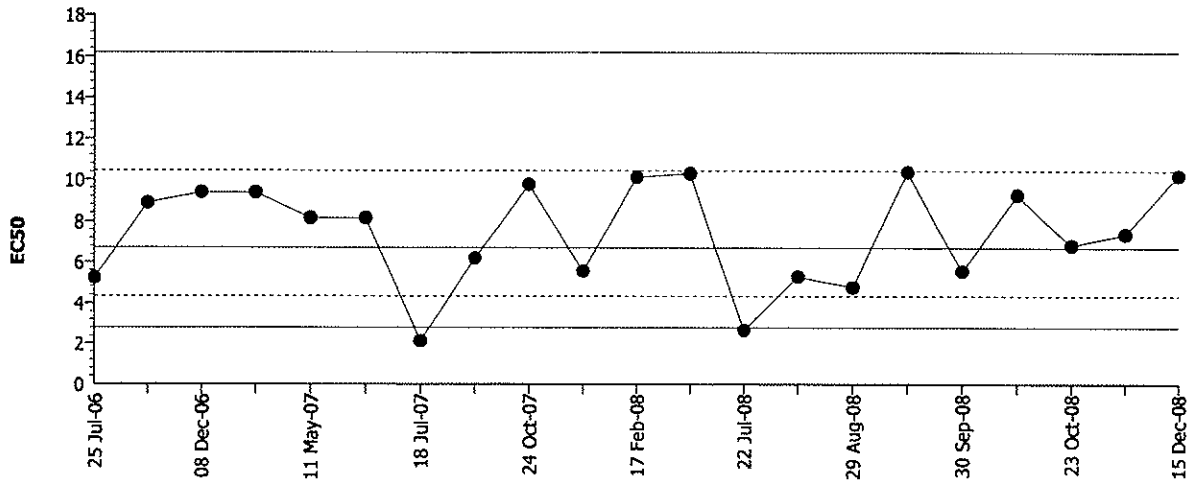
① Used 2x multiplier, MMB 12/23/08

CETIS QC Chart

Report Date: 16 Jan-09 2:20 PM

Neanthes 10-d Survival and Growth Sediment Test — **NewFields**

Test Type: Survival-Growth | **Organism:** Neanthes arenaceodentata (Polycha | **Material:** Cadmium chloride
Protocol: PSEP (1995) | **Endpoint:** Proportion Survived | **Source:** Reference Toxicant-REF



Mean:	6.73366	**Count:**	20	**-1s Warning Limit:**	4.34231	**-2s Action Limit:**	2.80021
Sigma:		**CV:**	55.07%	**+1s Warning Limit:**	10.442	**+2s Action Limit:**	16.1925

Quality Control Data

Point	Year	Month	Day	Data	Delta	Sigma	Warning	Action	Test Link	Analysis
1	2006	Jul	25	5.22653	-1.50713	-0.57753			15-7582-9934	07-9049-7308
2		Aug	31	8.86577	2.13211	0.62701			16-7169-3504	00-9849-6979
3		Dec	8	9.37175	2.63809	0.75352			10-5822-0812	10-0140-9364
4			8	9.37175	2.63809	0.75352			10-5822-0812	08-7192-3895
5	2007	May	11	8.16253	1.42886	0.43863			03-7778-9913	06-1785-2165
6		Jun	26	8.16258	1.42892	0.43865			09-6212-3109	14-8493-4946
7		Jul	18	2.13748	-4.59619	-2.61559	(-)	(-)	09-5163-0637	11-9760-1230
8		Sep	25	6.20193	-0.53173	-0.18750			06-6354-6111	12-2113-4941
9		Oct	24	9.76006	3.02640	0.84606			05-9113-1606	14-0319-5260
10			30	5.55412	-1.17955	-0.43897			03-0327-1386	13-6201-5780
11	2008	Feb	17	10.12762	3.39396	0.93033			11-6935-8907	04-7495-8038
12		Jul	2	10.30107	3.56741	0.96903			07-0160-7176	03-3190-0644
13			22	2.65108	-4.08258	-2.12474	(-)	(-)	12-3989-8103	10-4556-3131
14		Aug	5	5.30308	-1.43058	-0.54439			12-5764-3928	08-5080-2403
15			29	4.77241	-1.96126	-0.78472			04-2068-8020	17-2391-7369
16		Sep	26	10.37648	3.64282	0.98566			12-2518-6391	15-3142-3234
17			30	5.55412	-1.17955	-0.43897			14-9908-4079	13-4530-5299
18		Oct	9	9.26124	2.52758	0.72649			06-2717-9387	09-3671-8537
19			23	6.83792	0.10425	0.03502			19-3732-1210	02-0490-6958
20		Nov	5	7.37857	0.64490	0.20847			15-0302-5653	14-4382-3985
21		Dec	15	10.20151	3.46785	0.94690			12-5691-1479	14-1608-5886

CETIS Analysis Detail

Report Date: 16 Jan-09 2:19 PM
Analysis: 14-1608-5886

Neanthes 10-d Survival and Growth Sediment Test — NewFields

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Trimmed Spearman-Karber	12-5691-1479	12-5691-1479	16 Jan-09 2:19 PM	CETISv1.1.2

Spearman-Karber Options

Threshold Option	Lower Threshold	Trim	Mu	Sigma
Control Threshold	0.03333334	0.00%	1.008664	0.01265563

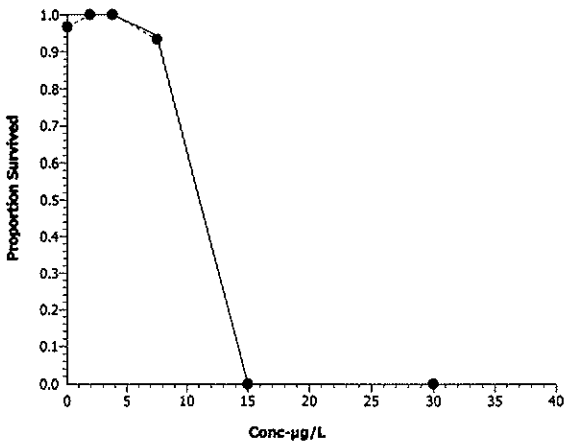
Point Estimates

EC50/LC50	95% LCL	95% UCL
10.20151	9.62395	10.81374

Data Summary

Conc-µg/L	Control Type	Count	Calculated Variate(A/B) Mean	Minimum	Maximum	SE	SD	A	B
0	Dilution Water	3	0.96667	0.90000	1.00000	0.01179	0.05773	29	30
1.875		3	1.00000	1.00000	1.00000	0.00000	0.00000	30	30
3.75		3	1.00000	1.00000	1.00000	0.00000	0.00000	30	30
7.5		3	0.93333	0.90000	1.00000	0.01179	0.05773	28	30
15		3	0.00000	0.00000	0.00000	0.00000	0.00000	0	30
30		3	0.00000	0.00000	0.00000	0.00000	0.00000	0	30

Graphics



CETIS Analysis Detail

Neanthes 10-d Survival and Growth Sediment Test — NewFields

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Comparison	12-5691-1479	12-5691-1479	16 Jan-09 2:19 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Dunnett's Multiple Comparison	C > T	Angular (Corrected)		7.5	15	13.3333	10.6066	8.34%

Group Comparisons

Control	vs	Conc-µg/L	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Water		1.875	-1	2.41651	0.9578	0.13127	Non-Significant Effect
		3.75	-1	2.41651	0.9578	0.13127	Non-Significant Effect
		7.5	1	2.41651	0.3408	0.13127	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0243461	0.0081154	3	1.83	0.21921	Non-Significant Effect
Error	0.0354124	0.0044266	8			
Total	0.0597585	0.0125419	11			

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Modified Levene	1.77778	7.59099	0.22904	Equal Variances
Distribution	Shapiro-Wilk W	0.92074		0.29206	Normal Distribution

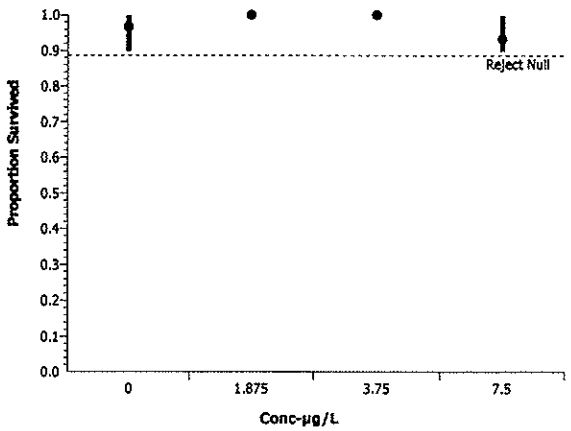
Data Summary

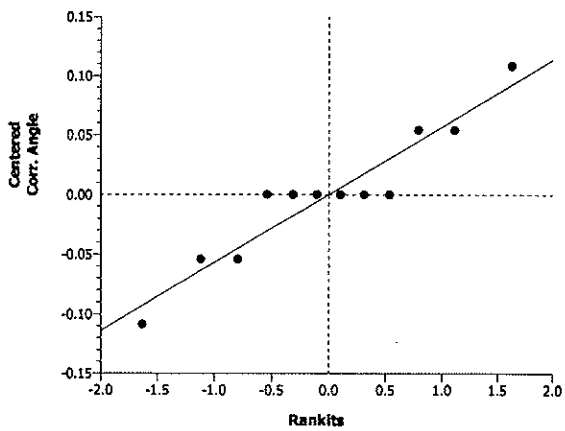
			Original Data				Transformed Data			
Conc-µg/L	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Water	3	0.96667	0.90000	1.00000	0.05773	1.35769	1.24905	1.41202	0.09409
1.875		3	1.00000	1.00000	1.00000	0.00000	1.41202	1.41202	1.41202	0.00029
3.75		3	1.00000	1.00000	1.00000	0.00000	1.41202	1.41202	1.41202	0.00029
7.5		3	0.93333	0.90000	1.00000	0.05773	1.30337	1.24905	1.41202	0.09409

Data Detail

Conc-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	0.90000	1.00000	1.00000							
1.875		1.00000	1.00000	1.00000							
3.75		1.00000	1.00000	1.00000							
7.5		0.90000	0.90000	1.00000							

Graphics





CETIS Data Worksheet

Report Date: 16 Jan-09 2:18 PM
Link: 12-5691-1479

Neanthes 10-d Survival and Growth Sediment Test — **NewFields**

Start Date:	15 Dec-08 04:00 PM	**Species:**	Neanthes arenaceodentata	**Sample Code:**	529420695
Ending Date:	19 Dec-08 02:25 PM	**Protocol:**	PSEP (1995)	**Sample Source:**	Reference Toxicant
Sample Date:	15 Dec-08	**Material:**	Cadmium chloride	**Sample Station:**	P080418.35

Conc-µg/L	Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm	Notes
0	D	1	16	10	9		0			
0	D	2	18	10	10		0			
0	D	3	3	10	10		0			
1.875		1	17	10	10		0			
1.875		2	2	10	10		0			
1.875		3	6	10	10		0			
3.75		1	13	10	10		0			
3.75		2	11	10	10		0			
3.75		3	14	10	10		0			
7.5		1	7	10	9		0			
7.5		2	5	10	9		0			
7.5		3	15	10	10		0			
15		1	10	10	0		0			
15		2	9	10	0		0			
15		3	12	10	0		0			
30		1	8	10	0		0			
30		2	4	10	0		0			
30		3	1	10	0		0			

NEWFIELDS

REFERENCE TOXICANT TEST
WATER QUALITY DATASHEET

CLIENT	PROJECT	SPECIES	NEWFIELDS LABORATORY	PROTOCOL
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble Bath 4	USEPA/USCOE 1991

NEWFIELDS JOB NUMBER	PROJECT MANAGER	QUANTITY OF STOCK TARGET: 4.5 mL	QUANTITY OF DILUENT: 1500mL	INIT TS
1414-001-860	M. Pinza	ACTUAL: 4.50320 mL	ACTUAL: 1500.0	DATE PREP 12/15/08

TEST ID	LOT #:	TEST START DATE	TIME	TEST END DATE	TIME
P080418.35	06510 TC	15Dec08	1600	19Dec08	1425

WATER QUALITY DATA

DILTIN.WAT.BATCH	TEMP REC#	REFERENCE TOX. MATERIAL	REFERENCE TOXXICANT	LOT NO.	96-H LC_{50}
.	NA	cadmium chloride	cadmium		

TEST CONDITIONS	DO (mg/L)	TEMP(C)	SAL (ppt)	pH	TECHNICIAN	AMMONIA	SULFIDES
	≥ 4.5	20 ± 1	30 ± 2	7.8 ± 0.5			

CLIENT/ NEWFIELDS ID	CONCENTRATION value	CONCENTRATION units	DAY	REP	D.O. meter	D.O. mg/L	TEMP. meter	TEMP. °C	SALINITY meter	SALINITY ppt	pH meter	pH unit	TECHNICIAN / DATE	AMMONIA METER	AMMONIA mg/L	Tech	SULFIDES meter	SULFIDES mg/L	Tech
Ref.Tox.-cadmium	0	mg/L	0	Stock	3	7.9	3	18.8	3	29	3	7.5	TS						
			1	Surr		6.9		18.3		29		7.2							
			2	Surr		7.1		20.3		29		7.5							
			3	Surr		6.6		19.6		30		7.8							
			4	Surr		6.3		19.4		30		7.9							
Ref.Tox.-cadmium	1.875	mg/L	0	Stock	3	8.1	3	18.8	3	29	3	7.6	TS						
			1	Surr	3	6.9	3	18.6	3	29	3	7.4	L 12/16						
			2	Surr	3	7.2	3	19.9	3	30	3	7.6	L 12/17						
			3	Surr	3	6.6	3	19.7	3	30	3	7.8	L 12/18						
			4	Surr	3	6.4	3	19.4	3	31	3	8.0	SW 12/19						
Ref.Tox.-cadmium	3.75	mg/L	0	Stock	3	7.9	3	18.7	3	29	3	7.6	TS						
			1	Surr	3	6.7	3	18.6	3	29	3	7.5	L 12/16						
			2	Surr	3	7.4	3	20.2	3	30	3	7.6	L 12/17						
			3	Surr	3	6.5	3	19.5	3	30	3	7.8	L 12/18						
			4	Surr	3	6.4	3	19.4	3	30	3	8.0	SW 12/19						
Ref.Tox.-cadmium	7.5	mg/L	0	Stock	3	8.2	3	18.7	3	29	3	7.7	TS						
			1	Surr	3	6.9	3	18.8	3	29	3	7.6	L 12/16						
			2	Surr	3	7.3	3	19.9	3	30	3	7.6	L 12/17						
			3	Surr	3	6.7	3	19.9	3	30	3	7.9	L 12/18						
			4	Surr	3	6.3	3	19.4	3	30	3	8.0	SW 12/19						
Ref.Tox.-cadmium	15	mg/L	0	Stock	3	7.8	3	18.7	3	29	3	7.7	TS						
			1	Surr	3	6.9	3	18.8	3	29	3	7.6	L 12/16						
			2	Surr	3	7.6	3	19.8	3	30	3	7.7	L 12/17						
			3	Surr	3	6.8	3	19.8	3	30	3	7.9	L 12/18						
			4	Surr	3	6.2	3	19.4	3	30	3	8.0	SW 12/19						
Ref.Tox.-cadmium	30	mg/L	0	Stock	3	8.1	3	18.7	3	29	3	7.7	TS						
			1	Surr	3	6.8	3	19.9	3	29	3	7.6	L 12/16						
			2	Surr	3	—	3	—	3	—	3	—	L 12/17						
			3	Surr	3	—	3	—	3	—	3	—	L 12/18						
			4	Surr		—		—		—		—	SW 12/19						

@Temp low increased room temp 12/16/08 L

NEWFIELDS

REFERENCE TOXICANT TEST SURVIVAL DATASHEET

SPECIES					
Neanthes arenaceodentata					
CLIENT	**PROJECT**	**NEWFIELDS JOB #**	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**PROTOCOL**
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 4	USEPA/USCOE 1991

SURVIVAL & BEHAVIOR DATA

OBSERVATION KEY
N = normal
LOE= loss of equilibrium
Q = quiescent
DC = discoloration
NB = no body
F= Floating on Surface

INITIAL # OF ORGANISMS: 10

				DAY 1			DAY 2			DAY 3			DAY 4		
				DATE: 12/16			DATE: 12/17			DATE: 12/18			DATE: 12/19		
				TECHNICIAN: MMB			TECHNICIAN: MMB			TECHNICIAN: ↓			TECHNICIAN: MMB		
CLIENT/ NEWFIELDS ID	CONC. value	CONC. units	REP	INITIAL NUMBER	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS
Ref.Tox.-cadmium	0	mg/L	1		10	Ø	N	10	Ø	N	10	Ø	N	9	Ø	N (2)
			2		10	Ø	N	10	Ø	↓	10	Ø	N	10	Ø	N
			3		10	Ø	N	10	Ø	↓	10	Ø	N	10	Ø	N
Ref.Tox.-cadmium	1.875	mg/L	1		10	Ø	N	10	Ø	N	10	Ø	N	10	Ø	N
			2		10	Ø	N	10	Ø	↓	10	Ø	N	10	Ø	N
			3		10	Ø	N	10	Ø	↓	10	Ø	N	10	Ø	N
Ref.Tox.-cadmium	3.75	mg/L	1		10	Ø	N	10	Ø	N	10	Ø	N	10	Ø	N
			2		10	Ø	N	10	Ø	↓	10	Ø	N	10	Ø	N
			3		10	Ø	N	10	Ø	↓	10	Ø	N	10	Ø	N
Ref.Tox.-cadmium	7.5	mg/L	1		10	Ø	N	10	Ø	N	10	Ø	N	9	1	N
			2		10	Ø	N	10	Ø	↓	10	Ø	N	9	1	N
			3		10	Ø	N (1)	10	Ø	↓	10	Ø	N	10	Ø	N
Ref.Tox.-cadmium	15	mg/L	1		3	7	Q	0	3	N						
			2		2	8	Q	0	2	↓						
			3		5	5	Q	1	4	↓	1	Ø	Q	0	1	N
Ref.Tox.-cadmium	30	mg/L	1		0	10	N									
			2		0	10	N									
			3		0	10	N									

(1) N, but 1 worm is alive in two halves. MMB 12/16/08

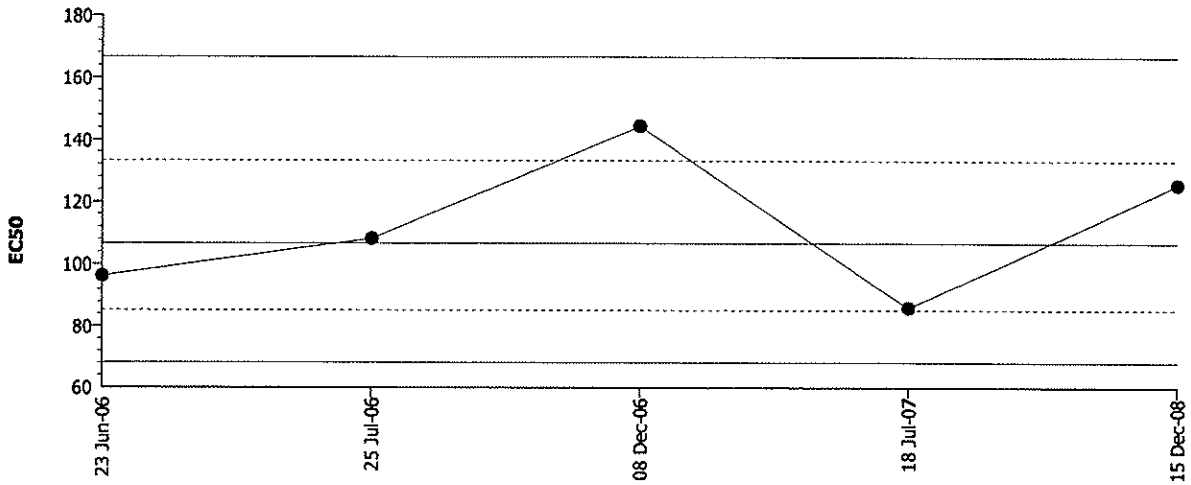
(2) ½ worm in chamber alive. MMB 12/19/08 (not incl. in #Alive)

CETIS QC Chart

Report Date: 16 Jan-09 2:58 PM

Reference Toxicant 96-h Acute Survival Test **NewFields**

Test Type:	Survival	**Organism:**	Neanthes arenaceodentata (Polycha	**Material:**	Ammonium chloride
Protocol:	PSEP (1995)	**Endpoint:**	Proportion Survived	**Source:**	Reference Toxicant-REF



Mean:	106.565	**Count:**	4	**-1s Warning Limit:**	85.25	**-2s Action Limit:**	68.1987
Sigma:		**CV:**	25.00%	**+1s Warning Limit:**	133.208	**+2s Action Limit:**	166.514

Quality Control Data

Point	Year	Month	Day	Data	Delta	Sigma	Warning	Action	Test Link	Analysis
1	2006	Jun	23	96.09612	-10.4684	-0.46335			18-3054-4508	06-1670-4995
2		Jul	25	108.0622	1.49767	0.06254			00-5832-0530	08-6734-2268
3		Dec	8	144.4331	37.86857	1.36253	(+)		13-1239-1057	05-4422-5195
4	2007	Jul	18	85.98131	-20.5832	-0.96172			17-4748-5140	14-5179-0546
5	2008	Dec	15	125.4466	18.88207	0.73099			00-2280-4578	04-7353-4211

CETIS Analysis Detail

Reference Toxicant 96-h Acute Survival Test NewFields

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Linear Regression	00-2280-4578	00-2280-4578	16 Jan-09 2:57 PM	CETISv1.1.2

Linear Regression Options

Model Function	Threshold Option	Threshold	Threshold Opt	Reweighted	Pooled Groups	Het Corr
Log-Normal [NED=A+B*log(X)]	Control Threshold	0	Yes	Yes	No	Yes

Regression Summary

Iters	Log Likelihood	Mu	Sigma	G	Chi-Sq	Critical	P-Value	Decision(0.05)
9	-36.67657	-0.76788	0.26612	12.03527	1169.70700	22.36203	0.00000	Significant Heterogeneity

Point Estimates

% Effect	Conc-mg/L	95% LCL	95% UCL
10	57.20286	N/A	N/A
15	66.47336	N/A	N/A
20	74.90145	N/A	N/A
25	82.97869	N/A	N/A
40	107.4087	N/A	N/A
50	125.4466	N/A	N/A

Regression Parameters

Parameter	Estimate	Std Error	95% LCL	95% UCL	t Statistic	P-Value	Decision(0.05)
Slope	3.757761	6.034332	-9.278621	16.79414	0.623	0.54423	Not Significant
Intercept	-2.885508	12.21293	-29.26993	23.49891	-0.236	0.81691	Not Significant

Residual Analysis

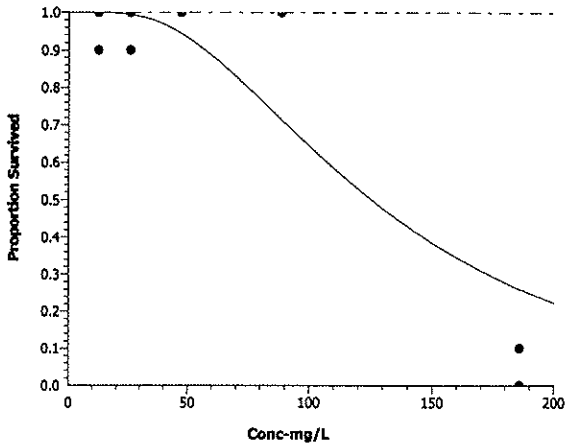
Attribute	Method	Statistic	Critical	P-Value	Decision(0.05)
Variances	Modified Levene	2.065269	3.47805	0.16064	Equal Variances
Distribution	Shapiro-Wilk W	0.4498712		0.00000	Non-normal Distribution

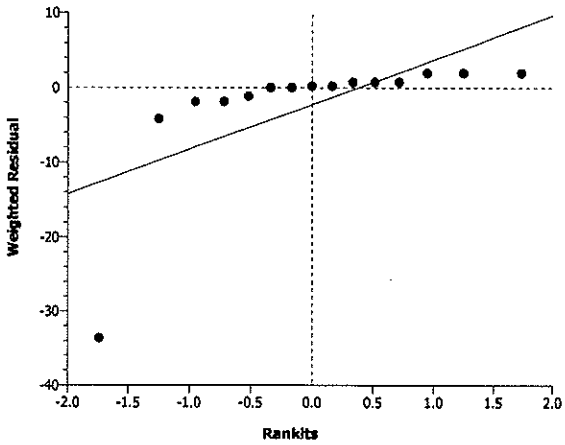
Data Summary

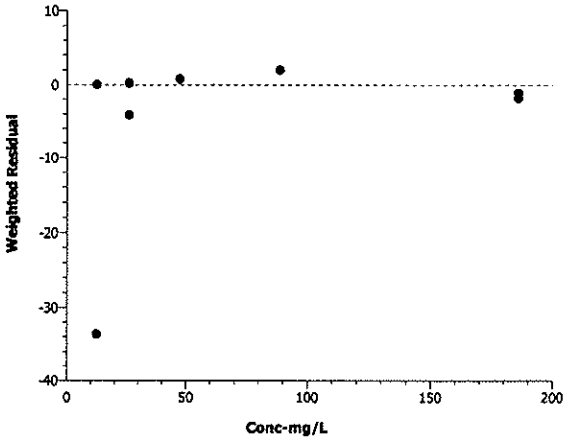
			Calculated Variate(A/B)						
Conc-mg/	Control Type	Count	Mean	Minimum	Maximum	SE	SD	A	B
0	Dilution Water	3	1.00000	1.00000	1.00000	0.00000	0.00000	30	30
12.6		3	0.96667	0.90000	1.00000	0.01179	0.05773	29	30
26.1		3	0.96667	0.90000	1.00000	0.01179	0.05773	29	30
47.5		3	1.00000	1.00000	1.00000	0.00000	0.00000	30	30
88.7		3	1.00000	1.00000	1.00000	0.00000	0.00000	30	30
186		3	0.03333	0.00000	0.10000	0.01179	0.05774	1	30

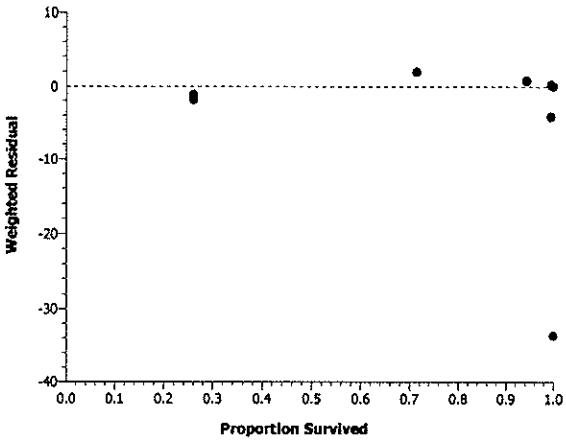
CETIS Analysis Detail

Graphics









CETIS Analysis Detail

Reference Toxicant 96-h Acute Survival Test NewFields

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Comparison	00-2280-4578	00-2280-4578	16 Jan-09 2:57 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Dunnett's Multiple Comparison	C > T	Angular (Corrected)		88.7	186	1.1274	128.445	8.44%

Group Comparisons

Control	vs	Conc-mg/L	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Water		12.6	1	2.5023	0.4257	0.13593	Non-Significant Effect
		26.1	1	2.5023	0.4257	0.13593	Non-Significant Effect
		47.5	0	2.5023	0.8333	0.13593	Non-Significant Effect
		88.7	0	2.5023	0.8333	0.13593	Non-Significant Effect
		186	22.0699	2.5023	0.0000	0.13593	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	3.475024	0.6950048	5	157.01	0.00000	Significant Effect
Error	0.0531187	0.0044266	12			
Total	3.52814241	0.6994313	17			

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Modified Levene	1.60000	5.06434	0.23356	Equal Variances
Distribution	Shapiro-Wilk W	0.89093		0.04004	Normal Distribution

Data Summary

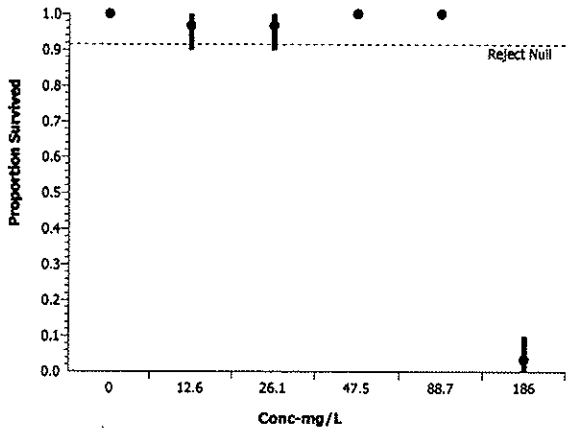
			Original Data				Transformed Data			
Conc-mg/L	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Water	3	1.00000	1.00000	1.00000	0.00000	1.41202	1.41202	1.41202	0.00029
12.6		3	0.96667	0.90000	1.00000	0.05773	1.35769	1.24905	1.41202	0.09409
26.1		3	0.96667	0.90000	1.00000	0.05773	1.35769	1.24905	1.41202	0.09409
47.5		3	1.00000	1.00000	1.00000	0.00000	1.41202	1.41202	1.41202	0.00029
88.7		3	1.00000	1.00000	1.00000	0.00000	1.41202	1.41202	1.41202	0.00029
186		3	0.03333	0.00000	0.10000	0.05774	0.21310	0.15878	0.32175	0.09409

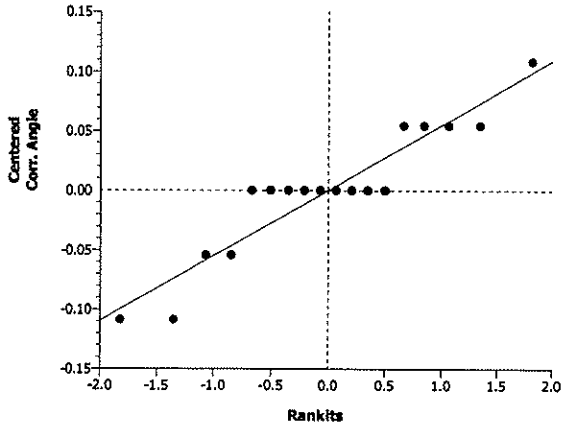
CETIS Analysis Detail

Data Detail

Conc-mg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1.00000	1.00000	1.00000							
12.6		1.00000	0.90000	1.00000							
26.1		0.90000	1.00000	1.00000							
47.5		1.00000	1.00000	1.00000							
88.7		1.00000	1.00000	1.00000							
186		0.00000	0.00000	0.10000							

Graphics





CETIS Data Worksheet

Report Date: 16 Jan-09 2:56 PM
Link: 00-2280-4578

Reference Toxicant 96-h Acute Survival Test — **NewFields**

Start Date:	15 Dec-08 04:20 PM	**Species:**	Neanthes arenaceodentata	**Sample Code:**	1205954773
Ending Date:	19 Dec-08 02:40 PM	**Protocol:**	PSEP (1995)	**Sample Source:**	Reference Toxicant
Sample Date:	15 Dec-08	**Material:**	Ammonium chloride	**Sample Station:**	P060224.46

Conc-mg/L	Code	Rep	Pos	# Exposed	# Survived	Notes
0	D	1	4	10	10	
0	D	2	16	10	10	
0	D	3	14	10	10	
12.6		1	3	10	10	
12.6		2	11	10	9	
12.6		3	15	10	10	
26.1		1	13	10	9	
26.1		2	17	10	10	
26.1		3	1	10	10	
47.5		1	10	10	10	
47.5		2	9	10	10	
47.5		3	12	10	10	
88.7		1	6	10	10	
88.7		2	5	10	10	
88.7		3	8	10	10	
186		1	2	10	0	
186		2	7	10	0	
186		3	18	10	1	

NEWFIELDS

REFERENCE TOXICANT TEST
WATER QUALITY DATASHEET

CLIENT	PROJECT	SPECIES	NEWFIELDS LABORATORY	PROTOCOL
PND	Juneau/Douglas Harbor	*Neanthes arenaceodentata*	Port Gamble Bath 4	USEPA/USCOE 1991

NEWFIELDS JOB NUMBER	PROJECT MANAGER	QUANTITY OF STOCK TARGET: 56.25	QUANTITY OF DILUENT: 1500mL	INIT TS
1414-001-860	M. Pinza	ACTUAL: 56.2	ACTUAL: 1500	DATE PREP 12/15/08

TEST ID	LOT #:	TEST START DATE	TIME	TEST END DATE	TIME
P060224.46	06530KC	15Dec08	1620	19Dec08	1440

WATER QUALITY DATA

DILTIN.WAT.BATCH	TEMP REC#	REFERENCE TOX. MATERIAL	REFERENCE TOXXICANT	LOT NO.	96-H LC_{50}
.	NA	ammonia	ammonium chloride		

TEST CONDITIONS	DO (mg/L)	TEMP(C)	SAL (ppt)	pH	TECHNICIAN	AMMONIA	SULFIDES
	≥ 4.5	20 ± 1	30 ± 2	7.8 ± 0.5			

CLIENT/NEWFIELDS ID	CONCENTRATION value	CONCENTRATION units	DAY	REP	D.O. meter	D.O. mg/L	TEMP. meter	TEMP. °C	SALINITY meter	SALINITY ppt	pH meter	pH unit	TECHNICIAN / DATE	AMMONIA METER	AMMONIA mg/L	Tech	SULFIDES meter	SULFIDES mg/L	Tech
Ref.Tox.- NH_3	0	mg/L	0	Stock	3	7.8	3	18.5	3	29	3	7.6	TS						
			1	Surr	3	6.6	3	18.3	3	29	3	7.8	✓						
			2	Surr	3	7.2	3	20.1	3	29	3	7.5	✓ 12/17						
			3	Surr	3	6.7	3	19.4	3	30	3	8.1	✓ 12/18						
			4	Surr	3	6.2	3	19.6	3	30	3	7.9	SW 12/19						
Ref.Tox.-	12.5	mg/L	0	Stock	3	8.0	3	18.5	3	29	3	7.6	TS						
			1	Surr	3	6.8	3	18.4	3	29	3	7.8	✓						
			2	Surr	3	7.1	3	20.5	3	29	3	7.5	✓ 12/17						
			3	Surr	3	6.7	3	19.5	3	30	3	8.1	✓ 12/18						
			4	Surr	3	6.4	3	19.5	3	30	3	8.0	SW 12/19						
Ref.Tox.-	25	mg/L	0	Stock	3	7.8	3	18.5	3	29	3	7.6	TS						
			1	Surr	3	6.6	3	18.7	3	29	3	7.8	✓						
			2	Surr	3	7.4	3	20.4	3	30	3	7.6	✓ 12/17						
			3	Surr	3	6.7	3	19.5	3	30	3	8.0	✓ 12/18						
			4	Surr	3	6.3	3	19.5	3	30	3	7.9	SW 12/19						
Ref.Tox.-	50	mg/L	0	Stock	3	8.0	3	18.5	3	29	3	7.6	TS						
			1	Surr	3	6.6	3	18.6	3	29	3	7.7	✓						
			2	Surr	3	6.9	3	20.6	3	29	3	7.5	✓ 12/17						
			3	Surr	3	6.6	3	19.6	3	29	3	8.0	✓ 12/18						
			4	Surr	3	6.3	3	19.4	3	30	3	7.8	SW 12/19						
Ref.Tox.-	100	mg/L	0	Stock	3	7.8	3	18.5	3	29	3	7.5	TS						
			1	Surr	3	6.7	3	18.6	3	30	3	7.7	✓						
			2	Surr	3	7.0	3	20.4	3	30	3	7.5	✓ 12/17						
			3	Surr	3	6.6	3	19.7	3	30	3	7.8	✓ 12/18						
			4	Surr	3	6.2	3	19.6	3	30	3	7.7	SW 12/19						
Ref.Tox.-	200	mg/L	0	Stock	3	7.9	3	18.5	3	29	3	7.3	TS						
			1	Surr	3	6.5	3	18.6	3	30	3	7.5	✓						
			2	Surr	3	7.3	3	20.1	3	30	3	7.3	✓ 12/17						
			3	Surr	3	6.5	3	19.6	3	30	3	7.7	✓ 12/18						
			4	Surr	3	5.8	3	19.5	3	31	3	7.4	SW 12/19						

O increased room temp, 12/16/08 ✓

NEWFIELDS

REFERENCE TOXICANT TEST SURVIVAL DATASHEET

SPECIES					
Neanthes arenaceodentata					
CLIENT	**PROJECT**	**NEWFIELDS JOB #**	**PROJECT MANAGER**	**NEWFIELDS LABORATORY**	**PROTOCOL**
PND	Juneau/Douglas Harbor	1414-001-860	M. Pinza	Port Gamble Bath 4	USEPA/USCOE 1991

SURVIVAL & BEHAVIOR DATA

OBSERVATION KEY
N = normal
LOE= loss of equilibrium
Q = quiescent
DC = discoloration
NB = no body
F= Floating on Surface

INITIAL # OF ORGANISMS: 10

CLIENT/ NEWFIELDS ID	CONC. value	CONC. units	REP	INITIAL NUMBER	DAY 1 DATE: 12/16 TECHNICIAN: MMB #ALIVE	DAY 1 #DEAD	DAY 1 OBS	DAY 2 DATE: 12/17 TECHNICIAN: MMB #ALIVE	DAY 2 #DEAD	DAY 2 OBS	DAY 3 DATE: 12/18 TECHNICIAN: L #ALIVE	DAY 3 #DEAD	DAY 3 OBS	DAY 4 DATE: 12/19 TECHNICIAN: MMB #ALIVE	DAY 4 #DEAD	DAY 4 OBS
Ref.Tox.-ammonia	0	mg/L	1		10	0	N	10	0	N	10	0	N	10	0	N
			2		10	0	N	10	0	N	10	0	N	10	0	N
			3		10	0	N	10	0	N	10	0	N	10	0	N
Ref.Tox.-ammonia	12.5	mg/L	1		10	0	N	10	0	N	10	0	N	10	0	N
			2		10	0	N	10	0	↓	10	0	N	9	0	NB
			3		10	0	N	10	0	↓	10	0	N	10	0	N
Ref.Tox.-ammonia	25	mg/L	1		10	0	N	9	0	NB	9	0	N	9	0	N
			2		10	0	N	10	0	N	10	0	N	10	0	N
			3		10	0	N	10	0	N	10	0	N	10	0	N
Ref.Tox.-ammonia	50	mg/L	1		10	0	N	10	0	N	10	0	N	11	0	N
			2		10	0	N	10	0	↓	10	0	N	10	0	N
			3		10	0	N	10	0	↓	10	0	N	10	0	N
Ref.Tox.-ammonia	100	mg/L	1		10	0	Q	10	0	Q	10	0	Q	10	0	Q
			2		10	0	Q	10	0	↓	10	0	Q	10	0	↓
			3		10	0	Q	10	0	↓	10	0	Q	10	0	↓
Ref.Tox.-ammonia	200	mg/L	1		10	0	Q	10	0	Q	10	0	Q	0	10	N
			2		10	0	Q	10	0	↓	9	1	Q	0	9	N
			3		9	0	NB	9	0	↓	10	0	Q	1	8	NB, Q

NEWFIELDS

Ammonia Analysis
Total Ammonia (mg/L)

Client/Project:	Organism:	NewFields Test ID:	Test Duration (days):
Nearthes RT - Douglas Harbor			

PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST: ____**
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within ±1°C of standards temperature at time and date of analysis.
Date:	**Temperature:**	
12/15/08	17.0	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Preserved (Y/N)	pH	Sal (ppt)	Sulf. mg/L
Ø	comp	TS 12/15/08	0.142	16.0	TS 12/15/08	N	NA	—	—
12.5	↓	↓	12.6	↓	↓	↓	↓	↓	↓
25	↓	↓	26.1	↓	↓	↓	↓	↓	↓
50	↓	↓	47.5	↓	↓	↓	↓	↓	↓
100	↓	↓	88.7	↓	↓	↓	↓	↓	↓
200	↓	↓	186	↓	↓	↓	↓	↓	↓