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**Ecological Evaluation of Proposed
Discharge of Dredged Material from
Oakland Harbor into Ocean Waters
(Phase III A of -42-foot Project)**

Volume 2: Appendixes

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Sequim, Washington

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PREFACE

This is Volume 2 of a two-volume report that presents information gathered to determine the suitability of ocean disposal of sediment dredged from Oakland Harbor. This volume contains the appendixes (A through S), which provide details of the data analyses and full presentation of the data and results. Volume 1 contains project background, materials and methods, results, discussions, and conclusions.

SUMMARY

During the summer and fall of 1990, the Battelle/Marine Sciences Laboratory (MSL) conducted a study to determine whether dredged sediments from Oakland Inner and Outer Harbors were suitable for ocean disposal following the guidelines of the *Draft Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters*, otherwise known as the Draft Implementation Manual (EPA/USACE 1990). Nineteen test treatments, six reference treatments, and three control treatments were tested for physical/chemical parameters, water column effects, dredged-sediment toxicity, and bioaccumulation potential.

Physical/chemical parameters were analyzed at each site and each composite sediment to a depth of -44 ft MLLW. These parameters included analysis for geological characteristics, conventional sediment measurements (grain size, total volatile solids, total organic carbon, oil and grease, and total petroleum hydrocarbons), metals, polynuclear aromatic hydrocarbons (PAHs), pesticides, butyltins, and polychlorinated biphenyls (PCBs). Physical/chemical data were used in support of the toxicological and bioaccumulation testing, but were not used in the decision-making criteria described in the Draft Implementation Manual under Tier III testing. To evaluate water column effects, MSL conducted suspended-particulate-phase (SPP) tests using the mysid shrimp *Holmesimysis sculpta*, speckled sanddab *Citharichthys stigmaeus*, and larvae of the pacific oyster *Crassostrea gigas*. Both a 48-h and a 96-h test were performed. The MSL evaluated dredged-sediment toxicity by conducting a total of eight solid-phase toxicity tests using the following organisms: the bivalve clam *Macoma nasuta*, the polychaete worm *Nephtys caecoides*, the speckled sanddab *C. stigmaeus*, and the amphipod *Rhepoxynius abronius*. Test duration ranged from 10 to 28 days. Bioaccumulation potential was evaluated in the 28-day *M. nasuta* and *N. caecoides* solid-phase exposures by measuring the contaminants of concern present in their tissues after exposure to test, reference, and control sediments. Because of low test organism survival, the 10- and 28-day *N. caecoides* exposures were rerun requiring resampling of Oakland Harbor sites and subsequent physical/chemical analysis. The physical/chemical results of the initial testing apply to the *M. nasuta* exposures; the retest physical/chemical results apply to the *N. caecoides* exposures.

The results of the initial physical/chemical analyses showed that the highest levels of conventional sediment measurements were present in test treatments I-C5, I-C9, I-S1, I-T1, and control treatment C-SB. Metal concentrations were also highest in test treatments I-C5, I-C9, I-S1, I-T1, and the inner bay sediment composite AC-3. Butyltin and PAH concentrations were highest in test treatments I-C5, I-S1, I-T1, and I-T5. Pesticides and PCBs were not present in

significant amounts in any of the sediments. Retest results for physical/chemical analyses showed results similar to the initial testing, with test treatments I-T1, I-S1, and control treatment C-SB showing the highest levels of sediment conventionals, and test treatments I-S1 and I-T1 containing the highest levels of metals. The PAH concentrations were highest in test treatments I-S1, I-T1, and in reference treatment R-AC. Pesticides and PCBs were not present.

The results of the three water column tests showed that a significant decrease in survival occurred only in the *C. gigas* test for treatment BC-4. The LC50 estimate associated with this treatment (a composite of Oakland Inner Harbor stations I-C9, I-C10, I-C11, and I-C12) was 91.9% SPP. The significance of this LC50 estimate can be determined through the use of a mixing model that evaluates the potential for 0.01 of this LC50 (0.92% SPP) existing at the edge of a disposal site after 4 h. The MSL did not apply a mixing model as part of the work performed under contract to U.S. Army Corps of Engineers (USACE) San Francisco District.

The results of standard 10-day toxicological tests showed that significant decreases in test organism survival, as defined by the Draft Implementation Manual, were observed in 10 of the 19 test sediment treatments relative to at least one reference. Sediment treatments I-C15, I-C16, I-C17, and I-C18 (all located within the maneuvering area) produced the most toxicological hits. Sediment treatments representing composites of Oakland Inner and Outer Harbors (AC-1 and AC-3) did not produce significant test organism mortality relative to any reference.

The results of bioaccumulation testing using *M. nasuta* and *N. caecoides* showed statistically significant higher levels of contaminants of concern in all test treatments relative to at least one reference. The highest occurrences of elevated contaminants were observed in tissues exposed to test treatments I-S1, I-T1, and I-T3. The lowest occurrences of elevated potential were observed in test treatments I-C4 and I-C11. Test exposures with *N. caecoides* exhibited higher bioaccumulation potential than *M. nasuta* relative to reference exposures.

The summary results for the Oakland Phase III A program indicate that 10 of the 19 test sediments showed significant decreases in test organism survival compared to at least one of the six references. Bioaccumulation of contaminants occurred in all treatments relative to at least one reference and was most prevalent in test treatments I-S1, I-T1, and I-T3. An overall comparison of test treatment acute toxicity and bioaccumulation to the references showed that the most toxicological hits were observed relative to the reference R-PC (Point Reyes Coarse); the fewest were associated with the reference R-AC (Alcatraz Island Disposal Site). This report provides the District Engineer of USACE and the Regional Administrator (USEPA) the information and analysis required for them to decide and concur on which sediments are acceptable for ocean disposal from the Oakland Inner Harbor deepening project.

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R.17	Mean Concentrations and Statistical Grouping for Chrysene in <i>M. nasuta</i> Tissues	R.9
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R.21	Mean concentrations and Statistical Grouping for Benzo(a)pyrene in <i>M. nasuta</i> Tissues	R.11
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R.39	Mean Concentrations and Statistical Grouping for Copper in <i>M. nasuta</i> Tissues . . .	R.20
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R.49	Mean Concentrations and Statistical Grouping for Zinc in <i>M. nasuta</i> Tissues	R.25

R.50	ANOVA Results for Zinc in <i>M. nasuta</i> Tissues	R.25
R.51	Mean Concentrations and Statistical Grouping for Tributyltin in <i>M. nasuta</i> Tissues	R.26
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S.5	Mean Concentrations and Statistical Grouping for Phenanthrene in <i>N. caecoides</i> Tissues	S.3
S.6	ANOVA Results for Phenanthrene in <i>N. caecoides</i> Tissues	S.3
S.7	Mean Concentrations and Statistical Grouping for Fluoranthene in <i>N. caecoides</i> Tissues	S.4
S.8	ANOVA Results for Fluoranthene in <i>N. caecoides</i> Tissues	S.4
S.9	Mean Concentrations and Statistical Grouping for Pyrene in <i>N. caecoides</i> Tissues	S.5
S.10	ANOVA Results for Pyrene in <i>N. caecoides</i> Tissues	S.5
S.11	Mean Concentrations and Statistical Grouping for Benzo(a)anthracene in <i>N. caecoides</i> Tissues	S.6
S.12	ANOVA Results for Benzo(a)anthracene in <i>N. caecoides</i> Tissues	S.6
S.13	Mean Concentrations and Statistical Grouping for Benzo(b)fluoranthene in <i>N. caecoides</i> Tissues	S.7
S.14	ANOVA Results for Benzo(b)fluoranthene in <i>N. caecoides</i> Tissues	S.7

S.15	Mean Concentrations and Statistical Grouping for Benzo(a)pyrene in <i>N. caecoides</i> Tissues	S.8
S.16	ANOVA Results for Benzo(a)pyrene in <i>N. caecoides</i> Tissues	S.8
S.17	Mean Concentrations and Statistical Grouping for Chrysene in <i>N. caecoides</i> Tissues	S.9
S.18	ANOVA Results for Chrysene in <i>N. caecoides</i> Tissues	S.9
S.19	Mean Concentrations and Statistical Grouping for Aroclor 1254 in <i>N. caecoides</i> Tissues	S.10
S.20	ANOVA Results for Aroclor 1254 in <i>N. caecoides</i> Tissues	S.10
S.21	Mean Concentrations and Statistical Grouping for Silver in <i>N. caecoides</i> Tissues	S.11
S.22	ANOVA Results for Silver in <i>N. caecoides</i> Tissues	S.11
S.23	Mean Concentrations and Statistical Grouping for Arsenic in <i>N. caecoides</i> Tissues	S.12
S.24	ANOVA Results for Arsenic in <i>N. caecoides</i> Tissues	S.12
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S.27	Mean Concentrations and Statistical Grouping for Chromium in <i>N. caecoides</i> Tissues	S.14
S.28	ANOVA Results for Chromium in <i>N. caecoides</i> Tissues	S.14
S.29	Mean Concentrations and Statistical Grouping for Copper in <i>N. caecoides</i> Tissues	S.15
S.30	ANOVA Results for Copper in <i>N. caecoides</i> Tissues	S.15
S.31	Mean Concentrations and Statistical Grouping for Mercury in <i>N. caecoides</i> Tissues	S.16
S.32	ANOVA Results for Mercury in <i>N. caecoides</i> Tissues	S.16
S.33	Mean Concentrations and Statistical Grouping for Nickel in <i>N. caecoides</i> Tissues	S.17
S.34	ANOVA Results for Nickel in <i>N. caecoides</i> Tissues	S.17
S.35	Mean Concentrations and Statistical Grouping for Lead in <i>N. caecoides</i> Tissues	S.18
S.36	ANOVA Results for Lead in <i>N. caecoides</i> Tissues	S.18
S.37	Mean Concentrations and Statistical Grouping for Selenium in <i>N. caecoides</i> Tissues	S.19

S.38	ANOVA Results for Selenium in <i>N. caecoides</i> Tissues	S.19
S.39	Mean Concentrations and Statistical Grouping for Zinc in <i>N. caecoides</i> Tissues	S.20
S.40	ANOVA Results for Zinc in <i>N. caecoides</i> Tissues	S.20
S.41	Mean Concentrations and Statistical Grouping for Tributyltin in <i>N. caecoides</i> Tissues	S.21
S.42	ANOVA Results for Tributyltin in <i>N. caecoides</i> Tissues	S.21
S.43	Mean Concentrations and Statistical Grouping for Dibutyltin in <i>N. caecoides</i> Tissues	S.22
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APPENDIX A

FIELD SAMPLING DATA

**TABLE A.1. 12-in. Core Sample Collection Information,
Oakland Phase III A Project**

Station	Replicate	Date Collected	California State Plane Coordinates (Zone III) (X)East	(Y)North	Water Depth (-ft MLLW)	Ft Core Length Required	Ft Core Length Collected	Comments
I-C1	1	06-05-90	1467347	479982	36.4	7.6	6.5	
I-C1	2	06-05-90	1467347	479982	36.4	7.6	7.5	
I-C3	1	06-06-90	1469595	478890	38.2	5.8	8.0	
I-C3	2	06-06-90	1469595	478890	38.2	5.8	10.0	
I-C2	1	06-06-90	1467928	480138	41.5	2.5	7.0	Top 3.0 ft Retained
I-C2	2	06-06-90	1467928	480138	41.5	2.5	7.5	Top 3.0 ft Retained
I-C2	3	06-06-90	1467928	480138	41.5	2.5	4.0	Top 3.0 ft Retained
I-C4	1	06-06-90	1471438	478100	39.7	4.3	8.0	Top 5.0 ft Retained
I-C4	2	06-06-90	1471438	478100	39.7	4.3	8.0	Top 5.0 ft Retained
I-C16	1	06-06-90	1485720	475925	36.8	7.2	7.0	
I-C16	2	06-06-90	1485720	475925	36.8	7.2	6.5	
I-C17	1	06-06-90	1485718	476072	36.8	7.2	6.0	
I-C17	2	06-06-90	1485718	476072	36.8	7.2	9.0	
I-C18	1	06-06-90	1486542	475620	38.8	5.2	6.0	
I-C18	2	06-06-90	1486542	475620	38.8	5.2	5.7	
I-C15	1	06-06-90	1485695	475720	34.1	9.9	10.5	
I-C15	2	06-06-90	1485695	475720	34.1	9.9	11.0	
I-C14	1	06-06-90	1485010	475892	37.3	6.7	8.0	
I-C14	2	06-06-90	1485010	475892	37.3	6.7	10.0	
I-C13	1	06-06-90	1484255	475923	37.2	6.8	7.0	
I-C13	2	06-06-90	1484255	475923	37.2	6.8	7.0	
I-C12	1	06-06-90	1483806	475892	37.9	6.1	7.5	
I-C12	2	06-06-90	1483806	475892	37.9	6.1	8.0	
I-C11	1	06-06-90	1483335	475864	37.3	6.7	9.0	
I-C11	2	06-06-90	1483335	475864	37.3	6.7	6.0	
I-C10	1	06-06-90	1482877	475763	36.5	7.5	9.0	
I-C10	2	06-06-90	1482877	475763	36.5	7.5	7.2	
I-C9	1	06-07-90	1482357	475678	36.3	7.7	12.0	
I-C9	2	06-07-90	1482357	475678	36.3	7.7	8.0	
I-C8	1	06-07-90	1481315	475480	37.8	6.2	7.5	
I-C8	2	06-07-90	1481315	475480	37.8	6.2	6.3	
I-C7	1	06-07-90	1480197	475756	37.5	6.5	7.5	
I-C7	2	06-07-90	1480197	475756	37.5	6.5	8.2	
I-C6	1	06-07-90	1477733	475927	38.4	5.6	5.5	
I-C6	2	06-07-90	1477733	475927	38.4	5.6	10.0	
I-C5	1	06-07-90	1474651	476670	37.8	6.2	10.5	
I-C5	2	06-07-90	1474651	476670	37.8	6.2	9.5	
O-C1	1	06-04-90	1464193	479275	38.4	5.5	12.0	Top 6.0 ft Retained
O-C1	2	06-04-90	1464193	479275	38.4	5.5	10.0	
O-C1	3	06-04-90	1464193	479275	38.4	5.5	12.0	
O-C2	1	06-04-90	1465028	480325	26.4	17.6	19.0	7.6 ft of Core Retained
O-C3	1	06-04-90	1465950	480678	33.2	10.8	12.0	
O-C4	1	06-04-90	1467350	481285	38.6	5.4	6.0	Merritt Sand Full Length of Core
O-C4	2	06-04-90	1467350	481285	38.6	5.4	5.2	
O-C5	1	06-05-90	1469705	482475	36.8	7.2	6.0	Rejected-Insufficient Penetration
O-C5	2	06-05-90	1469705	482475	36.8	7.2	8.0	
O-C6	1	06-05-90	1471336	483385	28.6	15.4	12.0	
O-C7	1	06-05-90	1472330	483550	27.1	16.9	16.5	
O-C8	1	06-05-90	1473378	482533	33.7	10.3	10.7	
O-C8	2	06-05-90	1473378	482533	33.7	10.3	9.8	
O-C9	1	06-05-90	1474565	483543	41.1	2.9	5.5	
O-C9	2	06-05-90	1474565	483543	41.1	2.9	5.5	

TABLE A.1. (Contd)

Station	Replicate	Date Collected	California State Plane Coordinates (Zone III)		Water Depth (-ft MLLW)	Ft Core Length Required	Ft Core Length Collected	Comments
			(X)East	(Y)North				
O-C10	1	06-05-90	1475190	484725	40.6	3.4	7.5	
O-C10	2	06-05-90	1475190	484725	40.6	3.4	4.8	
O-C10	3	06-05-90	1475190	484725	40.6	3.4	4.5	
O-C11	1	06-05-90	1475970	486135	37.7	6.3	5.9	
O-C11	2	06-05-90	1475970	486135	37.7	6.3	5.2	
O-C11	3	06-05-90	1475970	486135	37.7	6.3	7.0	
O-C12	1	06-05-90	1476500	485730	41.0	3.0	4.0	
O-C12	2	06-05-90	1476500	485730	41.0	3.0	4.5	
O-C12	3	06-05-90	1476500	485730	41.0	3.0	4.0	
O-C13	1	06-05-90	1477685	485745	36.1	7.9	12.0	Top 8 ft Retained
O-C13	2	06-05-90	1477685	485745	36.1	7.9	12.0	Top 8 ft Retained

TABLE A.2. 4-in. Core Sample Collection Information (Two cores per replicate), Oakland Phase III A Project

Station	Replicate	Date Collected	California State Plane Coordinates (Zone III) (X)East	(Y)North	Water Depth (-ft MLLW)	Ft Core Length Required	Ft Core Length Collected	Comments
I-C18	1	06-08-90	1486542	475620	38.2	5.8	6.0	
I-C18	2	06-08-90	1486542	475620	38.2	5.8	6.0	
I-C18	3	06-08-90	1486542	475620	38.2	5.8	6.0	
I-C15	1	06-08-90	1485695	475720	36.7	7.3	7.5	
I-C15	2	06-08-90	1485695	475720	36.7	7.3	7.5	
I-C15	3	06-08-90	1485695	475720	36.7	7.3	7.5	
I-C16	1	06-08-90	1485720	475925	36.3	7.7	8.0-8.5	
I-C16	2	06-08-90	1485720	475925	36.3	7.7	8.0	
I-C16	3	06-08-90	1485720	475925	36.3	7.7	8.0	
I-C17	1	06-08-90	1485718	476072	36.7	7.3	7.8	
I-C17	2	06-08-90	1485718	476072	36.7	7.3	8.5-8.8	
I-C17	3	06-08-90	1485718	476072	36.7	7.3	7.0-5.5	1 Core Rejected
I-C17	4	06-09-90	1485718	476072	35.1	8.9	9.1	
I-C14	1	06-09-90	1485010	475892	35.1	8.9	9.0	1 Core Required 6 in. Sediment from Cutter-head
I-C14	2	06-09-90	1485010	475892	35.1	8.9	9.2	1 Core Rejected
I-C14	3	06-09-90	1485010	475892	35.1	8.9	9.0	
I-C14	4	06-09-90	1485010	475892	35.1	8.9	10.0	
I-C12	1	06-09-90	1483806	475892	36.3	7.7	9.5	
I-C12	2	06-09-90	1483806	475892	36.3	7.7	9.1	
I-C12	3	06-09-90	1483806	475892	36.3	7.7	9.0	
I-C11	1	06-09-90	1483335	475864	36.9	7.1	9.0	
I-C11	2	06-09-90	1483335	475864	36.9	7.1	8.5-8.7	
I-C11	3	06-09-90	1483335	475864	36.9	7.1	9.1	
I-C10	1	06-09-90	1482877	475763	34.9	9.1	10.9	
I-C10	2	06-09-90	1482877	475763	34.9	9.1	9.5	
I-C10	3	06-09-90	1482877	475763	34.9	9.1	9.7-10.0	
I-C9	1	06-11-90	1482357	475678	35.0	9.0	9.5-10.0	
I-C9	2	06-11-90	1482357	475678	35.0	9.0	9.0-9.5	
I-C9	3	06-11-90	1482357	475678	35.0	9.0	10.5-11.0	
I-S1	1	06-11-90	1482757	476175	31.8	13.2	13.5-14.0	
I-S1	2	06-11-90	1482757	476175	31.8	13.2	14.0	
I-S1	3	06-11-90	1482757	476175	31.8	13.2	14.0	
I-T5	1	06-11-90	1483525	475472	26.5	17.5	10.0	Rejected
I-T3	1	06-11-90	1483268	475467	27.4	16.6	NO ^(a)	Rejected
I-T1	1	06-11-90	1482752	475309	37.5	6.5	6.2-7.9	
I-T1	2	06-11-90	1482752	475309	37.5	6.5	9.5-7.5	
I-T1	3	06-11-90	1482752	475309	37.5	6.5	8.0-7.5	
I-C4	1	06-12-90	1471438	478100	36.6	7.4	8.8	1 Core Lost
I-C4	2	06-12-90	1471438	478100	36.6	7.4	7.8	

(a) No data.

TABLE A.3. 4-in. Core Sample Collection Information (One core per replicate), Oakland Phase III A Project

Station	Replicate	Date Collected	California State Plane Coordinates (Zone III)		Water Depth (-ft)	Ft Core Length Required	Ft Core Length Collected	Comments
			(X)East	(Y)North				
I-C4	3	06-12-90	1471438	478100	36.6	7.4	8.8	
I-C4	4	06-12-90	1471438	478100	36.6	7.4	8.5	
I-C4	5	06-12-90	1471438	478100	36.6	7.4	ND ^(a)	
I-C5	1	06-12-90	1474651	476670	35.2	8.8	9.8	
I-C5	2	06-12-90	1474651	476670	35.2	8.8	10.2	
I-C5	3	06-12-90	1474651	476670	35.2	8.8	10.1	
I-C5	4	06-12-90	1474651	476670	35.2	8.8	10.0	
I-C5	5	06-12-90	1474651	476670	35.2	8.8	10.0	
I-C7	1	06-12-90	1480197	475756	35.3	8.7	9.7	
I-C7	2	06-12-90	1480197	475756	35.3	8.7	9.7	
I-C7	3	06-12-90	1480197	475756	35.3	8.7	10.7	
I-C7	4	06-12-90	1480197	475756	35.3	8.7	8.8	
I-C7	5	06-12-90	1480197	475756	35.3	8.7	10.2	
I-C8	1	06-12-90	1481315	475480	35.9	8.1	9.0	
I-C8	2	06-13-90	1481315	475480	36.5	7.5	9.2	
I-C8	3	06-13-90	1481315	475480	36.5	7.5	9.2	
I-C8	4	06-13-90	1481315	475480	36.5	7.5	9.0	
I-C8	5	06-13-90	1481315	475480	36.5	7.5	8.7	
T-6A	1	06-13-90	1483656	475360	26.8	17.2	17.6	
T-5	1	06-13-90	1483525	475472	29.3	14.7	15.1	(Coord. may not be valid station moved 50 ft E)
T-5	2	06-13-90	1483525	475472	26.8	17.2	16.5	
T-5	3	06-13-90	1483525	475472	26.3	13.0	11.2	
T-5	4	06-13-90	1483525	475472	26.7	13.0	12.9	
T-5	5	06-13-90	1483525	475472	25.4	13.0	15.7	
T-3	1	06-13-90	1483268	475467	29.3	12.6	12.6	
T-3	2	06-13-90	1483268	475467	30.9	12.6	11.0	Core Includes Sediment from Catcher
T-3	3	06-13-90	1483268	475467	29.9	12.6	11.6	Core Includes Sediment from Catcher
T-3	4	06-13-90	1483268	475467	29.1	12.6	13.4	Core Includes Sediment from Catcher
T-3	5	06-13-90	1483268	475467	27.7	12.6	14.9	

(a) No data.

TABLE A.4. Offshore Point Reyes and Off-Shelf Sediment Collection Information, Oakland Phase III A Project

Station	Replicate	Date	Time Sampled	Coordinates		Water Depth(ft)	Sampler	Comments
				Latitude	Longitude			
R-PC	1	06/14/90	1231	37°54.10'	122°57.08'	222	PD ^(a)	Fine Sand
R-PC	2	06/14/90	1254	37°54.02'	122°57.01'	224	PD	Fine Sand
R-PC	3	06/14/90	1310	37°54.11'	122°56.93'	225	PD	
R-PC	4	06/14/90	1336	37°54.08'	122°57.06'	223	PD	Fine Sand
R-PC	5	06/14/90	1357	37°54.04'	122°57.09'	223	PD	
R-PC	6	06/14/90	NO ^(b)	37°54.18'	122°56.72'	222	PD	
R-PC	7	06/14/90	1503	37°54.05'	122°57.19'	227	PD	
R-PC	8	06/14/90	1547	37°54.02'	122°56.98'	224	PD	
R-PC	9	06/14/90	1547	37°54.02'	122°56.98'	223	PD	
R-PF	1	06/14/90	1013	37°53.03'	123°01.83'	267	PD	Silt, Grab 1/2 Full
R-PF	2	06/14/90	1042	37°53.00'	123°01.98'	272	PD	Grab 1/2 Full
R-PF	3	06/14/90	1104	37°53.17'	123°01.91'	272	PD	Full
R-PF	4	06/14/90	1115	37°53.13'	123°01.91'	272	PD	
R-PF	5	06/14/90	1135	37°53.10'	123°01.99'	273	PD	
R-PF	6	06/14/90	1150	37°53.10'	123°01.99'	276	PD	
R-OS	1	06/14/90	1857	37°24.07'	123°14.89'	4200	PD	
R-OS	2	06/14/90						Cruise Aborted

(a) Pipe dredge.

(b) No data.

TABLE A.5. San Francisco Bay Sediment Collection Information, Oakland Phase III A Project

Station	Replicate	Date	Time Sampled	Coordinates		Water Depth(ft)	Sampler	Comments
				Latitude	Longitude			
R-BF	1	06/12/90	1545	37°44.58'	122°17.75'	14-17	VVG ^(a)	Sand, Silt
R-BF	2	06/12/90	1555	37°44.08'	122°17.52'	14	VVG	Sand
R-BF	3	06/12/90	1620	37°44.41'	122°16.82'	36	VVG	Silt, Slight H ₂ S Odor
R-BF	4	06/12/90	1630	37°44.68'	122°16.55'	22	VVG	Silt, Slight H ₂ S Odor
R-BF	5	06/12/90	1638	37°44.50'	122°16.15'	32	VVG	Clay
R-BF	6	06/12/90	1648	37°44.08'	122°16.15'	9	VVG	
R-AM	1 A	06/13/90	0805	37°49.75'	122°25.88'	59	VVG	Medium Sand
R-AM	2 B	06/13/90	0820	37°49.75'	122°25.57'	54	VVG	Medium Sand
R-AM	3 C	06/13/90	0845	37°49.75'	122°24.90'	68	VVG	Medium Sand
R-AM	4 F	06/13/90	1005	37°49.27'	122°24.90'	73	VVG	
R-AM	5 D	06/13/90	1040	37°19.27'	122°25.88'	74	VVG	Medium-Fine Sand/Chunks of Clay
R-AM	6 G	06/13/90	1055	37°48.83'	122°25.88'	64	VVG	Medium-Fine Sand
R-AM	7 H	06/13/90	1135	37°48.83'	122°25.57'	62-66	VVG	Medium-Fine Sand/Coal, Shell Debris
R-AM	8 I	06/13/90	1150	37°48.83'	122°24.90'	56-68	VVG	Fine Sand/Rejected-Rocks, Shell Debris
R-AC	1	06/13/90	1649	37°26.37'	122°26.48'	62	PD ^(b)	
R-AC	2	06/13/90	1634	37°26.32'	122°26.48'	72	PD	
R-AC	3	06/13/90	1624	37°26.27'	122°26.48'	86	PD	
R-AC	4	06/13/90	1558	37°26.20'	122°26.48'	88	PD	
R-AC	5	06/13/90	1529	37°26.37'	122°26.75'	43	PD	
R-AC	6	06/13/90	1503	37°26.32'	122°26.75'	57	PD	
R-AC	7	06/13/90	1438	37°26.27'	122°26.75'	67	PD	
R-AC	8	06/13/90	1410	37°26.20'	122°26.75'	70	PD	Sand

(a) Van veen grab sampler.

(b) Pipe dredge.

APPENDIX B

GEOLOGIC ANALYSIS DATA

APPENDIX B

MATERIALS AND METHODS USED FOR THE DESCRIPTION OF SEDIMENT CORES

B.1 MATERIALS

The following is a checklist of items and materials used for the examination and description of sediment cores.

- ASTM Procedure D 2488-84
- Stainless-steel knife
- Hand lens (10X magnification)
- 10 N Hydrochloric acid (HCl)
- Ruler (scaled in 0.1-foot increments)
- Blank log forms (see Figure B.1)
- Clipboard
- AGI Data Sheets
- Munsell Color Charts

In addition, the charts and/or reference materials listed in Table B.1, and included in this appendix, are used for the description of specific sediment characteristics.

B.2 METHODS

Descriptions of the physical, chemical, and biological features preserved in sediments aid in the interpretation of the types of geologic processes active both during and after the sediment was deposited. A total of 17 sediment characteristics, outlined in ASTM (1984), are commonly used to describe inorganic soils. These are listed in Table B.2.

Moisture condition was not routinely logged because of the saturated nature of the sediments. Furthermore, since particles were rarely larger than coarse sand, neither were angularity, particle shape, range in particle size, and hardness logged. For this reason, these sediment characteristics were not included in the log form used for the description of Oakland Phase III A sediments (Figure B.1). However, in the few instances where these characteristics did apply, they were described under the "COMMENTS" column.

[illegible]

PHASE III A

TABLE B.1. Charts and Other Reference Materials Used to Provide Standardized Descriptions of Sediment Characteristics

<u>CHART/REFERENCE</u>	<u>PURPOSE</u>	<u>FIGURE #</u>
• Percentage Estimate Chart	Estimate percentage of individual particles or constituents	B.2
• Roundness Scale	Roundness of sand and coarser particles	B.3A
• Sorting Chart	Estimate of grading	B.3B
• Particle Shape	Reference to describe particle shape	B.4
• Munsell Soil Color Charts	Soil color	B.5
• Unified Soil Classification System	Method for designating sediment type	B.6, B.7
• Grain-size Scales	Range of particle sizes; maximum particle size	B.8, B.9
• Lithologic Symbols	Graphic patterns for lithologic log	B.10, B.11

TABLE B.2. Sediment Characteristics Identified in ASTM Procedure D2488-84

1) angularity *	10) sediment classification type (i.e., lithology)
2) <u>particle shape</u> *	11) <u>range of particle sizes</u> *
3) color	12) maximum particle size
4) odor	13) <u>hardness</u> *
5) <u>moisture condition</u>	14) dry strength **
6) HCl reaction	15) dilatancy **
7) consistency (i.e., firmness)	16) toughness **
8) cementation *	17) plasticity **
9) structure	

* Applies to coarse-grained sediment (sand and larger particles)

** Applies to fine-grained sediment of mostly silt and/or clay

Features not generally logged for this study are underlined

The definition of "soil" from the engineers standpoint (ASTM 1984), includes any unconsolidated sediment. The geologic definition of soil is slightly different and restricts soils to those sedimentary deposits that have undergone alteration near the land's surface by either physical, chemical, and/or biological processes; therefore, in a strict sense, not all sediments are soils. For the purposes of this discussion, however, "soils" and "sediments" will be used synonymously.

It is sometimes helpful to provide an estimate of the relative proportions of different constituents in sediments (e.g. light- versus dark-colored minerals). This is made easier and more accurate by using a percentage estimate chart, which provides a graphic reference with varying concentrations of a particular constituent (Figure B.2).

The criteria used to describe each of the 17 sediment characteristics identified in ASTM (1984) are discussed below.

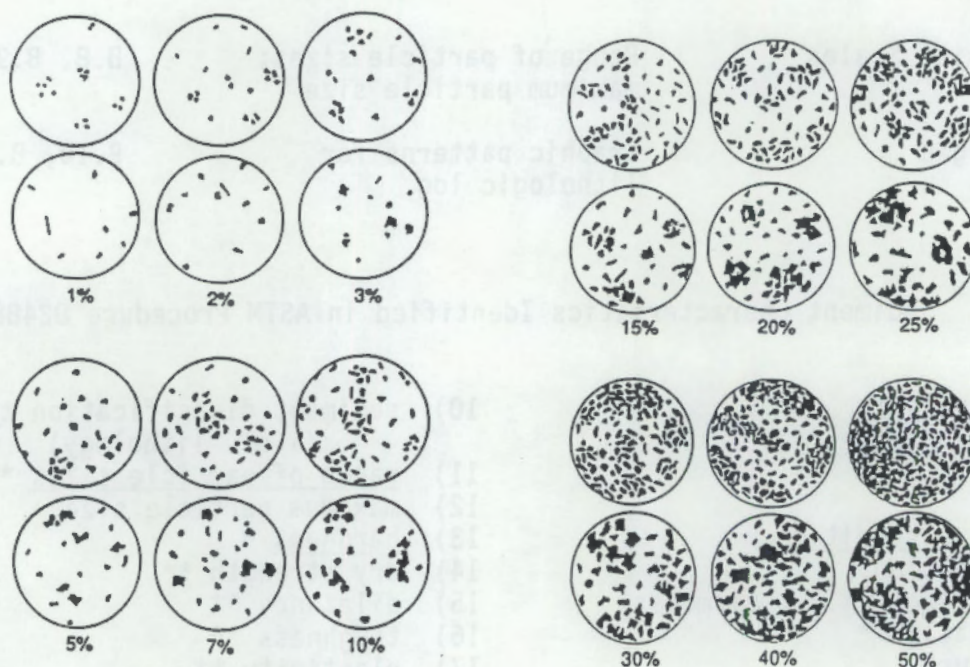


FIGURE B.2. Comparison Chart Used to Estimate the Percentages of Constituents (from AGI 1982)

B.2.1 Angularity

The angularity of sedimentary particles is a reflection of the sedimentary environment and the amount of time that has elapsed before deposition and burial. A chart showing how to classify the angularity of sedimentary particles is presented in Figure B.3. A range of angularity may be stated, such as: subrounded to rounded.

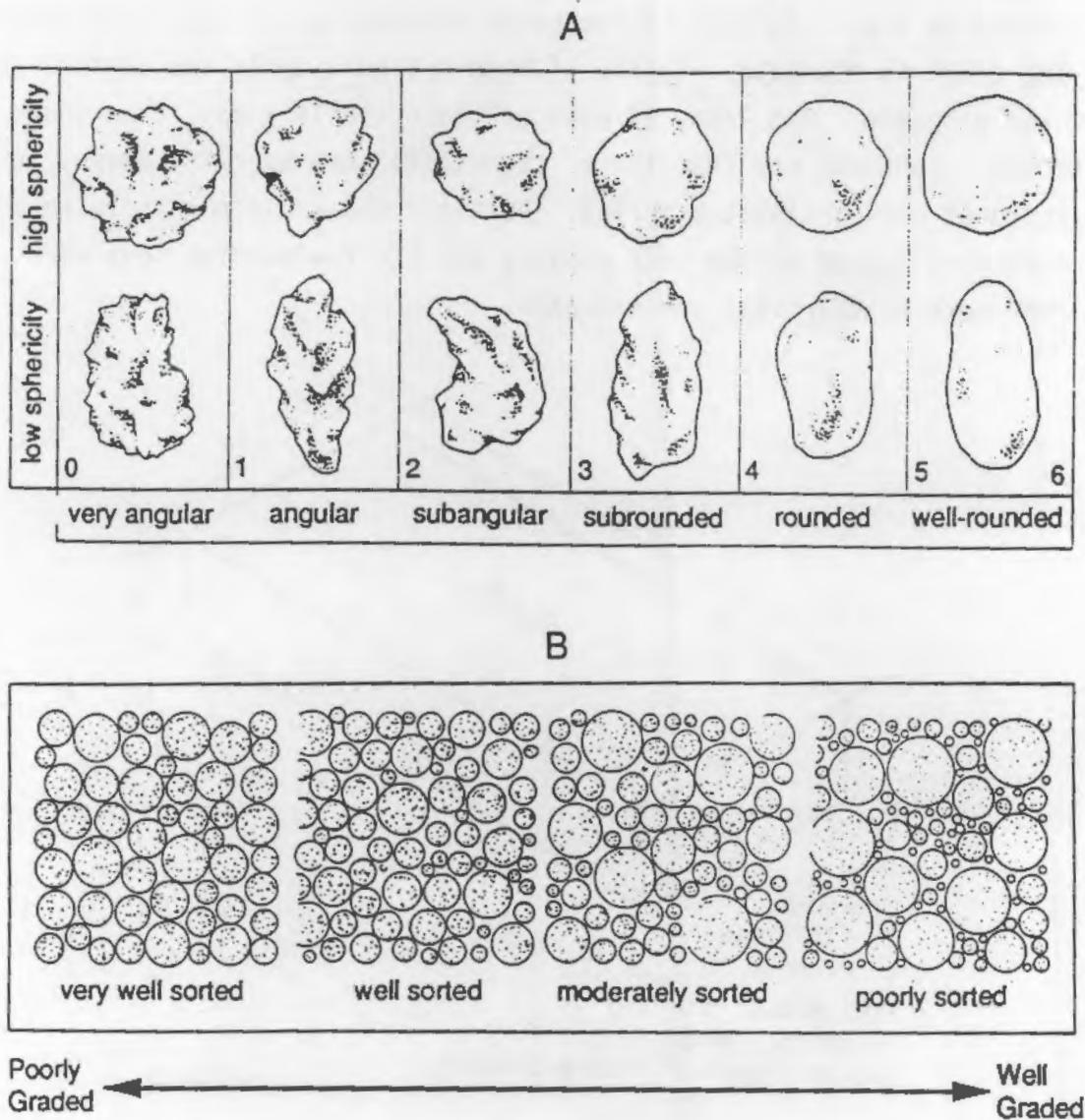
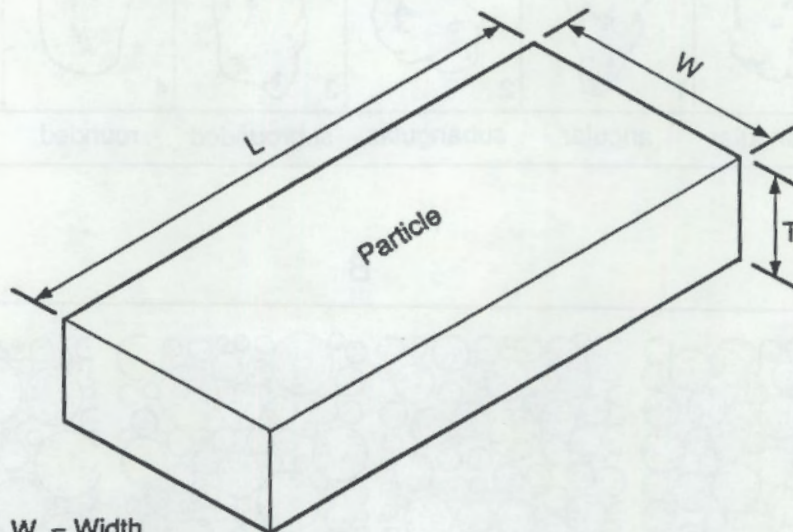


FIGURE B.3. Charts Used to Visually Estimate (A) Roundness/Sphericity and (B) Sorting/Grading

B.2.2 Shape

Shapes of sedimentary particles often reflect the internal characteristics (e.g., preferential parting) of the material or sometimes the type of sedimentary environment. For example gravel clasts deposited in high-energy environments, such as beaches and river bottoms, are often worn flat.

According to Figure B.4, gravel-sized clasts may be described in one of four ways. First, if the ratio of the clast's width to thickness is >3 , it is classified as flat. Second, if the ratio of the clast's length to width is >3 , the clast is elongate. Third, if both criteria apply the clast is both flat and elongate. And last, if none of the criteria apply, then shape is not mentioned. Indicate the fraction of the clasts that have the shape, such as: one-third of gravel clasts are flat. Particle shape did not apply to most of the sediments logged during this project and the few pebbles that were observed were neither flat nor elongate.



W = Width
T = Thickness
L = Length

Flat: $W/T > 3$

Elongated: $L/W > 3$

Flat and Elongated: meets both criteria

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FIGURE B.4. Criteria Used to Describe Particle Shape of Pebbles and Large Gravels (From ASTM 1984)

B.2.3 Color

Color may be useful in identifying materials of similar geologic origin. For example, color was often a useful criteria for differentiating Younger Bay Mud from Older Bay Mud. Sediment color was determined by comparing the wet sediment with standard sediment colors given in Munsell (1975). The advantage to using the Munsell soil color system is that it provides a consistent, standardized method for describing color and subjectivity is minimized.

The Munsell color notation consists of three simple variables that combine to describe all colors known in the Munsell soil color system. The three variables are: hue, value, and chroma (Figure B.5). The hue notation indicates the relation of the sediment color with respect to red, yellow, green, blue and purple; the value notation indicates its lightness, and the chroma notation indicates its strength (i.e., intensity).

Color can be described either by the Munsell notation (e.g. 5YR 5/3; hue=5YR, value=5, chroma=3) or by its equivalent color name (e.g. reddish brown). Both the color name and Munsell notation were recorded on core logs (see Appendix B). Only rarely was there not a reasonable match between the true color of the core sediment and one of the colors on a Munsell color chart.

B.2.4 Odor

Odors may indicate the presence of contaminants or be the result of the geochemical environment. Odors most frequently noted were that of petroleum hydrocarbons and the smell of rotten eggs (an indication of the presence of hydrogen sulfide). Both of these odors were restricted to the Younger Bay Mud unit. Petroleum odors may be the result of contamination of the sediments by shipping spills or industrial waste, or perhaps are derived from decaying organic matter present in these sediments. Hydrogen sulfide is a common natural by-product in chemically reducing environments such as the Oakland Harbor estuary.

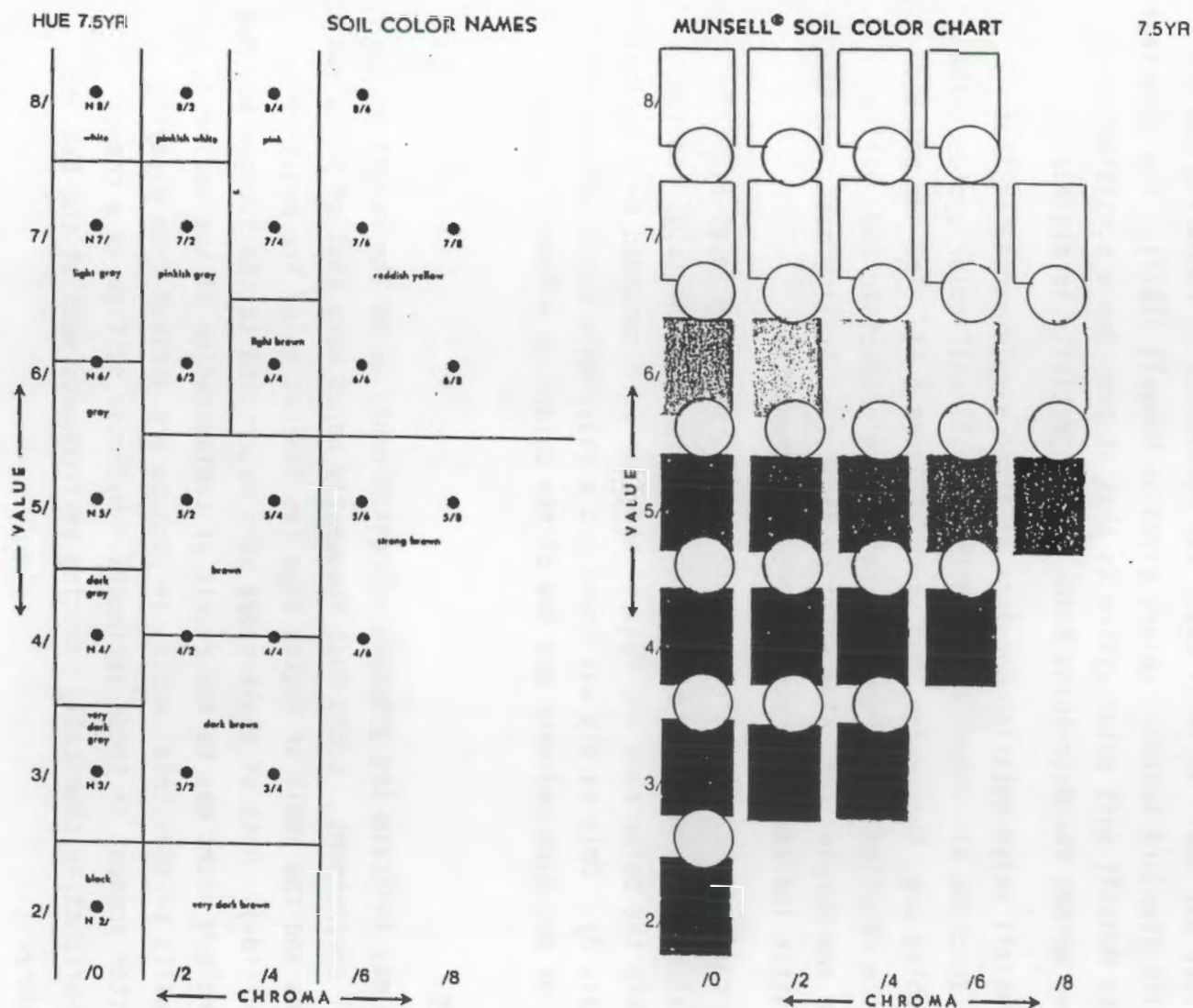


FIGURE B.5. Example of a Page from the Munsell Soil Color for Hue 7.5YR

B.2.5 Moisture Condition

Moisture condition is described as either dry, moist, or wet according to the following criteria:

- DRY Absence of moisture, dry to the touch
- MOIST Damp but no visible water
- WET Visible free water, usually soil is below water table (i.e., saturated)

All the sediments logged for this project were taken from below sea level and did not lose any significant moisture between the time they were drilled and logged. Therefore, they are all classified as wet.

B.2.6 HCl Reaction

The reaction (i.e., effervescence) of sedimentary material, as a result of adding hydrochloric acid, is an indication of the presence of calcium carbonate. Calcium carbonate in sediments may be derived from a variety of sources including: 1) physical disintegration of preexisting carbonate rocks (e.g., limestone, marble), 2) biogenic precipitation (e.g., shell, bone), and 3) soil development. In the last example, calcium carbonate concentrations, often referred to as caliche or calcrete, may accumulate over time near the land's surface in arid climates. Where calcium carbonate concentrations occur in combination with other evidence for soil development, such as root traces and oxidation, then a pedogenic (soil forming) origin is favored. Criteria for describing the reaction with 10 N HCl are as follows:

- NONE No visible reaction.
- WEAK Some reaction, with bubbles forming slowly
- STRONG Violent reaction, with bubbles forming immediately

A solution of 10 N HCl is obtained by slowly adding one part of concentrated hydrochloric acid to three parts of distilled water.

B.2.7 Consistency

Consistency is a measure of the firmness or consolidation of sedimentary material. In general, there is a direct relationship between consistency and age of the deposit (i.e., older deposits are usually more firm because of compaction and/or cementation). Consistency is most applicable to fine-grained sediments and least applicable on sediments that contain significant amounts of gravel. The criteria used to determine consistency are as follows:

VERY SOFT	Penetrometer penetrates soil greater than 4 cm
SOFT	Penetrometer penetrates soil 2.0 to 4.0 cm
FIRM	Penetrometer penetrates soil 0.25 to 2.0 cm
HARD	Penetrometer penetrates soil less than 0.25 cm

The penetrometer used for sediment core descriptions consists of a 6-in. nail spike attached to a clay brick for a total mass of 2.0 kg; the nail spike is marked in centimeter increments to quantify the amount of soil penetration.

B.2.8 Cementation

Often sedimentary particles are held together with a binding cement. Three common natural cements are calcium carbonate (lime), silica, and iron-oxide compounds. Particles cemented with calcium carbonate effervesce in the presence of hydrochloric acid (see Section B.2.6 above). Sediments cemented with iron oxide are usually some shade of red, yellow, or brown. Usually there is a relationship between consistency (Section B.2.7) and cementation, in that strongly cemented deposits are also hard to very hard. Criteria used to describe the degree of cementation are:

WEAK	Crumbles or breaks with handling or light finger pressure
MODERATE	Crumbles or breaks with considerable finger pressure
STRONG	Will not crumble or break with finger pressure

B.2.9 Structure

Structures are features that originate within the layers of sediment or at the sediment/water interface in response to various physical, biologic

and/or chemical processes. Structures may be classified into two categories: primary and secondary. Primary structures form as the sediment is being deposited (e.g., lamination, stratification). Secondary structures form after deposition, often as a result of compaction or other stresses (e.g., fissured, slickensided), biologic activity (e.g., root traces, mottling), and soil development (e.g., homogeneous, blocky, mottled). The following are some common structures observed in sedimentary deposits.

PRIMARY STRUCTURES

STRATIFIED	Alternating layers of varying material or color with layers at least 6 mm thick
LAMINATED	Alternating layers of varying material or color with the layers less than 6 mm thick
LENSED	Inclusion of small pockets of different sediment type, such as small lenses of sand scattered through a mass of clay. (This type of structure may also be secondary).

SECONDARY STRUCTURES

FISSURED	Breaks along definite planes of fracture with little resistance to fracturing
SLICKENSIDED	Fracture planes appear polished or glossy, sometimes striated
BLOCKY	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
MOTTLED	Variation in color of sediments as represented by localized spots or blotches of color or shades of color
HOMOGENEOUS	Same color and appearance throughout

B.2.10 Sediment Classification Type

The classification method used in this study is the Unified Soil Classification System, which consists of a two-letter designation for most soils (i.e., unconsolidated sediments). A simplified version of the Unified Soil Classification System is presented in Figure B.6, while a more-detailed breakdown is presented in Figure B.7.

Major Divisions		Group Symbols	Description
Coarse-Grained Sediments More than half of particles are larger than very fine sand	≥50% Gravel	Clean Gravels	GW Well-graded (i.e., poorly sorted) gravels, gravel-sand mixtures, little or no fines
		GP	Poorly graded (i.e., well sorted) gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines	GM Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	≥50% Sands	Clean Sands	SW Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
		Sands with Fines	SM Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine-Grained Sediments More than half of particles are smaller than very fine sand	Silt and Clays	Low Liquid Limit	ML Silts and very fine sands, silty or clayey fine sands, or clayey silts, with slight plasticity
		CL	Clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	High Liquid Limit	MH	Silts or fine sandy silts with moderate plasticity
		CH	Clays of high plasticity, fat clays

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FIGURE B.6. Abbreviated Form of the Unified Soil Classification System
(From AGI 1982)

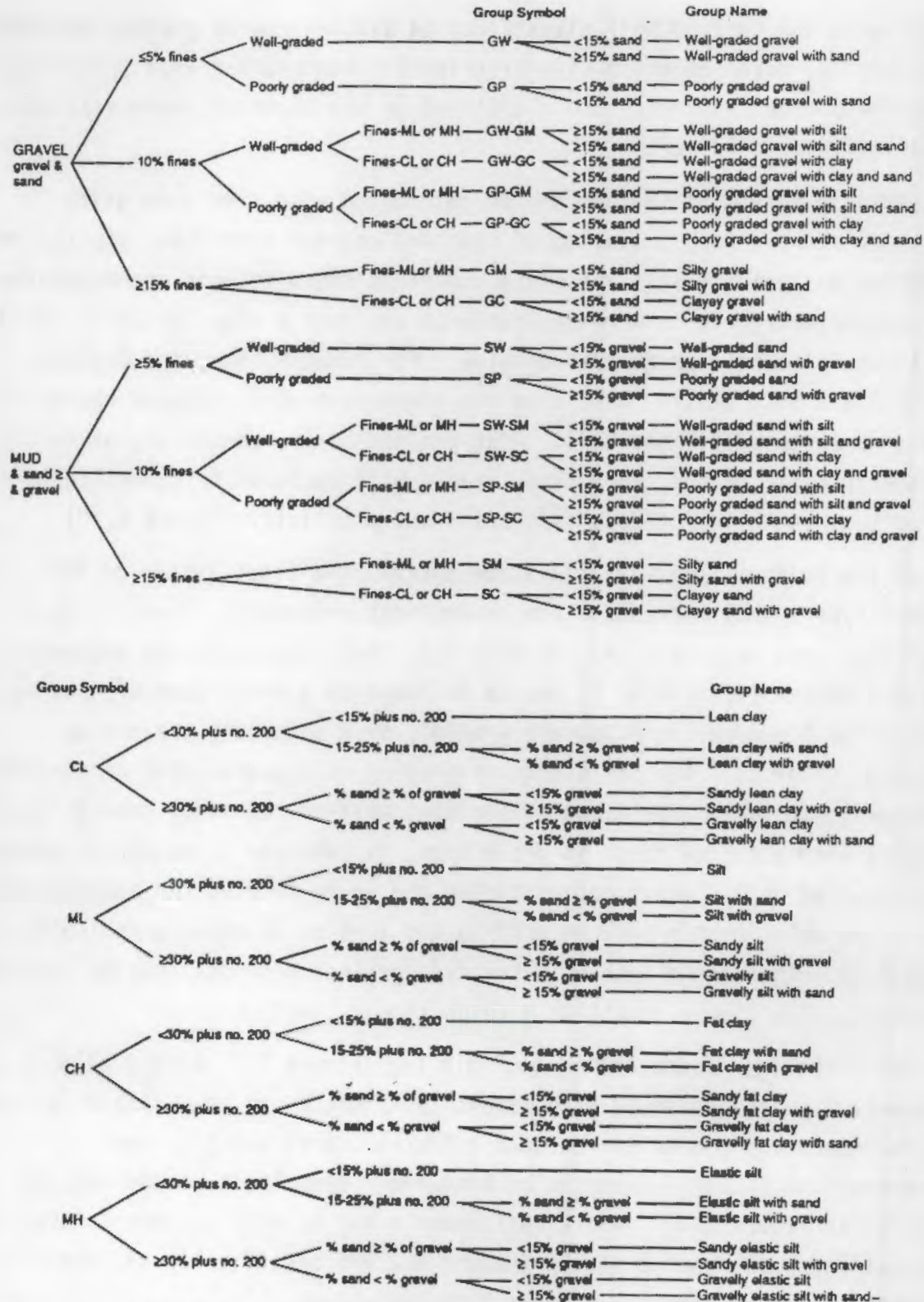


FIGURE B.7. Detailed Flow Chart For the Classification of Coarse- and Fine-Grained Soils Using the Unified Soil Classification System

According to the Unified Soil Classification System, coarse-grained sediments are classified based on grain-size distribution and grading (i.e., sorting), while fine-grained sediments are classified on the basis of grain size and liquid limit vs. plasticity.

Particle-size distribution may be determined with precision using laboratory methods (e.g., sieving of sand and coarser particles; pipette or hydrometer analysis of silt and clay). Because these methods are expensive and time-consuming, it is more desirable to estimate grain size using rapid visual-manual techniques described below. For example, sand and coarser particles are most easily identified via comparison with standard charts of grain size (Figures B.8 and B.9). Fine-grained soils, consisting of mostly silt and/or clay, on the other hand, are identified based on manual tests of their dry strength, dilatancy, toughness, and plasticity (Figure B.10).

In the Unified Soil Classification System, the first letter of the sediment-type symbol represents the predominant grain-size interval, be it gravel (G), sand (S), silt (M), or clay (C). For coarse-grained sediments, the first letter (i.e., G or S) may be followed by a descriptor of grading, either W (well graded) or P (poorly graded), or a secondary grain-size descriptor (M or C). The definition of grading is opposite that of sorting, a common geologic term. For example, a clean, well-sorted sand, consisting of particles over a narrow range in grain size, is referred to as poorly graded in the Unified Soil Classification System and would receive the designation "SP". The relationship between grading and sorting is shown graphically in Figure B.3B. The second letter in the fine-grained soil designation consists of either L (low liquid limit) or H (high liquid limit).

The lithology column on the geologic log (Figure B.1) essentially represents a graphic display of sediment type, which can be utilized for quick easy reference and comparison between different cores and thus make interpretations easier. Examples of lithologic symbols in common use are presented in Figure B.11. Additional symbols may be used as long as they are graphically representative of the feature and are specifically defined and identified in a key that accompanies lithologic logs.

Grade Limits			inches	U.S. Standard Sieve Series	Grade Name		
phi	mm	mm					
-12	4096 -	- - -	161.3	- - -	very large	Boulders	GRAVEL
-11	2048 -	- - -	80.6	- - -	large		
-10	1024 -	- - -	40.3	- - -	medium		
-9	512 -	- - -	20.2	- - -	small		
-8	256 -	- - -	10.1	- - -	large	Cobbles	
-7	128 -	- - -	5.0	- - -	small		
-6	64 -	- - -	2.52	63 mm -	very coarse	Pebbles	
-5	32 -	- - -	1.26	31.5 mm	coarse		
-4	16 -	- - -	0.63	16 mm -	medium		
-3	8 -	- - -	0.32	8 mm -	fine		
-2	4 -	- - -	0.16	No. 5 -	very fine		
-1	2 -	- - -	0.08	No. 10 -	very coarse	Sand	SAND
0	1 -	- - -	0.04	No. 18 -	coarse		
+1	1/2 -	0.500 -	- - -	No. 35 -	medium		
+2	1/4 -	0.250 -	- - -	No. 60 -	fine		
+3	1/8 -	0.125 -	- - -	No. 120 -	very fine		
+4	1/16 -	0.062 -	- - -	No. 230 -	coarse	Silt	MUD
+5	1/32 -	0.031 -	- - -	- - -	medium		
+6	1/64 -	0.016 -	- - -	- - -	fine		
+7	1/128 -	0.008 -	- - -	- - -	very fine		
+8	1/256 -	0.004 -	- - -	- - -	coarse	Clay Size	
+9	1/512 -	0.002 -	- - -	- - -	medium		
+10	1/1024 -	0.001 -	- - -	- - -	fine		
+11	1/2048 -	0.0005 -	- - -	- - -	very fine		
+12	1/4096 -	0.00025 -	- - -	- - -	- - -	- - -	- - -

FIGURE B.8. Grain-Size Scale Used to Determine Sedimentary Particle Size

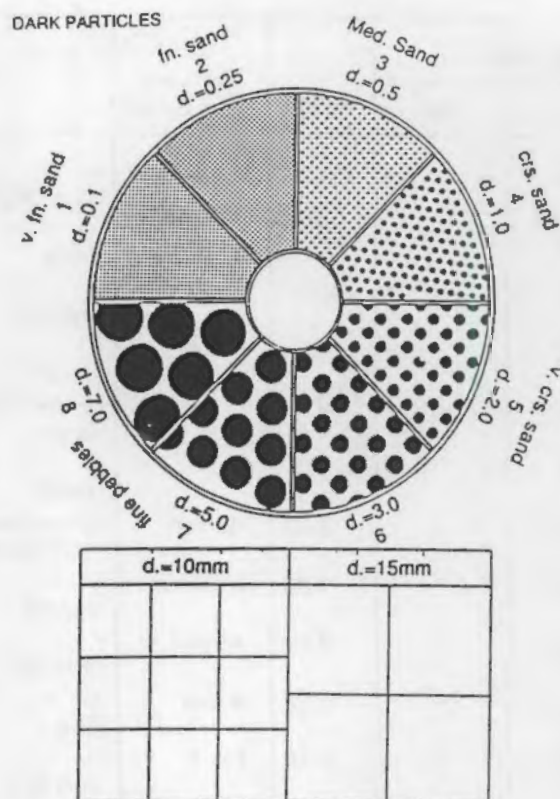


FIGURE B.9. Comparison Chart Used to Distinguish Among Sand to Pebble-Size Particles (From AGI 1982). For larger particles, refer to Figure A.8; for smaller particles, refer to Sections B.2.13 and B.2.16 in this Appendix

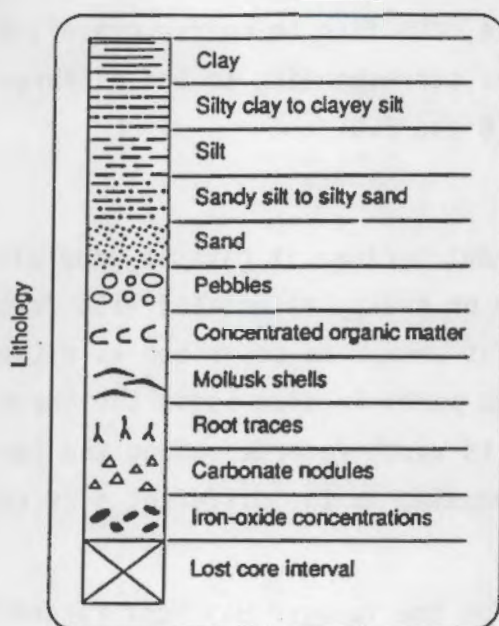
Sediment Type	Dry Strength					Dilatancy			Toughness			Plasticity			
	None	Low	Medium	High	Very High	None	Slow	Rapid	Low	Medium	High	Nonplastic	Low	Medium	High
ML (Silt)	■						■		■			■			
MH (Elastic Silt)		■				■			■				■		
CL (Lean Clay)			■			■				■				■	
CH (Fat Clay)				■		■					■				■

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FIGURE B.10. Identification of Inorganic Fine-grained Soils From Manual Tests

Oakland Harbor - Phase IIIA

Key to Core Data Logs (After ASTM Procedure D2488-84)



Type:

See soil group classification in
ASTM D2488-84

Color (wet):

Selected from Munsell Soil
Color Chart

Consistency:

<0.25 cm = hard
0.25 - 2.0 cm = firm
2.0 - 4.0 cm = soft
>4.0 cm = very soft

Cementation:

N = not cemented
W = weakly cemented
M = moderately cemented
S = strongly cemented

YBM = Younger Bay Mud unit
OBM = Older Bay Mud unit

Clay/Silt Characteristics

Dilatancy:

N = none
S = slow
R = rapid

Toughness:

L = low
M = medium
H = high

Plasticity:

N = none
L = low
M = medium
H = high

Structure:

S = stratified
L = laminated
F = fissured
Sl = slickensided
Ln = lensed
Bl = blocky
M = mottled
H = homogeneous

HCl Reaction:

N = none
W = weak
S = strong

Maximum Particle Size:

VCP = very coarse pebble
CS = coarse sand
MS = medium sand
FS = fine sand

Odor:

N = none
S = sulfide
P = petroleum
O = other

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FIGURE B.11. Lithologic Symbols Used on Core Log Forms

B.2.11 Range of Particle Sizes

For gravel- and sand-sized particles, the range of particle sizes within each component is defined. For example, 20% fine to coarse gravel, 40% fine to coarse sand. The sizes of particles corresponding to the different size components are presented in Figures B.8 and B.9.

B.2.12 Maximum Particle Size

Maximum particle size is significant because it gives a general indication of the amount of turbulence or energy associated with deposition. If the maximum particle size is sand, it should be described as either fine, medium, or coarse sand. If the maximum particle size is in the gravel range, the largest particle is measured and its width recorded along the narrowest axis. The sizes of particles corresponding to the different size components are presented in Figures B.8 and B.9.

The maximum grain size observed for the Younger Bay Muds ranged from silt to medium sand, while the Older Bay Mud usually ranged from fine sand to coarse sand. The largest particles observed anywhere were fine pebbles in the Older Bay Mud unit.

B.2.13 Dry Strength

Dry strength, along with dilatancy, toughness, and plasticity are physical characteristics used to distinguish fine-grained inorganic soils, consisting of mostly silt and/or clay. Basically, the more clay present in a soil the greater its dry strength (Figure B.10). To perform a manual test of dry strength enough material must be selected in order to mold into a ball about 1 in. in diameter. Mold the material until it has the consistency of putty, adding water if necessary. From the molded material, make at least three test specimens each about 1/2 in. in diameter. Allow the test specimens to dry in air, sun or by artificial means, as long as the temperature does not exceed 60°C (ASTM 1984). The criteria for determining dry strength are as follows:

NONE	The dry specimen crumbles into powder with mere pressure of handling
LOW	The dry specimen crumbles into powder with light finger pressure

MEDIUM	The dry specimen breaks into pieces or crumbles with considerable finger pressure
HIGH	The dry specimen cannot be broken with finger pressure. Specimen will break into pieces between thumb and a hard surface
VERY HIGH	The dry specimen cannot be broken between the thumb and a hard surface

Dry strength was determined for Oakland Phase III A cores by sampling selected intervals and allowing the samples to air dry overnight. Dry strength was determined the next day and noted in the comments column of the geologic log.

B.2.14 Dilatancy

Dilatancy is a measure of how easily a soil gives up water when shaken. For example, some clays have the ability to absorb and retain large amounts of water into their crystal lattice. "Fat" clays tend to retain their water even under stress; whereas, "lean" clays and silt tend to release water when shaken.

To test for dilatancy select enough material to mold into a ball about 1/2 in. in diameter. Mold the material, adding water if necessary, until it has a soft, but not sticky consistency. Smooth the soil ball in the palm of the hand with a blade of a knife or small spatula. Shake horizontally, striking the side of the hand vigorously against the other several times. Note the reaction of water appearing on the surface of the soil. Squeeze the sample by closing the hand or pinching the soil between the fingers, and note the reaction. Specimens with high dilatancy will quickly yield water when shaken and absorb water when squeezed. The criteria for describing dilatancy are:

NONE	No visible change in the specimen
SLOW	Water appears slowly on the surface of the specimen during shaking and does not disappear or disappears slowly upon squeezing
RAPID	Water appears quickly on the surface of the specimen during shaking and disappears quickly upon squeezing

The range of dilatancy for the different fine-grained sediment types is shown in Figure B.10. From this figure it is apparent that dilatancy decreases with decreasing grain size.

B.2.15 Toughness

After completion of the dilatancy test, shape the same specimen into an elongated pat and roll by hand on a smooth surface or between the palms into a thread about 1/8 in. (3 mm) in diameter. (If the sample is too wet to roll easily, it should be spread into a thin layer and allowed to lose some water by evaporation.) Fold the sample threads and reroll repeatedly until the thread crumbles at a diameter of about 1/8 in. The thread will crumble at a diameter of 1/8 in. when the soil is near the plastic limit. Note the pressure required to roll the thread near the plastic limit. Also, note the strength of the thread. After the thread crumbles, the pieces should be lumped together and kneaded until the lump crumbles. Note the toughness of the material during kneading and classify into one of the following categories.

- LOW Only slight pressure is required to roll the thread near the plastic limit. The thread and lump are weak and soft
- MEDIUM Medium pressure is required to roll the thread to near the plastic limit. The thread and lump have medium stiffness.
- HIGH Considerable pressure is required to roll the thread to near the plastic limit. The thread and the lump have very high stiffness.

The range of toughness for the different fine-grained sediment types is shown in Figure B.10. From this figure it is apparent that toughness increases with a decrease in particle size.

B.2.16 Plasticity

On the basis of observations made during the toughness test, describe the plasticity of the material according to the following criteria:

NONPLASTIC A 1/8 in. thread cannot be rolled at any water content

- LOW The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.

MEDIUM

The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.

HIGH

It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

The range of plasticity for the different fine-grained sediment types is shown in Figure B.10. From this figure it is apparent that an increase in plasticity accompanies a decrease in grain size.

B.3 REFERENCES

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Core Data Log

Core #: I-C-4 Rep. 1-Y

Logger: Bjornstad

Date: 6/18/90

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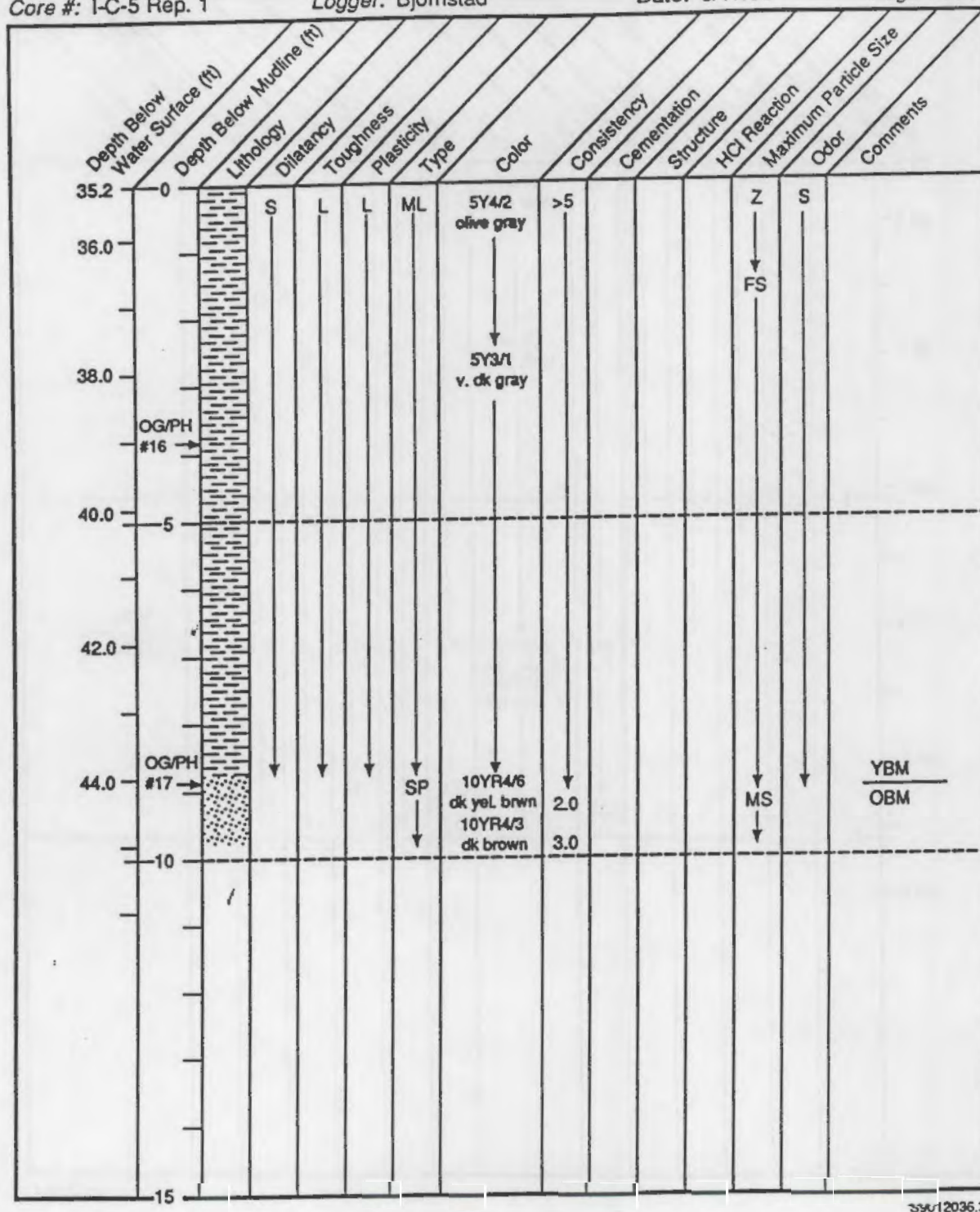
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Logger: Bjornstad

Date: 6/17/90

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Core Data Log

Core #: I-C-5 Rep. 3

Logger: Bjornstad

Date: 6/17/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
35.2	0	S	L	L	ML		5Y5/2 olive gray	>5	N	H	N	FS	S	
36.0											FS			
38.0							5Y4/1 v. dk gray							
40.0	5													
42.0						SM SP	2.5Y4/2 dk gray bm 10YR5/4 lt. olive bm	1.0		S		MS		YBM OBM
44.0								1.0						
46.0						SW		3.0		H				
	10							0.5						
46.0														
15														

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Core Data Log

Core #: I-C-7 Rep. 4

Logger: Bjornstad

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Core Data Log

Core #: I-C-8 Rep. 1

Logger: Goodwin

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Core Data Log

Core #: I-C-8 Rep. 3

Logger: Goodwin

Date: 6/18/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
37.3	0	N/A	N/A	N/A	SP	10YR4/3 dark brown	>5	N	H	N	MS	N	N	OBM
38.8														Top (-36.5 to -37.3 ft MLLW) of core lost during sampling. Field notes indicated upper sediment is composed of silt.
40.8														
42.8	5						1.0							
44.8							0.5							
46.5														
46.8														
10														
15														

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Core Data Log

Core #: I-C-11 Rep. 1-X

Logger: Bjornstad

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Core Data Log

Core #: I-C-11 Rep. 2-X

Logger: Bjornstad

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Core #: I-C-12 Rep. 1-X

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Core Data Log

Core #: I-C-12 Rep. 2-X

Logger: Bjornstad

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Core Data Log

Core #: I-C-12 Rep. 3-X

Logger: Bjornstad

Date: 6/17/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
36.3	0		S ↓	L ↓	L ↓	ML ↓ SP	5Y3/1 v. dk gray	>5 ↓	N ↓	H ↓	N ↓	FS ↓ MS	S ↓	YBM OBM
38.0							10YR3/3 dk brown 10YR3/3 dk yel bm 10YR4/6 10YR4/3 dk brown	3.0 ↓		S ↓ H				
40.0								>5 ↓						
42.0	5						10YR3/3	4.0 ↓		S ↓				
44.0								3.0 ↓						
46.0								4.0 ↓						
48.0							2.5Y4/2 dk gray bm	4.0 ↓	↓	↓	↓	↓		
50.0								4.0 ↓						
52.0								4.0 ↓						
54.0								4.0 ↓						
56.0								4.0 ↓						
58.0								4.0 ↓						
60.0								4.0 ↓						
62.0								4.0 ↓						
64.0								4.0 ↓						
66.0								4.0 ↓						
68.0								4.0 ↓						
70.0								4.0 ↓						
72.0								4.0 ↓						
74.0								4.0 ↓						
76.0								4.0 ↓						
78.0								4.0 ↓						
80.0								4.0 ↓						
82.0								4.0 ↓						
84.0								4.0 ↓						
86.0								4.0 ↓						
88.0								4.0 ↓						
90.0								4.0 ↓						
92.0								4.0 ↓						
94.0								4.0 ↓						
96.0								4.0 ↓						
98.0								4.0 ↓						
100.0								4.0 ↓						
102.0								4.0 ↓						
104.0								4.0 ↓						
106.0								4.0 ↓						
108.0								4.0 ↓						
110.0								4.0 ↓						
112.0								4.0 ↓						
114.0								4.0 ↓						
116.0								4.0 ↓						
118.0								4.0 ↓						
120.0								4.0 ↓						
122.0								4.0 ↓						
124.0								4.0 ↓						
126.0								4.0 ↓						
128.0								4.0 ↓						
130.0								4.0 ↓						
132.0								4.0 ↓						
134.0								4.0 ↓						
136.0								4.0 ↓						
138.0								4.0 ↓						
140.0								4.0 ↓						
142.0								4.0 ↓						
144.0								4.0 ↓						
146.0								4.0 ↓						
148.0								4.0 ↓						
150.0								4.0 ↓						

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Core Data Log

Core #: I-C-15 Rep. 1-X

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Core Data Log

Core #: I-C-15 Rep. 2-X

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Core Data Log

Core #: I-C-15 Rep. 1-4

Logger: Bjornstad

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
36.7	0													
38.0		N/A	N/A	N/A	SP	10YR4/3 dark brown	4.0	N	H	N	FS	N		OBM
						10YR3/3 dark brown	2.0							
						2.5Y4/4 olive brown	3.0				VFS			
40.0					SM		0.5							
							2.0							
							1.0							
41.7	5					5Y4/1 dark gray	2.0							
		S	L	L	ML		2.0				Z			
							2.0							
44.0							3.0							
							4.0							
							1.0							
46.7	10													
15														

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Core Data Log

Core #: I-C-16 Rep. 1-X

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Core Data Log

Core #: I-C-16 Rep. 2-X

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Core Data Log

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Core Data Log

Core #: I-C-9 Rep. 1-X

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Core Data Log

Core #: I-C-9 Rep. 2-X

Logger: Bjornstad

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Core Data Log

Core #: I-C-9 Rep. 3-X

Logger: Bjornstad

Date: 6/17/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
35.0	0		S	L	L	ML	5Y3/1 v. dk gray	>5	N	H	N	FS	S	
36.0														
38.0										M				
40.0	5		N	H	M	CL	2.5Y4/0 dark gray			H		Z		YBM OBM
42.0														
44.0														high dry strength
10														
15														

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Core Data Log

Core #: I-C-17 Rep. 2-X

Logger: Bjornstad

Date: 6/16/90

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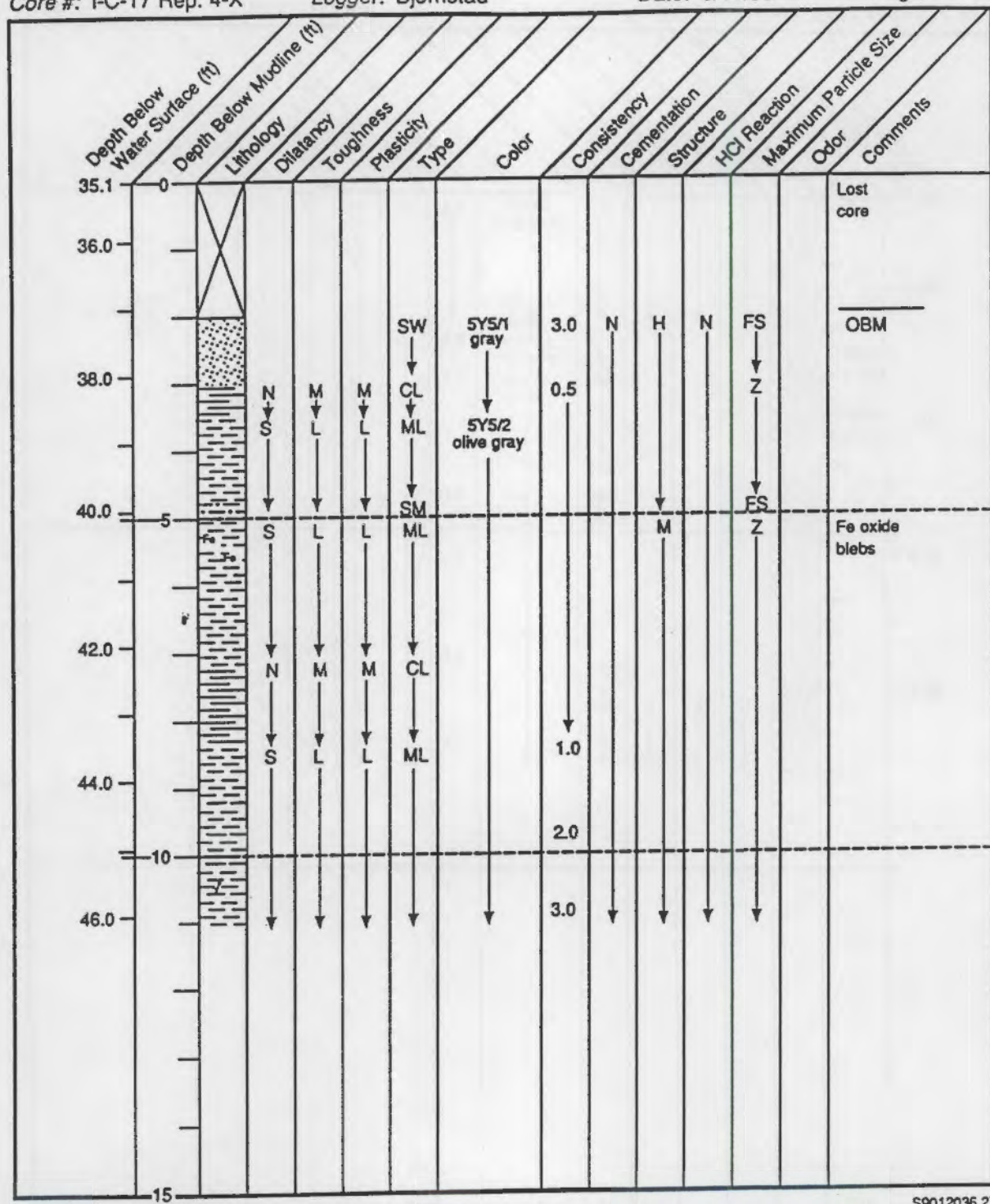
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Date: 6/16/90

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PHASE III A

B.54

Core Data Log

Core #: I-C-18 Rep 1-X

Logger: Bjornstad

Date: 6/15/90

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Core Data Log

Core #: I-C-18 Rep. 2-X

Logger: Bjornstad

Date: 6/15/90

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S9012036.30

Core Data Log

Core #: I-C-18 Rep 3-X

Logger: Bjornstad

Date: 6/15/90

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Core Data Log

Core #: I-C-18 Rep. 1-Y

Logger: Bjornstad

Date: 6/15/90

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Core Data Log

Core #: I-C-18 Rep. 2-Y

Logger: Bjornstad

Date: 6/15/90

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S9012036.31

Core Data Log

Core #: I-C-18 Rep. 3-Y

Logger: Bjornstad

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S9012036.29

PHASE III A

B.60

Core Data Log

Core #: I-S-1 Rep. 1-X

Logger: Bjornstad

Date: 6/18/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
31.8	0	S	L	L	ML		5Y4/1 dark gray	>5.0	N	H	N	FS	S	
34.0							5Y3/1 very dark gray							Gas Voids
36.0							5Y5/2							YBM OBM
5		N	H	H	CL		olive gray				Z	N		Gas Voids
OG/PH #23														
38.0								4.0						
40.0								>5.0						
42.0	10						5Y4/1 dark gray							
44.0														
46.0														
15														

S9012036.39

Core Data Log

Core #: I-S-1 Rep. 2-X

Logger: Bjornstad

Date: 6/18/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
31.8	0	S	L	L	ML	5Y5/2 olive gray	>5.0	N	H	N	FS	S		
						5Y4/1 dark gray								Gas Voids
34.0						5Y3/1 very dark gray								
36.0														
	5													
38.0		N	M	H	CL	5Y5/1 gray	3.0				Z	N		YBM OBM
							>5.0							
40.0														
	10						3.0							
42.0							>5.0							
44.0														
46.0														
	15													

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Core #: I-T-1 Rep. 2-X Logger: Bjornstad Date: 6/18/90 Page 1 of 1

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Logger: Goodwin

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S9012036.42

Core Data Log

Core #: I-T-3 Rep. 1

Logger: Bjornstad

Date: 6/18/90

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[illegible]

S9012036.32

Logger: Bjornstad

Date: 6/18/90

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S9012036.33

Core Data Log

Core #: I-T-3 Rep. 3

Logger: Bjornstad

Date: 6/18/90

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[illegible]

\$9012036.34

Core Data Log

Core #: I-T-5 Rep. 1

Logger: Goodwin

Date: 6/18/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
0							5Y3/1 v. dk. gray	>5.0	N	H	N	FS	S	
32.0														
34.0														
		N/A	N/A	N/A	SP		5Y4/1 dark gray	3.0	M			MS	N	YBM OBM Wood - 2" thick, partially decomposed. Some cementation
36.0	5						10YR4/2 dk. grayish brown							Sl. Fe Stains
							10YR3/4 dk. yel. brown	2.0		L				Fe Stains
38.0							10YR4/2 dk. gray brown			H				
40.0								4.0						
	10							3.0						
42.0														
44.0														
15														

S9012036.49

Core Data Log

Core #: I-T-5 Rep. 1

Logger: Goodwin

Date: 6/18/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
30.2	0	S	L	L	ML		5Y4/2 olive gray	>5	N	H	N	FS	N	
32.0		N/A	N/A	N/A	SP		5Y3/1 v. dark gray 5Y4/1 dark gray 10YR4/4 dk. yel. brown			L		MS	N	YBM OBM Traces of Bedding
34.0							10YR4/3 dark brown 7.5YR4/4 10YR4/3	2.0						Fe Stains
36.0	5						7.5YR4/4 dark brown 10YR4/3 7.5YR4/4 10YR4/3 dark brown	1.0		H				Fe Stains Fe Stains
40.0	10							2.0						
42.0														
44.0														
46.0	15							1.0						1/2" Silt Lens

SP012036.45

Core Data Log

Core #: I-T-5 Rep. 2

Logger: Goodwin

Date: 6/18/90

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Depth Below Water Surface (ft)	Depth Below Mudline (ft)	Lithology	Dilatancy	Toughness	Plasticity	Type	Color	Consistency	Cementation	Structure	HCl Reaction	Maximum Particle Size	Odor	Comments
31.0	0		S	L	L	ML	5Y4/1 dark gray	>5.0	N	H	N	FS	S	
32.0														
34.0														
		O/G P/H Samples @ 35' & 36'	N/A	N/A	N/A	SP	5Y5/1 gray	2.0				MS	N	YBM OBM
							10YR4/3 dark brown	1.0						
36.0	5		N	H	H	CH	10YR5/3 brown	4.0		L		FS		High Dry Strength 36.5' - 37.2'
		O/G P/H @ 37'	N/A	N/A	N/A	SP	10YR4/3 dark brown	1.0		H		MS		
38.0								2.0						SL Fe Staining
40.0								3.0						
							10YR4/4 dk. yel. brown	2.0		L				Fe Stains
							10YR4/3 dark brown							Fe Stains
42.0							10YR4/2 dk. grayish brown	3.0		H				
44.0								2.0						
	15													

S9012036.47

Core Data Log

Core Data Log									
Core No.	Depth (ft)	Soil Type	Moisture (%)	Grain Size (%)	Organic Content (%)	Specific Gravity	Unit Weight (pcf)	Void Ratio	Compression Index
1	0.0 - 1.0	CL	15	60	5	2.65	115	0.65	0.8
2	1.0 - 2.0	CL	18	65	5	2.65	120	0.60	0.75
3	2.0 - 3.0	CL	20	70	5	2.65	125	0.55	0.7
4	3.0 - 4.0	CL	22	75	5	2.65	130	0.50	0.65
5	4.0 - 5.0	CL	25	80	5	2.65	135	0.45	0.6
6	5.0 - 6.0	CL	28	85	5	2.65	140	0.40	0.55
7	6.0 - 7.0	CL	30	90	5	2.65	145	0.35	0.5
8	7.0 - 8.0	CL	32	95	5	2.65	150	0.30	0.45
9	8.0 - 9.0	CL	35	100	5	2.65	155	0.25	0.4
10	9.0 - 10.0	CL	38	100	5	2.65	160	0.20	0.35
11	10.0 - 11.0	CL	40	100	5	2.65	165	0.15	0.3
12	11.0 - 12.0	CL	42	100	5	2.65	170	0.10	0.25
13	12.0 - 13.0	CL	45	100	5	2.65	175	0.05	0.2
14	13.0 - 14.0	CL	48	100	5	2.65	180	0.00	0.15
15	14.0 - 15.0	CL	50	100	5	2.65	185	0.00	0.1
16	15.0 - 16.0	CL	52	100	5	2.65	190	0.00	0.05
17	16.0 - 17.0	CL	55	100	5	2.65	195	0.00	0.0
18	17.0 - 18.0	CL	58	100	5	2.65	200	0.00	0.0
19	18.0 - 19.0	CL	60	100	5	2.65	205	0.00	0.0
20	19.0 - 20.0	CL	62	100	5	2.65	210	0.00	0.0
21	20.0 - 21.0	CL	65	100	5	2.65	215	0.00	0.0
22	21.0 - 22.0	CL	68	100	5	2.65	220	0.00	0.0
23	22.0 - 23.0	CL	70	100	5	2.65	225	0.00	0.0
24	23.0 - 24.0	CL	72	100	5	2.65	230	0.00	0.0
25	24.0 - 25.0	CL	75	100	5	2.65	235	0.00	0.0
26	25.0 - 26.0	CL	78	100	5	2.65	240	0.00	0.0
27	26.0 - 27.0	CL	80	100	5	2.65	245	0.00	0.0
28	27.0 - 28.0	CL	82	100	5	2.65	250	0.00	0.0
29	28.0 - 29.0	CL	85	100	5	2.65	255	0.00	0.0
30	29.0 - 30.0	CL	88	100	5	2.65	260	0.00	0.0
31	30.0 - 31.0	CL	90	100	5	2.65	265	0.00	0.0
32	31.0 - 32.0	CL	92	100	5	2.65	270	0.00	0.0
33	32.0 - 33.0	CL	95	100	5	2.65	275	0.00	0.0
34	33.0 - 34.0	CL	98	100	5	2.65	280	0.00	0.0
35	34.0 - 35.0	CL	100	100	5	2.65	285	0.00	0.0
36	35.0 - 36.0	CL	100	100	5	2.65	290	0.00	0.0
37	36.0 - 37.0	CL	100	100	5	2.65	295	0.00	0.0
38	37.0 - 38.0	CL	100	100	5	2.65	300	0.00	0.0
39	38.0 - 39.0	CL	100	100	5	2.65	305	0.00	0.0
40	39.0 - 40.0	CL	100	100	5	2.65	310	0.00	0.0
41	40.0 - 41.0	CL	100	100	5	2.65	315	0.00	0.0
42	41.0 - 42.0	CL	100	100	5	2.65	320	0.00	0.0
43	42.0 - 43.0	CL	100	100	5	2.65	325	0.00	0.0
44	43.0 - 44.0	CL	100	100	5	2.65	330	0.00	0.0
45	44.0 - 45.0	CL	100	100	5	2.65	335	0.00	0.0
46	45.0 - 46.0	CL	100	100	5	2.65	340	0.00	0.0
47	46.0 - 47.0	CL	100	100	5	2.65	345	0.00	0.0
48	47.0 - 48.0	CL	100	100	5	2.65	350	0.00	0.0
49	48.0 - 49.0	CL	100	100	5	2.65	355	0.00	0.0
50	49.0 - 50.0	CL	100	100	5	2.65	360	0.00	0.0
51	50.0 - 51.0	CL	100	100	5	2.65	365	0.00	0.0
52	51.0 - 52.0	CL	100	100	5	2.65	370	0.00	0.0
53	52.0 - 53.0	CL	100	100	5	2.65	375	0.00	0.0
54	53.0 - 54.0	CL	100	100	5	2.65	380	0.00	0.0
55	54.0 - 55.0	CL	100	100	5	2.65	385	0.00	0.0
56	55.0 - 56.0	CL	100	100	5	2.65	390	0.00	0.0
57	56.0 - 57.0	CL	100	100	5	2.65	395	0.00	0.0
58	57.0 - 58.0	CL	100	100	5	2.65	400	0.00	0.0
59	58.0 - 59.0	CL	100	100	5	2.65	405	0.00	0.0
60	59.0 - 60.0	CL	100	100	5	2.65	410	0.00	0.0
61	60.0 - 61.0	CL	100	100	5	2.65	415	0.00	0.0
62	61.0 - 62.0	CL	100	100	5	2.65	420	0.00	0.0
63	62.0 - 63.0	CL	100	100	5	2.65	425	0.00	0.0
64	63.0 - 64.0	CL	100	100	5	2.65	430	0.00	0.0
65	64.0 - 65.0	CL	100	100	5	2.65	435	0.00	0.0
66	65.0 - 66.0	CL	100	100	5	2.65	440	0.00	0.0
67	66.0 - 67.0	CL	100	100	5	2.65	445	0.00	0.0
68	67.0 - 68.0	CL	100	100	5	2.65	450	0.00	0.0
69	68.0 - 69.0	CL	100	100	5	2.65	455	0.00	0.0
70	69.0 - 70.0	CL	100	100	5	2.65	460	0.00	0.0
71	70.0 - 71.0	CL	100	100	5	2.65	465	0.00	0.0
72	71.0 - 72.0	CL	100	100	5	2.65	470	0.00	0.0
73	72.0 - 73.0	CL	100	100	5	2.65	475	0.00	0.0
74	73.0 - 74.0	CL	100	100	5	2.65	480	0.00	0.0
75	74.0 - 75.0	CL	100	100	5	2.65	485	0.00	0.0
76	75.0 - 76.0	CL	100	100	5	2.65	490	0.00	0.0
77	76.0 - 77.0	CL	100	100	5	2.65	495	0.00	0.0
78	77.0 - 78.0	CL	100	100	5	2.65	500	0.00	0.0
79	78.0 - 79.0	CL	100	100	5	2.65	505	0.00	0.0
80	79.0 - 80.0	CL	100	100	5	2.65	510	0.00	0.0
81	80.0 - 81.0	CL	100	100	5	2.65	515	0.00	0.0
82	81.0 - 82.0	CL	100	100	5	2.65	520	0.00	0.0
83	82.0 - 83.0	CL	100	100	5	2.65	525	0.00	0.0
84	83.0 - 84.0	CL	100	100	5	2.65	530	0.00	0.0
85	84.0 - 85.0	CL	100	100	5	2.65	535	0.00	0.0
86	85.0 - 86.0	CL	100	100	5	2.65	540	0.00	0.0
87	86.0 - 87.0	CL	100	100	5	2.65	545	0.00	0.0
88	87.0 - 88.0	CL	100	100	5	2.65	550	0.00	0.0
89	88.0 - 89.0	CL	100	100	5	2.65	555	0.00	0.0
90	89.0 - 90.0	CL	100	100	5	2.65	560	0.00	0.0
91	90.0 - 91.0	CL	100	100	5	2.65	565	0.00	0.0
92	91.0 - 92.0	CL	100	100	5	2.65	570	0.00	0.0
93	92.0 - 93.0	CL	100	100	5	2.65	575	0.00	0.0
94	93.0 - 94.0	CL	100	100	5	2.65	580	0.00	0.0
95	94.0 - 95.0	CL	100	100	5	2.65	585	0.00	0.0
96	95.0 - 96.0	CL	100	100	5	2.65	590	0.00	0.0
97	96.0 - 97.0	CL	100	100	5	2.65	595	0.00	0.0
98	97.0 - 98.0	CL	100	100	5	2.65	600	0.00	0.0
99	98.0 - 99.0	CL	100	100	5	2.65	605	0.00	0.0
100	99.0 - 100.0	CL	100	100	5	2.65	610	0.00	0.0

APPENDIX C

SEDIMENT CHEMISTRY AND QUALITY
ASSURANCE DATA

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/June Sampling
PARAMETER:	Grain Size
LABORATORY:	Battelle/Marine Sciences Laboratory
MATRIX:	Sediment
SAMPLE NUMBER:	36
REPORT REQUIREMENTS:	16 size fractions, percent dry weight, and cumulative percent dry weight
DETECTION LIMITS:	NOT APPLICABLE
METHOD BLANKS:	NOT APPLICABLE
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	NOT APPLICABLE
REPLICATES:	Three samples were analyzed in triplicate. Precision was measured by Relative Standard Deviation (RSD) between replicates. Comparison of Sand, Silt and Clay summations resulted in low RSD values ranging from 0% to 29%. RSD values between triplicate gravel values were higher, 71.6% to 91.6%, due to the small amounts in these fractions. When individual fractions contained less than 5%, Relative Percent Differences tend to become exaggerated. Thus, RSD values among individual fractions were not compared here.
SRMs:	NOT APPLICABLE

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/June Sampling
PARAMETER:	Total Organic Carbon (TOC)
LABORATORY:	Global Geochemistry Corp.
MATRIX:	Sediment
SAMPLE NUMBER:	28
REPORT REQUIREMENTS:	Percent dry weight
DETECTION LIMITS:	Target detection limits were met (<0.1%)
METHOD BLANKS:	NOT APPLICABLE
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	NOT APPLICABLE
REPLICATES:	Three samples were analyzed in triplicate. Precision was measured by Relative Standard Deviation (RSD) between replicates. The RSDs for the replicates ranged from 0.47% to 5.66%, indicating acceptable precision for the analysis.
SRMs:	Although there is no certified SRM for TOC, MSL frequently runs MESS-1. A value of 2.3 has been found to be acceptable and three MESS-1 samples run with this set of samples resulted in values within 15% of this value.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/June Sampling
PARAMETER:	Oil and Grease/Total Petroleum Hydrocarbons (TPH)
LABORATORY:	Twin City Testing
MATRIX:	Sediment
SAMPLE NUMBER:	28
REPORT REQUIREMENTS:	mg/kg dry weight
DETECTION LIMITS:	Target limits were met for Oil and Grease and Total Petroleum Hydrocarbons in all samples (<20 ppm)
METHOD BLANKS:	One method blank was analyzed with these samples. Low levels of oil and grease and TPH were found in the blank samples and the samples that were associated with this blank were blank corrected for method blank contamination.
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	Two sets of matrix spike/matrix spike duplicates samples were analyzed. Matrix spike recoveries were generally acceptable, ranging from 46% to 94%. Relative Percent Difference (RPD) between the recoveries was good (<15%). The exception was one matrix spike recovery that was high (177%) and the resulting RPD between it and the corresponding spike duplicate was also high (67%). The high recoveries were due to higher native levels of hydrocarbons in the samples spiked relative to the spiking concentration. This makes accurate quantitation of variation difficult. Since all other QC was acceptable, no further action was taken.
REPLICATES:	Two samples were analyzed in duplicate. The RPDs between replicates ranged from a low of 13% in I-C5 to 80% in I-C16.
SRMs:	NOT APPLICABLE

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/June Sampling
PARAMETER:	Total Volatile Solids
LABORATORY:	Battelle/Marine Sciences Laboratory
MATRIX:	Sediment
SAMPLE NUMBER:	28
REPORT REQUIREMENTS:	Percent dry weight
DETECTION LIMITS:	Target limits were met (<0.1%)
METHOD BLANKS:	Two method blanks were analyzed with these samples. No volatile solids were measured in the blanks.
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	NOT APPLICABLE
REPLICATES:	Two samples were analyzed in duplicate. Precision was measured by Relative Percent Difference (RPD) between replicates. The RPDs for the two sets of duplicates were less than 1%, which is less than the required 10% and indicates acceptable precision of the analysis.
SRMs:	NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Metals (Ag,As,Cd,Cr,Cu,Hg,Ni,Pb,Se,Zn)
LABORATORY: Battelle/Marine Sciences Laboratory
MATRIX: Sediment
SAMPLE NUMBER: 28
REPORT REQUIREMENTS: mg/kg dry weight

DETECTION LIMITS: Target detection limits were met for each metal in all sediments with the exception of As and Se. Actual detection limits were 1.4 mg/kg rather than 1.0 mg/kg for As and 0.22 mg/kg rather than 0.1 mg/kg for Se.

METHOD BLANKS: Low levels of mercury were detected in method blanks. In most cases, values reported were greater than five times the levels found in corresponding blanks. Note: no method blanks apply to As, Cr, Cu, Ni, Pb and Zn due to the method of analysis (XRF), which precludes the use of method blanks.

SURROGATES: NOT APPLICABLE

MATRIX SPIKES: Matrix spikes apply to non-XRF metals only: Ag, Cd, Hg, and Se. Two samples were spiked with these compounds. Recoveries for these metals ranged from 83% to 107%, which is within the overall quality control limits of 75% to 125%.

REPLICATES: Analytical replicate analyses were performed on three samples (I-T1, C-SB, and C-NE). XRF metals (As, Cr, Cu, Ni, Pb, and Zn) were analyzed in triplicate for three samples and precision was measured by Relative Standard Deviation (RSD) between the values. The RSDs were less than the required objective of 15% in all cases, except one (15.72%). Analytical duplicate analyses were performed on metals analyzed by AA (Ag, Cd, Hg, and Se) and precision was measured by Relative Percent Difference (RPD) between the values. The RPDs were less than 10% in all cases except one replicate of Ag. The RPD for this replicate was 21% and was elevated due to comparison of very low values that exaggerated the difference between them. These results indicated acceptable precision of both AA and XRF metals analyses.

SRMs:

SRMs were analyzed (a minimum of 1 SRM per 10 samples) to assess accuracy of metals analyzed. Four different SRM samples were analyzed to include certified values for all metals and to cover the range of concentrations of metals expected in the samples analyzed for this project. As, Cr, Cu, Hg, Ni, Pb, Se, and Zn, while within certified range for most standards, were out of certified ranges for one or two of the SRMs certified for that metal. In general, most of the out-of-range values were found for SRM PACS-1. Other out-of-range values were generally only slightly above or below the certified range and within 15% of the certified mean value. Therefore, no further action was taken. Se was out of range by more than 15%; however, Se was not detected in the majority of the samples and no further action was taken.

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Chlorinated Pesticides
LABORATORY: Analytical Resources, Inc.
MATRIX: Sediment
SAMPLE NUMBER: 28
REPORT REQUIREMENTS: µg/kg dry sediment

DETECTION LIMITS:

Detection limits were slightly above the target detection limit of 2 ppb (dry wt.) for the majority of pesticides. Detection limits for toxaphene and methoxychlor were approximately 10 to 500 times higher. The elevated detection limit for toxaphene and methoxychlor is due to the co-elution of these pesticides with other pesticide and PCB peaks on the chromatogram. The higher achieved detection limits were set to assure accurate quantitation of toxaphene and methoxychlor and to avoid false positive detections.

METHOD BLANKS:

Two method blanks were analyzed. No pesticides were detected.

SURROGATES:

One surrogate compound, dibutylchlorodate (DBC) was added to all samples prior to analyses for PCBs and pesticides. All recoveries were greater than 70% with the exception of three samples with DBC recoveries ranging from 47% to 65%. No pesticides were detected in these samples and, because the recovery was greater than 20%, no re-analysis was required.

MATRIX SPIKES:

Two matrix spike samples were analyzed. Each sample was spiked with six pesticides. Recoveries ranged from 86% to 133%, which are within acceptable QC limits.

REPLICATES:

Two samples were analyzed in triplicate to assess precision. Precision was measured by Relative Standard Deviation (RSD). No pesticides were detected in any of the samples replicated; therefore, no calculations were performed.

SRMs:

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Polychlorinated Biphenyls (PCBs)
LABORATORY: Analytical Resources, Inc.
MATRIX: Sediment
SAMPLE NUMBER: 28
REPORT REQUIREMENTS: µg/kg dry sediment

DETECTION LIMITS: Target detection limits of 20 ppb (dry wt.) were exceeded. Detection limits ranged from approximately 25 to 80 ppb. The variation in actual dry weight detection limits is related to the sample's percent moisture.

METHOD BLANKS: Two method blanks were analyzed. No PCBs were detected in either blank.

SURROGATES: One surrogate compound, dibutylchlorodate (DBC) was added to all samples prior to analyses for PCBs and pesticides. All recoveries were greater than 70% with the exception of three samples with DBC recoveries ranging from 47% to 65%. No PCB was detected in these samples and, because the recovery was greater than 20%, no re-analysis was required.

MATRIX SPIKES: PCBs and pesticides are generally analyzed together and PCB and pesticide spikes interfere with each other; therefore, matrix spikes were only made with pesticides. Two matrix spikes samples were analyzed for pesticides and the recoveries were acceptable. Because PCBs and pesticides are extracted and analyzed simultaneously, these recoveries apply to PCBs.

REPLICATES: Two samples were analyzed in triplicate. No PCBs were detected in any of the replicates.

SRMs: No SRMs were analyzed for PCBs.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/June Sampling
PARAMETER:	Low Molecular Weight PAHs (LPAHs)
LABORATORY:	Analytical Resources, Inc.
MATRIX:	Sediment
SAMPLE NUMBER:	28
REPORT REQUIREMENTS:	µg/kg dry weight
DETECTION LIMITS:	Target detection limits were met for all low molecular weight PAH compounds.
METHOD BLANKS:	No low molecular weight PAH compounds were detected in method blanks.
SURROGATES:	One compound, terphenyl, was added to all samples prior to extraction. Recoveries for all samples were within the 18% to 137% QC range set in the method 8270 with the exception of one sample, R-PC. This sample had a recovery of 40%. Because the recovery was greater than 20%, no re-analysis was required.
MATRIX SPIKES:	No matrix spike recoveries were reported by the laboratory. One sample was spiked. Apparently the extract was not analyzed and was subsequently discarded.
REPLICATES:	Two sets of triplicate analyses were performed. Precision was measured by determining the Relative Standard Deviation (RSD). Replicate analyses showed good agreement and RSDs were generally low (<43%); however, because of the low levels of PAHs compared, RSD values are somewhat larger than targeted goals.
SRMs:	No SRMs were analyzed.

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: High Molecular Weight PAHs (HPAHs)
LABORATORY: Analytical Resources, Inc.
MATRIX: Sediment
SAMPLE NUMBER: 28
REPORT REQUIREMENTS: µg/kg dry weight

DETECTION LIMITS: Target detection limits of 20 µg/kg for high molecular weight PAH compounds were met.

METHOD BLANKS: Low levels of all high molecular weight PAH compounds were detected in the method blank, with the exception of fluoranthene and pyrene. In general, levels detected in the samples were greater than five times the levels found in the blanks, with the exception of Benzo(g,h,i)perylene, which was found at levels similar to blank levels in approximately half of the detected samples. All results that are less than five times the blank levels were flagged with a B. Those values lower than five times the blank value should be used with caution.

SURROGATES: One compound, terphenyl, was added to all samples prior to extraction. Recoveries for all samples were within the 50% to 150% QC range set by the laboratory with the exception of one sample, R-PC. This sample had a recovery of 40%. Because the recovery was greater than 20%, no re-analysis was required.

MATRIX SPIKES: No matrix spike recoveries were reported by the laboratory. One sample was spiked. Apparently the extract was not analyzed and was then subsequently discarded.

REPLICATES: Two sets of triplicate analyses were performed. Precision was measured by determining the Relative Standard Deviation (RSD). Replicate analyses showed good agreement and RSDs were generally low (47%); however, because of the low levels of PAHs compared, the RSD value for benzo(b,k)fluoranthene (47%) was somewhat exaggerated.

SRMs: No SRMs were analyzed.

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Butyltins
LABORATORY: Battelle/Marine Sciences Laboratory
MATRIX: Sediment
SAMPLE NUMBER: 28
REPORT REQUIREMENTS: µg/kg dry weight

DETECTION LIMITS: Target detection limits were met (<10 ppb dry weight)

METHOD BLANKS: Low levels of tributyltin were detected in 1 of 2 method blanks analyzed at 1.6 µg/kg. This value is similar to those reported in the majority of the samples. Values associated with this blank are flagged with a B and those values that are less than five times greater than the blank are considered not significantly different than the blank. No other butyltin compounds were detected in method blanks.

SURROGATES: Tripropyltin was added to each sample prior to extraction as a surrogate. Percent recoveries were generally within the quality control limits of 40% to 140%. Samples having surrogate recoveries below 40% after the initial analysis were re-extracted and re-analyzed. If surrogate recoveries were greater than 20% after re-analysis, no further action was taken. No recoveries were less than 20% after re-analysis.

MATRIX SPIKES: Two matrix spikes were analyzed. Tri- di- and mono-butyltin were used as spiking compounds. Recoveries for tri- and di- butyltin ranged from 69% to 81%, which was within acceptable QC range. Recoveries for monobutyltin ranged from 30% to 39%. Based on previous analyses, this represents usual recoveries for monobutyltin and no further action was taken.

REPLICATES: One sample was analyzed in duplicate. Precision was measured by Relative Percent Difference (RPD) between replicates. The RPD was low for all compounds (<15%), indicating acceptable precision for the analysis.

SRMs: No SRMs were analyzed with this set of data. Generally, PACS-1 is analyzed for butyltins; however, the SRMs were inadvertently not extracted or analyzed with this set. Re-running the SRMs with a different set of samples would not give the appropriate QA information applicable to this set of data and, therefore, no additional SRM samples were analyzed.

TABLE C.1. Concentrations of Total Detected Polynuclear Aromatic Hydrocarbon (PAHs) in Sediment, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>PAHs ($\mu\text{g/kg}$ dry weight)</u>		<u>Total PAH</u>
	<u>Total Low Molecular Weight PAH</u>	<u>Total High Molecular Weight PAH</u>	
AC-1	38	223	261
AC-3	20	124	144
I-C4	4	29	33
I-C5	114	856	970
I-C7 Replicate 1	NA ^(a)	16	16
I-C7 Replicate 2	2	NA	2
I-C7 Replicate 3	1	NA	1
I-C8	1	16	17
I-C9	15	164	179
I-C10	29	315	344
I-C11	11	161	172
I-C12	2	16	18
I-C14	1	NA	1
I-C15	6	150	156
I-C16	1	2	3
I-C17	3	32	35
I-C18	17	276	293
I-S1	288	1032	1320
I-T1	194	2421	2615
I-T3	22	380	402
I-T5	32	528	560
R-AC	71	108	179
R-AM Replicate 1	14	31	45
R-AM Replicate 2	12	18	30
R-AM Replicate 3	12	15	27
R-BF ^(b)	25	31	56
R-OS	5	7	12
R-PC	4	3	7
R-PF	9	34	43
C-SB	30	45	75
C-WB	18	9	27
C-NE	25	15	40

(a) Not applicable; no PAHs detected.

(b) Suspect values not included in calculations of total PAHs detected.

TABLE C.2. Concentrations of Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) in Sediment, Oakland Phase III A Project

Sediment Treatment	Low Molecular Weight PAHs (µg/kg dry weight)					
	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
Detection Limits						
Target DL	20	20	20	20	20	20
Lowest Achieved DL	2	2	2	2	2	2
Maximum Achieved DL	3	3	2	3	2	2
AC-1	4	2 U	6	9	2	17
AC-3	2 U ^(a)	2 U	5	3	3	9
I-C4	2 U	2 U	2 U	2 U	2 J ^(b)	2
I-C5	4	4	23	6	5	72
I-C7 Replicate 1	2 U	2 U	2 U	2 U	2 U	2 U
I-C7 Replicate 2	2 U	2 U	2 U	2 U	2 J	2 U
I-C7 Replicate 3	2 U	2 U	2 U	2 U	1 J	2 U
I-C8	2 U	2 U	2 U	2 U	1 J	2 U
I-C9	3 U	3 U	3	3 U	4	8
I-C10	2	2 U	4	2 U	5	18
I-C11	2 U	2 U	1 J	2 U	2	8
I-C12	2 U	2 U	2 U	2 U	2 J	2 U
I-C14	2 U	2 U	2 U	2 U	1 J	2 U
I-C15	2 U	2 U	2 U	2 U	2 J	4
I-C16	2 U	2 U	2 U	2 U	1 J	2 U
I-C17	2 U	2 U	2 U	2 U	1 J	2 J
I-C18	2 U	2 U	3	2 U	2 J	12
I-S1	28	3 J	25	18	140	74
I-T1	10	9	50	11	19	95
I-T3	2 U	2 U	4	2 U	4	14
I-T5	1 J	1 J	6	1 J	3	20
R-AC	5	4	5	20	7	30
R-AM Replicate 1	2 U	2 U	1 J	2 J	3	8
R-AM Replicate 2	2 U	2 U	1 J	2 J	3	6
R-AM Replicate 3	2 U	2 U	2 J	2 J	2	6
R-BF	280 E ^(c)	3 J	14	170 E	8	55 E
R-OS	2 U	2 U	2 U	2 U	2	3
R-PC	2 U	2 U	2 U	2 U	2	2 J
R-PF	2 U	2 U	2 U	2 U	3	6
C-SB	2 J	3 U	7	5	4	12
C-WB	2 U	2 U	4	2	3	9
C-NE	2 U	2 U	2 U	2 U	6	19

(a) Undetected above given concentration.

(b) Analyte detected below method detection limit, but above instrument detection limit.

(c) Value suspected to be artificially high due to contamination from spiking solution.

TABLE C.3. Concentrations of High Molecular Weight Polynuclear Aromatic Hydrocarbon (PAHs) in Sediment, Oakland Phase III A Project

Sediment Treatment	High Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ dry weight)								
	Benzo(a)-Anthracene	Benzo(b,k)-Fluoranthene	Benzo(g,h,i)-Perylene	Benzo(a)-Pyrene	Chrysene	Dibenzo(a,h)-Anthracene	Fluoranthene	Indeno-(1,2,3-cd)-Pyrene	Pyrene
Detection Limits									
Target DL	20	20	20	20	20	20	20	20	20
Lowest Achieved DL	2	2	2	2	2	2	2	2	2
Maximum Achieved DL	2	5	3	3	2	3	2	3	2
AC-1	6 B ^(a)	19 B	50 B	11 B	7 B	52 B	25	48 B	5
AC-3	7 B	10 B	26 B	2 BJ ^(b)	6 B	23 B	26	20 B	4
I-C4	2 B	4 B	5 B	3 B	2 B	2 U ^(c)	4	3 B	6
I-C5	56 B	120 B	90 B	96 B	68 B	19 B	140	87 B	180
I-C7 Replicate 1	2 J	4 J	2 J	2 J	2 J	2 J	2 U	2 J	2 U
I-C7 Replicate 2	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
I-C7 Replicate 3	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
I-C8	2 J	4 J	2 J	2 J	2 J	2 J	2 U	2 J	2 U
I-C9	7 B	30 B	20 B	19 B	12 B	3 U	18	15 B	43
I-C10	11 B	43 B	36 B	32 B	16 B	2 U	47	30 B	100
I-C11	5 B	25 B	21 B	17 B	8 B	2 U	19	18 B	48
I-C12	2 J	4 J	2 J	2 J	2 J	2 J	2 U	2 J	2 U
I-C14	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
I-C15	4 B	23 B	25 B	14 B	7 B	2 BJ	13	18 B	44
I-C16	2 U	2 U	2 BJ	2 U	2 U	2 U	2 U	2 U	2 U
I-C17	2 BJ	6 B	4 B	3 B	3 B	2 U	4	2 B	8
I-C18	10 B	50 B	43 B	36 B	17 B	9 B	25	40 B	46
I-S1	55 B	170 B	92 B	110 B	84 B	14 B	160	87 B	260
I-T1	130 B	480 B	250 B	300 B	240 B	41 B	260	250 B	470
I-T3	15 B	66 B	47 B	52 B	22 B	5 B	40	40 B	93
I-T5	24 B	130 B	54 B	74 B	39 B	10 B	51	55 B	91
R-AC	11 B	12 B	14 B	2 U	9 B	10 B	38	9 B	5
R-AM Replicate 1	4 B	3 BJ	6 B	2 U	3 B	2 B	9	3 B	1 J
R-AM Replicate 2	3 B	2 BJ	3 B	2 U	2 B	2 U	7	2 U	1 J
R-AM Replicate 3	3 B	1 BJ	2 U	2 U	3 B	2 U	7	2 U	1 J
R-BF	9 B	6 BJ	3 U	3 U	8 B	3 U	360 E ^(d)	3 U	8
R-DS	2 U	4 U	2 U	2 U	2 U	2 U	5	2 U	2 J
R-PC	2 U	4 U	2 U	2 U	2 U	2 U	1 J	2 U	2 J
R-PF	4 B	5 B	2 U	2 BJ	4 B	2 U	12	2 U	7

TABLE C.3. (Contd)

Sediment Treatment	High Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ dry weight)							
	Benzo(a)- Anthra- cene	Benzo(b,k)- Fluoran- thene	Benzo (g,h,i)- Perylene	Benzo(a)- Pyrene	Chrysene	Dibenzo(a,h)- Anthra- cene	Fluoran- thene	Indeno- (1,2,3-cd)- Pyrene
C-SB	5 B	5 U	3 U	3 U	5 B	3 U	31	3 U
C-WB	2 U	4 U	2 U	2 U	2 U	2 U	9	2 U
C-NE	2 B	5 U	2 U	2 U	4 B	2 U	6	2 U

- (a) Analyte was found in the method blank. Results presented are not corrected for the amount in the blank.
 (b) Analyte detected below method detection limit, but above instrument detection limit.
 (c) Undetected above given concentration.
 (d) Value suspected to be artificially high due to contamination from spiking solution.

TABLE C.4. Quality Control Data for Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) Analysis, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ dry weight)</u>					
	<u>Acenaph-thene</u>	<u>Acenaph-thylene</u>	<u>Anthra-cene</u>	<u>Fluorene</u>	<u>Naph-thalene</u>	<u>Phenan-threne</u>
<u>Method Blank</u>						
Blank	2 U ^(a)	2 U	2 U	2 U	2 U	2 U
<u>Analytical Triplicates</u>						
I-C7 Replicate 1	2 U	2 U	2 U	2 U	2 U ^(b)	2 U
I-C7 Replicate 2	2 U	2 U	2 U	2 U	2 J ^(b)	2 U
I-C7 Replicate 3	2 U	2 U	2 U	2 U	1 J	2 U
RSD	NA ^(c)	NA	NA	NA	NA	NA
R-AM Replicate 1	2 U	2 U	1 J	2 J	3	8
R-AM Replicate 2	2 U	2 U	1 J	2 J	3	6
R-AM Replicate 3	2 U	2 U	2 J	2 J	2	6
RSD	NA	NA	43%	0%	22%	17%

(a) Undetected above given concentration.

(b) Analyte detected below method detection limit, but above instrument detection limit.

(c) Not applicable.

TABLE C.5. Quality Control Data for Sediment High Molecular Weight Polynuclear Aromatic Hydrocarbon (PAHs) Analysis, Oakland Phase III A Project

Sediment Treatment	High Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)								
	Benzo(a)-Anthracene	Benzo(b,k)-Fluoranthene	Benzo(g,h,i)-Perylene	Benzo(a)-Pyrene	Chrysene	Dibenzo(a,h)-Anthracene	Fluoranthene	Indeno(1,2,3-cd)Pyrene	Pyrene
<u>Method Blank</u>									
Blank	2 J ^(a)	4 J	16	3	2	6	2 U ^(b)	14	2 U
<u>Analytical Triplicates</u>									
I-C7 Replicate 1	2 J	4 J	2 J	2 J	2 J	2 J	2 U	2 J	2 U
I-C7 Replicate 2	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
I-C7 Replicate 3	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
RSD	NA ^(c)	NA	NA	NA	NA	NA	NA	NA	NA
R-AM Replicate 1	4 B ^(d)	3 BJ	6 B	2 U	3 B	2 B	9	3 B	1 J
R-AM Replicate 2	3 B	2 BJ	3 B	2 U	2 B	2 U	7	2 U	1 J
R-AM Replicate 3	3 B	1 BJ	2 U	2 U	3 B	2 U	7	2 U	1 J
RSD	0.00%	47.14%	NA	NA	28.28%	NA	15%	NA	0%

(a) Analyte detected below method detection limit, but above instrument detection limit.

(b) Undetected above given concentration.

(c) Not applicable.

(d) Analyte was found in the method blank. Results presented are not corrected for the amount in the blank.

TABLE C.6. Surrogate Recoveries for Sediment Polynuclear Aromatic Hydrocarbons (PAHs) Results, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Surrogate Percent Recovery Terphenyl</u>
AC-1	66
AC-3	61
I-C4	65
I-C5	61
I-C7 Replicate 1	106
I-C7 Replicate 2	104
I-C7 Replicate 3	98
I-C8	61
I-C9	81
I-C10	80
I-C11	79
I-C12	80
I-C14	77
I-C15	85
I-C16	95
I-C17	77
I-C18	83
I-S1	59
I-T1	60
I-T3	65
I-T5	63
R-AC	73
R-AM Replicate 1	78
R-AM Replicate 2	77
R-AM Replicate 3	75
R-BF	73
R-OS	71
R-PC	40
R-PF	74
C-SB	70
C-WB	69
C-NE	73

TABLE C.7. Concentrations of Polychlorinated Biphenyls (PCBs) in Sediments, Oakland Phase III A Project

Sediment Treatment	PCBs ($\mu\text{g/kg}$ dry weight)			
	Aroclor-1016/1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
Detection Limits				
Target DL	20	20	20	20
Lowest Achieved DL	25	25	25	25
Maximum Achieved DL	80	80	60	80
AC-1	25 U ^(a)	25 U	16 J ^(b)	25 U
AC-3	25 U	25 U	26	44
I-C4	40 U	40 U	40 U	40 U
I-C5	60 U	60 U	19 J	60 U
I-C7 Replicate 1	40 U	40 U	40 U	40 U
I-C7 Replicate 2	40 U	40 U	40 U	40 U
I-C7 Replicate 3	40 U	40 U	40 U	40 U
I-C8	40 U	40 U	40 U	40 U
I-C9	60 U	60 U	60 U	60 U
I-C10	40 U	40 U	40 U	40 U
I-C11	40 U	40 U	40 U	40 U
I-C12	40 U	40 U	40 U	40 U
I-C14	40 U	40 U	40 U	40 U
I-C15	40 U	40 U	40 U	40 U
I-C16	40 U	40 U	40 U	40 U
I-C17	40 U	40 U	40 U	40 U
I-C18	40 U	40 U	40 U	40 U
I-S1	60 U	60 U	28 J	60 U
I-T1	80 U	80 U	66 J	80 U
I-T3	40 U	40 U	26 J	40 U
I-T5	40 U	40 U	40 U	40 U
R-AC	25 U	25 U	17 J	21 J
R-AM Replicate 1	25 U	25 U	25 U	25 U
R-AM Replicate 2	25 U	25 U	25 U	25 U
R-AM Replicate 3	25 U	25 U	25 U	25 U
R-BF	25 U	25 U	25 U	25 U
R-OS	25 U	25 U	25 U	25 U
R-PC	25 U	25 U	25 U	25 U
R-PF	25 U	25 U	25 U	25 U

TABLE C.7. (Contd)

Sediment Treatment	PCBs ($\mu\text{g/kg}$ dry weight)			
	Aroclor- 1016/1242	Aroclor- 1248	Aroclor- 1254	Aroclor- 1260
C-SB	25 U	25 U	25 U	25 U
C-WB	25 U	25 U	25 U	25 U
C-NE	25 U	25 U	25 U	25 U

- (a) Undetected above given concentration.
 (b) Analyte detected below method detection limit, but above instrument detection limit.

**TABLE C.8. Quality Control Data for Polychlorinated Biphenyls (PCBs),
Oakland Phase III A Project**

<u>Sediment Treatment</u>	<u>PCBs ($\mu\text{g/kg}$ dry weight)</u>			
	<u>Aroclor- 1016/1242</u>	<u>Aroclor- 1248</u>	<u>Aroclor- 1254</u>	<u>Aroclor- 1260</u>
<u>Analytical Blanks</u>				
Blank	25 U ^(a)	25 U	25 U	25 U
Blank	40 U	40 U	40 U	40 U
<u>Matrix Spikes</u>				
I-C8	40 U	40 U	40 U	40 U
I-C8 MS	NS ^(b)	NS	NS	NS
Amount Spiked	NS	NS	NS	NS
Percent Recovery	NA ^(c)	NA	NA	NA
C-WB	25 U	25 U	25 U	25 U
C-W8 MS	NS	NS	NS	NS
Amount Spiked	NS	NS	NS	NS
Percent Recovery	NA	NA	NA	NA
<u>Analytical Triplicates</u>				
I-C7 Replicate 1	40 U	40 U	40 U	40 U
I-C7 Replicate 2	40 U	40 U	40 U	40 U
I-C7 Replicate 3	40 U	40 U	40 U	40 U
RSD's	NA	NA	NA	NA
R-AM Replicate 1	25 U	25 U	25 U	25 U
R-AM Replicate 2	25 U	25 U	25 U	25 U
R-AM Replicate 3	25 U	25 U	25 U	25 U
RSD's	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Not Spiked.

(c) Not applicable.

**TABLE C.9. Concentrations of Chlorinated Pesticides in Sediments,
(Alphabetical, Aldrin - 4,4'-DDT), Oakland Phase III A Project**

Sediment Treatment	Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC (Lindane)	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
Detection Limits										
Target DL	2	2	2	2	2	2	2	2	2	2
Lowest DL	3	3	3	3	3	5	5	6	6	6
Highest DL	6	6	6	9	6	9	10	12	15	30
AC-1	3 U ^(a)	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
AC-3	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C4	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C5	5 U	5 U	5 U	7 U	5 U	7 U	7 U	10 U	10 U	10 U
I-C7 Replicate 1	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C7 Replicate 2	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C7 Replicate 3	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C8	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C9	5 U	5 U	5 U	7 U	5 U	7 U	7 U	10 U	10 U	10 U
I-C10	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C11	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C12	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C14	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C15	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C16	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C17	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C18	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-S1	5 U	5 U	5 U	7 U	5 U	7 U	7 U	10 U	10 U	10 U
I-T1	6 U	6 U	6 U	9 U	6 U	9 U	9 U	12 U	12 U	12 U
I-T3	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-T5	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-AC	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-AM Replicate 1	3 U	3 U	3 U	5 U	3 U	5 U	10 U	6 U	15 U	30 U
R-AM Replicate 2	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-AM Replicate 3	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-BF	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-DS	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-PC	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-PF	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
C-NE	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
C-SB	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
C-WB	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U

(a) Undetected above given concentration.

TABLE C.10. Concentrations of Chlorinated Pesticides in Sediments (Alphabetical, Dieldrin - Toxaphene), Oakland Phase III A Project

Sediment Treatment	Pesticides ($\mu\text{g/kg}$ dry weight)									
	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
Detection Limits										
Target DL	2	2	2	2	2	2	2	2	2	2
Lowest DL	4	3	6	12	6	9	3	3	12	450
Highest DL	12	6	80	24	12	170	6	6	90	900
AC-1	6 U(a)	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
AC-3	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C4	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C5	10 U	5 U	10 U	20 U	10 U	15 U	5 U	5 U	20 U	750 U
I-C7 Replicate 1	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C7 Replicate 2	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C7 Replicate 3	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C8	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C9	10 U	5 U	10 U	20 U	10 U	15 U	5 U	5 U	20 U	750 U
I-C10	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C11	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C12	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C14	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C15	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C16	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C17	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C18	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-S1	10 U	5 U	10 U	20 U	10 U	15 U	5 U	5 U	20 U	750 U
I-T1	12 U	6 U	12 U	24 U	12 U	18 U	6 U	6 U	24 U	900 U
I-T3	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-T5	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
R-AC	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
R-AM Replicate 1	6 U	3 U	80 U	12 U	6 U	170 U	3 U	3 U	90 U	450 U
R-AM Replicate 2	6 U	3 U	15 U	12 U	6 U	25 U	3 U	3 U	15 U	450 U
R-AM Replicate 3	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
R-BF	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
R-OS	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
R-PC	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
R-PF	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U

TABLE C.10. (Contd)

Sediment Treatment	Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
	<u>Dieldrin</u>	<u>Endo- sulfan I</u>	<u>Endo- sulfan II</u>	<u>Endo- sulfan- sulfate</u>	<u>Endrin</u>	<u>Endrin Ketone</u>	<u>Hepta- chlor</u>	<u>Hepta- chlor- epoxide</u>	<u>Methoxy- chlor</u>	<u>Toxa- phene</u>
C-NE	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
C-SB	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
C-WB	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U

(a) Undetected above given concentration.

TABLE C.11. Quality Control Data for Pesticide Analysis (Alphabetical, Aldrin - 4,4'-DDT), Oakland Phase III A Project

Sediment Treatment	Pesticide ($\mu\text{g}/\text{kg}$ dry weight)									
	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Alpha-chlordane	Gamma-chlordane	4,4'-DDO	4,4'-DDE	4,4'-DDT
<u>Method Blank</u>										
Blank	3 U ^(a)	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
Blank	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
<u>Matrix Spikes</u>										
I-C8	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C8 MS	12	NS ^(b)	NS	NS	16	NS	NS	NS	NS	34
Amount Spiked	12	NS	NS	NS	12	NS	NS	NS	NS	30
Percent Recovery	100%	NA ^(c)	NA	NA	133% ^(d)	NA	NA	NA	NA	113%
C-WB	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
C-WB MS	12	NS	NS	NS	15	NS	NS	NS	NS	32
Amount Spiked	14	NS	NS	NS	14	NS	NS	NS	NS	35
Percent Recovery	85%	NA	NA	NA	107%	NA	NA	NA	NA	91%
<u>Analytical Triplicates</u>										
I-C7 Replicate 1	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C7 Replicate 2	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
I-C7 Replicate 3	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-AM Replicate 1	3 U	3 U	3 U	5 U	3 U	5 U	10 U	6 U	15 U	30 U
R-AM Replicate 2	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
R-AM Replicate 3	3 U	3 U	3 U	5 U	3 U	5 U	5 U	6 U	6 U	6 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

- (a) Undetected above given concentration.
 (b) Not spiked.
 (c) Not applicable.
 (d) Outside of Quality Control Limits.

TABLE C.12. Quality Control Data for Pesticide Analysis (Alphabetical, Dieldrin - Toxaphene), Oakland Phase III A Project

Sediment Treatment	Pesticide ($\mu\text{g}/\text{kg}$ dry weight)									
	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-ketone	Hepta-chlor	Hepta-chlor-epoxide	Methoxy-chlor	Toxa-phene
<u>Method Blank</u>										
Blank	6 U ^(a)	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
Blank	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
<u>Matrix Spikes</u>										
I-C8	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C8 MS	30	NS ^(b)	NS	NS	37	NS	13	NS	NS	NS
Amount Spiked	30	NS	NS	NS	30	NS	12	NS	NS	NS
Percent Recovery	100%	NA ^(c)	NA	NA	123%	NA	108%	NA	NA	NA
C-WB	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
C-WB MS	30	NS	NS	NS	36	NS	13	NS	NS	NS
Amount Spiked	35	NS	NS	NS	35	NS	14	NS	NS	NS
Percent Recovery	86%	NA	NA	NA	103%	NA	93%	NA	NA	NA
<u>Analytical Triplicates</u>										
I-C7 Replicate 1	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C7 Replicate 2	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
I-C7 Replicate 3	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-AM Replicate 1	6 U	3 U	80 U	12 U	6 U	170 U	3 U	3 U	90 U	450 U
R-AM Replicate 2	6 U	3 U	15 U	12 U	6 U	25 U	3 U	3 U	15 U	450 U
R-AM Replicate 3	6 U	3 U	6 U	12 U	6 U	9 U	3 U	3 U	12 U	450 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Not Spiked.

(c) Not applicable.

TABLE C.13. Pesticide and Polychlorinated Biphenyls (PCBs) Surrogate Recovery, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Surrogate Percent Dibutylchloredate</u>
AC-1	97
AC-3	78
I-C4	92
I-C5	79
I-C7 Replicate 1	86
I-C7 Replicate 2	109
I-C7 Replicate 3	73
I-C8	79
I-C9	81
I-C10	106
I-C11	84
I-C12	93
I-C14	65
I-C15	94
I-C16	90
I-C17	83
I-C18	92
I-S1	78
I-T1	87
I-T3	72
I-T5	79
R-AC	102
R-AM Replicate 1	102
R-AM Replicate 2	95
R-AM Replicate 3	99
R-BF	82
R-OS	102
R-PC	47
R-PF	96
C-NE	97
C-SB	96
C-WB	99
I-C8 MS	111
C-WB MS	93
Blank	90
Blank	64

TABLE C.14. Concentrations of Metals in Sediment, Oakland Phase III A Project

Sediment Treatment	Metals (mg/kg dry weight)									
	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
Detection Limits										
Target DL	1.0	1.00	0.1	1.0	1.0	0.02	1.0	1.0	0.10	1.0
Highest DL	NA ^(a)	1.40	NA	NA	NA	NA	NA	NA	0.22	NA
Lowest DL	NA	1.40	NA	NA	NA	NA	NA	NA	0.22	NA
AC-1	0.128	4.74	0.160	444	25.1	0.104	67.9	14.0	0.22 U ^(b)	61.6
AC-3	0.350	7.90	0.300	415	39.2	0.226	91.1	26.3	0.22 U	106.4
I-C4	0.051	4.25	0.069	488	12.1	0.028	58.1	4.9	0.22 U	42.2
I-C5	0.327	10.10	0.230	299	42.1	0.240	95.0	23.1	0.22 U	117.1
I-C7	0.038	1.73	0.059	374	9.3	0.014	52.7	8.2	0.22 U	37.8
I-C8	0.050	5.24	0.088	433	13.3	0.030	60.0	5.8	0.22 U	41.9
I-C9	0.185	12.10	0.300	240	53.2	0.128	125.5	14.4	0.22	120.6
I-C10	0.051	2.20	0.130	977	12.2	0.037	65.7	7.5	0.22 U	56.7
I-C11	0.056	1.40 U	0.094	665	14.4	0.049	57.1	9.6	0.22 U	52.0
I-C12	0.044	2.40	0.046	536	10.1	0.016	50.9	7.1	0.22 U	43.1
I-C14	0.076	3.65	0.095	168	16.6	0.047	45.3	7.5	0.22 U	35.0
I-C15	0.082	4.76	0.078	291	16.4	0.056	57.3	7.6	0.22 U	46.6
I-C16	0.072	6.17	0.120	252	17.0	0.078	64.6	8.3	0.22 U	45.6
I-C17	0.090	3.58	0.130	262	19.8	0.071	62.7	10.0	0.22 U	49.8
I-C18	0.159	5.39	0.180	191	24.8	0.148	63.3	15.2	0.22 U	66.4
I-S1	0.271	9.90	0.460	208	63.1	0.257	132.8	29.6	0.22	151.3
I-T1 Replicate 1	0.640	14.10	0.380	231	79.0	0.523	113.1	54.7	0.22 U	198.0
I-T1 Replicate 2	0.618	14.00	0.390	200	81.5	0.524	126.3	48.5	0.22 U	183.9
I-T1 Replicate 3	NT ^(c)	10.70	NT	195	81.7	NT	126.8	53.8	NT	183.2
I-T3										
0.067 4.35	0.093	687	15.3	0.067	68.9	9.0	0.22 U	53.5		
I-T5	0.093	4.94	0.099	455	20.9	0.086	69.3	10.9	0.22 U	56.4
R-AC	0.076	5.63	0.062	196	15.7	0.064	39.4	12.4	0.22 U	39.9
R-AM	0.048	5.83	0.046	113	7.9	0.036	33.5	14.2	0.22 U	32.0
R-BF	0.391	7.60	0.240	267	38.5	0.266	79.2	26.4	0.22 U	106.8
R-OS	0.390	3.88	0.570	192	23.9	0.063	66.7	9.6	0.74	91.4
R-PC	0.076	3.91	2.060	216	12.4	0.068	51.3	9.0	0.22 U	53.2
R-PF	0.076	5.34	2.190	364	11.7	0.059	53.8	7.5	0.22 U	58.6
C-SB Replicate 1	0.127	9.22	0.470	108	24.0	0.059	42.3	8.1	0.22	61.4
C-SB Replicate 2	0.140	7.37	0.450	119	23.7	0.060	41.0	8.1	0.22 U	65.2
C-SB Replicate 3	NT	8.89	NT	137	23.1	NT	38.9	9.1	NT	62.8
C-WB	0.048	2.24	0.079	215	10.6	0.018	44.2	6.4	0.22 U	46.5
C-NE Replicate 1	0.047	6.06	0.470	178	9.5	0.187	49.0	5.9	0.22 U	39.2
C-NE Replicate 2	0.058	5.89	0.470	133	8.8	0.206	48.9	5.0	0.22 U	38.7
C-NE Replicate 3	NT	5.60	NT	158	10.5	NT	52.5	5.1	NT	40.3

(a) Not applicable: no undetected values for this analyte.

(b) Undetected above given concentration.

(c) No triplicate analysis done on metals analyzed by the XRF method.

TABLE C.15. Quality Control Data for Sediment Metals Analyzed by X-Ray Fluorescence (XRF), Oakland Phase III A Project

Sediment Treatment	XRF Analyses (mg/kg dry weight)					
	As	Cr	Cu	Pb	Zn	Ni
<u>Standard Reference Material</u>						
SRM PACS-1	169.20 ^(a)	109	420.0 ^(a)	386.0	796.0 ^(a)	50.9 ^(a)
SRM PACS-1	182.50 ^(a)	129 ^(a)	354.0 ^(a)	378.0 ^(a)	786.0 ^(a)	44.7
SRM PACS-1	197.00 ^(a)	128 ^(a)	411.0 ^(a)	384.0	775.0 ^(a)	47.3 ^(a)
SRM PACS-1	171.70 ^(a)	145 ^(a)	407.0 ^(a)	389.0	797.0 ^(a)	50.5 ^(a)
Certified Value	211±11	113±8	452±16	404±20	824±22	44.1±2
SRM MESS-1	10.30	78	27.0	33.8	189.9	32.5
SRM MESS-1	10.20	91 ^(a)	24.9	36.1	188.3	29.1
SRM MESS-1	10.50	60 ^(a)	24.8	33.9	188.8	33.2 ^(a)
SRM MESS-1	8.30 ^(a)	63 ^(a)	25.5	35.2	189.2	29.2
Certified Value	10.6±1.2	71±11	25.1±3.8	34±6.1	191±17	29.5±2.7
SRM 1646	12.50	81 ^(a)	20.7	24.8 ^(a)	132.9	36.8
SRM 1646	12.50	73	19.5	27.4	135.1	34.5
SRM 1646	11.80	77	20.5	27.6	131.8	34.9
Certified Value	11.6±1.3	76±3	18±3	28.2±1.8	138±6	32±3
<u>Analytical Triplicates</u>						
I-T1 Replicate 1	14.1	231	79.0	54.7	198.0	113.1
I-T1 Replicate 2	14.0	200	81.5	48.5	183.9	126.3
I-T1 Replicate 3	10.7	195	81.7	53.8	183.2	126.8
RSD	14.96%	9.35%	1.86%	6.40%	4.43%	6.36%
C-SB Replicate 1	9.22	108	24.0	8.1	61.4	42.3
C-SB Replicate 2	7.37	119	23.7	8.1	65.2	41.0
C-SB Replicate 3	6.89	137	23.1	9.1	62.8	38.9
RSD	15.72%	12.07%	1.94%	6.85%	3.04%	4.21%
C-NE Replicate 1	6.06	178	9.5	5.9	39.2	49
C-NE Replicate 2	5.89	133	8.8	5.0	38.7	48.9
C-NE Replicate 3	5.60	158	10.5	5.1	40.3	52.5
RSD	3.98%	14.42%	8.90%	9.25%	2.08%	4.09%

(a) Value out of certified range.

TABLE C.16. Quality Control Data for Sediment Metals Analyzed by Atomic Absorption (AA), Oakland Phase III A Project

Sediment Treatment	AA Analyses (mg/kg dry weight)		
	Aq	Cd	Se
<u>Method Blanks</u>			
Blank	0.051 U ^(a)	0.015 U	0.22 U
Blank	0.019 U	0.015 U	0.22 U
Blank	0.019 U	0.015 U	0.22 U
<u>Matrix Spikes</u>			
I-C14	0.076	0.095	0.22 U
I-C14 MS	0.607	0.940	0.86
Amount Spiked	0.500	1.000	1.00
Percent Recovery	106%	85%	86%
I-C17	0.090	0.13	0.22 U
I-C17 MS	0.624	0.96	0.97
Amount Spiked	0.500	1.00	1.00
Percent Recovery	107%	83%	97%
<u>Standard Reference Material</u>			
MESS-1 Replicate 1	0.128	0.66	0.37
MESS-1 Replicate 2	0.119	0.62	0.22 ^(b)
MESS-1 Replicate 3	0.146	0.57	0.22 ^(b)
Certified Value	NC ^(c)	0.59±0.1	0.34±0.06
<u>Analytical Replicates</u>			
I-T1 Replicate 1	0.640	0.38	0.22 U
I-T1 Replicate 2	0.618	0.39	0.22 U
RPD	3.50%	2.60%	NA ^(d)
I-Stat	0.02	0.01	NA
C-SB Replicate 1	0.127	0.47	0.22
C-SB Replicate 2	0.14	0.45	0.22 U
RPD	9.74%	4.35%	NA
I-Stat	0.05	0.02	NA

TABLE C.16. (Contd)

Sediment Treatment	AA Analyses (mg/kg dry weight)		
	Aq	Cd	Se
C-NE Replicate 1	0.047	0.47	0.22 U
C-NE Replicate 2	0.058	0.47	0.22 U
RPD	20.95%	0.00%	NA
I-Stat	0.10	0.00	NA

-
- (a) Undetected above given concentration.
 (b) Value out of certified range.
 (c) Not certified for SRM MESS-1.
 (d) Not applicable.

TABLE C.17. Quality Control Data for Sediment Metals Analyzed by Cold Vapor Atomic Absorption (CVAA), Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>(mg/kg dry weight) Hg</u>
<u>Method Blanks</u>	
Blank Replicate 1	0.034
Blank Replicate 2	0.010
Blank Replicate 3	0.026
<u>Matrix Spikes</u>	
I-C14	0.047
I-C14 MS	0.527
Amount Spiked	0.500
Percent Recovery	96%
I-C17	0.071
I-C17 MS	0.548
Amount Spiked	0.500
Percent Recovery	95%
<u>Standard Reference Material</u>	
BEST-1 Replicate 1	0.099
BEST-1 Replicate 2	0.102
BEST-1 Replicate 3	0.099
Certified Value	0.092±0.009
SRM 1646 Replicate 1	0.084 ^(a)
SRM 1646 Replicate 2	0.086 ^(a)
SRM 1646 Replicate 3	0.085 ^(a)
Certified Value	0.063±0.012
<u>Analytical Replicates</u>	
I-T1 Replicate 1	0.523
I-T1 Replicate 2	0.524
RPD	0.19%
I-Stat	0.00
C-SB Replicate 1	0.059
C-SB Replicate 2	0.06
RPD	1.68%
I-Stat	0.01

TABLE C.17. (Contd)

<u>Sediment Treatment</u>	<u>Hg</u>
C-NE Replicate 1	0.187
C-NE Replicate 2	0.206
RPD	9.67%
I-Stat	0.05

(a) Value out of certified range.

**TABLE C.18. Concentration of Butylins in Sediment, Oakland
Phase III A Project**

Sediment Treatment	Surrogate Percent Recovery Propyltin	Butyltin Species ($\mu\text{g}/\text{kg}$ dry sediment weight)			
		Tetrabutyltin	Tributyltin	Dibutyltin	Monobutyltin
Detection Limits		10	10	10	10
Highest OL		2.60	1.90	1.50	2.30
Lowest DL		0.53	0.70	0.60	0.47
AC-1	105.0	1.20 U ^(a)	3.60 B ^(b)	3.40	1.20
AC-3	66.0	0.74 U	3.70 B	8.80	0.65 U
I-C4	57.0	0.73 U	1.20 B	1.10	0.64 U
I-C5	87.0	1.20 U	5.10 B	4.60	2.20
I-C7	41.0	0.75 U	0.92 B	0.64	0.66 U
I-C8	61.0	0.67 U	0.93 B	0.61 U	0.58 U
I-C9	73.0	0.53 U	6.30 B	3.50	0.93
I-C10 Replicate 1	74.0	0.64 U	2.20 B	2.00	0.63
I-C10 Replicate 2	86.0	0.64 U	2.50 B	1.90	0.56 U
I-C11	76.0	0.58 U	1.70 B	1.80	0.67
I-C12	99.0	0.60 U	1.10 B	0.98	0.53 U
I-C14	27.0 ^(c)	0.54 U	0.81 B	1.30	0.47 U
I-C15	67.0	0.64 U	1.10 B	0.92	0.57
I-C16	55.0	0.60 U	0.87 B	1.20	0.64
I-C17	66.0	0.63 U	1.40 B	1.30	0.56
I-C18	55.0	0.73 U	4.00 B	4.10	0.67
I-S1	85.0	0.98 U	3.20 B	1.50	0.97
I-T1	103.0	1.60 U	34.20	30.00	5.80
I-T3	64.0	0.77 U	12.00 B	8.70	1.50
I-T5	99.0	1.10 U	48.00	18.00	4.30
R-AC	89.3	0.60 U	4.90 B	1.40	0.60
R-AM	79.1	0.70 U	0.70 U	0.60 U	0.50 U
R-BF	154.0	2.60 U	3.10 B	4.40	2.30 U
R-OS	92.3	0.90 U	1.00 U	0.80 U	0.80 U
R-PC	94.5	0.80 U	0.90 U	0.70 U	0.70 U
R-PF	116.1	0.90 U	0.90 U	0.70 U	0.80
C-SB	63.0	1.20 U	2.00 B	1.10 U	1.10 U
C-WB	105.0	1.60 U	1.90 U	1.50 U	1.40 U
C-NE	123.0	0.90 U	1.00 U	0.80 U	1.20

(a) Undetected above given concentration.

(b) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

(c) Sample is outside quality control limits; therefore the sample is not re-extracted because a result above blank levels is not expected.

**TABLE C.19. Quality Control Data for Sediment Butyltin Analysis,
Oakland Phase III A Project**

Sediment Treatment	Surrogate Percent Recovery	Butyltin Species ($\mu\text{g/g}$ dry sediment weight)			
	Propyltin	Tetrabutyltin	Tributyltin	Dibutyltin	Monobutyltin
<u>Method Blank</u>					
Blank	59.0	0.87 U ^(a)	1.60	0.81 U	0.75 U
Blank	108.0	2.40 U	2.80 U	2.10 U	2.10 U
<u>Matrix Spikes</u>					
I-C7	41.0	0.75 U	0.92	0.64	0.66 U
I-C7 MS	94.0	NS ^(b)	86.00	87.00	34.00
Amount Spiked		NS	113.00	113.00	113.00
Percent Recovery		NA ^(c)	75%	76%	30%
AC-3	66.0	0.74 U	3.70	8.80	0.65 U
AC-3 MS	112.0	NS	131.00	118.00	61.00
Amount Spiked		NS	158.00	158.00	158.00
Percent Recovery		NA	81%	69%	39%
<u>Standard Reference Material</u>					
PACS ^(d)	39.8	6.9 U	536.5	497.4	177.1
PACS	38.4	10.9	453.1	438.3	184.5
<u>Analytical Replicates</u>					
I-C10 Replicate 1	74.0	0.64 U	2.20	2.00	0.63
I-C10 Replicate 2	86.0	0.64 U	2.50	1.90	0.56 U
RPD		NA	12.77%	5.13%	NA
I-Stat		NA	0.06	0.03	NA

(a) Undetected above given concentration.

(b) Not spiked.

(c) Not applicable.

(d) SRMs extracted after sample extraction.

TABLE C.20. Concentrations of Oil and Grease and Total Petroleum Hydrocarbon (TPH) in Sediment, Oakland Phase III A Project

Sediment Treatment	Concentrations (mg/kg dry weight)		Fraction Petroleum Hydrocarbons
	Total Hydrocarbons Oil and Grease	Total Recoverable Petroleum Hydrocarbons	
Detection Limits	20	20	
AC-1	19.18	16.19	84.40%
AC-3	33.67	27.50	81.68%
I-C4	31.59	21.59	68.34%
I-C5 Replicate 1	100.47	75.32	74.96%
I-C5 Replicate 2	105.38	85.60	81.23%
I-C7	2.80	2.92	104.17%
I-C8	10.24	8.27	80.77%
I-C9	24.82	21.22	85.51%
I-C10	5.97	7.46	125.00%
I-C11	3.20	1.72	53.85%
I-C12	63.71	20.00	31.39%
I-C14	0.60 U ^(a)	2.14	NA ^(b)
I-C15	14.76	3.47	23.53%
I-C16 Replicate 1	5.87	1.56	26.53%
I-C16 Replicate 2	2.51	2.27	90.48%
I-C17	9.66	7.58	78.48%
I-C18	17.71	20.45	115.49%
I-S1	45.89	22.37	48.75%
I-T1	178.35	159.61	89.50%
I-T3	37.61	11.96	31.79%
I-T5	15.01	14.10	93.97%
R-AC	15.41	11.55	75.00%
R-AM	3.59	2.63	73.33%
R-BF	21.11	6.92	32.79%
R-OS	3.91	10.10	258.33%
R-PC	15.04	6.72	44.66%
R-PF	5.77	4.25	73.68%
C-SB	58.92	43.60	74.01%
C-WB	2.52	2.90	115.00%
C-NE	23.52	7.53	32.00%

NOTE: All samples have been corrected for analyte detected in the method blank.

(a) Undetected above given concentration.

(b) Not applicable.

TABLE C.21. Quality Control Data for Oil and Grease and Total Petroleum Hydrocarbon (TPH) Analyses, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Concentrations (mg/kg dry weight)</u>		<u>Fraction Petroleum Hydrocarbons</u>
	<u>Total Hydrocarbons Oil and Grease</u>	<u>Total Recoverable Petroleum Hydrocarbons</u>	
<u>Method Blanks</u>			
Blank ^(a)	5.00	2.50	50.00%
<u>Matrix Spikes</u>			
I-C18	17.71	20.45	115.49%
I-C18 MS	82.92	43.64	
Amount Spiked	36.91	36.91	
Percent Recovery	176.69%	62.84%	
I-C18	17.71	20.45	115.49%
I-C18 MSD	58.98	52.87	
Amount Spiked	46.88	46.88	
Percent Recovery	88.03%	69.15%	
RPD	66.98%	9.56%	32.00%
I-Stat	0.33	0.05	
C-NE	23.52	7.53	
C-NE MS	46.77	49.73	
Amount Spiked	45.03	45.03	32.00%
Percent Recovery	51.64%	93.73%	
C-NE	23.52	7.53	
C-NE MSD	44.62	47.98	
Amount Spiked	46.24	46.24	87.50%
Percent Recovery	45.64%	87.50%	
RPD	12.34%	6.88%	
I-Stat	0.06	0.03	
<u>Analytical Replicates</u>			
I-C16 Replicate 1	5.87	1.56	26.53%
I-C16 Replicate 2	2.51	2.27	90.48%
RPD	80.10%	37.38%	109.30%
I-Stat	0.40	0.19	0.55

TABLE C.21. (Contd)

<u>Sediment Treatment</u>	<u>Concentrations (mg/kg dry weight)</u>		<u>Fraction Petroleum Hydrocarbons</u>
	<u>Total Hydrocarbons Oil and Grease</u>	<u>Total Recoverable Petroleum Hydrocarbons</u>	
<u>Analytical Replicates (Contd)</u>			
I-C5 Replicate 1	100.47	75.32	74.96%
I-C5 Replciate 2	105.38	85.60	81.23%
RPD	4.77%	12.78%	8.03%
I-Stat	0.02	0.06	0.04

(a) Samples associated with this blank have been corrected for Method Blank contamination.

TABLE C.22. Total Concentrations of Organic Carbon (TOC) and Total Volatile Solids (TVS) in Sediments, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Total Organic Carbons Percent dry weight</u>	<u>Total Volatile Solids Percent dry weight</u>
AC-1	0.18	2.76
AC-3	0.53	5.10
I-C4	0.04	1.47
I-C5	0.64	5.70
I-C7	0.01	1.20
I-C8	0.03	1.89
I-C9	0.69	7.00
I-C10	0.04	1.41
I-C11	0.04	1.58
I-C12	0.02	1.25
I-C14	0.07	2.02
I-C15	0.05	2.21
I-C16	0.08	2.38
I-C17	0.09	2.67
I-C18	0.14	3.51
I-S1	0.92	7.57
I-T1 Replicate 1	1.22	10.04
I-T1 Replicate 2	1.23	10.11
I-T1 Replicate 3	1.22	NT ^(a)
I-T3	0.05	1.62
I-T5	0.09	1.88
R-AC	0.07	1.92
R-AM	0.03	1.32
R-BF	0.60	6.67
R-OS	0.57	4.93
R-PC	0.46	3.25
R-PF	0.47	3.69
C-SB Replicate 1	0.89	6.04
C-SB Replicate 2	0.89	6.05
C-SB Replicate 3	0.85	NT
C-W8	0.06	1.08
C-NE Replicate 1	0.95	2.35
C-NE Replicate 2	0.92	NT
C-NE Replicate 3	0.85	NT

(a) Not triplicated for this analysis.

TABLE C.23. Quality Control Data for Total Organic Carbon (TOC) and Total Volatile Solids (TVS) Analyses, Oakland Phase III A Project

<u>Sample Treatment</u>	<u>Total Organic Carbons Percent Dry Weight</u>	<u>Total Volatile Solids Percent Dry Weight</u>
<u>Method Blanks</u>		
Blank	ND ^(a)	ND
Blank	ND	ND
<u>Standard Reference Material</u>		
MESS Replicate 1	2.02	NC ^(b)
MESS Replicate 2	2.20	NC
MESS Replicate 3	2.14	NC
<u>Analytical Replicates</u>		
I-T1 Replicate 1	NA ^(c)	10.04
I-T1 Replicate 2	NA	10.11
RPD	NA	0.69%
I-Stat	NA	0.00
C-SB Replicate 1	NA	6.04
C-SB Replicate 2	NA	6.05
RPD	NA	0.17%
I-Stat	NA	0.00
<u>Analytical Triplicates</u>		
I-T1 Replicate 1	1.22	NA
I-T1 Replicate 2	1.23	NA
I-T1 Replicate 3	1.22	NA
RSD	0.47%	NA
C-SB Replicate 1	0.89	NA
C-SB Replicate 2	0.89	NA
C-SB Replicate 3	0.85	NA
RSD	2.63%	NA
C-NE Replicate 1	0.95	NA
C-NE Replicate 2	0.92	NA
C-NE Replicate 3	0.85	NA
RSD	5.66%	NA

Note: MESS-1 is not certified for TOC, but frequent analyses at MSL indicate a TOC value of approximately 2.3%.

(a) No data: not detected at detection limit.

(b) Not certified for SRM MESS.

(c) Not applicable.

TABLE C.24. Summary of Sediment Grain Size, Oakland Phase III A Project

Sediment Treatment	(Percent Dry Weight)			
	Gravel ($>2000\ \mu\text{m}$)	Sand ($62.5\text{--}2000\ \mu\text{m}$)	Silt ($3.9\text{--}62.5\ \mu\text{m}$)	Clay ($<3.9\ \mu\text{m}$)
AC-1	1.09	63.80	15.45	19.66
AC-3	0.00	46.94	19.15	33.92
I-C4	0.00	90.00	2.28	7.73
I-C5	0.00	35.77	29.48	34.73
I-C7	0.00	91.22	6.53	2.27
I-C8	0.00	93.54	0.94	5.52
I-C9	0.00	4.92	38.35	56.73
I-C10	0.35	92.69	2.52	4.44
I-C11	0.00	91.85	1.79	6.38
I-C12	0.00	97.08	1.54	1.37
I-C14	8.66	52.47	23.48	15.40
I-C15	0.25	60.71	24.57	13.93
I-C16	0.00	56.89	21.99	21.13
I-C17	0.00	51.30	28.65	20.06
I-C18	0.52	40.90	32.50	26.08
I-S1 Replicate 1	0.00	1.95	31.46	66.58
I-S1 Replicate 2	0.00	2.05	28.86	69.12
I-S1 Replicate 3	0.33	1.93	30.16	67.60
I-T1	0.11	2.24	36.27	61.39
I-T3	0.05	87.11	5.55	7.29
I-T5 Replicate 1	0.47	83.58	4.20	11.76
I-T5 Replicate 2	0.00	83.93	3.77	12.31
I-T5 Replicate 3	0.20	83.90	5.77	10.13
R-AC Replicate 1	0.00	85.34	6.72	7.94
R-AC Replicate 2	0.00	85.12	6.80	8.08
R-AC Replicate 3	0.00	86.09	6.42	7.50
R-AM	0.00	98.29	0.57	1.15
R-AM Replicate 1	1.58	92.74	2.35	3.32
R-AM Replicate 2	1.96	94.19	0.69	3.15
R-AM Replicate 3	3.94	93.34	0.58	2.13
R-AM Replicate 4	0.12	95.86	0.60	3.42
R-AM Replicate 5	5.97	85.65	1.43	6.94
R-AM Replicate 6	1.34	90.15	1.50	7.00
R-AM Replicate 7	1.82	92.55	1.52	4.09
R-AM Replicate 8	7.83	88.91	0.29	2.97
R-BF	0.00	29.23	15.90	54.88
R-OS	6.77	48.24	25.67	19.31
R-PC	0.00	70.02	21.57	8.39
R-PF	0.00	55.30	33.91	10.79

TABLE C.24. (Contd)

Sediment Treatment	(Percent Dry Weight)			
	Gravel ($>2000\ \mu\text{m}$)	Sand ($62.5\text{--}2000\ \mu\text{m}$)	Silt ($3.9\text{--}62.5\ \mu\text{m}$)	Clay ($<3.9\ \mu\text{m}$)
C-SB	0.00	58.66	23.69	17.66
C-WB	0.00	94.00	1.83	4.16
C-NE	0.09	87.20	4.98	7.72

TABLE C.25. Sediment Grain Size Results, Oakland Phase III A Project

Sediment Treatment	phi µm	Percent in Size Fraction (dry weight)														
		3350- 2000	2000- 1000	1000- 250	250- 125	125- 62.5	4.5 62.5- 48.0	5 48.0- 31.2	5.5 31.2- 23.0	6 23.0- 15.6	7 15.6- 7.8	8 7.8- 3.9	9 3.9- 1.9	10 1.9- 0.9	11 0.9- 0.4	<11 0.4-
AC-1	0.00	1.09	1.02	24.90	30.38	7.50	1.32	2.19	2.11	2.27	4.29	3.27	2.62	2.94	3.56	10.54
AC-3	0.00	0.00	0.36	20.43	22.38	3.77	0.03	3.55	1.60	1.19	7.67	5.11	6.38	4.64	5.39	17.51
I-C4	0.00	0.00	0.02	50.42	34.21	5.35	1.37	0.18	0.62	0.02	0.02	0.07	1.26	1.06	0.97	4.44
I-C5	0.00	0.00	0.05	10.76	20.19	4.77	3.06	3.90	3.57	0.26	9.00	9.69	0.98	12.50	5.98	15.27
I-C7	0.00	0.00	0.00	35.34	51.08	4.80	2.92	1.03	0.18	0.71	1.37	0.32	0.30	0.46	0.21	1.30
I-C8	0.00	0.00	0.00	14.59	69.76	9.19	0.43	0.02	0.18	0.22	0.09	0.00	-0.02	0.02	0.02	5.50
I-C9	0.00	0.00	0.04	0.80	2.88	1.20	0.18	3.66	2.15	6.36	11.41	14.59	10.85	10.94	8.33	26.61
I-C10	0.00	0.35	0.11	27.18	60.68	4.72	0.69	1.05	0.33	0.09	0.20	0.16	2.19	0.42	0.45	1.38
I-C11	0.00	0.00	0.07	52.54	33.75	5.49	0.04	0.08	0.74	0.10	0.37	0.46	1.16	1.30	1.36	2.56
I-C12	0.00	0.00	0.00	45.68	47.83	3.57	0.32	0.46	0.02	0.02	0.23	0.49	0.63	0.16	0.49	0.09
I-C14	7.03	1.63	2.01	21.54	16.73	12.19	5.22	4.07	3.00	3.42	4.56	3.21	3.06	3.10	2.52	6.72
I-C15	0.00	0.25	0.23	13.98	31.79	14.71	5.88	4.80	3.19	4.35	2.28	4.07	2.78	2.37	2.71	6.07
I-C16	0.00	0.00	0.37	15.10	26.99	14.43	0.73	8.15	3.56	3.15	3.64	2.76	6.32	2.48	0.60	11.73
I-C17	0.00	0.00	0.49	14.69	24.13	11.99	3.37	4.19	3.98	3.04	6.67	7.40	1.52	3.44	3.16	11.94
I-C18	0.00	0.52	0.51	10.19	17.24	12.96	7.53	5.03	5.59	3.53	9.20	1.62	7.70	4.59	1.89	11.90
IS-1 Replicate 1	0.00	0.00	0.10	0.37	0.74	0.74	1.16	1.46	1.36	4.97	9.84	12.67	12.23	11.07	7.43	35.85
IS-1 Replicate 2	0.00	0.00	0.21	0.43	0.69	0.72	2.60	2.46	0.35	4.11	11.34	8.00	15.69	18.39	0.39	34.65
IS-1 Replicate 3	0.00	0.33	0.13	0.39	0.72	0.69	1.56	1.14	2.78	3.54	9.18	11.96	16.47	9.14	9.98	32.01
IT-1	0.00	0.11	0.03	0.19	0.71	1.31	2.27	2.79	5.73	4.69	6.44	14.35	8.85	11.32	9.19	32.03
IT-3	0.00	0.05	0.43	37.34	44.10	5.24	2.18	0.69	0.02	0.25	0.14	2.27	0.96	0.28	0.90	5.15
IT-5 Replicate 1	0.00	0.47	0.09	30.88	47.89	4.72	1.06	0.87	0.87	0.15	0.59	0.66	4.04	0.40	1.42	5.90
IT-5 Replicate 2	0.00	0.00	0.10	33.12	46.16	4.55	0.37	1.43	0.05	0.69	0.42	0.81	4.09	0.46	0.28	7.48
IT-5 Replicate 3	0.00	0.20	0.10	51.43	28.49	3.88	0.54	0.70	0.70	0.96	2.04	0.83	0.52	2.38	1.30	5.93
R-AC Replicate 1	0.00	0.00	0.02	50.22	32.13	2.97	1.36	1.92	0.32	0.56	1.39	1.17	1.19	0.34	5.89	0.52
R-AC Replicate 2	0.00	0.00	0.03	55.10	27.16	2.83	1.48	0.76	1.20	0.70	2.50	0.16	0.03	1.80	3.38	2.87
R-AC Replicate 3	0.00	0.00	0.02	59.92	23.28	2.87	-0.20	1.75	1.19	1.12	1.95	0.61	0.00	0.74	0.76	6.00
R-AM	0.00	0.00	0.00	85.39	12.51	0.39	0.32	0.05	0.02	0.09	0.07	0.02	0.02	0.05	0.00	1.08
R-AM Replicate 1	0.62	0.96	1.02	86.34	5.27	0.11	1.52	0.51	0.05	0.02	0.09	0.16	0.02	1.54	1.31	0.45
R-AM Replicate 2	0.00	1.96	3.55	83.04	7.17	0.43	0.24	0.37	0.00	0.06	0.00	0.02	0.08	0.33	0.53	2.21
R-AM Replicate 3	3.47	0.47	3.53	79.41	10.07	0.33	0.08	0.03	0.08	0.07	0.31	0.01	0.07	0.04	0.10	1.92
R-AM Replicate 4	0.00	0.12	0.24	88.13	7.25	0.24	0.09	0.19	0.09	0.08	0.12	0.03	0.03	0.00	2.33	1.06
R-AM Replicate 5	2.64	3.33	4.47	78.98	2.13	0.07	0.72	0.08	0.23	0.38	0.02	0.00	0.08	1.23	3.62	2.01
R-AM Replicate 6	0.62	0.72	2.52	74.88	12.34	0.41	0.92	0.05	0.03	0.10	0.17	0.23	0.94	4.90	0.59	0.57
R-AM Replicate 7	1.40	0.42	1.27	84.24	6.46	0.58	0.08	0.05	0.32	0.30	0.22	0.55	0.10	0.13	0.42	3.44
R-AM Replicate 8	4.87	2.96	2.24	82.61	3.89	0.17	0.02	0.02	0.02	0.06	0.02	0.15	0.02	0.04	0.12	2.79

TABLE C.25. (Contd)

		Percent in Size Fraction (dry weight)														
	phi					4	4.5	5	5.5	6	7	8	9	10	11	<11
Sediment Treatment	μm	3350- >3350	2000- 2000	1000- 1000	250- 250	125- 125	62.5- 48.0	48.0- 31.2	31.2- 23.0	23.0- 15.6	15.6- 7.8	7.8- 3.9	3.9- 1.9	1.9- 0.9	0.9- 0.4	0.4-
R-BF	0.00	0.00	0.00	7.65	15.50	6.08	0.18	0.12	2.43	6.01	6.80	0.36	6.74	14.32	8.31	25.51
R-OS	3.82	2.95	1.11	4.38	3.87	38.88	5.30	7.65	3.03	2.34	4.49	2.86	2.64	2.05	2.99	11.63
R-PC	0.00	0.00	0.14	0.10	4.04	65.74	10.25	6.49	1.83	1.07	1.36	0.57	0.33	0.43	0.43	7.20
R-PF	0.00	0.00	0.06	0.15	9.46	45.63	12.48	11.72	4.23	2.36	2.27	0.85	1.39	0.63	1.39	7.38
C-SB	0.00	0.00	0.02	18.08	30.71	9.85	0.04	2.29	2.25	8.58	3.32	7.21	8.16	0.15	2.21	7.14
C-WB	0.00	0.00	0.00	42.03	48.61	3.36	1.21	0.02	0.12	0.19	0.12	0.17	0.17	0.21	0.52	3.26
C-NE	0.00	0.09	0.25	1.49	74.68	10.78	0.39	1.47	0.68	0.65	1.43	0.36	0.15	0.00	0.63	6.94

TABLE C.26. Quality Assurance Control Data for Sediment Grain Size,
Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Percent Dry Weight</u>			
	<u>Gravel (>2000 μm)</u>	<u>Sand (62.5- 2000 μm)</u>	<u>Silt 3.9- 62.5 μm)</u>	<u>Clay (<3.9 μm)</u>
<u>Analytical Triplicates</u>				
I-S1 Replicate 1	0.00	1.95	31.46	66.58
I-S1 Replicate 2	0.00	2.05	28.86	69.12
I-S1 Replicate 3	0.33	1.93	30.16	67.60
RSD	71.59%	20.69%	7.15%	1.89%
I-T5 Replicate 1	0.47	83.58	4.20	11.76
I-T5 Replicate 2	0.00	83.93	3.77	12.31
I-T5 Replicate 3	0.20	83.90	5.77	10.13
RSD	72.08%	0.21%	29.03%	9.94%
R-AC Replicate 1	0.00	85.34	6.72	7.94
R-AC Replicate 2	0.00	85.12	6.80	8.08
R-AC Replicate 3	0.00	86.09	6.42	7.50
RSD	91.65%	0.51%	12.82%	3.86%

APPENDIX D

SEDIMENT CHEMISTRY AND QUALITY
ASSURANCE DATA RETEST

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Low Molecular Weight PAHs (LPAHs)
LABORATORY:	Twin City Testing
MATRIX:	Sediment
SAMPLE:	25
REPORT REQUIREMENTS:	µg/kg dry weight
DETECTION LIMITS:	Target detection limits were met (from 5 to 32 µg/kg) for all LPAH compounds except naphthalene, which ranged from approximately 19 to 86 µg/kg. This was due to chromatographic interferences in the range of this compound.
METHOD BLANKS:	Low levels of naphthalene, phenanthrene and anthracene were found in 4 of the 10 method blanks analyzed. In all cases, the levels found in the blanks were less than five times the values reported for the samples.
SURROGATES:	Three radiolabeled, deuterated surrogates were added to all samples. Recoveries for samples were within the 50% to 150% QC range set by the laboratory with the exception six samples. Three samples, I-C11, I-C17, and R-OS, had two of the three surrogates within the QC limits; their results are acceptable. Samples R-PC and HS-5 had recoveries of less than 10% for at least one of the three surrogates; their results are low and qualified.
MATRIX SPIKES:	Two MS/MSD samples were analyzed. Three LPAH compounds were spiked and recoveries for both MS/MSDs ranged from 0% to 128%. The RPDs between spike duplicates were less than 37% for all spiked compounds except for naphthalene; results were acceptable.
REPLICATES:	Precision was measured by Relative Percent Difference (RPD) between replicates. No LPAHs were detected in any of the samples replicated; therefore, no calculations were performed. Precision was measured by Relative Standard Deviation (RSD) between replicates. Triplicate analyses was performed on one sample. Replicate analyses showed good agreement and RSDs were generally low (<25%).
SRMs:	One SRM was analyzed, HS-5. All LPAH compounds (except acenaphthylene) exceeded the certified range. The LPAHs in this sample are 10 to 100 times higher than ours and significant dilution is required for our calibration range. Considerable error was introduced in the quantification of this sample. It is an inappropriate SRM for these data.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	High Molecular Weight PAHs (HPAHs)
LABORATORY:	Twin City Testing
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	µg/kg dry weight
DETECTION LIMITS:	Target detection limits were met for all HPAH compounds (<20 µg/kg).
METHOD BLANKS:	Low levels of flouranthene, pyrene, chrysene and benzo(a)anthracene were found in 3 of the 10 method blanks analyzed. In all cases the levels in the blanks were less than five times the values reported for the samples.
SURROGATES:	Three radiolabeled, deuterated surrogates were added to all samples. Recoveries for samples were within the 50% to 150% QC range set by the laboratory with the exception six samples. Three samples, I-C11, I-C17, and R-OS, had two of the three surrogates within the QC limits; their results are acceptable. Samples R-PC and HS-5 had recoveries of less than 10% for at least one of the three surrogates; their results are low and qualified.
MATRIX SPIKES:	Two MS/MSD samples were analyzed. Four HPAH compounds were spiked and six of the recoveries for both MS/MSDs exceeded the QC limits of 50% to 150%. This was due to high levels of HPAHs in the samples prior to spiking. The concentrations were up to 10 times the levels being spiked. Spike recoveries cannot be determined accurately. These results do not adversely affect the quality of the sample data.
REPLICATES:	Precision was measured by Relative Percent Difference (RPD) between replicates. No HPAHs were detected in any of the samples replicated; therefore, no calculations were performed. Precision was measured by Relative Standard Deviation (RSD) between replicates. Triplicate analyses were performed on one sample. Replicate analyses showed good agreement and RSDs were generally low (<33%).
SRMs:	One SRM was analyzed, HS-5. Six of the nine HPAH compounds were outside the certified range. The level of PAHs present in this sample are 10 to 100 times those measured in ours and requires significant dilution for our calibration range. Considerable error may be introduced in quantification of this sample.

QA/QC SUMMARY

PROGRAM	Oakland Phase III A/Retest Sampling
PARAMETER:	Polychlorinated Biphenyls (PCBs)
LABORATORY:	Twin City Testing
MATRIX:	Sediment
SAMPLE:	25
REPORT REQUIREMENTS:	µg/kg dry weight
DETECTION LIMITS:	Target detection limits of 20 (µg/kg dry weight) were exceeded. Detection limits ranged from approximately 23 to 180 µg/kg depending on the percent moisture of the samples.
METHOD BLANKS:	Nine method blanks were analyzed. No PCBs were detected in any method blanks.
SURROGATES:	One surrogate compound, dibutylchlorodate (DBC) was added prior to extraction for PCBs and pesticide analyses. Surrogate recoveries ranged from 60% to 129% and were within the laboratory control limits of 50% to 150%, with the exception of two samples.
MATRIX SPIKES:	Three sets of MS/MSD samples were analyzed by spiking with Aroclor 1254. Aroclor 1254 recoveries ranged from 91% to 121%. Precision was measured by Relative Percent Difference (RPDs). Precision of the measurements was good with RPDs of less than 10% and are acceptable.
REPLICATES:	One sample was replicated to assess precision. Precision was measured by Relative Percent Difference (RPD) between replicates. No PCBs were detected in any of the samples replicated; therefore, no calculations were performed. Precision was measured by Relative Standard Deviation (RSD) between replicates. Triplicate analyses were performed on three samples. No PCBs were detected in any of the samples replicated; therefore, no calculations were performed.
SRMs:	One SRM sample was analyzed, HS-2. The SRM is certified for only PCB Aroclor 1254 at 111.8 µg/kg. The laboratory noted that there was significant matrix interferences associated with this sample, which made it unquantifiable in the range of Aroclor 1254.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Chlorinated Pesticides
LABORATORY:	Twin City Testing
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	µg/kg dry weight
DETECTION LIMITS:	Target detection limits were slightly exceeded for the majority of pesticides.
METHOD BLANKS:	Eight method blanks were analyzed. The pesticides 4,4'-DDT and dieldrin were detected near the detection limits in one blank. These did not correspond with any detections in associated samples and no sample data required flagging.
SURROGATES:	One surrogate compound, dibutylchlorodate (DBC) was added prior to extraction for PCBs and pesticide analyses. Surrogate recoveries ranged from 60% to 129% and were within the laboratory control limits of 50% to 150%, with the exception of two samples.
MATRIX SPIKES:	One set of MS/MSD samples was analyzed. Each sample was spiked with six pesticides. Recoveries ranged from 38% to 113%. Relative Percent Difference (RPD) between spikes and spike duplicates were low, ranging from 1% to 66%, indicating good precision of the measurements.
REPLICATES:	One sample was replicated to assess precision. Precision was measured by Relative Percent Difference (RPD) between replicates. No pesticides were detected in any of the samples replicated; therefore, no calculations were performed. Precision was measured by Relative Standard Deviation (RSD) between replicates. Triplicate analyses were performed on three samples. No pesticides were detected in any of the samples replicated; therefore, no calculations were performed.
SRMs:	NOT APPLICABLE

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Metals (Ag,As,Cd,Cr,Cu,Hg,Ni,Pb,Se,Zn)
LABORATORY:	Battelle/Marine Sciences Laboratory
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	mg/kg dry weight
DETECTION LIMITS:	Target detection limits were met.
METHOD BLANKS:	Low levels of Ag and Hg were detected in method blanks. In most cases, values reported were less than five times the levels found in corresponding blanks. Note, no method blanks apply to As, Cr, Cu, Ni, Pb and Zn because the XRF method used to analyze these metals precludes the use of method blanks.
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	Matrix Spikes apply to non-XRF metals only, Ag, Cd, Hg and Se. One sample was spiked with these compounds. Recoveries ranged from 83% to 92%, which were within general quality control limits of 75% to 125%.
REPLICATES:	Analytical replicate determinations were made on two samples. Analytical duplicate analyses were performed on metals analyzed by XRF (As, Cr, Cu, Ni, Pb, and Zn) and precision was measured by Relative Percent Difference (RPD). RPDs were less than 9% in all cases. A compositing replicate was analyzed and RPDs were less than 16% for all metals except Pb. Non-XRF metals (Ag, Cd, Hg, and Se) were analyzed in triplicate and precision was measured by Relative Standard Deviation (RSD). RSDs were less than 18% in all cases.
SRMs:	SRMs were analyzed (a minimum of 1 SRM per 10 samples) to assess accuracy of metals analyzed. Five different SRM samples were analyzed to include certified values for all metals and to cover the concentration range of metals expected in the samples. Arsenic, Cd, Cr, Cu, Pb, and Zn, while within certified range for most standards, were out of certified ranges for one or two of the SRMs. In general, most of the out-of-range values were found for SRM PACS-1. Other values out of range were generally only slightly above or below the certified range and no further action was taken.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Butyltins
LABORATORY:	Battelle/Marine Sciences Laboratory
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	µg/kg dry weight
DETECTION LIMITS:	Target detection limits were met (<10 µg/kg dry weight).
METHOD BLANKS:	Low levels of tributyltin were detected in four of the five method blanks analyzed. These values were generally less than five times the values reported for corresponding samples. No other compounds were detected in blanks.
SURROGATES:	Tripropyltin was added to each sample prior to extraction as a surrogate. Percent recoveries were generally within the quality control limits of 40% to 140%. Eight of the 25 samples had recoveries between 21% and 40%. Samples having surrogate recoveries below 40% were re-extracted and re-analyzed. If surrogate recoveries were greater than 20% after re-analysis, no further action was taken.
MATRIX SPIKES:	Three matrix spikes were analyzed. Tri-, di-, and monobutyltins were used as spiking compounds. Recoveries for tri- and di- butyltin ranged from 58% to 73%, within acceptable QC range. Recoveries for monobutyltin ranged from 11% to 56%. Based on previous analyses this represents usual recoveries for monobutyltin and no further action was taken.
REPLICATES:	Three samples were analyzed in duplicate. Precision was measured by Relative Percent Difference (RPD) between replicates. The RPDs for the three sets of duplicates were less than 32% for all replicates except for one, indicating acceptable precision for the analysis.
SRMs:	Four analyses of SRM PACS-1 were performed. (Note: values reported were corrected, as required for surrogate recoveries). Recoveries for tri- and dibutyltin were somewhat below the certified range of values for three of the four samples. Values for these compounds greatly exceeded the certified range in one sample. This was due to an unacceptably low surrogate recovery, which, upon correction for this recovery, resulted in exaggerated SRM values.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Oil and Grease/Total Petroleum Hydrocarbons (TPH)
LABORATORY:	Twin City Testing
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	mg/kg dry weight
DETECTION LIMITS:	Target detection limits were met for all samples (<20 µg/kg).
METHOD BLANKS:	Four method blanks were analyzed. Oil and grease was detected at values ranging from 0.4 to 3 µg/kg in three of the four blanks. This was less than five times the value reported for samples associated with a given blank. No TPH was detected in method blanks.
SURROGATES:	NOT APPLICABLE.
MATRIX SPIKES:	One sample was analyzed as a matrix spike/matrix spike duplicate sample and another sample was only analyzed as a matrix spike sample. Spike recoveries for the MS/MSD samples ranged from 71% to 198%. The high recoveries were due to high native levels of hydrocarbons in the samples spiked relative to the spiking concentrations. This makes accurate quantitations difficult. Precision was measured by Relative Percent Difference (RPD) between replicates. The RPDs for the MS/MSD duplicates were 82% and 87%. Recoveries for the matrix spike sample were 69% and 53%.
REPLICATES:	One compositing replicate was analyzed and the one RPD that was calculable was 57%. Two sets of analytical triplicates were analyzed. The Relative Standard Deviations (RSDs) between replicates was low, less than 27%.
SRMs:	NOT APPLICABLE.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Total Organic Carbon (TOC)
LABORATORY:	Global Geochemistry Corp.
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	Percent dry weight
DETECTION LIMITS:	Target detection limits were met (<0.1%).
METHOD BLANKS:	NOT APPLICABLE
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	NOT APPLICABLE
REPLICATES:	Six samples were analyzed in duplicate. Precision was measured by Relative Percent Difference (RPD) between replicates. The RPDs for the six sets of duplicates were less than 40%, indicating acceptable precision for the analysis.
SRMs:	The SRM MESS-1 was analyzed in triplicate with these samples. Precision was measured by Relative Standard Deviation (RSD) between replicates. The RSD was 1.08% indicating acceptable precision for the analysis.

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Total Volatile Solids
LABORATORY:	Battelle/Marine Sciences Laboratory
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	Percent dry weight
DETECTION LIMITS:	Target detection limits were met (<0.1%).
METHOD BLANKS:	Five Method blanks were analyzed with these samples. No volatile solids were measured in the blanks.
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	NOT APPLICABLE
REPLICATES:	One compositing replicate sample was analyzed in duplicate. Precision was measured by Relative Percent Difference (RPD) between replicates. The RPDs for the sample were less than 10%, indicating acceptable precision of the analysis. One sample was analyzed in triplicate. Precision was measured by Relative Standard Deviation (RSD) between replicates. The RSD for the triplicate was 1.38%, indicating acceptable precision of the analysis.
SRMs:	NOT APPLICABLE

QA/QC SUMMARY

PROGRAM:	Oakland Phase III A/Retest Sampling
PARAMETER:	Grain Size
LABORATORY:	Soil Technologies, Inc.
MATRIX:	Sediment
SAMPLE NUMBER:	25
REPORT REQUIREMENTS:	Percent dry weight
DETECTION LIMITS:	NOT APPLICABLE
METHOD BLANKS:	NOT APPLICABLE
SURROGATES:	NOT APPLICABLE
MATRIX SPIKES:	NOT APPLICABLE
REPLICATES:	Five samples were analyzed in duplicate. Precision was measured by Relative Percent Differences (RPDs) between replicates. RPDs between individual fractions were generally less than 20% when the amount in each fraction was greater than 5%. When individual fractions contained less than 5%, RPDs tend to become exaggerated. Comparison of gravel, sand, silt and clay summations resulted in low RPD values ranging from 0% to 67% with the exception of the gravel fraction in one sample, which differed by 200% due to the low percentage in the sample.
SRMs:	NOT APPLICABLE

TABLE D.1. Concentrations of Total Detected Polynuclear Aromatic Hydrocarbons (PAHs) in Sediment, Oakland Phase III A Project Retest

Sediment Treatment	PAHs ($\mu\text{g/kg}$ dry weight)		Total PAH
	Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
I-C3	NA ^(a)	NA	NA
I-C5	132.38	1299.59	1431.97
I-C7 Replicate 1	NA	NA	NA
I-C7 Replicate 2 ^(b)	NA	NA	NA
I-C8	NA	NA	NA
I-C9	NA	NA	NA
I-C10	57.88	962.53	1020.41
I-C11	NA	NA	NA
I-C12 Replicate 1	68.10	1845.33	1913.43
I-C12 Replicate 2	55.80	1234.29	1290.09
I-C12 Replicate 3	101.52	1856.32	1957.84
I-C14	NA	116.71	116.71
I-C15	NA	NA	NA
I-C16	NA	NA	NA
I-C17	NA	81.69	81.69
I-C18	NA	NA	NA
I-S1	606.26	5773.72	6379.98
I-T1	259.52	3292.89	3552.40
I-T3	104.55	1211.92	1316.47
R-AC	979.08	2004.83	2983.91
R-AM	45.57	92.80	138.37
R-BF	34.48	540.59	575.07
R-OS	NA	NA	NA
R-PC	NA	NA	NA
R-PF	NA	NA	NA
C-SB	NA	57.75	57.75
C-WB	53.21	725.97	779.18
C-NE	NA	NA	NA

(a) Not applicable: no PAHs detected.

(b) Compositing replicate for I-C7.

TABLE D.2. Concentrations of Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) in Sediment, Oakland Phase III A Retest

Sediment Treatment	Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)					
	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
Detection Limits						
Target DL	20	20	20	20	20	20
Lowest Achieved DL	7.32	3.96	4.62	5.86	19.28	10.56
Maximum Achieved DL	32.81	13.12	15.31	26.25	86.39	35.00
I-C3	12.58 U ^(a)	5.03 U	5.87 U	10.07 U	33.14 U	13.42 U
I-C5	22.77 U	9.11 U	29.38	18.22 U	59.96 U	103.00
I-C7 Replicate 1	13.18 U	5.27 U	6.15 U	10.55 U	34.71 U	14.06 U
I-C7 Replicate 2 ^(b)	12.37 U	4.95 U	5.77 U	9.89 U	32.56 U	13.19 U
I-C8	13.43 U	5.37 U	6.27 U	10.75 U	35.37 U	14.33 U
I-C9	18.32 U	7.33 U	8.55 U	14.65 U	48.23 U	19.54 U
I-C10	12.11 U	4.84 U	7.68	9.69 U	31.89 U	50.20
I-C11	13.66 U	5.47 U	6.38 U	10.93 U	35.98 U	14.57 U
I-C12 Replicate 1	16.42 U	6.57 U	10.62	13.14 U	43.25 U	57.48
I-C12 Replicate 2	7.32 U	4.38	8.45	5.86 U	19.28 U	42.97
I-C12 Replicate 3	11.36	6.40	13.42	6.26 U	20.61 U	70.33
I-C14	10.41 U	4.16 U	4.86 U	8.33 U	27.41 U	11.10 U
I-C15	14.72 U	5.89 U	6.87 U	11.78 U	38.76 U	15.70 U
I-C16	12.43 U	4.97 U	5.80 U	9.95 U	32.74 U	13.26 U
I-C17	9.90 U	3.96 U	4.62 U	7.92 U	26.08 U	10.56 U
I-C18	12.37 U	4.95 U	5.77 U	9.90 U	32.58 U	13.20 U
I-S1	68.27	14.72	77.27	50.87	80.18	314.95
I-T1	26.23 U	10.49 U	62.89	20.98 U	69.06 U	196.63
I-T3	15.04 U	6.02 U	17.81	12.03 U	39.61 U	86.74
R-AC	92.42	32.83	129.94	97.00	99.01	527.87
R-AM	12.25 U	4.90 U	13.92	9.80 U	32.27 U	31.65
R-BF	15.01 U	6.00 U	7.00 U	12.00 U	39.52 U	34.48
R-OS	19.99 U	8.00 U	9.33 U	16.00 U	52.65 U	21.33 U
R-PC	15.05 U	6.02 U	7.03 U	12.04 U	39.64 U	16.06 U
R-PF	13.56 U	5.42 U	6.33 U	10.85 U	35.70 U	14.46 U
C-SB	32.81 U	13.12 U	15.31 U	26.25 U	86.39 U	35.00 U
C-WB	15.75 U	6.30 U	10.15	12.60 U	41.46 U	43.06
C-NE	11.80 U	4.72 U	5.51 U	9.44 U	31.08 U	12.59 U

(a) Undetected above given concentration.

(b) Compositing replicate for I-C7.

TABLE D.3. Concentrations of High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) in Sediment, Oakland Phase III A Project Retest

Sediment Treatment	High Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)								
	Benzo(a) Anthra-cene	Benzo (b,k,&j) fluoranthene	Benzo(ghi)-perylene	Benzo(a)-pyrene	Chrysene	Dibenzo(a,h)-Anthra-cene	Fluoran-thene	Indeno-(1,2,3-cd)pyrene	Pyrene
Target DL	20	20	20	20	20	20	20	20	20
Lowest Achieved DL	4.62	5.90	3.17	4.72	4.72	3.63	7.87	6.27	5.90
Maximum Achieved DL	15.31	16.40	10.50	13.12	8.00	12.03	13.33	20.78	10.00
I-C3	5.87 U ^(a)	6.29 U	4.03 U	5.03 U	5.03 U	4.61 U	8.39 U	7.97 U	6.29 U
I-C5	107.40	243.35	131.60	163.04	125.74	8.35 U	175.83	77.14	275.49
I-C7 Replicate 1	6.15 U	6.59 U	4.22 U	5.27 U	5.27 U	4.83 U	8.79 U	8.35 U	6.59 U
I-C7 Replicate 2 ^(b)	5.77 U	6.18 U	3.96 U	4.95 U	4.95 U	4.53 U	8.24 U	7.83 U	6.18 U
I-C8	6.27 U	6.72 U	4.30 U	5.37 U	5.37 U	4.93 U	8.96 U	8.51 U	6.72 U
I-C9	8.55 U	9.16 U	5.86 U	7.33 U	7.33 U	6.72 U	12.21 U	11.60 U	9.16 U
I-C10	42.88	180.52	106.08	141.77	54.75	4.44 U	103.78	53.82	278.93
I-C11	6.38 U	6.83 U	4.37 U	5.47 U	5.47 U	5.01 U	9.11 U	8.65 U	6.83 U
I-C12 Replicate 1	63.58	321.03	208.24	229.43	69.82	12.61	247.26	124.67	568.70
I-C12 Replicate 2	49.53	164.05	115.60	116.32	43.34	8.17	201.64	72.76	462.88
I-C12 Replicate 3	71.28	254.34	166.00	173.78	67.17	14.28	310.02	109.19	690.25
I-C14	6.20	31.05	14.73	21.41	8.95	3.82 U	8.14	8.94	17.29
I-C15	6.87 U	7.36 U	4.71 U	5.89 U	5.89 U	5.40 U	9.81 U	9.32 U	7.36 U
I-C16	5.80 U	6.22 U	3.98 U	4.97 U	4.97 U	4.56 U	8.29 U	7.87 U	6.22 U
I-C17	4.62 U	23.63	3.17 U	12.92	6.30	3.63 U	10.37	6.27 U	28.47
I-C18	5.77 U	6.19 U	3.96 U	4.95 U	4.95 U	4.54 U	8.25 U	7.83 U	6.19 U
I-S1	643.00	1004.85	712.99	662.11	339.85	55.55	635.39	422.15	1297.83
I-T1	145.36	703.79	462.43	417.14	354.93	9.62 U	295.32	274.91	639.00
I-T3	56.10	290.21	149.59	178.73	96.21	5.52 U	104.08	79.77	257.24
R-AC	188.44	256.32	205.08	210.80	209.75	5.76 U	355.63	123.47	455.34
R-AM	6.79	11.69	3.92 U	7.63	20.03	4.49 U	19.15	7.76 U	27.51
R-BF	26.60	94.44	60.77	75.66	56.67	5.50 U	78.24	31.36	116.87
R-OS	9.33 U	10.00 U	6.40 U	8.00 U	8.00 U	7.33 U	13.33 U	12.66 U	10.00 U
R-PC	7.03 U	7.53 U	4.82 U	6.02 U	6.02 U	5.52 U	10.04 U	9.53 U	7.53 U
R-PF	6.33 U	6.78 U	4.34 U	5.42 U	5.42 U	4.97 U	9.04 U	8.59 U	6.78 U
C-SB	15.31 U	16.40 U	10.50 U	13.12 U	18.02	12.03 U	23.11	20.78 U	16.63
C-WB	39.03	171.12	70.69	110.02	61.33	5.77 U	69.42	38.82	165.55
C-NE	5.51 U	5.90 U	3.78 U	4.72 U	4.72 U	4.33 U	7.87 U	7.48 U	5.90 U

(a) Undetected above given concentration.

(b) Compositing replicate for I-C7.

TABLE D.4. Quality Control Data for Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) Analysis, Oakland Phase III A Project Retest

Sediment Treatment	Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)					
	Acenaph-thene	Acenaph-thylene	Anthra-cene	Flourene	Naph-thalene	Phenan-threne
<u>Method Blanks</u>						
Blank I	0.82 U ^(a)	0.33 U	0.38 U	0.66 U	4.09	0.98
Blank II	0.80 U	0.32 U	0.37 U	0.64 U	2.49	0.86 U
Blank III	1.03 U	0.41 U	0.48 U	0.82 U	2.70 U	1.09 U
Blank IV	0.96 U	0.39 U	0.45 U	0.77 U	2.54 U	1.03 U
Blank V	1.00 U	0.40 U	0.55	0.80 U	2.63 U	3.46
Blank VI	1.15 U	0.46 U	0.54 U	0.92 U	3.04 U	1.23 U
Blank VII	1.08 U	0.43 U	0.50 U	0.86 U	2.83 U	1.15 U
Blank VIII	1.12 U	0.45 U	0.52 U	0.90 U	2.95 U	1.20 U
Blank IX	0.98 U	0.39 U	0.46 U	0.78 U	2.57 U	6.23
Blank X	1.02 U	0.41 U	0.48 U	0.82 U	2.69 U	1.09 U
<u>Matrix Spikes</u>						
I-C12 Mean	11.70	5.78	10.83	8.42 U	27.71 U	56.93
I-C12 MS	NS ^(b)	NS	43.55	36.00	39.92	NS
Concentration Recovered	NS	NS	32.72	36.00	39.92	NS
Amount Spiked	NS	NS	31	31	31	NS
Percent Recovery	NA ^(c)	NA	105.55%	116.13%	128.77%	NA
I-C12	11.70	5.78	10.83	8.42 U	27.71 U	56.93
I-C12 MSD	NS	NS	34.71	31.10	34.38	NS
Concentration Recovered	NS	NS	23.88	31.10	34.38	NS
Amount Spiked	NS	NS	33	33	33	NS
Percent Recovery	NA	NA	72.36%	94.24%	104.18%	NA
RPD	NA	NA	37%	21%	21%	NA
I-STAT	NA	NA	0.19	0.10	0.11	NA
I-C7 Replicate 2 ^(d)	12.37 U	4.95 U	5.77 U	9.89 U	32.56 U	13.19 U
I-C7 MS	NS	NS	29.97	33.20	33.49	NS
Concentration Recovered	NS	NS	29.97	33.20	33.49	NS
Amount Spiked	NS	NS	43	43	43	NS
Percent Recovery	NA	NA	69.70%	77.21%	77.88%	NA
I-C7 Replicate 2 ^(d)	12.37 U	4.95 U	5.77 U	9.89 U	32.56 U	13.19 U
I-C7 MSD	NS	NS	32.91	29.17	31.24 U	NS
Concentration Recovered	NS	NS	32.91	29.17	0.00	NS
Amount Spiked	NS	NS	49	49	49	NS
Percent Recovery	NA	NA	67.16%	59.53%	0.00%	NA
RPD	NA	NA	4%	26%	200%	NA
I-STAT	NA	NA	0.02	0.13	1.00	NA
<u>Standard Reference Material</u>						
HS-5	38.74 ^(e)	37.53	100.30 ^(d)	164.20 ^(d)	106.08 ^(d)	3205.26 ^(d)
Certified Value	230	<150	380	400	250	5200
	± 100		± 150	± 100	± 70	± 1000
<u>Compositing Replicates</u>						
I-C7 Replicate 1	13.18 U	5.27 U	6.15 U	10.55 U	34.71 U	14.06 U
I-C7 Replicate 2 ^(c)	12.37 U	4.95 U	5.77 U	9.89 U	32.56 U	13.19 U
RPD	NA	NA	NA	NA	NA	NA
I-Stat	NA	NA	NA	NA	NA	NA

TABLE D.4. (Contd)

Sediment Treatment	Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)					
	Acenaph- thene	Acenaph- thylene	Anthra- cene	Flourene	Naph- thalene	Phenan- threne
<u>Analytical Triplicates</u>						
I-C12 Replicate 1	16.42 U	6.57 U	10.62	13.14 U	43.25 U	57.48
I-C12 Replicate 2	7.32 U	4.38	8.45	5.86 U	19.28 U	42.97
I-C12 Replicate 3	11.36	6.40	13.42	6.26 U	20.61 U	70.33
RSD	NA	NA	23.01%	NA	NA	24.05%

- (a) Undetected above given concentration.
 (b) Not spiked.
 (c) Not applicable.
 (d) Compositing replicate for I-C7.
 (e) Data out of certified range.

TABLE D.5. Quality Control Data for High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) Analysis, Oakland Phase III A Project Retest

Sediment Treatment	High Molecular Weight PAH ($\mu\text{g}/\text{kg}$ dry weight)								
	Benzo(a)-Anthracene	Benzo(b,k,&j)-Fluoranthene	Benzo(ghi)-perylene	Benzo(a)-Pyrene	Chrysene	Dibenzo(a,h)-Anthracene	Fluoranthene	Indeno(1,2,3-cd)Pyrene	Pyrene
<u>Method Blanks</u>									
Blank I	0.38 U ^(a)	0.41 U	0.26 U	0.33 U	0.33 U	0.30 U	0.55 U	0.52 U	0.41 U
Blank II	0.37 U	0.40 U	0.26 U	0.32 U	0.32 U	0.29 U	0.54 U	0.51 U	0.42 U
Blank III	0.48 U	0.51 U	0.33 U	0.41 U	0.41 U	0.38 U	0.68 U	0.65 U	0.51 U
Blank IV	0.45 U	0.48 U	0.31 U	0.39 U	0.39 U	0.35 U	0.64 U	0.61 U	0.48 U
Blank V	5.81	0.50 U	0.32 U	0.40 U	0.40 U	0.37 U	0.70	0.63 U	0.82
Blank VI	0.54 U	0.58 U	0.37 U	0.46 U	0.46 U	0.42 U	0.77 U	0.73 U	0.58 U
Blank VII	0.50 U	0.54 U	0.34 U	0.43 U	0.43 U	0.39 U	0.72 U	0.68 U	0.54 U
Blank VIII	0.52 U	0.56 U	0.36 U	0.45 U	0.45 U	0.41 U	0.75 U	0.71 U	0.56 U
Blank IX	0.46 U	0.49 U	0.31 U	0.39 U	0.80	0.36 U	0.65 U	0.62 U	0.54
Blank X	0.48 U	0.51 U	0.33 U	0.41 U	0.41 U	0.37 U	0.68 U	0.65 U	0.51 U
<u>Matrix Spikes</u>									
I-C12 Mean	61.46	246.47	163.28	173.18	60.11	11.69	252.97	102.21	573.94
I-C12 MS	92.39	NS ^(b)	181.44	195.76	NS	NS	380.16	NS	NS
Concentration Recovered	30.93	NS	18.16	22.58	NS	NS	127.19	NS	NS
Amount Spiked	31	NS	31	31	NS	NS	31	NS	NS
Percent Recovery	99.76%	NA ^(c)	58.59%	72.84%	NA	NA	410.28%	NA	NA
I-C12 Mean	61.46	246.47	163.28	173.18	60.11	11.69	252.97	102.21	573.94
I-C12 MSD	73.21	NS	160.61	172.33	NS	NS	318.51	NS	NS
Concentration Recovered	11.74	NS	2.67	0.85	NS	NS	65.54	NS	NS
Amount Spiked	33	NS	33	33	NS	NS	33	NS	NS
Percent Recovery	35.59%	NA	8.09%	2.57	NA	NA	198.59%	NA	NA
RPD	94.79%	NA	264.04%	214.60%	NA	NA	69.53%	NA	NA
I-Stat	0.47	NA	1.32	1.07	NA	NA	0.35	NA	NA
I-C7 Replicate 2 ^(d)	5.77 U	6.18 U	3.96 U	4.95 U	4.95 U	4.53 U	8.24 U	7.83 U	6.18 U
I-C7 MS	42.51	NS	48.90	32.85	NS	NS	52.32	NS	NS
Concentration Recovered	42.51	NS	48.90	32.85	NS	NS	52.32	NS	NS
Amount Spiked	43	NS	43	43	NS	NS	43	NS	NS
Percent Recovery	98.85%	NA	113.73%	76.41%	NA	NA	121.68%	NA	NA

TABLE D.5. (Contd)

Sediment Treatment	High Molecular Weight PAH ($\mu\text{g/kg}$ dry weight)								
	Benzo(a)-Anthracene	Benzo(b,k,&j)-Fluoranthene	Benzo(ghi)-perylene	Benzo(a)-Pyrene	Chrysene	Dibenzo(a,h)-Anthracene	Fluoranthene	Indeno(1,2,3-cd)Pyrene	Pyrene
I-C7 Replicate 2 ^(d)	5.77 U	6.18 U	3.96 U	4.95 U	4.95 U	4.53 U	8.24 U	7.83 U	6.18 U
I-C7 MSD	41.41	88.79	30.30	7.81	48.63	25.45	57.90	NS	NS
Concentration Recovered	41.41	NS	30.30	7.81	NS	NS	57.90	NS	NS
Amount Spiked	49	NS	49	49	NS	NS	49	NS	NS
Percent Recovery	84.51%	NA	61.83%	15.95%	NA	NA	118.16%	NA	NA
RPD	15.65%	NA	59.10%	130.95%	NA	NA	2.94%	NA	NA
I-Stat	0.08	NA	0.30	0.65	NA	NA	0.02	NA	NA
<u>Standard Reference Material</u>									
HS-5	1260.99 ^(e)	2127.40	787.92 ^(e)	619.52 ^(e)	1521.96 ^(e)	200.49	3516.46	800.07 ^(e)	2616.03 ^(e)
Certified Value	2900 ± 1200	1060 ± 1400	1300 ± 300	1700 ± 800	2800 ± 900	200 ± 100	8400 ± 2600	5800 ± 1800	5800 ± 1800
<u>Compositing Replicates</u>									
I-C7 Replicate 1	6.15 U	6.59 U	4.22 U	5.27 U	5.27 U	4.83 U	8.79 U	8.35 U	6.59 U
I-C7 Replicate 2 ^(d)	5.77 U	6.18 U	3.96 U	4.95 U	4.95 U	4.53 U	8.24 U	7.83 U	6.18 U
RPD	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Analytical Triplicates</u>									
I-C12 Replicate 1	63.58	321.03	208.24	229.43	69.82	12.61	247.26	124.67	568.70
I-C12 Replicate 2	49.53	164.05	115.60	116.32	43.34	8.17	201.64	72.76	462.88
I-C12 Replicate 3	71.28	254.34	166.00	173.78	67.17	14.28	310.02	109.19	690.25
RSD	17.94%	31.97%	28.41%	32.66%	24.26%	27.02%	21.51%	26.07%	19.82%

(a) Undetected above given concentration.

(b) Not spiked.

(c) Not applicable.

(d) Compositing replicate for I-C7.

(e) Value out of certified range.

TABLE D.6. Surrogate Recoveries for Polynuclear Aromatic Hydrocarbons (PAHs) Results, Oakland Phase III A Project Retest

Sediment Treatment	Surrogate Percent Recoveries		
	Fluorene d10	Anthracene d10	Pyrene d10
I-C3	53	135	58
I-C5	70	115	76
I-C7 Replicate 1	64	119	84
I-C7 Replicate 2 ^(a)	74	111	104
I-C8	54	111	51
I-C9	65	88	62
I-C10	62	123	64
I-C11	49	115	66
I-C12 Replicate 1	99	96	143
I-C12 Replicate 2	81	86	138
I-C12 Replicate 3	101	92	149
I-C14	70	97	70
I-C15	47	153	47
I-C16	73	81	55
I-C17	30	108	61
I-C18	51	122	63
I-S1	90	122	96
I-T1	63	106	88
I-T3	71	116	82
R-AC	68	96	87
R-AM	63	147	65
R-BF	51	118	78
R-OS	66	156	74
R-PC	58	0	40
R-PF	72	132	65
C-NE	53	105	52
C-SB	71	133	78
C-WB	78	127	74
Blank I	111	81	99
Blank II	93	80	85
Blank III	105	105	108
Blank IV	80	80	83
Blank V	75	65	90
Blank VI	92	89	85
Blank VII	89	87	94
Blank VIII	88	96	85
Blank IX	82	83	104
Blank X	98	100	93

TABLE D.6. (Contd)

<u>Sediment Treatment</u>	<u>Surrogate Percent Recoveries</u>		
	<u>Fluorene D10</u>	<u>Anthracene D10</u>	<u>Pyrene D10</u>
I-C12 MS	110	100	164
I-C12 MSD	95	76	141
I-C7 MS	72	125	97
I-C7 MSD	57	136	96
HS-5	2	0	11

(a) Compositing replicate for I-C7.

TABLE D.7. Concentrations of Polychlorinated Biphenyls (PCBs) in Sediments, Oakland Phase III A Project Retest

Sediment Treatment	PCBs ($\mu\text{g}/\text{kg}$ dry weight)						
	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
Detection Limits							
Target DL	20	20	20	20	20	20	20
Lowest Achieved DL	23.8	23.8	23.8	23.0	23.8	24.0	24.0
Maximum Achieved DL	54.1	54.1	54.1	150.0	54.1	120	180
I-C3	24.0 U ^(a)	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U
I-C5 Replicate 1	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
I-C5 Replicate 2	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	100.0	40.0 U
I-C5 Replicate 3	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	77.0	40.0 U
I-C7 Replicate 1	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C7 Replicate 2 ^(b)	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U
I-C8	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C9	33.0 U	33.0 U	33.0 U	33.0 U	33.0 U	33.0 U	33.0 U
I-C10	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
I-C11 Replicate 1	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	66.0 U
I-C11 Replicate 2	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C11 Replicate 3	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C12 Replicate 1	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U
I-C12 Replicate 2	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	56.0 U
I-C12 Replicate 3	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U
I-C14	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C15	29.0 U	29.0 U	29.0 U	29.0 U	29.0 U	29.0 U	29.0 U
I-C16	31.0 U	31.0 U	31.0 U	31.0 U	31.0 U	31.0 U	31.0 U
I-C17	24.0 U	24.0 U	24.0 U	25.0 U	24.0 U	24.0 U	24.0 U
I-C18	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
I-S1	45.0 U	45.0 U	45.0 U	43.0 U	45.0 U	97.0	43.0 U
I-T1	45.0 U	45.0 U	45.0 U	44.0 U	45.0 U	44.0 U	140.0
I-T3	27.0 U	27.0 U	27.0 U	150.0	27.0 U	250.0	180.0 U
R-AC	35.0 U	35.0 U	35.0 U	35.0 U	35.0 U	35.0 U	35.0 U
R-AM	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U
R-BF	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	51.0	25.0 U
R-OS	34.0 U	34.0 U	34.0 U	34.0 U	34.0 U	260.0	34.0 U
R-PC	27.0 U	27.0 U	27.0 U	27.0 U	27.0 U	73.0	27.0 U
R-PF	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	52.0	28.0 U
C-SB	54.0 U	54.0 U	54.0 U	54.0 U	54.0 U	150.0	54.0 U
C-WB	34.0 U	34.0 U	34.0 U	34.0 U	34.0 U	110.0	45.0
C-NE	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	120.0 U	49.0 U

(a) Undetected above given concentration.

(b) Compositing replicate for I-C7.

TABLE D.8. Quality Control Data for Polychlorinated Biphenyls (PCBs) in Sediments, Oakland Phase III A Project Retest

Sediment Treatment	PCBs ($\mu\text{g}/\text{kg}$ dry weight)						
	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
<u>Analytical Blanks</u>							
Blank 1	20.0 U ^(a)	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 2	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 3	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 4	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 5	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 6	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 7	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 8	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Blank 9	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
<u>Matrix Spikes</u>							
C-WB	34.0 U ^(b)	34.0 U	34.0 U	34.0 U	34.0 U	110.0	45.0
C-WB MS	NS	NS	NS	NS	NS	790	NS
Concentration Recovered	NS	NS	NS	NS	NS	680	NS
Amount Spiked	NS	NS	NS	NS	NS	750	NS
Percent Recovery	NA ^(c)	NA	NA	NA	NA	91%	NA
C-WB	34.0 U	34.0 U	34.0 U	34.0 U	34.0 U	110.0	45.0
C-WB MSD	NS	NS	NS	NS	NS	786	NS
Concentration Recovered	NS	NS	NS	NS	NS	676	NS
Amount Spiked	NS	NS	NS	NS	NS	734	NS
Percent Recovery	NA	NA	NA	NA	NA	92%	NA
RPD	NA	NA	NA	NA	NA	1%	NA
I-Stat	NA	NA	NA	NA	NA	0.01	NA
I-C10	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
I-C10 MS	NS	NS	NS	NS	NS	596	NS
Concentration Recovered	NS	NS	NS	NS	NS	596	NS
Amount Spiked	NS	NS	NS	NS	NS	546	NS
Percent Recovery	NA	NA	NA	NA	NA	109%	NA
I-C10	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
I-C10 MSD	NS	NS	NS	NS	NS	622	NS
Concentration Recovered	NS	NS	NS	NS	NS	622	NS
Amount Spiked	NS	NS	NS	NS	NS	515	NS
Percent Recovery	NA	NA	NA	NA	NA	121%	NA
RPD	NA	NA	NA	NA	NA	10%	NA
I-Stat	NA	NA	NA	NA	NA	0.05	NA
I-C3	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U
I-C3 MS	NS	NS	NS	NS	NS	518	NS
Concentration Recovered	NS	NS	NS	NS	NS	518	NS
Amount Spiked	NS	NS	NS	NS	NS	469	NS
Percent Recovery	NA	NA	NA	NA	NA	110%	NA
I-C3	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U
I-C3 MSD	NS	NS	NS	NS	NS	542	NS
Concentration Recovered	NS	NS	NS	NS	NS	542	NS
Amount Spiked	NS	NS	NS	NS	NS	480	NS
Percent Recovery	NA	NA	NA	NA	NA	113%	NA

TABLE D.B. (Contd)

Sediment Treatment	PCBs ($\mu\text{g/kg}$ dry weight)						
	Aroclor- 1016	Aroclor- 1221	Aroclor- 1232	Aroclor- 1242	Aroclor- 1248	Aroclor- 1254	Aroclor- 1260
RPD	NA	NA	NA	NA	NA	3%	NA
I-Stat	NA	NA	NA	NA	NA	0.01	NA
<u>Standard Reference Material</u>							
HS-2	20.0 U	20 U	20 U	20 U	20 U	71 ^(d)	36
Certified Value	NC ^(e)	NC	NC	NC	NC	111.8 $\pm$ 2.5	NC
<u>Compositing Replicates</u>							
I-C7 Replicate 1	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C7 Replicate 2 ^(f)	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U	24.0 U
RPD	NA	NA	NA	NA	NA	NA	NA
I-Stat	NA	NA	NA	NA	NA	NA	NA
<u>Analytical Triplicates</u>							
I-C5 Replicate 1	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
I-C5 Replicate 2	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	100.0	40.0 U
I-C5 Replicate 3	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	77.0	40.0 U
RSD	NA	NA	NA	NA	NA	NA	NA
I-C11 Replicate 1	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	66.0 U
I-C11 Replicate 2	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
I-C11 Replicate 3	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U
RSD	NA	NA	NA	NA	NA	NA	NA
I-C12 Replicate 1	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U
I-C12 Replicate 2	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	56.0 U
I-C12 Replicate 3	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U	28.0 U
RSD	NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Not spiked.

(c) Not applicable.

(d) Data point out of certified range.

(e) No certified value.

(f) Compositing replicate for I-C7.

TABLE D.9. Concentrations of Chlorinated Pesticides in Sediments (Alphabetical, Aldrin - 4,4'-DDT), Oakland Phase III A Project Retest

Sediment Treatment	Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-chlor-dane	Gamma-chlor-dane	4,4'-DDD	4,4'-DDE	4,4'-DDT
Detection Limits										
Target DL	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lowest Achieved DL	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Maximum Achieved DL	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
I-C3	2.0 U ^(a)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C5 Replicate 1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
I-C5 Replicate 2	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	8.0	5.0	4.0 U
I-C5 Replicate 3	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	7.0	4.0 U	4.0 U
I-C7 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C7 Replicate 2 ^(b)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C8	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C9	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0
I-C11 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C11 Replicate 2	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C11 Replicate 3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C12 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C12 Replicate 2	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C12 Replicate 3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C14	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C15	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C16	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C17	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C18	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0	7.0
I-S1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
I-T1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
I-T3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
R-AC	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
R-AM	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-BF	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-OS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
R-PC	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
R-PF	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
C-SB	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
C-WB	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
C-NE	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0

(a) Undetected above given concentration.

(b) Compositing replicate for I-C7.

TABLE D.10. Concentrations of Chlorinated Pesticides in Sediment (Alphabetical, Dieldrin - Toxaphene), Oakland Phase III A Project Retest

[illegible]

TABLE D.10. (Contd)

Sediment Treatment	Pesticides ($\mu\text{g/kg}$ dry weight)									
	<u>Diel-</u> <u>drin</u>	<u>Endo-</u> <u>sulfan I</u>	<u>Endo-</u> <u>Sulfan II</u>	<u>Endo-</u> <u>sulfan</u> <u>Sulfate</u>	<u>Endrin</u>	<u>Endrin</u> <u>Ketone</u>	<u>Hepta-</u> <u>chlor</u>	<u>Hepta-</u> <u>chlor-</u> <u>Epoxide</u>	<u>Methoxy-</u> <u>chlor</u>	<u>Toxa-</u> <u>phene</u>
C-SB	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	27.0 U	54.0 U
C-WB	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	17.0 U	34.0 U
C-NE	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	13.0 U	26.0 U

(a) Undetected above given concentration.

(b) Compositing replicate for I-C7.

TABLE D.11. Quality Control Data Pesticides Analysis (Alphabetical, Aldrin - 4,4'-DDT), Oakland Phase III A Project Retest

Sediment Treatment	Pesticides ($\mu\text{g/kg}$ dry weight)									
	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Alpha-chlor-dane	Gamma-chlor-dane	4,4'-DDD	4,4'-DDE	4,4'-DDT
<u>Analytical Blanks</u>										
Blank I	2.0 U ^(a)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank II	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank III	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank IV	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0
Blank V	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank VI	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank VII	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank VIII	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank IX	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<u>Matrix Spikes</u>										
I-C5 Mean	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5.0	4.3	4.0 U
I-C5 MS	38.0	NS ^(b)	NS	NS	18.0	NS	NS	NS	NS	53.0
Concentration Recovered	38.0%	NS	NS	NS	18.0	NS	NS	NS	NS	53.0
Amount Spiked	47.0	NS	NS	NS	47.0	NS	NS	NS	NS	47.0
Percent Recovery	80.85%	NA ^(c)	NA	NA	38.30%	NA	NA	NA	NA	112.77%
I-C5 Mean	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5.0	4.3	4.0 U
I-C5 MSD	40.0	NS	NS	NS	38.0	NS	NS	NS	NS	55.0
Concentration Recovered	40.0	NS	NS	NS	38.0	NS	NS	NS	NS	55.0
Amount Spiked	50.0	NS	NS	NS	50.0	NS	NS	NS	NS	50.0
Percent Recovery	80.00%	NA	NA	NA	76.00%	NA	NA	NA	NA	110.00%
RPD	1.06%	NA	NA	NA	65.97%	NA	NA	NA	NA	2%
I-STAT	0.01	NA	NA	NA	0.33	NA	NA	NA	NA	0.01
<u>Standard Reference Material</u>										
HS-2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	6.0 U	17.0 U	20
Certified Value	NC ^(d)	NC	NC	NC	NC	NC	NC	NC	NC	NC
<u>Compositing Replicates</u>										
I-C7 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C7 Replicate 2 ^(e)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
RPD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Analytical Triplicates</u>										
I-C5 Replicate 1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
I-C5 Replicate 2	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	8.3	5.2	4.0 U
I-C5 Replicate 3	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	6.6	4.0 U	4.0 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C11 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C11 Replicate 2	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C11 Replicate 3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE D.11. (Contd)

Sediment Treatment	Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
	Aldrin	Alpha- BHC	Beta- BHC	Delta- BHC	(Lindane) Gamma- BHC	Alpha- chlor- dane	Gamma- chlor- dane	4,4'- DDD	4,4'- DDE	4,4'- DDT
<u>Analytical Triplicates (Contd)</u>										
I-C12 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C12 Replicate 2	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C12 Replicate 3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

- (a) Undetected above given concentration.
 (b) Not spiked.
 (c) Not applicable.
 (d) No certified value.
 (e) Compositing replicate for I-C7.

TABLE D.12. Quality Control Data for Pesticide Analysis (Alphabetical, Dieldrin - Toxaphene), Oakland Phase III A Project Retest

Sediment Treatment	Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
	Diel- drin	Endo- sulfan I	Endo- sulfan II	Endo- sulfan Sulfate	Endrin	Endrin Ketone	Hepta- chlor	Hepta- chlor Epoxide	Methoxy- chlor	Toxa- phene
<u>Analytical Blanks</u>										
Blank I	2.0 U ^(a)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank II	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank III	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank IV	3.0	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank V	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank VI	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank VII	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank VIII	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank IX	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
<u>Matrix Spikes</u>										
I-C5 Mean	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	20.0 U	40.0 U
I-C5 MS	43.0	NS ^(b)	NS	NS	50.0	NS	41.0	NS	NS	NS
Concentration Recovered	43.2%	NS	NS	NS	50.2%	NS	41.0%	NS	NS	NS
Amount Spiked	47.0	NS	NS	NS	47.0	NS	47.0	NS	NS	NS
Percent Recovery	92.3%	NA ^(c)	NA	NA	107.3%	NA	87.6%	NA	NA	NA
I-C5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	20.0 U	40.0 U
I-C5 MSD	44.0	NS	NS	NS	52.0	NS	43.0	NS	NS	NS
Concentration Recovered	44.0%	NS	NS	NS	52.0%	NS	43.0%	NS	NS	NS
Amount Spiked	50.0	NS	NS	NS	50.0	NS	50.0	NS	NS	NS
Percent Recovery	88.0%	NA	NA	NA	104.0%	NA	86.0%	NA	NA	NA
RPD	3%	NA	NA	NA	2%	NA	2%	NA	NA	NA
I-STAT	0.02	NA	NA	NA	0.01	NA	0.01	NA	NA	NA
<u>Standard Reference Material</u>										
HS-2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	200 U
<u>Compositing Replicates</u>										
I-C7 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	13.0 U	26.0 U
I-C7 Replicate 2 ^(d)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	12.0 U	24.0 U
RPD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE D.12. (Contd)

Sediment Treatment	Pesticides ($\mu\text{g/kg}$ dry weight)									
	Diel- drin	Endo- sulfan I	Endo- sulfan II	Endo- sulfan Sulfate	Endrin	Endrin Ketone	Hepta- chlor	Hepta- chlor Epoxide	Methoxy- chlor	Toxa- phene
<u>Analytical Triplicates</u>										
I-C5 Replicate 1	8.0	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	20.0 U	40.0 U
I-C5 Replicate 2	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	20.0 U	40.0 U
I-C5 Replicate 3	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	20.0 U	40.0 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C11 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	13.0 U	26.0 U
I-C11 Replicate 2	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	13.0 U	26.0 U
I-C11 Replicate 3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	13.0 U	26.0 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C12 Replicate 1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	14.0 U	28.0 U
I-C12 Replicate 2	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	14.0 U	28.0 U
I-C12 Replicate 3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	14.0 U	28.0 U
RSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

- (a) Undetected above given concentration.
 (b) Not spiked.
 (c) Not applicable.
 (d) Compositing replicate for I-C7.

TABLE D.13. Sediment Pesticide and Polychlorinated Biphenyls (PCBs) Surrogate Recovery Analysis, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Surrogate Percent Recovery Dibutylchloride</u>
I-C3	91.0
I-C5 Replicate 1	89.0
I-C5 Replicate 2	102.0
I-C5 Replicate 3	98.0
I-C7 Replicate 1	99.0
I-C7 Replicate 2 ^(a)	62.0
I-C8	95.0
I-C9	119.0
I-C10	60.0
I-C11 Replicate 1	85.0
I-C11 Replicate 2	105.0
I-C11 Replicate 3	107.0
I-C12 Replicate 1	108.0
I-C12 Replicate 2	82.0
I-C12 Replicate 3	108.0
I-C14	19.0
I-C15	81.0
I-C16	92.0
I-C17	129.0
I-C18	125.0
I-S1	83.0
I-T1	85.0
I-T3	88.0
R-AC	61.0
R-AM	81.0
R-BF	111.0
R-OS	90.0
R-PC	101.0
R-PF	120.0
C-SB	88.0
C-WB	121.0
C-NE	71.0
Blank 1	11.0
Blank 2	106.0
Blank 3	64.0
Blank 4	103.0
Blank 5	74.0
Blank 6	94.0
Blank 7	83.0
Blank 8	94.0
Blank 9	88.0
HS-2	88.0

(a) Compositing replicate for I-C7.

**TABLE D.14. Concentrations of Metals in Sediment, Oakland
Phase III A Project Retest**

Sediment Treatment	Metals ($\mu\text{g}/\text{kg}$ dry weight)									
	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
Detection Limits										
Target DL	1.0	1.00	0.1	1.0	1.0	0.02	1.0	1.0	0.10	1.0
Lowest DL	NA ^(a)	NA	NA	NA	NA	NA	NA	NA	0.07	NA
Highest DL	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA
I-C3	0.10	3.00	0.05	410	11.1	0.046	34.1	8.1	0.07 U ^(b)	27.6
I-C5	0.38	12.60	0.25	218	64.9	0.359	111.1	39.1	0.30	146.4
I-C7 Replicate 1	0.07	3.18	0.03	368	10.7	0.007	53.0	7.1	0.07 U	36.0
I-C7 Replicate 2 ^(c)	0.06	3.28	0.03	373	12.1	0.007	45.5	3.7	0.07 U	32.7
I-C8	0.08	3.60	0.06	322	15.6	0.026	47.1	6.3	0.07 U	41.5
I-C9	0.49	8.80	0.44	357	59.5	0.331	115.5	31.9	0.26	133.6
I-C10	0.15	3.60	0.10	722	17.2	0.084	67.1	8.1	0.07 U	56.3
I-C11	0.10	3.02	0.08	371	19.7	0.044	64.4	9.7	0.07 U	50.1
I-C12	0.13	4.50	0.10	603	21.4	0.092	65.8	12.2	0.07 U	66.7
I-C14	0.06	4.39	0.18	299	17.8	0.077	46.8	10.2	0.08 U	38.2
I-C15	0.05	4.17	0.10	207	20.9	0.040	56.4	8.1	0.08	42.7
I-C16	0.06	3.22	0.14	209	27.1	0.044	74.5	12.7	0.08 U	56.6
I-C17	0.07	3.61	0.11	186	24.3	0.058	67.1	11.6	0.07 U	51.6
I-C18	0.06	2.97	0.08	140	22.2	0.052	63.0	12.2	0.07 U	45.1
I-S1	0.59	10.40	0.76	204	86.1	0.812	126.1	65.3	0.38	222.0
I-T1 Replicate 1	0.49	12.40	0.35	222	80.5	0.545	123.2	51.1	0.38	182.2
I-T1 Replicate 2	0.49	12.60	0.36	244	86.6	0.383	118.4	53.8	0.35	185.0
I-T1 Replicate 3	0.51	NT ^(d)	0.34	NT	NT	0.500	NT	NT	0.34	NT
I-T3	0.10	3.96	0.12	564	26.3	0.173	62.9	17.3	0.07 U	65.9
R-AC	0.32	10.70	0.23	229	56.1	0.306	104.0	24.4	0.21	115.3
R-AM	0.02	13.20	0.04	121	11.4	0.048	38.8	11.0	0.08 U	35.4
R-BF	0.12	6.75	0.13	479	31.2	0.191	65.5	19.0	0.13	80.7
R-OS	0.28	4.25	0.38	240	27.0	0.112	75.1	6.9	1.11	88.7
R-PC	0.03	6.35	1.11	271	11.5	0.054	36.6	5.5	0.07 U	42.9
R-PF	0.06	3.56	1.63	359	12.4	0.066	42.3	8.8	0.13	49.9
C-SB	0.22	9.44	0.77	109	37.7	0.097	45.0	12.7	0.76	84.9
C-WB	0.03	2.94	0.06	179	11.1	0.009	42.8	6.3	0.07 U	43.6
C-NE	0.04	5.27	0.03	81	8.0	0.054	22.7	3.5	0.07 U	22.0

(a) Not applicable; no undetected values for this analyte.

(b) Undetected above given concentration.

(c) Compositing replicate for I-C7.

(d) No triplicate analysis done on metals analyzed by the AA method.

TABLE D.15. Quality Control Data for Sediment Metal Analysis, Oakland Phase III A Project Retest

Sediment Treatment	Metals (mg/kg dry weight)									
	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
<u>Method Blanks</u>										
Blank 1	0.013	NA ^(a)	0.008 U ^(b)	NA	NA	0.009	NA	NA	0.08 U	NA
Blank 2	NA	NA	0.008 U	NA	NA	0.004	NA	NA	0.08 U	NA
Blank 3	0.01	NA	0.01 U	NA	NA	0.005	NA	NA	0.07 U	NA
Blank 4	0.01	NA	0.01 U	NA	NA	0.007	NA	NA	0.07 U	NA
Blank 5	0.01	NA	0.01 U	NA	NA	NA	NA	NA	0.07 U	NA
<u>Matrix Spikes</u>										
I-TI Mean	0.50	12.5 ^(c)	0.35	233	83.55	0.476	120.80	52.45	0.36	183.60
I-TI MS	2.24	NS	16.91	NS	NS	1.393	NS	NS	4.64	NS
Concentration Recovered	1.74	NS	16.56	NS	NS	0.917	NS	NS	4.28	NS
Amount Spiked	2.00	NS	20.00	NS	NS	1.000	NS	NS	5.00	NS
Percent Recovery	87%	NA	83%	NA	NA	92%	NA	NA	86%	NA
<u>Standard Reference Material</u>										
BEST-1	NA	NA	NA	NA	NA	0.092	NA	NA	NA	NA
BEST-1	NA	NA	NA	NA	NA	0.092	NA	NA	NA	NA
Certified Value	NC ^(d)	NC	NC	NC	NC	0.092 ±0.009	NC	NC	NC	NC
BCSS Replicate 1	0.093	NA	0.27	NA	NA	0.136	NA	NA	NA	NA
BCSS Replicate 2	NA	NA	NA	NA	NA	0.135	NA	NA	NA	NA
Certified Value	NC	NA	0.25	NA	NA	0.129	NA	NA	NA	NA
	NA	NA	±0.04	NA	NA	±0.012	NA	NA	NA	NA
MESS-1 Replicate 1	0.106	9.9	0.71 ^(e)	65	27.0	0.180	32.2	35.1	0.32	183.0
MESS-1 Replicate 2	0.11	11.0	0.55 ^(e)	64	29.0 ^(e)	0.184	30.6	31.8	0.30	175.7
MESS-1 Replicate 3	NA	11.9	NA	67	29.1 ^(e)	NA	29.9	30.6	0.34	175.0
Certified Value	NC	10.6	0.59	71	25.1	NC	29.5	34.0	0.34	191.0
	NA	±1.2	±0.01	±11	±3.8	NA	±2.7	±6.1	±0.06	±17.0
PACS-1 Replicate 1	2.05	167.7 ^(e)	2.38 ^(e)	116	399 ^(e)	4.72	46.0	394	1.00	800.0 ^(e)
PACS-1 Replicate 2	1.68	164.5 ^(e)	2.19 ^(e)	121	397 ^(e)	4.40	43.7	380 ^(e)	0.98	775.0 ^(e)
PACS-1 Replicate 3	NA	168.5 ^(e)	NA	122 ^(e)	402 ^(e)	NA	43.1	380 ^(e)	NA	789.0 ^(e)
Certified Value	NC	211.0	2.38	113	452	4.57	44.1	404	1.09	824.0
	NA	±11.0	±0.02	±8	±16	±0.16	±2.0	±20	±0.11	±22.0

TABLE D.15. (Contd)

Sediment Treatment	Metals (mg/kg dry weight)									
	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
<u>Standard Reference Material</u>										
SRM 1646 Replicate 1	0.095	13.4 ^(e)	0.37	70 ^(e)	19.9	0.070	30.4	23.4 ^(e)	0.49	132.0
SRM 1646 Replicate 2	0.09	8.6 ^(e)	0.32	79	20.4	0.073	34.0	30.6 ^(e)	0.49	125.1 ^(e)
SRM 1646 Replicate 3	0.10	12.4	0.31	79	21.1 ^(e)	NA	33.8	25.4 ^(e)	0.47	127.8 ^(e)
Certified Value	NC	11.6	0.36	76	18.0	0.063	32.0	28.2	NC	138.0
	NA	±1.3	±0.07	±3	±3	±0.012	±3.0	±1.8	NA	±6.0
<u>Analytical Replicates</u>										
I-T1 Replicate 1	NA	12.40	NA	222	80.5	NA	123.2	51.1	NA	182.2
I-T1 Replicate 2	NA	12.60	NA	244	86.6	NA	118.4	53.8	NA	185.0
RPD	NA	1.60%	NA	9.44%	7.30%	NA	3.97%	5.15%	NA	1.53%
I-Stat	NA	0.01	NA	0.05	0.04	NA	0.02	0.03	NA	0.01
<u>Compositing Replicates</u>										
I-C7 Replicate 1	0.07	3.18	0.03	368	10.7	0.007	53.0	7.1	0.07 U	36.0
I-C7 Replicate 2	0.06	3.28	0.03	373	12.1	0.007	45.5	3.7	0.07 U	32.7
RPD	15.38%	3.10%	0.00%	1.35%	12.28%	0.00%	15.23%	62.96%	NA	9.61%
I-Stat	0.08	0.02	0.00	0.01	0.06	0.00	0.08	0.31	NA	0.05
<u>Analytical Triplicates</u>										
I-T1 Replicate 1	0.49	NA	0.35	NA	NA	0.545	NA	NA	0.38	NA
I-T1 Replicate 2	0.49	NA	0.36	NA	NA	0.383	NA	NA	0.35	NA
I-T1 Replicate 3	0.51	NA	0.34	NA	NA	0.500	NA	NA	0.34	NA
RSD	2.32%	NA	2.86%	NA	NA	17.57%	NA	NA	5.84%	NA

(a) Not applicable.

(b) Undetected above given concentration.

(c) Not spiked.

(d) No certified for this SRM.

(e) Value out of certified range.

**TABLE D.16. Concentrations of Butyltins in Sediment, Oakland
Phase III A Project Retest**

Sediment Treatment	Butyltin Species ($\mu\text{g}/\text{kg}$ dry sediment weight)				Surrogate Percent Recovery Propyltin
	Tetrabutyltin	Tributyltin	Dibutyltin	Monobutyltin	
Detection Limits					
Target DL	10.0	10.0	10.0	10.0	--
Lowest DL	0.3	0.9	0.3	0.3	
Highest DL	3.0	3.3	2.8	2.7	--
I-C3	0.8 U ^(a)	0.9 U	0.7 U	0.7 U	21.6
I-C5 Replicate 1	0.7 U	8.2 B ^(b)	6.0	2.3	103.2
I-C5 Replicate 2	0.7 U	9.3 B	5.0	1.8	64.1
I-C7 Replicate 1	0.4 U	0.8 B	0.4 U	0.4 U	52.6
I-C7 Replicate 2 ^(c)	0.6 U	0.9 B	0.6 U	0.6 U	32.9
I-C8	2.6 U	3.5 B	2.4 U	2.3 U	89.6
I-C9	1.1	40.4 B	15.0	4.4	44.3
I-C10	0.6 U	7.0 B	4.0	0.8	28.8
I-C11	3.0 U	3.3 U	2.8 U	2.7 U	90.4
I-C12	0.4 U	8.0 B	4.9	0.9	85.4
I-C14	0.4 U	2.8 B	1.4	0.4 U	60.6
I-C15	0.6 U	0.8 B	0.6 U	0.5 U	27.6
I-C16	0.4 U	0.6 B	0.4 U	0.4 U	51.7
I-C17	0.4 U	1.1 B	0.6	0.3 U	57.7
I-C18	0.5 U	0.9 B	0.4 U	0.4 U	50.0
I-S1	0.6 U	17.5 B	12.9	2.5	47.8
I-T1	0.7 U	29.2 B	18.6	5.8	74.1
I-T3	0.8	64.3 B	27.4	3.5	63.5
R-AC	0.5 U	19.4 B	4.2	1.0	66.5
R-AM	0.7 U	1.0 B	1.6	0.6 U	24.0
R-BF	1.0 U	4.2 B	1.8	0.9 U	70.7
R-OS	0.9 U	1.9 B	1.0	0.8 U	49.7
R-PC	0.4 U	0.8 B	0.3 U	0.3 U	48.3
R-PF	0.6 U	0.9 B	0.9	0.6 U	31.2
C-SB	1.1 U	3.8 B	2.7	1.0 U	59.7
C-WB Replicate 1	0.7 U	1.1 B	1.0	0.7 U	31.7
C-WB Replicate 2	0.4 U	0.8 B	0.5	0.4 U	54.4
C-NE	0.7 U	0.8 B	0.6 U	0.6 U	33.5

(a) Undetected above given concentration.

(b) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

(c) Compositing replicate for I-C7.

TABLE D.17. Quality Control Data for Butyltin Analysis Treatment, Oakland Phase III A Project Retest

Sediment Treatment	Butyltin Species ($\mu\text{g}/\text{kg}$ dry sediment weight)				Percent Recovery
	Tetrabutyltin	Tributyltin	Dibutyltin	Monobutyltin	Propyltin
<u>Analytical Blanks</u>					
Blank R	1.0 U ^(a)	1.1 U	0.9 U	0.8 U	10.9
Blank 1	0.6 U	0.8	0.6 U	0.6 U	32.0
Blank 2	0.6 U	2.1	0.5 U	0.5 U	42.7
Blank 3	0.3 U	0.7	0.3 U	0.3 U	25.9
Blank 4	0.5 U	0.9	0.5 U	0.5 U	70.5
<u>Matrix Spikes</u>					
C-WB Replicate 2	0.4 U	0.8	0.5	0.4 U	54.4
C-WB MS	1.4	87.4	98.7	17.1	54.1
Concentration Recovered	NS ^(b)	86.6	98.2	16.7	NS
Amount Spiked	NS	149	149	149	NS
Percent Recovery	NA ^(c)	58%	66%	11%	NA
I-C5 Replicate 1	0.7 U	8.2	6.0	2.3	103.2
I-C5 MS	2.6	151.3	159.5	120.7	94.0
Concentration Recovered	NS	143.1	153.5	118.4	NS
Amount Spiked	NS	211	211	211	NS
Percent Recovery	NA	68%	73%	56%	NA
<u>Standard Reference Material</u>					
PACS-1	5.8 U	649.9	567.9	80.7	64.3
Corrected for Surrogate		1011 ^(d)	883 ^(d)	126	
PACS-2	5.5 U	545.8	569.5	93.7	78.9
Corrected for Surrogate		692 ^(d)	722 ^(d)	119	
PACS-3	6.0 U	413.1	358.7	71.2	10.0
Corrected for Surrogate		4131 ^(d)	3587 ^(d)	712	
PACS-3 A	9.4 U	403.3	371.7	54.8	28.0
Corrected for Surrogate		1440	1328	196	
PACS Certified Value	NC ^(e)	1270	1160	280	
		± 220	± 180	± 170	
<u>Analytical Replicates</u>					
C-WB Replicate 1	0.7 U	1.1 B	1.0	0.7 U	31.7
C-WB Replicate 2	0.4 U	0.8 B	0.5	0.4 U	54.4
RPD	NA	32%	67%	NA	
I-Stat	NA	0.16	0.33	NA	
I-C5 Replicate 1	0.7 U	8.2 B	6.0	2.3	103.2
I-C5 Replicate 2	0.7 U	9.3 B	5.0	1.8	64.1
RPD	NA	13%	18%	24%	
I-Stat	NA	0.06	0.09	0.12	

TABLE D.17. (Contd)

<u>Sediment Treatment</u>	<u>Butyltin Species ($\mu\text{g/kg}$ dry sediment weight)</u>				<u>Percent Recovery</u>
	<u>Tetrabutyltin</u>	<u>Tributyltin</u>	<u>Dibutyltin</u>	<u>Monobutyltin</u>	<u>Propyltin</u>
<u>Compositing Replicates</u>					
I-C7 Replicate 1	0.4 U	0.8 B	0.4 U	0.4 U	52.6
I-C7 Replicate 2 ^(f)	0.6 U	0.9 B	0.6 U	0.6 U	32.9
RPD	NA	12%	NA	NA	
I-Stat	NA	0.07	NA	NA	

-
- (a) Undetected above given concentration.
 (b) Not spiked.
 (c) Not applicable.
 (d) Value out of certified range.
 (e) PACs not certified for tetrabutyltin.
 (f) Compositing replicate for I-C7.

TABLE D.18. Concentrations of Oil and Grease and Total Petroleum Hydrocarbon (TPH) in Sediments, Oakland Phase III A Project Retest

Sediment Treatment	Concentrations (mg/kg dry weight)		Petroleum Fraction %
	Total Hydrocarbons Oil and Grease	Total Recoverable Petroleum Hydrocarbons	
Detection Limits	20	20	NA ^(a)
I-C3 Replicate 1	12	1	8.33
I-C3 Replicate 2	7	0.60 U ^(b)	NA
I-C3 Replicate 3	9	1	11.11
I-C5	121	73	60.33
I-C7 Replicate 1	9	0.60 U	NA
I-C7 Replicate 2 ^(c)	5	1	20.00
I-C8 Replicate 1	9	2	22.22
I-C8 Replicate 2	8	1	12.5
I-C8 Replicate 3	12	0.60 U	NA
I-C9	52	25	47.08
I-C10	39	14	35.90
I-C11	34	0.70 U	NA
I-C12	49	36	73.47
I-C14	7	5	71.43
I-C15	11	2	18.18
I-C16	9	7	77.78
I-C17	6	6	100.00
I-C18	28	17	60.71
I-S1	344	267	77.62
I-T1	190	148	77.89
I-T3	80	59	73.75
R-AC	92	78	84.78
R-AM	13	0.60 U	NA
R-BF	34	10	29.41
R-OS	72	0.90 U	NA
R-PC	25	0.70 U	NA
R-PF	27	8	29.63
C-SB	76	67	88.16
C-WB	21	9	42.86
C-NE	15	2	13.33

(a) Not applicable.

(b) Undetected above given concentration.

(c) Compositing replicate for I-C7.

TABLE D.19. Quality Control Data for Sediment Oil and Grease and Total Petroleum Hydrocarbon (TPH) Analyses, Oakland Phase III A Project Retest

Sediment Treatment	Concentrations (mg/kg dry weight)		Petroleum Fraction %
	Oil and Grease	Total Petroleum Hydrocarbons	
<u>Analytical Blanks</u>			
Blank 1	0.4	0.5 U ^(a)	NA ^(b)
Blank 2	0.5 U	0.5 U	NA
Blank 3	3	0.5 U	NA
Blank 4	1	0.5 U	NA
<u>Matrix Spikes</u>			
I-C3 Mean	9.3	1	10.75
I-C3 MS	39	28	71.79
Concentration Recovered	29.7	27	
Amount Spiked	15	15	
Percent Recovery	198%	180%	
I-C3 Mean	9.3	1	10.75
I-C3 MSD	58	43	74.14
Concentration Recovered	48.7	42	
Amount Spiked	59	59	
Percent Recovery	83%	71%	
RPD	82%	87%	
I-STAT	0.41	0.43	
I-C8 Mean	9.7	1	10.31
I-C8 MS ^(c)	50	32	64.00
Concentration Recovered	40.3	31	
Amount Spiked	58	58	
Percent Recovery	69%	53%	
<u>Compositing Replicates</u>			
I-C7 Replicate 1	9	0.6 U	NA
I-C7 Replicate 2 ^(d)	5	1	20.00
RPD	57%	NA	NA
I-Stat	0.29	NA	NA

TABLE D.19. (Contd)

<u>Sediment Treatment</u>	<u>Concentrations (mg/kg dry weight)</u>		<u>Petroleum Fraction %</u>
	<u>Oil and Grease</u>	<u>Total Petroleum Hydrocarbons</u>	
<u>Analytical Triplicates</u>			
I-C3 Replicate 1	12	1	8.33
I-C3 Replicate 2	7	0.6 U	NA
I-C3 Replicate 3	9	1	11.11
RSD	27%	NA	NA
I-C8 Replicate 1	9	2	22.22
I-C8 Replicate 2	8	1	12.50
I-C8 Replicate 3	12	0.6 U	NA
RSD	22%	NA	NA

-
- (a) Undetected above given concentration.
 (b) Not applicable.
 (c) No matrix spike duplicate (MSD) run for this sample.
 (d) Compositing replicate for I-C7.

TABLE D.20. Concentrations of Total Organic Carbon (TOC) and Total Volatile Solids (TVS) in Sediments, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Total Organic Carbons (percent dry weight)</u>	<u>Total Volatile Solids (percent dry weight)</u>
I-C3	0.04	1.19
I-C5	1.08	8.55
I-C7 Replicate 1	0.03	1.47
I-C7 Replicate 2 ^(a)	0.02	1.38
I-C8	0.05	2.06
I-C9	0.82	5.48
I-C10	0.11	1.42
I-C11	0.06	2.87
I-C12	0.17	2.49
I-C14	0.10	2.34
I-C15	0.06	2.99
I-C16	0.10	3.93
I-C17	0.10	3.26
I-C18	0.06	3.18
I-S1	1.16	7.26
I-T1 Replicate 1	1.33	9.27
I-T1 Replicate 2	NA ^(b)	9.53
I-T1 Replicate 3	NA	9.41
I-T3	0.14	1.9
R-AC	0.94	8.61
R-AM	0.07	2.13
R-BF	0.48	5.14
R-OS	1.00	6.99
R-PC	0.26	2.61
R-PF	0.42	3.24
C-NE	0.07	1.43
C-SB	2.03	10.71
C-WB	0.11	1.19

(a) Compositing replicate for I-C7.

(b) Not applicable.

TABLE D.21. Quality Control Data for Total Organic Carbon Analyses,
Oakland Phase III A Project Retest

<u>Sample</u>	<u>Total Organic Carbons (percent dry weight)</u>	<u>Total Volatile Solids (percent dry weight)</u>
<u>Analytical Blanks</u>		
Blank 1	NA ^(a)	0.00
Blank 2	NA	0.00
Blank 3	NA	0.00
Blank 4	NA	0.00
Blank 5	NA	0.00
<u>Standard Reference Material</u>		
MESS-1 Replicate 1	2.36	NA
MESS-1 Replicate 2	2.34	NA
MESS-1 Replicate 3	2.31	NA
RSD	1.08%	NA
<u>Analytical Replicates</u>		
I-C9 Replicate 1	0.82	NA
I-C9 Replicate 2	0.80	NA
RPD	2.47%	NA
I-Stat	0.01	NA
I-C12 Replicate 1	0.17	NA
I-C12 Replicate 2	0.17	NA
RPD	0.00%	NA
I-Stat	0.00	NA
I-C18 Replicate 1	0.06	NA
I-C18 Replicate 2	0.06	NA
RPD	0.00%	NA
I-Stat	0.00	NA
IT- 1 Replicate 1	1.33	NA
IT- 1 Replicate 2	1.32	NA
RPD	0.75%	NA
I-Stat	0.00	NA
C-NE Replicate 1	0.07	NA
C-NE Replicate 2	0.07	NA
RPD	0.00%	NA
I-Stat	0.00	NA

TABLE D.21. (Contd)

<u>Sample</u>	<u>Total Organic Carbons (percent dry weight)</u>	<u>Total Volatile Solids (percent dry weight)</u>
<u>Compositing Replicates</u>		
I-C7 Replicate 1	0.03	1.47
I-C7 Replicate 2 ^(b)	0.02	1.38
RPD	40.00%	6.32%
I-Stat	0.20	0.03
<u>Analytical Triplicates</u>		
I-T1 Replicate 1	NA	9.27
I-T1 Replicate 2	NA	9.53
I-T1 Replicate 3	NA	9.41
RSD	NA	1.38%

Note: MESS-1 is not certified for TOC, but frequent analyses at MSL indicate a TOC value of approximately 2.3%

(a) Not applicable.

(b) Compositing replicate for I-C7.

TABLE D.22. Summary of Sediment Grain Size, Oakland Phase III A Project Retest

Sediment Treatment	(percent dry weight)			
	Gravel ($>2000 \mu\text{m}$)	Sand ($62.5\text{-}2000 \mu\text{m}$)	Silt ($3.9\text{-}62.5 \mu\text{m}$)	Clay ($<3.9 \mu\text{m}$)
I-C3	0	94	2	4
I-C5	0	9	40	51
I-C7 Replicate 1	0	96	1	3
I-C7 Replicate 2 ^(a)	0	95	2	3
I-C8	0	83	9	8
I-C9	0	20	37	43
I-C10	0	89	4	7
I-C11	0	53	28	19
I-C12	0	82	6	12
I-C14	5	64	18	13
I-C15	0	38	39	23
I-C16	0	25	49	26
I-C17	0	39	35	26
I-C18	0	38	38	24
I-S1	0	4	30	66
I-T1	0	3	34	63
I-T3	0	86	5	9
R-AC	0	15	40	45
R-AM	4	94	1	1
R-BF	0	51	24	25
R-OS	0	32	46	22
R-PC	0	82	13	5
R-PF	0	61	28	11
C-SB	0	20	50	30
C-WB	0	98	1	1
C-NE	0	95	1	4

(a) Composite replicate I-C7.

TABLE D.23. Sediment Grain Size Results, Oakland Phase III A Project Retest

Sediment Treatment	phi μm	Percent at Size Fraction (dry weight)																
		3350-	2000-	1000-	500-	250-	125-	62.5-	48.0-	31.2-	23.0-	15.6-	7.8-	3.9-	1.9-	0.9-	0.4-	<12
		>3350	2000	1000	500	250	125	62.5	48.0	31.2	23.0	15.6	7.8	3.9	1.9	0.9	0.4	<0.2
I-C3		0	0	0	2	30	46	16	0	1	0	0	1	0	1	0	2	0
I-C5		0	0	0	0	2	4	3	0	5	8	7	10	10	9	12	9	20
I-C7 Replicate 1		0	0	0	1	35	53	7	0	0	0	0	1	0	0	1	0	2
I-C7 Replicate 2(a)		0	0	0	1	35	53	6	1	0	0	0	0	1	0	0	1	2
I-C8		0	0	0	0	15	55	13	2	4	2	0	1	0	1	2	0	5
I-C9		0	0	0	0	3	13	4	2	3	7	4	10	1	9	8	7	19
I-C10		0	0	0	0	29	54	6	1	0	1	0	1	1	1	2	3	0
I-C11		0	0	0	1	10	28	14	2	8	5	5	5	3	3	2	10	1
I-C12		0	0	0	0	25	50	7	0	1	0	2	0	3	2	3	2	5
I-C14		2	3	2	5	20	25	12	4	4	3	2	3	2	2	1	2	6
I-C15		0	0	1	0	5	14	18	9	8	5	5	7	5	4	3	3	12
I-C16		0	0	0	1	4	8	12	9	8	4	6	17	5	1	4	3	16
I-C17		0	0	0	1	9	17	12	2	6	7	5	8	7	4	3	3	14
I-C18		0	0	0	1	8	14	15	8	6	6	5	7	6	4	3	3	13
I-S1		0	0	0	1	0	1	2	0	1	4	2	11	12	12	12	10	32
I-T1		0	0	0	0	0	1	2	0	1	5	5	11	12	13	14	10	25
I-T3		0	0	0	1	31	48	6	1	0	1	0	2	1	1	1	2	5
R-AC		0	0	1	0	4	5	5	1	8	6	6	10	9	8	10	7	18
R-AM		2	2	5	23	49	17	0	0	0	0	0	0	1	0	0	0	1
R-BF		0	0	0	2	21	23	5	4	5	3	2	5	5	6	10	3	6
R-OS		0	0	0	0	3	3	26	18	7	6	3	7	5	4	4	4	9
R-PC		0	0	0	0	3	25	54	8	3	1	0	1	0	1	0	0	3
R-PF		0	0	0	0	0	5	56	20	4	2	1	0	1	0	1	1	3
C-S8		0	0	0	0	1	9	10	0	3	7	10	17	13	8	5	3	11
C-WB		0	0	0	0	22	71	5	0	1	0	0	0	0	0	0	0	1
C-NE		0	0	0	0	26	64	5	0	0	0	0	0	1	0	0	0	1

(a) Composite replicate I-C7.

TABLE D.24. Quality Control Data for Sediment Grain Size, Oakland Phase
III A Project Retest

<u>Sediment Treatment</u>	<u>(percent dry weight)</u>			
	<u>Gravel >2000 μm</u>	<u>Sand (62.5- 2000 μm)</u>	<u>Silt (3.9- 62.5 μm)</u>	<u>Clay <3.9 μm</u>
<u>Analytical Replicates</u>				
I-C8 Replicate 1	0	83	9	8
I-C8 Replicate 2	0	83	9	8
RPD	0.00%	0.00%	0.00%	0.00%
I-Stat	0.00	0.00	0.00	0.00
I-C17 Replicate 1	0	39	35	26
I-C17 Replicate 2	1	38	34	27
RPD	200%	3%	3%	4%
I-Stat	1.00	0.01	0.01	0.02
I-S1 Replicate 1	0	4	30	66
I-S1 Replicate 2	0	4	31	65
RPD	0%	0%	3%	2%
I-Stat	0.00	0.00	0.02	0.01
R-PF Replicate 1	0	61	28	11
R-PF Replicate 2	0	60	33	7
RPD	0%	2%	16%	44%
I-Stat	0.00	0.01	0.08	0.22
<u>Compositing Replicates</u>				
I-C7 Replicate 1	0	96	1	3
I-C7 Replicate 2 ^(a)	0	95	2	3
RPD	0%	1%	67%	0%
I-Stat	0.00	0.01	0.33	0.00

(a) Composite replicate I-C7.

APPENDIX E

BIOASSAY RESULTS FOR 10-DAY SOLID-PHASE FLOW-THROUGH TEST WITH *M. nasuta* AND *N. caecoides*

TABLE E.1. Bioassay Results for 10-Day *M. nasuta* Solid-Phase Test,
Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
AC-3	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
I-C4	1	23	2	0.97
	2	25	0	
	3	24	1	
	4	24	1	
	5	25	0	
I-C5	1	24	1	0.99
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
I-C7	1	25	0	0.99
	2	25	0	
	3	24	1	
	4	26 ^(a)	0	
	5	25	0	
I-C8	1	24	1	0.88
	2	21	4	
	3	19	6	
	4	22	3	
	5	24	1	
I-C9	1	25	0	0.97
	2	23	2	
	3	24	1	
	4	ND ^(b)	ND	
	5	25	0	

TABLE E.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C10	1	25	0	0.99
	2	25	0	
	3	25	0	
	4	25	0	
	5	24	1	
I-C11	1	24	1	0.97
	2	24	1	
	3	25	0	
	4	25	0	
	5	23	2	
I-C12	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
I-C14	1	25	0	0.96
	2	22	3	
	3	25	0	
	4	25	0	
	5	23	2	
I-C15	1	25	0	0.99
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	
I-C16	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
I-C17	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	

TABLE E.1. (Contd)

Sediment Treatment	Replicates	<i>M. nasuta</i>		Mean Proportion Surviving
		Live	Dead or Missing	
I-C18	1	25	0	0.99
	2	24	1	
	3	25	0	
	4	25	0	
	5	25	0	
I-S1	1	25	0	0.96
	2	24	1	
	3	23	2	
	4	24	1	
	5	24	1	
I-T1	1	25	0	0.99
	2	24	1	
	3	25	0	
	4	25	0	
	5	25	0	
I-T3	1	25	0	0.99
	2	25	0	
	3	24	1	
	4	25	0	
	5	25	0	
I-T5	1	25	0	1.00
	2	23 ^(c)	0	
	3	25	0	
	4	25	0	
	5	25	0	
R-AC	1	23	2	0.95
	2	25	0	
	3	24	1	
	4	23	2	
	5	24	1	
R-AM	1	25	0	0.99
	2	24	1	
	3	25	0	
	4	25	0	
	5	25	0	

TABLE E.1. (Contd)

Sediment Treatment	Replicates	<u>M. nasuta</u>		Mean Proportion Surviving
		Live	Dead or Missing	
R-BF	1	24	1	0.98
	2	25	0	
	3	25	0	
	4	25	0	
	5	23	2	
R-PC	1	25	0	0.98
	2	25	0	
	3	24	1	
	4	24	1	
	5	25	0	
R-PF	1	24	1	0.98
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	
C-SB	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
C-WB	1	25	0	1.00
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
C-NE	1	25	0	0.99
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	

(a) Inadvertently initiated more than 25 organisms.

(b) No data.

(c) Only 23 *M. nasuta* initiated.

TABLE E.2. Rank Order Based on Number Surviving the 10-Day
M. nasuta Solid-Phase Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Proportion Surviving (all replicates)</u>
I-C8	0.88
R-AC	0.95
I-C14	0.96
I-S1	0.96
I-C4	0.97
I-C11	0.97
I-C9	0.97
R-BF	0.98
R-PC	0.98
R-PF	0.98
I-C18	0.99
I-T1	0.99
I-T3	0.99
R-AM	0.99
I-C15	0.99
I-C10	0.99
I-C5	0.99
I-C7	0.99
C-NE	0.99
I-T5	1.00
I-C17	1.00
AC-3	1.00
AC-1	1.00
I-C12	1.00
I-C16	1.00
C-SB	1.00
C-WB	1.00

TABLE E.3. Bioassay Results for 10-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	24	6	0.83
	2	26	4	
	3	24	6	
	4	26	4	
	5	25	5	
AC-3	1	28	2	0.87
	2	24	6	
	3	25	5	
	4	27	3	
	5	27	3	
I-C4	1	17	13	0.66
	2	25	5	
	3	20	10	
	4	21	9	
	5	16	14	
I-C5 ^(a)	1	14	6	0.69
	2	15	5	
	3	14	6	
	4	11	9	
	5	15	5	
I-C7	1	25	5	0.91
	2	30	0	
	3	26	4	
	4	29	1	
	5	27	3	
I-C8	1	17	13	0.65
	2	20	10	
	3	21	9	
	4	14	16	
	5	25	5	
I-C9	1	26	4	0.87
	2	22	8	
	3	29	1	
	4	28	2	
	5	25	5	

TABLE E.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C10	1	29	1	0.92
	2	29	1	
	3	25	5	
	4	29	1	
	5	26	4	
I-C11	1	30	0	0.93
	2	28	2	
	3	28	2	
	4	27	3	
	5	26	4	
I-C12	1	28	2	0.97
	2	27	3	
	3	30	0	
	4	30	0	
	5	30	0	
I-C14	1	23	7	0.87
	2	27	3	
	3	26	4	
	4	28	2	
	5	27	3	
I-C15	1	25	5	0.91
	2	27	3	
	3	30	0	
	4	26	4	
	5	28	2	
I-C16	1	24	6	0.83
	2	26	4	
	3	26	4	
	4	27	3	
	5	21	9	
I-C17	1	28	2	0.82
	2	26	4	
	3	22	8	
	4	22	8	
	5	25	5	

TABLE E.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C18	1	15	15	0.55
	2	18	12	
	3	16	14	
	4	13	17	
	5	20	10	
I-S1 ^(a)	1	15	5	0.68
	2	12	8	
	3	14	6	
	4	12	8	
	5	15	5	
I-T1 ^(a)	1	19	1	0.70
	2	13	7	
	3	11	9	
	4	14	6	
	5	13	7	
I-T3 ^(a)	1	19	1	0.72
	2	12	8	
	3	11	9	
	4	18	2	
	5	12	8	
I-T5 ^(a)	1	17	3	0.70
	2	19	1	
	3	8	12	
	4	15	5	
	5	11	9	
R-AC ^(a)	1	19	1	0.90
	2	14	6	
	3	18	2	
	4	20	0	
	5	19	1	
R-AM ^(a)	1	7	13	0.53
	2	8	12	
	3	17	3	
	4	10	10	
	5 ^(b)	0	20	

TABLE E.3. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i>		Mean Proportion Surviving
		Live	Dead or Missing	
R-BF	1	29	1	0.87
	2	23	7	
	3	26	4	
	4	25	5	
	5	27	3	
R-PC ^(a)	1	18	2	0.94
	2	21 ^(c)	0	
	3	18	2	
	4	19	1	
	5	19	1	
R-PF ^(a)	1	22 ^(c)	0	0.99
	2	20	0	
	3	21 ^(c)	0	
	4	20	0	
	5	19	1	
C-SB	1	30	0	0.94
	2	28	2	
	3	29	1	
	4	28	2	
	5	26	4	
C-WB	1	29	1	0.97
	2	28	2	
	3	29	1	
	4	29	1	
	5	30	0	
C-NE	1	16	4	0.86
	2	19	1	
	3	19	1	
	4	20	0	
	5	12	8	

(a) Insufficient number of test organisms to initiate 30 *N. caecoides*/replicate.

(b) Suspect data were not used in mean proportion surviving calculation or statistics.

(c) Inadvertently initiated more than 20 organisms.

TABLE E.4. Rank Order Based on Number Surviving the 10-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Proportion Surviving (all replicates)</u>
R-AM	0.53
I-C18	0.55
I-C8	0.65
I-C4	0.66
I-S1	0.68
I-C5	0.69
I-T1	0.70
I-T5	0.70
I-T3	0.72
I-C17	0.82
I-C16	0.83
AC-1	0.83
C-NE	0.86
I-C9	0.87
R-BF	0.87
AC-3	0.87
I-C14	0.87
R-AC	0.90
I-C15	0.91
I-C7	0.91
I-C10	0.92
I-C11	0.93
C-SB	0.94
R-PC	0.94
C-WB	0.97
I-C12	0.97
R-PF	0.99

TABLE E.5. Water Quality Summary for 10-Day *M. nasuta*/*N. caecoides* Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	29.0	33.0	110	130
AC-1	14.6	16.0	7.83	8.10	7.0	7.9	30.5	32.0	114	128
AC-3	14.6	15.7	7.84	8.06	7.1	8.7	30.0	32.0	108 ^(a)	180 ^(a)
I-C4	14.6	15.7	7.63	8.10	6.5	8.0	31.0	32.0	114	128
I-C5	14.6	15.8	6.92 ^(a)	8.12	7.1	8.0	30.5	32.0	114	126
I-C7	14.6	16.3	7.07 ^(a)	8.10	6.7	7.9	30.0	32.0	102 ^(a)	150 ^(a)
I-C8	14.7	15.7	7.80	8.15	7.1	8.0	30.0	32.0	112	126
I-C9	14.4	16.0	7.84	8.12	7.2	7.9	30.0	32.0	108 ^(a)	180 ^(a)
I-C10	14.7	16.0	7.83	8.10	7.2	8.0	30.5	32.0	114	162 ^(a)
I-C11	14.5	15.8	7.76	8.09	6.9	7.9	30.0	32.0	90 ^(a)	126
I-C12	14.6	16.0	7.79	8.09	7.2	8.0	30.5	32.0	114	132 ^(a)
I-C14	14.6	16.3	7.85	8.11	7.2	8.9	30.5	32.0	114	126
I-C15	14.6	15.8	7.83	8.10	6.6	7.9	30.5	32.0	114	128
I-C16	14.6	16.0	7.80	8.12	6.7	7.9	30.5	32.0	114	126
I-C17	14.7	15.8	7.82	8.13	6.2	7.9	30.5	32.0	114	126
I-C18	14.6	16.0	7.86	8.12	7.2	7.9	30.0	32.0	112	126
I-S1	14.7	15.8	7.43	8.16	6.9	7.9	30.0	32.0	100 ^(a)	129
I-T1	14.0	15.7	7.76	8.14	6.8	7.8	31.0	32.0	114	126
I-T3	14.7	15.7	7.67	8.13	6.5	7.7	31.0	32.0	114	132 ^(a)
I-T5	14.7	15.7	7.65	8.12	6.3	7.8	30.5	32.0	114	128
R-AC	14.6	15.8	7.37 ^(a)	8.17	6.0	7.8	31.0	32.0	111	128
R-AM	14.5	15.9	7.82	8.13	7.0	7.9	30.5	32.0	114	126
R-BF	14.5	15.8	7.75	8.09	5.7	7.8	30.0	32.0	76 ^(a)	152 ^(a)
R-PC	14.7	15.9	7.43	8.16	6.9	7.9	30.0	32.0	111	128
R-PF	14.5	15.7	7.39 ^(a)	8.18	6.9	7.9	30.0	32.0	111	150 ^(a)
C-SB	14.7	16.0	7.84	8.07	6.8	7.9	30.5	32.0	114	300 ^(a)
C-WB	14.6	16.0	7.63	8.09	7.2	7.8	30.5	32.0	90 ^(a)	144 ^(a)
C-NE	14.4	15.7	7.82	8.15	6.9	7.9	30.5	32.0	114	128

(a) Data point out of range.

TABLE E.6. Daily Observations of *M. nasuta* on Sediment Surface During 10-Day Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
AC-1	1	5	5	5	6	2	2	2	3	T ^(a)	1	TRM ^(b)	TRM	TRM
AC-1	2	2	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	3	1 ^(c)	1	1	1	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	4	3 ^(c)	0	0	1	1	0	0	1	1	0	0	TRM	TRM
AC-1	5	1	1	1	1	1	1	1	2	0	0	TRM	TRM	TRM
AC-3	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	2	0 ^(c)	0	1	1	1	1	1	1	2	1	1	TRM	TRM
AC-3	3	0 ^(c)	0	0	0	1	0	0	1	0	0	0	TRM	TRM
AC-3	4	1 ^(c)	2	0	0	1	0	0	0	0	0	0	TRM	TRM
AC-3	5	4 ^(c)	3	1	2	1	0	0	0	0	0	0	TRM	TRM
I-C4	1	8	7	7	6	3	5	3	4	4	3	TRM	TRM	TRM
I-C4	2	8	3	5	5	3	2	2	1	2	2	TRM	TRM	TRM
I-C4	3	1	1	1	2	7	2	1	1	1	0	TRM	TRM	TRM
I-C4	4	0	0	0	2	1	1	2	0	2	4	TRM	TRM	TRM
I-C4	5	0	0	0	1	0	3	1	1	2	1	TRM	TRM	TRM
I-C5	1	2	2	1	2	2	2	2	1	0	1	TRM	TRM	TRM
I-C5	2	6	1	2	3	2	3	1	2	1	0	TRM	TRM	TRM
I-C5	3	5	3	1	2	1	0	0	1	1	1	TRM	TRM	TRM
I-C5	4	12	14	12	11	13	11	10	4	10	10	TRM	TRM	TRM
I-C5	5	2	0	0	0	0	1	0	0	0	0	TRM	TRM	TRM
I-C7	1	2 ^(c)	3	3	2	3	3	2	2	3	4	1	TRM	TRM
I-C7	2	2 ^(c)	2	3	3	3	4	2	1	3	3	1	TRM	TRM
I-C7	3	1 ^(c)	4	4	3	4	4	4	2	3	3	3	TRM	TRM
I-C7	4	3 ^(c)	2	2	ND ^(d)	0	0	0	0	2	0	2	TRM	TRM
I-C7	5	0 ^(c)	0	0	0	0	1	0	0	0	1	1	TRM	TRM
I-C8	1	6	2	2	3	7	5	5	3	1	1	TRM	TRM	TRM
I-C8	2	6	5	4	5	6	6	2	2	3	3	TRM	TRM	TRM
I-C8	3	3	2	1	4	5	2	1	2	3	2	TRM	TRM	TRM
I-C8	4	5	4	6	7	8	7	4	5	4	1	TRM	TRM	TRM
I-C8	5	4	2	2	4	5	3	2	2	2	0	TRM	TRM	TRM
I-C9	1	0 ^(c)	0	0	0	0	0	0	1	1	0	0	TRM	TRM
I-C9	2	ND	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	3	0 ^(c)	0	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C9	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	5	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	1	0 ^(c)	6	6	5	5	3	3	2	3	0	1	TRM	TRM
I-C10	2	5 ^(c)	5	6	6	3	3	2	3	2	5	2	TRM	TRM
I-C10	3	1 ^(c)	2	2	2	5	2	1	3	2	3	2	TRM	TRM
I-C10	4	8 ^(c)	6	7	7	5	6	4	4	4	4	4	TRM	TRM
I-C10	5	0	1	2	2	2	3	3	3	1	2	2	TRM	TRM
I-C11	1	0	0	0	1	0	1	0	3	3	3	3	TRM	TRM
I-C11	2	0	0	0	0	3	2	1	1	T	3	2	TRM	TRM
I-C11	3	0	0	0	0	0	0	0	0	1	1	TRM	TRM	TRM
I-C11	4	1	0	T	0	0	0	0	T	T	T	2	TRM	TRM
I-C11	5	ND	2	0	2	0	0	0	2	1	0	0	TRM	TRM
I-C12	1	1	2	0	0	1	2	4	4	3	3	3	TRM	TRM
I-C12	2	0	0	0	1	0	T	1	1	2	2	3	TRM	TRM
I-C12	3	4	3	4	3	4	5	3	5	7	6	5	TRM	TRM
I-C12	4	1	3	1	1	3	2	2	2	2	2	TRM	TRM	TRM
I-C12	5	0	0	1	0	3	3	3	4	6	4	3	TRM	TRM

TABLE E.6. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
I-C14	1	0	T	0	0	0	0	0	0	0	1	TRM	TRM	TRM
I-C14	2	T	T	0	2	3	1	1	2	3	3	TRM	TRM	TRM
I-C14	3	T	1	0	1	T	1	T	1	1	1	TRM	TRM	TRM
I-C14	4	0	0	T	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	5	T	6	6	5	4	5	1	3	3	T	TRM	TRM	TRM
I-C15	1	0	0	T	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	2	0	0	0	0	0	1	T	2	1	0	TRM	TRM	TRM
I-C15	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	4	T	1	0	1	2	0	0	2	2	2	TRM	TRM	TRM
I-C15	5	0	0	0	0	0	0	0	0	0	1	TRM	TRM	TRM
I-C16	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	2	4	4	3	2	2	1	0	0	0	0	TRM	TRM	TRM
I-C16	3	3	T	2	1	2	2	2	1	0	0	TRM	TRM	TRM
I-C16	4	2	1	1	1	1	1	1	2	1	2	TRM	TRM	TRM
I-C16	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	1	T	T	T	T	T	T	0	0	1	0	TRM	TRM	TRM
I-C17	2	0	0	0	0	0	0	T	0	0	T	TRM	TRM	TRM
I-C17	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	4	T	T	0	T	3	0	0	2	2	0	TRM	TRM	TRM
I-C17	5	0	0	0	0	0	0	1	2	1	1	TRM	TRM	TRM
I-C18	1	T	2	2	1	2	2	1	2	2	2	TRM	TRM	TRM
I-C18	2	T	0	0	0	0	0	0	0	2	1	TRM	TRM	TRM
I-C18	3	2	0	0	0	1	2	0	1	1	1	TRM	TRM	TRM
I-C18	4	1	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	5	1	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-S1	1	5	4	3	3	0	2	0	1	0	0	1	0	0
I-S1	2	13	13	12	10	9	8	0	6	4	4	5	4	4
I-S1	3	T	12	12	10	11	13	9	8	7	3	9	2	2
I-S1	4	3	1	1	1	0	0	0	0	0	0	1	0	0
I-S1	5	0	0	0	0	0	0	0	0	0	0	0	0	0
I-T1	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	2	1	1	1	1	1	0	2	0	0	0	TRM	TRM	TRM
I-T1	3	1	0	0	1	0	1	0	0	1	1	TRM	TRM	TRM
I-T1	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	1	T	0	0	1	1	0	0	1	2	3	TRM	TRM	TRM
I-T3	2	0	2	0	0	0	0	1	0	0	T	TRM	TRM	TRM
I-T3	3	2	T	0	0	T	0	0	2	1	1	TRM	TRM	TRM
I-T3	4	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM
I-T3	5	0	0	0	0	0	0	0	1	T	1	TRM	TRM	TRM
I-T5	1	1	0	3	2	0	2	1	1	1	1	TRM	TRM	TRM
I-T5	2	0	0	0	0	1	1	T	0	2	1	TRM	TRM	TRM
I-T5	3	1	0	1	0	0	0	1	1	0	0	TRM	TRM	TRM
I-T5	4	0	0	0	0	T	2	T	T	0	T	TRM	TRM	TRM
I-T5	5	2	1	1	1	1	0	2	1	1	1	TRM	TRM	TRM
R-AC	1	1	0	0	0	0	0	1	0	0	0	0	0	0
R-AC	2	0	1	0	0	0	1	0	0	0	0	0	0	0
R-AC	3	0	0	0	ND	0	0	ND	0	0	1	0	0	1
R-AC	4	0	0	0	1	1	0	0	0	0	0	0	0	0
R-AC	5	1	0	0	0	0	0	0	0	1	0	0	0	0

TABLE E.6. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
R-AM	1	3	1	6	6	8	6	5	3	4	2	TRM	TRM	TRM
R-AM	2	8	5	6	7	7	5	3	5	6	6	TRM	TRM	TRM
R-AM	3	3	3	4	4	5	6	6	6	8	6	TRM	TRM	TRM
R-AM	4	4	4	5	5	7	4	5	6	4	2	TRM	TRM	TRM
R-AM	5	4	4	6	6	5	3	0	3	5	4	TRM	TRM	TRM
R-BF	1	0	0	0	0	1	1	1	0	0	0	0	TRM	TRM
R-BF	2	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	4	0	0	0	0	0	1	1	0	0	0	0	TRM	TRM
R-BF	5	0(c)	0	0	0	0	0	0	0	0	0	1	TRM	TRM
R-PC	1	0	1	1	1	2	1	2	1	3	1	2	2	2
R-PC	2	0	1	0	0	0	0	0	0	1	1	1	1	0
R-PC	3	0	0	0	0	0	0	0	0	0	1	0	0	0
R-PC	4	1	1	1	3	2	4	2	1	0	0	0	4	3
R-PC	5	1	0	0	0	0	1	0	0	0	0	0	0	0
R-PF	1	0	0	1	1	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	1	1	2	1
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	1	0
R-PF	4	0	0	0	0	0	0	0	1	ND	1	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	1	0
C-SB	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	2	0	0	0	0	0	0	0	0	0	0	2	TRM	TRM
C-SB	3	0(c)	0	0	0	0	0	0	0	0	1	1	TRM	TRM
C-SB	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	1	4(c)	7	5	5	5	7	4	3	3	6	5	TRM	TRM
C-WB	2	1	0	0	0	2	1	2	1	0	4	2	TRM	TRM
C-WB	3	2	4	3	0	3	3	3	5	4	2	3	TRM	TRM
C-WB	4	0	2	1	1	0	3	2	1	4	2	1	TRM	TRM
C-WB	5	0	0	1	1	2	4	3	3	3	1	4	TRM	TRM
C-NE	1	1	1	1	1	3	0	1	1	0	0	TRM	TRM	TRM
C-NE	2	1	0	0	1	1	0	0	0	2	1	TRM	TRM	TRM
C-NE	3	3	1	2	2	3	1	1	1	1	1	TRM	TRM	TRM
C-NE	4	2	3	2	3	1	2	3	2	3	1	TRM	TRM	TRM
C-NE	5	0	0	0	0	0	1	2	1	1	1	TRM	TRM	TRM

(a) Too turbid to see.

(b) Terminated: end of 10-day test.

(c) Observations performed on initiation day.

(d) No data.

TABLE E.7. Daily Observations of *M. nasuta* Siphon Exposed During 10-Day Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
AC-1	1	15	14	14	14	6	8	2	4	7 ^(a)	3	TRM ^(b)	TRM	TRM
AC-1	2	15	10	5	8	1	4	2	7	0	3	TRM	TRM	TRM
AC-1	3	12 ^(c)	11	8	9	5	2	2	0	0	1	TRM	TRM	TRM
AC-1	4	3 ^(c)	5	10	2	4	3	3	3	2	0	0	TRM	TRM
AC-1	5	12	12	9	13	5	6	4	6	7	0	TRM	TRM	TRM
AC-3	1	8	5	10	6	2	5	2	2	2	0	1	TRM	TRM
AC-3	2	5 ^(c)	6	10	8	6	6	5	5	3	3	1	TRM	TRM
AC-3	3	7 ^(c)	2	3	2	2	6	6	5	3	2	4	TRM	TRM
AC-3	4	8 ^(c)	15	8	8	6	5	3	2	1	1	2	TRM	TRM
AC-3	5	15 ^(c)	10	9	7	3	7	5	5	4	3	9	TRM	TRM
I-C4	1	16	25	17	14	6	11	9	9	7	4	TRM	TRM	TRM
I-C4	2	6	14	15	11	11	7	7	7	8	6	TRM	TRM	TRM
I-C4	3	4	7	8	7	7	5	4	1	2	0	TRM	TRM	TRM
I-C4	4	6	6	7	6	2	3	3	10	6	3	TRM	TRM	TRM
I-C4	5	4	5	4	2	2	1	2	2	4	2	TRM	TRM	TRM
I-C5	1	8	7	8	5	2	2	2	2	1	2	TRM	TRM	TRM
I-C5	2	7	8	12	3	5	4	9	10	3	1	TRM	TRM	TRM
I-C5	3	4	13	10	3	4	6	3	2	3	2	TRM	TRM	TRM
I-C5	4	15	11	20	14	13	11	15	8	7	12	TRM	TRM	TRM
I-C5	5	0	4	8	6	5	5	0	3	1	0	TRM	TRM	TRM
I-C7	1	10 ^(c)	13	17	9	7	7	7	4	5	6	5	TRM	TRM
I-C7	2	0 ^(c)	3	7	4	4	3	3	4	4	5	4	TRM	TRM
I-C7	3	3 ^(c)	3	3	3 ^(d)	5	4	6	2	1	5	5	TRM	TRM
I-C7	4	4 ^(c)	4	1	NO ^(d)	2	2	6	2	2	0	5	TRM	TRM
I-C7	5	0 ^(c)	1	3	1	0	0	1	3	4	0	1	TRM	TRM
I-C8	1	5	6	12	10	10	5	9	9	0	2	TRM	TRM	TRM
I-C8	2	10	14	13	10	10	9	6	4	4	6	TRM	TRM	TRM
I-C8	3	8	13	7	5	5	1	5	3	3	3	TRM	TRM	TRM
I-C8	4	13	15	12	9	11	9	6	4	4	2	TRM	TRM	TRM
I-C8	5	7	3	8	7	4	0	5	1	0	1	TRM	TRM	TRM
I-C9	1	2 ^(c)	3	0	1	1	0	1	3	0	0	0	TRM	TRM
I-C9	2	2 ^(c)	8	6	7	4	8	8	6	4	4	3	TRM	TRM
I-C9	3	9 ^(c)	14	5	7	2	6	3	6	1	3	3	TRM	TRM
I-C9	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	5	3 ^(c)	5	6	4	1	2	6	3	0	0	1	TRM	TRM
I-C10	1	10 ^(c)	5	10	7	7	6	7	9	2	2	3	TRM	TRM
I-C10	2	10 ^(c)	11	10	11	2	6	7	2	2	5	5	TRM	TRM
I-C10	3	0 ^(c)	6	10	4	8	6	3	4	3	0	4	TRM	TRM
I-C10	4	10 ^(c)	16	11	13	9	10	6	5	5	6	9	TRM	TRM
I-C10	5	5	10	13	11	7	8	9	7	4	5	4	TRM	TRM
I-C11	1	5	14	1	2	0	1	4	1	3	3	5	TRM	TRM
I-C11	2	0	2	2	1	1	5	4	4	7	5	2	TRM	TRM
I-C11	3	1	4	2	1	1	1	1	2	0	1	TRM	TRM	TRM
I-C11	4	9	2	7	1	2	3	2	7	7	7	0	TRM	TRM
I-C11	5	3	4	7	4	1	6	3	2	2	5	3	TRM	TRM
I-C12	1	2	7	2	5	3	3	3	3	4	0	2	TRM	TRM
I-C12	2	5	1	0	0	0	7	2	4	2	4	3	TRM	TRM
I-C12	3	10	3	6	4	3	6	4	4	4	4	6	TRM	TRM
I-C12	4	2	1	2	3	4	2	5	5	5	5	TRM	TRM	TRM
I-C12	5	4	1	2	1	1	2	7	6	8	5	5	TRM	TRM

TABLE E.7. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
I-C14	1	4	T	3	9	3	7	8	3	0	2	TRM	TRM	TRM
I-C14	2	T	T	7	8	3	6	11	5	5	3	TRM	TRM	TRM
I-C14	3	T	4	4	5	T	4	T	3	9	5	TRM	TRM	TRM
I-C14	4	0	2	T	2	2	2	4	2	0	0	TRM	TRM	TRM
I-C14	5	T	6	11	10	7	11	11	8	13	T	TRM	TRM	TRM
I-C15	1	0	1	T	0	1	6	1	0	5	8	TRM	TRM	TRM
I-C15	2	0	6	4	7	4	4	T	3	0	11	TRM	TRM	TRM
I-C15	3	T	2	4	3	1	2	5	10	1	0	TRM	TRM	TRM
I-C15	4	T	4	2	4	4	4	6	6	4	3	TRM	TRM	TRM
I-C15	5	0	2	2	7	5	2	6	5	4	0	TRM	TRM	TRM
I-C16	1	7	6	7	5	2	8	4	2	1	6	TRM	TRM	TRM
I-C16	2	6	15	13	17	6	10	7	8	4	8	TRM	TRM	TRM
I-C16	3	7	T	14	7	0	5	7	11	2	0	TRM	TRM	TRM
I-C16	4	10	9	14	11	6	12	12	7	3	0	TRM	TRM	TRM
I-C16	5	5	2	2	2	0	2	4	4	1	3	TRM	TRM	TRM
I-C17	1	T	T	T	T	T	T	2	5	3	3	TRM	TRM	TRM
I-C17	2	0	3	2	2	4	3	T	0	0	T	TRM	TRM	TRM
I-C17	3	T	0	1	2	0	2	5	3	0	0	TRM	TRM	TRM
I-C17	4	T	T	4	T	2	7	7	3	3	2	TRM	TRM	TRM
I-C17	5	1	2	5	1	3	5	6	6	2	1	TRM	TRM	TRM
I-C18	1	T	7	7	5	5	8	8	8	6	5	TRM	TRM	TRM
I-C18	2	T	3	1	4	2	1	3	7	3	1	TRM	TRM	TRM
I-C18	3	4	10	11	10	9	10	10	11	2	8	TRM	TRM	TRM
I-C18	4	3	7	8	8	6	7	7	1	2	0	TRM	TRM	TRM
I-C18	5	1	5	4	4	0	3	2	4	1	4	TRM	TRM	TRM
I-S1	1	11	19	9	8	4	3	8	5	4	5	5	5	2
I-S1	2	10	22	21	12	11	6	6	8	12	8	7	6	7
I-S1	3	T	19	14	10	10	13	7	5	6	7	5	7	5
I-S1	4	11	14	14	13	7	5	6	4	8	4	5	5	6
I-S1	5	4	6	7	2	5	1	1	2	2	2	1	3	1
I-T1	1	5	6	4	4	1	3	1	0	0	0	TRM	TRM	TRM
I-T1	2	2	6	6	2	2	0	4	0	0	1	TRM	TRM	TRM
I-T1	3	4	1	2	5	2	3	3	2	1	2	TRM	TRM	TRM
I-T1	4	0	2	3	2	0	0	1	0	0	1	TRM	TRM	TRM
I-T1	5	0	5	3	3	0	1	0	1	0	0	TRM	TRM	TRM
I-T3	1	T	5	2	2	2	3	3	0	1	6	TRM	TRM	TRM
I-T3	2	1	2	3	4	1	0	4	3	0	T	TRM	TRM	TRM
I-T3	3	2	T	4	0	T	2	2	4	6	3	TRM	TRM	TRM
I-T3	4	0	6	10	3	3	0	2	1	5	3	TRM	TRM	TRM
I-T3	5	2	9	9	6	1	0	1	T	T	0	TRM	TRM	TRM
I-T5	1	2	4	7	4	0	4	3	2	5	0	TRM	TRM	TRM
I-T5	2	5	11	9	4	3	2	T	2	3	0	TRM	TRM	TRM
I-T5	3	3	8	8	4	3	1	5	2	1	1	TRM	TRM	TRM
I-T5	4	3	3	4	3	T	3	T	T	0	T	TRM	TRM	TRM
I-T5	5	5	9	6	5	4	2	4	3	1	1	TRM	TRM	TRM
R-AC	1	1	1	0	1	1	0	0	0	0	0	1	0	0
R-AC	2	4	7	8	5	3	3	2	2	1	2	2	1	2
R-AC	3	2	4	3	ND	3	3	ND	1	2	0	1	2	1
R-AC	4	1	4	7	2	0	0	0	0	0	0	0	3	0
R-AC	5	1	2	0	2	2	0	3	1	1	2	2	1	1

TABLE E.7. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
R-AM	1	7	5	12	9	9	12	6	8	4	9	TRM	TRM	TRM
R-AM	2	8	9	10	13	15	11	7	9	11	12	TRM	TRM	TRM
R-AM	3	4	3	3	3	8	8	12	6	3	6	TRM	TRM	TRM
R-AM	4	5	9	8	10	11	6	9	9	7	4	TRM	TRM	TRM
R-AM	5	6	9	11	8	4	6	5	8	4	1	TRM	TRM	TRM
R-BF	1	0	1	4	2	5	3	4	2	1	1	1	TRM	TRM
R-BF	2	0	2	4	2	0	2	3	1	2	0	0	TRM	TRM
R-BF	3	0	0	2	3	1	3	2	1	1	1	1	TRM	TRM
R-BF	4	0	0	2	0	3	4	1	3	0	0	1	TRM	TRM
R-BF	5	0(c)	1	4	0	0	1	0	1	0	1	0	TRM	TRM
R-PC	1	1	6	5	6	4	2	7	3	3	3	2	5	6
R-PC	2	1	0	2	4	2	0	0	0	2	0	2	4	0
R-PC	3	2	2	0	0	1	0	0	4	3	1	5	2	0
R-PC	4	6	10	4	5	5	3	6	5	3	7	5	9	4
R-PC	5	2	3	0	0	0	2	1	3	0	2	1	6	4
R-PF	1	4	3	4	1	2	0	0	0	0	0	1	1	0
R-PF	2	0	3	1	2	2	0	1	3	0	1	4	3	1
R-PF	3	0	5	3	1	4	1	3	2	1	0	1	5	0
R-PF	4	1	1	1	1	0	0	0	1	ND	1	0	2	0
R-PF	5	1	3	3	4	0	0	1	2	2	1	1	1	3
C-SB	1	0	0	1	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	2	2	2	2	3	3	4	2	2	0	0	4	TRM	TRM
C-SB	3	1(c)	1	1	0	1	2	1	0	4	1	4	TRM	TRM
C-SB	4	0	3	0	2	0	2	0	1	0	0	0	TRM	TRM
C-SB	5	0	0	3	4	2	0	4	5	1	0	1	TRM	TRM
C-WB	1	7(c)	8	12	6	7	14	14	6	7	3	7	TRM	TRM
C-WB	2	9	8	4	3	5	9	4	2	5	5	5	TRM	TRM
C-WB	3	10	5	2	3	8	10	5	7	6	4	4	TRM	TRM
C-WB	4	4	6	9	7	3	8	8	0	4	3	6	TRM	TRM
C-WB	5	5	3	2	4	1	7	5	3	4	7	7	TRM	TRM
C-NE	1	1	4	2	2	0	0	3	2	3	1	TRM	TRM	TRM
C-NE	2	4	1	2	1	2	1	2	4	7	2	TRM	TRM	TRM
C-NE	3	5	4	5	4	3	4	3	2	2	3	TRM	TRM	TRM
C-NE	4	0	3	6	4	0	2	3	3	1	0	TRM	TRM	TRM
C-NE	5	1	2	1	0	1	4	5	0	3	1	TRM	TRM	TRM

(a) Too turbid to see.

(b) Terminated: end of 10-day test.

(c) Observations performed on initiation day.

(d) No data.

TABLE E.8. Daily Observations of *M. nasuta* Number Removed During 10-Day Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>M. nasuta</i> Number Removed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
AC-1	1	0	0	ND ^(a)	0	0	0	0	0	T ^(b)	0	TRM ^(c)	TRM	TRM
AC-1	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	3	0 ^(d)	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-1	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	2	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	3	0	0	0	0	0	0	0	0	0	0	0	0	TRM
AC-3	4	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C4	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	3	0	0	0	0	T	0	0	0	0	0	TRM	TRM	TRM
I-C4	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	1	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	2	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	3	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	4	0 ^(d)	0	0	ND	0	0	0	0	0	0	0	TRM	TRM
I-C7	5	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C8	1	0	0	0	0	0	1	0	0	0	0	TRM	TRM	TRM
I-C8	2	0	0	0	1	1	0	0	1	0	0	TRM	TRM	TRM
I-C8	3	0	1	0	0	2	1	0	0	0	0	TRM	TRM	TRM
I-C8	4	0	0	1	0	0	1	0	1	0	0	TRM	TRM	TRM
I-C8	5	0	0	0	0	0	0	0	1	0	0	TRM	TRM	TRM
I-C9	1	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	2	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	3	0 ^(d)	0	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C9	4	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	5	0 ^(d)	0	0	4	0	0	0	0	0	0	0	TRM	TRM
I-C10	1	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	2	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	3	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	4	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C11	1	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C11	2	0	0	0	0	0	0	0	0	T	1	0	TRM	TRM
I-C11	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	4	0	0	T	0	0	0	0	T	T	T	0	TRM	TRM
I-C11	5	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C12	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	2	0	0	0	0	0	T	0	0	0	0	0	TRM	TRM
I-C12	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM

TABLE E.8. (Contd)

Sediment Treatment	Replicate	M. nasuta Number Removed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
I-C14	1	0	T	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	2	T	T	0	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	3	T	0	0	0	T	0	T	0	0	0	TRM	TRM	TRM
I-C14	4	0	0	T	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	5	T	0	0	0	0	1	0	1	0	T	TRM	TRM	TRM
I-C15	1	0	0	T	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	2	0	0	0	0	0	0	T	0	0	0	TRM	TRM	TRM
I-C15	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	4	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	3	0	T	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	1	T	T	T	T	T	T	0	0	0	0	TRM	TRM	TRM
I-C17	2	0	0	0	0	0	0	T	0	0	T	TRM	TRM	TRM
I-C17	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	4	T	T	0	T	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	1	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	2	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	4	0	0	0	8	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-S1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
I-S1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	3	T	0	0	0	1	1	0	0	0	0	0	0	0
I-S1	4	0	0	0	1	0	0	0	0	0	0	0	0	0
I-S1	5	0	0	0	0	0	0	0	0	0	0	0	0	0
I-T1	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	2	0	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM
I-T1	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	1	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	2	0	0	0	0	0	0	0	0	0	T	TRM	TRM	TRM
I-T3	3	0	T	0	0	T	0	0	0	0	0	TRM	TRM	TRM
I-T3	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	5	0	0	0	0	0	0	0	0	T	0	TRM	TRM	TRM
I-T5	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T5	2	0	0	0	0	0	0	T	0	0	0	TRM	TRM	TRM
I-T5	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T5	4	0	0	0	0	T	0	T	T	0	T	TRM	TRM	TRM
I-T5	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AC	1	0	0	0	0	0	0	1	0	0	0	0	0	0
R-AC	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-AC	3	0	0	0	ND	0	0	ND	0	0	0	0	0	0
R-AC	4	0	0	0	0	1	0	0	0	0	0	0	0	0
R-AC	5	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE E.8. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Number Removed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
R-AM	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AM	2	0	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM
R-AM	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AM	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AM	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-BF	1	0	0	0	0	0	0	1	0	0	0	0	TRM	TRM
R-BF	2	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	5	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-PC	1	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	5	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	0	0	1	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	0	0	0	0	0	0	ND	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	2	0 ^(d)	0	0	0	0	0	0	0	0	0	0	0	TRM
C-SB	3	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	1	0 ^(d)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	2	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-NE	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	4	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM

(a) No data.

(b) Too turbid to see.

(c) Terminated: end of 10-day test.

(d) Observations performed on initiation day.

TABLE E.9. Daily Observations of *N. caecoides* on Sediment Surface During 10-Day Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>N. caecoides</i> on Sediment for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
AC-1	1	0	1	6	1	0	0	0	0	T ^(a)	0	TRM ^(b)	TRM	TRM
AC-1	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	3	0 ^(c)	0	3	2	1	0	0	0	0	0	TRM	TRM	TRM
AC-1	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-1	5	0	1	2	2	1	1	0	0	0	0	TRM	TRM	TRM
AC-3	1	1	2	1	1	1	0	0	0	0	0	0	TRM	TRM
AC-3	2	0 ^(c)	2	3	0	0	0	2	0	0	0	0	TRM	TRM
AC-3	3	0 ^(c)	0	1	1	0	1	1	1	0	0	0	TRM	TRM
AC-3	4	0 ^(c)	1	1	1	0	0	0	0	0	0	0	TRM	TRM
AC-3	5	0 ^(c)	0	2	0	1	0	0	0	0	0	0	TRM	TRM
I-C4	1	1	4	1	2	1	0	0	0	0	0	TRM	TRM	TRM
I-C4	2	0	2	2	1	0	0	1	0	0	0	TRM	TRM	TRM
I-C4	3	0	1	3	2	T	2	0	0	0	0	TRM	TRM	TRM
I-C4	4	0	3	2	1	2	0	0	0	0	0	TRM	TRM	TRM
I-C4	5	0	3	3	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	1	2	1	1	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	2	0	2	2	1	1	1	0	0	0	0	TRM	TRM	TRM
I-C5	3	0	1	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	4	0	1	1	2	3	1	2	0	0	0	TRM	TRM	TRM
I-C5	5	0	0	1	0	3	0	0	0	0	0	TRM	TRM	TRM
I-C7	1	0 ^(c)	3	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C7	2	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	3	0 ^(c)	0	1	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	4	0 ^(c)	0	0	ND ^(d)	0	0	0	0	0	0	0	TRM	TRM
I-C7	5	0 ^(c)	0	1	0	0	0	0	0	0	0	0	TRM	TRM
I-C8	1	0	2	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C8	2	0	3	4	1	1	0	0	0	0	0	TRM	TRM	TRM
I-C8	3	0	2	2	1	1	1	1	0	0	0	TRM	TRM	TRM
I-C8	4	0	1	2	2	1	0	1	0	0	0	TRM	TRM	TRM
I-C8	5	0	1	1	1	1	0	0	0	0	0	TRM	TRM	TRM
I-C9	1	0 ^(c)	1	1	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	2	0 ^(c)	0	1	2	0	0	0	0	0	0	0	TRM	TRM
I-C9	3	0 ^(c)	0	0	0	0	0	0	0	0	0	1	TRM	TRM
I-C9	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	5	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	1	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	2	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	3	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	5	0	0	1	1	0	0	1	1	1	1	1	TRM	TRM
I-C11	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C11	2	0	0	0	0	0	1	1	0	T	0	0	TRM	TRM
I-C11	3	0	0	0	1	1	1	1	0	0	0	TRM	TRM	TRM
I-C11	4	0	0	T	0	0	0	0	T	T	T	0	TRM	TRM
I-C11	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	2	0	0	0	0	0	T	0	0	0	0	0	TRM	TRM
I-C12	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM

TABLE E.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> on Sediment for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
I-C14	1	0	T	1	0	0	1	0	0	0	0	TRM	TRM	TRM
I-C14	2	T	T	1	0	0	1	0	0	0	0	TRM	TRM	TRM
I-C14	3	T	0	0	0	T	0	T	0	0	0	TRM	TRM	TRM
I-C14	4	0	0	T	0	0	1	1	1	0	0	TRM	TRM	TRM
I-C14	5	T	0	1	1	0	0	0	0	0	T	TRM	TRM	TRM
I-C15	1	0	0	T	0	0	1	1	1	0	0	TRM	TRM	TRM
I-C15	2	0	0	0	2	0	0	T	0	0	0	TRM	TRM	TRM
I-C15	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	4	T	0	0	1	1	0	0	0	0	0	TRM	TRM	TRM
I-C15	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	1	0	2	2	1	1	0	1	1	1	0	TRM	TRM	TRM
I-C16	2	0	0	1	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	3	0	T	1	0	0	1	1	0	0	0	TRM	TRM	TRM
I-C16	4	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	5	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	1	T	T	T	T	T	T	0	0	0	0	TRM	TRM	TRM
I-C17	2	0	0	1	0	0	0	T	0	0	T	TRM	TRM	TRM
I-C17	3	T	0	1	0	0	1	0	0	0	0	TRM	TRM	TRM
I-C17	4	T	T	0	T	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	5	0	0	1	2	0	0	1	0	0	0	TRM	TRM	TRM
I-C18	1	T	0	1	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	2	T	2	2	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	3	0	1	2	1	3	2	0	0	0	0	TRM	TRM	TRM
I-C18	4	0	0	1	0	0	0	2	0	0	0	TRM	TRM	TRM
I-C18	5	0	0	2	1	0	1	1	1	0	0	TRM	TRM	TRM
I-S1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	2	0	0	0	1	1	0	0	0	0	0	0	0	0
I-S1	3	T	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	4	0	1	0	3	2	1	2	0	0	0	0	0	0
I-S1	5	0	0	0	2	0	0	0	1	0	0	0	0	0
I-T1	1	0	1	1	1	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	2	0	2	1	0	0	1	0	0	0	0	TRM	TRM	TRM
I-T1	3	0	3	3	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	4	0	2	3	1	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	5	0	3	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	1	T	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	2	0	1	2	0	0	0	0	0	0	T	TRM	TRM	TRM
I-T3	3	0	T	1	0	T	1	0	0	0	0	TRM	TRM	TRM
I-T3	4	0	1	0	1	1	0	0	0	0	0	TRM	TRM	TRM
I-T3	5	0	3	5	4	0	0	0	T	T	0	TRM	TRM	TRM
I-T5	1	2	1	0	2	1	1	0	0	0	0	TRM	TRM	TRM
I-T5	2	0	1	0	0	0	0	T	0	0	0	TRM	TRM	TRM
I-T5	3	0	3	2	1	2	0	1	0	0	0	TRM	TRM	TRM
I-T5	4	0	1	0	1	T	0	T	T	0	T	TRM	TRM	TRM
I-T5	5	0	2	3	1	1	0	1	0	0	0	TRM	TRM	TRM
R-AC	1	0	0	0	0	0	0	0	0	0	0	0	0	1
R-AC	2	0	0	0	1	1	1	0	2	0	1	0	0	0
R-AC	3	0	0	0	ND	1	1	ND	0	0	0	0	0	0
R-AC	4	0	1	0	2	0	0	0	0	0	0	0	0	0
R-AC	5	0	0	1	0	0	0	0	0	0	0	0	0	0

TABLE E.9. (Contd)

Sediment Treatment	Replicate	N. caecoides on Sediment for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
R-AM	1	1	4	4	5	7	3	2	2	2	1	TRM	TRM	TRM
R-AM	2	0	3	5	4	3	2	1	1	0	2	TRM	TRM	TRM
R-AM	3	0	2	2	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AM	4	1	4	3	4	0	1	2	1	1	1	TRM	TRM	TRM
R-AM	5	0	2	8	14	8	9	0	0	0	0	TRM	TRM	TRM
R-BF	1	0	0	2	1	0	0	0	0	0	0	0	TRM	TRM
R-BF	2	0	0	0	0	0	0	0	1	0	0	0	TRM	TRM
R-BF	3	0	1	1	1	0	0	0	0	0	0	0	TRM	TRM
R-BF	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	5	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-PC	1	0	0	0	2	2	1	1	1	1	1	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	3	0	0	0	1	1	1	2	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	1	1	1	0	1	0	0	0
R-PC	5	0	0	1	0	1	1	0	0	0	0	0	0	0
R-PF	1	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	0	0	0	0	0	0	NO	0	0	0	0
R-PF	5	0	0	0	0	1	0	1	0	1	1	0	0	0
C-SB	1	0	0	0	0	0	0	1	0	0	0	0	TRM	TRM
C-SB	2	0 ^(c)	1	2	2	1	1	0	0	0	0	0	TRM	TRM
C-SB	3	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM
C-SB	4	0	1	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	5	0	1	0	0	0	1	1	0	1	0	0	TRM	TRM
C-WB	1	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	2	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	4	0	0	0	0	2	1	0	0	0	0	0	TRM	TRM
C-WB	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-NE	1	0	3	4	2	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	3	0	0	0	0	1	1	1	0	0	0	TRM	TRM	TRM
C-NE	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	5	0	2	1	3	0	1	0	1	0	0	TRM	TRM	TRM

(a) Too turbid to see.

(b) Terminated: end of 10-day test.

(c) Observations performed on initiation day.

(d) No data.

TABLE E.10. Daily Observations of *N. caecoides* Number Removed During 10-Day Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>N. caecoides</i> Number Removed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
AC-1	1	0	0	0	1	0	0	0	0	T ^(a)	0	TRM ^(b)	TRM	TRM
AC-1	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	3	0 ^(c)	0	0	1	1	0	0	0	0	0	TRM	TRM	TRM
AC-1	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-1	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	2	0 ^(c)	0	1	0	0	0	1	0	0	0	0	TRM	TRM
AC-3	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	4	0 ^(c)	0	1	0	0	0	0	0	0	0	0	TRM	TRM
AC-3	5	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C4	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	3	0	0	0	0	T	1	0	0	0	0	TRM	TRM	TRM
I-C4	4	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	5	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	1	0	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	3	0	1	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	4	0	0	0	0	0	0	2	2	0	0	TRM	TRM	TRM
I-C5	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	1	0 ^(c)	0	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C7	2	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	3	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	4	0 ^(c)	0	0	ND ^(d)	0	0	0	0	0	0	0	TRM	TRM
I-C7	5	0 ^(c)	0	1	0	0	0	0	0	0	0	0	TRM	TRM
I-C8	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C8	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C8	3	0	0	0	0	0	1	1	1	0	0	TRM	TRM	TRM
I-C8	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C8	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	1	0 ^(c)	0	1	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	2	0 ^(c)	0	0	1	0	0	0	0	0	0	0	TRM	TRM
I-C9	3	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	5	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	1	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	2	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	3	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	4	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C10	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C11	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C11	2	0	0	0	0	0	0	0	0	T	0	0	TRM	TRM
I-C11	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	4	0	0	T	0	0	0	0	T	T	T	0	TRM	TRM
I-C11	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	2	0	0	0	0	0	T	0	0	0	0	0	TRM	TRM
I-C12	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C12	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM

TABLE E.10. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Number Removed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
I-C14	1	0	T	0	0	0	1	0	0	0	0	TRM	TRM	TRM
I-C14	2	T	T	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	3	T	0	0	0	T	0	T	0	0	0	TRM	TRM	TRM
I-C14	4	0	0	T	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	5	T	0	0	0	0	0	0	0	0	T	TRM	TRM	TRM
I-C15	1	0	0	T	0	0	0	0	1	0	0	TRM	TRM	TRM
I-C15	2	0	0	0	0	0	0	T	0	0	0	TRM	TRM	TRM
I-C15	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	4	T	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM
I-C15	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	1	0	0	1	0	1	0	0	0	0	0	TRM	TRM	TRM
I-C16	2	0	0	0	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	3	0	T	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	1	T	T	T	T	T	T	0	0	0	0	TRM	TRM	TRM
I-C17	2	0	0	0	0	0	0	T	0	0	T	TRM	TRM	TRM
I-C17	3	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	4	T	T	0	T	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	1	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	2	T	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	3	0	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM
I-C18	4	0	0	0	0	0	0	1	0	0	0	TRM	TRM	TRM
I-C18	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-S1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	3	T	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	4	0	0	0	0	0	T	0	0	0	0	0	0	0
I-S1	5	0	0	0	0	0	0	0	0	0	0	0	0	0
I-T1	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	3	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T1	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	1	T	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	2	0	0	0	0	0	0	0	0	0	T	TRM	TRM	TRM
I-T3	3	0	T	0	0	T	1	0	0	0	0	TRM	TRM	TRM
I-T3	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T3	5	0	0	1	1	0	0	0	0	T	0	TRM	TRM	TRM
I-T5	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-T5	2	0	0	0	0	0	0	T	0	0	0	TRM	TRM	TRM
I-T5	3	0	1	0	0	0	0	1	0	0	0	TRM	TRM	TRM
I-T5	4	0	0	0	0	T	0	T	T	0	T	TRM	TRM	TRM
I-T5	5	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AC	1	0	0	0	0	0	0	0	0	0	0	0	0	0
R-AC	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-AC	3	0	0	0	ND	0	0	ND	0	0	0	0	0	0
R-AC	4	0	0	0	0	0	0	0	0	0	0	0	0	0
R-AC	5	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE E.10. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Number Removed for Test Days 1 Through 13												
		1	2	3	4	5	6	7	8	9	10	11	12	13
R-AM	1	0	1	1	0	0	2	0	0	2	0	TRM	TRM	TRM
R-AM	2	0	0	1	0	0	2	1	0	0	0	TRM	TRM	TRM
R-AM	3	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
R-AM	4	0	1	0	1	0	1	0	1	0	0	TRM	TRM	TRM
R-AM	5	0	0	1	0	0	9	0	0	0	0	TRM	TRM	TRM
R-BF	1	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM
R-BF	2	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	3	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM
R-BF	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-BF	5	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
R-PC	1	0	0	0	0	0	0	0	0	1	0	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	1	0	0	0
R-PC	5	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	0	0	0	0	0	0	NO	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	2	0 ^(c)	0	0	0	0	1	0	0	0	0	0	0	TRM
C-SB	3	0 ^(c)	0	0	1	0	0	0	0	0	0	0	TRM	TRM
C-SB	4	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-SB	5	0	0	0	0	0	0	1	0	0	0	0	TRM	TRM
C-WB	1	0 ^(c)	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	2	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	3	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-WB	4	0	0	0	0	0	1	0	0	0	0	0	TRM	TRM
C-WB	5	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
C-NE	1	0	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	3	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	4	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-NE	5	0	0	0	1	0	0	0	0	0	0	TRM	TRM	TRM

(a) Too turbid to see.

(b) Terminated: end of 10-day test.

(c) Observations performed on initiation day.

(d) No data.

APPENDIX F

BIOASSAY RESULTS FOR 28-DAY SOLID-PHASE FLOW-THROUGH TEST WITH *M. nasuta* AND *N. caecoides*

TABLE F.1. Bioassay Results for 28-Day *M. nasuta* Solid-Phase Test,
Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	22	3	0.95
	2	ND ^(a)	ND	
	3	24	1	
	4	24	1	
	5	25	0	
AC-3	1	21	4	0.96
	2	25	0	
	3	24	1	
	4	25	0	
	5	25	0	
I-C4	1	23	2	0.94
	2	24	1	
	3	24	1	
	4	23	2	
	5	24	1	
I-C5	1	25	0	0.99
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	
I-C7	1	24	1	0.99
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
I-C8	1	24	1	0.86
	2	25	0	
	3	20	5	
	4	20	5	
	5	19	6	
I-C9	1	24	1	0.90
	2	20	5	
	3	25	0	
	4	24	1	
	5	20	5	

TABLE F.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C10	1	22	3	0.91
	2	24	1	
	3	20	5	
	4	24	1	
	5	24	1	
I-C11	1	25	0	0.97
	2	24	1	
	3	24	1	
	4	25	0	
	5	23	2	
I-C12	1	25	0	0.98
	2	24	1	
	3	25	0	
	4	25	0	
	5	24	1	
I-C14	1	25	0	0.96
	2	25	0	
	3	24	1	
	4	21	4	
	5	25	0	
I-C15	1	23	2	0.94
	2	23	2	
	3	24	1	
	4	22	3	
	5	25	0	
I-C16	1	24	1	0.95
	2	25 ^(b)	1	
	3	23	2	
	4	23	2	
	5	25	0	
I-C17	1	15	10	0.85
	2	21	4	
	3	23	2	
	4	25	0	
	5	22	3	

TABLE F.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C18	1	24	1	0.95
	2	24	1	
	3	24	1	
	4	25 ^(b)	1	
	5	23	2	
I-S1	1	24	1	0.93
	2	24	1	
	3	24	1	
	4	19	6	
	5	25	0	
I-T1	1	24	1	0.96
	2	24	1	
	3	25	0	
	4	25	0	
	5	22	3	
I-T3	1	23	2	0.94
	2	24	1	
	3	24	1	
	4	23	2	
	5	24	1	
I-T5	1	25	0	0.97
	2	25	0	
	3	23	2	
	4	23	2	
	5	25	0	
R-AC	1	24	1	0.94
	2	25	0	
	3	23	2	
	4	23	2	
	5	23	2	
R-AM	1	24	1	0.98
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	

TABLE F.1. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i>		Mean Proportion Surviving
		Live	Dead or Missing	
R-BF	1	23	2	0.94
	2	24	1	
	3	23	2	
	4	24	1	
	5	23	2	
R-OS	1	22	3	0.90
	2	23	2	
	3	23	2	
	4	21	4	
	5	23	2	
R-PC	1	25	0	0.98
	2	25	0	
	3	25	0	
	4	24	1	
	5	25 ^(b)	1	
R-PF	1	25	0	0.98
	2	23	2	
	3	25	0	
	4	25	0	
	5	25	0	
C-SB	1	24	1	0.90
	2	24	1	
	3	21	4	
	4	20	5	
	5	23	2	
C-WB	1	23	2	0.90
	2	22	3	
	3	ND	ND	
	4	23	2	
	5	22	3	
C-NE	1	23	2	0.96
	2	25	0	
	3	24	1	
	4	25	0	
	5	23	2	

(a) No data.

(b) Inadvertently initiated more than 25 organisms.

TABLE F.2. Rank Order Based on Number Surviving the 28-Day *M. nasuta* Solid-Phase Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
I-C17	0.85
I-C8	0.86
C-SB	0.90
R-OS	0.90
C-WB	0.90
I-C9	0.90
I-C10	0.91
I-S1	0.93
I-C15	0.94
R-BF	0.94
R-AC	0.94
I-C4	0.94
I-T3	0.94
AC-1	0.95
I-C18	0.95
I-C16	0.95
C-NE	0.96
AC-3	0.96
I-C14	0.96
I-T1	0.96
I-C11	0.97
I-T5	0.97
R-AM	0.98
R-PF	0.98
I-C12	0.98
R-PC	0.98
I-C5	0.99
I-C7	0.99

TABLE F.3. Bioassay Results for 28-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	29	1	0.82
	2	23	7	
	3	24	6	
	4	22	8	
	5	25	5	
AC-3	1	25	5	0.86
	2	27	3	
	3	25	5	
	4	26	4	
	5	52 ^(a)	8	
I-C4	1	22	8	0.75
	2	23	7	
	3	24	6	
	4	25	5	
	5	18	12	
I-C5	1	17	13	0.47
	2	13	17	
	3	19	11	
	4	10	20	
	5	11	19	
I-C7	1	27	3	0.92
	2	29	1	
	3	25	5	
	4	30	0	
	5	27	3	
I-C8	1	24	6	0.69
	2	21	9	
	3	21	9	
	4	19	11	
	5	18	12	
I-C9	1	22	8	0.79
	2	22	8	
	3	25	5	
	4	25	5	
	5	25	5	

TABLE F.3. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i>		Mean Proportion Surviving
		Live	Dead or Missing	
I-C10	1	27	3	0.86
	2	29	1	
	3	25	5	
	4	24	6	
	5	24	6	
I-C11	1	26	4	0.92
	2	28	2	
	3	27	3	
	4	29	1	
	5	28	2	
I-C12	1	30	0	0.97
	2	30	0	
	3	28	2	
	4	28	2	
	5	30	0	
I-C14	1	24	6	0.86
	2	23	7	
	3	36 ^(a)	4	
	4	29	1	
	5	25	5	
I-C15	1	24	6	0.87
	2	29	1	
	3	25	5	
	4	29	1	
	5	23	7	
I-C16	1	24	6	0.73
	2	27	3	
	3	16	14	
	4	20	10	
	5	22	8	
I-C17	1	17	13	0.79
	2	19	11	
	3	28	2	
	4	28	2	
	5	27	3	

TABLE F.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C18	1	20	10	0.65
	2	25	5	
	3	16	14	
	4	23	7	
	5	14	16	
I-S1	1	25	5	0.74
	2	27	3	
	3	19	11	
	4	18	12	
	5	22	8	
I-T1	1	22	8	0.67
	2	25	5	
	3	22	8	
	4	11	19	
	5	21	9	
I-T3	1	23	7	0.71
	2	15	15	
	3	14	16	
	4	30	0	
	5	25	5	
I-T5	1	27	3	0.69
	2	15	15	
	3	20	10	
	4	21	9	
	5	20	10	
R-AC	1	7	23	0.73
	2	30	0	
	3	24	6	
	4	20	10	
	5	29	1	
R-AM	1	17	13	0.64
	2	18	12	
	3	19	11	
	4	24	6	
	5	18	12	

TABLE F.3. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i>		Mean Proportion Surviving
		Live	Dead or Missing	
R-BF	1	27	3	0.84
	2	25	5	
	3	29	1	
	4	25	5	
	5	20	10	
R-OS	1	ND ^(b)	ND	0.97
	2	29	1	
	3	27	3	
	4	30	0	
	5	30	0	
R-PC	1	30	0	0.98
	2	28	2	
	3	30	0	
	4	29	1	
	5	ND	ND	
R-PF	1	ND	ND	0.89
	2	20	10	
	3	29	1	
	4	29	1	
	5	29	1	
C-SB	1	24	6	0.88
	2	27	3	
	3	26	4	
	4	26	4	
	5	29	1	
C-WB	1	28	2	0.81
	2	10	20	
	3	27	3	
	4	30	0	
	5	27	3	
C-NE	1	26	4	0.59
	2	4	26	
	3	16	14	
	4	20	10	
	5	22	8	

(a) Inadvertently initiated more than 30 organisms.

(b) No data.

TABLE F.4. Rank Order Based on Number Surviving the 28-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Proportion Surviving (in all Replicates)</u>
I-C5	0.47
C-NE	0.59
R-AM	0.64
I-C18	0.65
I-T1	0.67
I-C8	0.69
I-T5	0.69
I-T3	0.71
I-C16	0.73
R-AC	0.73
I-S1	0.74
I-C4	0.75
I-C9	0.79
I-C17	0.79
C-WB	0.81
AC-1	0.82
R-BF	0.84
I-C14	0.86
I-C10	0.86
AC-3	0.86
I-C15	0.87
C-SB	0.88
R-PF	0.89
I-C11	0.92
I-C7	0.92
R-OS	0.97
I-C12	0.97
R-PC	0.98

TABLE F.5. Water Quality Summary 28-Day *M. nasuta*/*N. caecoides* Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	29.0	33.0	110	130
AC-1	14.5	16.2	7.65	8.13	6.8	8.0	30.5	32.0	112	126
AC-3	14.6	16.1	7.68	8.13	6.8	7.8	30.5	32.0	110	140 ^(a)
I-C4	14.7	16.1	7.49	8.20	6.3	7.9	30.5	32.0	112	180 ^(a)
I-C5	14.7	15.7	7.29 ^(a)	8.14	6.7	8.2	30.0	32.0	112	126
I-C7	14.8	16.0	7.54	8.17	6.8	7.9	30.5	32.0	114	128
I-C8	14.7	15.9	7.56	8.11	6.7	7.9	30.5	32.0	112	130
I-C9	14.6	16.2	7.37 ^(a)	8.12	6.9	7.9	30.0	32.0	112	128
I-C10	14.7	15.8	7.35 ^(a)	8.12	6.7	7.8	30.5	32.5	108 ^(a)	128
I-C11	14.7	15.9	7.64	8.15	7.0	7.8	30.0	32.0	112	126
I-C12	14.7	16.1	7.70	8.13	6.9	7.9	30.5	32.0	111	205 ^(a)
I-C14	14.7	16.1	7.41	8.13	6.9	7.9	30.5	32.0	112	128
I-C15	14.6	15.8	7.45 ^(a)	8.15	6.9	7.9	30.5	32.0	108 ^(a)	128
I-C16	14.5	16.2	7.36 ^(a)	8.13	6.8	7.7	30.0	32.0	112	128
I-C17	14.6	16.1	7.58	8.16	6.6	7.9	30.5	32.0	108 ^(a)	128
I-C18	14.7	16.0	7.41	8.15	6.7	7.9	30.5	32.0	112	126
I-S1	14.7	16.0	7.26 ^(a)	8.12	6.6	8.0	30.5	32.0	110	126
I-T1	14.6	15.8	7.37 ^(a)	8.15	6.8	8.2	30.5	32.0	114	138 ^(a)
I-T3	14.6	16.0	7.43	8.15	6.6	8.1	30.5	32.0	112	132 ^(a)
I-T5	14.7	15.9	7.66	8.15	6.3	8.2	30.5	32.5	112	132 ^(a)
R-AC	14.5	15.9	7.41	8.14	6.4	7.9	30.5	32.0	110	128
R-AM	14.8	15.9	7.43	8.11	6.9	7.9	30.5	32.0	112	360 ^(a)
R-BF	14.7	16.2	7.49	8.12	6.7	7.9	30.0	32.0	110	130
R-OS	14.6	15.7	7.39 ^(a)	8.15	6.8	7.9	30.0	32.0	110	128
R-PC	14.6	15.9	7.32 ^(a)	8.15	6.2	8.1	30.5	32.5	110	138 ^(a)
R-PF	14.8	16.1	7.42	8.18	6.8	7.8	30.0	32.0	110	128
C-SB	14.8	16.2	7.33 ^(a)	8.15	6.8	7.8	30.0	32.0	108 ^(a)	132 ^(a)
C-WB	14.6	16.3	7.47	8.11	6.6	7.9	30.0	32.0	111	128
C-NE	14.7	15.7	7.46	8.16	6.8	7.9	30.0	32.5	112	128

(a) Data point out of range.

TABLE F.6. Daily Observations of *M. nasuta* of Sediment Surface During 28-Day Solid-Phase Test, Oakland Phase III A Project

Sediment		<i>M. nasuta</i> on Sediment for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
AC-1	1	1 ^(a)	1	0	0	1	2	2	2	0	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	TRM ^(b)	TRM	TRM	
AC-1	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	3	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	TRM	TRM	TRM
AC-1	4	0 ^(a)	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	5	0	1	1	0	0	1	0	1	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	1	0 ^(a)	0	1	0	0	0	1	0	0	0	0	2	1	2	1	1	0	0	2	1	2	0	1	2	1	0	0	0	0	TRM	TRM	TRM	
AC-3	2	0 ^(a)	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	3	0 ^(a)	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	4	0 ^(a)	0	0	0	0	0	0	1 ^(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	TRM	TRM	TRM	
AC-3	5	0 ^(a)	0	0	0	0	2	0	1	0	1	0	1	0	1	1	1	1	1	1	2	1	0	0	1	0	3	2	0	1	TRM	TRM	TRM	
I-C4	1	1	2	2	4	2	3	1	3	3	4	3	6	3	4	3	3	3	1	4	6	4	5	5	2	2	4	ND ^(d)	3	TRM	TRM	TRM	TRM	
I-C4	2	4	3	7	1	1	2	4	3	4	6	4	5	3	3	4	4	5	2	5	5	2	2	4	3	5	5	ND	1	TRM	TRM	TRM	TRM	
I-C4	3	1	1	1	2	1	0	2	2	3	3	4	3	3	1	3	4	4	4	4	5	6	5	5	3	3	4	ND	3	TRM	TRM	TRM	TRM	
I-C4	4	3	2	2	2	3	3	4	3	4	3	3	1	2	1	1	2	3	1	0	0	0	0	1	0	1	1	ND	2	TRM	TRM	TRM	TRM	
I-C4	5	2	1	2	2	2	1	0	1	3	0	1	1	2	0	1	1	1	0	0	0	0	1	2	0	1	1	ND	3	TRM	TRM	TRM	TRM	
I-C5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	2	7	5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	3	4	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	4	0	0	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	1	TRM	TRM	TRM	TRM	
I-C5	5	1	1	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	1	0	1	2	2	1	2	1	ND	1	TRM	TRM	TRM	TRM	
I-C7	1	0 ^(a)	1	0	0	0	0	2	1	1	1	1	1	1	2	1	1	1	0	0	0	1	2	4	3	1	2	2	1	1	TRM	TRM	TRM	
I-C7	2	1 ^(a)	1	0	1	1	1	1	0	1	1	1	1	1	0	0	3	2	1	1	0	1	0	0	0	1	0	1	0	0	TRM	TRM	TRM	
I-C7	3	1 ^(a)	2	1	1	1	1	1	2	2	1	1	1	1	1	0	1	0	0	0	0	1	1	0	0	0	2	1	1	1	TRM	TRM	TRM	
I-C7	4	2 ^(a)	2	3	4	4	2	2	2	2	2	1	1	0	0	1	1	0	2	3	3	4	1	1	1	0	0	1	1	3	TRM	TRM	TRM	
I-C7	5	0 ^(a)	0	0	1	1	0	2	1	0	0	1	1	0	1	1	2	0	0	2	0	0	0	1	1	1	1	2	0	1	TRM	TRM	TRM	
I-C8	1	6	3	6	5	3	5	3	3	3	4	3	3	5	3	3	3	3	3	2	2	3	4	3	3	3	3	ND	3	TRM	TRM	TRM	TRM	
I-C8	2	5	2	2	3	3	4	3	2	1	4	4	1	2	1	2	1	3	3	3	3	4	4	2	2	2	3	NO	3	TRM	TRM	TRM	TRM	
I-C8	3	7	9	6	7	5	8	6	3	5	5	5	4	4	4	4	4	3	3	5	2	2	4	4	2	4	4	ND	4	TRM	TRM	TRM	TRM	
I-C8	4	8	1	6	7	2	7	4	6	6	6	8	6	7	7	7	6	6	6	5	5	3	5	5	3	4	5	NO	7	TRM	TRM	TRM	TRM	
I-C8	5	5	9	8	5	1	6	4	3	4	6	3	4	3	5	5	4	5	5	6	6	5	6	6	5	6	5	ND	6	TRM	TRM	TRM	TRM	
I-C9	1	0 ^(a)	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C9	2	0 ^(a)	1	1	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	1	0	1	0	1	0	0	1	1	0	0	TRM	TRM	TRM	
I-C9	3	0 ^(a)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C9	4	0 ^(a)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C9	5	0 ^(a)	2	0	1	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM	

TABLE F.6. (Contd)

Sediment		<i>M. nasuta</i> on Sediment for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
I-C10	1	0 ^(a)	4	3	3	4	4	3	4	2	3	2	3	3	3	2	2	0	1	0	1	1	0	3	1	2	2	0	0	1	TRM	TRM	TRM	
I-C10	2	0 ^(a)	0	0	1	0	3	3	1	3	3	1	1	1	3	3	3	0	1	2	4	3	3	3	2	3	4	1	1	2	TRM	TRM	TRM	
I-C10	3	0 ^(a)	0	0	1	0	1	2	2	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	1	0	0	0	TRM	TRM	TRM	
I-C10	4	1 ^(a)	5	4	5	4	6	2	5	1	1	3	1	4	1	2	2	1	2	2	0	1	1	2	2	1	2	1	1	1	TRM	TRM	TRM	
I-C10	5	4 ^(a)	5	4	5	5	3	3	5	2	2	1	2	1	2	1	2	2	1	0	0	0	0	0	0	0	1	1	1	2	TRM	TRM	TRM	
I-C11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	TRM	TRM	TRM	
I-C11	2	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	TRM	TRM	TRM	
I-C11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	TRM	TRM	TRM	
I-C11	4	0 ^(a)	0	0	2	0	0	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	5	0	1	1	1	0	1	0	2	1	1	1	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	1	0 ^(a)	1	1	0	1	3	2	2	0	1	4	3	1	4	2	1	3	5	4	4	5	3	3	2	2	3	3	5	7	TRM	TRM	TRM	
I-C12	2	0	1	1	1	0	1	1	0	1	0	1	2	2	3	3	5	4	7	6	8	4	4	5	2	1	3	1	2	2	TRM	TRM	TRM	
I-C12	3	5 ^(a)	4	5	4	4	4	4	3	3	3	3	3	3	4	4	5	5	6	7	7	5	4	5	6	6	7	6	5	6	TRM	TRM	TRM	
I-C12	4	1 ^(a)	4	3	2	2	3	3	3	1	2	4	3	4	1	3	5	4	3	4	3	3	4	4	4	3	5	8	2	1	TRM	TRM	TRM	
I-C12	5	3	3	2	2	4	5	5	7	7	5	4	4	4	4	7	5	3	2	3	3	1	2	3	2	2	1	1	2	2	TRM	TRM	TRM	
I-C14	1	T	T	1	1	1	2	2	1	3	3	2	1	3	2	1	1	2	2	3	2	1	2	1	0	0	0	1	0	0	TRM	TRM	TRM	
I-C14	2	0	1	0	0	1	1	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	TRM	TRM	TRM	
I-C14	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	TRM	TRM	TRM	
I-C14	4	0	0	0	0	4	1	1	4	4	3	3	4	3	3	3	3	4	3	4	3	4	3	5	3	2	4	5	4	3	TRM	TRM	TRM	
I-C14	5	0 ^(a)	0	0	0	0	0	0	1	T	1	1	1	1	1	0	0	0	0	2	1	1	1	1	1	1	1	0	0	1	TRM	TRM	TRM	
I-C15	1	T	1	3	1	2	1	T	1	T	1	1	1	1	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	1	TRM	TRM	TRM	
I-C15	2	0	0	0	0	0	1	1	1	1	1	0	0	0	0	1	1	0	T	2	2	1	0	1	1	0	2	2	3	2	TRM	TRM	TRM	
I-C15	3	T ^(a)	0	0	0	T	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	1	1	2	2	3	1	TRM	TRM	TRM	
I-C15	4	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	T	2	0	1	1	1	1	1	2	2	2	1	TRM	TRM	TRM	
I-C15	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	TRM	TRM	TRM	
I-C16	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	TRM	TRM	TRM	
I-C16	2	T	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	TRM	TRM	TRM	
I-C16	3	2	3	2	2	1	3	1	2	1	1	1	1	1	1	1	1	1	0	4	1	1	1	1	2	2	2	2	1	2	TRM	TRM	TRM	
I-C16	4	2	1	1	1	0	0	0	0	0	0	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C16	5	0	2	3	2	2	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C17	1	7	12	11	10	12	8	10	9	5	7	8	8	8	6	6	7	4	4	7	7	5	4	4	5	2	5	5	4	5	TRM	TRM	TRM	
I-C17	2	2	4	3	5	2	4	4	4	0	2	1	2	2	4	3	2	3	2	2	2	2	0	0	1	0	1	1	1	1	TRM	TRM	TRM	
I-C17	3	0	T	1	0	0	1	1	1	1	1	1	0	2	2	T	2	2	1	3	4	3	0	4	3	2	2	1	1	1	TRM	TRM	TRM	
I-C17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C17	5	0	T	0	0	1	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	TRM	TRM	TRM	

TABLE F.6. (Contd)

Sediment		<i>M. nasuta</i> on Sediment for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
I-C18	1	2	2	2	2	1	2	3	3	2	2	3	3	3	4	2	4	2	2	3	1	1	1	1	1	0	0	0	0	TRM	TRM	TRM	
I-C18	2	0	2	1	0	1	0	0	0	0	0	0	3	1	1	1	0	0	1	1	1	0	0	1	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	3	1	2	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C18	4	0	0	0	0	0	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	2	0	0	TRM	TRM	TRM
I-C18	5	0	3	1	4	1	1	1	0	0	2	0	1	1	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	TRM	TRM	TRM
I-S1	1	6	5	5	5	5	4	4	4	2	1	2	2	1	2	2	1	1	1	1	1	0	1	0	0	0	0	ND	0	0	0	0	0
I-S1	2	7	6	3	4	4	2	2	2	2	2	1	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	ND	0	0	0	0	0
I-S1	3	4	3	4	5	1	2	3	2	2	3	3	3	1	1	2	2	3	2	2	1	1	1	1	1	1	1	ND	1	1	1	1	TRM
I-S1	4	14	8	9	7	9	7	9	6	6	6	7	7	5	6	6	5	5	6	5	5	5	7	5	4	6	5	ND	5	4	5	8	TRM
I-S1	5	11	10	10	8	9	9	8	7	6	5	4	6	5	4	5	6	4	3	3	1	1	1	0	0	0	0	ND	0	1	0	0	0
I-T1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
I-T1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
I-T1	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
I-T1	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	ND	0	TRM	TRM	TRM	TRM
I-T1	5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
I-T3	1	1	3	2	2	0	1	0	0	0	0	0	0	1	1	1	1	1	1	2	1	0	1	1	1	2	2	ND	1	TRM	TRM	TRM	TRM
I-T3	2	3	2	2	1	0	1	2	1	1	1	0	0	1	0	1	1	2	1	1	0	0	0	0	0	0	1	ND	2	TRM	TRM	TRM	TRM
I-T3	3	1	0	0	0	0	1	1	2	1	2	2	1	1	1	2	1	1	1	0	0	0	0	0	1	1	1	ND	2	TRM	TRM	TRM	TRM
I-T3	4	7	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	ND	2	TRM	TRM	TRM	TRM
I-T3	5	0	0	0	0	0	0	7	1	1	1	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	0	ND	1	TRM	TRM	TRM	TRM
I-T5	1	0	0	0	1	0	0	1	7	2	1	0	0	0	0	0	0	0	0	2	1	0	1	1	0	1	0	ND	0	TRM	TRM	TRM	TRM
I-T5	2	2	1	1	1	0	0	1	0	1	1	1	1	1	0	2	0	0	0	0	0	1	2	1	1	2	2	ND	1	TRM	TRM	TRM	TRM
I-T5	3	7	0	1	1	1	1	1	1	2	0	2	0	2	0	2	1	1	0	1	1	1	4	0	0	0	0	ND	1	TRM	TRM	TRM	TRM
I-T5	4	1	1	0	7	7	0	7	1	0	1	1	0	0	1	1	0	0	0	1	1	2	3	2	2	3	0	ND	1	TRM	TRM	TRM	TRM
I-T5	5	1	1	0	1	1	1	1	1	2	2	0	0	0	0	0	0	1	0	1	0	0	1	2	0	0	0	ND	0	TRM	TRM	TRM	TRM
R-AC	1	0	0	1	1	1	0	0	0	0	0	0	1	1	1	0	0	1	1	1	0	0	0	1	0	0	0	ND	0	TRM	TRM	TRM	TRM
R-AC	2	0	0	6	7	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	ND	0	1	1	1	1
R-AC	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	ND	0	1	1	1	1
R-AC	4	0	1	0	7	0	0	0	0	2	3	1	3	0	1	2	2	1	2	1	1	0	0	0	1	1	1	ND	1	7	1	1	TRM
R-AC	5	0	0	0	1	1	1	1	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	0	0	0	1	ND	2	1	ND	1	1
R-AM	1	6	5	6	5	1	5	5	6	5	0	4	5	4	3	7	4	2	2	3	3	3	3	5	3	6	5	ND	2	TRM	TRM	TRM	TRM
R-AM	2	6	5	6	6	6	5	7	8	8	8	6	5	3	2	3	7	5	4	5	5	4	4	4	4	8	4	ND	7	TRM	TRM	TRM	TRM
R-AM	3	5	4	4	3	3	6	5	5	7	5	4	4	5	7	6	8	5	6	8	6	5	5	5	4	6	3	ND	7	TRM	TRM	TRM	TRM
R-AM	4	7	7	7	6	7	7	8	2	7	7	6	5	5	7	4	3	3	3	6	3	6	9	8	7	6	3	ND	3	TRM	TRM	TRM	TRM
R-AM	5	3	2	3	3	2	1	4	4	3	0	2	2	4	3	1	1	4	4	2	3	3	2	2	2	4	2	ND	2	TRM	TRM	TRM	TRM

TABLE F.6. (Contd)

Sediment		<i>M. nasuta</i> on Sediment for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
R-BF	1	T ^(a)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	TRM	TRM	TRM		
R-BF	2	T ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM	
R-BF	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1	1	0	1	3	0	0	TRM	TRM	TRM	
R-BF	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-BF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-OS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	ND	0	0	0	1	TRM		
R-OS	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	ND	0	0	0	0	0		
R-OS	3	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	1	0	1	0	0	0	1	0	0	1	ND	0	0	0	0	1	
R-OS	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	ND	2	0	0	0	0	
R-OS	5	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	ND	0	1	1	2	1	
R-PC	1	2	0	1	1	0	0	0	1	1	1	2	3	0	0	0	0	2	0	1	0	1	0	0	0	0	0	ND	0	0	0	1	2	
R-PC	2	0	0	0	0	T	1	0	0	1	0	0	T	1	1	2	1	0	0	0	0	0	1	0	0	0	0	ND	0	1	1	0	1	
R-PC	3	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	ND	0	0	0	0	1	
R-PC	4	1	0	0	1	0	0	1	0	2	1	1	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	ND	0	1	1	2	TRM	
R-PC	5	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	1	1	1	1	0	0	ND	0	0	0	0	TRM	
R-PF	1	0	0	0	0	0	0	T	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	ND	1	TRM	TRM	TRM	TRM	
R-PF	2	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	ND	1	0	0	0	TRM	
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	ND	1	0	1	1	TRM	
R-PF	4	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
C-SB	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-SB	2	0 ^(a)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	0	1	1	0	0	TRM	TRM	TRM
C-SB	3	0 ^(a)	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	2	2	2	2	0	1	1	0	0	0	0	0	1	1	TRM	TRM	TRM
C-SB	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	1	1	1	TRM	TRM	TRM	
C-SB	5	0 ^(a)	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	1	0 ^(a)	0	0	1	2	0	3	4	1	1	2	2	1	3	3	3	1	2	3	4	4	3	3	3	3	3	2	2	5	TRM	TRM	TRM	
C-WB	2	0 ^(a)	0	0	1	1	1	2	2	3	5	1	1	2	2	2	1	1	1	2	0	0	1	1	2	1	1	1	2	3	TRM	TRM	TRM	
C-WB	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-WB	4	0 ^(a)	1	0	0	3	0	0	0	1	0	1	2	2	2	1	1	1	1	2	1	1	1	1	1	2	2	3	2	2	TRM	TRM	TRM	
C-WB	5	3 ^(a)	1	0	1	1	1	1	2	2	2	3	4	3	2	1	3	1	0	1	2	2	2	0	0	0	1	3	2	TRM	TRM	TRM		

TABLE F.6. (Contd)

Sediment		<i>M. nasuta</i> on Sediment for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C-NE	1	0	0	0	0	0	1	1	2	1	3	1	0	0	2	1	0	1	2	0	1	2	3	3	1	0	0	ND	1	TRM	TRM	TRM	TRM
C-NE	2	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	0	1	ND	0	TRM	TRM	TRM	TRM
C-NE	3	0	0	1	1	0	1	2	1	1	2	1	2	1	1	1	1	0	1	0	0	0	2	1	1	1	3	ND	4	TRM	TRM	TRM	TRM
C-NE	4	0	2	0	1	1	0	0	0	1	1	1	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0	ND	2	TRM	TRM	TRM	TRM
C-NE	5	1	0	0	0	0	0	0	0	0	0	2	1	1	1	3	2	2	2	1	2	1	0	0	2	0	1	ND	2	TRM	TRM	TRM	TRM

(a) Observations performed on initiation day.

(b) Terminated: end of 28-day test.

(c) Too turbid to see.

(d) No data.

TABLE F.7. Daily Observations of *M. nasuta* Siphon Exposed During 28-Day Solid-Phase Test, Oakland Phase III A Project

Sediment		<i>M. nasuta</i> on Siphon Exposed for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
AC-1	1	12 ^(a)	13	7	8	4	4	5	10	4	4	5	3	0	12	1	3	3	2	2	0	2	2	1	3	1	2	0	0	0	TRM ^(b)	TRM	TRM	
AC-1	2	0 ^(a)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	3	9	9	12	6	2	6	2	0	1	2	5	7	0	0	1	1	0	2	1	2	2	2	0	2	1	3	2	2	3	TRM	TRM	TRM	
AC-1	4	16 ^(a)	16	8	9	4	5	8	5	6	2	2	3	1	0	2	2	0	3	4	3	1	3	1	1	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	5	14	11	8	6	3	2	2	2	3	1	5	2	2	2	2	2	0	2	2	0	3	2	2	1	1	0	0	0	1	TRM	TRM	TRM	
AC-3	1	3 ^(a)	6	10	7	7	5	3	4	1	2	4	3	0	1	1	1	5	1	3	3	2	5	1	2	2	2	3	2	4	TRM	TRM	TRM	
AC-3	2	7 ^(a)	3	4	8	7	0	7	3	0	2	2	0	4	3	4	1	1	0	0	0	0	2	0	3	3	2	0	1	0	TRM	TRM	TRM	
AC-3	3	8 ^(a)	8	9	8	5	8	5	4 ^(c)	3	3	3	3	0	0	2	1	2	1	0	0	0	3	0	1	5	1	0	0	2	TRM	TRM	TRM	
AC-3	4	6 ^(a)	5	4	4	3	0	2	1	1	0	0	2	0	0	1	0	1	0	0	0	1	0	0	1	2	0	0	0	0	TRM	TRM	TRM	
AC-3	5	12 ^(a)	14	12	15	4	6	5	8	4	2	7	4	0	1	3	1	3	3	2	1	1	1	0	3	3	3	1	2	1	TRM	TRM	TRM	
I-C4	1	4	7	10	5	2	5	4	3	5	8	6	8	5	9	5	6	4	7	6	6	7	6	3	6	6	8	ND ^(d)	6	TRM	TRM	TRM	TRM	
I-C4	2	8	3	1	13	9	6	5	4	4	8	8	2	9	13	10	9	10	8	7	10	7	5	4	8	8	10	ND	4	TRM	TRM	TRM	TRM	
I-C4	3	7	4	4	12	5	3	8	4	5	0	6	3	3	3	6	3	7	7	2	11	8	8	9	7	5	7	ND	5	TRM	TRM	TRM	TRM	
I-C4	4	5	7	6	2	2	6	6	4	7	7	4	6	7	7	6	3	5	3	0	2	1	1	0	1	3	3	ND	6	TRM	TRM	TRM	TRM	
I-C4	5	1	3	7	5	4	3	4	3	5	0	2	4	4	7	2	2	0	0	1	2	0	0	1	0	4	5	ND	4	TRM	TRM	TRM	TRM	
I-C5	1	5	4	1	1	2	1	0	0	0	6	4	0	0	1	1	1	2	0	0	0	0	0	0	2	0	0	ND	1	TRM	TRM	TRM	TRM	
I-C5	2	9	16	14	6	4	3	1	1	1	1	0	0	3	1	3	0	0	0	0	0	2	0	0	0	0	1	ND	0	TRM	TRM	TRM	TRM	
I-C5	3	7	10	5	5	5	3	4	0	1	0	1	2	2	0	0	0	1	0	0	0	0	0	0	1	1	1	ND	0	TRM	TRM	TRM	TRM	
I-C5	4	4	4	2	4	3	1	4	2	0	0	0	0	2	0	1	0	0	1	0	1	1	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	5	10	3	2	3	3	0	1	2	2	2	3	2	2	2	0	0	0	1	1	0	0	0	1	0	0	1	ND	1	TRM	TRM	TRM	TRM	
I-C7	1	8 ^(a)	4	5	4	6	2	3	2	0	1	1	0	1	1	1	0	3	1	0	0	1	4	1	4	2	1	1	3	2	TRM	TRM	TRM	
I-C7	2	5 ^(a)	4	2	2	1	2	1	2	1	1	1	1	1	0	2	4	2	0	1	0	1	0	0	0	2	0	0	2	0	TRM	TRM	TRM	
I-C7	3	2 ^(a)	3	4	1	2	2	1	3	2	1	3	2	0	0	1	0	2	2	0	1	2	1	0	1	3	4	2	2	2	TRM	TRM	TRM	
I-C7	4	8 ^(a)	9	7	9	7	4	3	3	2	2	5	2	0	3	4	0	0	4	0	3	7	1	1	3	2	0	0	5	4	TRM	TRM	TRM	
I-C7	5	2 ^(a)	6	2	4	3	1	6	3	5	2	1	0	0	0	1	2	1	0	4	0	0	0	1	4	3	0	0	0	4	TRM	TRM	TRM	
I-C8	1	16	10	11	9	9	11	6	5	4	5	5	5	4	6	2	6	6	10	3	5	5	5	3	6	8	6	ND	2	TRM	TRM	TRM	TRM	
I-C8	2	10	12	7	6	4	3	7	4	0	8	2	1	2	1	3	2	6	3	2	3	5	4	2	4	5	4	ND	4	TRM	TRM	TRM	TRM	
I-C8	3	14	10	17	18	14	10	10	9	6	7	3	4	10	3	4	1	6	10	6	4	4	2	4	4	3	4	ND	5	TRM	TRM	TRM	TRM	
I-C8	4	17	8	8	11	6	9	10	6	5	11	12	11	10	13	10	9	8	8	6	4	4	3	4	3	3	5	ND	6	TRM	TRM	TRM	TRM	
I-C8	5	7	15	15	14	6	2	5	2	5	12	7	2	6	7	6	2	5	6	7	7	5	7	5	5	3	9	ND	10	TRM	TRM	TRM	TRM	
I-C9	1	9 ^(a)	7	6	7	2	3	2	2	4	3	3	4	4	0	0	2	0	0	0	0	0	0	0	0	1	1	0	0	1	TRM	TRM	TRM	
I-C9	2	5 ^(a)	4	4	4	2	3	1	1	3	3	3	2	1	1	1	1	0	1	1	0	2	1	1	1	1	1	1	1	1	TRM	TRM	TRM	
I-C9	3	8	7	4	5	1	2	0	1	2	1	2	2	1	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	TRM	TRM	TRM	
I-C9	4	7 ^(a)	3	5	2	3	3	5	2	1	4	3	1	1	3	1	1	2	3	1	0	2	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	5	6 ^(a)	8	6	9	2	7	4	2	4	4	7	4	5	2	4	3	4	1	4	3	4	3	5	4	1	1	1	1	3	TRM	TRM	TRM	

TABLE F.7. (Contd)

Sediment		<i>M. nasuta</i> on Siphon Exposed for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
I-C10	1	0 ^(a)	4	5	5	7	8	5	4	4	4	2	1	7	5	6	2	0	4	3	2	4	2	0	4	2	1	0	2	TRM	TRM	TRM		
I-C10	2	5 ^(a)	6	5	7	1	3	2	4	7	2	3	3	3	5	4	5	0	1	4	7	0	7	2	4	8	4	1	2	8	TRM	TRM	TRM	
I-C10	3	1 ^(a)	2	1	2	0	3	5	3	0	1	3	0	0	0	0	1	3	2	0	1	0	1	0	4	0	0	0	0	0	TRM	TRM	TRM	
I-C10	4	2 ^(a)	7	6	12	4	6	7	10	8	6	7	8	6	4	5	4	5	3	2	0	2	2	2	2	1	1	0	2	1	TRM	TRM	TRM	
I-C10	5	16 ^(a)	8	6	7	3	5	6	8	6	5	3	4	2	3	2	1	0	3	1	0	2	0	0	0	2	2	0	2	0	TRM	TRM	TRM	
I-C11	1	2	1	1	2	0	0	1	0	0	0	1	0	2	1	2	0	7	1	0	0	0	1	0	3	2	1	0	2	0	TRM	TRM	TRM	
I-C11	2	2	2	1	1	0	0	1	0	2	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	3	1	2	2	2	TRM	TRM	TRM	
I-C11	3	2	4	2	4	6	2	3	0	2	2	4	0	2	1	0	0	0	1	1	0	0	0	0	1	0	1	0	1	0	TRM	TRM	TRM	
I-C11	4	0 ^(a)	1	0	0	0	0	2	3	2	1	2	2	0	0	0	3	2	0	0	2	1	1	2	1	0	0	0	1	1	TRM	TRM	TRM	
I-C11	5	0	4	1	3	0	4	2	2	2	0	4	2	0	0	2	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM
I-C12	1	1 ^(a)	3	5	8	3	3	5	9	4	3	1	2	4	0	5	4	3	2	1	6	6	6	3	5	4	3	5	9	9	TRM	TRM	TRM	
I-C12	2	5 ^(a)	2	0	0	1	0	1	0	3	1	1	0	0	2	4	2	7	8	6	7	4	6	4	2	0	2	2	4	2	TRM	TRM	TRM	
I-C12	3	17 ^(a)	13	13	11	7	6	5	2	4	4	8	5	5	6	3	5	5	9	7	7	7	10	3	8	7	9	7	7	6	TRM	TRM	TRM	
I-C12	4	16 ^(a)	3	4	7	4	8	6	6	3	4	7	4	5	3	7	5	7	8	2	6	2	5	6	6	4	4	2	3	2	TRM	TRM	TRM	
I-C12	5	9	3	0	3	5	3	6	10	1	2	4	5	3	5	8	4	7	4	4	2	2	3	3	2	2	1	2	2	1	TRM	TRM	TRM	
I-C14	1	7	7	7	6	5	6	8	6	5	2	6	0	3	6	1	3	3	2	4	2	2	0	2	0	1	1	2	0	TRM	TRM	TRM		
I-C14	2	0	8	4	7	2	0	2	1	2	1	2	3	1	0	1	0	2	0	1	0	2	3	0	1	0	0	1	0	1	TRM	TRM	TRM	
I-C14	3	0	11	6	5	4	0	4	6	2	2	0	2	2	4	4	0	0	4	3	0	0	2	1	2	3	1	0	5	1	TRM	TRM	TRM	
I-C14	4	0 ^(a)	0	5	10	3	10	9	8	2	7	9	8	4	7	6	8	3	4	6	2	4	8	4	10	6	5	3	7	6	TRM	TRM	TRM	
I-C14	5	1 ^(a)	10	7	7	4	3	9	5	7	0	3	3	6	5	0	0	3	6	2	2	1	0	0	3	3	0	1	2	4	TRM	TRM	TRM	
I-C15	1	7	5	6	2	0	1	7	2	7	3	3	4	4	5	1	0	5	1	1	4	3	2	1	0	0	0	0	2	3	TRM	TRM	TRM	
I-C15	2	0 ^(a)	7	5	12	0	4	6	5	0	1	4	3	2	1	2	2	2	7	2	3	2	7	0	2	5	2	3	5	3	TRM	TRM	TRM	
I-C15	3	7 ^(a)	2	3	8	7	4	6	7	4	3	1	2	4	1	14	5	1	4	5	1	3	0	0	2	2	3	4	6	2	TRM	TRM	TRM	
I-C15	4	0 ^(a)	0	0	0	0	3	3	0	0	3	2	4	2	8	4	0	2	7	2	0	0	0	1	0	6	3	5	3	4	TRM	TRM	TRM	
I-C15	5	0 ^(a)	0	8	13	8	5	8	3	4	4	2	7	1	1	0	3	5	6	1	3	3	3	2	2	4	0	1	1	0	TRM	TRM	TRM	
I-C16	1	6 ^(a)	5	5	12	4	5	5	5	7	0	5	5	3	4	1	2	0	1	0	0	1	0	0	2	4	4	1	5	1	TRM	TRM	TRM	
I-C16	2	7	8	7	8	7	2	3	6	9	5	4	1	0	1	5	0	2	4	1	2	2	4	1	1	1	2	3	3	2	TRM	TRM	TRM	
I-C16	3	5	13	12	7	8	2	3	5	3	3	5	4	5	2	6	2	4	3	6	1	3	4	3	5	7	4	4	3	4	TRM	TRM	TRM	
I-C16	4	10	13	17	13	7	7	6	7	6	6	7	6	6	6	5	3	5	0	2	1	2	0	2	3	1	0	0	0	1	TRM	TRM	TRM	
I-C16	5	0	10	11	9	5	9	7	4	6	3	6	0	1	4	1	1	1	2	2	0	2	1	0	1	2	2	0	3	0	TRM	TRM	TRM	
I-C17	1	21	21	17	19	17	12	14	14	9	9	14	8	10	8	8	7	4	4	8	7	7	5	3	5	4	5	6	3	5	TRM	TRM	TRM	
I-C17	2	14	19	16	15	2	6	9	10	6	7	8	3	9	6	3	2	5	6	1	2	3	3	2	3	3	3	2	2	2	TRM	TRM	TRM	
I-C17	3	0	7	4	8	2	5	6	5	0	2	6	1	2	3	7	3	7	0	4	5	2	5	6	8	5	8	1	2	5	TRM	TRM	TRM	
I-C17	4	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	1	0	0	0	0	1	0	1	1	1	0	1	0	TRM	TRM	TRM	
I-C17	5	0	7	1	3	2	0	4	5	1	0	7	0	0	0	3	1	2	0	2	0	0	5	0	2	1	4	1	5	2	TRM	TRM	TRM	

TABLE F.7. (Contd)

Sediment		<i>M. nasuta</i> on Siphon Exposed for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
I-C18	1	5	9	9	12	3	8	8	12	8	5	7	5	7	5	5	6	2	5	4	0	5	5	3	6	3	3	2	3	3	TRM	TRM	TRM	
I-C18	2	4	8	5	5	1	2	1	0	0	1	3	1	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C18	3	6	10	8	8	7	7	3	6	3	2	3	2	3	4	2	1	3	2	1	0	0	3	0	0	2	0	0	0	0	TRM	TRM	TRM	
I-C18	4	11	7	4	5	4	4	5	3	0	0	T	1	1	2	2	0	2	2	0	0	1	2	0	3	2	1	2	3	1	TRM	TRM	TRM	
I-C18	5	0	7	6	4	10	8	5	11	5	3	2	T	6	0	3	3	4	1	2	0	0	2	0	2	2	0	0	2	1	TRM	TRM	TRM	
I-S1	1	11	9	7	11	9	8	10	10	6	5	6	3	7	4	4	4	2	6	3	4	2	2	1	0	0	1	ND	2	1	0	0	0	
I-S1	2	8	9	6	5	4	4	4	4	5	4	3	0	3	2	0	2	2	0	0	2	0	0	0	1	0	1	ND	1	0	1	0	1	
I-S1	3	7	6	9	5	2	4	5	2	2	3	4	4	3	2	4	0	5	3	1	2	4	3	1	1	1	2	ND	1	1	0	1	TRM	
I-S1	4	12	10	12	8	9	9	4	17	7	7	6	3	6	6	8	6	4	4	2	5	6	4	5	3	5	8	ND	6	8	6	9	TRM	
I-S1	5	13	11	9	12	6	7	8	4	5	1	6	8	6	7	2	0	7	4	3	2	1	1	0	1	2	3	ND	3	1	0	0	0	
I-T1	1	3	3	4	0	1	1	0	0	1	2	2	3	1	1	1	2	0	0	0	1	2	1	1	0	1	0	ND	1	TRM	TRM	TRM	TRM	
I-T1	2	3	3	6	3	1	2	1	1	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	ND	1	TRM	TRM	TRM	TRM	
I-T1	3	2	1	2	1	2	1	2	1	1	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	4	8	2	8	10	1	3	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	ND	0	TRM	TRM	TRM	TRM	
I-T1	5	3	1	4	3	1	1	1	0	0	1	0	1	1	0	0	0	0	1	0	0	0	1	1	1	2	3	ND	0	TRM	TRM	TRM	TRM	
I-T3	1	4	10	5	8	1	2	0	3	3	2	0	2	4	12	4	0	2	3	2	2	1	2	2	2	1	2	ND	3	TRM	TRM	TRM	TRM	
I-T3	2	2	0	0	2	1	2	1	0	0	0	1	0	1	2	1	1	2	3	2	0	2	0	0	0	1	3	ND	2	TRM	TRM	TRM	TRM	
I-T3	3	2	2	4	6	2	2	7	6	2	9	7	7	4	6	5	3	4	4	1	2	1	2	1	3	3	3	ND	3	TRM	TRM	TRM	TRM	
I-T3	4	T	0	5	1	0	3	10	12	4	5	1	4	1	7	2	0	2	4	1	3	0	2	1	6	0	4	ND	6	TRM	TRM	TRM	TRM	
I-T3	5	7	7	6	4	3	2	T	2	2	1	0	0	1	1	3	0	2	0	0	0	3	0	2	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	1	7	2	5	4	2	3	6	T	1	1	1	0	1	3	0	0	2	2	0	0	1	1	3	0	1	1	ND	2	TRM	TRM	TRM	TRM	
I-T5	2	12	8	10	7	5	4	4	11	3	1	6	5	5	4	6	0	1	0	0	0	2	0	2	0	1	3	ND	1	TRM	TRM	TRM	TRM	
I-T5	3	T	4	9	4	5	6	8	5	4	4	4	1	4	1	4	1	1	4	2	3	2	1	0	0	0	1	ND	0	TRM	TRM	TRM	TRM	
I-T5	4	12	7	7	T	T	2	T	3	2	2	6	0	6	4	3	0	1	1	0	3	5	4	3	2	1	0	ND	2	TRM	TRM	TRM	TRM	
I-T5	5	4	6	4	10	2	2	1	3	2	4	0	3	0	0	2	1	4	2	1	0	1	2	2	0	0	2	ND	2	TRM	TRM	TRM	TRM	
R-AC	1	9	3	2	3	0	2	1	0	0	0	2	2	2	3	1	0	3	2	0	1	1	0	0	2	0	0	ND	2	TRM	TRM	TRM	TRM	
R-AC	2	6	0	0	T	0	0	0	2	1	3	3	1	2	5	2	2	0	1	0	1	1	1	1	2	1	1	ND	4	0	0	0	3	
R-AC	3	T	2	2	1	3	0	0	1	3	0	4	0	3	0	0	0	0	1	1	0	2	1	1	2	0	1	ND	1	4	0	0	2	
R-AC	4	12	6	6	T	5	5	3	2	6	12	15	5	6	4	5	7	9	5	1	4	0	0	1	1	2	5	ND	0	T	1	2	TRM	
R-AC	5	1	4	7	7	2	2	6	2	2	2	4	2	4	2	6	3	3	3	0	4	5	0	0	4	2	5	ND	3	8	ND	3	4	
R-AM	1	14	13	13	13	3	6	6	9	8	5	9	5	12	12	5	7	5	4	5	2	6	4	7	6	7	8	ND	10	TRM	TRM	TRM	TRM	
R-AM	2	13	11	9	15	7	9	14	20	15	14	14	8	7	7	3	9	7	8	2	11	10	10	4	6	6	9	ND	12	TRM	TRM	TRM	TRM	
R-AM	3	3	5	6	8	7	12	9	12	10	8	7	6	6	10	10	12	8	8	10	10	9	8	10	7	9	9	ND	12	TRM	TRM	TRM	TRM	
R-AM	4	7	7	10	8	6	6	10	6	5	11	3	3	5	10	6	4	8	13	7	9	11	9	8	17	8	7	ND	6	TRM	TRM	TRM	TRM	
R-AM	5	9	10	5	3	3	4	14	9	4	5	5	6	10	8	6	5	7	8	6	6	11	8	3	5	2	2	ND	6	TRM	TRM	TRM	TRM	

TABLE F.7. (Contd)

Sediment		<i>M. nasuta</i> on Siphon Exposed for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
R-BF	1	1 ^(a)	1	4	2	4	4	7	6	4	2	2	1	2	0	2	2	2	4	1	0	2	3	0	3	1	2	1	1	0	TRM	TRM	TRM
R-BF	2	1 ^(a)	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	2	1	1	1	TRM	TRM	TRM
R-BF	3	1 ^(a)	0	2	6	3	1	4	0	1	2	1	0	0	0	2	1	3	2	2	0	3	3	2	2	2	3	3	5	0	TRM	TRM	TRM
R-BF	4	0	1	0	0	3	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	2	TRM	TRM	TRM
R-BF	5	0	3	4	1	0	1	2	2	1	2	3	1	0	2	1	2	2	2	1	0	1	0	0	1	2	0	0	0	0	TRM	TRM	TRM
R-OS	1	2	4	1	8	1	0	1	2	0	1	0	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM
R-OS	2	7	7	2	4	2	5	6	3	4	1	1	1	0	3	3	2	1	2	1	4	2	3	1	1	2	3	ND	1	1	1	1	0
R-OS	3	3	1	6	2	2	1	5	2	3	2	6	0	3	3	6	0	0	4	2	2	1	0	2	4	2	2	ND	5	4	1	0	2
R-OS	4	3	3	2	2	2	1	3	4	1	1	1	1	5	0	0	3	3	1	2	3	3	1	2	1	4	1	ND	0	0	0	0	0
R-OS	5	4	1	7	8	4	0	1	6	3	4	3	3	2	1	2	0	4	3	1	1	2	0	3	1	2	1	ND	3	3	2	1	1
R-PC	1	10	1	2	3	3	4	4	10	5	4	3	0	5	1	1	0	3	6	1	2	2	1	0	0	0	0	ND	0	1	2	1	1
R-PC	2	0	0	2	4	7	0	1	7	2	0	1	7	4	3	1	3	2	3	1	2	6	1	2	3	0	2	ND	1	0	0	0	0
R-PC	3	2	1	2	2	3	2	4	14	5	5	7	0	9	4	2	0	2	0	0	4	3	1	0	4	1	0	ND	1	0	0	1	0
R-PC	4	4	3	3	2	4	2	4	0	5	0	2	0	5	5	0	1	3	0	2	2	3	0	0	0	1	3	ND	2	2	1	1	TRM
R-PC	5	3	2	2	4	0	2	0	0	3	2	2	4	3	10	1	0	2	1	1	2	2	2	1	1	2	1	ND	2	1	3	2	TRM
R-PF	1	0	0	4	4	0	0	7	0	2	1	3	0	3	0	1	0	0	0	2	0	2	1	2	5	1	1	ND	4	TRM	TRM	TRM	TRM
R-PF	2	5	1	2	4	3	1	2	3	3	0	1	3	2	0	0	0	1	0	0	3	0	1	0	1	1	4	ND	1	1	0	1	TRM
R-PF	3	0	2	5	1	3	0	0	1	0	0	2	0	2	2	3	2	0	1	2	0	4	1	3	0	1	2	ND	0	0	1	0	TRM
R-PF	4	7	0	1	9	1	1	2	1	0	1	0	1	0	3	0	0	1	1	0	0	0	0	0	2	0	1	ND	0	0	1	1	0
R-PF	5	4	1	2	0	1	0	2	10	2	0	1	1	0	2	0	0	0	0	0	0	0	0	0	3	0	2	ND	3	1	0	1	0
C-SB	1	2 ^(a)	3	3	4	2	2	0	0	0	0	2	3	0	0	2	0	3	0	1	0	0	0	1	0	1	0	0	1	1	TRM	TRM	TRM
C-SB	2	14 ^(a)	2	0	3	0	0	0	3	1	1	3	0	1	0	0	0	2	3	0	0	5	0	0	0	0	1	3	0	0	TRM	TRM	TRM
C-SB	3	5 ^(a)	3	6	1	3	4	5	2	3	2	6	3	1	4	9	3	3	1	0	2	4	1	1	2	0	0	0	3	1	TRM	TRM	TRM
C-SB	4	6 ^(a)	5	4	2	4	1	2	1	0	1	4	3	1	2	1	1	5	1	3	0	0	4	2	1	3	2	2	10	2	TRM	TRM	TRM
C-SB	5	3 ^(a)	2	4	2	3	2	0	4	0	1	3	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	2	2	0	TRM	TRM	TRM
C-WB	1	7 ^(a)	5	4	4	7	2	10	8	3	2	6	3	6	7	4	3	6	4	8	7	5	6	4	9	7	8	2	7	6	TRM	TRM	TRM
C-WB	2	5 ^(a)	1	2	3	1	2	7	8	3	8	4	5	1	6	5	3	6	6	9	1	1	5	1	2	4	6	5	11	18	TRM	TRM	TRM
C-WB	3	3 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	4	14 ^(a)	2	0	5	6	2	5	0	4	3	3	4	5	3	2	4	2	4	0	2	3	1	2	4	6	2	1	2	2	TRM	TRM	TRM
C-WB	5	11 ^(a)	5	3	13	7	12	5	7	6	7	8	6	8	7	5	3	5	3	3	3	2	2	0	0	2	1	2	0	0	TRM	TRM	TRM

TABLE F.7. (Contd)

Sediment		<i>M. nasuta</i> on Siphon Exposed for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C-NE	1	2	1	2	3	1	1	3	4	2	6	3	2	5	5	2	0	2	6	1	4	3	5	4	13	2	6	ND	3	TRM	TRM	TRM	TRM
C-NE	2	4	0	1	0	1	0	4	2	2	1	3	2	0	1	1	0	3	2	0	1	0	0	0	2	0	3	ND	1	TRM	TRM	TRM	TRM
C-NE	3	1	2	0	0	1	2	4	0	3	0	1	4	3	4	3	3	1	1	1	1	1	2	5	3	2	5	ND	6	TRM	TRM	TRM	TRM
C-NE	4	4	2	4	1	2	1	2	15	7	5	3	2	2	6	2	2	4	5	1	3	1	0	1	3	3	3	ND	6	TRM	TRM	TRM	TRM
C-NE	5	1	1	2	1	2	1	3	1	4	1	2	3	2	4	4	6	4	7	2	4	2	2	2	3	7	0	ND	5	TRM	TRM	TRM	TRM

- (a) Observations performed on initiation day.
 (b) Terminated: end of 28-day test.
 (c) Too turbid to see.
 (d) No data.

TABLE F.8. Daily Observations of *M. nasuta* Number Removed During 28-Day Solid-Phase Test, Oakland Phase III A Project

Sediment		<i>M. nasuta</i> Number Removed for Test Days 1 Through 32																																		
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
AC-1	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	TRM ^(b)	TRM	TRM		
AC-1	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	4	0 ^(a)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	1	0 ^(a)	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	3	0 ^(a)	0	0	0	0	0	1	0 ^(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND ^(d)	0	TRM	TRM	TRM	TRM		
I-C4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C4	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C7	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C7	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C7	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C7	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C7	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C8	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C8	3	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	TRM	TRM	
I-C8	5	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	1	0 ^(a)	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C9	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C9	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C9	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C9	5	0 ^(a)	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	TRM	TRM

TABLE F.8. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Number Removed for Test Days 1 Through 32																																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32							
I-C10	1	0 ^(a)	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	TRM	TRM	TRM						
I-C10	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM					
I-C10	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM					
I-C10	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM				
I-C10	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM				
I-C11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM				
I-C11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM			
I-C11	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM			
I-C11	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM			
I-C11	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM			
I-C12	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM			
I-C12	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM			
I-C12	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C12	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C14	1	T	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C14	4	0 ^(a)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM			
I-C14	5	0 ^(a)	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C15	1	T	0	0	1	0	1	T	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C15	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C15	3	T ^(a)	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM	
I-C15	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	T	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C15	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C16	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C16	2	T	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	3	0	T	0	0	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM	
I-C17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	5	0	T	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	TRM	TRM	TRM

TABLE F.8. (Contd)

Sediment		<i>M. nasuta</i> Number Removed for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
I-C18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C18	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C18	4	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C18	5	0	0	0	0	0	0	0	0	0	1	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-S1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
I-S1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
I-S1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM	
I-S1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM	
I-S1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
I-T1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	ND	0	TRM	TRM	TRM	TRM
I-T3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	4	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	ND	0	TRM	TRM	TRM	TRM	
I-T3	5	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	1	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	3	T	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	4	0	0	0	T	T	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AC	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AC	2	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
R-AC	3	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	ND	0	0	0	0	0	
R-AC	4	0	0	0	T	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	T	0	0	TRM	
R-AC	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	ND	0	0	
R-AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	1	TRM	TRM	TRM	TRM	
R-AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	ND	0	TRM	TRM	TRM	TRM	
R-AM	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	

TABLE F.8. (Contd)

Sediment		<i>M. nasuta</i> Number Removed for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
R-BF	1	T ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	TRM	TRM	TRM
R-BF	2	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM
R-BF	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-BF	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	TRM	TRM	TRM
R-BF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-OS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM
R-OS	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	ND	0	0	0	0	0
R-DS	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	ND	0	0	0	0	0
R-OS	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	ND	1	0	0	0	0
R-OS	5	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
R-PC	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
R-PC	2	0	0	0	0	T	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	1	TRM
R-PC	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	ND	0	0	0	0	TRM
R-PF	1	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	1	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
R-PF	4	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0
C-SB	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-SB	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM
C-SB	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-SB	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-SB	5	0 ^(a)	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	TRM	TRM	TRM

TABLE F.8. (Contd)

Sediment		<i>M. nasuta</i> Number Removed for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C-NE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM

- (a) Observations performed on initiation day.
 (b) Terminated: end of 28-day test.
 (c) Too turbid to see.
 (d) No data.

N. caecoides on Sediment for Test Days 1 Through 32

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
AC-1	1	0 ^(a)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM ^(b)	TRM	TRM	
AC-1	2	0 ^(a)	3	3	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	3	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	4	1 ^(a)	0	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-1	5	0	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	1	0 ^(a)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	2	0 ^(a)	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
AC-3	3	0 ^(a)	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	TRM	TRM	TRM	
AC-3	4	0 ^(a)	0	3	0	2	0	0	0 ^(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	5	0 ^(a)	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND ^(d)	0	TRM	TRM	TRM	TRM	
I-C4	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C4	3	0	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C4	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C4	5	0	0	1	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C5	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C5	2	0	1	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C5	3	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C5	4	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C5	5	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C7	1	0 ^(a)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	2	0 ^(a)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	3	0 ^(a)	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	5	0 ^(a)	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C8	1	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C8	2	0	0	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C8	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C8	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C8	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	TRM
I-C9	1	0 ^(a)	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	2	0 ^(a)	2	3	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	4	0 ^(a)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM

TABLE F.9. (Contd)

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
I-C10	1	0 ^(a)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C10	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C10	3	0 ^(a)	0	4	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C10	4	0 ^(a)	1	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C10	5	1 ^(a)	0	1	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C11	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	3	0 ^(a)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	4	0 ^(a)	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	1	T	T	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	3	0	1	6	3	2	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	4	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C14	5	0 ^(a)	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	1	T	0	0	0	0	1	T	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	3	T ^(a)	0	0	0	T	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C15	5	0 ^(a)	0	3	3	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	1	0 ^(a)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	2	T	0	0	2	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	3	0	1	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	4	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C16	5	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	3	0	T	0	0	0	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C17	5	0	T	2	1	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM

TABLE F.9. (Contd)

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 32																																
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
I-C18	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C18	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C18	3	0	0	1	6	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
I-C18	4	0	2	0	0	1	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-C18	5	0	0	1	2	2	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
I-S1	1	0	0	0	3	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
I-S1	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
I-S1	3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM
I-S1	4	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM	
I-S1	5	0	0	0	11	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
I-T1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	2	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T1	5	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	2	0	1	2	2	0	0	2	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	3	0	1	1	2	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	4	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T3	5	0	1	1	2	0	1	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	1	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	2	0	3	5	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	3	T	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	4	0	1	0	T	T	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-T5	5	1	1	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AC	1	1	2	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AC	2	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
R-AC	3	T	0	0	4	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	
R-AC	4	0	0	0	T	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	T	0	0	TRM	
R-AC	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	ND	0	0	
R-AM	1	1	5	7	7	5	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AM	2	2	3	6	4	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AM	3	0	6	3	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AM	4	0	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
R-AM	5	1	5	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	

TABLE F.9. (Contd)

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 32																																	
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
R-BF	1	T ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM			
R-BF	2	T	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
R-BF	3	0 ^(a)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM		
R-BF	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-BF	5	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
R-OS	1	0	0	0	3	1	2	2	4	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM	0	
R-OS	2	0	0	0	2	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-OS	3	0	0	0	4	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-OS	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-OS	5	0	0	T	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	2	0	0	0	9	T	1	1	0	1	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	3	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	4	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PC	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PF	1	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	TRM	
R-PF	2	0	0	0	2	3	2	1	0	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	NO	0	0	0	0	0	TRM	
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PF	4	T	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NO	0	0	0	0	0	0	
R-PF	5	0	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NO	0	0	0	0	0	0	
C-SB	1	0 ^(a)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	4	0 ^(a)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-SB	5	0 ^(a)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	1	0 ^(a)	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-WB	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-WB	3	0 ^(a)	1	3	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-WB	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-WB	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	

TABLE F.9. (Contd)

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C-NE	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	2	0	2	3	4	8	11	3	6	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	3	0	0	1	1	4	2	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	4	0	3	4	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	5	1	0	3	2	3	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	ND	0	TRM	TRM	TRM	TRM

- (a) Observations performed on initiation day.
 (b) Terminated: end of 28-day test.
 (c) Too turbid to see.
 (d) No data.

TABLE F.10. Daily Observations of *N. caecoides* Number Removed During 28-Day Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>N. caecoides</i> Number Removed for Test Days 1 Through 32																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
AC-1	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM ^(b)	TRM	TRM	
AC-1	2	0 ^(a)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-1	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
AC-3	5	0 ^(a)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND ^(d)	0	TRM	TRM	TRM	TRM	
I-C4	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C4	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C4	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C7	1	0 ^(a)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C7	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C7	5	0 ^(a)	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C8	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C8	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	
I-C9	1	0 ^(a)	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
I-C9	2	0 ^(a)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	
I-C9	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM
I-C9	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM

TABLE F.10. (Contd)

[illegible]

TABLE F.10. (Contd)

[illegible]

TABLE F.10. (Contd)

Sediment		<i>N. caecoides</i> Number Removed for Test Days 1 Through 32																																	
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
R-BF	1	T ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-BF	2	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-BF	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-BF	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-BF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
R-OS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	TRM	0	
R-OS	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-OS	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0
R-OS	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-OS	5	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	2	0	0	0	0	T	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PC	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PC	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PF	1	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM	TRM	
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	TRM	
R-PF	4	T	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	0	0	0	0	0	
C-SB	1	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	3	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	4	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-SB	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM	
C-WB	1	0 ^(a)	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	2	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	3	0 ^(a)	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM
C-WB	5	0 ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TRM	TRM	TRM

TABLE F.10. (Contd)

Sediment		<i>N. caecoides</i> Number Removed for Test Days 1 Through 32																															
Treatment	Replicate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C-NE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	2	0	0	0	0	0	10	0	2	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	3	0	0	0	0	2	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM
C-NE	5	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ND	0	TRM	TRM	TRM	TRM

(a) Observations performed on initiation day.

(b) Terminated: end of 28-day test.

(c) Too turbid to see.

(d) No data.

APPENDIX G

BIOASSAY RESULTS FOR 10-DAY SOLID-PHASE FLOW-THROUGH RETEST WITH *M. nasuta* AND *N. caecoides*

TABLE G.1. Bioassay Results for 10-Day *M. nasuta* Solid-Phase Test,
Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C3	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C5	1	20	0	0.99
	2	20	0	
	3	20	0	
	4	19	1	
	5	20	0	
I-C7	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C8	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C9	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C10	1	19	1	0.98
	2	20	0	
	3	20	0	
	4	19	1	
	5	20	0	
I-C11	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	

TABLE G.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C12	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C14	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C15	1	20	0	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	19	1	
I-C16	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C17	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C18	1	20	0	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	19	1	
I-T1	1	20	0	0.99
	2	20	0	
	3	20	0	
	4	19	1	
	5	20	0	

TABLE G.1. (Contd)

Sediment Treatment	Replicates	<i>M. nasuta</i>		Mean Proportion Surviving
		Live	Dead or Missing	
I-T3	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-S1	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
R-AC	1	20	0	0.97
	2	20	0	
	3	20	0	
	4	17	3	
	5	20	0	
R-AM	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
R-BF	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
R-OS	1	20	0	0.99
	2	19	1	
	3	20	0	
	4	20	0	
	5	20	0	
R-PC	1	20	0	0.99
	2	20	0	
	3	20	0	
	4	19	1	
	5	20	0	

TABLE G.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
R-PF	1	20	0	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	19	1	
C-SB	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
C-NE	1	20	0	0.98
	2	20	0	
	3	19	1	
	4	20	0	
	5	19	1	
C-NE-A	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	

TABLE G.2. Rank Order Based on Number Surviving the 10-Day *M. nasuta* Solid-Phase Test, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
R-AC	0.97
C-NE	0.98
I-C10	0.98
I-C5	0.99
C-NE-A	0.99
R-OS	0.99
R-PC	0.99
R-PF	0.99
I-C18	0.99
I-C15	0.99
I-T3	0.99
I-T1	0.99
I-C11	0.99
I-C14	1.00
I-C16	1.00
I-C17	1.00
I-C9	1.00
I-S1	1.00
I-C12	1.00
I-C8	1.00
I-C7	1.00
I-C3	1.00
C-SB	1.00
R-AM	1.00
R-BF	1.00

TABLE G.3. Bioassay Results for 10-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C3	1	20	0	0.90
	2	18	2	
	3	19	1	
	4	16	4	
	5	17	3	
I-C5	1	17	3	0.79
	2	16	4	
	3	19	1	
	4	12	8	
	5	15	5	
I-C7	1	17	3	0.87
	2	19	1	
	3	16	4	
	4	19	1	
	5	16	4	
I-C8	1	15	5	0.74
	2	13	7	
	3	17	3	
	4	14	6	
	5	15	5	
I-C9	1	15	5	0.80
	2	15	5	
	3	15	5	
	4	17	3	
	5	18	2	
I-C10	1	10	10	0.71
	2	13	7	
	3	14	6	
	4	16	4	
	5	18	2	
I-C11	1	11	9	0.70
	2	14	6	
	3	14	6	
	4	14	6	
	5	17	3	

TABLE G.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C12	1	15	5	0.78
	2	18	2	
	3	16	4	
	4	15	5	
	5	14	6	
I-C14	1	15	5	0.64
	2	13	7	
	3	13	7	
	4	12	8	
	5	11	9	
I-C15	1	13	7	0.46
	2	11	9	
	3	9	11	
	4	5	15	
	5	8	12	
I-C16	1	6	14	0.31
	2	6	14	
	3	6	14	
	4	8	12	
	5	5	15	
I-C17	1	9	11	0.45
	2	9	11	
	3	10	10	
	4	6	14	
	5	11	9	
I-C18	1	8	12	0.39
	2	6	14	
	3	5	15	
	4	13	7	
	5	7	13	
I-T1	1	11	9	0.69
	2	14	6	
	3	14	6	
	4	16	4	
	5	14	6	

TABLE G.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-T3	1	10	10	0.57
	2	14	6	
	3	11	9	
	4	14	6	
	5	8	12	
I-S1	1	16	4	0.73
	2	15	5	
	3	14	6	
	4	14	6	
	5	14	6	
R-AC	1	14	6	0.71
	2	15	5	
	3	12	8	
	4	15	5	
	5	15	5	
R-AM	1	19	1	0.92
	2	16	4	
	3	19	1	
	4	19	1	
	5	19	1	
R-BF	1	20	0	0.80
	2	17	3	
	3	15	5	
	4	12	8	
	5	16	4	
R-OS	1	13	7	0.78
	2	16	4	
	3	15	5	
	4	14	6	
	5	28 ^(a)	2	
R-PC	1	28 ^(a)	2	0.92
	2	17	3	
	3	20	0	
	4	19	1	
	5	17	3	

TABLE G.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
R-PF	1	16	4	0.80
	2	15	5	
	3	17	3	
	4	14	6	
	5	18	2	
C-SB	1	18	2	0.84
	2	16	4	
	3	17	3	
	4	15	5	
	5	18	2	
C-NE	1	16	4	0.85
	2	18	2	
	3	18	2	
	4	18	2	
	5	15	5	
C-NE-A	1	20	0	0.98
	2	19	1	
	3	20	0	
	4	19	1	
	5	20	0	

(a) Inadvertently initiated more than 20 organisms.

TABLE G.4. Rank Order Based on Number Surviving the 10-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
I-C16	0.31
I-C18	0.39
I-C17	0.45
I-C15	0.46
I-T3	0.57
I-C14	0.64
I-T1	0.69
I-C11	0.70
R-AC	0.71
I-C10	0.71
I-S1	0.73
I-C8	0.74
I-C12	0.78
R-OS	0.86
I-C5	0.79
I-C9	0.80
R-PF	0.80
R-BF	0.80
C-NE	0.85
I-C7	0.87
I-C3	0.90
R-PC	0.92
R-AM	0.92
C-NE-A	0.98

TABLE G.5. Water Quality Summary for 10-Day *M. nasuta*/*N. caecoides* Solid Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	30.0	34.0	115	135
I-C3	14.0	15.2	7.62	7.90	6.8	7.9	32.0	32.0	116	134
I-C5	14.1	15.1	7.69	7.84	7.1	7.9	32.0	32.5	116	134
I-C7	14.2	15.1	7.65	7.92	7.3	8.0	32.0	32.0	116	132
I-C8	14.0	15.2	7.42	7.87	7.0	7.9	32.0	32.5	112 ^(a)	134
I-C9	14.1	15.2	7.53	7.83	6.8	7.7	31.5	33.0	112 ^(a)	134
I-C10	14.1	15.2	7.20 ^(a)	7.87	7.0	7.7	32.0	32.5	115	134
I-C11	13.9	15.1	7.15 ^(a)	7.87	7.2	7.8	32.0	32.5	112 ^(a)	132
I-C12	14.0	15.1	7.67	7.88	7.0	7.9	31.0	32.0	116 ^(a)	134
I-C14	14.0	15.2	7.64	7.90	6.5	7.9	32.0	32.5	108 ^(a)	132
I-C15	14.0	15.1	7.26 ^(a)	7.90	7.1	7.9	31.5	33.0	104 ^(a)	132
I-C16	14.0	15.2	7.55 ^(a)	7.89	6.5	7.9	31.5	33.0	112 ^(a)	130
I-C17	14.1	15.2	6.98 ^(a)	7.86	7.1	7.9	32.0	33.0	112 ^(a)	156 ^(a)
I-C18	13.9	15.1	7.69	7.84	7.2	7.8	31.5	32.5	108 ^(a)	134
I-S1	13.8	15.3	7.68 ^(a)	7.82	6.9	7.8	31.0	32.5	112 ^(a)	134
I-T1	14.0	15.2	7.60	7.83	6.9	7.9	31.5	33.0	112 ^(a)	136 ^(a)
I-T3	14.0	15.2	7.64	7.87	7.0	7.7	32.0	32.5	112 ^(a)	145 ^(a)
R-AC	14.2	14.9	7.45	7.96	6.9	8.3	31.0	32.0	116	132
R-AM	14.1	14.9	7.62	7.96	6.3	8.2	31.5	32.0	116	132
R-BF	14.2	14.9	7.64	7.97	6.8	8.5	31.5	32.0	112 ^(a)	134
R-OS	14.1	15.0	7.61	7.96	6.6	8.2	31.5	32.0	116	134
R-PC	14.2	15.0	7.72	7.95	6.7	8.6	31.0	32.0	112 ^(a)	132
R-PF	14.2	15.0	7.69	7.96	6.2	8.2	31.5	32.0	116	134
C-SB	14.1	14.8	7.71	7.99	6.9	8.4	31.5	32.0	116	132
C-NE	14.2	15.0	7.73	7.84	6.1	8.3	31.0	32.0	116	132
C-NE-A	14.2	15.2	7.10 ^(a)	7.92	7.1	7.9	32.0	32.0	116	134

(a) Data point out of range.

TABLE G.6. Daily Observations of *M. nasuta* Number on Surface During 10-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C3	1	0	0	0	1	1	1	0	1	1	0
I-C3	2	1	1	1	1	1	0	0	0	1	1
I-C3	3	0	1	1	2	3	3	3	3	2	1
I-C3	4	1	0	1	1	1	1	3	3	2	0
I-C3	5	0	1	1	1	T ^(a)	1	1	2	2	3
I-C5	1	7	5	3	2	1	1	1	1	1	1
I-C5	2	1	0	0	0	0	0	0	0	0	0
I-C5	3	0	0	0	0	0	0	0	0	0	0
I-C5	4	4	3	3	2	2	2	2	1	1	1
I-C5	5	2	0	0	0	0	0	0	0	0	0
I-C7	1	1	0	1	2	1	0	1	2	1	1
I-C7	2	11	13	9	15	8	6	12	10	9	14
I-C7	3	1	0	0	0	0	2	0	1	2	1
I-C7	4	0	0	1	1	1	1	2	1	1	1
I-C7	5	1	2	1	2	1	1	2	3	3	1
I-C8	1	5	0	0	1	1	1	2	1	3	3
I-C8	2	1	1	3	2	0	2	2	1	1	1
I-C8	3	0	1	0	0	0	0	1	1	0	0
I-C8	4	0	0	0	1	0	0	0	0	1	0
I-C8	5	2	0	0	1	0	1	0	1	0	0
I-C9	1	5	3	3	2	1	1	1	1	1	1
I-C9	2	8	7	5	3	2	2	2	2	2	2
I-C9	3	4	2	2	1	2	0	0	0	0	0
I-C9	4	7	6	4	3	2	2	2	1	1	1
I-C9	5	9	6	3	3	2	2	0	2	1	0
I-C10	1	1	1	2	1	0	0	0	0	0	0
I-C10	2	0	0	0	0	1	0	0	0	0	0
I-C10	3	1	2	1	1	T	1	0	0	0	0
I-C10	4	0	1	2	2	1	2	1	2	3	3
I-C10	5	0	0	0	0	3	1	1	0	2	1
I-C11	1	1	1	1	1	1	0	0	0	0	0
I-C11	2	0	0	0	0	0	0	0	0	0	0
I-C11	3	1	1	1	1	1	0	0	0	0	0
I-C11	4	2	3	3	3	3	2	2	2	2	1
I-C11	5	1	1	1	1	0	0	0	0	1	0

TABLE G.6. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C12	1	1	1	2	1	1	1	1	1	2	1
I-C12	2	1	1	0	0	0	0	0	0	0	0
I-C12	3	3	3	4	3	3	2	2	2	2	3
I-C12	4	1	1	0	1	1	3	1	1	0	1
I-C12	5	0	0	0	0	0	0	0	0	0	1
I-C14	1	1	0	0	0	0	0	T	1	2	1
I-C14	2	0	0	4	1	1	1	1	1	1	1
I-C14	3	4	6	6	6	6	3	3	3	1	1
I-C14	4	3	3	3	3	3	2	2	2	2	2
I-C14	5	4	4	3	3	4	4	5	4	3	3
I-C15	1	2	2	1	1	1	1	0	1	1	1
I-C15	2	1	1	1	1	1	1	1	1	1	1
I-C15	3	2	2	1	2	1	1	1	1	1	1
I-C15	4	0	0	0	0	0	0	0	0	0	0
I-C15	5	2	2	3	3	2	1	1	1	1	0
I-C16	1	2	2	2	2	2	2	2	2	2	3
I-C16	2	T	T	0	0	0	0	0	0	0	0
I-C16	3	1	1	0	0	0	0	0	0	1	0
I-C16	4	1	1	2	2	2	T	1	1	1	1
I-C16	5	2	2	1	1	1	T	1	1	1	1
I-C17	1	2	2	1	1	1	1	1	1	1	1
I-C17	2	1	0	0	0	0	0	0	0	1	1
I-C17	3	4	3	3	3	3	3	3	2	2	2
I-C17	4	5	4	4	4	4	4	3	2	2	1
I-C17	5	3	2	2	1	1	1	1	1	1	1
I-C18	1	0	0	0	0	0	6	0	0	0	0
I-C18	2	2	1	1	1	1	1	1	1	1	0
I-C18	3	2	2	2	2	2	1	1	0	1	1
I-C18	4	5	4	4	4	4	4	3	4	3	3
I-C18	5	2	1	0	0	0	0	0	0	0	0
I-S1	1	3	2	0	0	0	2	0	0	0	0
I-S1	2	5	3	2	2	2	0	1	0	0	0
I-S1	3	5	4	3	2	2	1	1	1	1	0
I-S1	4	6	5	4	3	2	0	0	0	0	0
I-S1	5	4	3	3	3	3	2	1	1	1	1
I-T1	1	2	1	1	3	1	1	1	1	0	1
I-T1	2	4	2	2	2	2	2	2	2	2	1
I-T1	3	6	4	3	0	0	0	0	0	0	0
I-T1	4	7	6	5	4	4	2	2	2	2	2
I-T1	5	2	2	0	0	0	0	0	0	0	0

TABLE G.6. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-T3	1	2	2	1	1	0	0	0	0	7	1
I-T3	2	0	0	0	0	0	0	0	0	0	0
I-T3	3	0	0	0	0	0	0	0	0	0	0
I-T3	4	2	2	1	1	1	0	1	1	0	0
I-T3	5	1	1	1	1	0	0	0	0	0	0
R-AC	1	0	0	0	0	1	0	0	0	0	0
R-AC	2	3	2	1	0	0	0	1	0	1	1
R-AC	3	3	0	0	1	0	1	1	1	1	1
R-AC	4	0	1	1	0	0	0	0	0	0	0
R-AC	5	0	0	0	0	0	0	0	0	0	0
R-AM	1	10	10	10	10	9	10	9	10	10	9
R-AM	2	3	2	1	1	3	1	0	1	0	0
R-AM	3	2	2	2	1	2	4	4	3	1	1
R-AM	4	5	4	5	3	3	4	5	4	6	7
R-AM	5	6	2	2	3	2	5	1	3	5	3
R-BF	1	0	0	0	0	1	1	1	1	1	0
R-BF	2	0	0	0	0	1	0	0	0	0	0
R-BF	3	0	0	0	0	0	0	0	0	0	0
R-BF	4	1	3	0	0	0	0	0	0	0	0
R-BF	5	0	0	0	0	0	0	0	0	0	1
R-OS	1	0	0	0	0	1	0	1	0	0	2
R-OS	2	1	1	2	1	2	0	2	1	1	0
R-OS	3	1	0	0	0	1	1	1	1	1	1
R-OS	4	4	0	0	0	2	1	2	2	1	1
R-OS	5	0	0	0	2	0	0	0	0	0	0
R-PC	1	0	0	0	0	0	0	0	0	0	0
R-PC	2	1	0	0	0	0	1	0	0	0	1
R-PC	3	0	0	1	0	0	0	2	1	1	0
R-PC	4	0	1	0	1	1	1	0	0	1	1
R-PC	5	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	0	0	1	2	3	2	0	1	2
R-PF	2	1	0	0	0	0	0	0	1	0	2
R-PF	3	0	0	1	0	2	1	0	0	0	1
R-PF	4	4	2	0	3	2	1	1	3	2	4
R-PF	5	1	2	1	3	2	3	2	4	3	2
C-SB	1	0	0	0	0	0	0	0	0	0	0
C-SB	2	0	0	0	0	0	0	0	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	0	0	0	0	0	0	0
C-SB	5	0	0	0	0	0	0	0	7	0	0

TABLE G.6. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> on Sediment for Test Days 1 through 10									
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
C-NE	1	2	2	2	3	3	3	3	4	1	2
C-NE	2	2	2	2	2	2	1	2	1	1	2
C-NE	3	2	2	0	2	2	4	2	1	NA ^(b)	NA
C-NE	4	1	1	2	3	1	1	1	1	1	2
C-NE	5	6	5	4	2	2	2	3	3	2	2
C-NE-A	1	4	4	4	3	3	5	5	2	5	5
C-NE-A	2	2	1	1	2	1	1	3	3	3	1
C-NE-A	3	5	0	0	0	0	2	1	2	0	1
C-NE-A	4	2	2	2	3	4	3	5	3	3	4
C-NE-A	5	3	1	1	1	1	1	1	1	2	2

(a) Too turbid to see.

(b) Inadvertently terminated on Day 8.

TABLE G.7. Daily Observations of *M. nasuta* Siphon Exposed During 10-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C3	1	2	2	0	1	1	1	0	1	0	0
I-C3	2	3	1	0	1	0	0	3	0	2	3
I-C3	3	2	2	3	1	4	6	5	8	6	4
I-C3	4	2	4	4	3	5	5	5	5	4	2
I-C3	5	1	4	6	4	7 ^(a)	3	3	5	2	10
I-C5	1	6	9	5	1	2	3	0	1	3	0
I-C5	2	4	2	1	0	0	1	2	0	0	0
I-C5	3	4	5	0	1	0	2	0	0	2	0
I-C5	4	12	6	9	3	5	5	4	5	2	2
I-C5	5	7	4	0	0	0	3	1	1	0	1
I-C7	1	0	0	2	4	4	2	2	3	3	2
I-C7	2	3	18	5	13	10	14	9	17	11	10
I-C7	3	0	0	2	0	2	0	0	2	2	1
I-C7	4	2	2	1	0	0	1	3	3	3	1
I-C7	5	2	3	2	3	3	7	1	2	1	4
I-C8	1	5	4	2	3	7	5	3	2	7	6
I-C8	2	5	5	8	7	3	4	1	2	1	2
I-C8	3	5	7	2	4	5	4	1	6	5	4
I-C8	4	0	0	0	0	0	2	0	1	2	1
I-C8	5	0	1	1	1	8	3	0	1	1	1
I-C9	1	14	13	9	6	6	2	4	2	3	0
I-C9	2	14	11	10	6	3	3	3	3	2	2
I-C9	3	9	6	5	4	2	3	1	0	0	0
I-C9	4	9	12	17	8	3	8	5	2	2	2
I-C9	5	16	9	7	6	5	4	3	2	2	2
I-C10	1	5	6	8	2	2	3	2	2	1	3
I-C10	2	0	0	1	0	4	1	0	0	2	0
I-C10	3	7	0	4	1	7	3	1	1	6	1
I-C10	4	2	6	7	4	4	4	1	2	4	4
I-C10	5	2	1	0	1	0	4	2	1	4	3
I-C11	1	2	4	7	4	2	4	4	1	1	0
I-C11	2	2	4	2	3	1	3	4	0	1	1
I-C11	3	3	1	4	1	3	2	3	0	3	2
I-C11	4	5	6	7	5	6	4	3	3	4	1
I-C11	5	5	4	5	5	0	4	5	3	3	3

TABLE G.7. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C12	1	4	4	3	6	0	1	3	6	5	2
I-C12	2	9	5	2	1	0	3	0	3	0	0
I-C12	3	7	10	7	7	9	6	5	4	4	5
I-C12	4	11	17	5	3	1	8	2	3	2	2
I-C12	5	5	6	1	3	2	1	0	3	1	0
I-C14	1	1	2	4	1	0	5	7	0	2	0
I-C14	2	2	2	4	3	4	8	1	2	5	3
I-C14	3	4	8	8	10	7	7	7	5	2	1
I-C14	4	0	3	2	8	3	3	7	5	5	2
I-C14	5	7	6	7	8	5	10	14	5	5	0
I-C15	1	4	9	6	6	4	6	7	2	2	3
I-C15	2	5	5	5	0	4	10	9	3	6	2
I-C15	3	10	8	10	8	4	6	7	5	4	4
I-C15	4	6	0	1	4	2	9	6	1	1	1
I-C15	5	12	10	10	13	8	10	9	5	7	4
I-C16	1	4	10	16	11	6	14	8	4	8	2
I-C16	2	7	7	1	5	4	6	4	0	0	0
I-C16	3	7	10	3	9	3	6	6	1	4	2
I-C16	4	2	2	7	2	2	7	6	2	3	1
I-C16	5	2	5	6	7	2	7	7	1	5	1
I-C17	1	9	11	9	9	6	7	9	6	6	5
I-C17	2	10	9	6	8	6	12	11	6	7	3
I-C17	3	8	3	5	2	2	3	7	2	3	4
I-C17	4	8	6	9	7	6	7	4	3	8	0
I-C17	5	2	3	2	3	3	8	4	0	1	1
I-C18	1	3	2	0	2	2	0	0	0	0	0
I-C18	2	3	5	9	6	2	7	7	2	3	1
I-C18	3	6	6	5	8	5	4	1	1	2	2
I-C18	4	7	8	9	8	9	8	5	5	5	5
I-C18	5	0	0	0	0	0	0	2	0	3	0
I-S1	1	7	2	1	1	0	5	0	0	0	0
I-S1	2	13	7	10	6	3	6	4	1	0	1
I-S1	3	9	10	7	8	2	4	5	2	6	1
I-S1	4	11	9	8	7	4	6	2	3	1	2
I-S1	5	11	9	6	6	5	7	5	1	4	0

TABLE G.7. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-T1	1	6	5	4	7	3	4	4	2	0	0
I-T1	2	1	1	1	2	1	3	4	1	0	0
I-T1	3	4	3	5	4	2	6	2	0	2	0
I-T1	4	9	5	4	4	5	4	2	3	4	3
I-T1	5	3	3	4	4	1	4	5	0	0	0
I-T3	1	4	1	4	2	3	2	1	1	T	3
I-T3	2	0	1	2	4	1	3	7	0	2	0
I-T3	3	4	4	3	4	4	6	3	3	1	0
I-T3	4	4	6	3	6	5	2	5	3	2	1
I-T3	5	0	2	1	2	0	5	2	0	3	0
R-AC	1	4	6	10	2	5	0	0	0	2	0
R-AC	2	11	7	9	8	7	4	5	5	2	2
R-AC	3	12	8	8	4	6	7	6	5	5	5
R-AC	4	0	4	3	5	4	4	4	6	3	1
R-AC	5	5	4	3	3	3	8	3	2	0	0
R-AM	1	10	12	15	12	11	12	16	18	11	11
R-AM	2	4	4	3	1	5	2	0	0	1	1
R-AM	3	0	1	2	3	3	5	6	3	2	2
R-AM	4	7	5	9	7	7	7	9	8	9	13
R-AM	5	7	1	0	2	3	6	3	6	4	4
R-BF	1	1	0	2	0	1	1	4	2	2	0
R-BF	2	2	1	0	2	3	1	2	2	3	4
R-BF	3	0	1	0	1	0	0	0	1	0	1
R-BF	4	0	1	1	0	0	0	1	0	0	0
R-BF	5	1	4	2	2	2	2	2	1	1	2
R-OS	1	7	5	3	3	3	6	5	2	3	2
R-DS	2	3	7	1	2	5	2	4	1	6	4
R-OS	3	9	6	2	1	1	4	5	3	4	3
R-OS	4	3	4	2	3	4	0	1	4	0	0
R-OS	5	2	2	2	2	5	3	7	0	2	4
R-PC	1	0	1	1	2	0	0	0	0	0	2
R-PC	2	5	0	1	1	0	0	0	1	0	0
R-PC	3	3	1	2	0	0	0	0	4	2	2
R-PC	4	1	4	2	4	3	3	1	1	1	1
R-PC	5	2	1	0	0	0	0	0	1	0	1

TABLE G.7. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Siphon Exposed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
R-PF	1	0	0	0	1	6	7	2	0	3	0
R-PF	2	5	3	0	2	2	2	0	3	1	0
R-PF	3	0	3	2	1	2	0	1	0	0	1
R-PF	4	11	2	3	9	3	2	1	2	2	5
R-PF	5	1	3	2	1	2	3	1	4	0	1
C-SB	1	0	1	5	0	1	1	1	0	3	0
C-SB	2	2	0	5	0	0	0	0	0	0	0
C-SB	3	3	1	4	1	0	0	1	0	0	0
C-SB	4	3	1	0	0	1	1	0	1	2	0
C-SB	5	2	0	0	2	0	0	0	T	1	0
C-NE	1	9	6	4	6	6	5	5	2	5	6
C-NE	2	2	4	3	5	4	3	3	4	4	11
C-NE	3	0	3	2	2	1	6	4	8	NA ^(b)	NA
C-NE	4	4	2	2	7	2	2	3	0	2	2
C-NE	5	8	13	9	5	5	3	4	5	4	4
C-NE-A	1	10	9	7	7	8	5	7	7	9	9
C-NE-A	2	3	4	1	3	2	2	4	5	2	2
C-NE-A	3	9	2	0	1	1	4	3	6	4	2
C-NE-A	4	6	4	4	4	6	5	7	7	5	5
C-NE-A	5	5	5	2	2	3	2	3	4	2	3

(a) Too turbid to see.

(b) Inadvertently terminated on Day 8.

TABLE G.8. Daily Observations of *M. nasuta* Number Removed During 10-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicate	<i>M. nasuta</i> Removed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C3	1	0	0	0	0	0	0	0	0	0	0
I-C3	2	0	0	0	0	0	0	0	0	0	0
I-C3	3	0	0	0	0	0	0	0	0	0	0
I-C3	4	0	0	0	0	0	0	0	0	0	0
I-C3	5	0	0	0	0	T ^(a)	0	0	0	0	0
I-C5	1	0	0	0	0	0	0	0	0	0	0
I-C5	2	0	0	0	0	0	0	0	0	0	0
I-C5	3	0	0	0	0	0	0	0	0	0	0
I-C5	4	0	0	0	0	0	0	0	0	0	0
I-C5	5	0	0	0	0	0	0	0	0	0	0
I-C7	1	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	0	0	0	0	0	0
I-C7	3	0	0	0	0	0	0	0	0	0	0
I-C7	4	0	0	0	0	0	0	0	0	0	0
I-C7	5	0	0	0	0	0	0	0	0	0	0
I-C8	1	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	0	0	0	0	0	0	0	0	0
I-C8	3	0	0	0	0	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	0	0	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0
I-C9	1	0	0	0	0	0	0	0	0	0	0
I-C9	2	0	0	0	0	0	0	0	0	0	0
I-C9	3	0	0	0	0	0	0	0	0	0	0
I-C9	4	0	0	0	0	0	0	0	0	0	0
I-C9	5	0	0	0	0	0	0	0	0	0	0
I-C10	1	0	0	0	0	0	0	0	0	0	0
I-C10	2	0	0	0	0	0	0	0	0	0	0
I-C10	3	0	0	0	0	T	0	0	0	0	0
I-C10	4	0	0	0	0	0	1	1	0	0	0
I-C10	5	0	0	0	0	0	0	0	0	0	0
I-C11	1	0	0	0	0	1	0	0	0	0	0
I-C11	2	0	0	0	0	0	0	0	0	0	0
I-C11	3	0	0	0	0	0	0	0	0	0	0
I-C11	4	0	0	0	0	0	0	0	0	0	0
I-C11	5	0	0	0	0	0	0	0	0	0	0

TABLE G.8. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Removed for Test Days 1 through 10									
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
I-C12	1	0	0	0	0	0	0	0	0	0	0
I-C12	2	0	0	0	0	0	0	0	0	0	0
I-C12	3	0	0	0	0	0	0	0	0	0	0
I-C12	4	0	0	0	0	0	0	0	0	0	0
I-C12	5	0	0	0	0	0	0	0	0	0	0
I-C14	1	0	0	0	0	0	0	T	0	0	0
I-C14	2	0	0	0	0	0	0	0	0	0	0
I-C14	3	0	0	0	0	0	0	0	0	0	0
I-C14	4	0	0	0	0	0	0	0	0	0	0
I-C14	5	0	0	0	0	0	0	0	0	0	0
I-C15	1	0	0	0	0	0	0	0	0	0	0
I-C15	2	0	0	0	0	0	0	0	0	0	0
I-C15	3	0	0	0	0	0	0	0	0	0	0
I-C15	4	0	0	0	0	0	0	0	0	0	0
I-C15	5	0	0	0	0	1	0	0	0	0	0
I-C16	1	0	0	0	0	0	0	0	0	0	0
I-C16	2	T	T	0	0	0	0	0	0	0	0
I-C16	3	0	0	0	0	0	0	0	0	0	0
I-C16	4	0	0	0	0	0	T	0	0	0	0
I-C16	5	0	0	0	0	0	T	0	0	0	0
I-C17	1	0	0	0	0	0	0	0	0	0	0
I-C17	2	0	0	0	0	0	0	0	0	0	0
I-C17	3	0	0	0	0	0	0	0	0	0	0
I-C17	4	0	0	0	0	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	0	0	0	0
I-C18	1	0	0	0	0	0	0	0	0	0	0
I-C18	2	0	0	0	0	0	0	0	0	0	0
I-C18	3	0	0	0	0	0	0	0	0	0	0
I-C18	4	0	0	0	0	0	0	0	0	0	0
I-C18	5	0	0	0	0	0	0	0	0	0	0
I-S1	1	0	0	0	0	0	0	0	0	0	0
I-S1	2	0	0	0	0	0	0	0	0	0	0
I-S1	3	0	0	0	0	0	0	0	0	0	0
I-S1	4	0	0	0	0	0	0	0	0	0	0
I-S1	5	0	0	0	0	0	0	0	0	0	0

TABLE G.8. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Removed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-T1	1	0	0	0	0	0	0	0	0	0	0
I-T1	2	0	0	0	0	0	0	0	0	0	0
I-T1	3	0	0	0	0	0	0	0	0	0	0
I-T1	4	0	0	0	0	0	0	0	0	0	0
I-T1	5	0	0	0	0	0	0	0	0	0	0
I-T3	1	0	0	0	0	0	0	0	0	T	0
I-T3	2	0	0	0	0	0	0	0	0	0	0
I-T3	3	0	0	0	0	0	0	0	0	0	0
I-T3	4	0	0	0	0	0	0	0	0	0	0
I-T3	5	0	0	0	0	0	0	0	0	0	0
R-AC	1	0	0	0	0	1	0	0	0	0	0
R-AC	2	0	0	0	0	0	0	0	0	0	0
R-AC	3	0	0	0	0	0	0	0	0	0	0
R-AC	4	0	0	0	0	0	0	0	0	1	0
R-AC	5	0	0	0	0	0	0	0	0	0	0
R-AM	1	0	0	0	0	0	0	0	0	0	0
R-AM	2	0	0	0	0	0	0	0	0	0	0
R-AM	3	0	0	0	0	0	0	0	0	0	0
R-AM	4	0	0	0	0	0	0	0	0	0	0
R-AM	5	0	0	0	0	0	0	0	0	0	0
R-BF	1	0	0	0	0	0	0	0	0	0	0
R-BF	2	0	0	0	0	0	0	0	0	0	0
R-BF	3	0	0	0	0	0	0	0	0	0	0
R-BF	4	0	0	0	0	0	0	0	0	0	0
R-BF	5	0	0	0	0	0	0	0	0	0	0
R-OS	1	0	0	0	0	0	0	0	0	0	0
R-OS	2	0	0	0	0	0	0	1	0	0	0
R-OS	3	0	0	0	0	0	0	0	0	0	0
R-OS	4	0	0	0	0	0	0	0	0	0	0
R-OS	5	0	0	0	0	0	0	0	0	0	0
R-PC	1	0	0	0	0	0	0	0	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	1	0	0	0	0	0
R-PC	5	0	0	0	0	0	0	0	0	0	0

TABLE G.8. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Removed for Test Days 1 through 10									
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
R-PF	1	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	1	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0
C-SB	2	0	0	0	0	0	0	0	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	0	0	0	0	0	0	0
C-SB	5	0	0	0	0	0	0	0	T	0	0
C-NE	1	0	0	0	0	0	0	0	0	0	0
C-NE	2	0	0	0	0	0	0	0	0	0	0
C-NE	3	0	0	0	0	1	0	0	0	NA ^(b)	NA
C-NE	4	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0
C-NE-A	1	0	0	0	0	0	0	1	0	0	0
C-NE-A	2	0	0	0	0	0	0	0	0	0	0
C-NE-A	3	0	0	0	0	0	0	0	0	0	0
C-NE-A	4	0	0	0	0	0	0	0	0	0	0
C-NE-A	5	0	0	0	0	0	0	0	0	0	0

(a) Too turbid to see.

(b) Inadvertently terminated on Day 8.

TABLE G.9. Daily Observations of *N. caecoides* Number on Surface During 10-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicate	<i>N. caecoides</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C3	1	0	0	0	0	0	0	0	0	0	0
I-C3	2	0	0	0	0	0	0	0	0	0	0
I-C3	3	0	0	0	0	0	0	0	0	0	0
I-C3	4	0	0	0	0	1	0	0	0	0	0
I-C3	5	0	1	0	0	T ^(a)	0	0	0	0	0
I-C5	1	1	1	0	0	0	0	0	0	0	0
I-C5	2	1	3	0	0	0	0	0	0	0	0
I-C5	3	0	0	0	1	0	0	0	0	0	0
I-C5	4	1	2	0	0	0	0	0	0	0	0
I-C5	5	0	0	0	0	0	0	0	0	0	0
I-C7	1	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	0	0	0	0	0	0
I-C7	3	0	0	0	0	0	1	0	0	0	0
I-C7	4	0	0	0	0	0	0	0	0	0	0
I-C7	5	0	1	0	0	1	0	0	0	0	0
I-C8	1	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	2	0	0	0	0	0	0	0	0
I-C8	3	0	2	1	1	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	0	0	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0
I-C9	1	0	0	1	0	0	0	0	0	0	0
I-C9	2	0	0	0	0	0	0	0	0	0	0
I-C9	3	0	1	1	0	0	0	0	0	0	0
I-C9	4	0	1	1	0	0	0	0	0	0	0
I-C9	5	0	0	0	0	1	0	0	0	0	0
I-C10	1	1	5	0	0	1	1	1	0	0	0
I-C10	2	2	3	0	0	0	0	0	0	0	0
I-C10	3	1	4	2	0	T	1	0	0	0	0
I-C10	4	0	1	0	2	1	0	0	0	0	0
I-C10	5	0	1	0	0	0	0	0	0	0	0
I-C11	1	1	2	2	0	1	1	0	0	0	0
I-C11	2	0	1	1	0	0	0	0	0	0	0
I-C11	3	0	0	1	0	1	0	0	0	0	0
I-C11	4	3	1	2	0	0	0	0	0	0	0
I-C11	5	0	0	0	0	0	0	0	0	0	0

TABLE G.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C12	1	1	2	1	2	0	0	0	0	0	0
I-C12	2	1	0	1	0	0	0	0	0	0	0
I-C12	3	0	0	1	0	0	0	0	0	0	1
I-C12	4	1	3	1	0	0	0	0	0	0	0
I-C12	5	0	1	0	1	0	0	0	0	0	0
I-C14	1	0	0	1	0	0	0	T	0	0	0
I-C14	2	0	0	0	0	0	0	0	0	0	0
I-C14	3	0	0	0	0	0	0	0	0	0	0
I-C14	4	0	1	1	0	0	0	1	0	0	0
I-C14	5	0	2	4	0	2	0	0	0	0	0
I-C15	1	0	0	0	0	0	0	0	0	0	0
I-C15	2	1	1	0	0	0	0	0	0	0	0
I-C15	3	0	0	2	2	0	0	0	0	0	0
I-C15	4	2	2	0	1	0	0	0	0	0	0
I-C15	5	0	1	1	2	0	0	0	0	0	0
I-C16	1	0	1	1	1	1	0	0	0	0	0
I-C16	2	T	T	2	1	2	3	0	0	0	0
I-C16	3	2	3	2	2	2	2	1	1	0	0
I-C16	4	0	0	0	0	0	T	0	0	0	0
I-C16	5	1	2	1	1	0	T	0	0	0	0
I-C17	1	0	0	0	0	1	1	0	1	0	0
I-C17	2	0	1	0	0	0	0	0	0	0	0
I-C17	3	0	0	0	0	0	0	0	0	0	0
I-C17	4	0	0	0	0	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	0	0	0	0
I-C18	1	2	1	1	0	0	0	0	0	0	0
I-C18	2	0	1	0	0	1	0	0	0	0	0
I-C18	3	0	0	0	0	0	0	0	0	0	0
I-C18	4	0	1	0	0	0	0	0	0	0	0
I-C18	5	0	0	1	0	0	0	0	0	0	0
I-S1	1	0	1	1	0	0	0	0	0	0	0
I-S1	2	0	1	3	0	0	0	0	0	0	0
I-S1	3	1	1	0	0	1	0	0	0	0	0
I-S1	4	1	0	2	0	0	0	0	0	0	0
I-S1	5	0	2	1	0	0	0	0	0	0	0
I-T1	1	0	2	1	0	0	0	0	0	0	0
I-T1	2	0	0	0	0	0	0	0	0	0	0
I-T1	3	0	0	0	0	0	0	0	0	0	0
I-T1	4	0	0	2	0	0	0	0	0	0	0
I-T1	5	2	1	1	0	0	0	0	0	0	0

TABLE G.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-T3	1	0	1	2	0	0	1	2	0	T	0
I-T3	2	0	3	2	0	2	0	0	0	0	0
I-T3	3	3	2	1	0	0	0	0	0	0	0
I-T3	4	0	0	1	0	0	0	0	0	0	0
I-T3	5	2	1	2	0	0	0	0	0	0	0
R-AC	1	0	1	2	2	0	0	0	0	0	0
R-AC	2	0	0	0	1	0	0	0	0	0	0
R-AC	3	0	0	0	2	0	0	0	0	0	0
R-AC	4	0	1	1	0	0	1	0	0	0	0
R-AC	5	0	0	0	0	0	0	0	0	0	0
R-AM	1	0	0	1	0	0	0	0	0	0	0
R-AM	2	0	0	2	3	0	0	0	0	0	0
R-AM	3	0	0	0	0	0	0	0	0	0	0
R-AM	4	0	0	0	0	0	0	0	0	0	0
R-AM	5	0	1	1	0	0	0	0	0	0	0
R-BF	1	0	0	0	0	0	0	0	0	0	0
R-BF	2	0	1	1	1	0	0	0	0	0	0
R-BF	3	0	0	0	0	0	0	0	0	0	0
R-BF	4	0	1	0	0	0	0	0	0	0	0
R-BF	5	0	0	0	1	0	0	0	0	0	0
R-OS	1	0	0	0	1	0	0	0	0	0	0
R-OS	2	0	1	0	0	0	0	0	0	0	0
R-OS	3	0	0	0	0	0	0	0	0	0	0
R-OS	4	0	1	0	1	0	0	0	0	0	0
R-OS	5	0	0	0	0	0	0	0	0	0	0
R-PC	1	0	0	0	1	0	0	0	0	0	0
R-PC	2	2	2	0	1	0	0	0	0	0	0
R-PC	3	0	0	0	0	1	0	0	0	0	0
R-PC	4	0	0	0	1	0	0	0	0	0	0
R-PC	5	0	0	0	1	1	0	0	0	0	0
F-PF	1	0	1	0	0	0	0	0	0	0	0
F-PF	2	1	1	1	2	0	0	0	0	0	0
F-PF	3	0	0	2	1	1	0	0	0	0	0
F-PF	4	3	0	1	0	1	0	0	0	0	0
F-PF	5	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0
C-SB	2	0	0	0	0	0	0	1	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	1	0	0	0	0	0	0
C-SB	5	0	0	0	0	0	0	0	T	0	0

TABLE G.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> on Sediment for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
C-NE	1	1	2	1	0	0	0	0	1	0	0
C-NE	2	0	0	0	0	1	0	0	0	0	0
C-NE	3	1	2	2	0	0	0	0	0	NA ^(b)	NA
C-NE	4	1	2	0	0	0	0	0	0	0	0
C-NE	5	1	1	0	1	4	3	1	0	0	0
C-NE-A	1	0	0	0	0	0	0	0	0	0	0
C-NE-A	2	0	0	1	2	0	0	0	0	0	0
C-NE-A	3	0	0	0	0	0	0	0	0	0	0
C-NE-A	4	0	0	0	1	0	0	0	0	0	0
C-NE-A	5	0	0	0	0	0	0	0	0	0	0

(a) Too turbid to see.

(b) Inadvertantly terminated on Day 8.

TABLE G.10. Daily Observations of *N. caecoides* Number Removed During 10-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicates	<i>N. caecoides</i> Removed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C3	1	0	0	0	0	0	0	0	0	0	0
I-C3	2	0	0	0	0	0	0	0	0	0	0
I-C3	3	0	0	0	0	0	0	0	0	0	0
I-C3	4	0	0	0	0	1	0	0	0	0	0
I-C3	5	0	1	0	0	T ^(a)	0	0	0	0	0
I-C5	1	0	1	0	0	0	0	0	0	0	0
I-C5	2	0	2	0	0	0	0	0	0	0	0
I-C5	3	0	0	0	1	0	0	0	0	0	0
I-C5	4	0	2	0	0	0	0	0	0	0	0
I-C5	5	0	0	0	0	0	0	0	0	0	0
I-C7	1	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	0	0	0	0	0	0
I-C7	3	0	0	0	0	0	1	0	0	0	0
I-C7	4	0	0	0	0	0	0	0	0	0	0
I-C7	5	0	1	0	0	0	0	0	0	0	0
I-C8	1	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	1	0	0	0	0	0	0	0	0
I-C8	3	0	0	1	1	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	0	0	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0
I-C9	1	0	0	1	0	0	0	0	0	0	0
I-C9	2	0	0	0	0	0	0	0	0	0	0
I-C9	3	0	1	1	0	0	0	0	0	0	0
I-C9	4	0	0	1	0	0	0	0	0	0	0
I-C9	5	0	0	0	0	0	0	0	0	0	0
I-C10	1	1	3	0	0	0	1	1	0	0	0
I-C10	2	0	3	0	0	0	0	0	0	0	0
I-C10	3	0	2	1	0	T	0	0	0	0	0
I-C10	4	0	1	0	0	0	0	0	0	0	0
I-C10	5	0	1	0	0	0	0	0	0	0	0
I-C11	1	0	2	2	0	0	0	0	0	0	0
I-C11	2	0	0	1	0	0	0	0	0	0	0
I-C11	3	0	0	0	0	1	0	0	0	0	0
I-C11	4	0	0	2	0	0	0	0	0	0	0
I-C11	5	0	0	0	0	0	0	0	0	0	0

TABLE G.10. (Contd)

Sediment Treatment	Replicates	<i>N. caecoides</i> Removed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-C12	1	0	0	1	2	0	0	0	0	0	0
I-C12	2	0	0	1	0	0	0	0	0	0	0
I-C12	3	0	0	1	0	0	0	0	0	0	0
I-C12	4	0	1	1	0	0	0	0	0	0	0
I-C12	5	0	0	0	1	0	0	0	0	0	0
I-C14	1	0	0	1	0	0	0	T	0	0	0
I-C14	2	0	0	0	0	0	0	0	0	0	0
I-C14	3	0	0	0	0	0	0	0	0	0	0
I-C14	4	0	0	1	0	0	0	1	0	0	0
I-C14	5	0	0	2	0	2	0	0	0	0	0
I-C15	1	0	0	0	0	0	0	0	0	0	0
I-C15	2	0	1	0	0	0	0	0	0	0	0
I-C15	3	0	0	0	2	0	0	0	0	0	0
I-C15	4	0	2	0	0	0	0	0	0	0	0
I-C15	5	0	0	0	2	0	0	0	0	0	0
I-C16	1	0	0	0	0	0	0	0	0	0	0
I-C16	2	T	T	2	0	0	2	0	0	0	0
I-C16	3	0	0	0	0	0	1	0	0	0	0
I-C16	4	0	0	0	0	0	T	0	0	0	0
I-C16	5	0	2	0	0	0	T	0	0	0	0
I-C17	1	0	0	0	0	0	0	0	1	0	0
I-C17	2	0	0	0	0	0	0	0	0	0	0
I-C17	3	0	0	0	0	0	0	0	0	0	0
I-C17	4	0	0	0	0	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	0	0	0	0
I-C18	1	0	0	0	0	0	0	0	0	0	0
I-C18	2	0	0	0	0	0	0	0	0	0	0
I-C18	3	0	0	0	0	0	0	0	0	0	0
I-C18	4	0	0	0	0	0	0	0	0	0	0
I-C18	5	0	0	1	0	0	0	0	0	0	0
I-S1	1	0	0	1	0	0	0	0	0	0	0
I-S1	2	0	0	3	0	0	0	0	0	0	0
I-S1	3	0	1	0	0	1	0	0	0	0	0
I-S1	4	0	0	2	0	0	0	0	0	0	0
I-S1	5	0	0	1	0	0	0	0	0	0	0
I-T1	1	0	2	1	0	0	0	0	0	0	0
I-T1	2	0	0	0	0	0	0	0	0	0	0
I-T1	3	0	0	0	0	0	0	0	0	0	0
I-T1	4	0	0	2	0	0	0	0	0	0	0
I-T1	5	0	0	1	0	0	0	0	0	0	0

TABLE G.10. (Contd)

Sediment Treatment	Replicates	<i>N. caecoides</i> Removed for Test Days 1 through 10									
		1	2	3	4	5	6	7	8	9	10
I-T3	1	0	0	2	0	0	0	0	0	T	0
I-T3	2	0	0	2	0	2	0	0	0	0	0
I-T3	3	0	0	1	0	0	0	0	0	0	0
I-T3	4	0	0	1	0	0	0	0	0	0	0
I-T3	5	0	0	2	0	0	0	0	0	0	0
R-AC	1	0	0	0	2	0	0	0	0	0	0
R-AC	2	0	0	0	0	0	0	0	0	0	0
R-AC	3	0	0	0	2	0	0	0	0	0	0
R-AC	4	0	0	0	0	0	1	0	0	0	0
R-AC	5	0	0	0	0	0	0	0	0	0	0
R-AM	1	0	0	0	0	0	0	0	0	0	0
R-AM	2	0	0	0	3	0	0	0	0	0	0
R-AM	3	0	0	0	0	0	0	0	0	0	0
R-AM	4	0	0	0	0	0	0	0	0	0	0
R-AM	5	0	0	1	0	0	0	0	0	0	0
R-BF	1	0	0	0	0	0	0	0	0	0	0
R-BF	2	0	0	1	1	0	0	0	0	0	0
R-BF	3	0	0	0	0	0	0	0	0	0	0
R-BF	4	0	0	0	0	0	0	0	0	0	0
R-BF	5	0	0	0	1	0	0	0	0	0	0
R-OS	1	0	0	0	0	0	0	0	0	0	0
R-OS	2	0	1	0	0	0	0	0	0	0	0
R-OS	3	0	0	0	0	0	0	0	0	0	0
R-OS	4	0	1	0	1	0	0	0	0	0	0
R-OS	5	0	0	0	0	0	0	0	0	0	0
R-PC	1	0	0	0	1	0	0	0	0	0	0
R-PC	2	0	0	0	1	0	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	1	0	0	0	0	0	0
R-PC	5	0	0	0	1	1	0	0	0	0	0
R-PF	1	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	2	0	0	0	0	0	0
R-PF	3	0	0	0	0	1	0	0	0	0	0
R-PF	4	0	0	0	0	1	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0
C-SB	2	0	0	0	0	0	0	1	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	1	0	0	0	0	0	0
C-SB	5	0	0	0	0	0	0	0	T	0	0

TABLE G.10. (Contd)

Sediment Treatment	Replicates	<i>N. caecoides</i> Removed for Test Days 1 through 10									
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
C-NE	1	0	2	1	0	0	0	0	1	0	0
C-NE	2	0	0	0	0	0	0	0	0	0	0
C-NE	3	0	0	2	0	0	0	0	0	NA ^(b)	NA
C-NE	4	0	2	0	0	0	0	0	0	0	0
C-NE	5	0	1	0	1	0	2	1	0	0	0
C-NE-A	1	0	0	0	0	0	0	0	0	0	0
C-NE-A	2	0	0	0	2	0	0	0	0	0	0
C-NE-A	3	0	0	0	0	0	0	0	0	0	0
C-NE-A	4	0	0	0	1	0	0	0	0	0	0
C-NE-A	5	0	0	0	0	0	0	0	0	0	0

(a) Too turbid to see.

(b) Inadvertantly terminated on Day 8.

APPENDIX H

BIOASSAY RESULTS FOR 28-DAY SOLID-PHASE FLOW-THROUGH RETEST WITH *M. nasuta* AND *N. caecoides*

TABLE H.1. Bioassay Results for 28-Day *M. nasuta* Solid-Phase Test, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C3 ^(a)	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C5 ^(a)	1	20	0	0.96
	2	19	1	
	3	19	1	
	4	19	1	
	5	19	1	
I-C7 ^(a)	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C8 ^(a)	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C9	1	25	0	0.97
	2	23	2	
	3	23	2	
	4	25	0	
	5	25	0	
I-C10 ^(a)	1	20	0	1.00
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C11	1	24	1	0.98
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	

TABLE H.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u>M. nasuta</u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C12 ^(a)	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
I-C14	1	25	0	0.96
	2	25	0	
	3	23	2	
	4	24	1	
	5	23	2	
I-C15	1	24	1	0.94
	2	24	1	
	3	24	1	
	4	21	4	
	5	25	0	
I-C16	1	25	0	0.98
	2	24	1	
	3	25	0	
	4	24	1	
	5	25	0	
I-C17	1	22	3	0.97
	2	25	0	
	3	24	1	
	4	25	0	
	5	25	0	
I-C18	1	25	0	0.97
	2	23	2	
	3	24	1	
	4	24	1	
	5	25	0	
I-S1	1	22	3	0.97
	2	25	0	
	3	25	0	
	4	24	1	
	5	25	0	

TABLE H.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-T1	1	24	1	0.96
	2	25	0	
	3	25	0	
	4	23	2	
	5	23	2	
I-T3	1	24	1	0.97
	2	25	0	
	3	24	1	
	4	23	2	
	5	25	0	
R-AC	1	24	1	0.94
	2	22	3	
	3	23	2	
	4	24	1	
	5	25	0	
R-AM	1	24	1	0.99
	2	25	0	
	3	25	0	
	4	25	0	
	5	25	0	
R-BF	1	25	0	0.96
	2	24	1	
	3	23	2	
	4	25	0	
	5	23	2	
R-OS	1	23	2	0.96
	2	24	1	
	3	23	2	
	4	25	0	
	5	25	0	
R-PC	1	24	1	0.94
	2	24	1	
	3	23	2	
	4	24	1	
	5	23	2	

TABLE H.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>M. nasuta</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
R-PF	1	24	1	0.98
	2	25	0	
	3	25	0	
	4	25	0	
	5	23	2	
C-SB	1	23	2	0.94
	2	24	1	
	3	24	1	
	4	22	3	
	5	25	0	
C-NE	1	25	0	0.97
	2	23	2	
	3	24	1	
	4	24	1	
	5	25	0	
C-NE-A	1	24	1	0.98
	2	25	0	
	3	25	0	
	4	23	2	
	5	25	0	

(a) Insufficient number of test organisms to initiate 25 *M. nasuta*/replicate.

TABLE H.2. Rank Order Based on Number Surviving the 28-Day
M. nasuta Solid-Phase Test, Oakland Phase III A Project
 Retest

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
I-C15	0.94
R-PC	0.94
C-SB	0.94
R-AC	0.94
I-C5	0.96
I-C14	0.96
I-T1	0.96
R-BF	0.96
R-OS	0.96
I-C18	0.97
I-S1	0.97
I-C9	0.97
I-T3	0.97
C-NE	0.97
I-C17	0.97
R-PF	0.98
C-NE-A	0.98
I-C11	0.98
I-C16	0.98
I-C12	0.99
I-C3	0.99
I-C8	0.99
R-AM	0.99
I-C10	1.00
I-C7	1.00

TABLE H.3. Bioassay Results for 28-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C3	1	28	2	0.91
	2	26	4	
	3	28	2	
	4	27	3	
	5	28	2	
I-C5	1	20	10	0.86
	2	26	4	
	3	30	0	
	4	26	4	
	5	27	3	
I-C7	1	28	2	0.89
	2	25	5	
	3	28	2	
	4	24	6	
	5	28	2	
I-C8	1	20	10	0.75
	2	24	6	
	3	25	5	
	4	25	5	
	5	18	12	
I-C9	1	25	5	0.78
	2	24	6	
	3	26	4	
	4	21	9	
	5	21	9	
I-C10	1	27	3	0.85
	2	30	0	
	3	26	4	
	4	22	8	
	5	22	8	
I-C11	1	24	6	0.73
	2	22	8	
	3	16	14	
	4	23	7	
	5	25	5	

TABLE H.3. (Contd)

Sediment Treatment	Replicates	<u>N. caecoides</u>		Mean Proportion Surviving
		Live	Dead or Missing	
I-C12	1	19	11	0.81
	2	27	3	
	3	25	5	
	4	27	3	
	5	23	7	
I-C14	1	27	3	0.83
	2	25	5	
	3	23	7	
	4	23	7	
	5	27	3	
I-C15	1	12	18	0.45
	2	14	16	
	3	7	23	
	4	18	12	
	5	16	14	
I-C16	1	11	19	0.31
	2	9	21	
	3	10	20	
	4	8	22	
	5	8	22	
I-C17	1	21	9	0.57
	2	15	15	
	3	10	20	
	4	13	17	
	5	26	4	
I-C18	1	12	18	0.39
	2	15	15	
	3	14	16	
	4	7	23	
	5	10	20	
I-S1	1	27	3	0.82
	2	24	6	
	3	24	6	
	4	24	6	
	5	24	6	

TABLE H.3. (Contd)

Sediment Treatment	Replicates	<i>N. caecoides</i>		Mean Proportion Surviving
		Live	Dead or Missing	
I-T1	1	23	7	0.78
	2	24	6	
	3	25	5	
	4	21	9	
	5	24	6	
I-T3	1	25	5	0.75
	2	26	4	
	3	20	10	
	4	23	7	
	5	19	11	
R-AC	1	28	2	0.90
	2	24	6	
	3	28	2	
	4	26	4	
	5	29	1	
R-AM	1	29	1	0.96
	2	29	1	
	3	26	4	
	4	30	0	
	5	30	0	
R-BF	1	25	5	0.85
	2	29	1	
	3	27	3	
	4	23	7	
	5	24	6	
R-OS	1	30	0	0.93
	2	30	0	
	3	27	3	
	4	25	5	
	5	27	3	
R-PC	1	26	4	0.92
	2	29	1	
	3	26	4	
	4	28	2	
	5	29	1	

TABLE H.3. (Contd)

<u>Sediment Treatment</u>	<u>Replicates</u>	<u><i>N. caecoides</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
R-PF	1	29	1	0.96
	2	29	1	
	3	30	0	
	4	27	3	
	5	29	1	
C-SB	1	27	3	0.94
	2	29	1	
	3	30	0	
	4	28	2	
	5	27	3	
C-NE	1	24	6	0.81
	2	25	5	
	3	26	4	
	4	27	3	
	5	20	10	
C-NE-A	1	28	2	0.96
	2	29	1	
	3	27	3	
	4	30	0	
	5	30	0	

TABLE H.4. Rank Order Based on Number Surviving the 28-Day *N. caecoides* Solid-Phase Test, Oakland Phase III A Project Retest

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
I-C16	0.31
I-C18	0.39
I-C15	0.45
I-C17	0.57
I-C11	0.73
I-C8	0.75
I-T3	0.75
I-T1	0.78
I-C9	0.78
I-C12	0.81
C-NE	0.81
I-S1	0.82
I-C14	0.83
I-C10	0.85
R-BF	0.85
I-C5	0.86
I-C7	0.89
R-AC	0.90
I-C3	0.91
R-PC	0.92
R-OS	0.93
C-SB	0.94
C-NE-A	0.96
R-AM	0.96
R-PF	0.96

TABLE H.5. Water Quality Summary for 28-Day *M. nasuta*/*N. caecoides* Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	30.0	34.0	115	135
I-C3	14.0	15.2	7.64	7.88	7.0	8.0	30.5	32.5	116	134
I-C5	13.2	15.1	7.63	7.91	6.9	7.9	30.5	32.0	116	134
I-C7	13.7	15.1	7.65	7.90	7.0	8.0	30.5	32.5	112 ^(a)	134
I-C8	14.0	15.1	7.60	7.91	7.0	8.0	30.5	32.5	112 ^(a)	134
I-C9	14.0	15.3	7.41	7.88	7.0	7.8	31.5	32.5	116	134
I-C10	13.8	15.2	7.64	7.90	6.8	7.9	30.0	32.5	116	134
I-C11	13.9	15.1	7.66	7.89	6.5	7.9	31.5	32.5	116	134 ^(a)
I-C12	14.0	15.0	7.60	7.89	7.1	7.8	30.0	32.5	116	136 ^(a)
I-C14	13.9	15.1	7.61	7.93	6.8	8.0	31.5	32.0	116	134
I-C15	13.8	15.4	7.66	7.95	7.0	8.0	31.5	32.5	114 ^(a)	132
I-C16	14.0	15.3	7.62	7.93	7.0	7.9	30.0	32.5	116	132
I-C17	13.8	15.3	7.67	7.89	6.7	7.9	31.5	32.0	116	134
I-C18	13.8	15.2	7.68	7.95	7.0	8.0	32.0	32.5	116	132
I-S1	14.0	15.4	7.47	7.92	6.9	7.8	32.0	32.5	104 ^(a)	134
I-T1	14.0	15.2	7.36 ^(a)	7.90	5.8	8.0	31.5	32.0	112 ^(a)	134
I-T3	13.8	15.2	7.63	7.93	6.6	7.9	32.0	32.0	114 ^(a)	134
R-AC	14.1	15.0	7.46	8.05	6.0	8.4	31.5	33.0	116	134
R-AM	14.0	15.9	7.75	8.09	6.7	8.4	31.5	32.5	114 ^(a)	132
R-BF	14.0	15.1	7.36 ^(a)	7.96	6.1	8.3	31.0	33.0	112 ^(a)	132
R-OS	13.9	15.1	7.17 ^(a)	8.20	6.3	8.2	31.5	33.5	112 ^(a)	132
R-PC	14.0	15.0	7.68	7.97	6.4	8.2	31.5	32.0	114 ^(a)	134
R-PF	14.0	15.1	7.48	8.15	6.0	8.3	31.5	32.0	112 ^(a)	132
C-SB	14.0	15.1	6.93 ^(a)	8.29	6.0	8.0	31.5	33.0	108 ^(a)	132
C-NE	13.7	15.1	7.58 ^(a)	8.10	6.1	8.4	31.5	32.0	116	132
C-NE-A	13.6	16.6	6.90 ^(a)	8.10	7.3	7.9	30.5	32.5	116	134

(a) Data point out of range.

TABLE H.6. Daily Observation of *M. nasuta* Number on Sediment During 28-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicates	<i>M. nasuta</i> on Sediment for Test Days 1 through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-C3	1	0	0	0	1	0	0	0	2	2	0	1	1	0	0	0	2	0	0	0	1	1	1	1	1	2	0	0	1
I-C3	2	1	1	1	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0	1	0	0	2	2	1	1	1
I-C3	3	1	2	1	1	2	2	2	1	2	3	2	2	1	1	2	0	3	1	2	2	1	2	0	1	0	2	1	3
I-C3	4	4	2	0	1	1	2	0	0	1	1	1	3	0	0	0	0	0	3	1	2	1	3	2	0	0	1	0	0
I-C3	5	0	0	0	1	0	0	2	1	3	2	2	3	4	2	4	2	2	2	2	2	2	3	2	3	1	1	1	1
I-C5	1	4	4	3	3	2	2	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0
I-C5	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	5	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C7	1	1	1	0	1	1	1	2	1	2	2	2	3	2	3	2	3	3	2	4	4	4	2	2	3	5	3 ^(a)	3	3
I-C7	2	1	2	1	1	1	1	2	2	3	2	1	1	2	2	3	3	2	4	4	4	2	2	2	2	3	ND ^(a)	2	1
I-C7	3	2	2	1	1	1	1	1	0	2	2	3	2	2	2	1	4	1	2	1	2	3	2	2	4	3	3	2	2
I-C7	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	2	2	2	2	2
I-C7	5	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0	2	0	1	1	1	1	2	2
I-C8	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	2	5	2	2	0	3	3	2	5	5	1	3	3	3	6	5	6	4	3	6	6	3	3	4	4	2	1	3	1
I-C8	3	2	3	0	0	1	2	2	3	4	4	2	1	1	1	2	2	0	1	1	1	1	2	0	1	1	1	1	1
I-C8	4	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	5	2	2	2	1	0	2	0	3	0	0	3	1	1	2	1	0	1	1	1	1	1	1	1	1	1	1	2	1
I-C9	1	7	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
I-C9	2	6	5	4	5	4	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0
I-C9	3	9	6	5	4	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	4	8	5	5	3	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	5	9	9	6	2	3	1	2	2	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C10	1	0	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1
I-C10	2	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1
I-C10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1
I-C10	4	0	0	0	1	0	0	2	2	2	3	3	2	3	2	2	1	2	2	3	3	4	4	4	4	4	3	3	3
I-C10	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C11	1	5	3	3	2	2	1	1	0	0	2	0	2	2	2	1	0	1	1	0	0	0	0	0	0	0	0	0	1
I-C11	2	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0
I-C11	3	1	1	2	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1 ^(b)	1	1
I-C11	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0
I-C11	5	2	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	1	1	0	0	0	1

TABLE H.6. (Contd)

Sediment		<i>M. nasuta</i> on Sediment for Test Days 1 through 28																											
Treatment	Replicates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-C12	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	1	1
I-C12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
I-C12	3	0	0	0	1	1	1	1	2	2	1	0	0	0	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0
I-C12	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0
I-C12	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C14	1	0	0	0	0	0	1	1	0	0	0	1	2	0	3	2	2	2	3	1	0	1	1	1	0	3	3	4	4
I-C14	2	2	1	1	1	1	2	2	2	1	3	2	2	1	1	4	3	3	4	3	2	2	1	1	2	1	0	1	1
I-C14	3	10	10	10	10	9	9	9	9	9	10	8	6	4	4	4	5	6	6	4	5	6	6	5	5	6	4	4	3
I-C14	4	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0	2	2	0	1	0	2	1	1	1	0	0	0	2
I-C14	5	1	1	3	6	1	1	1	0	0	0	1	1	2	1	3	4	4	5	4	4	4	4	4	3	3	2	2	2
I-C15	1	0	1	7	6	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
I-C15	2	1	0	5	1	0	1	1	0	1	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
I-C15	3	2	2	2	2	2	1	2	2	1	1	1	1	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0
I-C15	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	1	1	1	1	0
I-C15	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C16	1	3	3	2	2	2	2	2	2	2	0	1	2	2	2	1	0	0	1	1	1	1	1	1	1	1	1	1	1
I-C16	2	3	3	2	2	2	2	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	0	0
I-C16	3	3	3	3	3	3	3	3	1	1	1	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0
I-C16	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
I-C16	5	2	2	2	0	1	0	0	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
I-C17	1	6	5	3	3	3	4	4	3	3	3	2	2	2	2	3	3	2	2	1	2	2	0	0	0	0	0	1	1
I-C17	2	3	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
I-C17	3	5	5	2	3	2	2	2	2	2	2	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
I-C17	4	6	7	4	3	3	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
I-C17	5	3	2	1	1	1	1	1	1	1	0	0	0	0	0	2	1	0	0	1	1	0	0	0	0	0	0	0	0
I-C18	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	0	0	0	1	1	0
I-C18	2	3	3	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	1	2	1	1	1	0	0	0	0
I-C18	3	6	5	4	4	3	3	2	2	1	1	1	1	1	0	0	0	0	0	0	3	1	1	1	0	0	0	0	1
I-C18	4	3	3	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	2	1	1	1	0	0	0	0	0	0
I-C18	5	4	4	4	3	3	4	3	3	3	4	4	4	4	3	3	4	4	4	3	3	3	3	3	3	3	2	1	1
I-S1	1	9	6	5	5	4	4	3	2	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	1	0
I-S1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I-S1	2	4	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	4	2	1	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I-S1	5	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE H.6. (Contd)

Sediment Treatment	Replicates	<i>M. nasuta</i> on Sediment for Test Days 1 through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-T1	1	5	5	4	4	4	4	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I-T1	2	6	5	2	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-T1	3	7	7	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-T1	4	6	5	3	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-T1	5	6	5	3	3	3	2	1	2	2	2	2	1	1	1	2	1	1	1	1	1	0	1	ND	0	0	0	0	0
I-T3	1	3	2	3	2	2	2	2	3	3	2	3	2	2	1	1	2	2	2	1	1	1	2	2	1	2	2	2	1
I-T3	2	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1	1
I-T3	3	3	4	1	1	1	1	2	1	0	2	1	0	0	2	2	1	2	1	0	1	1	1	2	1	0	0	0	0
I-T3	4	3	2	0	1	2	0	0	1	1	1	3	2	0	0	0	0	2	0	0	0	0	1	1	0	0	1	0	0
I-T3	5	3	3	1	1	0	0	1	1	1	0	0	1	1	0	1	0	2	1	3	1	0	1	0	0	1	1	0	0
R-AC	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	1	1	0	0	1	0	T
R-AC	2	0	2	1	0	0	1	1	1	1	2	1	2	1	2	2	2	2	1	2	3	3	2	2	1	0	1	0	1
R-AC	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
R-AC	4	0	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-AC	5	0	2	1	0	0	0	0	0	2	2	2	2	0	1	1	1	1	1	1	2	1	1	0	1	0	0	0	1
R-AM	1	5	4	3	6	7	10	8	5	7	7	6	8	9	11	8	8	10	8	10	9	7	7	6	9	9	11	8	10
R-AM	2	12	10	11	11	11	11	11	10	10	11	10	9	9	11	11	10	9	11	6	7	8	7	7	10	7	8	6	9
R-AM	3	6	4	5	5	6	4	6	8	7	5	5	6	7	10	9	9	8	10	9	10	9	6	6	5	5	5	6	5
R-AM	4	9	5	8	6	6	10	8	10	9	9	8	10	9	6	9	8	8	10	9	10	11	10	8	9	9	9	10	9
R-AM	5	16	12	13	13	10	12	12	13	13	14	14	14	12	11	12	10	11	12	11	12	11	11	12	9	10	10	11	11
R-BF	1	0	0	0	0	1	1	0	0	2	1	0	0	2	1	2	1	0	2	1	2	2	1	0	0	3	1	0	1
R-BF	2	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0
R-BF	3	0	0	0	1	2	0	0	0	1	1	1	1	1	1	0	0	0	0	2	0	1	0	0	0	0	1	1	1
R-BF	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	2	1	3	0	0	2	1	0
R-BF	5	0	0	0	0	0	1	0	0	T	0	0	0	1	0	0	0	0	0	0	0	3	2	0	0	1	0	0	1
R-OS	1	0	0	0	0	1	1	0	2	1	2	0	2	0	0	1	0	1	1	1	1	2	1	2	0	1	1	1	2
R-OS	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	1	3	2	2	2	1	1
R-OS	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
R-OS	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
R-OS	5	1	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	1	1	2	2	1	0	3	1
R-PC	1	1	1	0	0	0	3	2	0	0	1	2	2	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
R-PC	2	1	0	2	0	0	0	0	1	3	0	3	2	1	1	0	0	0	1	0	0	1	1	1	0	1	0	1	0
R-PC	3	1	0	0	1	0	1	2	0	3	1	1	2	1	3	0	1	2	1	2	2	4	3	2	1	1	2	2	2
R-PC	4	1	0	1	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PC	5	0	0	0	1	0	1	0	0	0	0	1	0	1	0	2	1	1	1	1	1	1	1	0	0	1	1	0	0

TABLE H.6. (Contd)

Sediment Treatment	Replicates	<i>M. nasuta</i> on Sediment for Test Days 1 through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
R-PF	1	0	3	1	0	1	2	4	5	3	1	2	0	2	3	5	4	3	4	3	2	2	2	3	3	3	2	2	6
R-PF	2	0	2	1	0	0	2	0	0	1	1	1	0	1	0	2	2	0	1	0	2	0	0	1	1	0	1	0	0
R-PF	3	2	2	2	1	4	2	2	1	2	0	2	1	4	2	4	3	1	2	2	2	1	1	0	0	4	5	1	
R-PF	4	0	0	3	2	3	2	2	2	6	1	2	3	2	2	4	3	4	1	4	5	4	0	2	1	1	3	5	1
R-PF	5	2	1	0	4	1	2	3	1	2	1	5	3	1	3	2	2	2	1	1	1	4	2	0	3	2	5	4	4
C-SB	1	3	2	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
C-SB	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
C-SB	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	1	3	2	1	2	3	2	3	3	2	1	1	2	3	3	3	3	2	2	3	2	2	2	2	2	3	3	3	2
C-NE	2	1	0	1	4	3	3	5	2	2	2	2	4	5	5	3	3	7	4	7	7	4	4	3	4	2	3	5	4
C-NE	3	2	1	1	1	2	3	3	2	2	2	3	3	3	5	3	3	2	2	2	3	3	2	5	6	4	5	5	5
C-NE	4	0	0	0	1	1	1	0	0	1	1	0	3	2	1	0	1	2	2	3	3	3	2	4	3	3	2	2	2
C-NE	5	5	4	4	3	2	3	3	4	4	3	3	4	2	4	4	3	4	2	2	2	4	2	3	4	5	3	4	3
C-NE-A	1	3	4	0	7	4	4	2	2	3	2	3	2	3	2	1	2	0	2	1	3	2	2	3	2	1	1	2	1
C-NE-A	2	2	2	4	3	1	2	2	5	4	9	7	5	4	5	2	4	3	4	5	2	7	5	7	7	5	6	10	7
C-NE-A	3	2	0	1	0	1	1	2	1	1	1	0	5	2	1	3	4	2	3	3	2	2	2	3	5	3	3	3	1
C-NE-A	4	1	2	3	3	2	5	5	5	6	5	6	5	3	5	4	2	3	3	4	3	3	4	3	3	6	3	2	4
C-NE-A	5	0	0	4	1	2	0	0	1	1	2	3	3	2	4	2	2	2	3	3	4	2	2	3	3	3	2	2	5

(a) No data.

(b) Too turbid to see.

TABLE H.7. Daily Observation of *M. nasuta* Siphon Exposed During 28-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment Treatment	Replicates	<i>M. nasuta</i> Siphon Exposed for Test Days 1 Through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-C3	1	1	0	1	0	0	0	0	2	3	1	4	1	2	0	2	3	0	2	1	7	2	4	1	3	5	1	1	2
I-C3	2	5	5	1	1	1	0	0	2	1	0	2	2	3	7	0	3	3	2	6	0	2	3	4	7	5	4	8	3
I-C3	3	3	3	2	2	1	1	6	3	4	3	2	2	2	2	0	3	6	4	4	4	4	2	2	5	3	3	5	
I-C3	4	7	4	0	1	0	3	1	1	3	2	0	2	1	1	6	2	5	6	0	3	2	4	5	3	0	7	2	3
I-C3	5	2	2	1	0	1	1	4	4	2	1	4	5	8	6	7	4	7	3	2	6	4	6	4	4	6	6	4	2
I-C5	1	4	3	2	2	2	0	0	0	0	0	2	0	1	1	0	0	0	0	1	0	0	0	2	0	0	0	1	0
I-C5	2	6	4	3	1	3	0	2	2	0	1	1	0	2	1	1	2	2	1	0	1	0	1	0	0	0	0	0	0
I-C5	3	5	2	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	4	6	3	1	1	0	1	2	0	0	0	0	0	1	0	2	0	0	0	0	1	0	1	0	0	1	1	2	0
I-C5	5	7	5	3	2	3	1	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0
I-C7	1	2	3	0	0	3	2	4	3	3	2	2	4	4	3	2	1	4	4	0	1	6	3	5	5	3	3	5	2
I-C7	2	4	1	1	0	0	1	2	4	4	6	3	2	3	2	1	2	3	3	6	7	3	1	2	3	4	NO ^(a)	1	2
I-C7	3	6	4	0	2	0	2	1	2	0	2	4	2	0	7	3	2	4	2	4	4	4	4	5	4	6	4	5	1
I-C7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	4	3	2	0	
I-C7	5	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	1	2	0	0	0	1	1	1	3	3	4	3	2
I-C8	1	16	10	0	0	0	3	1	0	0	2	0	2	1	5	2	0	0	1	0	5	3	0	1	3	0	2	1	0
I-C8	2	8	8	5	0	6	4	8	8	4	3	1	3	5	8	9	9	8	7	11	6	4	7	9	13	14	7	4	3
I-C8	3	6	10	10	5	4	4	2	12	5	7	4	4	4	4	5	6	5	4	3	5	4	4	1	2	2	6	7	2
I-C8	4	6	4	2	5	1	3	0	4	1	0	3	1	0	3	0	0	0	0	1	0	6	1	1	3	0	0	2	0
I-C8	5	3	8	3	3	4	3	4	4	1	0	4	2	2	7	1	1	3	2	3	4	4	4	3	9	6	6	5	3
I-C9	1	12	5	6	5	3	4	4	4	1	3	3	2	5	5	3	3	2	2	2	2	2	1	2	1	1	2	1	0
I-C9	2	16	11	10	8	6	4	5	1	2	4	4	1	4	6	4	5	3	2	2	2	1	2	5	1	2	3	3	1
I-C9	3	15	6	8	7	4	5	5	2	3	4	2	0	0	1	1	1	1	1	1	0	0	0	0	1	2	1	2	2
I-C9	4	14	8	6	4	5	3	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	5	17	19	15	9	9	5	7	4	5	7	9	5	5	5	0	1	1	1	1	1	1	1	1	1	2	1	0	2
I-C10	1	4	4	2	0	2	3	0	3	2	2	1	2	0	1	2	2	2	2	2	1	3	0	1	4	0	0	1	0
I-C10	2	3	1	2	2	0	0	0	0	2	1	0	1	0	1	2	0	0	2	0	0	1	0	0	0	0	1	0	0
I-C10	3	0	3	2	1	1	0	2	1	4	1	1	1	0	0	1	0	0	0	0	8	1	0	0	0	0	5	2	2
I-C10	4	9	4	6	3	0	3	5	3	8	4	3	4	4	4	2	5	6	6	6	6	7	4	2	7	6	4	5	6
I-C10	5	5	5	1	2	0	1	0	2	2	4	0	1	0	0	1	0	0	1	0	1	0	0	0	2	0	1	0	0
I-C11	1	11	8	6	6	3	9	3	2	3	3	2	2	4	4	4	5	2	3	2	6	3	3	1	2	2	0	1	6
I-C11	2	9	2	5	5	2	6	3	2	2	2	3	2	3	5	2	3	2	2	4	2	2	2	2	2	5	0	0	1
I-C11	3	10	3	4	3	2	4	5	1	3	1	3	1	4	1	1	1	2	3	2	5	4	4	3	2	4	T ^(b)	4	4
I-C11	4	4	6	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	T	T	0	0	3	0	1	2	1	0
I-C11	5	3	4	2	5	2	1	2	0	2	1	1	3	T	2	0	0	0	3	0	2	0	1	1	2	1	3	2	1

TABLE H.7. (Contd)

Sediment Treatment	Replicates	M. nasuta Siphon Exposed for Test Days 1 Through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-C12	1	3	4	1	1	2	1	1	3	1	1	2	0	0	0	1	1	0	0	0	0	3	3	3	0	1	0	2	
I-C12	2	5	6	3	1	1	0	2	2	2	0	0	0	0	2	3	1	0	3	2	3	4	1	1	3	2	3	1	
I-C12	3	3	2	3	3	3	1	4	5	1	3	0	0	0	2	2	4	2	2	2	0	0	0	2	1	2	0	0	
I-C12	4	3	4	5	3	4	8	4	0	0	1	0	0	0	1	1	0	4	2	0	2	2	1	3	1	0	1	2	0
I-C12	5	3	4	2	2	0	1	0	1	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
I-C14	1	1	2	2	0	2	4	4	2	1	3	5	2	8	5	3	3	2	5	1	5	2	7	3	9	9	9	10	9
I-C14	2	4	3	5	3	6	6	6	5	3	8	4	5	6	7	9	7	6	7	7	8	5	7	5	4	2	2	2	4
I-C14	3	19	14	24	25	20	21	19	15	16	15	17	12	12	14	14	12	16	9	10	14	13	10	8	9	9	7	4	7
I-C14	4	4	5	5	6	5	4	7	1	1	3	5	3	8	3	5	4	3	2	3	3	6	7	8	8	12	4	3	5
I-C14	5	2	0	3	6	0	11	7	2	2	2	2	0	2	1	3	3	5	6	5	5	5	5	9	7	7	2	2	3
I-C15	1	5	6	7	6	4	6	5	5	1	1	1	1	2	1	1	1	1	0	2	3	3	2	1	3	0	0	0	0
I-C15	2	8	9	5	7	12	13	9	8	1	3	2	2	2	1	1	3	2	1	4	1	3	3	1	2	8	3	2	3
I-C15	3	7	4	8	7	5	3	7	5	5	4	6	5	8	5	9	2	8	5	4	4	5	1	3	1	9	1	2	3
I-C15	4	1	3	8	10	4	14	5	1	4	2	4	4	12	3	6	0	6	4	3	6	5	8	5	1	2	4	3	3
I-C15	5	5	6	5	3	2	3	0	0	1	0	1	0	2	1	2	2	0	2	4	1	7	1	2	1	6	0	2	1
I-C16	1	5	2	4	3	3	6	2	2	2	0	1	1	3	4	0	1	0	2	3	0	1	3	3	6	3	0	0	4
I-C16	2	5	5	8	6	4	3	3	4	3	2	1	0	3	1	2	1	2	1	7	1	1	0	1	7	4	1	2	2
I-C16	3	3	3	5	2	2	5	6	5	4	8	2	6	4	5	5	2	2	3	2	3	3	2	1	5	2	2	0	2
I-C16	4	9	4	3	6	3	5	7	4	5	3	2	3	4	5	4	4	3	2	4	4	3	1	4	1	13	1	2	1
I-C16	5	6	4	6	5	8	10	7	6	2	6	4	7	2	3	5	4	3	1	3	2	4	6	4	1	2	2	1	3
I-C17	1	10	10	15	14	10	8	5	5	6	5	5	6	12	9	8	5	5	7	4	1	3	4	0	2	7	3	0	2
I-C17	2	7	4	6	4	0	3	3	1	1	1	4	2	1	0	0	1	1	0	0	1	0	1	0	0	3	0	5	0
I-C17	3	6	11	10	8	6	5	7	4	4	8	4	4	11	3	2	2	2	3	4	6	4	3	2	2	12	7	3	5
I-C17	4	10	9	10	13	13	6	6	4	6	7	8	5	6	5	9	3	10	9	8	6	6	8	9	9	7	5	5	8
I-C17	5	12	8	6	6	5	9	8	4	4	2	5	3	9	1	4	0	2	1	3	7	2	4	3	3	4	5	6	5
I-C18	1	6	6	5	2	6	4	3	1	4	2	2	1	3	1	2	2	0	4	7	3	2	6	2	1	4	4	4	5
I-C18	2	12	3	3	1	1	0	2	2	1	2	2	3	5	3	2	0	2	3	3	2	2	4	4	4	3	1	0	3
I-C18	3	11	4	5	8	5	5	6	0	5	10	3	0	8	2	3	2	2	0	1	9	1	6	8	3	6	5	2	3
I-C18	4	8	4	4	2	4	3	6	4	1	2	4	2	2	2	3	0	4	3	6	5	4	2	1	2	1	0	0	3
I-C18	5	12	9	11	9	7	11	12	8	5	9	10	10	14	8	5	8	4	6	8	7	8	10	15	11	12	13	2	4
I-S1	1	11	12	10	8	7	9	5	5	3	4	3	6	5	4	6	5	1	2	2	5	3	3	3	1	3	1	1	0
I-S1	2	13	7	3	6	3	6	4	4	2	2	3	3	1	3	0	0	1	0	0	0	0	4	4	0	1	1	0	1
I-S1	2	20	10	13	9	6	10	8	3	3	5	4	4	2	3	2	1	3	2	4	2	1	2	1	1	3	2	5	1
I-S1	4	10	5	7	7	3	3	3	5	3	6	2	1	3	2	0	2	0	0	0	2	0	0	0	0	0	1	1	2
I-S1	5	3	0	6	4	2	4	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0

TABLE H.7. (Contd)

Sediment Treatment	Replicates	<i>M. nasuta</i> Siphon Exposed for Test Days 1 Through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-T1	1	4	4	4	5	3	4	3	4	4	1	3	1	1	0	0	0	0	0	1	0	0	0	0	1	2	1	2	3
I-T1	2	7	4	3	3	1	7	2	2	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
I-T1	3	2	5	3	5	0	1	1	0	1	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0
I-T1	4	3	10	3	6	7	6	3	3	0	1	0	0	2	1	1	1	1	0	0	1	2	1	2	2	1	2	0	3
I-T1	5	16	7	7	4	2	6	6	3	2	8	7	3	3	2	1	2	2	3	3	3	3	3	NO	3	5	3	3	2
I-T3	1	4	4	8	5	4	4	6	0	4	3	3	4	4	6	7	4	3	5	2	4	4	4	3	3	5	2	1	2
I-T3	2	2	0	2	1	1	6	3	1	0	0	2	0	1	1	1	1	0	0	0	2	0	0	2	0	1	1	0	3
I-T3	3	2	4	3	2	5	5	3	2	0	2	2	1	7	1	2	9	10	3	4	3	5	8	2	6	8	3	2	1
I-T3	4	2	2	2	1	3	0	4	0	0	0	0	0	0	1	0	2	2	0	0	0	0	0	0	1	1	1	0	3
I-T3	5	10	9	8	9	5	15	4	4	3	1	0	0	2	5	3	7	5	4	3	3	2	3	6	5	6	7	4	4
R-AC	1	7	7	3	1	0	0	1	1	3	2	2	2	1	5	3	2	3	2	4	6	4	4	0	0	0	0	0	T
R-AC	2	6	9	5	15	6	2	2	5	14	5	1	4	4	7	10	3	5	3	5	4	7	4	8	4	5	2	7	5
R-AC	3	6	5	3	1	0	3	1	2	4	2	0	1	0	2	2	3	3	0	2	1	3	1	2	1	1	2	3	3
R-AC	4	8	4	7	4	2	2	3	3	0	1	0	0	2	2	2	0	0	3	0	1	2	1	3	4	2	3	2	2
R-AC	5	4	2	1	0	3	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	3	3	5	2	0	0	1	4
R-AM	1	6	8	4	7	6	11	13	10	7	12	11	9	10	14	13	12	12	12	14	15	10	13	10	11	17	21	15	15
R-AM	2	12	11	15	13	14	13	17	17	12	15	13	18	17	15	10	13	12	11	9	3	14	9	10	11	16	14	16	17
R-AM	3	11	7	3	8	10	8	12	14	13	6	7	6	9	15	10	15	11	9	8	16	15	11	11	6	9	10	6	6
R-AM	4	10	6	5	13	2	11	16	21	12	7	12	14	11	11	8	8	8	14	6	15	17	15	11	13	10	12	9	11
R-AM	5	21	12	15	20	15	15	18	22	18	18	17	23	25	18	21	18	19	15	16	20	22	25	22	16	22	18	23	20
R-BF	1	1	1	1	4	4	0	0	1	1	3	2	4	2	7	4	4	1	8	5	3	4	3	2	3	5	8	4	6
R-BF	2	2	4	1	2	2	1	2	0	2	0	0	2	0	2	1	1	1	3	0	0	1	0	0	1	1	2	1	1
R-BF	3	0	0	0	0	0	2	4	2	1	1	1	1	2	5	0	0	2	1	3	3	3	4	0	1	0	2	4	6
R-BF	4	3	0	2	0	0	0	3	0	0	1	8	3	1	1	1	1	3	0	0	1	6	2	7	4	2	7	1	2
R-BF	5	1	0	0	1	2	2	2	0	T	1	0	0	1	6	3	3	3	1	1	2	3	4	0	1	1	4	2	2
R-OS	1	8	5	2	4	2	3	3	4	5	1	1	1	1	4	2	2	4	0	1	4	5	5	2	4	3	4	4	6
R-OS	2	1	6	3	11	6	3	5	3	13	5	1	4	2	3	11	7	3	4	1	1	8	4	6	10	10	10	7	6
R-OS	3	8	2	6	1	0	0	1	0	1	1	2	4	4	2	5	4	4	2	3	3	6	6	1	3	0	3	0	6
R-OS	4	1	5	3	1	0	0	0	0	2	0	0	0	2	2	2	2	1	0	0	1	2	0	1	2	1	1	1	1
R-OS	5	3	10	3	4	3	1	3	4	7	0	0	2	4	4	2	0	3	0	3	7	5	6	8	5	7	8	8	3
R-PC	1	6	2	2	2	3	6	6	3	3	6	4	4	3	5	2	3	1	2	1	0	4	2	2	4	1	1	3	2
R-PC	2	2	2	4	7	0	1	4	3	2	5	4	2	0	4	6	1	2	2	0	6	5	6	3	2	5	5	1	3
R-PC	3	1	2	2	0	0	2	4	3	2	1	3	6	3	5	1	2	3	3	3	8	6	9	2	10	5	8	6	9
R-PC	4	3	0	0	0	0	2	1	3	1	0	0	1	0	5	3	2	3	1	1	1	1	0	2	3	2	3	4	3
R-PC	5	5	4	3	0	0	2	5	6	16	5	3	2	2	3	9	8	2	3	3	8	7	7	9	9	8	15	2	3

TABLE H.7. (Contd)

Sediment Treatment	Replicates	<i>M. nasuta</i> Siphon Exposed for Test Days 1 Through 28																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
R-PF	1	0	9	1	3	6	2	6	6	8	5	4	4	4	8	7	9	5	6	8	5	6	7	5	4	8	7	6	7
R-PF	2	3	0	0	0	4	0	4	2	3	2	0	0	0	3	3	2	3	0	0	2	0	0	0	0	0	0	2	3
R-PF	3	5	2	0	4	2	7	0	2	1	1	0	5	6	5	3	7	4	0	5	10	9	6	8	5	2	5	5	8
R-PF	4	0	4	3	1	4	3	1	1	5	4	2	6	4	3	2	2	6	1	7	6	6	5	4	6	5	4	1	3
R-PF	5	10	2	3	8	4	3	3	7	7	6	5	5	4	7	6	2	5	2	2	4	3	2	2	7	5	3	4	11
C-SB	1	5	1	2	0	0	0	1	0	0	1	1	1	0	0	0	1	0	0	0	2	1	5	1	1	1	0	3	1
C-SB	2	3	3	2	1	0	0	1	2	0	0	0	1	0	0	2	0	0	0	0	0	3	1	0	0	0	4	1	1
C-SB	3	1	0	0	1	0	0	1	0	2	0	0	0	1	1	0	1	0	0	0	0	1	2	1	0	0	0	0	0
C-SB	4	2	1	1	1	0	0	1	0	0	0	0	1	0	1	1	0	2	0	1	1	1	2	2	5	3	3	0	3
C-SB	5	2	0	0	0	0	0	1	3	0	2	1	0	0	1	0	2	1	2	1	1	1	0	1	0	0	1	0	1
C-NE	1	8	3	2	1	1	2	4	4	4	3	3	1	3	4	3	4	4	2	7	4	6	1	3	6	3	3	9	5
C-NE	2	4	4	3	6	6	7	5	3	2	3	2	8	7	8	4	2	10	6	12	9	6	4	6	6	2	5	11	11
C-NE	3	7	6	2	2	2	3	5	4	8	2	1	16	1	3	3	6	4	3	5	5	2	0	2	2	2	9	8	7
C-NE	4	0	1	0	3	4	3	1	0	0	2	0	4	2	5	2	0	1	2	4	6	1	0	11	4	5	3	8	5
C-NE	5	11	10	7	10	6	8	5	8	5	7	4	19	5	7	7	6	7	8	6	5	5	5	5	8	8	8	8	8
C-NE-A	1	3	8	1	9	7	8	3	5	1	2	2	4	3	3	1	4	3	3	3	4	2	15	2	5	4	2	3	4
C-NE-A	2	2	6	2	3	1	4	2	6	6	1	7	6	5	9	12	6	8	13	11	7	9	9	12	10	10	11	12	5
C-NE-A	3	2	6	3	1	2	5	4	1	2	1	0	5	2	2	2	6	3	5	6	4	2	5	1	5	4	3	2	2
C-NE-A	4	7	6	4	5	4	5	4	6	6	7	4	4	3	4	7	3	10	6	7	5	5	7	8	10	8	8	4	6
C-NE-A	5	1	2	8	2	5	1	1	1	5	5	4	2	2	5	3	1	3	4	5	3	2	5	5	5	6	4	4	6

(a) No data.

(b) Too turbid to see.

[illegible]

TABLE H.8. (Contd)

[illegible]

TABLE H.8. (Contd)

[illegible]

TABLE H.8. (Contd)

Sediment		<i>M. nasuta</i> Number Removed for Test Days 1 Through 28																											
Treatment	Replicates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
R-PF	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
C-SB	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
C-SB	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
C-NE	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(a) No data.

(b) Too turbid to see.

TABLE H.9. Daily Observation of *N. caecoides* Number on Sediment During 28-Day Solid-Phase Test, Oakland Phase III A Project Retest

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 28																											
Treatment	Replicates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-C3	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C3	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C3	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C3	5	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	2	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	4	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C5	5	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C7	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ND ^(a)	0
I-C7	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C7	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	1	0	2	0	2	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	2	3	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C8	5	0	3	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	4	1	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C9	5	0	2	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C10	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C10	3	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C10	4	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C10	5	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C11	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C11	2	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C11	3	6	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	T ^(b)	0
I-C11	4	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	T	T	0	0	0	0	0	0	0	0
I-C11	5	0	1	2	2	0	0	0	0	0	0	0	0	T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE H.9. (Contd)

[illegible]

TABLE H.9. (Contd)

[illegible]

TABLE H.9. (Contd)

Sediment		<i>N. caecoides</i> on Sediment for Test Days 1 Through 28																											
Treatment	Replicates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
R-PF	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
R-PF	4	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
R-PF	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-SB	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-SB	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-SB	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-SB	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-SB	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE	1	1	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE	2	3	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE	5	2	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE-A	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE-A	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE-A	3	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE-A	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C-NE-A	5	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(a) No data.

(b) Too turbid to see.

TABLE H.10. Daily Observation of *N. caecoides* Number Removed During 28-Day Solid-Phase Test, Oakland Phase III A Project Retest

[illegible]

TABLE H.10. (Contd)

Sediment		<i>N. caecoides</i> Number Removed for Test Days 1 Through 28																											
Treatment	Replicates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
I-C12	1	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C12	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C12	5	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
I-C14	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C14	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
I-C14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C14	5	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C15	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C15	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C15	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C15	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
I-C16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
I-C16	3	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C16	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C16	5	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C17	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C18	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C18	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-C18	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I-S1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[illegible]

TABLE H.10. (Contd)

Sediment		<i>N. caecoides</i> Number Removed for Test Days 1 Through 28																											
Treatment	Replicates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
R-PF	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-SB	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	1	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-NE-A	5	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(a) No data.

(b) Too turbid to see.

APPENDIX I

BIOASSAY RESULTS FOR 28-DAY SOLID-PHASE FLOW-THROUGH TEST WITH *C. Stigmaeus*

TABLE I.1. Bioassay Results for 10-Day *C. stigmaeus* Solid-Phase Flow-Through Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>C. stigmaeus</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	8	2	0.86
	2	9	1	
	3	9	1	
	4	9	1	
	5	8	2	
AC-3	1	6	4	0.88
	2	10	0	
	3	9	1	
	4	9	1	
	5	10	0	
I-C4 ^(a)	1	9	1	0.90
	3	9	1	
I-C5 ^(a)	2	10	0	1.00
	3	10	0	
I-C7	1	10	0	0.92
	2	7	3	
	3	10	0	
	4	10	0	
	5	9	1	
I-C8 ^(a)	1	9	1	0.85
	2	8	2	
I-C9	1	10	0	0.92
	2	10	0	
	3	8	2	
	4	8	2	
	5	10	0	
I-C10	1	10	0	0.90
	2	8	2	
	3	9	1	
	4	8	2	
	5	10	0	
I-C11	1	10	0	0.90
	2	10	0	
	3	10	0	
	4	9	1	
	5	6	4	

TABLE I.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>C. stigmaeus</u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C12	1	10	0	1.00
	2	10	0	
	3	10	0	
	4	10	0	
	5	10	0	
I-C14	1	10	0	1.00
	2	10	0	
	3	10	0	
	4	10	0	
	5	10	0	
I-C15	1	8	2	0.92
	2	10	0	
	3	10	0	
	4	8	2	
	5	10	0	
I-C16	1	8	2	0.90
	2	9	1	
	3	9	1	
	4	10	0	
	5	9	1	
I-C17	1	11 ^(b)	0	0.94
	2	9	1	
	3	12 ^(b)	0	
	4	9	1	
	5	10 ^(b)	1	
I-C18	1	10	0	0.86
	2	6	4	
	3	9	1	
	4	9	1	
	5	9	1	
I-S1 ^(a)	2	8	2	0.90
	3	9	1	
	4	10	0	
I-T1 ^(a)	1	9	1	0.95
	2	10	0	

TABLE I.1. (Contd)

Sediment Treatment	Replicate	<i>C. stigmaeus</i>		Mean Proportion Surviving
		Live	Dead or Missing	
I-T3 ^(a)	1	9	1	0.83
	2	8	2	
	3	8	2	
I-T5 ^(a)	1	9	1	0.93
	2	9	1	
	3	10	0	
R-AC ^(a)	1	8	2	0.90
	2	10	0	
R-AM ^(a)	1	9	1	0.85
	2	8	2	
R-BF	1	10	0	0.98
	2	10	0	
	3	10	0	
	4	9	1	
	5	10	0	
R-PC ^(a)	1	9	1	0.85
	2	8	2	
R-PF ^(a)	1	8	2	0.70
	2	6	4	
C-SB	1	8	2	0.86
	2	10	0	
	3	8	2	
	4	10	0	
	5	7	3	
C-WB	1	10	0	0.92
	2	10	0	
	3	9	1	
	4	7	3	
	5	10	0	
C-NE ^(a)	1	9	1	0.95
	2	10	0	

(a) Insufficient number of test organisms to initiate five replicates/treatments.

(b) Inadvertently initiated more than 10 organisms.

TABLE I.2. Rank Order Based Upon Number Surviving the 10-Day
C. stigmaeus Solid-Phase Test, Oakland Phase III A
 Project

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
R-PF	0.70
I-T3	0.83
R-AM	0.85
I-C8	0.85
R-PC	0.85
C-SB	0.86
I-C18	0.86
A-C1	0.86
A-C3	0.88
I-C10	0.90
I-S1	0.90
R-AC	0.90
I-C11	0.90
I-C4	0.90
I-C16	0.90
I-C7	0.92
C-WB	0.92
I-C9	0.92
I-C15	0.92
I-T5	0.93
I-C17	0.94
I-T1	0.95
C-NE	0.95
R-BF	0.98
I-C12	1.00
I-C14	1.00
I-C5	1.00

TABLE I.3. Water Quality Summary for 10-Day *C. stigmaeus* Solid-Phase Test, Oakland Phase III A Project

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	29.0	33.0	110	130
AC-1	14.3	15.9	7.70	8.10	6.9	8.0	30.5	32.0	114	130 ^(a)
AC-3	14.5	15.8	7.83	8.09	6.9	8.0	30.5	32.0	114	162 ^(a)
I-C4	14.5	15.6	7.79	8.16	7.0	7.8	30.5	32.0	114	144 ^(a)
I-C5	14.7	15.2	7.04 ^(a)	8.16	7.1	7.8	30.1	32.0	114	126
I-C7	14.5	16.5	7.79	8.11	6.9	8.1	30.5	32.0	114	126
I-C8	14.4	15.9	7.90	8.16	7.1	8.0	30.5	32.0	114	126
I-C9	14.3	15.7	7.77	8.09	6.8	7.7	30.0	32.0	114	126
I-C10	14.7	15.9	7.82	8.11	7.2	8.0	30.5	32.0	114	128
I-C11	14.5	15.8	7.75	8.10	7.1	7.9	30.5	32.0	114	126
I-C12	14.7	16.0	7.84	8.10	7.2	8.0	30.5	32.0	114	128
I-C14	14.6	15.9	7.74	8.10	7.0	7.9	30.0	32.0	117	190 ^(a)
I-C15	14.7	15.9	7.78	8.11	7.2	7.9	30.5	31.5	114	126
I-C16	14.5	16.0	7.88	8.14	7.2	8.0	30.0	32.0	114	126
I-C17	14.4	16.0	7.79	8.10	6.9	7.9	30.0	32.0	114	128
I-C18	14.5	16.0	7.72	8.10	7.1	7.8	30.5	32.0	114	128
I-S1	14.4	16.3	7.85	8.15	6.8	7.9	30.5	32.0	108 ^(a)	144 ^(a)
I-T1	14.3	15.6	7.83 ^(a)	8.15	7.0	8.0	31.0	31.5	114	130
I-T3	14.5	15.7	7.07 ^(a)	8.15	7.1	8.0	30.0	31.5	114	126 ^(a)
I-T5	14.3	15.7	7.84	8.17	7.2	8.1	30.1	31.5	114	144 ^(a)
R-AC	14.3	15.6	7.85	8.16	7.2	8.0	30.5	31.5	112	132 ^(a)
R-AM	14.4	15.7	7.87	8.18	7.3	8.0	30.5	31.5	114	126
R-BF	14.5	15.9	7.78	8.09	6.9	7.8	30.5	32.0	114	126
R-PC	14.3	15.8	7.84	8.19	7.2	7.9	30.0	31.5	108 ^(a)	126 ^(a)
R-PF	14.4	15.6	7.89	8.15	7.1	8.0	31.0	32.0	114	132 ^(a)
C-SB	14.8	16.0	7.74	8.09	6.7	8.0	30.0	32.0	75 ^(a)	126
C-WB	14.4	15.9	7.78	8.10	6.9	8.0	30.0	32.0	114	130
C-NE	14.5	15.6	7.65	8.17	7.0	7.9	30.5	31.5	102 ^(a)	126

(a) Data point out of range.

APPENDIX J

BIOASSAY RESULTS FOR 10-DAY SOLID-PHASE FLOW-THROUGH TEST WITH *R. abronius* (With Aeration)

TABLE J.1. Bioassay Results for 10-Day *R. abronius* Solid-Phase Flow-Through With Air, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	17	3	0.81
	2	14	6	
	3	18	2	
	4	15	5	
	5	17	3	
AC-3	1	15	5	0.66
	2	13	7	
	3	14	6	
	4	12	8	
	5	12	8	
I-C4	1	15	5	0.75
	2	16	4	
	3	16	4	
	4	13	7	
	5	15	5	
I-C5	1	14	6	0.72
	2	18	2	
	3	17	3	
	4	6	14	
	5	17	3	
I-C7	1	10	10	0.58
	2	11	9	
	3	10	10	
	4	14	6	
	5	13	7	
I-C8	1	2	18	0.19
	2	3	17	
	3	4	16	
	4	7	13	
	5	3	17	
I-C9	1	10	10	0.64
	2	15	5	
	3	17	3	
	4	14	6	
	5	8	12	

TABLE J.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C10	1	10	10	0.53
	2	8	12	
	3	13	7	
	4	14	6	
	5	8	12	
I-C11	1	14	6	0.71
	2	11	9	
	3	15	5	
	4	15	5	
	5	16	4	
I-C12	1	17	3	0.71
	2	14	6	
	3	14	6	
	4	11	9	
	5	15	5	
I-C14	1	16	4	0.73
	2	17	3	
	3	4	16	
	4	20	0	
	5	16	4	
I-C15	1	12	8	0.74
	2	16	4	
	3	16	4	
	4	14	6	
	5	16	4	
I-C16	1	17	3	0.80
	2	16	4	
	3	15	5	
	4	16	4	
	5	16	4	
I-C17	1	2	18	0.47
	2	15	5	
	3	18	2	
	4	4	16	
	5	8	12	

TABLE J.1. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i>		Mean Proportion Surviving
		Live	Dead or Missing	
I-C18	1	19	1	0.84
	2	17	3	
	3	15	5	
	4	15	5	
	5	18	2	
I-S1	1	17	3	0.69
	2	13	7	
	3	9	11	
	4	15	5	
	5	15	5	
I-T1	1	16	4	0.90
	2	20	0	
	3	18	2	
	4	17	3	
	5	19	1	
I-T3	1	16	4	0.81
	2	18	2	
	3	15	5	
	4	17	3	
	5	15	5	
I-T5	1	ND ^(a)	ND	0.80
	2	13	7	
	3	18	2	
	4	17	3	
	5	16	4	
R-AC	1	12	8	0.52
	2	11	9	
	3	11	9	
	4	9	11	
	5	9	11	
R-AM	1	19	1	0.93
	2	20	0	
	3	18	2	
	4	18	2	
	5	18	2	

TABLE J.1. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i>		Mean Proportion Surviving
		Live	Dead or Missing	
R-BF	1	10	10	0.48
	2	9	11	
	3	10	10	
	4	7	13	
	5	12	8	
R-OS	1	13	7	0.55
	2	11	9	
	3	8	12	
	4	13	7	
	5	10	10	
R-PC	1	19	1	0.99
	2	20	0	
	3	20	0	
	4	20	0	
	5	20	0	
R-PF	1	8	12	0.48
	2	13	7	
	3	12	8	
	4	12	8	
	5	3	17	
C-SB	1	14	6	0.59
	2	15	5	
	3	12	8	
	4	11	9	
	5	7	13	
C-WB	1	19	1	0.96
	2	ND	ND	
	3	19	1	
	4	19	1	
	5	20	0	
C-NE	1	20	0	0.97
	2	20	0	
	3	18	2	
	4	19	1	
	5	20	0	

(a) No data.

TABLE J.2. Rank Order Based on Number Surviving the 10-Day
R. abronius Solid-Phase Flow-Through With Air,
 Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
I-C8	0.19
I-C17	0.47
R-PF	0.48
R-BF	0.48
R-AC	0.52
I-C10	0.53
R-OS	0.55
I-C7	0.58
C-SB	0.59
I-C9	0.64
AC-3	0.66
I-S1	0.69
I-C11	0.71
I-C12	0.71
I-C5	0.72
I-C14	0.73
I-C15	0.74
I-C4	0.75
I-C16	0.80
I-T5	0.80
AC-1	0.81
I-T3	0.81
I-C18	0.84
I-T1	0.90
R-AM	0.93
C-WB	0.96
C-NE	0.97
R-PC	0.99

TABLE J.3. Water Quality Summary for 10-Day *R. abronius* Solid-Phase Flow-Through Test With Air, Oakland Phase III A Project

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	29.0	33.0	35	45
AC-1	13.8	16.5	7.76	8.11	7.2	8.4	30.0	32.0	35	50 ^(a)
AC-3	15.2	16.7	7.60	8.12	7.3	8.2	30.0	32.0	36	100 ^(a)
I-C4	15.3	16.2	7.80	8.10	6.7	8.0	30.5	32.0	32 ^(a)	46 ^(a)
I-C5	15.2	16.2	7.80	8.11	6.7	8.0	30.5	31.5	35	85 ^(a)
I-C7	13.7	16.5	7.58	8.07	7.1	8.2	30.0	32.0	35	48 ^(a)
I-C8	15.3	16.2	7.62	8.10	6.8	8.1	30.5	31.5	35	64 ^(a)
I-C9	15.4	16.4	7.80	8.11	7.2	8.1	30.0	32.0	36	46 ^(a)
I-C10	15.1	16.6	7.81	8.09	7.2	7.9	30.0	32.0	36	56 ^(a)
I-C11	15.2	16.6	7.56	8.10	7.1	8.4	30.0	32.0	36	45
I-C12	15.3	16.4	7.64	8.11	7.3	8.2	30.0	32.0	36	44
I-C14	14.9	16.6	7.75	8.12	7.0	8.2	30.0	32.0	36	45 ^(a)
I-C15	13.6	16.6	7.68	8.10	7.2	8.2	30.0	32.0	36	100 ^(a)
I-C16	14.7	16.5	7.59	8.10	6.9	8.3	30.0	31.5	35	44
I-C17	15.2	16.6	7.78	8.11	7.2	8.0	30.0	32.0	36	44 ^(a)
I-C18	14.0	16.5	7.74	8.11	7.2	8.2	30.0	31.5	35	64 ^(a)
I-S1	15.0	16.3	6.92 ^(a)	8.09	6.5	7.9	30.5	32.5	32 ^(a)	100 ^(a)
I-T1	15.3	16.3	7.86	8.11	6.7	7.9	30.5	32.5	36	64 ^(a)
I-T3	15.0	16.3	7.82	8.10	6.8	8.1	30.5	32.5	36	50 ^(a)
I-T5	15.5	16.2	7.74	8.12	6.7	8.2	30.5	32.5	36	44
R-AC	15.4	16.2	7.81	8.11	6.6	8.1	30.5	31.5	28 ^(a)	50 ^(a)
R-AM	15.5	16.2	7.59	8.01	6.8	8.0	30.5	31.5	36	65 ^(a)
R-BF	14.3	16.3	7.70	8.12	7.4	8.2	30.0	32.0	36	48 ^(a)
R-OS	13.7	16.4	7.59	8.06	6.7	8.1	30.5	32.0	36	60 ^(a)
R-PC	15.2	15.9	7.81	8.10	6.7	8.0	30.5	32.5	36	44 ^(a)
R-PF	15.1	16.2	7.81	8.11	6.7	8.0	30.5	32.5	34 ^(a)	85 ^(a)
C-SB	14.8	16.4	7.56	8.11	7.1	8.2	30.0	31.5	36	60 ^(a)
C-WB	15.2	16.4	7.61 ^(a)	8.10	7.3	8.3	30.0	31.5	36	44 ^(a)
C-NE	15.2	16.6	7.12 ^(a)	8.01	6.7	7.9	30.5	32.0	36	56 ^(a)

(a) Data point out of range.

TABLE J.4. Daily Observations of *R. abronius* Number on Surface
Solid-Phase Flow-Through Test With Air, Oakland
Phase III A Project

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
AC-1	1	0	0	0	0	1	0	0	0	1	1	1
AC-1	2	1	0	0	0	0	1	1	1	0	0	0
AC-1	3	0	0	0	0	0	2	0	0	1	0	0
AC-1	4	2	0	0	0	0	0	0	0	1	2	2
AC-1	5	0	0	0	0	0	0	0	0	0	0	0
AC-3	1	ND ^(a)	1	1	1	1	1	0	1	0	1	2
AC-3	2	2	1	0	0	0	0	0	0	0	0	0
AC-3	3	0	0	0	0	0	0	0	0	0	0	0
AC-3	4	0	0	0	0	0	0	0	0	0	0	0
AC-3	5	1	ND	1	0	0	0	0	0	0	0	0
I-C4	1	2	0	1	1	1	1	2	0	0	0	0
I-C4	2	0	0	0	0	0	0	0	1	0	1	1
I-C4	3	2	0	1	1	1	0	0	0	0	0	0
I-C4	4	0	0	1	1	1	0	0	ND	0	0	0
I-C4	5	0	0	0	1	1	1	0	0	0	0	0
I-C5	1	1	0	0	0	0	0	0	0	0	0	0
I-C5	2	1	1	1	0	1	2	0	0	0	0	1
I-C5	3	2	0	0	0	0	0	0	0	0	0	0
I-C5	4	0	0	0	0	2	0	0	0	0	0	0
I-C5	5	4	0	0	0	0	0	0	1	0	0	1
I-C7	1	0	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	0	0	0	0	0	0	0
I-C7	3	0	0	0	0	0	0	0	1	0	1	0
I-C7	4	0	0	0	0	0	0	0	1	1	1	1
I-C7	5	0	0	0	0	0	0	0	2	1	1	2
I-C8	1	0	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	0	0	0	0	0	0	0	0	0	0
I-C8	3	1	0	1	0	1	1	1	0	0	0	0
I-C8	4	0	0	0	3	2	1	1	1	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0	0
I-C9	1	2	0	0	0	0	0	0	0	0	0	0
I-C9	2	0	0	0	0	0	3	0	0	0	0	0
I-C9	3	0	0	0	0	0	1	0	0	0	0	1
I-C9	4	1	0	0	0	0	1	0	0	0	0	0
I-C9	5	0	0	0	1	0	1	0	2	1	0	1

TABLE J.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 1 Through 11										
		0	1	2	3	4	5	6	7	8	9	10
I-C10	1	0	0	0	0	0	1	0	0	0	0	0
I-C10	2	0	0	0	0	0	0	0	0	0	0	0
I-C10	3	0	0	0	0	0	0	0	2	2	1	1
I-C10	4	0	0	0	0	0	0	0	0	1	1	1
I-C10	5	0	0	0	0	0	0	0	0	0	0	0
I-C11	1	0	0	0	0	0	0	1	0	0	0	0
I-C11	2	0	0	0	2	0	0	0	0	0	1	0
I-C11	3	1	0	0	0	0	2	0	0	0	0	1
I-C11	4	0	0	1	1	0	0	0	0	0	0	0
I-C11	5	0	0	0	0	0	0	1	0	2	2	3
I-C12	1	1	0	0	0	0	1	1	1	1	2	0
I-C12	2	1	0	0	0	1	0	0	0	0	0	0
I-C12	3	0	0	0	0	0	1	1	1	0	0	0
I-C12	4	0	0	0	0	1	0	0	0	0	0	0
I-C12	5	0	0	0	0	0	0	0	0	0	0	0
I-C14	1	4	1	0	0	0	1	1	1	1	1	8
I-C14	2	2	0	0	1	1	1	0	2	0	1	1
I-C14	3	0	0	0	0	0	0	0	0	0	1	0
I-C14	4	0	0	0	0	0	0	0	1	0	0	0
I-C14	5	1	0	0	0	0	1	0	0	0	0	1
I-C15	1	1	1	0	1	0	1	0	2	0	2	4
I-C15	2	1	0	0	1	0	0	0	0	0	0	0
I-C15	3	2	0	0	0	1	3	2	2	0	0	1
I-C15	4	1	0	1	0	1	0	0	1	0	1	2
I-C15	5	3	0	0	0	0	1	0	2	2	2	2
I-C16	1	10	0	0	1	0	0	0	0	1	0	0
I-C16	2	1	1	2	3	0	0	0	1	1	1	1
I-C16	3	2	0	0	0	0	0	0	0	0	1	0
I-C16	4	2	2	0	1	2	1	0	0	0	1	1
I-C16	5	4	2	4	0	0	1	0	0	1	0	0
I-C17	1	0	0	0	0	0	1	1	0	0	0	0
I-C17	2	0	0	0	0	0	0	0	0	0	0	0
I-C17	3	0	1	0	2	1	1	1	3	2	1	1
I-C17	4	1	0	0	0	1	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	1	1	1	1	1

TABLE J.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 1 Through 11										
		0	1	2	3	4	5	6	7	8	9	10
I-C18	1	0	1	0	0	0	0	0	0	0	0	0
I-C18	2	0	0	0	0	0	0	0	0	0	0	0
I-C18	3	1	0	0	0	0	0	0	0	0	0	0
I-C18	4	0	0	0	1	0	1	0	0	0	0	0
I-C18	5	0	0	0	0	0	0	0	0	0	0	0
I-S1	1	2	1	0	0	0	0	0	1	1	1	1
I-S1	2	0	0	0	0	0	0	2	0	0	1	1
I-S1	3	0	0	0	0	0	0	0	0	0	0	0
I-S1	4	2	0	2	0	0	0	0	0	0	1	1
I-S1	5	2	0	0	0	0	0	0	0	0	0	0
I-T1	1	2	0	0	1	0	0	0	0	0	0	1
I-T1	2	0	0	0	0	1	0	0	0	0	0	0
I-T1	3	0	0	0	0	0	0	0	0	0	0	1
I-T1	4	1	0	2	0	0	0	1	1	0	1	1
I-T1	5	1	0	2	0	0	0	0	0	0	0	0
I-T3	1	0	0	1	0	0	0	0	0	0	0	0
I-T3	2	0	0	0	0	0	0	ND	0	0	0	0
I-T3	3	0	0	0	0	0	0	0	0	0	0	0
I-T3	4	0	0	0	1	0	0	0	0	0	0	0
I-T3	5	0	0	0	0	0	0	0	0	0	1	1
I-T5	1	0	0	0	0	0	0	0	0	0	0	0
I-T5	2	0	0	0	0	0	0	0	0	0	1	1
I-T5	3	0	0	0	0	0	0	0	0	0	0	0
I-T5	4	1	0	0	0	0	0	0	1	0	0	0
I-T5	5	1	0	0	0	0	0	0	0	0	0	1
R-AC	1	1	0	0	1	0	1	0	0	0	0	0
R-AC	2	0	0	0	0	0	0	0	0	0	0	0
R-AC	3	0	0	0	0	0	0	1	0	0	0	1
R-AC	4	0	0	0	0	0	0	0	0	0	0	0
R-AC	5	1	1	1	2	3	2	1	1	0	0	0
R-AM	1	0	0	0	0	0	0	0	0	0	0	0
R-AM	2	0	0	0	1	0	0	0	0	0	0	0
R-AM	3	0	0	1	1	1	2	2	2	2	1	0
R-AM	4	1	1	1	1	1	0	2	2	2	2	1
R-AM	5	1	0	1	1	1	1	0	0	0	0	0

TABLE J.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 1 Through 11										
		0	1	2	3	4	5	6	7	8	9	10
R-BF	1	0	0	0	0	0	0	0	0	0	0	0
R-BF	2	1	0	0	0	0	1	1	1	0	0	0
R-BF	3	2	0	0	0	0	0	0	0	0	0	0
R-BF	4	2	0	0	0	0	0	1	0	0	1	0
R-BF	5	2	0	ND	0	0	0	0	0	0	0	1
R-OS	1	1	0	0	0	0	0	0	0	0	0	0
R-OS	2	0	0	2	2	1	1	1	1	0	0	0
R-OS	3	ND	0	1	1	1	1	1	1	0	0	0
R-OS	4	1	0	1	1	1	1	1	0	0	0	1
R-OS	5	0	0	0	0	0	0	0	0	0	0	0
R-PC	1	0	1	1	0	1	0	0	0	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	0	0
R-PC	5	0	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	1	1	1	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	1	1	1	1	2	1	1	1	1	1	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	1	0	0	0	1	2
C-SB	2	0	0	0	2	1	2	0	1	1	1	1
C-SB	3	0	0	0	0	0	0	0	2	0	0	0
C-SB	4	0	0	0	0	1	1	0	1	1	0	0
C-SB	5	0	0	0	0	0	1	0	0	1	0	0
C-WB	1	1	1	1	1	1	1	0	0	0	0	0
C-WB	2	0	0	0	0	0	0	0	0	0	0	0
C-WB	3	0	0	0	0	1	1	1	2	1	1	1
C-WB	4	0	0	0	0	0	0	0	0	0	0	1
C-WB	5	0	0	0	0	0	0	0	1	0	0	1
C-NE	1	0	0	0	0	1	1	1	1	0	0	0
C-NE	2	1	0	1	0	0	0	1	2	1	0	0
C-NE	3	1	1	2	2	2	1	1	0	0	0	0
C-NE	4	0	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0	0

(a) No data.

TABLE J.5. Daily Observations of *R. abronius* Number Floating During 10-Day Solid-Phase Flow-Through Test With Air, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
AC-1	1	2	0	1	6	4	0	0	0	0	0	0
AC-1	2	1	0	0	0	0	0	0	0	0	0	0
AC-1	3	1	0	0	0	0	0	0	0	0	0	0
AC-1	4	1	0	0	0	0	0	0	0	0	0	0
AC-1	5	0	0	1	0	1	0	0	0	0	0	0
AC-3	1	ND ^(a)	0	0	0	0	0	0	0	0	0	0
AC-3	2	0	0	0	0	0	0	0	0	0	0	0
AC-3	3	0	0	0	0	0	0	0	0	0	0	0
AC-3	4	1	0	0	0	0	0	0	0	0	0	0
AC-3	5	0	ND	0	0	0	0	0	0	0	0	0
I-C4	1	0	0	0	0	0	0	0	0	0	0	0
I-C4	2	0	0	0	0	0	0	0	0	1	0	0
I-C4	3	0	0	0	0	0	0	0	0	0	0	1
I-C4	4	0	0	0	0	0	0	0	ND	0	0	0
I-C4	5	0	0	0	0	0	0	0	0	0	0	0
I-C5	1	1	0	1	0	1	1	2	1	0	0	1
I-C5	2	1	0	0	0	0	0	1	0	1	0	1
I-C5	3	0	0	0	0	0	0	0	1	1	0	0
I-C5	4	0	1	0	0	0	0	0	0	0	0	0
I-C5	5	0	0	0	0	0	0	0	0	0	0	0
I-C7	1	1	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	3	0	0	0	0	0	0
I-C7	3	1	0	0	0	0	0	0	0	0	0	0
I-C7	4	0	0	0	0	0	0	0	0	0	0	1
I-C7	5	0	0	0	0	0	0	0	0	0	0	0
I-C8	1	0	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	0	0	0	0	0	0	0	0	0	0
I-C8	3	0	0	0	0	0	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	0	0	0	0	0	0
I-C8	5	1	0	0	0	0	0	0	0	0	0	0
I-C9	1	1	0	0	0	2	0	0	1	0	0	0
I-C9	2	0	0	0	1	0	1	0	1	0	0	0
I-C9	3	3	2	0	4	0	0	0	0	0	0	0
I-C9	4	1	0	0	5	7	0	0	1	1	0	1
I-C9	5	1	0	0	6	3	0	0	1	0	0	0

TABLE J.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C10	1	0	0	0	0	1	0	0	0	0	0	0
I-C10	2	1	0	0	1	0	0	0	0	0	0	0
I-C10	3	0	0	0	0	0	0	0	0	0	0	0
I-C10	4	0	0	0	0	0	0	0	0	0	0	0
I-C10	5	0	0	0	1	0	0	0	0	0	0	0
I-C11	1	0	0	0	2	0	1	0	0	0	0	1
I-C11	2	0	0	0	3	0	1	0	0	0	0	0
I-C11	3	1	0	0	0	1	0	0	0	0	0	0
I-C11	4	0	0	0	5	4	0	0	1	0	0	1
I-C11	5	0	0	0	0	0	0	0	0	0	0	0
I-C12	1	1	0	0	1	0	0	0	0	0	0	1
I-C12	2	4	0	0	2	4	1	0	0	0	1	0
I-C12	3	0	0	0	0	0	0	0	0	1	0	0
I-C12	4	0	0	0	0	0	0	0	0	0	0	0
I-C12	5	0	0	0	0	1	0	0	0	0	0	1
I-C14	1	0	0	0	0	0	0	0	0	0	2	0
I-C14	2	1	0	0	0	0	0	0	0	0	1	0
I-C14	3	0	0	0	0	0	0	0	0	0	0	0
I-C14	4	0	0	0	0	0	0	0	0	0	0	0
I-C14	5	0	0	1	4	0	1	0	0	1	1	0
I-C15	1	1	0	0	0	0	0	0	0	0	0	0
I-C15	2	0	0	0	0	0	0	0	0	0	0	0
I-C15	3	1	0	0	0	0	0	0	0	0	0	0
I-C15	4	1	0	0	0	0	0	0	0	0	0	0
I-C15	5	0	0	0	1	0	0	0	0	0	1	0
I-C16	1	0	0	0	2	0	0	0	0	0	0	1
I-C16	2	1	1	0	9	3	3	0	0	1	0	1
I-C16	3	1	1	0	2	4	1	0	1	0	0	3
I-C16	4	4	0	1	4	2	0	0	0	1	0	0
I-C16	5	2	0	0	1	0	0	0	0	0	1	0
I-C17	1	1	0	0	0	1	0	0	0	1	0	1
I-C17	2	0	0	0	4	0	0	0	0	0	0	0
I-C17	3	0	0	0	2	0	0	0	0	1	0	0
I-C17	4	0	0	0	3	0	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	0	0	0	0	0

TABLE J.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C18	1	1	0	0	0	0	0	0	0	0	0	0
I-C18	2	2	0	0	0	0	1	0	0	0	0	0
I-C18	3	1	0	0	0	0	0	0	0	0	0	1
I-C18	4	0	0	0	0	0	0	0	0	0	0	0
I-C18	5	0	0	0	0	0	0	0	0	0	0	0
I-S1	1	0	0	1	0	0	0	1	0	0	0	0
I-S1	2	0	0	0	0	0	0	0	0	1	0	0
I-S1	3	0	0	2	0	0	0	0	1	0	0	0
I-S1	4	0	0	0	0	1	0	1	0	1	0	0
I-S1	5	2	0	0	0	0	0	0	0	0	0	0
I-T1	1	0	0	0	0	0	1	1	1	0	0	0
I-T1	2	0	0	0	0	1	0	0	0	0	0	0
I-T1	3	0	0	0	0	0	0	0	0	0	0	1
I-T1	4	1	0	0	0	0	1	2	2	0	0	0
I-T1	5	0	1	1	0	0	1	0	0	0	1	0
I-T3	1	0	0	0	0	0	0	0	1	0	0	1
I-T3	2	1	0	1	0	0	0	ND	0	0	0	0
I-T3	3	0	0	0	0	0	0	1	1	0	0	0
I-T3	4	0	0	0	0	1	0	0	2	2	0	0
I-T3	5	0	1	0	0	0	1	0	1	0	1	0
I-T5	1	0	0	0	0	0	0	0	0	0	0	0
I-T5	2	0	0	1	0	0	0	0	0	0	0	0
I-T5	3	0	0	0	1	1	1	1	0	1	0	0
I-T5	4	0	0	0	0	0	0	0	1	0	0	2
I-T5	5	0	0	0	0	0	0	0	1	0	1	0
R-AC	1	0	0	0	0	0	0	0	0	0	0	0
R-AC	2	1	1	0	0	0	0	1	1	0	1	1
R-AC	3	0	0	0	0	0	0	0	0	0	0	0
R-AC	4	1	0	0	0	0	0	0	0	0	0	0
R-AC	5	0	0	0	0	0	0	0	0	0	0	0
R-AM	1	0	0	0	0	0	0	0	0	0	0	0
R-AM	2	2	0	0	1	0	0	0	0	0	0	0
R-AM	3	0	0	0	0	0	0	0	0	0	0	0
R-AM	4	0	0	0	0	0	0	0	0	0	0	0
R-AM	5	0	0	0	0	0	0	0	0	0	0	0

TABLE J.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
R-BF	1	1	0	0	0	0	0	0	0	0	0	0
R-BF	2	0	0	0	0	ND	0	0	0	0	0	0
R-BF	3	0	0	0	0	0	0	0	0	0	0	0
R-BF	4	0	0	0	0	0	1	0	0	0	0	0
R-BF	5	0	0	ND	0	0	0	0	0	0	0	0
R-OS	1	0	0	0	0	0	0	0	0	0	0	0
R-OS	2	0	0	1	0	0	0	0	0	0	0	0
R-OS	3	1	0	0	0	0	0	0	0	0	0	0
R-OS	4	0	1	0	0	0	0	0	0	0	0	0
R-OS	5	0	0	0	0	0	1	0	0	0	0	0
R-PC	1	0	0	0	0	0	0	0	0	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	0	0
R-PC	3	0	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	0	1
R-PC	5	0	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	0	0	0	0	0	0	0	0	1	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	1	1	0	0	0	0	0	0	1
R-PF	4	1	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	6	3	2	0	0	0	0	0
C-SB	2	0	0	1	4	2	0	0	0	0	0	0
C-SB	3	1	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	0	0	0	0	0	0	0	0
C-SB	5	0	0	0	0	2	0	0	0	0	0	0
C-WB	1	0	0	0	0	0	0	0	0	0	0	0
C-WB	2	0	0	0	0	0	0	0	0	0	0	0
C-WB	3	1	0	0	0	0	0	0	0	0	0	0
C-WB	4	0	0	0	0	0	0	0	0	0	0	0
C-WB	5	1	0	0	0	0	0	0	0	0	0	0
C-NE	1	0	0	1	0	0	0	0	0	0	0	0
C-NE	2	0	0	0	0	1	0	0	0	0	0	0
C-NE	3	0	0	0	0	0	0	0	0	0	0	0
C-NE	4	0	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0	0

(a) No data.

APPENDIX K

BIOASSAY RESULTS FOR 10-DAY SOLID-PHASE FLOW-THROUGH TEST WITH *R. abronius* (Without Aeration)

TABLE K.1. Bioassay Results for 10-Day *R. abronius* Solid-Phase Flow-Through Test Without Air, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	18	2	0.76
	2	15	5	
	3	11	9	
	4	14	6	
	5	18	2	
AC-3	1	8	12	0.62
	2	11	9	
	3	13	7	
	4	13	7	
	5	17	3	
I-C4	1	16	4	0.72
	2	10	10	
	3	15	5	
	4	19	1	
	5	12	8	
I-C5	1	16	4	0.80
	2	12	8	
	3	17	3	
	4	16	4	
	5	19	1	
I-C7	1	ND ^(a)	ND	0.70
	2	17	3	
	3	15	5	
	4	13	7	
	5	11	9	
I-C8	1	5	15	0.33
	2	7	13	
	3	9	11	
	4	3	17	
	5	9	11	
I-C9	1	13	7	0.65
	2	11	9	
	3	10	10	
	4	16	4	
	5	15	5	

TABLE K.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C10	1	14	6	0.60
	2	14	6	
	3	12	8	
	4	8	12	
	5	12	8	
I-C11	1	10	10	0.61
	2	12	8	
	3	10	10	
	4	16	4	
	5	13	7	
I-C12	1	19	1	0.80
	2	16	4	
	3	18	2	
	4	18	2	
	5	9	11	
I-C14	1	16	4	0.59
	2	3	17	
	3	20	0	
	4	4	16	
	5	16	4	
I-C15	1	17	3	0.72
	2	15	5	
	3	14	6	
	4	16	4	
	5	10	10	
I-C16	1	17	3	0.82
	2	17	3	
	3	17	3	
	4	15	5	
	5	16	4	
I-C17	1	19	1	0.57
	2	18	2	
	3	2	18	
	4	5	15	
	5	13	7	

TABLE K.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C18	1	17	3	0.86
	2	ND	ND	
	3	17	3	
	4	16	4	
	5	19	1	
I-S1	1	14	6	0.70
	2	12	8	
	3	12	8	
	4	15	5	
	5	17	3	
I-T1	1	16	4	0.81
	2	17	3	
	3	18	2	
	4	14	6	
	5	16	4	
I-T3	1	17	3	0.85
	2	15	5	
	3	17	3	
	4	17	3	
	5	19	1	
I-T5	1	16	4	0.81
	2	20	0	
	3	16	4	
	4	15	5	
	5	14	6	
R-AC	1	9	11	0.61
	2	8	12	
	3	18	2	
	4	11	9	
	5	15	5	
R-AM	1	18	2	0.93
	2	19	1	
	3	19	1	
	4	17	3	
	5	20	0	

TABLE K.1. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i>		Mean Proportion Surviving
		Live	Dead or Missing	
R-BF	1	9	11	0.26
	2	2	18	
	3	8	12	
	4	5	15	
	5	2	18	
R-OS	1	18	2	0.61
	2	13	7	
	3	11	9	
	4	13	7	
	5	6	14	
R-PC	1	19	1	0.98
	2	19	1	
	3	21 ^(b)	0	
	4	21 ^(b)	0	
	5	20	0	
R-PF	1	9	11	0.41
	2	9	11	
	3	7	13	
	4	6	14	
	5	10	10	
C-SB	1	14	6	0.77
	2	12	8	
	3	20	0	
	4	12	8	
	5	19	1	
C-WB	1	14	6	0.92
	2	20	0	
	3	20	0	
	4	19	1	
	5	19	1	
C-NE	1	19	1	0.95
	2	18	2	
	3	20	0	
	4	19	1	
	5	19	1	

(a) No data.

(b) Inadvertently initiated more than 20 organisms.

TABLE K.2. Rank Order Based on *R. abronius* Number Surviving the 10-Day Solid-Phase Flow-Through Test Without Air, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
R-BF	0.26
IC-8	0.33
R-PF	0.41
IC-17	0.57
IC-14	0.59
IC-10	0.60
R-AC	0.61
IC-11	0.61
R-OS	0.61
AC-3	0.62
IC-9	0.65
IS-1	0.70
IC-7	0.70
IC-4	0.72
IC-15	0.72
AC-1	0.76
R-SB	0.77
IC-5	0.80
IC-12	0.80
T-1	0.81
T-5	0.81
IC-16	0.82
T-3	0.85
IC-18	0.86
R-WB	0.92
R-AM	0.93
C-NE	0.95
R-PC	0.98

TABLE K.3. Water Quality Summary for 10-Day *R. abronius* Solid-Phase Flow-Through Test Without Air, Oakland Phase III A Project

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)		Flow Rate (mL/min)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	29.0	33.0	35	45
AC-1	15.4	16.4	7.76	8.08	6.6	8.5	30.0	32.0	36	90 ^(a)
AC-3	15.3	16.6	7.73	8.05	6.7	8.4	30.0	32.0	35	64 ^(a)
I-C4	15.2	16.3	7.79	8.02	6.6	7.9	31.0	32.0	36	48 ^(a)
I-C5	15.6	16.3	7.78	8.03	6.6	7.9	30.5	32.5	34 ^(a)	96 ^(a)
I-C7	15.4	16.6	7.77	8.08	6.8	8.4	30.0	32.0	35	45
I-C8	15.3	16.4	7.79	8.02	6.8	7.8	31.0	32.5	36	44
I-C9	15.3	16.6	7.77	8.04	6.7	8.2	30.0	32.0	36	44
I-C10	15.5	16.6	7.64	8.04	6.5	8.5	30.0	32.0	35	45
I-C11	15.3	16.5	7.79	8.08	6.6	8.2	30.0	32.0	36	45
I-C12	15.3	16.6	7.77	8.08	6.6	8.3	30.0	32.0	35	50 ^(a)
I-C14	15.5	16.6	7.79	8.08	6.7	8.1	30.0	32.0	35	44
I-C15	15.4	16.6	7.68	8.06	6.7	8.3	30.0	32.0	36	80 ^(a)
I-C16	15.3	16.5	7.64	8.08	6.9	8.7	30.0	32.0	36	84 ^(a)
I-C17	15.3	16.6	7.63	8.04	6.6	8.4	30.0	32.0	35	44
I-C18	15.3	16.7	7.68	8.08	6.7	8.2	30.0	32.0	35	51 ^(a)
I-S1	15.4	16.3	7.76	8.02	6.5	7.9	30.5	32.5	32 ^(a)	44
I-T1	15.3	16.3	7.80	8.07	6.6	8.2	30.5	31.5	36	44
I-T3	15.4	16.3	7.76	8.02	6.3	8.0	30.5	31.5	36	44
I-T5	15.4	16.3	7.81	8.08	6.5	8.2	30.5	32.0	32 ^(a)	64 ^(a)
R-AC	15.3	16.2	7.78	8.03	6.7	7.9	30.5	32.5	34 ^(a)	48 ^(a)
R-AM	15.5	16.2	7.78	8.08	6.7	8.0	30.5	32.5	34 ^(a)	48 ^(a)
R-BF	15.4	16.6	7.73	8.04	6.7	8.4	30.0	32.0	36	45
R-OS	15.5	16.5	7.80	8.07	6.7	7.9	30.5	32.5	36	44
R-PC	15.6	16.3	7.79	8.08	6.8	8.0	30.5	32.0	35	48 ^(a)
R-PF	15.5	16.3	7.79	8.07	6.5	7.9	30.5	32.5	36	48 ^(a)
C-SB	15.4	16.5	7.77	8.05	6.8	8.4	30.0	32.0	35	80 ^(a)
C-WB	15.3	16.4	7.60	8.05	6.9	8.3	30.0	32.0	35	60 ^(a)
C-NE	15.3	16.5	7.75	8.02	6.2	7.9	30.5	32.5	36	44

(a) Data point out of range.

TABLE K.4. Daily Observations of *R. abronius* Number on Surface During 10-Day Solid-Phase Flow-Through Test Without Air, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
AC-1	1	2	0	0	0	0	0	0	0	0	0	0
AC-1	2	3	0	0	1	1	1	1	1	1	1	1
AC-1	3	3	1	0	0	0	0	0	0	0	0	0
AC-1	4	0	0	0	0	0	0	0	0	0	0	0
AC-1	5	0	1	0	0	0	0	0	0	0	0	0
AC-3	1	1	0	0	0	0	0	0	0	0	0	0
AC-3	2	3	0	0	0	0	0	0	0	0	0	0
AC-3	3	1	0	0	0	0	0	0	0	0	0	0
AC-3	4	0	0	0	0	0	0	0	0	0	0	0
AC-3	5	0	0	0	0	0	0	0	0	0	0	0
I-C4	1	0	0	0	0	0	0	1	0	0	1	0
I-C4	2	1	0	1	1	1	1	1	1	1	1	0
I-C4	3	0	0	0	0	0	0	0	0	0	0	0
I-C4	4	0	1	0	0	0	1	0	0	0	0	0
I-C4	5	0	0	0	0	0	0	0	0	0	0	0
I-C5	1	0	0	1	1	0	1	1	0	0	0	1
I-C5	2	10	1	5	4	0	0	0	0	2	0	1
I-C5	3	2	0	0	0	1	1	2	0	1	1	0
I-C5	4	0	0	0	0	0	1	1	0	0	1	0
I-C5	5	0	1	0	0	0	1	0	0	1	0	0
I-C7	1	0	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	0	0	1	1	0	0	1
I-C7	3	0	1	0	1	1	1	0	0	0	0	0
I-C7	4	0	1	2	2	2	2	1	0	0	0	0
I-C7	5	0	0	0	0	0	0	0	0	0	0	0
I-C8	1	0	0	0	0	0	0	0	0	0	1	1
I-C8	2	1	0	1	1	0	0	0	0	0	0	0
I-C8	3	0	0	0	1	0	0	1	0	0	0	0
I-C8	4	1	0	0	0	0	0	1	1	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0	0
I-C9	1	1	1	1	1	0	0	0	0	0	0	0
I-C9	2	6	0	0	1	0	0	0	0	0	0	0
I-C9	3	0	0	0	0	0	0	0	0	0	0	0
I-C9	4	3	1	1	0	0	1	0	0	0	0	0
I-C9	5	1	0	0	0	0	0	0	0	0	0	0

TABLE K.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C10	1	0	0	0	0	0	0	0	0	0	0	0
I-C10	2	0	0	0	0	0	0	0	0	0	0	1
I-C10	3	1	0	0	0	1	0	0	0	0	1	1
I-C10	4	0	0	0	0	0	0	0	0	0	0	0
I-C10	5	1	0	0	0	0	0	0	0	0	0	0
I-C11	1	0	0	0	1	2	1	1	0	1	1	1
I-C11	2	0	0	0	0	0	0	0	0	0	0	0
I-C11	3	0	0	0	0	0	3	1	1	1	1	0
I-C11	4	0	0	0	0	1	0	0	0	0	0	1
I-C11	5	0	0	0	0	0	0	0	0	0	0	1
I-C12	1	0	0	0	0	0	0	0	0	0	0	0
I-C12	2	1	0	0	0	0	0	0	0	0	0	0
I-C12	3	0	0	0	0	0	0	0	0	0	0	0
I-C12	4	0	0	0	0	0	0	0	0	0	0	0
I-C12	5	0	0	0	0	0	0	1	1	0	0	0
I-C14	1	1	0	0	0	0	0	1	0	0	1	0
I-C14	2	1	0	0	0	0	0	0	0	1	0	1
I-C14	3	0	0	0	0	0	0	0	0	0	0	0
I-C14	4	0	0	0	0	0	0	2	0	0	0	0
I-C14	5	0	0	0	0	0	0	0	0	1	0	1
I-C15	1	2	0	0	0	0	1	0	0	0	0	0
I-C15	2	0	0	0	0	0	0	1	1	0	0	1
I-C15	3	0	0	0	1	0	0	1	1	3	2	0
I-C15	4	0	0	0	0	0	0	0	0	0	2	0
I-C15	5	0	1	0	1	0	1	2	1	2	3	3
I-C16	1	2	5	3	2	1	1	0	0	0	0	0
I-C16	2	2	0	1	0	0	0	0	0	0	2	1
I-C16	3	0	0	1	1	0	0	0	0	0	0	0
I-C16	4	3	1	2	0	1	1	0	0	2	1	2
I-C16	5	7	1	5	2	1	2	0	0	0	0	0
I-C17	1	1	0	0	0	0	0	0	0	0	0	0
I-C17	2	1	0	1	0	0	0	0	0	0	0	0
I-C17	3	0	0	0	0	0	0	0	0	0	0	0
I-C17	4	0	0	1	1	0	0	0	0	0	0	0
I-C17	5	0	0	0	0	0	0	1	0	0	0	1
I-C18	1	1	0	0	0	0	0	0	0	0	0	0
I-C18	2	0	0	0	0	0	0	0	0	0	0	0
I-C18	3	3	0	1	0	0	0	1	0	0	0	0
I-C18	4	2	0	1	0	0	0	0	0	1	0	0
I-C18	5	0	0	0	0	0	0	0	0	0	0	0

TABLE K.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-S1	1	2	0	1	0	1	1	1	0	0	0	2
I-S1	2	1	1	0	0	1	0	0	0	0	0	0
I-S1	3	0	0	0	0	0	0	1	1	0	0	1
I-S1	4	0	0	0	0	0	0	0	0	0	0	0
I-S1	5	3	0	0	0	0	0	0	1	1	1	0
I-T1	1	0	0	0	0	0	0	1	2	1	1	2
I-T1	2	0	1	1	3	2	2	2	1	0	0	0
I-T1	3	2	2	1	0	0	0	0	0	0	0	0
I-T1	4	0	0	0	0	0	0	1	0	0	0	1
I-T1	5	0	1	0	0	1	0	0	0	2	0	0
I-T3	1	0	0	0	0	0	0	1	1	1	1	1
I-T3	2	1	1	0	0	0	0	1	0	0	0	0
I-T3	3	1	0	1	0	0	0	0	0	0	0	0
I-T3	4	0	0	0	0	0	0	0	0	0	0	0
I-T3	5	0	0	0	0	0	0	0	0	0	0	1
I-T5	1	1	0	1	0	0	0	1	1	1	0	0
I-T5	2	0	0	0	0	0	0	0	0	0	0	0
I-T5	3	0	0	0	0	1	1	1	1	1	1	1
I-T5	4	0	0	0	0	0	0	0	0	0	0	0
I-T5	5	0	0	0	0	0	0	0	0	0	0	1
R-AC	1	0	0	0	0	0	0	0	0	0	1	0
R-AC	2	0	0	0	0	0	0	1	0	1	0	0
R-AC	3	0	0	0	0	0	0	0	0	0	0	0
R-AC	4	1	0	0	1	1	2	1	0	0	0	0
R-AC	5	0	0	0	0	1	2	1	1	0	1	0
R-AM	1	0	1	1	1	1	0	1	1	0	0	0
R-AM	2	0	0	1	1	1	1	2	1	1	1	1
R-AM	3	1	0	0	0	0	0	0	0	0	0	0
R-AM	4	1	1	1	1	2	1	2	1	1	2	1
R-AM	5	0	0	0	0	0	1	1	1	1	2	1
R-BF	1	0	0	1	0	0	1	2	1	0	0	0
R-BF	2	0	0	0	0	0	0	1	1	0	0	0
R-BF	3	0	0	0	ND ^(a)	0	1	1	0	0	0	0
R-BF	4	0	1	1	1	0	0	1	0	0	0	0
R-BF	5	0	0	0	0	0	0	0	0	0	0	0
R-OS	1	0	0	0	0	0	0	1	1	0	0	2
R-OS	2	0	0	2	1	1	1	1	1	1	2	0
R-OS	3	0	0	0	0	0	0	0	0	0	0	0
R-OS	4	1	0	0	0	0	0	1	0	0	0	2
R-OS	5	0	0	0	0	0	0	0	0	0	0	0

TABLE K.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface for Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
R-PC	1	2	1	1	0	1	0	0	0	0	0	0
R-PC	2	0	0	0	0	0	1	1	1	1	0	0
R-PC	3	1	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	1	1	1	2	3	0	0	0	0	0
R-PC	5	0	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	0	0	0	0	0	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	1	1	1	1	0
R-PF	4	0	0	4	1	1	1	1	1	0	0	0
R-PF	5	1	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	1	0
C-SB	2	2	0	2	2	3	2	2	2	2	1	1
C-SB	3	2	0	1	2	1	1	1	1	0	0	0
C-SB	4	3	0	0	1	1	1	2	2	2	2	2
C-SB	5	0	0	0	0	0	0	2	0	0	0	0
C-WB	1	1	3	4	5	4	4	3	3	3	0	0
C-WB	2	0	0	0	0	0	0	0	0	0	0	0
C-WB	3	0	0	0	0	0	0	0	0	1	0	0
C-WB	4	0	0	0	0	0	0	0	0	0	0	0
C-WB	5	0	0	0	0	0	0	0	0	0	1	1
C-NE	1	1	0	0	0	0	1	1	1	0	0	0
C-NE	2	0	0	0	0	0	0	0	0	0	0	0
C-NE	3	0	0	0	0	0	0	0	0	0	0	0
C-NE	4	0	0	0	0	0	0	1	1	1	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0	1

(a) No data.

TABLE K.5. Daily Observation of *R. abronius* Floating During 10-Day Solid-Phase Flow-Through Test Without Air, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
AC-1	1	0	0	0	0	0	0	0	0	0	1	0
AC-1	2	1	0	0	0	0	0	0	0	0	0	0
AC-1	3	1	0	0	3	0	1	0	0	0	0	0
AC-1	4	0	0	0	2	1	0	0	0	0	0	1
AC-1	5	0	0	0	0	0	0	0	0	0	0	1
AC-3	1	3	0	0	0	0	0	0	0	0	0	0
AC-3	2	1	0	0	0	0	0	0	0	0	0	0
AC-3	3	2	0	0	1	0	0	0	0	0	0	0
AC-3	4	0	0	0	0	0	0	0	2	0	0	0
AC-3	5	1	0	0	2	0	4	0	1	1	2	0
I-C4	1	0	0	0	0	0	0	0	0	0	0	0
I-C4	2	2	1	0	0	0	1	0	0	0	1	0
I-C4	3	0	0	0	0	0	0	0	0	0	0	0
I-C4	4	0	0	0	0	0	1	0	0	0	0	0
I-C4	5	0	0	0	0	0	0	0	0	0	0	0
I-C5	1	0	0	0	1	0	0	0	1	0	1	2
I-C5	2	0	1	0	0	0	0	0	1	1	0	0
I-C5	3	0	0	0	0	4	2	0	3	4	1	0
I-C5	4	1	0	0	0	0	1	0	0	0	2	1
I-C5	5	1	1	0	0	2	2	1	0	1	1	1
I-C7	1	0	0	0	0	0	0	0	0	0	0	0
I-C7	2	0	0	0	0	0	0	0	0	0	0	0
I-C7	3	1	0	0	3	0	0	0	0	0	0	0
I-C7	4	0	0	0	0	0	1	0	0	0	0	0
I-C7	5	1	0	0	0	0	0	0	0	0	0	0
I-C8	1	2	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	0	0	0	1	0	0	0	0	0	0
I-C8	3	0	0	0	0	0	0	0	0	0	0	0
I-C8	4	2	0	0	0	0	0	0	0	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0	0
I-C9	1	1	0	0	0	0	0	0	0	0	0	0
I-C9	2	3	0	0	3	0	2	0	0	0	0	0
I-C9	3	3	1	0	2	0	0	0	1	0	0	1
I-C9	4	3	0	1	0	0	5	0	0	0	0	2
I-C9	5	1	0	0	2	1	0	0	0	0	0	0

TABLE K.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C10	1	3	0	0	0	0	0	0	0	0	0	0
I-C10	2	0	0	0	0	0	0	0	0	0	0	0
I-C10	3	0	0	0	2	3	5	0	1	1	0	0
I-C10	4	1	0	0	0	0	0	0	0	0	0	0
I-C10	5	1	0	0	0	0	0	0	0	0	0	0
I-C11	1	0	0	0	4	0	0	0	0	0	0	0
I-C11	2	0	0	0	0	0	0	0	0	0	0	0
I-C11	3	0	0	0	0	3	2	0	0	0	0	0
I-C11	4	0	0	0	0	0	0	0	0	0	0	2
I-C11	5	1	0	0	0	0	0	0	0	0	0	0
I-C12	1	0	0	0	0	0	0	0	0	0	0	0
I-C12	2	0	0	0	0	0	0	0	0	0	0	0
I-C12	3	0	0	0	0	0	0	0	0	0	0	0
I-C12	4	0	0	0	2	6	0	0	0	0	0	0
I-C12	5	1	0	0	1	1	0	0	0	0	0	0
I-C14	1	0	0	0	0	0	0	0	0	0	0	0
I-C14	2	0	0	0	0	0	0	0	0	0	0	0
I-C14	3	0	0	0	0	0	0	0	0	0	1	0
I-C14	4	0	0	0	0	0	0	0	1	0	0	0
I-C14	5	0	0	0	0	0	0	0	0	0	0	0
I-C15	1	1	0	0	0	0	0	0	0	0	0	0
I-C15	2	1	0	0	0	0	0	0	0	0	0	0
I-C15	3	0	0	0	0	0	0	0	0	0	0	0
I-C15	4	1	0	0	2	0	0	0	0	0	0	0
I-C15	5	1	0	0	1	1	1	1	0	0	1	1
I-C16	1	1	0	0	0	0	0	0	0	0	0	0
I-C16	2	2	0	0	1	0	0	0	0	1	0	1
I-C16	3	1	0	0	0	0	0	0	0	0	0	0
I-C16	4	1	0	0	0	0	0	0	0	0	0	0
I-C16	5	2	0	0	1	6	11	3	0	0	1	2
I-C17	1	0	0	0	0	0	0	0	0	0	0	0
I-C17	2	1	0	0	2	0	4	0	0	0	1	0
I-C17	3	0	0	0	0	1	0	0	0	0	0	0
I-C17	4	0	0	0	0	0	0	0	0	0	0	0
I-C17	5	1	0	0	4	0	0	0	0	0	0	0

TABLE K.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C18	1	0	0	0	0	0	0	0	0	0	0	0
I-C18	2	0	0	0	0	0	0	0	0	0	0	0
I-C18	3	1	0	0	0	0	0	0	0	0	0	0
I-C18	4	0	0	0	0	0	0	0	0	0	0	0
I-C18	5	0	0	0	0	0	0	0	1	0	0	0
I-S1	1	0	0	1	0	0	0	1	1	0	0	1
I-S1	2	1	0	0	0	0	0	0	0	0	0	0
I-S1	3	2	0	0	0	0	0	0	0	0	0	1
I-S1	4	1	0	0	0	0	0	0	0	0	0	0
I-S1	5	1	0	0	0	0	0	0	1	0	0	0
I-T1	1	0	0	0	0	1	0	1	0	1	0	0
I-T1	2	1	1	0	0	0	0	1	1	0	0	0
I-T1	3	1	0	1	0	0	0	0	0	1	0	0
I-T1	4	0	1	1	1	1	0	1	0	1	0	1
I-T1	5	1	1	1	0	0	0	0	1	1	0	0
I-T3	1	0	0	0	0	0	1	0	0	0	0	0
I-T3	2	1	0	0	0	0	0	1	0	0	0	0
I-T3	3	1	0	0	0	0	0	0	0	0	0	0
I-T3	4	0	0	0	0	0	0	0	1	0	0	0
I-T3	5	0	0	0	0	1	0	1	0	0	0	0
I-T5	1	1	0	0	0	0	1	0	0	0	0	0
I-T5	2	2	0	0	0	0	0	0	0	0	0	0
I-T5	3	0	0	0	0	0	1	0	0	1	1	1
I-T5	4	0	0	0	0	0	0	0	0	0	0	0
I-T5	5	0	0	0	0	0	0	0	1	0	0	0
R-AC	1	3	0	0	0	1	1	1	0	0	2	2
R-AC	2	0	0	0	0	0	0	0	0	1	0	0
R-AC	3	0	0	0	0	0	0	0	0	0	0	0
R-AC	4	0	0	0	0	0	0	0	0	0	0	1
R-AC	5	0	0	0	1	0	0	0	0	0	0	0
R-AM	1	0	0	0	0	0	0	0	0	0	0	0
R-AM	2	0	0	0	0	0	0	0	0	0	0	0
R-AM	3	0	0	0	0	0	0	0	0	0	0	0
R-AM	4	0	0	0	0	0	0	0	0	0	0	0
R-AM	5	0	0	0	0	0	0	0	0	0	0	0

TABLE K.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
R-BF	1	0	0	0	0	0	0	0	0	0	0	0
R-BF	2	2	0	0	0	0	1	0	0	0	0	0
R-BF	3	0	0	0	ND ^(a)	0	0	0	0	0	0	0
R-BF	4	0	0	0	1	0	0	0	0	0	0	0
R-BF	5	2	0	0	0	0	0	0	0	0	0	0
R-DS	1	1	0	0	0	0	0	0	0	0	0	0
R-OS	2	0	0	0	0	0	0	0	0	0	0	0
R-OS	3	0	0	0	0	0	0	0	0	0	0	0
R-OS	4	0	0	0	0	0	2	0	0	0	0	0
R-OS	5	0	0	0	0	0	0	0	0	0	0	0
R-PC	1	0	0	0	0	0	0	0	0	0	0	0
R-PC	2	0	0	0	0	0	0	0	0	0	1	0
R-PC	3	0	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	0	0
R-PC	5	1	0	0	0	0	1	0	0	0	0	0
R-PF	1	0	0	0	0	0	1	0	0	0	0	0
R-PF	2	0	0	0	0	0	0	0	0	0	0	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	0	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	1	1	0	0	0	0	0	1
C-SB	2	1	0	0	0	0	0	0	0	0	0	0
C-SB	3	2	0	0	2	1	0	0	0	0	0	0
C-SB	4	0	0	0	1	0	0	0	0	0	0	1
C-SB	5	0	0	0	0	0	0	0	0	0	0	0
C-WB	1	0	0	0	0	0	0	0	0	0	0	0
C-WB	2	0	0	0	0	0	0	0	0	0	0	0
C-WB	3	0	0	1	0	1	0	0	0	0	0	0
C-WB	4	0	0	0	0	0	0	0	0	0	0	0
C-WB	5	1	0	0	0	0	0	0	0	0	0	0
C-NE	1	0	0	0	0	0	0	0	0	0	0	0
C-NE	2	0	0	0	0	0	0	0	0	0	0	0
C-NE	3	0	0	0	0	0	0	0	0	0	0	0
C-NE	4	0	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0	0

(a) No data.

APPENDIX L

BIOASSAY RESULTS FOR 10-DAY SOLID-PHASE STATIC TEST WITH *R. abronius*

TABLE L.1. Bioassay Results for 10-Day *R. abronius* Solid-Phase Static Test, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
AC-1	1	19	1	0.91
	2	19	1	
	3	16	4	
	4	18	2	
	5	19	1	
AC-3	1	15	5	0.84
	2	20	0	
	3	17	3	
	4	14	6	
	5	18	2	
I-C4	1	17	3	0.84
	2	18	2	
	3	19	1	
	4	16	4	
	5	14	6	
I-C5	1	16	4	0.94
	2	18	2	
	3	20	0	
	4	20	0	
	5	21 ^(a)	0	
I-C7	1	13	7	0.77
	2	15	5	
	3	17	3	
	4	19	1	
	5	13	7	
I-C8	1	6	14	0.65
	2	16	4	
	3	14	6	
	4	13	7	
	5	16	4	
I-C9	1	15	5	0.50
	2	5	15	
	3	8	12	
	4	12	8	
	5	10	10	

TABLE L.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>R. abronius</u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C10	1	19	1	0.91
	2	18	2	
	3	18	2	
	4	19	1	
	5	17	3	
I-C11	1	17	3	0.92
	2	20	0	
	3	19	1	
	4	17	3	
	5	19	1	
I-C12	1	16	4	0.82
	2	15	5	
	3	18	2	
	4	18	2	
	5	15	5	
I-C14	1	19	1	0.79
	2	16	4	
	3	13	7	
	4	18	2	
	5	13	7	
I-C15	1	15	5	0.86
	2	15	5	
	3	18	2	
	4	19	1	
	5	19	1	
I-C16	1	17	3	0.76
	2	16	4	
	3	19	1	
	4	9	11	
	5	ND ^(b)	ND	
I-C17	1	11	9	0.49
	2	7	13	
	3	12	8	
	4	9	11	
	5	10	10	

TABLE L.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
I-C18	1	17	3	0.91
	2	19	1	
	3	17	3	
	4	19	1	
	5	19	1	
I-S1	1	15	5	0.71
	2	16	4	
	3	18	2	
	4	14	6	
	5	8	12	
I-T1	1	19	1	0.89
	2	18	2	
	3	17	3	
	4	17	3	
	5	18	2	
I-T3	1	18	2	0.87
	2	20	0	
	3	18	2	
	4	13	7	
	5	18	2	
I-T5	1	14	6	0.88
	2	19	1	
	3	16	4	
	4	20	0	
	5	19	1	
R-AC	1	14	6	0.86
	2	18	2	
	3	18	2	
	4	18	2	
	5	18	2	
R-AM	1	16	4	0.93
	2	19	1	
	3	18	2	
	4	22 ^(a)	0	
	5	20	0	

TABLE L.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u><i>R. abronius</i></u>		<u>Mean Proportion Surviving</u>
		<u>Live</u>	<u>Dead or Missing</u>	
R-BF	1	10	10	0.51
	2	11	9	
	3	8	12	
	4	10	10	
	5	12	8	
R-OS	1	14	6	0.63
	2	9	11	
	3	11	9	
	4	15	5	
	5	14	6	
R-PC	1	19	1	0.95
	2	18	2	
	3	20	0	
	4	18	2	
	5	20	0	
R-PF	1	15	5	0.70
	2	11	9	
	3	17	3	
	4	10	10	
	5	17	3	
C-SB	1	18	2	0.90
	2	18	2	
	3	17	3	
	4	19	1	
	5	18	2	
C-WB	1	20	0	0.98
	2	19	1	
	3	19	1	
	4	20	0	
	5	20	0	
C-NE	1	18	2	0.93
	2	18	2	
	3	21 ^(a)	0	
	4	20	0	
	5	17	3	

(a) Inadvertently initiated more than 20 organisms.

(b) No data.

TABLE L.2. Rank Order Based on Proportion Surviving the 10-Day
R. abronius Solid-Phase Static Test, Oakland Phase III A
Project

<u>Sediment Treatment</u>	<u>Proportion Surviving in all Replicates</u>
I-C17	0.49
I-C9	0.50
R-BF	0.51
R-OS	0.63
I-C8	0.65
R-PF	0.70
I-S1	0.71
I-C16	0.76
I-C7	0.77
I-C14	0.79
I-C12	0.82
AC-3	0.84
I-C4	0.84
I-C15	0.86
R-AC	0.86
I-T3	0.87
I-T5	0.88
I-T1	0.89
C-SB	0.90
I-C10	0.91
AC-1	0.91
I-C18	0.91
I-C11	0.92
C-NE	0.93
R-AM	0.93
I-C5	0.94
R-PC	0.95
C-WB	0.98

TABLE L.3. Water Quality Summary for 10-Day *R. abronius* Solid-Phase Static Test, Oakland Phase III A Project

Sediment Treatment	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)	
	Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range	13.0	17.0	7.40	8.40	4.0	---	29.0	33.0
AC-1	14.8	15.7	7.50	8.23	6.9	8.2	30.0	32.0
AC-3	14.8	15.7	7.97	8.24	7.2	8.0	30.0	32.0
I-C4	14.9	15.7	7.82	8.19	7.2	8.0	30.5	32.5
I-C5	14.9	15.7	7.64	8.21	5.6	7.7	30.0	32.0
I-C7	14.9	15.7	8.00	8.40	7.5	8.2	31.0	32.0
I-C8	15.1	15.7	7.94	8.26	7.3	8.1	31.0	33.0
I-C9	14.7	15.7	8.06	8.53 ^(a)	6.4	8.0	30.0	32.0
I-C10	14.4	15.8	7.98	8.26	7.5	8.1	30.0	32.0
I-C11	14.2	15.7	7.93	8.28	7.5	8.1	30.5	32.0
I-C12	14.8	15.8	7.85	8.20	7.2	8.2	30.5	32.0
I-C14	14.8	15.7	8.09	8.29	7.3	8.1	30.0	32.0
I-C15	14.8	15.6	7.92	8.26	7.0	9.3	30.0	32.0
I-C16	14.7	15.7	7.90	8.27	6.8	8.1	30.0	32.0
I-C17	14.9	15.6	7.07 ^(a)	8.24	7.2	8.2	30.0	32.0
I-C18	14.7	15.7	8.01	8.21	7.3	8.0	30.0	32.0
I-S1	14.9	15.8	7.79	8.19	6.6	7.9	30.0	32.0
I-T1	15.0	15.8	7.80	8.29	6.0	7.8	30.5	32.0
I-T3	14.9	15.7	7.89	8.21	7.0	8.0	31.0	32.0
I-T5	14.9	15.7	7.90	8.17	7.1	8.0	31.0	32.0
R-AC	14.9	15.7	7.84	8.06	6.0	7.9	31.0	32.0
R-AM	15.0	15.7	7.91	8.22	7.2	8.0	31.0	32.5
R-BF	14.9	15.7	7.80	8.15	7.2	7.9	30.5	32.0
R-OS	14.9	15.7	7.99	8.16	7.2	8.0	31.0	32.0
R-PC	14.9	15.7	7.88	8.12	6.9	8.0	31.0	32.5
R-PF	14.9	15.7	7.76	8.15	6.8	7.8	30.5	32.0
C-SB	14.8	15.7	7.97	8.52 ^(a)	7.0	8.2	30.5	32.0
C-WB	14.8	15.7	7.87	8.19	7.2	8.1	30.5	32.0
C-NE	14.8	15.8	7.84	8.09	7.0	8.0	31.0	32.5

(a) Data point out of range.

TABLE L.4. Daily Observations of *R. abronius* Number on Surface During 10-Day Solid-Phase Static Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
AC-1	1	1	0	0	1	1	0	0	0	0	0	0
AC-1	2	0	0	0	1	0	0	0	0	0	0	0
AC-1	3	0	0	0	1	0	0	0	0	0	0	0
AC-1	4	1	0	0	0	2	0	0	0	0	0	0
AC-1	5	0	0	0	1	0	0	0	0	0	0	0
AC-3	1	4	0	0	0	1	0	0	0	0	0	0
AC-3	2	0	0	0	0	1	0	0	0	0	0	1
AC-3	3	0	0	0	0	0	0	1	1	1	0	0
AC-3	4	3	0	0	1	0	0	0	0	0	0	0
AC-3	5	4	0	0	1	0	0	1	1	1	1	1
I-C4	1	0	1	1	1	1	1	1	0	1	0	0
I-C4	2	0	0	0	0	0	0	0	0	0	0	0
I-C4	3	0	0	0	0	0	0	0	0	0	0	0
I-C4	4	0	0	0	0	0	0	0	0	0	0	0
I-C4	5	0	2	2	2	3	3	3	4	3	1	1
I-C5	1	0	0	0	0	0	0	0	0	1	0	0
I-C5	2	0	0	0	0	0	0	0	0	0	0	0
I-C5	3	0	0	0	0	0	0	0	0	0	0	0
I-C5	4	0	0	0	0	0	0	0	0	0	0	0
I-C5	5	0	0	0	0	0	0	0	1	0	0	0
I-C7	1	0	0	0	0	0	0	0	0	0	1	0
I-C7	2	0	0	0	2	0	0	1	1	1	1	1
I-C7	3	0	0	0	0	0	0	1	1	1	1	1
I-C7	4	0	0	0	0	0	0	0	0	0	0	0
I-C7	5	0	0	0	1	0	0	1	1	0	2	3
I-C8	1	0	0	1	1	1	0	2	0	1	0	0
I-C8	2	0	0	0	0	0	0	0	0	0	0	0
I-C8	3	0	0	1	0	0	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	0	0	0	0	0	1
I-C8	5	0	0	0	0	0	0	0	0	0	1	1
I-C9	1	0	0	1	0	0	0	1	0	0	1	1
I-C9	2	8	0	0	0	0	0	1	1	1	4	3
I-C9	3	1	0	0	0	0	0	1	0	0	2	2
I-C9	4	0	0	0	0	0	0	0	0	1	0	0
I-C9	5	3	0	0	1	0	1	1	0	0	1	1

TABLE L.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C10	1	0	0	0	0	0	0	0	0	1	0	1
I-C10	2	0	0	0	0	0	0	0	0	0	0	0
I-C10	3	0	0	0	0	0	0	0	0	0	0	0
I-C10	4	0	0	0	0	0	1	1	1	1	1	1
I-C10	5	0	0	0	1	0	1	1	1	1	2	1
I-C11	1	0	1	1	0	0	0	0	0	0	0	0
I-C11	2	0	0	0	0	0	0	0	0	0	0	0
I-C11	3	0	0	0	1	0	0	0	0	0	0	0
I-C11	4	0	0	1	2	2	0	0	0	0	0	0
I-C11	5	0	0	0	0	0	0	0	0	0	0	1
I-C12	1	0	0	0	0	0	0	0	0	0	0	0
I-C12	2	2	1	1	0	0	0	0	0	0	0	0
I-C12	3	0	0	0	0	0	0	0	0	0	0	0
I-C12	4	0	0	0	1	0	2	1	1	1	1	1
I-C12	5	0	0	0	0	0	0	0	0	0	0	0
I-C14	1	0	0	0	2	0	0	0	0	0	0	0
I-C14	2	0	0	0	0	0	0	1	0	1	1	1
I-C14	3	0	0	0	0	0	0	0	0	0	0	5
I-C14	4	1	0	0	0	0	0	0	0	0	1	1
I-C14	5	1	0	0	0	0	0	0	0	2	2	1
I-C15	1	0	0	0	1	0	0	0	1	0	0	0
I-C15	2	0	0	0	0	2	1	1	1	1	1	0
I-C15	3	0	0	0	0	0	0	0	0	2	2	2
I-C15	4	T ^(a)	0	ND ^(b)	0	0	0	0	0	0	0	0
I-C15	5	0	0	0	0	0	0	0	0	0	0	0
I-C16	1	0	0	0	1	0	0	0	0	1	0	0
I-C16	2	0	0	0	0	0	0	1	1	0	0	0
I-C16	3	0	0	0	0	0	0	0	0	1	0	0
I-C16	4	0	0	0	0	0	0	0	1	4	3	3
I-C16	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
I-C17	1	6	0	0	0	0	0	0	0	0	0	0
I-C17	2	T	0	0	0	1	2	4	2	4	5	0
I-C17	3	0	0	0	0	0	0	0	1	2	0	0
I-C17	4	1	0	0	T	0	1	1	2	3	2	2
I-C17	5	6	0	1	3	0	0	1	1	1	2	2
I-C18	1	1	0	0	3	1	0	0	1	2	1	1
I-C18	2	0	0	0	0	0	0	0	0	0	0	0
I-C18	3	4	0	0	0	0	0	1	0	0	1	1
I-C18	4	0	0	0	0	0	0	0	0	0	0	0
I-C18	5	0	0	0	0	0	0	0	0	0	0	0

TABLE L.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-S1	1	0	1	2	1	0	0	1	0	1	0	0
I-S1	2	0	0	0	0	0	0	0	0	0	0	0
I-S1	3	0	0	0	0	0	0	0	0	0	0	2
I-S1	4	0	1	0	1	0	0	1	0	0	0	0
I-S1	5	0	0	0	0	0	0	0	0	1	0	1
I-T1	1	0	1	0	0	0	0	0	0	0	0	0
I-T1	2	0	0	0	1	1	0	1	1	1	0	0
I-T1	3	0	0	0	1	1	0	0	0	0	0	1
I-T1	4	0	0	0	0	0	0	0	0	0	0	0
I-T1	5	0	0	0	0	1	0	0	0	0	1	1
I-T3	1	0	0	0	1	3	1	0	0	0	0	0
I-T3	2	0	0	0	0	0	0	0	0	0	0	0
I-T3	3	0	0	0	0	0	0	0	0	0	1	1
I-T3	4	0	0	1	2	1	2	1	0	1	0	0
I-T3	5	0	2	2	2	2	0	0	0	0	0	0
I-T5	1	0	0	2	2	1	1	2	0	0	0	1
I-T5	2	0	0	0	0	0	0	0	0	0	1	0
I-T5	3	0	1	2	1	0	0	0	0	0	0	0
I-T5	4	0	0	0	0	0	0	0	0	0	0	0
I-T5	5	0	0	0	0	0	0	0	0	0	0	0
R-AC	1	0	0	1	1	1	0	0	1	1	1	1
R-AC	2	0	0	1	1	1	0	0	0	0	0	0
R-AC	3	0	0	0	1	0	0	1	0	1	1	1
R-AC	4	0	0	0	0	0	0	0	0	1	1	1
R-AC	5	0	0	0	0	0	0	0	0	0	0	0
R-AM	1	0	2	4	4	4	4	4	2	3	1	1
R-AM	2	0	0	0	1	0	0	0	0	1	0	0
R-AM	3	0	0	0	0	0	1	1	1	1	1	1
R-AM	4	0	0	0	0	0	0	0	0	0	0	0
R-AM	5	1	0	0	0	0	0	0	0	0	0	0
R-BF	1	0	0	0	0	0	0	1	0	0	0	0
R-BF	2	0	0	0	0	0	0	0	0	0	0	0
R-BF	3	0	0	0	0	0	0	0	1	1	0	0
R-BF	4	0	0	0	0	0	0	0	0	1	1	1
R-BF	5	0	0	0	0	0	0	0	0	0	0	0

TABLE L.4. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> on Surface Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
R-OS	1	T	0	0	0	0	0	0	0	0	0	0
R-OS	2	1	1	0	1	1	0	0	0	1	0	0
R-OS	3	T	0	0	0	0	0	0	0	0	0	1
R-OS	4	0	1	1	2	1	1	1	0	0	0	0
R-OS	5	T	0	0	0	0	0	0	0	0	0	1
R-PC	1	0	0	0	0	0	0	0	0	0	0	0
R-PC	2	0	0	1	1	1	1	0	0	0	1	1
R-PC	3	T	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	1	1	1	1	1	1	1	1	1
R-PC	5	0	0	0	0	0	0	0	0	0	0	0
R-PF	1	0	0	0	0	0	0	0	0	0	0	1
R-PF	2	0	0	0	0	0	0	0	0	0	0	1
R-PF	3	T	0	0	0	0	0	0	0	0	0	0
R-PF	4	T	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	0	0	0	0	0	0	0	0
C-SB	2	0	0	0	0	0	0	0	1	0	0	0
C-SB	3	0	0	0	0	0	0	0	0	0	0	0
C-SB	4	0	0	0	0	0	0	0	0	1	0	0
C-SB	5	0	0	0	1	1	0	0	0	1	1	1
C-WB	1	0	0	0	0	0	0	0	0	0	0	0
C-WB	2	0	0	0	0	0	0	0	0	0	0	1
C-WB	3	0	0	0	1	1	1	1	1	2	1	1
C-WB	4	0	0	0	0	0	0	0	0	0	0	0
C-WB	5	0	0	0	0	0	0	0	0	0	0	0
C-NE	1	3	3	3	3	3	3	3	3	2	3	2
C-NE	2	0	0	0	0	0	0	0	0	0	0	0
C-NE	3	0	0	0	0	0	0	0	0	0	0	0
C-NE	4	0	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	1	2	2	2	2	2	3	3	3	3

(a) Too turbid to see.

(b) No data.

TABLE L.5. Daily Observations of *R. abronius* Number Floating During 10-Day Solid-Phase Static Test, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
AC-1	1	0	0	0	5	5	2	0	0	0	1	1
AC-1	2	0	0	0	3	3	1	0	0	0	0	1
AC-1	3	0	0	0	2	0	1	0	0	0	0	2
AC-1	4	1	1	1	6	2	1	0	0	0	0	1
AC-1	5	3	0	0	1	2	4	0	0	0	0	0
AC-3	1	1	0	0	2	3	2	0	0	0	0	0
AC-3	2	0	0	0	1	9	6	0	0	1	0	0
AC-3	3	0	0	0	4	0	0	0	0	0	1	1
AC-3	4	0	0	1	6	3	4	0	0	0	0	0
AC-3	5	0	0	0	5	2	2	0	0	0	0	1
I-C4	1	2	0	0	0	0	0	0	0	0	0	1
I-C4	2	0	0	0	0	0	0	1	1	0	0	0
I-C4	3	0	0	0	1	0	0	0	0	0	0	0
I-C4	4	0	0	0	0	0	0	0	0	0	0	0
I-C4	5	0	0	0	0	1	1	1	0	0	0	0
I-C5	1	1	0	0	1	0	1	1	0	1	0	1
I-C5	2	0	0	0	0	1	1	2	1	1	0	1
I-C5	3	0	0	0	0	0	0	1	0	3	4	1
I-C5	4	0	1	0	1	1	0	0	1	0	0	0
I-C5	5	0	0	0	0	0	0	0	0	0	0	2
I-C7	1	0	1	0	2	2	1	0	0	0	0	0
I-C7	2	0	1	0	ND ^(a)	2	0	0	0	0	0	1
I-C7	3	0	0	0	3	0	0	0	0	0	0	0
I-C7	4	2	0	0	4	2	2	0	0	0	0	0
I-C7	5	1	1	0	1	0	1	0	0	1	0	0
I-C8	1	0	0	0	0	0	0	0	0	0	0	0
I-C8	2	0	0	0	0	0	0	0	0	0	0	0
I-C8	3	1	0	0	0	0	0	0	0	0	0	0
I-C8	4	0	0	0	0	0	0	0	0	0	0	0
I-C8	5	0	0	0	0	0	0	0	0	0	0	0
I-C9	1	0	0	0	6	5	1	0	0	0	1	3
I-C9	2	0	0	0	1	0	0	0	0	1	0	1
I-C9	3	2	0	0	2	0	0	0	0	0	0	0
I-C9	4	0	0	0	0	1	2	0	0	0	0	0
I-C9	5	0	0	0	0	0	2	0	0	0	0	0

TABLE L.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-C10	1	0	0	0	3	1	1	0	1	0	0	0
I-C10	2	0	0	0	3	1	1	0	0	0	0	0
I-C10	3	0	0	0	4	0	0	0	0	0	0	1
I-C10	4	1	0	0	3	1	0	0	0	0	0	0
I-C10	5	0	0	0	3	2	1	0	0	0	0	0
I-C11	1	0	0	1	4	1	4	0	0	0	0	0
I-C11	2	0	0	0	0	3	2	0	0	0	0	0
I-C11	3	0	1	0	6	0	2	0	0	0	0	0
I-C11	4	1	0	0	4	2	0	0	2	1	2	1
I-C11	5	0	0	0	4	2	4	0	0	0	0	0
I-C12	1	1	0	0	4	1	0	0	0	0	0	0
I-C12	2	0	0	0	0	0	0	0	0	0	0	0
I-C12	3	0	0	0	2	0	2	0	0	0	0	0
I-C12	4	0	0	0	0	1	0	0	0	0	0	0
I-C12	5	1	0	0	2	2	1	0	0	0	0	0
I-C14	1	0	0	0	8	6	3	0	0	0	0	0
I-C14	2	1	1	1	0	2	0	0	0	3	4	2
I-C14	3	1	0	0	5	0	3	1	0	0	0	0
I-C14	4	1	0	0	5	5	2	1	0	0	0	0
I-C14	5	0	0	0	7	1	4	1	0	0	0	0
I-C15	1	2	0	0	3	2	2	0	0	1	1	3
I-C15	2	1	0	0	0	6	1	0	0	0	0	0
I-C15	3	0	0	0	1	0	1	0	0	0	1	0
I-C15	4	1	0	ND	4	1	2	0	0	0	0	0
I-C15	5	1	0	0	1	0	1	0	1	1	1	2
I-C16	1	0	0	0	0	4	3	0	0	1	2	5
I-C16	2	0	0	0	3	0	0	0	1	2	1	3
I-C16	3	1	0	0	2	0	4	0	3	0	1	2
I-C16	4	4	0	0	7	3	1	0	0	1	2	1
I-C16	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
I-C17	1	1	0	0	2	0	1	0	0	0	0	0
I-C17	2	T ^(b)	1	0	3	3	2	0	0	0	0	0
I-C17	3	2	0	0	9	0	1	0	0	0	0	1
I-C17	4	0	0	0	T	4	2	0	0	0	1	2
I-C17	5	0	0	0	1	2	0	0	0	0	0	0
I-C18	1	0	0	1	8	2	0	0	2	1	0	1
I-C18	2	0	0	0	3	2	1	0	0	0	1	1
I-C18	3	1	0	1	7	0	3	0	0	0	2	1
I-C18	4	1	0	0	2	6	0	0	1	2	2	1
I-C18	5	0	0	0	0	3	0	0	0	0	1	0

TABLE L.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
I-S1	1	2	0	0	0	0	0	0	1	0	0	2
I-S1	2	0	0	1	0	0	0	0	0	0	0	0
I-S1	3	0	0	1	1	2	1	1	0	0	2	0
I-S1	4	1	2	1	1	0	0	0	0	0	0	1
I-S1	5	0	1	1	1	1	1	0	1	0	3	1
I-T1	1	1	0	0	0	0	2	1	3	0	0	1
I-T1	2	1	1	2	0	1	2	1	0	3	2	3
I-T1	3	1	0	0	0	2	3	0	1	1	2	1
I-T1	4	0	0	0	0	2	2	1	2	3	3	3
I-T1	5	3	1	0	1	1	2	1	1	2	1	1
I-T3	1	0	0	0	0	0	0	0	0	0	0	0
I-T3	2	0	0	0	0	0	0	0	0	0	0	0
I-T3	3	0	0	0	0	0	0	0	0	0	0	0
I-T3	4	1	0	0	0	0	0	0	0	0	0	1
I-T3	5	0	0	0	0	0	0	0	0	0	0	0
I-T5	1	0	0	0	0	0	0	0	0	0	1	1
I-T5	2	0	0	0	0	0	0	0	0	0	1	1
I-T5	3	1	0	0	0	0	0	0	1	1	1	0
I-T5	4	2	0	0	0	2	1	0	0	1	1	0
I-T5	5	0	1	0	0	0	0	0	0	0	0	0
R-AC	1	0	0	0	0	0	0	1	0	0	0	0
R-AC	2	0	0	0	0	0	0	0	0	0	2	1
R-AC	3	0	1	1	0	0	0	1	0	0	1	1
R-AC	4	1	0	0	0	1	1	0	0	0	1	2
R-AC	5	0	0	0	0	1	1	0	0	2	1	1
R-AM	1	0	0	0	0	0	0	0	0	0	0	0
R-AM	2	0	0	0	0	0	0	0	0	0	0	0
R-AM	3	1	0	0	0	0	0	0	0	0	0	0
R-AM	4	0	0	0	0	0	0	0	0	0	0	0
R-AM	5	0	0	0	0	0	0	0	0	0	0	0
R-BF	1	1	0	0	3	3	1	0	0	0	1	1
R-BF	2	1	0	0	3	4	2	0	0	0	0	0
R-BF	3	0	0	0	3	0	0	0	0	0	0	0
R-BF	4	1	0	0	2	0	1	0	0	0	0	0
R-BF	5	0	0	0	7	1	1	0	0	0	0	2
R-OS	1	2	0	0	0	0	0	0	0	0	0	0
R-OS	2	0	0	0	0	1	1	0	0	0	0	0
R-OS	3	1	0	0	0	0	0	0	0	0	1	0
R-OS	4	0	0	0	0	0	1	0	0	0	0	0
R-OS	5	0	0	0	0	0	0	0	0	0	0	0

TABLE L.5. (Contd)

Sediment Treatment	Replicate	<i>R. abronius</i> Floating Test Days 0 Through 10										
		0	1	2	3	4	5	6	7	8	9	10
R-PC	1	0	0	0	0	0	0	0	0	0	0	0
R-PC	2	1	0	0	0	0	0	0	0	0	0	0
R-PC	3	1	0	0	0	0	0	0	0	0	0	0
R-PC	4	0	0	0	0	0	0	0	0	0	0	0
R-PC	5	0	0	1	1	1	0	0	1	1	1	0
R-PF	1	0	0	0	0	0	0	0	1	0	0	0
R-PF	2	1	0	0	0	0	0	0	0	0	1	0
R-PF	3	0	0	0	0	0	0	0	0	0	0	0
R-PF	4	1	0	0	0	0	0	0	0	0	0	0
R-PF	5	0	0	0	0	0	0	0	0	0	0	0
C-SB	1	0	0	0	3	0	0	0	0	0	0	0
C-SB	2	0	1	0	3	0	4	1	0	0	0	0
C-SB	3	1	0	0	2	0	1	0	0	0	1	1
C-SB	4	0	0	0	0	0	0	0	0	0	0	0
C-SB	5	0	0	0	4	2	0	0	0	0	0	0
C-WB	1	0	0	0	0	0	0	0	0	0	0	0
C-WB	2	1	1	0	0	0	0	0	0	0	0	0
C-WB	3	1	0	0	1	0	0	0	0	0	0	0
C-WB	4	0	0	0	0	0	0	0	0	0	0	0
C-WB	5	1	0	0	0	0	0	0	0	0	0	0
C-NE	1	0	0	0	0	0	0	0	0	0	0	0
C-NE	2	1	0	0	0	0	0	0	0	0	0	0
C-NE	3	1	0	0	0	0	0	0	0	0	0	0
C-NE	4	1	0	0	0	0	0	0	0	0	0	0
C-NE	5	0	0	0	0	0	0	0	0	0	0	0

(a) No data.

(b) Too turbid to see.

APPENDIX M

BIOASSAY RESULTS FOR 96-HOUR SUSPENDED-
PARTICULATE-PHASE TEST WITH *H. sculpta*

TABLE M.1. Bioassay Results for 96-Hour Suspended-Particulate-Phase Test with *H. sculpta*, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Concentration</u>	<u>Replicate</u>	<u><i>H. sculpta</i></u>		<u>Mean Proportion Surviving</u>
			<u>Live</u>	<u>Dead or Missing</u>	
B-C3 ^(a)	10%	1	9	1	0.90
	10%	2	9	1	
	10%	3	9	1	
B-C3	50%	1	9	1	0.87
	50%	2	8	2	
	50%	3	9	1	
B-C3	100%	1	7	3	0.83
	100%	2	9	1	
	100%	3	9	1	
B-C4	0%	1	9	1	0.93
	0%	2	10	0	
	0%	3	9	1	
B-C4	10%	1	10	0	0.97
	10%	2	9	1	
	10%	3	10	0	
B-C4	50%	1	7	3	0.73
	50%	2	8	2	
	50%	3	7	3	
B-C4	100%	1	8	2	0.77
	100%	2	8	2	
	100%	3	7	3	
R-PC ^(a)	10%	1	9	1	0.93
	10%	2	9	1	
	10%	3	10	0	
R-PC	50%	1	6	4	0.70
	50%	2	7	3	
	50%	3	8	2	
R-PC	100%	1	5	5	0.53
	100%	2	6	4	
	100%	3	5	5	
C-SB	0%	1	10	0	0.97
	0%	2	10	0	
	0%	3	9	1	

TABLE M.1. (Contd)

Sediment Treatment	Concentration	Replicate	<i>H. sculpta</i>		Mean Proportion Surviving
			Live	Dead or Missing	
C-SB	10%	1	9	1	0.93
	10%	2	10	0	
	10%	3	9	1	
C-SB	50%	1	8	2	0.77
	50%	2	7	3	
	50%	3	8	2	
C-SB	100%	1	8	2	0.80
	100%	2	9	1	
	100%	3	7	3	
Alcatraz 1 ^(c)	100%	1	3	2	0.80
	100%	2	4	1	
	100%	3	5	0	
Alcatraz 2	100%	1	8	2	0.80
	100%	2	7	3	
	100%	3	9	1	
Zinc (Ref)	0.4 mg/L	1	7	3	0.65
	0.4 mg/L	2	6	4	
Zinc (Ref)	1.6 mg/L	1	0	10	0.00
	1.6 mg/L	2	0	10	
Zinc (Ref)	6.4 mg/L	1	0	10	0.00
	6.4 mg/L	2	0	10	

- (a) Insufficient number of test organisms required that a common control be run with sediment treatment B-C4.
- (b) Insufficient number of test organisms required that a common control be run with control treatment C-SB.
- (c) Insufficient number of test organisms to initiate 10 *H. sculpta*/replicate.

TABLE M.2. Rank Order Based on Number Surviving the 96-Hour
H. sculpta Suspended-Particulate-Phase Test,
Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Concentration</u>	<u>Proportion Surviving in all Replicates</u>
B-C4	0%	0.93
C-SB	0%	0.97
B-C3	10%	0.90
R-PC	10%	0.93
C-SB	10%	0.93
B-C4	10%	0.97
R-PC	50%	0.70
B-C4	50%	0.73
C-SB	50%	0.77
B-C3	50%	0.87
R-PC	100%	0.53
B-C4	100%	0.77
Alcatraz 2	100%	0.80
C-SB	100%	0.80
Alcatraz 1	100%	0.80
B-C3	100%	0.83

TABLE M.3. Water Quality Summary for 96-Hour Suspended-Particulate-Phase Test with *H. sculpta*, Oakland Phase III A Project

Sediment Treatment	Concentration	Temperature (°C)		pH		Dissolved Oxygen (mg/l)		Salinity (o/oo)	
		Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range		13.0	17.0	7.40	8.40	4.0	---	29.0	33.0
B-C3	10%	14.8	16.5	7.91	8.10	7.4	8.2	30.0	31.5
B-C3	50%	14.9	16.7	7.75	8.07	6.8	8.1	30.0	31.5
B-C3	100%	14.9	17.2	7.75	8.15	6.8	8.0	30.0	31.0
B-C4	0%	15.6	16.0	7.16 ^(a)	8.00	5.9	7.7	31.0	32.0
B-C4	10%	15.0	15.6	7.74	8.10	6.9	8.2	30.5	31.5
B-C4	50%	14.8	15.7	7.91	8.21	7.4	8.2	30.0	31.5
B-C4	100%	14.8	15.4	7.93	8.32	6.6	7.9	30.0	31.5
C-SB	0%	14.8	15.7	7.75	8.10	7.0	8.2	30.0	31.5
C-SB	10%	14.8	15.6	7.68	8.11	7.1	7.9	30.0	32.0
C-SB	50%	14.9	15.6	7.91	8.05	7.0	8.0	30.0	32.0
C-SB	100%	14.9	15.8	7.82	8.12	5.8	8.2	30.0	32.0
R-PC	10%	14.9	15.7	7.70	8.13	7.3	8.4	30.0	31.5
R-PC	50%	14.9	16.0	7.75	8.06	7.2	8.0	30.0	31.0
R-PC	100%	14.7	15.4	7.84	8.10	7.2	8.1	30.0	30.5
Alcatraz 1	100%	14.7	15.3	7.87	8.60	7.3	8.6 ^(a)	31.0	32.0
Alcatraz 2	100%	15.5	16.0	7.52	7.90	6.7	7.7	31.5	32.5
Zinc (Ref)	0.4 ^(b)	15.5	16.4	7.55	7.94	7.0	7.7	30.5	31.5
Zinc (Ref)	1.6 ^(b)	15.4	16.3	7.83	7.95	6.7	7.4	30.5	31.0
Zinc (Ref)	6.4 ^(b)	15.3	15.9	7.90	8.02	7.1	7.7	29.5	30.0

(a) Data point out of range.

(b) Reference toxic concentrations given in mg/L.

TABLE M.4. Summary of Observations for 96-Hour Suspended-Particulate-Phase Test with *H. sculpta*, Oakland Phase III A Project

Sediment Treatment	Concentration	Replicate	Live						Dead					
			Init.	4h	24h	48h	72h	96h	Init.	4h	24h	48h	72h	96h
B-C3	10%	1	10	10	10	10	10	9	0	0	0	0	0	1
B-C3	10%	2	10	10	10	9	9	9	0	0	0	1	0	0
B-C3	10%	3	10	10	9	9	9	9	0	0	1	0	0	0
B-C3	50%	1	10	10	10	10	9	9	0	0	0	0	1	0
B-C3	50%	2	10	10	10	10	8	8	0	0	0	0	2	0
B-C3	50%	3	10	10	10	9	9	9	0	0	0	1	0	0
B-C3	100%	1	10	10	9	8	7	7	0	0	1	1	1	0
B-C3	100%	2	10	10	10	10	9	9	0	0	0	0	1	0
B-C3	100%	3	10	10	10	10	9	9	0	0	0	0	1	0
B-C4	0%	1	10	10	10	10	10	9	0	0	0	0	0	1
B-C4	0%	2	10	10	10	10	10	10	0	0	0	0	0	0
B-C4	0%	3	10	10	10	10	9	9	0	0	0	0	1	0
B-C4	10%	1	10	10	10	10	10	10	0	0	0	0	0	0
B-C4	10%	2	10	10	10	9	9	9	0	0	0	1	0	0
B-C4	10%	3	10	10	10	10	10	10	0	0	0	0	0	0
B-C4	50%	1	10	10	9	8	8	7	0	0	1	1	0	1
B-C4	50%	2	10	10	9	8	8	8	0	0	1	1	0	0
B-C4	50%	3	10	10	7	7	7	7	0	0	3	0	0	0
B-C4	100%	1	10	10	9	8	8	8	0	0	1	1	0	0
B-C4	100%	2	10	10	9	9	8	8	0	0	1	0	1	0
B-C4	100%	3	10	10	9	7	7	7	0	0	1	2	0	0
R-PC	10%	1	10	10	10	10	10	9	0	0	0	0	0	1
R-PC	10%	2	10	10	9	9	9	9	0	0	1	0	0	0
R-PC	10%	3	10	10	10	10	10	10	0	0	0	0	0	0
R-PC	50%	1	10	10	9	8	7	6	0	0	1	1	1	1
R-PC	50%	2	10	10	9	7	7	7	0	0	1	2	0	0
R-PC	50%	3	10	10	8	8	8	8	0	0	2	0	0	0
R-PC	100%	1	10	10	8	6	5	5	0	0	2	2	1	0
R-PC	100%	2	10	10	7	7	6	6	0	0	3	0	1	0
R-PC	100%	3	10	10	9	6	5	5	0	0	1	3	1	0
C-SB	0%	1	10	10	10	10	10	10	0	0	0	0	0	0
C-SB	0%	2	10	10	10	10	10	10	0	0	0	0	0	0
C-SB	0%	3	10	10	10	10	9	9	0	0	0	0	1	0
C-SB	10%	1	10	10	10	10	10	9	0	0	0	0	0	1
C-SB	10%	2	10	10	10	10	10	10	0	0	0	0	0	0
C-SB	10%	3	10	10	10	10	9	9	0	0	0	0	1	0
C-SB	50%	1	10	10	9	9	8	8	0	0	1	0	1	0
C-SB	50%	2	10	10	10	7	7	7	0	0	0	3	0	0
C-SB	50%	3	10	10	10	10	10	8	0	0	0	0	0	2
C-SB	100%	1	10	10	10	8	8	8	0	0	0	2	0	0
C-SB	100%	2	10	10	10	10	9	9	0	0	0	0	1	0
C-SB	100%	3	10	10	9	9	7	7	0	0	1	0	2	0
Alcatraz 1 ^(a)	100%	1	5	5	5	4	4	3	0	0	0	1	0	1
Alcatraz 1	100%	2	5	5	4	4	4	4	0	0	1	0	0	0
Alcatraz 1	100%	3	5	5	5	5	5	5	0	0	0	0	0	0

TABLE M.4. (Contd)

Sediment Treatment	Concentration	Replicate	Live						Dead					
			Init.	4h	24h	48h	72h	96h	Init.	4h	24h	48h	72h	96h
Alcatraz 2	100%	1A	10	10	10	9	8	8	0	0	0	1	1	0
Alcatraz 2	100%	2A	10	10	10	10	8	7	0	0	0	0	2	1
Alcatraz 2	100%	3A	10	10	10	10	9	9	0	0	0	0	1	0
Zinc (Ref)	0.4 ^(b)	1	10	10	10	10	8	7	0	0	0	0	2	1
Zinc (Ref)	0.4 ^(b)	2	10	10	10	10	9	6	0	0	0	0	1	3
Zinc (Ref)	1.6 ^(b)	1	10	10	8	0	0	0	0	0	2	8	0	0
Zinc (Ref)	1.6 ^(b)	2	10	10	6	0	0	0	0	0	4	6	0	0
Zinc (Ref)	6.4 ^(b)	1	10	10	0	0	0	0	0	0	10	0	0	0
Zinc (Ref)	6.4 ^(b)	2	10	10	0	0	0	0	0	0	10	0	0	0

(a) Insufficient number of test organisms to initiate 10 *H. sculpia*/replicate.

(b) Reference toxic concentrations in mg/L.

APPENDIX N

BIOASSAY RESULTS FOR 96-HOUR SUSPENDED- PARTICULATE-PHASE TEST WITH *C. stigmaeus*

TABLE N.1. Bioassay Results for 96-Hour Suspended-Particulate-Phase Test with *C. stigmaeus*, Oakland Phase III A Project

Sediment Treatment	Concentration	Replicate	<u><i>C. stigmaeus</i></u>		Mean Proportion Surviving
			Live	Dead or Missing	
B-C3	0%	1	8	2	0.87
	0%	2	8	2	
	0%	3	10	0	
B-C3	10%	1	10	0	0.97
	10%	2	9	1	
	10%	3	10	0	
B-C3	50%	1	9	1	0.97
	50%	2	10	0	
	50%	3	10	0	
B-C3	100%	1	10	0	0.93
	100%	2	9	1	
	100%	3	9	1	
B-C4	0%	1	9	1	0.87
	0%	2	10	1	
	0%	3	8	2	
B-C4	10%	1	5	5	0.77
	10%	2	9	1	
	10%	3	9	1	
B-C4	50%	1	9	1	0.77
	50%	2	6	4	
	50%	3	8	2	
B-C4	100%	1	9	1	0.90
	100%	2	9	1	
	100%	3	9	1	
R-PC	0%	1	8	2	0.90
	0%	2	10	0	
	0%	3	9	1	
R-PC	10%	1	9	1	0.83
	10%	2	8	2	
	10%	3	8	2	
R-PC	50%	1	10	0	0.90
	50%	2	8	2	
	50%	3	9	1	

TABLE N.1. (Contd)

Sediment Treatment	Concentration	Replicate	<i>C. stigmaeus</i>		Mean Proportion Surviving
			Live	Dead or Missing	
R-PC	100%	1	11 ^(a)	0	0.90
	100%	2	8	2	
	100%	3	9	1	
C-SB	0%	1	10	0	0.97
	0%	2	9	1	
	0%	3	10	0	
C-SB	10%	1	9	1	0.90
	10%	2	8	2	
	10%	3	10	0	
C-SB	50%	1	9	1	0.81
	50%	2	10 ^(a)	1	
	50%	3	6	4	
C-SB	100%	1	10	0	1.00
	100%	2	10	0	
	100%	3	10	0	
Alcatraz	100%	1	9	1	0.87
	100%	2	7	3	
	100%	3	10	0	

(a) Inadvertently initiated more than 10 organisms.

TABLE N.2. Rank Order Based on Number Surviving the 96-Hour
C. stigmaeus Suspended-Particulate-Phase Test,
 Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Concentration</u>	<u>Proportion Surviving in all Replicates</u>
B-C3	0%	0.87
B-C4	0%	0.87
R-PC	0%	0.90
C-SB	0%	0.97
B-C4	10%	0.77
R-PC	10%	0.83
C-SB	10%	0.90
B-C3	10%	0.97
B-C4	50%	0.77
C-SB	50%	0.81
R-PC	50%	0.90
B-C3	50%	0.97
Alcatraz	100%	0.87
B-C4	100%	0.90
R-PC	100%	0.90
B-C3	100%	0.93
C-SB	100%	1.00

TABLE N.3. Water Quality Summary for 96-Hour Suspended-Particulate-Phase Test with *C. stigmaeus*, Oakland Phase III A Project

Sediment Treatment	Concentration	Temperature (°C)		pH		Dissolved Oxygen (mg/l)		Salinity (o/oo)	
		Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range		13.0	17.0	7.40	8.40	4.0	---	29.0	33.0
B-C3	0%	14.5	15.4	7.91	8.10	7.2	8.3	30.0	31.5
B-C3	10%	14.6	15.7	7.93	8.09	7.6	8.1	30.0	31.0
B-C3	50%	14.6	15.9	7.95	8.10	7.5	8.2	30.0	32.0
B-C3	100%	14.6	15.3	7.72	8.17	7.1	8.2	30.0	31.5
B-C4	0%	14.4	14.8	7.72	8.12	6.8	8.2	30.0	31.5
B-C4	10%	14.4	15.8	7.68	8.18	7.8	8.3	30.0	31.5
B-C4	50%	14.5	14.9	7.96	8.24	7.3	8.3	30.0	31.5
B-C4	100%	14.7	15.6	8.02	8.35	6.8	8.2	30.0	31.0
R-PC	0%	14.6	15.4	7.89	8.10	7.4	8.1	30.0	31.5
R-PC	10%	14.4	15.9	7.85	8.12	4.1	8.2	30.0	31.5
R-PC	50%	14.4	14.8	7.87	8.15	6.6	8.2	30.0	31.0
R-PC	100%	14.4	15.1	7.90	8.14	7.5	8.8	30.0	31.0
C-SB	0%	14.5	15.7	7.88	8.06	7.0	8.0	30.0	30.5
C-SB	10%	14.5	15.7	7.88	8.13	7.4	8.1	30.0	31.5
C-SB	50%	14.5	15.1	7.90	8.12	7.5	8.1	30.0	30.5
C-SB	100%	14.6	15.7	7.92	8.13	6.7	8.3	30.0	31.0
Alcatraz	100%	7.6 ^(a)	15.7	7.89	8.10	7.5	8.1	31.0	32.5

(a) Data point out of range.

TABLE N.4. Summary of Observations for 96-Hour Suspended-Particulate-Phase Test with *C. stigmatheus*, Oakland Phase III A Project

Sediment Treatment	Concentration	Replicate	Live					Dead				
			4h	24h	48h	72h	96h	4h	24h	48h	72h	96h
B-C3	0%	1	10	10	10	8	8	0	0	0	2	0
B-C3	0%	2	10	10	10	9	8	0	0	0	1	1
B-C3	0%	3	10	10	10	10	10	0	0	0	0	0
B-C3	10%	1	10	10	10	10	10	0	0	0	0	0
B-C3	10%	2	10	9	9	9	9	0	1	0	0	0
B-C3	10%	3	10	10	10	10	10	0	0	0	0	0
B-C3	50%	1	10	10	10	10	9	0	0	0	0	1
B-C3	50%	2	10	10	10	10	10	0	0	0	0	0
B-C3	50%	3	10	10	10	10	10	0	0	0	0	0
B-C3	100%	1	10	10	10	10	10	0	0	0	0	0
B-C3	100%	2	10	10	10	9	9	0	0	0	1	0
B-C3	100%	3	10	10	10	10	9	0	0	0	0	1
B-C4	0%	1	10	10	9	9	9	0	0	1	0	0
B-C4	0%	2	11	11	11	11	10	0	0	0	0	1
B-C4	0%	3	10	10	10	8	8	0	0	0	2	0
B-C4	10%	1	10	10	9	7	5	0	0	1	2	2
B-C4	10%	2	10	10	9	9	9	0	0	1	0	0
B-C4	10%	3	10	10	10	9	9	0	0	0	1	0
B-C4	50%	1	10	10	10	10	9	0	0	0	0	1
B-C4	50%	2	10	10	9	8	6	0	0	1	1	2
B-C4	50%	3	10	10	8	8	8	0	0	2	0	0
B-C4	100%	1	10	10	9	9	9	0	0	1	0	0
B-C4	100%	2	10	10	10	10	9	0	0	0	0	1
B-C4	100%	3	10	10	10	9	9	0	0	0	1	0
R-PC	0%	1	10	10	10	9	8	0	0	0	1	1
R-PC	0%	2	10	10	10	10	10	0	0	0	0	0
R-PC	0%	3	10	10	9	9	9	0	0	1	0	0
R-PC	10%	1	10	10	10	10	9	0	0	0	0	0
R-PC	10%	2	10	10	9	9	8	0	0	1	0	1
R-PC	10%	3	10	10	10	9	8	0	0	0	1	1
R-PC	50%	1	10	10	10	10	10	0	0	0	0	0
R-PC	50%	2	10	9	9	8	8	0	1	0	1	0
R-PC	50%	3	10	10	10	10	9	0	0	0	0	1
R-PC	100%	1	11	11	11	11	11	0	0	0	0	0
R-PC	100%	2	10	9	9	7 ^(a)	8	0	1	0	1	0
R-PC	100%	3	10	10	10	9	9	0	0	0	1	0
C-SB	0%	1	10	10	10	10	10	0	0	0	0	0
C-SB	0%	2	10	10	10	10	9	0	0	0	0	1
C-SB	0%	3	10	10	10	10	10	0	0	0	0	0
C-SB	10%	1	10	10	10	9	9	0	0	0	1	0
C-SB	10%	2	10	10	10	9	8	0	0	0	1	1
C-SB	10%	3	10	10	10	10	10	0	0	0	0	0
C-SB	50%	1	10	10	10	10	9	0	0	0	0	1
C-SB	50%	2	10	10	10	10	9	0	0	0	0	1
C-SB	50%	3	10	10	8	6	6	0	0	2	2	0
C-SB	100%	1	10	10	10	8 ^(a)	10	0	0	0	0	0
C-SB	100%	2	10	10	10	7 ^(a)	10	0	0	0	0	0
C-SB	100%	3	10	10	10	10	10	0	0	0	0	0

TABLE N.4. (Contd)

<u>Sediment Treatment</u>	<u>Concentration</u>	<u>Replicate</u>	<u>Live</u>					<u>Dead</u>				
			<u>4h</u>	<u>24h</u>	<u>48h</u>	<u>72h</u>	<u>96h</u>	<u>4h</u>	<u>24h</u>	<u>48h</u>	<u>72h</u>	<u>96h</u>
Alcatraz	100%	1	10	10	10	10	9	0	0	0	0	1
Alcatraz	100%	2	10	10	10	9	7	0	0	0	1	2
Alcatraz	100%	3	10	10	10	10	10	0	0	0	0	0

(a) Water too turbid for accurate count; suspect number.

APPENDIX O

BIOASSAY RESULTS FOR 48-HOUR SUSPENDED- PARTICULATE-PHASE TEST WITH LARVAL *C. gigas*

TABLE 0.1. Bioassay Results for 48-Hour Suspended-Particulate-Phase Test #1^(a) with Larval *C. gigas*, Oakland Phase III A Project

Sediment Treatment	Replicate	Concentration	Normal Larvae	Abnormal with Shell	Other Larvae	Proportion Normal	All Replicates	Proportion Survival	All Replicates
B-C3	1	0%	200	2	0	0.76		0.77	
B-C3	2	0%	242	5	0	0.92		0.94	
B-C3	3	0%	227	2	0	0.86		0.87	
B-C3	4	0%	737	8	3	1.00	0.88	1.00	0.89
B-C3	1	10%	237	1	0	0.90		0.90	
B-C3	2	10%	261	2	0	0.99		1.00	
B-C3	3	10%	213	0	0	0.81		0.81	
B-C3	4	10%	226	4	0	0.86	0.89	0.87	0.90
B-C3	1	50%	231	0	0	0.88		0.88	
B-C3	2	50%	ND ^(b)	NO	NO	ND		NO	
B-C3	3	50%	175	0	0	0.66		0.66	
B-C3	4	50%	388	4	1	1.00	0.85	1.00	0.85
B-C3	1	100%	179	6	0	0.68		0.70	
B-C3	2	100%	228	3	0	0.87		0.88	
B-C3	3	100%	205	3	1	0.78		0.79	
B-C3	4	100%	210	4	3	0.80	0.78	0.82	0.80
C-SB	1	0%	254	1	0	0.96		0.97	
C-SB	2	0%	197	2	0	0.75		0.76	
C-SB	3	0%	181	0	2	0.69		0.69	
C-SB	4	0%	262	3	1	0.99	0.85	1.00	0.85
C-SB	1	10%	158	4	2	0.60		0.62	
C-SB	2	10%	237	3	2	0.90		0.92	
C-SB	3	10%	181	0	0	0.69		0.69	
C-SB	4	10%	215	3	5	0.82	0.75	0.85	0.77
C-SB	1	50%	206	2	2	0.78		0.80	
C-SB	2	50%	237	0	0	0.90		0.90	
C-SB	3	50%	207	13	6	0.79		0.86	
C-SB	4	50%	157	4	3	0.60	0.77	0.62	0.79
C-SB	1	100%	230	24	2	0.87		0.97	
C-SB	2	100%	232	5	1	0.88		0.90	
C-SB	3	100%	231	2	4	0.88		0.90	
C-SB	4	100%	203	7	4	0.77	0.85	0.81	0.90

TABLE 0.1. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Concentration</u>	<u>Normal Larvae</u>	<u>Abnormal with Shell</u>	<u>Other Larvae</u>	<u>Proportion Normal</u>	<u>All Replicates</u>	<u>Proportion Survival</u>	<u>All Replicates</u>
Reference Toxicant 1	1	0 µg/L	285	1	0	1.00		1.00	
Reference Toxicant 1	2	0 µg/L	264	1	0	1.00	1.00	1.00	1.00
Reference Toxicant 1	1	1 µg/L	280	2	0	1.00		1.00	
Reference Toxicant 1	2	1 µg/L	298	0	0	1.00	1.00	1.00	1.00
Reference Toxicant 1	1	5 µg/L	215	2	0	0.82		0.82	
Reference Toxicant 1	2	5 µg/L	253	4	0	0.96	0.89	0.98	0.90
Reference Toxicant 1	1	25 µg/L	1	163	1	0.00		0.63	
Reference Toxicant 1	2	25 µg/L	0	151	12	0.00	0.00	0.62	0.62
Reference Toxicant 1	2	125 µg/L	0	3	1	0.00	0.00	0.02	0.02

(a) Stocking density for Test #1: 263.

(b) No data.

TABLE 0.2. Bioassay Results for 48-Hour Suspended-Particulate-Phase Test #2^(a) with Larval *C. gigas*, Oakland Phase III A Project

Sediment Treatment	Replicate	Concentration	Normal Larvae	Abnormal with Shell	Other Larvae	Proportion Normal	All Replicates	Proportion Survival	All Replicates
BC-4	1	0%	187	2	1	0.89		0.91	
BC-4	2	0%	200	0	0	0.96		0.96	
BC-4	3	0%	197	1	0	0.94		0.95	
BC-4	4	0%	191	2	0	0.91	0.93	0.92	0.94
BC-4	1	10%	209	1	1	1.00		1.00	
BC-4	2	10%	170	1	0	0.81		0.82	
BC-4	3	10%	208	0	0	1.00		1.00	
BC-4	4	10%	207	0	0	0.99	0.95	0.99	0.95
BC-4	1	50%	ND ^(b)	ND	ND	ND		ND	
BC-4	2	50%	205	1	0	0.98		0.99	
BC-4	3	50%	146	0	0	0.70		0.70	
BC-4	4	50%	206	5	0	0.99	0.89	1.00	0.90
BC-4	1	100%	1	20	106	0.00		0.61	
BC-4	2	100%	1	5	25	0.00		0.15	
BC-4	3	100%	1	55	37	0.00		0.44	
BC-4	4	100%	2	34	53	0.01	0.00	0.43	0.41
R-PC	1	0%	217	0	0	1.00		1.00	
R-PC	2	0%	190	1	0	0.91		0.91	
R-PC	3	0%	191	0	2	0.91		0.92	
R-PC	4	0%	201	0	0	0.96	0.95	0.96	0.95
R-PC	1	10%	171	0	0	0.82		0.82	
R-PC	2	10%	193	0	0	0.92		0.92	
R-PC	3	10%	170	2	0	0.81		0.82	
R-PC	4	10%	188	0	0	0.90	0.86	0.90	0.87
R-PC	1	50%	189	4	0	0.90		0.92	
R-PC	2	50%	193	0	0	0.92		0.92	
R-PC	3	50%	185	0	0	0.89		0.89	
R-PC	4	50%	164	0	0	0.78	0.87	0.78	0.88
R-PC	1	100%	159	1	0	0.76		0.77	
R-PC	2	100%	182	2	0	0.87		0.88	
R-PC	3	100%	167	0	2	0.80		0.81	
R-PC	4	100%	ND	ND	ND	ND	0.81	ND	0.82

TABLE 0.2. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Concentration</u>	<u>Normal Larvae</u>	<u>Abnormal with Shell</u>	<u>Other Larvae</u>	<u>Proportion Normal</u>	<u>All Replicates</u>	<u>Proportion Survival</u>	<u>All Replicates</u>
Reference Toxicant 2	1	0 $\mu\text{g/L}$	185	2	0	0.89		0.89	
Reference Toxicant 2	2	0 $\mu\text{g/L}$	182	0	0	0.87	0.88	0.87	0.88
Reference Toxicant 2	1	1 $\mu\text{g/L}$	186	0	0	0.89		0.89	
Reference Toxicant 2	2	1 $\mu\text{g/L}$	204	1	0	0.98	0.94	0.98	0.94
Reference Toxicant 2	1	5 $\mu\text{g/L}$	223	3	0	1.00		1.00	
Reference Toxicant 2	2	5 $\mu\text{g/L}$	201	3	0	0.96	0.98	0.98	0.99
Reference Toxicant 2	1	25 $\mu\text{g/L}$	0	95	5	0.00		0.48	
Reference Toxicant 2	2	25 $\mu\text{g/L}$	0	73	4	0.00	0.00	0.37	0.43
Reference Toxicant 2	1	125 $\mu\text{g/L}$	ND	ND	ND	ND		ND	
Reference Toxicant 2	2	125 $\mu\text{g/L}$	0	19	9	0.00	0.00	0.13	0.13

(a) Stocking density for Test #2: 209.

(b) No data.

TABLE 0.3. Rank Order Based on Number *C. gigas* Surviving 48-Hour
Suspended-Particulate-Phase Test #1 and Test #2, Oakland
Phase III A Project

<u>Sediment Treatment</u>	<u>Concentration</u>	<u>Proportion Surviving in all Replicates</u>	<u>Proportion Normal in all Replicates</u>
C-SB	0%	0.85	0.85
B-C3	0%	0.89	0.88
B-C4	0%	0.94	0.93
R-PC	0%	0.95	0.95
C-SB	10%	0.77	0.75
R-PC	10%	0.87	0.86
B-C3	10%	0.90	0.89
B-C4	10%	0.94	0.95
B-C4	50%	0.67	0.89
C-SB	50%	0.79	0.77
B-C3	50%	0.85	0.85
R-PC	50%	0.88	0.87
B-C4	100%	0.41	0.00
B-C3	100%	0.80	0.78
R-PC	100%	0.82	0.81
C-SB	100%	0.90	0.85

TABLE O.4. Water Quality Summary for 48-Hour Suspended-Particulate-Phase Test with Larval *C. gigas*, Oakland Phase III A Project

Sediment Treatment	Concentration	Temperature (°C)		pH		Dissolved Oxygen (mg/L)		Salinity (o/oo)	
		Min	Max	Min	Max	Min	Max	Min	Max
Acceptable Range		18.0	22.0	6.80	7.80 ^(a)	4.0	---	24.0	28.0
B-C3	0%	19.4	19.9	7.09	8.19	7.4	7.9	26.0	28.0
B-C3	10%	19.5	19.9	7.12	8.22	7.4	7.8	26.0	27.0
B-C3	50%	19.5	19.9	7.30	8.27	7.4	7.5	26.0	27.5
B-C3	100%	19.5	19.9	7.64	8.28	7.0	7.6	26.0	28.0
B-C4	0%	19.6	20.0	7.41	8.19	7.5	7.9	26.0	27.0
B-C4	10%	19.4	20.0	7.50	8.26	7.6	7.9	25.0	26.0
B-C4	50%	19.6	19.9	7.51	8.34	7.4	7.9	25.0	27.5
B-C4	100%	19.6	20.0	7.72	8.40	6.2	7.9	25.0	26.0
R-PC	0%	19.6	20.0	7.05	8.22	7.4	7.9	25.0	26.5
R-PC	10%	19.6	20.0	7.16	8.22	7.4	7.9	26.0	27.0
R-PC	50%	19.6	19.9	7.55	8.18	7.5	7.9	26.0	27.0
R-PC	100%	19.4	20.0	7.80	8.20	7.4	7.8	26.5	28.0
C-SB	0%	19.4	19.9	7.08	8.21	7.5	7.8	26.0	26.5
C-SB	10%	19.5	19.9	7.12	8.22	7.4	7.9	26.0	26.0
C-SB	50%	19.5	19.9	7.39	8.24	6.3	7.6	26.0	28.0
C-SB	100%	19.4	20.0	7.45	8.31	3.9 ^(b)	7.5	26.5	28.0
REF1	0 ^(c)	19.5	19.9	7.14	8.20	7.4	7.9	26.0	26.5
REF1	1	19.4	19.9	7.13	8.19	7.2	7.9	26.0	27.5
REF1	5	19.5	19.8	7.09	8.21	7.3	7.9	26.0	28.0
REF1	25	19.4	19.9	7.08	8.21	7.2	7.9	26.0	27.0
REF1	125	19.5	19.8	7.02	8.23	7.4	7.9	26.0	27.0
REF2	0	19.7	20.0	7.63	8.22	7.5	7.8	26.0	26.5
REF2	1	19.7	20.0	7.60	8.17	7.5	7.8	26.0	26.5
REF2	5	19.7	19.9	7.64	8.23	7.3	7.8	26.0	26.5
REF2	25	19.8	20.0	7.49	8.20	7.0	7.7	26.0	26.5
REF2	125	19.7	19.9	7.85	8.23	7.6	7.8	25.5	26.0

(a) All pH maximums are out of range.

(b) Data point out of range.

(c) Reference toxicants expressed in $\mu\text{g/L}$.

APPENDIX P

TISSUE CHEMISTRY AND QUALITY ASSURANCE DATA
FOR *M. nasuta*

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Low Molecular Weight PAHS (LPAH)
LABORATORY: Twin City Testing (65 samples)
Analytical Resources, Inc. (75 samples)
MATRIX: *M. nasuta* tissue
SAMPLE NUMBER: 140

NOTE: Five samples were lost during sample preparation and therefore were not analyzed. Those samples were I-C4 rep 3, I-C10 rep 3, I-S1 rep 5, I-T5 rep 5, and R-PF rep 3. No additional *M. nasuta* tissue was available for reextraction or reanalyses.

HOLDING LIMITS

All samples were held at 4°C until extraction. Samples were extracted within 2 months of receipt at the analytical laboratory. Analytical Resources, Inc. (ARI) analyzed samples within 40 days of extraction. Twin City Testing (TCT) analyzed samples within 6 months of extraction. Twin City Testing exceeded the EPA recommended extract holding times of 40 days, but the integrity of the samples is not expected to be compromised because the PAH compounds of interest remain stable in the solvent. Based on surrogate and matrix spike recoveries, no adverse effects of the extended holding time were observed.

DETECTION LIMITS

Detection limits were acceptable (< 20 µg/kg wet weight) for all LPAH compounds.

METHOD BLANKS

Most LPAHs were undetected in the 16 method blanks that were analyzed. Phenanthrene was detected at very low concentrations (2.6 to 6.7 µg/kg) in seven blanks. All phenanthrene concentrations in samples associated with those blanks are flagged with a "B"; however, they were generally only 1 to 2 times the level found in the blanks. Very low levels of naphthalene were detected in two method blanks; samples associated with those blanks are flagged as well.

SURROGATES

Twin City Testing added three radiolabelled PAH compounds (surrogates) to samples prior to analysis. Analytical Resources, Inc. used one surrogate compound, terphenyl, to assess extraction efficiency. Surrogate recoveries and sample concentrations could not be reported for five samples (listed above) because those samples were lost during the GPC clean-up process. Of the samples analyzed by TCT, surrogate recoveries for all but one sample were within the 50% to 150% target QC range set by the laboratory. Two surrogate compounds, ¹⁴C-10-anthracene and ¹⁴C-10-pyrene, were below the limits in one sample (I-C5 rep 3). Recoveries of terphenyl ranged from 23% to 94% in the samples analyzed by ARI. Approximately one third of the recoveries were below the target QC guidelines for this project (50% to 150%), but they are within the EPA CLP guidelines of 18% to 137% for the terphenyl surrogate. Therefore, the results were found to be acceptable with qualifications.

PHASE III A

MATRIX SPIKES

Eight samples were spiked with all six LPAH compounds (ARI), and seven samples were spiked with three LPAH compounds (TCT). Some of the spikes were performed on extra clams that were not used in the bioassay testing, as there was not always sufficient tissue in actual samples to split for a spiked sample. Spike recoveries ranged from 38% to 114% for all LPAH compounds, and were all within the acceptable recovery limits listed in Method 8270. The recoveries were greater than 40% for all samples except the one at 38%. The RPDs (measuring the relative percent difference between the samples) were within the permissible limit of <20% for 12 of a total possible 15 calculations used to estimate RPDs.

REPLICATES

Ten analytical replicates were analyzed. Precision was measured by RPD between replicate results. RPDs were not calculated for most compounds because in at least one replicate the compound was not detected. Overall, the precision of the measurements was found to be acceptable, as the majority of the RPD values that could be calculated were less than the QC goal of 20% for precision. In a few cases where detected values were very low, the 20% RPD goal was exceeded.

SRMs

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM Oakland Phase III A/June Sampling
PARAMETER: High Molecular Weight PAHS (HPAHs)
LABORATORY: Twin City Testing (65 samples)
Analytical Resources, Inc. (75 samples)
MATRIX: *M. nasuta* tissues
SAMPLE NUMBER: 140

NOTE: Five samples were lost during sample preparation and therefore were not analyzed. Those samples were I-C4 rep 3, I-C10 rep 3, I-S1 rep 5, I-T5 rep 5, and R-PF rep 3. No additional *M. nasuta* tissue was available for reextraction or reanalyses.

HOLDING TIMES All samples were held at 4°C until extraction. Samples were extracted within 2 months of receipt at the analytical laboratory. Analytical Resources, Inc. (ARI) analyzed samples within 40 days of extraction. Twin City Testing (TCT) analyzed samples within 6 months of extraction. Twin City Testing exceeded the EPA recommended extract holding times of 40 days, but the integrity of the samples is not expected to be compromised because the PAH compounds of interest remain stable in the solvent. Based on surrogate and matrix spike recoveries, no adverse effects of the extended holding time were observed.

DETECTION LIMITS Target detection limits were acceptable (< 20 µg/kg wet weight) for all HPAH compounds.

METHOD BLANKS Most HPAH compounds were undetected in the 16 method blanks that were analyzed. Low levels (less than three times the detection limit) of benzo(a)pyrene and fluoranthene were detected in eight and six method blanks, respectively. Extremely low levels of chrysene and pyrene were measured in one and two blanks, respectively. In samples associated with blanks where HPAH compounds were detected, the concentrations for those compounds were flagged with a "B". The sample concentrations were generally 2 to 5 times the level in the blanks.

SURROGATES Twin City Testing added three radiolabelled PAH compounds (surrogates) to samples prior to analysis. Analytical Resources, Inc. used one surrogate compound, terphenyl, to assess extraction efficiency. Surrogate recoveries and sample concentrations could not be reported for five samples (listed above) because those samples were lost during the GPC clean-up process. Of the samples analyzed by TCT, surrogate recoveries for all but one sample were within the 50% to 150% target QC range set by the laboratory. Two surrogate compounds, ¹⁴C-anthracene and ¹⁴C-pyrene, were below the limits in one sample (I-C5 rep 3). Recoveries of terphenyl ranged from 23% to 94% in the samples analyzed by ARI. Approximately one third of the recoveries were below the target QC guidelines for this project (50% to 150%), but they are within the EPA CLP guidelines of 18% to 137% for the terphenyl surrogate. Therefore, the results were found to be acceptable with qualifications.

PHASE III A

MATRIX SPIKES

Eight samples were spiked with all ten HPAH compounds (ARI), and seven samples were spiked with four HPAH compounds (TCT). Spike recoveries for HPAH compounds analyzed at TCT ranged from 78% to 128%, while spike recoveries for HPAH compounds analyzed at ARI were lower, ranging from 7% to 62%. However, all the HPAH spike recoveries were within the acceptable limits listed in Method 8270. In addition, relative percent difference (RPD) between spike replicates were low, generally less than 15%, indicating good precision of the measurements. Overall, spike recoveries indicate acceptable accuracy for the HPAH data. The RPDs (measuring the relative percent difference between the samples) were within the permissible limit of <20% for 14 of a total possible 21 calculations used to estimate RPDs.

REPLICATES

Ten analytical replicates were analyzed (there was insufficient quantities of samples for triplicate analyses). Precision was measured by RPD between replicate results. The RPDs were not calculated for most compounds because in at least one replicate the compound was not detected. The RPDs that could be calculated often exceeded the target QC limit of 20% for precision, usually because the concentrations of detected HPAH were so low that the relative difference between them was exaggerated. In most cases the apparent lack of precision does not adversely affect the quality of the data. The RPD values for one set of replicate samples (I-C10 rep 2) ranged from 25% to 156% and HPAH compounds measured in these two replicates were significantly greater than the detection limits. Precision between these two measurements exceeded QC limits of 20% and indicate poor precision for this replicate measurement. However, based on the rest of the RPD values and the likelihood of variable contaminant concentrations in the sample, the data have not been qualified.

SRMs

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Polychlorinated Biphenyls (PCBs)
LABORATORY: Twin City Testing /Analytical Resources, Inc.
MATRIX: *M. nasuta* tissue
SAMPLE NUMBER: 140

NOTE: Five samples were lost during sample preparation and therefore were not analyzed. Those samples were AC-1 rep 2, I-C7 rep 3, I-C8 rep 3, I-C10 rep 3, and R-PF rep 4. No *M. nasuta* tissue remained for reextraction or reanalysis.

HOLDING TIMES

All samples were held at 4°C until extraction. Holding limits have not been established for analyses of trace organics in tissues; however, holding times of up to 1 year have been recommended (PSEP 1986). All samples were extracted within 2 months of receipt at the analytical laboratory. Samples analyzed at Analytical Resources, Inc. (ARI) were analyzed within 40 days of sample extraction. Samples analyzed at Twin City Testing (TCT) were analyzed within 6 months of extraction. Because of the stable nature of PCBs in solvent and the high recoveries of matrix spikes and surrogates added prior to extraction, the sample results were not affected by these holding times.

DETECTION LIMITS

Detection limits for PCB Aroclors ranged from 20 to 120 µg/kg wet weight. Some detection limits exceeded the QC goal of 20 µg/kg wet weight because of the limited *M. nasuta* tissue sample mass.

METHOD BLANKS

No PCBs were detected in any of the 13 method blanks.

SURROGATES

One compound, dibutylchlorodate (DBC), was added to all samples to assess extraction efficiency. Recoveries for the majority of the samples were within the 50% to 150% target QC range set by the laboratory. Fourteen samples had recoveries outside of the control limits; however, only two had DBC recoveries below 20%: I-C8 rep 2 and R-PF rep 3. In addition, I-S1 rep 2 had a recovery of 219% as the surrogate was inadvertently added twice. The results for the two samples with recoveries below 20% may be biased low and are qualified.

MATRIX SPIKES

Five samples were spiked with Aroclor 1254. Recoveries for Aroclor 1254 ranged from 75% to 206%. All recoveries were within the QC limits of 50% to 150% with the exception of one sample with the recovery of 206%. The RPDs (measuring the relative percent difference between the samples) were within the permissible limit of <20% for one of a total possible two calculations used to estimate RPDs.

PHASE IIIA

REPLICATES

One analytical triplicate and eight analytical duplicates were analyzed. Precision was measured by relative percent difference (RPD) between duplicate results and relative standard deviation (RSD) between triplicate results. RPDs were not calculated for any duplicates because PCBs were not detected. Aroclor 1242 was found in all three triplicates of I-C4 rep 5, and an RSD of 32% was calculated. This value slightly exceeds the QC precision goal of 20%, probably because the detected concentrations were close to the detection limit.

SRMs

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Harbor Phase III A/June Sampling
PARAMETER: Chlorinated Pesticides
LABORATORY: Twin City Testing/Analytical Resources, Inc.
MATRIX: *M. nasuta* tissues
SAMPLE NUMBER: 140

NOTE: Five samples were lost during sample preparation and therefore were not analyzed. Those samples were AC-1 rep 2, I-C7 rep 3, I-C8 rep 3, I-C10 rep 3, and R-PF rep 4. No *M. nasuta* tissue remained for reextraction or reanalysis.

HOLDING TIMES

All samples were held at 4°C until extraction. Samples were extracted within 2 months of receipt. Analytical Resources, Inc. (ARI) analyzed samples within 40 days of extraction. Twin City Testing (TCT) analyzed samples within 6 months of extraction, exceeding the EPA recommended extract holding time of 40 days. The integrity of the samples was not expected to be compromised because the compounds of interest are stable in the extract solvent. Based on surrogate and matrix spike recoveries, no adverse effects of the extended holding time were observed.

DETECTION LIMITS

Detection limits for the majority of pesticides ranged from 2 to 12 µg/kg wet weight. Twin City Testing met the 2.0 µg/kg detection limit goal for most pesticides; however, there was some analytes detected in some method blanks (see below). Analytical Resources, Inc. exceeded the target detection limit, but they had no blank contamination. Detection limits for toxaphene were higher, ranging from 20 to 450 µg/kg wet weight. The elevated detection limits for toxaphene are due to potential co-elution with other pesticides and PCBs, and are set to assure accurate quantitation of the pesticide and to avoid false positive detections.

METHOD BLANKS

Thirteen method blanks were analyzed. Delta-BHC, dieldrin, endosulfan II, and methoxychlor were detected in up to 4 of the method blanks. Positive detections of these pesticides in samples associated with contaminated blanks are flagged with a "B," but the concentrations are not corrected for the amount of analyte in the blank.

SURROGATES

One compound, dibutylchlorodate (DBC), was added to all samples to assess extraction efficiency. Recoveries for the majority of the samples were within the 50% to 150% target QC range set by the laboratory. Fourteen samples had recoveries outside of the control limits; however, only three had DBC recoveries below 20%: I-C8 rep 2, I-S1 rep 5, and R-PF rep 3. In addition, I-S1 rep 2 had a recovery of 219% as the surrogate was inadvertently added twice, but I-S1 rep 5 had a recovery of 0% and may not have had surrogate added to it. The results for the two samples with recoveries below 20% may be biased low and are qualified.

PHASE IIIA

MATRIX SPIKES

Eight samples were spiked with six pesticides. Spike recoveries ranged from 55% to 105%, and all were within the acceptable control limits listed in the method.

REPLICATES

Nine samples were analyzed in duplicate (there were insufficient quantities of samples for triplicate analyses). Precision was measured by relative percent deviation (RPD) between duplicate results. RPDs were not calculated for any samples because the pesticides were not detected in one or both of the duplicates.

SRMs

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Metals (Ag, As, Cd, Cr, Cu, Hg, Ni, Pb, Se, Zn)
LABORATORY: Battelle/Marine Sciences Laboratory
MATRIX: *M. nasuta* tissues
SAMPLE NUMBER: 140

HOLDING TIMES All samples were freeze dried within 1 month of sample collection. Samples were held at 4°C prior to freeze drying. Samples were either digested or analyzed whole within 9 months of drying. No recommended holding times have been published for samples that have been freeze dried; however, the National Institute of Science and Technology (NIST) and the National Research Council of Canada (NRCC) issue freeze dried tissue samples that have been certified for up to 10 years without noticeable changes to the metals concentrations.

DETECTION LIMITS Detection limits in dry weight concentrations were acceptable for all metals.

METHOD BLANKS Twelve method blanks were analyzed with *M. nasuta* tissue samples. Sample metals analyzed by AA (As, Cr, Pb, Hg and Se) are all reported corrected for the amounts found in the corresponding blanks. Metals analyzed by ICP/MS (Cu, Zn, Ni, Ag, and Cd) were not corrected for method blanks. Low levels of Ag, Cu, Cd, Ni, Pb and Zn were in method blanks analyzed. In all cases, the values detected in the method blanks were at least five times lower than those reported in associated samples.

SURROGATES NOT APPLICABLE

MATRIX SPIKES Eight samples were spiked at a minimum of 1 in 20 samples. The range of recoveries vary for each metal: As (75% to 120%), Cr (85% to 115%), Pb and Hg (75% to 125%), and Se (75% to 115%). Spike recoveries ranged from 20% to 156%; however, the majority of the spike recoveries were within the target quality control limits for recovery (75% to 125%). Silver exceeded the limits for two out of eight spikes (156%) and was below the limit in one spike (51%). Nickel slightly exceeded the QC limits in four of the eight spikes (128% to 133%) and was below the limits for two out of the eight spikes (20%-25%). The SRMs associated with these samples were all very near the certified values, so that data accuracy was probably not affected by the low spike recoveries.

PHASE III A

REPLICATES

Eight samples were analyzed in triplicate for all metals. Precision was measured by RSD between replicate results. RSDs ranged from 0% to 98%; however, the majority of the replicates differed by less than the QC goal of 15%. RSD values for four out of the eight replicates for Cd exceeded this goal however, this was primarily due to the comparison of relatively low concentrations, which results in exaggerated RSD values. Overall, the replicate data indicated acceptable precision.

SRMs

SRM 1566a, oyster tissue, was obtained from the U.S. National Institute of Standards and Technology (NIST). This SRM was analyzed by both ICP/MS and AA at a minimum of once per 10 samples. The majority of the analyses were within the certified values for the SRM. As was reported below the certified range in all SRM samples analyzed, however, only 4 of the 19 SRMs reported were more than 15% lower than the mean SRM value. Samples associated with the four SRMs that were reported up to 50% below the certified mean for As were flagged with an "X" to indicate the results may be biased low. Selenium was slightly out of range in the majority of SRMs however, values were generally within 15% of the certified mean. Lead was out of the certified range in the majority of SRMs however only 9 out of 23 SRMs analyzed fell outside of the 15% goal for precision. Based on the rest of the QC data for these metals, precision was found to be acceptable.

QA/QC SUMMARY

PROGRAM: Oakland Phase III A/June Sampling
PARAMETER: Butyltins
LABORATORY: Battelle/Marine Sciences Laboratory
MATRIX: *M. nasuta* tissues
SAMPLE NUMBER: 140

Note: Samples I-C14 rep 4 and I-C9 rep 3 were lost during preparation, and no additional tissue was available for reanalysis.

HOLDING TIMES All samples were held at 4°C until extraction. No official holding time has been established for analyses of trace organics in tissues. However, holding times of up to 1 year have been recommended (PSEP 1986). All samples were extracted within 2 months of collection. Sample extracts were analyzed within the EPA recommended 40 days holding time for organic extracts.

DETECTION LIMITS Target detection limits were acceptable for butyltins (< 10 µg/kg dry weight).

METHOD BLANKS Eleven method blanks were analyzed. Tributyltin was detected in five of the method blanks at concentrations ranging from 3.3 to 5.3 µg/kg and dibutyltin was detected in two method blanks at 2.2 and 2.6 µg/kg. In general, butyltins in the samples were detected at levels 2 to 5 times greater than the levels found in the blanks and no action was taken.

SURROGATES Tripropyltin was added to each sample prior to extraction as a surrogate. Percent recoveries ranged from 42% to 120%. Quality control limits for organotins had not been established during this time.

MATRIX SPIKES Ten matrix spike samples were analyzed. Tri-, di- and monobutyltins were used as spiking compounds. Recoveries for tri and dibutyltin ranged from 41% to 80%, within the acceptable quality control range of 40% to 120%. Recoveries of monobutyltin were lower, ranging from 15% to 62%, which is expected based on past analyses samples spiked with monobutyltin. This may indicate values reported for monobutyltin could be biased low and should be used with caution.

REPLICATES

Four samples were analyzed in triplicate and six were analyzed in duplicate. Precision for triplicates was measured by relative standard deviation (RSD) between the replicates and precision for duplicates was measured by relative percent difference (RPD) between duplicate analyses. RPD values for tri- and dibutyltin in detected duplicates ranged from 6% to 120%. At least half of the duplicate RPDs for tributyltin and dibutyltin were below 30%, showing acceptable precision. RSD values for both di- and tributyltin were greater than 30% for three out of the four sets of triplicates. Most of the high RPD and RSD values are driven by low sample concentrations, which tend to exaggerate the relative difference between numbers. A total of four relative precision measurements for both di- and tributyltin exceeded 50%. This variability between replicates could be due to non-homogeneous sample matrix rather than the analytical methodology.

SRMs

NOT APPLICABLE

TABLE P.1. Total Concentrations of Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ wet weight)		Total PAH ^(a)
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
AC-1	1	4.0	28.0	32.0
AC-1	2	NM ^(b)	NM	NM
AC-1	3	6.0	44.0	50.0
AC-1	4	8.0	13.0	21.0
AC-1	5	5.0	51.0	56.0
AC-3	1	3.0	7.0	10.0
AC-3	2	4.0	12.0	16.0
AC-3	3	3.0	13.0	16.0
AC-3	4	7.0	31.0	38.0
AC-3	5	64.0	100.0	164.0
I-C4	1	NA ^(c)	7.4	7.4
I-C4	2	2.8	22.5	25.3
I-C4	3	LDC ^(d)	LDC	LDC
I-C4	4	NA	12.6	12.6
I-C4 Replicate 1	5	2.9	20.8	23.7
I-C4 Replicate 2	5	3.1	18.2	21.3
I-C4 Replicate 3	5	4.9	35.8	40.7
I-C5	1	3.9	38.9	42.8
I-C5	2	9.8	5.9	15.7
I-C5	3	13.3	29.2	42.5
I-C5	4	3.1	6.2	9.3
I-C5	5	14.2	7.9	22.1
I-C7	1	4.0	2.0	6.0
I-C7	2	28.0	76.0	104.0
I-C7	3	29.0	47.0	76.0
I-C7	4	2.0	4.0	6.0
I-C7	5	8.0	4.0	12.0
I-C8	1	NA	2.4	2.4
I-C8	2	5.4	6.1	11.5
I-C8	3	2.5	10.5	13.0
I-C8	4	4.1	4.3	8.4
I-C8	5	13.8	47.0	60.8
I-C9	1	3.0	NA	3.0
I-C9	2	2.0	NA	2.0
I-C9	3	3.0	6.0	9.0
I-C9	4	7.0	8.0	15.0
I-C9	5	4.0	18.0	22.0

TABLE P.1. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
I-C10	1	5.0	31.0	36.0
I-C10	2	11.0	238.0	249.0
I-C10	3	LE ^(e)	LE	LE
I-C10	4	67.0	170.0	237.0
I-C10	5	24.0	155.0	179.0
I-C11	1	2.0	39.0	41.0
I-C11	2	3.0	52.0	55.0
I-C11	3	3.0	19.0	22.0
I-C11	4	4.0	5.0	9.0
I-C11	5	15.0	79.0	94.0
I-C12	1	11.0	30.0	41.0
I-C12	2	4.0	6.0	10.0
I-C12	3	3.0	NA	3.0
I-C12	4	NA	NA	NA
I-C12	5	NA	NA	NA
I-C14	1	4.0	7.0	11.0
I-C14	2	3.0	NA	3.0
I-C14	3	2.0	1.0	3.0
I-C14	4	2.0	4.0	6.0
I-C14	5	1.0	2.0	3.0
I-C15	1	3.0	73.0	76.0
I-C15	2	5.0	60.0	65.0
I-C15	3	10.0	47.0	57.0
I-C15	4	5.0	79.0	84.0
I-C15	5	1.0	10.0	11.0
I-C16	1	1.0	2.0	3.0
I-C16	2	5.0	4.0	9.0
I-C16	3	4.0	NA	4.0
I-C16	4	6.0	12.0	18.0
I-C16	5	2.0	16.0	18.0
I-C17	1	3.0	6.0	9.0
I-C17	2	9.0	48.0	57.0
I-C17	3	2.0	2.0	4.0
I-C17	4	3.0	5.0	8.0
I-C17	5	2.0	NA	2.0

TABLE P.1. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
I-C18	1	11.0	21.0	32.0
I-C18	2	7.0	67.0	74.0
I-C18	3	1.0	29.0	30.0
I-C18	4	4.0	27.0	31.0
I-C18	5	2.0	15.0	17.0
I-S1	1	5.0	96.7	101.7
I-S1	2	12.6	286.4	299.0
I-S1	3	29.8	145.1	174.9
I-S1	4	33.1	146.7	179.8
I-S1	5	LDC	LDC	LDC
I-T1	1	4.4	116.4	120.8
I-T1	2	4.8	82.9	87.7
I-T1	3	9.9	180.0	189.9
I-T1	4	7.4	100.3	107.7
I-T1	5	5.5	109.5	115.0
I-T3	1	24.4	467.0	491.4
I-T3	2	NA	307.5	307.5
I-T3	3	4.2	210.1	214.3
I-T3	4	9.0	387.4	396.4
I-T3	5	14.7	325.5	340.2
I-T5	1	3.2	116.6	119.8
I-T5	2	7.6	96.1	103.7
I-T5	3	4.5	158.0	162.5
I-T5	4	8.6	155.8	164.4
I-T5	5	LDC	LDC	LDC
R-AC	1	172.6	1546.5	1719.1
R-AC	2	93.3	1523.6	1616.9
R-AC	3	89.4	889.9	979.3
R-AC	4	85.1	1460.9	1546.0
R-AC	5	86.9	1579.1	1666.0
R-AM	1	12.4	7.9	20.3
R-AM	2	3.4	5.9	9.3
R-AM	3	1.9	25.3	27.2
R-AM	4	5.7	11.5	17.2
R-AM	5	5.7	5.0	10.7

TABLE P.1. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
R-BF	1	4.0	8.0	12.0
R-BF	2	5.0	8.0	13.0
R-BF	3	5.0	29.0	34.0
R-BF	4	3.0	5.0	8.0
R-BF	5	3.0	4.0	7.0
R-OS	1	18.5	17.5	36.0
R-OS	2	7.3	10.1	17.4
R-OS	3	NA	NA	NA
R-OS	4	NA	1.9	1.9
R-OS	5	NA	NA	NA
R-PC	1	NA	NA	NA
R-PC	2	27.5	26.7	54.2
R-PC	3	NA	NA	NA
R-PC	4	NA	5.2	5.2
R-PC	5	21.5	17.0	38.5
R-PF	1	8.9	7.3	16.2
R-PF	2	3.1	8.7	11.8
R-PF	3	LDC	LDC	LDC
R-PF Replicate 1	4	NA	12.2	12.2
R-PF Replicate 2	4	1.4	5.8	7.2
R-PF	5	NA	NA	NA
C-SB	1	17.0	77.0	94.0
C-SB	2	7.0	36.0	43.0
C-SB	3	2.0	2.0	4.0
C-SB	4	3.0	2.0	5.0
C-SB	5	3.0	2.0	5.0
C-WB	1	2.0	NA	2.0
C-WB	2	1.0	1.0	2.0
C-WB	3	NM	NM	NM
C-WB	4	8.0	28.0	36.0
C-WB	5	14.0	48.0	62.0

TABLE P.1. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PAHs ($\mu\text{g}/\text{kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
C-NE	1	2.7	NA	2.7
C-NE	2	25.4	5.5	30.9
C-NE	3	11.5	40.8	52.3
C-NE	4	3.4	2.5	5.9
C-NE	5	9.6	5.9	15.5

-
- (a) Sum of detected values.
 (b) Not measured.
 (c) Not applicable: no PAHs detected.
 (d) Sample lost during GPC cleanup; all surrogate recoveries <1%.
 (e) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.2. Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		M. nasuta Low Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)					
Sediment Treatment	Replicate	Acenaph- thene	Acenaph- thylene	Anthra- cene	Fluorene	Naph- thalene	Phenan- threne
Detection Limits							
Target DL		20.0	20.0	20.0	20.0	20.0	20.0
Acheived DL		4.6	3.0	3.0	3.7	12.2	3.0
AC-1	1	2.0 U ^(a)	2.0 U	2.0 U	2.0 U	2.0 J ^(b) B ^(c)	2.0 B
AC-1	2	NM ^(d)	NM	NM	NM	NM	NM
AC-1	3	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	3.0
AC-1	4	3.0 U	3.0 U	3.0	3.0 U	2.0 JB	3.0
AC-1	5	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0
AC-3	1	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 J
AC-3	2	3.0 U	3.0 U	3.0 U	3.0 U	4.0 B	3.0 U
AC-3	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 J
AC-3	4	1.0 J	1.0	1.0 JB	1.0 U	2.0 B	2.0 B
AC-3	5	7.0	1.0 M ^(e)	30.0	3.0	3.0 MB	20.0 B
I-C4	1	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	2.5 U
I-C4	2	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	2.8
I-C4	3	LDC ^(f)	LDC	LDC	LDC	LDC	LDC
I-C4	4	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	2.5 U
I-C4 Replicate 1	5	2.2 U	0.9 U	1.0 U	1.8 U	5.7 U	2.9 B
I-C4 Replicate 2	5	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	3.1 B
I-C4 Replicate 3	5	2.4 U	1.5	1.1 U	1.9 U	6.2 U	3.4 B
I-C5	1	2.4 U	0.9 U	1.1 U	1.9 U	6.2 U	3.9 B
I-C5	2	2.2 U	0.9 U	1.0 U	1.8 U	5.8 U	9.8
I-C5	3	2.3 U	4.7	1.9	3.8	6.0 U	3.0 B
I-C5	4	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	3.1 B
I-C5	5	2.4 U	0.9 U	1.1 U	1.9 U	6.2 U	14.2
I-C7	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 B	2.0 J
I-C7	2	2.0	1.0 U	17.0	1.0 J	1.0 U	8.0 B
I-C7	3	5.0	2.0 U	4.0	1.0 J	2.0 MB	17.0 B
I-C7	4	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 U
I-C7	5	3.0 U	3.0 U	3.0 U	3.0 U	6.0 B	2.0 J
I-C8	1	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.5 U
I-C8	2	4.5 U	1.8 U	2.1 U	3.6 U	11.8 U	5.4 B
I-C8	3	2.2 U	0.9 U	1.1 U	1.8 U	5.9 U	2.5
I-C8	4	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	4.1 B
I-C8	5	2.2 U	0.9 U	1.0 U	1.8 U	5.9 U	13.8
I-C9	1	1.0 U	1.0 U	1.0 U	1.0 U	3.0 B	1.0 U
I-C9	2	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 U
I-C9	3	1.0 U	1.0 U	1.0 U	1.0 U	3.0 B	1.0 U
I-C9	4	1.0 U	1.0 U	3.0	1.0 U	2.0 B	2.0
I-C9	5	1.0 U	1.0 U	1.0 U	1.0 U	3.0 B	1.0 J
I-C10	1	1.0 U	1.0 U	1.0 J	1.0 U	2.0 B	2.0
I-C10	2	3.0 U	3.0 U	3.0 U	3.0 U	6.0 B	5.0
I-C10	3	LE ^(g)	LE	LE	LE	LE	LE
I-C10	4	3.0	1.0 U	43.0	2.0	2.0 B	17.0 B
I-C10	5	4.0	1.0 U	4.0	1.0 U	2.0 MB	14.0 B

TABLE P.2. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ wet weight)					
		Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
I-C11	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 MB	2.0 U
I-C11	2	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 J
I-C11	3	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U
I-C11	4	3.0 U	3.0 U	3.0 U	3.0 U	4.0 MB	3.0 U
I-C11	5	3.0	1.0 U	5.0	1.0 U	1.0 MB	6.0 B
I-C12	1	2.0 U	2.0 U	6.0	2.0 U	1.0 MB	4.0 B
I-C12	2	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	1.0 J
I-C12	3	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U
I-C12	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C12	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C14	1	2.0 U	2.0 U	2.0 U	2.0 U	1.0 JB	3.0 MB
I-C14	2	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U
I-C14	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 JB	1.0 U
I-C14	4	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 U
I-C14	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 JB	1.0 U
I-C15	1	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 J
I-C15	2	2.0 U	2.0 U	2.0 U	2.0 U	4.0 B	1.0 J
I-C15	3	1.0 U	1.0 J	4.0	1.0 U	2.0 B	3.0 B
I-C15	4	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 J
I-C15	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 JB	1.0 U
I-C16	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 JB	1.0 U
I-C16	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 B	3.0 B
I-C16	3	3.0 U	3.0 U	3.0 U	3.0 U	4.0 MB	3.0 U
I-C16	4	1.0 J	2.0 U	1.0 M	2.0 U	1.0 MB	3.0 B
I-C16	5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 U
I-C17	1	2.0 U	2.0 U	2.0 U	2.0 U	3.0 MB	2.0 U
I-C17	2	1.0 U	1.0 U	5.0	1.0 U	1.0 U	4.0 B
I-C17	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 U
I-C17	4	1.0 U	1.0 U	1.0 U	1.0 U	2.0 B	1.0 J
I-C17	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 MB	2.0 U
I-C18	1	2.0 U	2.0 U	6.0	2.0 U	3.0 B	2.0
I-C18	2	2.0 U	2.0 U	2.0 U	2.0 U	5.0 B	2.0 J
I-C18	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 JB	1.0 U
I-C18	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 B	2.0
I-C18	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 MB	2.0 U
I-S1	1	2.3 U	0.9 U	1.1	1.9 U	6.1 U	3.9 B
I-S1	2	2.4 U	1.0 U	2.6	1.9 U	6.4 U	10.0
I-S1	3	2.0 U	23.9	0.9 U	1.6 U	5.2 U	5.9 B
I-S1	4	2.3 U	20.0	1.7	2.0	6.0 U	9.4 B
I-S1	5	LDC	LDC	LDC	LDC	LDC	LDC
I-T1	1	2.4 U	1.0 U	1.2	1.9 U	6.3 U	3.2 B
I-T1	2	2.4 U	0.9 U	1.1 U	1.9 U	6.2 U	4.8 B
I-T1	3	2.4 U	1.0 U	2.4	4.6	6.3 U	2.9 B
I-T1	4	2.2 U	0.9 U	1.1	1.8 U	5.9 U	6.3
I-T1	5	2.4 U	1.0 U	1.1 U	2.4	6.3 U	3.0 B

TABLE P.2. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)					
		Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
I-T3	1	2.4 U	0.9 U	1.7	1.9 U	6.2 U	22.7
I-T3	2	2.4 U	0.9 U	1.1 U	1.9 U	6.2 U	2.5 U
I-T3	3	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	4.2
I-T3	4	2.2 U	0.9 U	1.1	1.8 U	5.9 U	7.9
I-T3	5	2.4 U	1.0 U	1.1 U	1.9 U	6.4 U	14.7
I-T5	1	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	3.2
I-T5	2	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	7.6
I-T5	3	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	4.5 B
I-T5	4	2.5 U	1.0 U	1.1 U	2.0 U	6.4 U	8.6
I-T5	5	LDC	LDC	LDC	LDC	LDC	LDC
R-AC	1	3.7	1.0 U	43.3	3.5	6.3 U	122.2
R-AC	2	2.4	0.9 U	32.9	3.7	6.1 U	54.3 B
R-AC	3	2.7	0.9 U	30.2	2.2	6.1 U	54.2 B
R-AC	4	2.3	0.9	26.2	3.0	5.7 U	52.7 B
R-AC	5	2.1 U	0.9 U	33.7	1.7 U	5.6 U	53.2 B
R-AM	1	2.4 U	0.9 U	1.1 U	1.9 U	6.2 U	12.4
R-AM	2	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	3.4
R-AM	3	2.4 U	0.9 U	1.9	1.9 U	6.2 U	2.5 U
R-AM	4	2.4 U	1.0 U	1.1 U	2.0	6.3 U	3.8 B
R-AM	5	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	5.7
R-BF	1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	4.0 B
R-BF	2	1.0 U	1.0 U	1.0 U	1.0 U	4.0 B	1.0 J
R-BF	3	1.0 U	1.0 U	3.0	1.0 U	1.0 U	2.0 B
R-BF	4	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U
R-BF	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 B	1.0 J
R-OS	1	2.1 U	11.9	1.2	2.9	5.5 U	2.5 B
R-OS	2	2.3 U	0.9 U	1.1 U	2.0	6.0 U	5.3 B
R-OS	3	2.4 U	1.0 U	1.1 U	1.9 U	6.2 U	2.5 U
R-OS	4	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.5 U
R-OS	5	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	2.5 U
R-PC	1	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.5 U
R-PC	2	4.6 U	3.9	2.2 U	3.7 U	12.2 U	23.6 B
R-PC	3	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	2.4 U
R-PC	4	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	2.5 U
R-PC	5	2.1 U	17.8	1.0 U	1.7 U	5.5 U	3.8 B
R-PF	1	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	8.9
R-PF	2	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	3.1 B
R-PF	3	LDC	LDC	LDC	LDC	LDC	LDC
R-PF Replicate 1	4	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	2.4 U
R-PF Replicate 2	4	2.4 U	1.4	1.1 U	1.9 U	6.2 U	2.5 U
R-PF	5	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.5 U
C-SB	1	3.0	2.0 U	7.0	2.0 U	2.0 U	7.0 B
C-SB	2	1.0 U	1.0 U	3.0	1.0 U	1.0 JB	3.0 B
C-SB	3	1.0 U	1.0 U	1.0 U	1.0 U	2.0 MB	1.0 U
C-SB	4	1.0 U	1.0 U	1.0 U	1.0 U	3.0 MB	1.0 U
C-SB	5	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U

TABLE P.2. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ wet weight)					
		Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
C-WB	1	1.0 U	1.0 U	1.0 U	1.0 U	2.0 MB	1.0 U
C-WB	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 MB	1.0 U
C-WB	3	NM	NM	NM	NM	NM	NM
C-WB	4	1.0 J	1.0 U	1.0 J	1.0 U	1.0 JB	5.0 B
C-WB	5	2.0	2.0 U	7.0	2.0 U	1.0 MB	4.0 B
C-NE	1	2.4 U	0.9 U	1.1 U	1.9 U	6.2 U	2.7 B
C-NE	2	2.4 U	0.9 U	2.1	17.7	6.2 U	5.5 B
C-NE	3	2.4 U	1.0 U	1.8	1.9 U	6.3 U	9.7 B
C-NE	4	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	3.4 B
C-NE	5	2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	9.6 B

- (a) Undetected above given concentration.
 (b) Analyte detected below method detection limit, but above instrument detection limit.
 (c) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.
 (d) Not measured.
 (e) Indicates presence of quantitation ion at correct retention time without presence of confirmation ion.
 (f) Sample lost during GPC cleanup; all surrogate recoveries <1%.
 (g) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.3. High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
Detection Limits											
Target DL		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Achieved DL		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
AC-1	1	2.0	2.0 U ^(a)	6.0	2.0 U	4.0	3.0	2.0 U	5.0 B ^(b)	2.0 U	8.0 B
AC-1	2	NM ^(c)	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	3.0	1.0 J ^(d)	9.0	2.0 U	5.0	4.0	2.0 U	9.0	2.0 U	13.0
AC-1	4	3.0 U	3.0 U	2.0 J	3.0 U	3.0 U	3.0 U	3.0 U	6.0	3.0 U	5.0
AC-1	5	2.0	6.0	8.0	2.0 U	4.0	3.0	2.0 U	5.0	1.0 J	22.0
AC-3	1	1.0	1.0 U	1.0 J	1.0 U	1.0 U	1.0	1.0 U	3.0	1.0 U	1.0 J
AC-3	2	2.0	3.0 U	3.0 U	3.0 U	3.0 U ^(e)	2.0	3.0 U	6.0	3.0 U	2.0 J
AC-3	3	2.0	1.0 U	2.0	1.0 U	1.0 U ^(e)	3.0	1.0 U	4.0	1.0 U	1.0 J
AC-3	4	3.0	2.0	4.0	1.0 U	3.0	4.0	1.0 U	5.0 B	3.0	7.0 B
AC-3	5	6.0	5.0	6.0	2.0 U	4.0	8.0	2.0 U	34.0 B	4.0	33.0 B
I-C4	1	1.5	0.9 U	1.2 U ^(f)	0.8 U	-(f)	0.9 U	0.9 U	5.9	1.5 U	1.2 U
I-C4	2	1.1 U	0.9 U	1.1 U ^(f)	0.7 U	-(f)	0.9 U	0.8 U	10.4	1.4 U	12.1
I-C4	3	LDC ^(g)	LDC	LDC ^(f)	LDC	LDC	LDC	LDC	LDC	LDC	LDC
I-C4	4	1.1 U	3.7 B	2.0 ^(f)	0.8 U	-(f)	0.9 U	0.9 U	1.6 U	1.5 U	6.9 B
I-C4 Replicate 1	5	3.1	0.9 U	3.1 ^(f)	0.7 U	-(f)	1.5	0.8 U	5.3 B	1.4 U	7.8
I-C4 Replicate 2	5	2.3	0.9 U	3.3 ^(f)	0.7 U	-(f)	1.1	0.9 U	4.9 B	1.5 U	6.6
I-C4 Replicate 3	5	8.7	6.2 B	5.0 ^(f)	0.8 U	-(f)	3.0	0.9 U	6.3 B	1.5 U	6.7
I-C5	1	3.2	3.0 B	1.2 U ^(f)	0.8 U	-(f)	3.4	0.9 U	11.0	1.5 U	18.3 B
I-C5	2	1.0 U	0.9 U	1.1 U ^(f)	0.7 U	-(f)	0.9 U	0.8 U	5.9	1.4 U	1.1 U
I-C5	3	3.4	6.8 B	1.1 U ^(f)	0.7 U	-(f)	3.0	0.8 U	5.8 B	1.4 U	10.2
I-C5	4	1.1 U	1.0 U	1.2 U ^(f)	0.8 U	-(f)	1.0 U	0.9 U	6.2	1.5 U	1.2 U
I-C5	5	1.1 U	0.9 U	1.2 U ^(f)	0.8 U	-(f)	0.9 U	0.9 U	7.9	1.5 U	1.2 U
I-C7	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U	2.0 U
I-C7	2	5.0	2.0	2.0	1.0 U	2.0	12.0	1.0 U	29.0 B	1.0 J	23.0 B
I-C7	3	2.0	2.0	1.0 J	2.0 U	2.0	4.0	2.0 U	16.0 B	2.0	18.0 B
I-C7	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	1.0 U	1.0 U	1.0	1.0
I-C7	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	2.0 J	3.0 U	2.0 J

TABLE P.3. (Contd)

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
I-C8	1	1.1 U	1.0 U	1.2 U ^(f)	0.8 U	-(f)	1.0 U	0.9 U	2.4 B	1.5 U	1.2 U
I-C8	2	2.1 U	1.8 U	2.2 U ^(f)	1.4 U	-(f)	1.8 U	1.6 U	3.8 B	2.8 U	2.3
I-C8	3	1.1 U	0.9 U	1.1 U ^(f)	0.7 U	-(f)	0.9 U	0.8 U	10.5	1.4 U	1.1 U
I-C8	4	1.1 U	1.0 U	1.2 U ^(f)	0.8 U	-(f)	1.0 U	0.9 U	4.3	1.5 U	1.2 U
I-C8	5	1.0 U	0.9 U	1.1 U ^(f)	0.7 U	-(f)	0.9 U	0.8 U	1.5 U	1.4 U	47.0
I-C9	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
I-C9	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
I-C9	3	1.0 U	1.0 U	1.0	1.0 U	1.0 J	1.0 U	1.0 U	1.0	1.0 U	3.0
I-C9	4	2.0	1.0 U	2.0 M	1.0 U	1.0 M	1.0 U	1.0 U	1.0 U	1.0 M	2.0
I-C9	5	1.0 J	1.0	2.0	1.0 U	1.0	3.0	1.0 U	3.0	1.0 U	7.0
I-C10	1	2.0	1.0 U	5.0	1.0 U	4.0	3.0	1.0 U	10.0	1.0 U	7.0
I-C10	2	9.0	16.0	30.0	3.0 U	18.0	17.0	3.0 U	40.0	5.0	103.0
I-C10	3	LE ^(h)	LE	LE	LE	LE	LE	LE	LE	LE	LE
I-C10	4	10.0	6.0	20.0	1.0 U	11.0	13.0	1.0 U	52.0 B	3.0	55.0 B
I-C10	5	6.0	13.0	16.0	1.0 U	9.0	10.0	1.0 U	35.0 B	5.0	61.0 B
I-C11	1	2.0 U	2.0	11.0	2.0 U	7.0	3.0	2.0 U	4.0	2.0 U	12.0
I-C11	2	1.0	4.0	11.0	1.0 U	6.0	3.0	1.0 U	4.0	1.0	22.0
I-C11	3	2.0 U	2.0 U	5.0	2.0 U	3.0	2.0 U	2.0 U	3.0	2.0 U	8.0
I-C11	4	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	2.0 M	3.0 U	3.0 M
I-C11	5	3.0	6.0	12.0	1.0 U	6.0	5.0	1.0 U	14.0 B	3.0	30.0 B
I-C12	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 J	2.0 U	15.0 B	2.0 U	13.0 B
I-C12	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 J	2.0 U	2.0	2.0 J	2.0 U
I-C12	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C12	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C12	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C14	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 M	2.0 U	3.0 B	2.0 U	3.0 B
I-C14	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C14	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 M	1.0 U	1.0 U
I-C14	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	1.0 M	1.0 J
I-C14	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 J	1.0 U	1.0 B	1.0 U	1.0 U
I-C15	1	1.0 J	7.0	12.0	1.0 U	6.0	3.0	1.0 U	3.0	2.0	39.0
I-C15	2	2.0 U	3.0	10.0	2.0 U	7.0	3.0	2.0 U	3.0	2.0 J	32.0
I-C15	3	1.0 J	3.0	5.0	1.0 U	4.0	3.0	1.0 U	7.0 B	4.0	20.0 B
I-C15	4	1.0 U	5.0	4.0	2.0	6.0	1.0 J	2.0 U	8.0	6.0	47.0
I-C15	5	1.0 U	1.0 U	3.0	1.0 U	1.0 J	1.0 U	1.0 U	1.0 JB	1.0 U	5.0 B

TABLE P.3. (Contd)

		M. nasuta High Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)-pyrene	Pyrene
I-C16	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 JB	1.0 U	1.0 JB
I-C16	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U	1.0 JB
I-C16	3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C16	4	1.0 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 J	2.0 U	5.0 B	1.0 M	3.0 B
I-C16	5	1.0 U	1.0 U	4.0	1.0 U	4.0	1.0 U	1.0 U	2.0	1.0 U	6.0
I-C17	1	2.0 U	2.0 U	2.0 M	2.0 U	2.0 U	2.0 M	2.0 U	1.0 M	2.0 U	1.0 M
I-C17	2	3.0	1.0 J	3.0	1.0 U	1.0	4.0	1.0 U	21.0 B	1.0 U	15.0 B
I-C17	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 J	1.0 U	1.0 J
I-C17	4	1.0 U	1.0 U	1.0 J	1.0 U	1.0 U	1.0 J	1.0 U	2.0	1.0 U	1.0 J
I-C17	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C18	1	1.0 J	2.0 U	7.0	2.0 U	4.0	1.0 J	2.0 U	5.0	2.0 U	3.0
I-C18	2	1.0 J	14.0	21.0	3.0	10.0	2.0	2.0 U	4.0	3.0	9.0
I-C18	3	1.0 U	2.0	14.0	1.0 U	6.0	2.0	1.0 U	2.0 B	1.0 U	3.0 B
I-C18	4	1.0 J	2.0 U	9.0	2.0 U	6.0	3.0	2.0 U	6.0	2.0 U	2.0
I-C18	5	2.0 U	2.0 U	8.0	2.0 U	4.0	2.0 U	2.0 U	2.0	2.0 U	1.0 J
I-S1	1	8.5	4.2 B	10.7 ^(f)	0.7 U	-(f)	4.7	0.9 U	24.2 B	1.5 U	44.4
I-S1	2	90.1	5.9 B	16.4 ^(f)	0.8 U	-(f)	84.0	0.9 U	33.2 B	1.5 U	56.8
I-S1	3	20.9	15.1 B	19.0 ^(f)	0.6 U	-(f)	10.8 B	0.7 U	31.0 B	1.3 U	48.3 B
I-S1	4	21.2	16.1 B	23.5 ^(f)	0.7 U	-(f)	11.3	0.8 U	33.1 B	1.4 U	41.4
I-S1	5	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC
I-T1	1	7.5	10.5 B	24.9 ^(f)	4.0	-(f)	8.3	0.9 U	10.2 B	1.5 U	51.1
I-T1	2	6.6	12.9 B	1.2 ^(f)	0.8 U	-(f)	4.7	0.9 U	1.6 U	1.5 U	58.7 B
I-T1	3	17.6	23.9 B	45.4 ^(f)	0.8 U	-(f)	14.5	1.1	12.5 B	1.5 U	65.1
I-T1	4	46.9	0.9 U	6.5 ^(f)	0.7 U	-(f)	33.6	0.8 U	13.3	1.4 U	1.1 U
I-T1	5	6.7	11.2 B	26.4 ^(f)	4.0	-(f)	6.4	0.9 U	7.8 B	1.5 U	47.2
I-T3	1	9.5	63.8	112.0 ^(f)	12.1	-(f)	5.7	0.9 U	17.2	7.8	238.8
I-T3	2	8.6	33.2 B	66.0 ^(f)	15.3	-(f)	9.9	2.0	12.5 B	3.0	156.9
I-T3	3	6.8	28.1 B	14.4 ^(f)	8.5	-(f)	4.8	0.9 U	10.4	4.9	132.3
I-T3	4	6.6	49.9 B	1.1 ^(f)	11.4	-(f)	9.6	0.8 U	1.5 U	1.4 U	309.9
I-T3	5	15.1	45.0	22.0 ^(f)	20.4	-(f)	8.4	0.9 U	18.6	6.4	189.6
I-T5	1	4.5	0.9 U	1.1 ^(f)	7.8	-(f)	5.7	0.8 U	9.6	2.4	86.6
I-T5	2	1.1 U	22.8	15.9 ^(f)	5.8	-(f)	0.9 U	0.8 U	6.5	1.5 U	45.1
I-T5	3	4.1	26.5 B	14.5 ^(f)	4.7	-(f)	5.4	0.9 U	11.7	3.7	87.3 B
I-T5	4	4.9	31.2	27.1 ^(f)	8.1	-(f)	6.2	0.9 U	7.1	4.9	66.3
I-T5	5	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC

TABLE P.3. (Contd)

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
R-AC	1	136.5	70.2 B	25.6 (f)	23.7	-(f)	142.8	0.9 U	579.9	1.5 U	567.8
R-AC	2	135.5	94.5 B	115.2 (f)	32.8	-(f)	164.3	0.9 U	507.0 B	15.5	458.9
R-AC	3	105.5	61.3 B	88.4 (f)	16.7	-(f)	103.2	1.9	112.9 B	3.3	396.8
R-AC	4	78.0	38.9 B	45.5 (f)	31.1	-(f)	72.6 B	7.1	432.8 B	374.8	380.1 B
R-AC	5	149.1	76.0 B	95.6 (f)	14.8	-(f)	134.8 B	1.9	600.1 B	1.4 U	506.8 B
R-AM	1	1.1 U	0.9 U	1.2 U (f)	0.8 U	-(f)	0.9 U	0.9 U	7.9	1.5 U	1.2 U
R-AM	2	1.1 U	0.9 U	1.1 U (f)	0.7 U	-(f)	0.9 U	0.8 U	5.9	1.4 U	1.1 U
R-AM	3	4.2	0.9 U	7.8 (f)	0.8 U	-(f)	0.9 U	0.9 U	13.4 B	1.5 U	1.2 U
R-AM	4	1.1 U	1.0 U	2.7 (f)	0.8 U	-(f)	1.0 U	0.9 U	1.6 U	1.5 U	8.8 B
R-AM	5	2.0	0.9 U	1.2 U (f)	0.8 U	-(f)	3.0	0.9 U	1.6 U	1.5 U	1.2 U
R-BF	1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	5.0 B	3.0 U	3.0 B
R-BF	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	1.0 U	3.0	1.0 U	1.0
R-BF	3	2.0 U	1.0 U	2.0	1.0 U	1.0 U	4.0	1.0 U	13.0 B	1.0 U	7.0 B
R-BF	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U	2.0	2.0 U	1.0 U
R-BF	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0	2.0 U	2.0 U
R-OS	1	1.0 U	15.8 B	1.0 U (f)	0.7 U	-(f)	0.8 U	0.8 U	1.7 B	1.3 U	1.0 U
R-OS	2	1.1 U	0.9 U	1.1 U (f)	0.7 U	-(f)	0.9 U	0.8 U	7.3 B	1.5 U	2.8
R-OS	3	1.1 U	1.0 U	1.2 U (f)	0.8 U	-(f)	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
R-OS	4	1.1 U	1.0 U	1.2 U (f)	0.8 U	-(f)	1.0 U	0.9 U	1.9 B	1.5 U	1.2 U
R-OS	5	1.1 U	0.9 U	1.2 U	0.8 U	-(f)	0.9 U	0.9 U	1.6 U	1.5 U	1.2 U
R-PC	1	1.1 U	1.0 U	1.2 U (f)	0.8 U	-(f)	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
R-PC	2	8.3	1.9 U	2.6	1.5 U	-(f)	5.2	1.7 U	6.8 B	2.9 U	3.7
R-PC	3	1.1 U	0.9 U	1.1 U (f)	0.7 U	-(f)	0.9 U	0.8 U	1.5 U	1.5 U	1.1 U
R-PC	4	1.1 U	5.2 B	1.2 U (f)	0.7 U	-(f)	0.9 U	0.9 U	1.5 U	1.5 U	1.2 U
R-PC	5	8.9	8.1 B	1.0 U (f)	0.7 U	-(f)	0.8 U	0.8 U	1.4 U	1.3 U	1.0 U
R-PF	1	1.1 U	1.0 U	1.2 U (f)	0.8 U	-(f)	1.0 U	0.9 U	7.3	1.5 U	1.2 U
R-PF	2	1.1 U	6.1 B	1.2 U (f)	0.8 U	-(f)	1.0 U	0.9 U	2.6	1.5 U	1.2 U
R-PF	3	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC
R-PF Replicate 1	4	2.7	3.7 B	1.1 U (f)	0.7 U	-(f)	0.9 U	0.8 U	3.2 B	1.4 U	2.6 B
R-PF Replicate 2	4	2.4	0.9 U	1.2 U (f)	0.8 U	-(f)	0.9 U	0.9 U	1.8 B	1.5 U	1.6 B
R-PF	5	1.1 U	1.0 U	1.2 U (f)	0.8 U	-(f)	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U

TABLE P.3. (Contd)

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
C-SB	1	5.0	1.0 J	2.0	2.0 U	2.0	6.0	2.0 U	36.0 B	2.0 U	25.0 B
C-SB	2	3.0	2.0	2.0	1.0 U	1.0	6.0	1.0 U	12.0 B	1.0 U	10.0 B
C-SB	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	1.0 U	1.0 U
C-SB	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0
C-SB	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 J	2.0 U	2.0 U	2.0 U	1.0 J
C-WB	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
C-WB	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 J	1.0 U	1.0 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	1.0 J	5.0	1.0 J	1.0 U	1.0 J	2.0	1.0 U	3.0 B	7.0	8.0 B
C-WB	5	3.0	2.0 U	1.0 J	2.0 U	2.0 U	4.0	2.0 U	21.0 B	2.0 U	19.0 B
C-NE	1	1.1 U	0.9 U	1.2 U ^(f)	0.8 U	-(f)	0.9 U	0.9 U	1.6 U	1.5 U	1.2 U
C-NE	2	1.1 U	0.9 U	2.7 U ^(f)	0.8 U	-(f)	0.9 U	0.9 U	2.8	1.5 U	1.2 U
C-NE	3	5.6	3.7 B	10.2 U ^(f)	0.8 U	-(f)	7.4	0.9 U	13.9 B	1.5 U	1.2 U
C-NE	4	1.1 U	1.0 U	1.2 U ^(f)	0.8 U	-(f)	1.0 U	0.9 U	2.5 B	1.5 U	1.2 U
C-NE	5	1.1 U	1.0 U	2.5 U ^(f)	0.8 U	-(f)	1.0 U	0.9 U	3.4 B	1.5 U	1.2 U

(a) Undetected above given concentration.

(b) Analyte found in method blank. Results presented are not corrected for the amount in the blank.

(c) Not measured.

(d) Analyte detected below method detection limit, but above instrument detection limit.

(e) Indicates presence of quantitation ion at correct retention time without presence of confirmation ion.

(f) All benzofluoranthene isomers (b,j & k) were analyzed together.

(g) Sample lost during GPC cleanup; all surrogate recoveries <1%.

(h) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.4. Total Detected Polynuclear Aromatic Hydrocarbons (PAHs), Dry Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)		
			Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH ^(a)
AC-1	1	15.5	25.8	180.7	206.5
AC-1	2	NM ^(b)	NM	NM	NM
AC-1	3	14.2	42.2	309.8	352.0
AC-1	4	14.9	53.6	87.3	140.9
AC-1	5	15.2	32.9	335.5	368.4
AC-3	1	14.9	20.1	46.9	67.0
AC-3	2	15.2	26.3	79.1	105.4
AC-3	3	15.5	19.4	84.0	103.4
AC-3	4	16.6	42.0	186.8	228.8
AC-3	5	15.1	424.0	662.2	1086.2
I-C4	1	10.0	NA ^(c)	73.4	73.4
I-C4	2	13.0	21.8	173.0	194.8
I-C4	3	13.0	LDC ^(d)	LDC	LDC
I-C4	4	12.0	NA	105.4	105.4
I-C4 Replicate 1	5	12.0	24.3	173.8	198.1
I-C4 Replicate 2	5	12.0	26.2	151.3	177.5
I-C4 Replicate 3	5	12.0	40.4	298.5	338.9
I-C5	1	11.0	35.1	353.9	389.0
I-C5	2	13.0	75.4	45.7	121.1
I-C5	3	10.0	133.5	291.2	424.7
I-C5	4	12.0	26.0	52.0	78.0
I-C5	5	12.0	118.5	65.7	184.2
I-C7	1	16.1	24.8	12.4	37.2
I-C7	2	14.5	193.1	524.2	717.3
I-C7	3	14.9	194.6	315.3	509.9
I-C7	4	14.0	14.3	28.5	42.8
I-C7	5	13.1	61.1	30.6	91.7
I-C8	1	9.0	NA	26.3	26.3
I-C8	2	10.0	54.0	61.2	115.2
I-C8	3	11.0	22.3	95.3	117.6
I-C8	4	12.0	33.8	35.8	69.6
I-C8	5	12.0	115.1	391.5	506.6
I-C9	1	15.3	19.6	NA	19.6
I-C9	2	15.0	13.3	NA	13.3
I-C9	3	15.2	19.7	39.5	59.2
I-C9	4	15.3	45.8	52.3	98.1
I-C9	5	14.7	27.2	122.4	149.6

TABLE P.4. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)		
			Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
I-C10	1	13.7	36.5	226.3	262.8
I-C10	2	14.3	77.0	1664.4	1741.4
I-C10	3	14.6	LE ^(e)	LE	LE
I-C10	4	15.8	424.2	1076.0	1500.2
I-C10	5	13.7	175.2	1131.5	1306.7
I-C11	1	13.6	14.7	286.8	301.5
I-C11	2	16.8	17.9	309.7	327.6
I-C11	3	14.3	21.0	132.9	153.9
I-C11	4	16.1	24.8	31.0	55.8
I-C11	5	17.5	85.7	451.4	537.1
I-C12	1	15.9	69.2	188.7	257.9
I-C12	2	15.2	26.3	39.6	65.9
I-C12	3	13.9	21.6	NA	21.6
I-C12	4	15.0	NA	NA	NA
I-C12	5	15.3	NA	NA	NA
I-C14	1	14.6	27.3	47.8	75.1
I-C14	2	15.2	19.7	NA	19.7
I-C14	3	16.5	12.1	6.1	18.2
I-C14	4	13.2	15.2	30.4	45.6
I-C14	5	16.0	6.2	12.4	18.6
I-C15	1	14.2	21.1	514.0	535.1
I-C15	2	14.6	34.2	410.8	445.0
I-C15	3	16.1	62.0	291.8	353.8
I-C15	4	15.5	32.3	509.7	542.0
I-C15	5	14.4	6.9	69.3	76.2
I-C16	1	15.1	6.6	13.2	19.8
I-C16	2	16.3	30.7	24.5	55.2
I-C16	3	14.7	27.2	NA	27.2
I-C16	4	15.4	39.0	78.0	117.0
I-C16	5	14.4	13.9	111.2	125.1
I-C17	1	13.5	22.2	44.4	66.6
I-C17	2	12.5	72.0	384.0	456.0
I-C17	3	14.0	14.3	14.2	28.5
I-C17	4	13.6	22.1	36.9	59.0
I-C17	5	16.0	12.5	NA	12.5

TABLE P.4. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)		
			Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
I-C18	1	14.4	76.4	145.7	222.1
I-C18	2	15.2	46.1	440.8	486.9
I-C18	3	16.2	6.2	178.8	185.0
I-C18	4	15.8	25.4	171.0	196.4
I-C18	5	14.5	13.8	103.5	117.3
I-S1	1	14.0	35.8	690.5	726.3
I-S1	2	13.0	97.1	2203.4	2300.5
I-S1	3	11.0	271.0	1318.8	1589.8
I-S1	4	13.0	254.5	1128.4	1382.9
I-S1	5	11.0	LDC	LDC	LDC
I-T1	1	12.0	36.7	969.8	1006.5
I-T1	2	12.0	40.0	691.9	731.9
I-T1	3	9.0	110.2	2000.1	2110.3
I-T1	4	13.0	57.0	771.6	828.6
I-T1	5	11.0	49.6	995.9	1045.5
I-T3	1	15.0	162.6	3113.4	3276.0
I-T3	2	12.0	NA	2562.7	2562.7
I-T3	3	13.0	32.4	1616.0	1648.4
I-T3	4	13.0	69.4	2980.1	3049.5
I-T3	5	14.0	104.9	2324.8	2429.7
I-T5	1	14.0	22.5	832.6	855.1
I-T5	2	11.0	68.8	873.4	942.2
I-T5	3	11.0	40.6	1436.0	1476.6
I-T5	4	14.0	61.3	1112.6	1173.9
I-T5	5	13.0	LDC	LDC	LDC
R-AC	1	11.0	1569.2	14058.9	15628.1
R-AC	2	10.0	932.6	15236.0	16168.6
R-AC	3	13.0	687.3	6845.3	7532.6
R-AC	4	11.0	773.7	13281.2	14054.9
R-AC	5	13.0	668.7	12146.9	12815.6
R-AM	1	14.0	88.4	56.7	145.1
R-AM	2	12.0	28.4	48.9	77.3
R-AM	3	14.0	13.9	180.7	194.5
R-AM	4	10.0	57.1	115.2	172.3
R-AM	5	12.0	47.7	41.5	89.2

TABLE P.4. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g}/\text{kg}$ dry weight)		
			Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
R-BF	1	14.9	26.8	53.7	80.5
R-BF	2	15.3	32.6	52.2	84.8
R-BF	3	13.6	36.8	213.3	250.1
R-BF	4	13.8	21.7	36.2	57.9
R-BF	5	16.9	17.7	23.7	41.4
R-OS	1	12.0	154.0	152.9	306.9
R-OS	2	9.0	80.8	121.8	202.6
R-OS	3	13.0	NA	NA	NA
R-OS	4	11.0	NA	17.2	17.2
R-OS	5	14.0	NA	NA	NA
R-PC	1	13.0	NA	NA	NA
R-PC	2	13.0	211.5	205.2	416.7
R-PC	3	13.0	NA	7.0	7.0
R-PC	4	11.0	NA	46.9	46.9
R-PC	5	13.0	165.7	130.8	296.5
R-PF	1	10.0	89.2	72.9	162.1
R-PF	2	11.0	28.0	79.2	107.2
R-PF	3	11.0	LDC	LDC	LDC
R-PF Replicate 2	4	15.7	9.0	37.1	46.1
R-PF Replicate 3	4	15.7	NA	77.6	77.6
R-PF	5	12.0	NA	NA	NA
C-SB	1	12.3	138.2	626.2	764.4
C-SB	2	14.9	46.9	241.5	288.4
C-SB	3	15.7	12.7	12.7	25.4
C-SB	4	16.6	18.1	12.0	30.1
C-SB	5	16.4	18.3	12.2	30.5
C-WB	1	15.2	13.2	NA	13.2
C-WB	2	16.0	6.2	6.2	12.4
C-WB	3	NM	NM	NM	NM
C-WB	4	15.1	52.9	185.4	238.3
C-WB	5	15.2	92.2	315.8	408.0

TABLE P.4. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)		
			Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
C-NE	1	12.0	22.8	NA	22.8
C-NE	2	10.0	253.8	54.8	308.6
C-NE	3	15.0	76.3	271.7	348.0
C-NE	4	12.0	28.0	20.5	48.5
C-NE	5	12.0	80.1	49.4	129.5

-
- (a) Sum of detected values.
 (b) Not measured.
 (c) Not applicable: no PAHs detected.
 (d) Sample lost during GPC cleanup; all surrogate recoveries <1%.
 (e) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.5. Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Dry Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ dry weight)					
			Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
AC-1	1	15.50 ^(a)	12.9 U ^(b)	12.9 U	12.9 U	12.9 U	12.9 J ^(c) B ^(d)	12.9 B
AC-1	2	NM ^(e)	NM	NM	NM	NM	NM	NM
AC-1	3	14.20 ^(a)	14.1 U	14.1 U	14.1 U	14.1 U	21.1 B	21.1
AC-1	4	14.90 ^(a)	20.1 U	20.1 U	20.1	20.1 U	13.4 JB	20.1
AC-1	5	15.20 ^(a)	13.2 U	13.2 U	13.2 U	13.2 U	19.7 B	13.2
AC-3	1	14.90 ^(a)	6.7 U	6.7 U	6.7 U	6.7 U	13.4 B	6.7 J
AC-3	2	15.20 ^(a)	19.7 U	19.7 U	19.7 U	19.7 U	26.3 B	19.7 U
AC-3	3	15.50 ^(a)	6.5 U	6.5 U	6.5 U	6.5 U	12.9 B	6.5 J
AC-3	4	16.60 ^(a)	6.0 J	6.0	6.0 JB	6.0 U	12.0 B	12.0 B
AC-3	5	15.10 ^(a)	46.4	6.6 M ^(f)	198.7	19.9	19.9 MB	132.5 B
I-C4	1	10.00	23.3 U	9.3 U	10.9 U	18.6 U	61.4 U	24.9 U
I-C4	2	13.00	17.4 U	7.0 U	8.1 U	13.9 U	45.9 U	21.8
I-C4	3	13.00	LDC ^(g)	LDC	LDC	LDC	LDC	LDC
I-C4	4	12.00	19.4 U	7.8 U	9.1 U	15.5 U	51.1 U	20.7 U
I-C4 Replicate 1	5	12.00	18.2 U	7.3 U	8.5 U	15.0 U	47.9 U	24.3 B
I-C4 Replicate 2	5	12.00	19.2 U	7.7 U	9.0 U	15.8 U	50.6 U	26.2 B
I-C4 Replicate 3	5	12.00	19.8 U	12.3	9.2 U	15.7 U	51.6 U	28.1 B
I-C5	1	11.00	21.4 U	8.6 U	10.0 U	17.1 U	56.3 U	35.1 B
I-C5	2	13.00	16.9 U	6.8 U	7.9 U	13.5 U	44.6 U	75.4
I-C5	3	10.00	22.6 U	46.7	18.5	38.1	59.6 U	30.2 B
I-C5	4	12.00	20.0 U	8.0 U	9.3 U	16.0 U	52.7 U	26.0 B
I-C5	5	12.00	19.6 U	7.8 U	9.2 U	15.7 U	51.6 U	118.5
I-C7	1	16.10 ^(a)	12.4 U	12.4 U	12.4 U	12.4 U	12.4 B	12.4 J
I-C7	2	14.50 ^(a)	13.8	6.9 U	117.2	6.9 J	6.9 U	55.2 B
I-C7	3	14.90 ^(a)	33.6	13.4 U	26.8	6.7 J	13.4 MB	114.1 B
I-C7	4	14.00 ^(a)	7.1 U	7.1 U	7.1 U	7.1 U	14.3 B	7.1 U
I-C7	5	13.10 ^(a)	22.9 U	22.9 U	22.9 U	22.9 U	45.8 B	15.3 J
I-C8	1	9.00	26.4 U	10.6 U	12.3 U	21.1 U	69.5 U	28.2 U
I-C8	2	10.00	45.0 U	17.9 U	20.9 U	35.9 U	118.0 U	54.0 B
I-C8	3	11.00	20.4 U	8.2 U	10.0 U	16.3 U	53.7 U	22.3
I-C8	4	12.00	20.0 U	8.0 U	9.3 U	16.0 U	52.7 U	33.8 B
I-C8	5	12.00	18.5 U	7.4 U	8.6 U	14.8 U	48.8 U	115.1
I-C9	1	15.30 ^(a)	6.5 U	6.5 U	6.5 U	6.5 U	19.6 B	6.5 U
I-C9	2	15.00 ^(a)	6.7 U	6.7 U	6.7 U	6.7 U	13.3 B	6.7 U
I-C9	3	15.20 ^(a)	6.6 U	6.6 U	6.6 U	6.6 U	19.7 B	6.6 U
I-C9	4	15.30 ^(a)	6.5 U	6.5 U	19.6	6.5 U	13.1 B	13.1
I-C9	5	14.70 ^(a)	6.8 U	6.8 U	6.8 U	6.8 U	20.4 B	6.8 J
I-C10	1	13.70 ^(a)	7.3 U	7.3 U	7.3 J	7.3 U	14.6 B	14.6
I-C10	2	14.30 ^(a)	21.0 U	21.0 U	21.0 U	21.0 U	42.0 B	35.0
I-C10	3	14.60 ^(a)	LE ^(h)	LE	LE	LE	LE	LE
I-C10	4	15.80 ^(a)	19.0	6.3 U	272.2	12.7	12.7 B	107.6 B
I-C10	5	13.70 ^(a)	29.2	7.3 U	29.2	7.3 U	14.6 MB	102.2 B
I-C11	1	13.60 ^(a)	14.7 U	14.7 U	14.7 U	14.7 U	14.7 MB	14.7 U
I-C11	2	16.80 ^(a)	6.0 U	6.0 U	6.0 U	6.0 U	11.9 B	6.0 J
I-C11	3	14.30 ^(a)	14.0 U	14.0 U	14.0 U	14.0 U	21.0 B	14.0 U
I-C11	4	16.10 ^(a)	18.6 U	18.6 U	18.6 U	18.6 U	24.8 MB	18.6 U
I-C11	5	17.50 ^(a)	17.1	5.7 U	28.6	5.7 U	5.7 MB	34.3 B

TABLE P.5 (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)					
			Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
I-C12	1	15.90 ^(a)	12.6 U	12.6 U	37.7	12.6 U	6.3 MB	25.2 B
I-C12	2	15.20 ^(a)	13.2 U	13.2 U	13.2 U	13.2 U	19.7 B	6.6 J
I-C12	3	13.90 ^(a)	14.4 U	14.4 U	14.4 U	14.4 U	21.6 B	14.4 U
I-C12	4	15.00 ^(a)	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U
I-C12	5	15.30 ^(a)	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U
I-C14	1	14.60 ^(a)	13.7 U	13.7 U	13.7 U	13.7 U	6.8 JB	20.5 MB
I-C14	2	15.20 ^(a)	13.2 U	13.2 U	13.2 U	13.2 U	19.7 B	13.2 U
I-C14	3	16.50 ^(a)	6.1 U	6.1 U	6.1 U	6.1 U	12.1 JB	6.1 U
I-C14	4	13.20 ^(a)	7.6 U	7.6 U	7.6 U	7.6 U	15.2 B	7.6 U
I-C14	5	16.00 ^(a)	6.2 U	6.2 U	6.2 U	6.2 U	6.2 JB	6.2 U
I-C15	1	14.20 ^(a)	7.0 U	7.0 U	7.0 U	7.0 U	14.1 B	7.0 J
I-C15	2	14.60 ^(a)	13.7 U	13.7 U	13.7 U	13.7 U	27.4 B	6.8 J
I-C15	3	16.10 ^(a)	6.2 U	6.2 J	24.8	6.2 U	12.4 B	18.6 B
I-C15	4	15.50 ^(a)	12.9 U	12.9 U	12.9 U	12.9 U	19.4 B	12.9 J
I-C15	5	14.40 ^(a)	6.9 U	6.9 U	6.9 U	6.9 U	6.9 JB	6.9 U
I-C16	1	15.10 ^(a)	6.6 U	6.6 U	6.6 U	6.6 U	6.6 JB	6.6 U
I-C16	2	16.30 ^(a)	12.3 U	12.3 U	12.3 U	12.3 U	12.3 B	18.4 B
I-C16	3	14.70 ^(a)	20.4 U	20.4 U	20.4 U	20.4 U	27.2 MB	20.4 U
I-C16	4	15.40 ^(a)	6.5 J	13.0 U	6.5 M	13.0 U	6.5 MB	19.5 B
I-C16	5	14.40 ^(a)	6.9 U	6.9 U	6.9 U	6.9 U	13.9 B	6.9 U
I-C17	1	13.50 ^(a)	14.8 U	14.8 U	14.8 U	14.8 U	22.2 MB	14.8 U
I-C17	2	12.50 ^(a)	8.0 U	8.0 U	40.0	8.0 U	8.0 U	32.0 B
I-C17	3	14.00 ^(a)	7.1 U	7.1 U	7.1 U	7.1 U	14.3 B	7.1 U
I-C17	4	13.60 ^(a)	7.4 U	7.4 U	7.4 U	7.4 U	14.7 B	7.4 J
I-C17	5	16.00 ^(a)	12.5 U	12.5 U	12.5 U	12.5 U	12.5 MB	12.5 U
I-C18	1	14.40 ^(a)	13.9 U	13.9 U	41.7	13.9 U	20.8 B	13.9
I-C18	2	15.20 ^(a)	13.2 U	13.2 U	13.2 U	13.2 U	32.9 B	13.2 J
I-C18	3	16.20 ^(a)	6.2 U	6.2 U	6.2 U	6.2 U	6.2 JB	6.2 U
I-C18	4	15.80 ^(a)	12.7 U	12.7 U	12.7 U	12.7 U	12.7 B	12.7
I-C18	5	14.50 ^(a)	13.8 U	13.8 U	13.8 U	13.8 U	13.8 MB	13.8 U
I-S1	1	14.00	16.5 U	6.6 U	7.9	13.6 U	43.4 U	27.9 B
I-S1	2	13.00	18.6 U	7.4 U	20.2	14.9 U	49.0 U	76.9
I-S1	3	11.00	18.0 U	217.4	8.4 U	14.4 U	47.5 U	53.6 B
I-S1	4	13.00	17.4 U	153.9	12.7	15.5	45.9 U	72.4 B
I-S1	5	11.00	LDC	LDC	LDC	LDC	LDC	LDC
I-T1	1	12.00	20.0 U	8.3 U	10.0	16.0 U	52.7 U	26.7 B
I-T1	2	12.00	19.6 U	7.8 U	9.2 U	15.7 U	51.6 U	40.0 B
I-T1	3	9.00	26.7 U	10.7 U	26.4	51.1	70.2 U	32.7 B
I-T1	4	13.00	17.1 U	6.8 U	8.3	13.7 U	45.0 U	48.7
I-T1	5	11.00	21.8 U	8.7 U	10.2 U	21.9	57.5 U	27.7 B
I-T3	1	15.00	15.7 U	6.3 U	11.1	12.5 U	41.3 U	151.5
I-T3	2	12.00	19.6 U	7.8 U	9.2 U	15.7 U	51.6 U	20.9 U
I-T3	3	13.00	18.5 U	7.4 U	8.6 U	14.8 U	48.6 U	32.4
I-T3	4	13.00	17.1 U	6.8 U	8.7	13.7 U	45.0 U	60.7
I-T3	5	14.00	17.3 U	6.9 U	8.1 U	13.9 U	45.6 U	104.9

TABLE P.5 (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)					
			Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
I-T5	1	14.00	16.3 U	6.5 U	7.6 U	13.1 U	43.0 U	22.5
I-T5	2	11.00	20.8 U	8.3 U	9.7 U	16.6 U	54.7 U	68.8
I-T5	3	11.00	21.8 U	8.7 U	10.2 U	17.5 U	57.5 U	40.6 B
I-T5	4	14.00	17.9 U	7.0 U	8.2 U	14.0 U	46.1 U	61.3
I-T5	5	13.00	LDC	LDC	LDC	LDC	LDC	LDC
R-AC	1	11.00	33.5	8.6 U	393.5	31.4	56.9 U	1110.8
R-AC	2	10.00	24.2	9.3 U	328.9	36.9	61.4 U	542.6 B
R-AC	3	13.00	21.1	7.2 U	232.6	16.6	47.2 U	417.0 B
R-AC	4	11.00	20.6	8.3	238.3	27.2	52.2 U	479.3 B
R-AC	5	13.00	16.5 U	6.6 U	259.5	13.2 U	43.4 U	409.2 B
R-AM	1	14.00	16.8 U	6.7 U	7.8 U	13.4 U	44.3 U	88.4
R-AM	2	12.00	18.9 U	7.5 U	8.8 U	15.1 U	49.7 U	28.4
R-AM	3	14.00	16.8 U	6.7 U	13.9	13.4 U	44.3 U	17.9 U
R-AM	4	10.00	24.0 U	9.6 U	11.2 U	19.6	63.2 U	37.5 B
R-AM	5	12.00	19.4 U	7.8 U	9.1 U	15.5 U	51.1 U	47.7
R-BF	1	14.90 ^(a)	20.1 U	20.1 U	20.1 U	20.1 U	20.1 U	26.8 B
R-BF	2	15.30 ^(a)	6.5 U	6.5 U	6.5 U	6.5 U	26.1 B	6.5 J
R-BF	3	13.60 ^(a)	7.4 U	7.4 U	22.1	7.4 U	7.4 U	14.7 B
R-BF	4	13.80 ^(a)	14.5 U	14.5 U	14.5 U	14.5 U	21.7 B	14.5 U
R-BF	5	16.90 ^(a)	11.8 U	11.8 U	11.8 U	11.8 U	11.8 B	5.9 J
R-OS	1	12.00	17.2 U	99.1	9.7	24.0	45.8 U	21.2 B
R-OS	2	9.00	25.4 U	10.2 U	11.9 U	21.8	66.9 U	59.0 B
R-OS	3	13.00	18.2 U	7.7 U	8.5 U	14.6 U	48.0 U	19.5 U
R-OS	4	11.00	21.6 U	8.6 U	10.1 U	17.3 U	56.9 U	23.0 U
R-OS	5	14.00	16.6 U	6.7 U	7.8 U	13.3 U	43.8 U	17.8 U
R-PC	1	13.00	18.3 U	7.3 U	8.5 U	14.6 U	48.1 U	19.5 U
R-PC	2	13.00	35.5 U	30.0	16.5 U	28.4 U	93.5 U	181.5 B
R-PC	3	13.00	17.6 U	7.0 U	8.2 U	14.1 U	46.3 U	18.8 U
R-PC	4	11.00	21.0 U	8.4 U	9.8 U	17.3 U	55.2 U	22.4 U
R-PC	5	13.00	15.9 U	136.6	7.4 U	12.7 U	42.3 U	29.1 B
R-PF	1	10.00	23.8 U	9.5 U	11.1 U	19.0 U	62.6 U	89.2
R-PF	2	11.00	21.8 U	8.7 U	10.2 U	17.5 U	57.5 U	28.0 B
R-PF	3	11.00	LDC	LDC	LDC	LDC	LDC	LDC
R-PF Replicate 1	4	15.70 ^(a)	15.0 U	9.0	7.0 U	12.0 U	39.5 U	16.0 U
R-PF Replicate 2	4	15.70 ^(a)	14.4 U	5.8 U	6.7 U	11.5 U	38.0 U	15.4 U
R-PF	5	12.00	19.8 U	7.9 U	9.2 U	15.8 U	52.1 U	21.1 U
C-SB	1	12.30	24.4	16.3 U	56.9	16.3 U	16.3 U	56.9 B
C-SB	2	14.90	6.7 U	6.7 U	20.1	6.7 U	6.7 JB	20.1 B
C-SB	3	15.70	6.4 U	6.4 U	6.4 U	6.4 U	12.7 MB	6.4 U
C-SB	4	16.60	6.0 U	6.0 U	6.0 U	6.0 U	18.1 MB	6.0 U
C-SB	5	16.40	12.2 U	12.2 U	12.2 U	12.2 U	18.3 B	12.2 U
C-WB	1	15.20	6.6 U	6.6 U	6.6 U	6.6 U	13.2 MB	6.6 U
C-WB	2	16.00	6.2 U	6.2 U	6.2 U	6.2 U	6.2 MB	6.2 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM
C-WB	4	15.10	6.6 J	6.6 U	6.6 J	6.6 U	6.6 JB	33.1 B
C-WB	5	15.20	13.2	13.2 U	46.1	13.2 U	6.6 MB	26.3 B

TABLE P.5 (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasua</i> Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ dry weight)					Phenan- threne
			Acenaph- thene	Acenaph- thylene	Anthra- cene	Fluorene	Naph- thalene	
C-NE	1	12.00	19.6 U	7.8 U	9.2 U	15.7 U	51.6 U	22.8 B
C-NE	2	10.00	23.5 U	9.4 U	21.3	177.3	62.0 U	55.2 B
C-NE	3	15.00	16.0 U	6.4 U	12.0	12.8 U	42.1 U	64.3 B
C-NE	4	12.00	19.8 U	7.9 U	9.2 U	15.8 U	52.1 U	28.0 B
C-NE	5	12.00	20.0 U	8.0 U	9.3 U	16.0 U	52.7 U	80.1 B

- (a) Dry weight determination from metals analysis applied to this data.
 (b) Undetected above given concentration.
 (c) Analyte detected below method detection limit, but above instrument detection limit.
 (d) Analyte found in method blank. Results presented are not for the corrected amount in the blank.
 (e) Not measured.
 (f) Indicates presence of quantitation ion at correct retention time without presence of confirmation ion.
 (g) Sample lost during GPC cleanup; all surrogate recoveries <1%.
 (h) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.6. High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Dry Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)									
			Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoranthene	Indeno(1,2,3-cd)-pyrene	Pyrene
AC-1	1	15.50 ^(a)	12.9	12.9 U ^(b)	38.7	12.9 U	25.8	19.4	12.9 U	32.3 B ^(c)	12.9 U	51.6 B
AC-1	2	NM ^(d)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	14.20 ^(a)	21.1	7.0 J ^(e)	63.4	14.1 U	35.2	28.2	14.1 U	63.4	14.1 U	91.5
AC-1	4	14.90 ^(a)	20.1 U	20.1 U	13.4 J	20.1 U	20.1 U	20.1 U	20.1 U	40.3	20.1 U	33.6
AC-1	5	15.20 ^(a)	13.2	39.5	52.6	13.2 U	26.3	19.7	13.2 U	32.9	6.6 J	144.7
AC-3	1	14.90 ^(a)	6.7	6.7 U	6.7 J	6.7 U	6.7 U	6.7	6.7 U	20.1	6.7 U	6.7 J
AC-3	2	15.20 ^(a)	13.2	19.7 U	19.7 U	19.7 U	19.7 U ^(f)	13.2	19.7 U	39.5	19.7 U	13.2 J
AC-3	3	15.50 ^(a)	12.9	6.5 U	12.9	6.5 U	6.5 M ^(f)	19.4	6.5 U	25.8	6.5 U	6.5 J
AC-3	4	16.60 ^(a)	18.1	12.0	24.1	6.0 U	18.1	24.1	6.0 U	30.1 B	18.1	42.2 B
AC-3	5	15.10 ^(a)	39.7	33.1	39.7	13.2 U	26.5	53.0	13.2 U	225.2 B	26.5	218.5 B
I-C4	1	10.00	14.5	9.3 U	11.7 U ^(g)	8.0 U	- ^(g)	9.3 U	8.5 U	58.9	14.8 U	11.7 U
I-C4	2	13.00	8.1 U ^(h)	7.0 U	8.7 U ^(g)	5.6 U	- ^(g)	7.0 U	6.4 U	79.9	11.0 U	93.1
I-C4	3	13.00	LDC ^(h)	LDC	LDC ^(g)	LDC	LDC	LDC	LDC	LDC	LDC	LDC
I-C4	4	12.00	9.1 U	30.8 B	16.8 ^(g)	6.7 U	- ^(g)	7.8 U	7.1 U	12.9 U	12.3 U	57.8 B
I-C4 Replicate 1	5	12.00	25.9	7.3 U	25.8 ^(g)	5.8 U	- ^(g)	12.4	6.7 U	44.4 B	11.5 U	65.3
I-C4 Replicate 2	5	12.00	19.3	7.7 U	27.5 ^(g)	6.2 U	- ^(g)	9.2	7.5 U	40.4 B	12.2 U	54.9
I-C4 Replicate 3	5	12.00	72.2	51.7 B	41.4 ^(g)	6.3 U	- ^(g)	24.6	7.2 U	52.5 B	12.4 U	56.1
I-C5	1	11.00	29.4	27.6 B	10.7 U ^(g)	6.8 U	- ^(g)	30.6	7.8 U	99.9	13.5 U	166.4 B
I-C5	2	13.00	7.9 U	6.8 U	8.5 U ^(g)	5.4 U	- ^(g)	6.8 U	6.2 U	45.7	10.7 U	8.5 U
I-C5	3	10.00	34.1	67.7 B	11.3 U ^(g)	7.2 U	- ^(g)	29.7	8.3 U	57.6 B	14.3 U	102.1
I-C5	4	12.00	9.3 U	8.0 U	10.0 U ^(g)	6.4 U	- ^(g)	8.0 U	7.3 U	52.0	12.7 U	10.0 U
I-C5	5	12.00	9.2 U	7.8 U	9.8 U ^(g)	6.3 U	- ^(g)	7.8 U	7.2 U	65.7	12.4 U	9.8 U
I-C7	1	16.10 ^(a)	12.4 U	12.4 U	12.4 U	12.4 U	12.4 U	12.4 U	12.4 U	12.4	12.4 U	12.4 U
I-C7	2	14.50 ^(a)	34.5	13.8	13.8	6.9 U	13.8	82.8	6.9 U	200.0 B	6.9 J	158.6 B
I-C7	3	14.90 ^(a)	13.4	13.4	6.7 J	13.4 U	13.4	26.8	13.4 U	107.4 B	13.4	120.8 B
I-C7	4	14.00 ^(a)	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	14.3	7.1 U	7.1 U	7.1	7.1
I-C7	5	13.10 ^(a)	22.9 U	22.9 U	22.9 U	22.9 U	22.9 U	22.9 U	22.9 U	15.3 J	22.9 U	15.3 J
I-C8	1	9.00	12.3 U	10.6 U	13.2 U ^(g)	8.4 U	- ^(g)	10.6 U	9.7 U	26.3 B	16.7 U	13.2 U
I-C8	2	10.00	20.9 U	18.0 U	22.4 U ^(g)	14.4 U	- ^(g)	17.9 U	16.4 U	38.2 B	28.4 U	23.0
I-C8	3	11.00	10.0 U	8.2 U	10.2 U ^(g)	6.5 U	- ^(g)	8.2 U	7.5 U	95.3	12.9 U	10.2 U
I-C8	4	12.00	9.3 U	8.0 U	10.0 U ^(g)	6.4 U	- ^(g)	8.0 U	7.3 U	35.8	12.7 U	10.0 U
I-C8	5	12.00	8.6 U	7.4 U	9.3 U ^(g)	5.9 U	- ^(g)	7.4 U	6.8 U	12.3 U	11.7 U	391.5

TABLE P.6. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g}/\text{kg}$ dry weight)									
			Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
I-C9	1	15.30 ^(a)	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
I-C9	2	15.00 ^(a)	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U
I-C9	3	15.20 ^(a)	6.6 U	6.6 U	6.6	6.6 U	6.6 J	6.6 U	6.6 U	6.6	6.6 U	19.7
I-C9	4	15.30 ^(a)	13.1	6.5 U	13.1 M	6.5 U	6.5 M	6.5 U	6.5 U	6.5 U	6.5 M	13.1
I-C9	5	14.70 ^(a)	6.8 J	6.8	13.6	6.8 U	6.8	20.4	6.8 U	20.4	6.8 U	47.6
I-C10	1	13.70 ^(a)	14.6	7.3 U	36.5	7.3 U	29.2	21.9	7.3 U	73.0	7.3 U	51.1
I-C10	2	14.30 ^(a)	62.9	111.9	209.8	21.0 U	125.9	118.9	21.0 U	279.7	35.0	720.3
I-C10	3	14.60 ^(a)	LE ⁽ⁱ⁾	LE	LE	LE	LE	LE	LE	LE	LE	LE
I-C10	4	15.80 ^(a)	63.3	38.0	126.6	6.3 U	69.6	82.3	6.3 U	329.1 B	19.0	348.1 B
I-C10	5	13.70 ^(a)	43.8	94.9	116.8	7.3 U	65.7	73.0	7.3 U	255.5 B	36.5	445.3 B
I-C11	1	13.60 ^(a)	14.7 U	14.7	80.9	14.7 U	51.5	22.1	14.7 U	29.4	14.7 U	88.2
I-C11	2	16.80 ^(a)	6.0	23.8	65.5	6.0 U	35.7	17.9	6.0 U	23.8	6.0	131.0
I-C11	3	14.30 ^(a)	14.0 U	14.0 U	35.0	14.0 U	21.0	14.0 U	14.0 U	21.0	14.0 U	55.9
I-C11	4	16.10 ^(a)	18.6 U	18.6 U	18.6 U	18.6 U	18.6 U	18.6 U	18.6 U	12.4 M	18.6 U	18.6 M
I-C11	5	17.50 ^(a)	17.1	34.3	68.6	5.7 U	34.3	28.6	5.7 U	80.0 B	17.1	171.4 B
I-C12	1	15.90 ^(a)	12.6 U	12.6 U	12.6 U	12.6 U	12.6 U	12.6 J	12.6 U	94.3 B	12.6 U	81.8 B
I-C12	2	15.20 ^(a)	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 J	13.2 U	13.2	13.2 J	13.2 U
I-C12	3	13.90 ^(a)	14.4 U	14.4 U	14.4 U	14.4 U	14.4 U	14.4 U	14.4 U	14.4 U	14.4 U	14.4 U
I-C12	4	15.00 ^(a)	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U
I-C12	5	15.30 ^(a)	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U	13.1 U
I-C14	1	14.60 ^(a)	13.7 U	13.7 U	13.7 U	13.7 U	13.7 U	6.8 M	13.7 U	20.5 B	13.7 U	20.5 B
I-C14	2	15.20 ^(a)	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U
I-C14	3	16.50 ^(a)	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 M	6.1 U	6.1 U
I-C14	4	13.20 ^(a)	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	15.2	7.6 M	7.6 J
I-C14	5	16.00 ^(a)	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 J	6.2 U	6.2 B	6.2 U	6.2 U
I-C15	1	14.20 ^(a)	7.0 J	49.3	84.5	7.0 U	42.3	21.1	7.0 U	21.1	14.1	274.6
I-C15	2	14.60 ^(a)	13.7 U	20.5	68.5	13.7 U	47.9	20.5	13.7 U	20.5	13.7 J	219.2
I-C15	3	16.10 ^(a)	6.2 J	18.6	31.1	6.2 U	24.8	18.6	6.2 U	43.5 B	24.8	124.2 B
I-C15	4	15.50 ^(a)	6.5 U	32.3	25.8	12.9	38.7	6.5 J	12.9 U	51.6	38.7	303.2
I-C15	5	14.40 ^(a)	6.9 U	6.9 U	20.8	6.9 U	6.9 J	6.9 U	6.9 U	6.9 JB	6.9 U	34.7 B
I-C16	1	15.10 ^(a)	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 JB	6.6 U	6.6 JB
I-C16	2	16.30 ^(a)	12.3 U	12.3 U	12.3 U	12.3 U	12.3 U	12.3 U	12.3 U	18.4 B	12.3 U	6.1 JB
I-C16	3	14.70 ^(a)	20.4 U	20.4 U	20.4 U	20.4 U	20.4 U	20.4 U	20.4 U	20.4 U	20.4 U	20.4 U
I-C16	4	15.40 ^(a)	6.5 J	13.0 U	13.0 U	13.0 U	13.0 U	13.0 J	13.0 U	32.5 B	6.5 M	19.5 B
I-C16	5	14.40 ^(a)	6.9 U	6.9 U	27.8	6.9 U	27.8	6.9 U	6.9 U	13.9	6.9 U	41.7

TABLE P.6. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g}/\text{kg}$ dry weight)									
			Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoranthene	Indeno(1,2,3-cd)-pyrene	Pyrene
I-C17	1	13.50 ^(a)	14.8 U	14.8 U	14.8 M	14.8 U	14.8 U	14.8 M	14.8 U	7.4 M	14.8 U	7.4 M
I-C17	2	12.50 ^(a)	24.0	8.0 J	24.0	8.0 U	8.0	32.0	8.0 U	168.0 B	8.0 U	120.0 B
I-C17	3	14.00 ^(a)	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 J	7.1 U	7.1 J
I-C17	4	13.60 ^(a)	7.4 U	7.4 U	7.4 J	7.4 U	7.4 U	7.4 J	7.4 U	14.7	7.4 U	7.4 J
I-C17	5	16.00 ^(a)	12.5 U	12.5 U	12.5 U	12.5 U	12.5 U	12.5 U	12.5 U	12.5 U	12.5 U	12.5 U
I-C18	1	14.40 ^(a)	6.9 J	13.9 U	48.6	13.9 U	27.8	6.9 J	13.9 U	34.7	13.9 U	20.8
I-C18	2	15.20 ^(a)	6.6 J	92.1	138.2	19.7	65.8	13.2	13.2 U	26.3	19.7	59.2
I-C18	3	16.20 ^(a)	6.2 U	12.3	86.4	6.2 U	37.0	12.3	6.2 U	12.3 B	6.2 U	18.5 B
I-C18	4	15.80 ^(a)	6.3 J	12.7 U	57.0	12.7 U	38.0	19.0	12.7 U	38.0	12.7 U	12.7
I-C18	5	14.50 ^(a)	13.8 U	13.8 U	55.2	13.8 U	27.6	13.8 U	13.8 U	13.8	13.8 U	6.9 J
I-S1	1	14.00	60.7	30.0 B	76.4 ^(g)	5.3 U	-(g)	33.5	6.4 U	172.6 B	10.4 U	317.3
I-S1	2	13.00	693.1	45.4 B	125.8 ^(g)	6.0 U	-(g)	646.3	6.8 U	255.6 B	11.8 U	437.2
I-S1	3	11.00	189.7	137.6 B	172.3 ^(g)	5.8 U	-(g)	98.3 B	6.6 U	281.8 B	11.4 U	439.1 B
I-S1	4	13.00	162.8	123.8 B	180.9 ^(g)	5.6 U	-(g)	87.3	6.4 U	254.8 B	11.0 U	318.8
I-S1	5	11.00	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC
I-T1	1	12.00	62.3	87.1 B	207.2 ^(g)	33.4	-(g)	69.4	7.3 U	84.6 B	12.7 U	425.8
I-T1	2	12.00	55.1	107.8 B	9.8 ^(g)	6.3 U	-(g)	39.5	7.2 U	13.1 U	12.4 U	489.5 B
I-T1	3	9.00	195.9	265.1 B	504.1 ^(g)	8.5 U	-(g)	161.3	11.8	138.7 B	16.9 U	723.2
I-T1	4	13.00	360.5	6.8 U	49.8 ^(g)	5.5 U	-(g)	258.7	6.3 U	102.6	10.8 U	8.5 U
I-T1	5	11.00	60.6	101.5 B	239.8 ^(g)	36.3	-(g)	57.8	8.0 U	70.7 B	13.8 U	429.2
I-T3	1	15.00	63.5	425.3	746.8 ^(g)	80.9	-(g)	38.2	5.8 U	114.8	51.9	1592.0
I-T3	2	12.00	71.7	276.6 B	550.2 ^(g)	127.6	-(g)	82.8	16.9	104.1 B	25.2	1307.6
I-T3	3	13.00	52.3	215.8 B	110.9 ^(g)	65.0	-(g)	37.1	6.8 U	79.8	37.3	1017.8
I-T3	4	13.00	50.9	383.7 B	8.5 ^(g)	88.0	-(g)	73.7	6.3 U	11.4 U	10.8 U	2383.8
I-T3	5	14.00	107.9	321.3	156.9 ^(g)	145.4	-(g)	60.3	6.3 U	132.9	45.7	1354.4
I-T5	1	14.00	32.2	6.5 U	8.2 ^(g)	55.7	-(g)	40.7	6.0 U	68.4	17.2	618.4
I-T5	2	11.00	9.7 U	206.8	144.9 ^(g)	52.5	-(g)	8.3 U	7.6 U	59.4	13.6 U	409.8
I-T5	3	11.00	37.3	241.3 B	131.6 ^(g)	43.0	-(g)	48.7	8.0 U	106.2	34.0	793.9 B
I-T5	4	14.00	34.8	223.1	193.5 ^(g)	57.9	-(g)	44.4	6.4 U	50.7	34.9	473.3
I-T5	5	13.00	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC
R-AC	1	11.00	1240.6	638.4 B	232.4 ^(g)	215.6	-(g)	1298.6	7.9 U	5271.6	13.7 U	5161.7
R-AC	2	10.00	1355.0	944.6 B	1151.9 ^(g)	327.6	-(g)	1643.0	8.5 U	5070.3 B	155.0	4588.6
R-AC	3	13.00	811.2	471.3 B	680.0 ^(g)	128.4	-(g)	793.5	14.7	868.5 B	25.2	3052.5
R-AC	4	11.00	709.2	353.7 B	413.9 ^(g)	282.9	-(g)	660.2 B	64.3	3934.5 B	3407.0	3455.5 B
R-AC	5	13.00	1146.9	584.4 B	735.4 ^(g)	114.1	-(g)	1036.6 B	14.8	4615.9 B	10.4 U	3898.8 B

TABLE P.6. (Contd)

			<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Pyrene
R-AM	1	14.00	7.8 U	6.7 U	8.4 U ^(g)	5.4 U	-(g)	6.7 U	6.2 U	56.7	10.6 U	8.4 U
R-AM	2	12.00	8.8 U	7.5 U	9.4 U ^(g)	6.0 U	-(g)	7.5 U	6.9 U	48.9	11.9 U	9.4 U
R-AM	3	14.00	29.8	6.7 U	55.4 U ^(g)	5.4 U	-(g)	6.7 U	6.2 U	95.5 B	10.6 U	8.4 U
R-AM	4	10.00	11.2 U	9.6 U	27.0 U ^(g)	7.7 U	-(g)	9.6 U	8.8 U	16.0 U	15.2 U	88.2 B
R-AM	5	12.00	16.7	7.8 U	9.7 U ^(g)	6.7 U	-(g)	24.8	7.1 U	12.9 U	12.3 U	9.7 U
R-BF	1	14.90 ^(a)	20.1 U	20.1 U	20.1 U	20.1 U	20.1 U	20.1 U	20.1 U	33.6 B	20.1 U	20.1 B
R-BF	2	15.30 ^(a)	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	13.1	6.5 U	19.6	6.5 U	6.5
R-BF	3	13.60 ^(a)	14.7 J	7.4 U	14.7	7.4 U	7.4 J	29.4	7.4 U	95.6 B	7.4 U	51.5 B
R-BF	4	13.80 ^(a)	14.5 U	14.5 U	14.5 U	14.5 U	14.5 U	14.5	14.5 U	14.5	14.5 U	7.2 J
R-BF	5	16.90 ^(a)	11.8 U	11.8 U	11.8 U	11.8 U	11.8 U	11.8 U	11.8 U	23.7	11.8 U	11.8 U
R-OS	1	12.00	8.0 U	131.8 B	8.6 U ^(g)	5.5 U	-(g)	6.9	6.3 U	14.2 B	10.9 U	8.6 U
R-OS	2	9.00	11.9 U	10.2 U	12.7 U ^(g)	8.1 U	-(g)	10.2	9.3 U	80.9 B	16.7 U	30.7
R-OS	3	13.00	8.5 U	7.7 U	9.1 U ^(g)	5.8 U	-(g)	7.7 U	6.7 U	12.2 U	11.6 U	9.1 U
R-OS	4	11.00	10.1 U	8.6 U	10.8 U ^(g)	6.9 U	-(g)	8.6 U	7.9 U	17.2 B	13.7 U	10.8 U
R-OS	5	14.00	7.8 U	6.7 U	8.3 U ^(g)	5.7 U	-(g)	6.7 U	6.1 U	11.1 U	10.5 U	8.3 U
R-PC	1	13.00	8.5 U	7.3 U	9.1 U ^(g)	5.8 U	-(g)	7.3 U	6.7 U	12.2 U	11.6 U	9.1 U
R-PC	2	13.00	64.1	14.2 U	20.1 U ^(g)	11.4 U	-(g)	39.9	13.0 U	52.3 B	22.5 U	28.8
R-PC	3	13.00	8.2 U	7.0 U	8.8 U ^(g)	5.6 U	-(g)	7.0	6.4 U	11.7 U	11.5 U	8.8 U
R-PC	4	11.00	9.8 U	46.9 B	10.5 U ^(g)	6.7 U	-(g)	8.4 U	8.2 U	14.0 U	13.3 U	10.5 U
R-PC	5	13.00	68.7	62.1 B	8.0 U ^(g)	5.1 U	-(g)	6.4 U	5.8 U	10.6 U	10.1 U	8.0 U
R-PF	1	10.00	11.1 U	9.5 U	11.9 U ^(g)	7.6 U	-(g)	9.5 U	8.7 U	72.9	15.0 U	11.9 U
R-PF	2	11.00	10.2 U	55.6 B	10.9 U ^(g)	7.0 U	-(g)	8.7 U	8.0 U	23.6	13.8 U	10.9 U
R-PF	3	11.00	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC	LDC
R-PF Replicate 1	4	15.70 ^(a)	15.5	6.0 U	7.5 U ^(g)	4.8 U	-(g)	6.0 U	5.5 U	11.3 B	9.5 U	10.3 B
R-PF Replicate 2	4	15.70 ^(a)	17.2	23.4 B	7.2 U ^(g)	4.6 U	-(g)	5.8 U	5.3 U	20.6 B	9.1 U	16.4 B
R-PF	5	12.00	9.2 U	7.9 U	9.9 U ^(g)	6.3 U	-(g)	7.9 U	7.3 U	13.2 U	12.5 U	9.9 U
C-SB	1	12.30	40.7	8.1 J	16.3	16.3 U	16.3	48.8	16.3 U	292.7 B	16.3 U	203.3 B
C-SB	2	14.90	20.1	13.4	13.4	6.7 U	6.7	40.3	6.7 U	80.5 B	6.7 U	67.1 B
C-SB	3	15.70	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	12.7	6.4 U	6.4 U
C-SB	4	16.60	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	12.0
C-SB	5	16.40	12.2 U	12.2 U	12.2 U	12.2 U	12.2 U	6.1 J	12.2 U	12.2 U	12.2 U	6.1 J

TABLE P.6. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PAHs ($\mu\text{g/kg}$ dry weight)									
			Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
C-WB	1	15.20	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U
C-WB	2	16.00	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	15.10	6.6 J	33.1	6.6 J	6.6 U	6.6 J	13.2	6.6 U	19.9 B	46.4	53.0 B
C-WB	5	15.20	19.7	13.2 U	6.6 J	13.2 U	13.2 U	26.3	13.2 U	138.2 B	13.2 U	125.0 B
C-NE	1	12.00	9.2 U	7.8 U	9.8 U ^(g)	6.3 U	-(g)	7.5 U	7.5 U	13.1 U	12.4 U	9.8 U
C-NE	2	10.00	11.0 U	9.4 U	27.2 ^(g)	7.5 U	-(g)	9.0 U	9.0 U	27.6	14.9 U	11.8 U
C-NE	3	15.00	37.1	24.5 B	67.9 ^(g)	5.1 U	-(g)	49.5	5.9 U	92.7 B	10.1 U	8.0 U
C-NE	4	12.00	9.2 U	7.9 U	9.9 U ^(g)	6.3 U	-(g)	7.9 U	7.3 U	20.5 B	12.5 U	9.9 U
C-NE	5	12.00	9.3 U	8.0 U	21.2 ^(g)	6.4 U	-(g)	8.0 U	7.3 U	28.2 B	12.7 U	10.0 U

- (a) Dry weight determination from metals analysis applied to this data.
 (b) Undetected above given concentration.
 (c) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.
 (d) Not measured.
 (e) Analyte detected below method detection limit, but above instrument detection limit.
 (f) Indicates presence of quantitation ion at correct retention time without presence of confirmation ion.
 (g) All benzofluoranthene isomers (b, j, & k) were analyzed together.
 (h) Sample lost during GPC cleanup; all surrogate recoveries <1%.
 (i) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.7. Quality Control Data from Analytical Resources Inc. for Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)					
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
<u>Method Blanks</u>							
Blank 1		2.0 U	2.0 U ^(a)	2.0 U	2.0 U	1.0 M ^(b)	1.0 M
Blank 2		2.0 U	2.0 U	1.0 M	2.0 U	1.0 M	2.0 M
Blank 814-A		2.0 U	2.0 U	2.0 U	2.0 U	2.0 M	2.0 U
Blank 814-B		2.0 U	2.0 U	2.0 U	2.0 U	1.0 M	2.0 U
Blank 816		2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U
Blank 816-A		2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U
<u>Matrix Spikes</u>							
I-C12	1	2.0 U	2.0 U	6.0	2.0 U	1.0 MB ^(c)	4.0 B
I-C12 MS	1	266.0	259.0	275.0	320.0	258.0	272.0
Concentration Recovered		266.0	259.0	269.2	320.0	256.8	268.0
Amount Spiked		546	546	546	546	546	546
Percent Recovery		48.7%	47.4%	49.3%	58.6%	47.0%	49.1%
I-C12	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C12 MS	4	139.0	133.0	137.0	137.0	114.0	142.0
Concentration Recovered		139.0	133.0	137.0	137.0	114.0	142.0
Amount Spiked		298	298	298	298	298	298
Percent Recovery		46.6%	44.6%	46.0%	46.0%	38.3%	47.7%
I-C14	1	2.0 U	2.0 U	2.0 U	2.0 U	1.0 J ^(d) B	3.0 MB
I-C14 MS	1	230.0	219.0	228.0	264.0	202.0	236.0
Concentration Recovered		230.0	219.0	228.0	264.0	201.1	233.1
Amount Spiked		431	431	431	431	431	431
Percent Recovery		53.4%	50.8%	52.9%	61.3%	46.7%	54.1%
R-BF	1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	4.0 B
R-BF MS	1	162.0	155.0	165.0	201.0	164.0	168.0
Concentration Recovered		162.0	155.0	165.0	201.0	164.0	164.4
Amount Spiked		321	321	321	321	321	321
Percent Recovery		50.5%	48.3%	51.4%	62.6%	51.1%	51.2%
Background Clam ^(e)		2.0 U	2.0 U	2.0 U	2.0 U	4.0 B	2.0
Background Clam MS 1		188	168	189	205	150	189
Concentration Recovered		188	168	189	205	146	187
Amount Spiked		318	318	318	318	318	318
Percent Recovery		59%	53%	59%	64%	46%	59%
Background Clam		2.0 U	2.0 U	2.0 U	2.0 U	4.0 B	2.0
Background Clam MS 2		188	171	176	205	164	187
Concentration Recovered		188	171	176	205	160	185
Amount Spiked		380	380	380	380	380	380
Percent Recovery		49%	45%	46%	54%	42%	49%
Background Clam		2.0 U	2.0 U	2.0 U	2.0 U	4.0 B	2.0
Background Clam MS 3		161	148	157	173	121	162
Concentration Recovered		161	148	157	173	117	160
Amount Spiked		279	279	279	279	279	279
Percent Recovery		58%	53%	56%	62%	42%	57%

TABLE P.7. (Contd)

		<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)					
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
Matrix Spikes (Contd)							
Background Clam		2.0 U	2.0 U	2.0 U	2.0 U	4.0 B	2.0
Background Clam MS 4		167	155	154	180	148	159
Concentration Recovered		167	155	154	180	144	157
Amount Spiked		288	288	288	288	288	288
Percent Recovery		58%	54%	53%	63%	50%	55%
Analytical Replicates							
AC-1 Replicate 1	4	3.0 U	3.0 U	3.0	3.0 U	2.0 JB	3.0
AC-1 Replicate 2	4	2.0 U	2.0 U	2.0 J	2.0 U	2.0 JB	1.0 J
RPD		NA ⁽⁺⁾	NA	40%	NA	0%	100%
I-STAT		NA	NA	0.20	NA	0.00	0.50
AC-3 Replicate 1	2	3.0 U	3.0 U	3.0 U	3.0 U	4.0 B	3.0 U
AC-3 Replicate 2	2	3.0 U	3.0 U	4.0	3.0 U	4.0 B	2.0 J
RPD		NA	NA	NA	NA	0%	NA
I-STAT		NA	NA	NA	NA	0.00	NA
I-C7 Replicate 1	5	3.0 U	3.0 U	3.0 U	3.0 U	6.0 B	2.0 J
I-C7 Replicate 2	5	3.0 U	3.0 U	3.0 U	3.0 U	6.0 B	2.0 J
RPD		NA	NA	NA	NA	0%	0%
I-STAT		NA	NA	NA	NA	0.00	0.00
I-C10 Replicate 1	2	3.0 U	3.0 U	3.0 U	3.0 U	6.0 B	5.0
I-C10 Replicate 2	2	2.0 U	2.0 U	2.0 U	2.0 U	5.0 B	4.0
RPD		NA	NA	NA	NA	18%	22%
I-STAT		NA	NA	NA	NA	0.09	0.11
I-C11 Replicate 1	4	3.0 U	3.0 U	3.0 U	3.0 U	4.0 MB	3.0 U
I-C11 Replicate 2	4	3.0 U	3.0 U	3.0 U	3.0 U	4.0 B	3.0 U
RPD		NA	NA	NA	NA	0%	NA
I-STAT		NA	NA	NA	NA	0.00	NA
I-C12 Replicate 1	3	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U
I-C12 Replicate 2	3	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 U
RPD		NA	NA	NA	NA	0%	NA
I-STAT		NA	NA	NA	NA	0.00	NA
I-C16 Replicate 1	3	3.0 U	3.0 U	3.0 U	3.0 U	4.0 MB	3.0 U
I-C16 Replicate 2	3	3.0 U	3.0 U	3.0 U	3.0 U	5.0 MB	3.0 U
RPD		NA	NA	NA	NA	22%	NA
I-STAT		NA	NA	NA	NA	0.11	NA

TABLE P.7. (Contd)

		<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)					
<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Acenaph-thene</u>	<u>Acenaph-thylene</u>	<u>Anthra-cene</u>	<u>Fluorene</u>	<u>Naph-thalene</u>	<u>Phenan-threne</u>
<u>Analytical Replicates</u> (Contd)							
I-C18 Replicate 1	1	2.0 U	2.0 U	6.0	2.0 U	3.0 B	2.0
I-C18 Replicate 2	1	2.0 U	2.0 U	2.0 U	2.0 U	3.0 B	2.0 J
RPD		NA	NA	NA	NA	0%	0%
I-STAT		NA	NA	NA	NA	0.00	0.00

- (a) Undetected above given concentration.
 (b) Indicates presence of quantitation ion at correct retention time without presence of confirmation ion.
 (c) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.
 (d) Analyte detected below method detection limit, but above instrument detection limit.
 (e) Untreated clam tissue for spiking MS 1 through MS 4.
 (f) Not applicable.

TABLE P.8. Quality Control Data from Twin City Testing for Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)					
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
<u>Method Blanks</u>							
Blank		2.4 U ^(a)	1.0 U	1.1 U	1.9 U	6.4 U	2.6 U
Blank		2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.5 U
Blank		2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	3.4
Blank		2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	6.7
Blank		2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.8
Blank		2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	2.4 U
Blank		2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	2.6
Blank		2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	3.0
Blank		2.4 U	1.0 U	1.1 U	1.9 U	6.3 U	3.5
Blank		4.6 U	1.9 U	2.2 U	3.7 U	12.2 U	6.5
<u>Matrix Spikes</u>							
Extra Clam ^(b)		2.4 U	1.0 U	1.1 U	1.9 U	2.6	8.9
Extra Clam MS 1		53.6 ^(c)	56.1	74.7	69.4	41.3	79.5
Concentration Recovered		NS	NS	74.7	69.4	38.7	NS
Amount Spiked		NS	NS	97	97	97	NS
Percent Recovery		NS	NS	77%	72%	40%	NS
Extra Clam MS 2		78.0	91.0	84.8	95.1	67.2	125.7
Concentration Recovered		NS	NS	84.8	95.1	64.6	NS
Amount Spiked		NS	NS	100	100	100	100
Percent Recovery		NS	NS	85%	95%	65%	NS
Extra Clam MSD 2		83.5	88.5	111.7	113.5	75.8	143.2
Concentration Recovered		NS	NS	111.7	113.5	73.2	134.3
Amount Spiked		NS	NS	99.2	99.2	99.2	NS
Percent Recovery		NS	NS	113%	114%	74%	NS
RPD		NS	NS	28%	18%	13%	NS
I-STAT		NS	NS	0.14	0.09	0.07	NS
Extra Clam MS 3		63.0	74.6	81.1	77.2	53.5	91.8 ^(d)
Concentration Recovered		NS	NS	81.1	77.2	50.9	82.9
Amount Spiked		NS	NS	100	100	100	NS
Percent Recovery		NS	NS	81%	77%	51%	NS
Extra Clam MSD 3		70.0	77.4	79.9	82.1	67.8	87.3 ^(d)
Concentration Recovered		NS	NS	79.9	82.1	65.2	NS
Amount Spiked		NS	NS	99.2	99.2	99.2	NS
Percent Recovery		NS	NS	81%	83%	66%	NS
RPD		NS	NS	1%	7%	25%	NS
I-STAT		NS	NS	0.00	0.03	0.13	NS
Extra Clam MS 4		76.3	84.7	99.5	91.3	60.4	89.2 ^(d)
Concentration Recovered		NS	NS	99.5	91.3	57.8	NS
Amount Spiked		NS	NS	100	100	100	NS
Percent Recovery		NS	NS	99%	91%	58%	NS

TABLE P.8. (Contd)

		<i>M. nasuta</i> Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ wet weight)					
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	Phenan-threne
Extra Clam MSD	4	77.1	79.5	110.6	88.6	71.8	92.3 B
Concentration Recovered		NS	NS	110.6	88.6	69.2	83.4
Amount Spiked		NS	NS	99.0	99.0	99.0	NS
Percent Recovery		NS	NS	112%	89%	70%	NS
RPD		NS	NS	12%	2%	19%	NS
I-STAT		NS	NS	0.06	0.01	0.09	NS
<u>Analytical Replicates and Triplicates</u>							
R-PF Replicate 1	4	2.3 U	0.9 U	1.1 U	1.8 U	6.0 U	2.4 U
R-PF Replicate 2	4	2.4 U	1.4	1.1 U	1.9 U	6.2 U	2.5 U
RPD		NA ^(e)	NA	NA	NA	NA	NA
I-STAT		NA	NA	NA	NA	NA	NA
I-C4 Replicate 1	5	2.2 U	0.9 U	1.0 U	1.8 U	5.7 U	2.9 B
I-C4 Replicate 2	5	2.3 U	0.9 U	1.1 U	1.9 U	6.1 U	3.1 B
I-C4 Replicate 3	5	2.4 U	1.5	1.1 U	1.9 U	6.2 U	3.4 B
RSD		NA	NA	NA	NA	NA	7%

(a) Undetected above given concentration.

(b) Untreated Clam tissue for spiking MS and MSD 1 through 4.

(c) Not spiked.

(d) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

(e) Not applicable.

TABLE P.9. Quality Control Data from Analytical Resources Inc. for High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
<u>Method Blanks</u>											
Blank 1		2.0 U ^(a)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 M ^(b)	2.0 U	3.0 M
Blank 2		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 M	2.0 U	1.0 M
Blank 814-A		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank 814-B		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank 816		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank 816-A		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<u>Matrix Spikes</u>											
I-C12	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 J ^(c)	2.0 U	15.0 B ^(d)	2.0 U	13.0 B
I-C12 MS	1	293.0	60.0	214.0	NS ^(e)	259.0	269.0	284.0	262.0	94.0	155.0
Concentration Recovered		293.0	60.0	214.0	NS	259.0	266.9	284.0	247.0	94.0	142.2
Amount Spiked		546	546	546	NS	546	546	546	546	546	546
Percent Recovery		53.7%	11.0%	39.2%	NA ^(f)	47.4%	48.9%	52.0%	45.2%	17.2%	26.0%
I-C12	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C12 MS	4	142.0	63.0	121.0	NS	113.0	135.0	126.0	131.0	86.0	114.0
Concentration Recovered		142.0	63.0	121.0	NS	113.0	135.0	126.0	131.0	86.0	114.0
Amount Spiked		298	298	298	NS	298	298	298	298	298	298
Percent Recovery		47.7%	21.1%	40.6%	NA	37.9%	45.3%	42.3%	44.0%	28.9%	38.3%
I-C14	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 M	2.0 U	3.0 B	2.0 U	3.0 B
I-C14 MS	1	254.0	80.0	204.0	NS	198.0	240.0	266.0	225.0	126.0	162.0
Concentration Recovered		254.0	80.0	204.0	NS	198.0	239.2	266.0	225.0	126.0	159.1
Amount Spiked		431	431	431	NS	431	431	431	431	431	431
Percent Recovery		58.9%	18.6%	47.3%	NA	45.9%	55.5%	61.7%	52.2%	29.2%	36.9%
R-BF	1	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	5.0 B	3.0 U	3.0 B
R-BF MS	1	172.0	23.0	126.0	NS	150.0	156.0	157.0	174.0	38.0	65.0
Concentration Recovered		172.0	23.0	126.0	NS	150.0	156.0	157.0	168.7	38.0	61.9
Amount Spiked		321	321	321	NS	321	321	321	321	321	321
Percent Recovery		53.6%	7.2%	39.3%	NA	46.7%	48.6%	48.9%	52.6%	11.8%	19.3%

TABLE P.9. (Contd)

		M. nasuta High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
Matrix Spikes (Contd)											
Background Clam ^(g)		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U	5.0	2.0 U	3.0
Background Clam MS 1		176	78	182	5.2	172	179	190	182	106	142
Concentration Recovered		176	78	182	NS	172	177	190	177	106	139
Amount Spiked		318	318	318	NS	318	318	318	318	318	318
Percent Recovery		55%	25%	57%	NA	54%	56%	60%	56%	33%	44%
Background Clam		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U	5.0	2.0 U	3.0
Background Clam MS 2		171	86	174	4.3	164	174	168	174	107	152
Concentration Recovered		171	86	174	NS	164	172	168	169	107	149
Amount Spiked		380	380	380	NS	380	380	380	380	380	380
Percent Recovery		45%	23%	46%	NA	43%	45%	44%	44%	28%	39%
Background Clam		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U	5.0	2.0 U	3.0
Background Clam MS 3		149	78	152	6.2	156	151	152	154	98	135
Concentration Recovered		149	78	152	NS	156	149	152	149	98	132
Amount Spiked		279	279	279	NS	279	279	279	279	279	279
Percent Recovery		53%	28%	54%	NA	56%	53%	54%	53%	35%	47%
Background Clam		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	2.0 U	5.0	2.0 U	3.0
Background Clam MS 4		149	81	153	7.5	148	148	146	147	97	135
Concentration Recovered		149	81	153	NS	148	146	146	142	97	132
Amount Spiked		288	288	288	NS	288	288	288	288	288	288
Percent Recovery		52%	28%	53%	NA	51%	51%	51%	49%	34%	46%
Analytical Replicates											
AC-1 Replicate 1	4	3.0 U	3.0 U	2.0 J	3.0 U	3.0 U	3.0 U	3.0 U	6.0	3.0 U	5.0
AC-1 Replicate 2	4	2.0 M	2.0 U	3.0 J	2.0 U	2.0 U	2.0 M	2.0 U	10.0	2.0 U	5.0
RPD		NA	NA	40%	NA	NA	NA	NA	50%	NA	0%
I-STAT		NA	NA	0.20	NA	NA	NA	NA	0.25	NA	0.00
AC-3 Replicate 1	2	2.0	3.0 U	3.0 U	3.0 U	3.0 U	2.0	3.0 U	6.0	3.0 U	2.0 J
AC-3 Replicate 2	2	2.0 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 J	3.0 U	6.0	3.0 U	2.0 J
RPD		0%	NA	NA	NA	NA	40%	NA	0%	NA	0%
I-STAT		0.00	NA	NA	NA	NA	0.20	NA	0.00	NA	0.00

TABLE P.9. (Contd)

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo-(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno-(1,2,3-cd)pyrene	Pyrene
Analytical Replicates (Contd)											
I-C7 Replicate 1	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	2.0 J	3.0 U	2.0 J
I-C7 Replicate 2	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 J	3.0 U	2.0 J
RPD		NA	NA	NA	NA	NA	NA	NA	40%	NA	0%
I-STAT		NA	NA	NA	NA	NA	NA	NA	0.20	NA	0.00
I-C10 Replicate 1	2	9.0	16.0	30.0	3.0 U	18.0	17.0	3.0 U	40.0	5.0	103.0
I-C10 Replicate 2	2	7.0	2.0	17.0	2.0 U	11.0	9.0	2.0 U	30.0	1.0 J	22.0
RPD		25%	156%	55%	NA	48%	62%	NA	29%	133%	130%
I-STAT		0.13	0.78	0.28	NA	0.24	0.31	NA	0.14	0.67	0.65
I-C11 Replicate 1	4	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	2.0 M	3.0 U	3.0 M
I-C11 Replicate 2	4	3.0 U	3.0 U	8.0	3.0 U	8.0	3.0 U	3.0 U	5.0	3.0 U	16.0
RPD		NA	NA	NA	NA	NA	NA	NA	86%	NA	137%
I-STAT		NA	NA	NA	NA	NA	NA	NA	0.43	NA	0.68
I-C12 Replicate 1	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C12 Replicate 2	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-STAT		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C16 Replicate 1	3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
I-C16 Replicate 2	3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-STAT		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C18 Replicate 1	1	1.0 J	2.0 U	7.0	2.0 U	4.0	1.0 J	2.0 U	5.0	2.0 U	3.0
I-C18 Replicate 2	1	1.0 J	2.0 U	8.0	2.0 U	5.0	2.0 J	2.0 U	4.0	2.0 U	3.0
RPD		0%	NA	13%	NA	22%	67%	NA	22%	NA	0%
I-STAT		0.00	NA	0.07	NA	0.11	0.33	NA	0.11	NA	0.00

(a) Undetected above given concentration.

(b) Indicates presence of quantitation ion at correct retention time without presence of confirmation ion.

(c) Analyte detected below method detection limit, but above instrument detection limit.

(d) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

(e) Not Spiked.

(f) Not applicable.

(g) Untreated clam tissue for spiking MS 1 through MS 4.

TABLE P.10. Quality Control Data from Twin City Testing for High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> High Molecular PAHs ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-Pyrene	Benzo(b,k)-fluoranthene ^(a)	Benzo-(g,h,i)-Perylene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Indeno (1,2,3-cd) Pyrene	Pyrene
<u>Method Blanks</u>										
Blank		1.1 U ^(b)	4.8	1.2 U	0.8 U	1.0 U	0.9 U	1.9	1.5 U	1.2 U
Blank		1.1 U	1.9	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Blank		1.1 U	4.9	1.2 U	0.8 U	1.0 U	0.9 U	1.9	1.5 U	1.2 U
Blank		1.1 U	3.3	1.2 U	0.7 U	0.9 U	0.9 U	2.0	1.5 U	1.2 U
Blank		1.1 U	2.5	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Blank		1.1 U	0.9 U	1.1 U	0.7 U	0.9 U	0.8 U	1.5 U	1.4 U	1.1 U
Blank		1.1 U	4.9	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.6
Blank		1.1 U	4.4	1.2 U	0.8 U	1.1	0.9 U	2.4	1.5 U	1.8
Blank		1.1 U	5.9	1.2 U	0.8 U	1.0 U	0.9 U	2.1	1.5 U	1.2 U
Blank		2.2 U	1.9 U	2.3 U	1.5 U	1.9 U	1.7 U	3.2	2.9 U	2.3 U
<u>Matrix Spikes</u>										
Background Clam ^(c)		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 1		82.2	82.2	142.5	88.3	74.1	126.5	86.4	104.8	76.1
Concentration Recovered		82.2	82.2	NS ^(d)	88.3	NS	NS	86.4	NS	NS
Amount Spiked		97	97	NS	97	NS	NS	97	NS	NS
Percent Recovery		85%	85%	NA ^(e)	91%	NA	NA	89%	NA	NA
Background Clam		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 2		104.3	96.3	194.0	125.5	78.9	261.0	127.7	285.6	104.3
Concentration Recovered		104.3	96.3	NS	125.5	NS	NS	127.7	NS	NS
Amount Spiked		100	100	NS	100	NS	NS	100	NS	NS
Percent Recovery		104%	96%	NA	125%	NA	NA	128%	NA	NA
Background Clam		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 2		113.6	99.7	206.9	103.3	82.2	98.6	110.5	117.3	92.2
Concentration Recovered		113.6	99.7	NS	103.3	NS	NS	110.5	NS	NS
Amount Spiked		99.2	99.2	NS	99.2	NS	NS	99.2	NS	NS
Percent Recovery		115%	101%	NA	104%	NA	NA	111%	NA	NA
RPD		9%	4%	NA	19%	NA	NA	14%	NA	NA
I-STAT		0.05	0.02	NA	0.09	NA	NA	0.07	NA	NA

TABLE P.10. (Contd)

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Benzo(a)-anthracene	Benzo(a)-Pyrene	Benzo(B,K)-fluoranthene ^(a)	Benzo-(g,h,i)-Perylene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno (1,2,3-cd) Pyrene	Pyrene
<u>Matrix Spikes (Contd)</u>										
Background Clam		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 3		97.0	92.9 B ^(f)	164.2	78.1	87.4	115.4	89.2 B	73.5	80.0
Concentration Recovered		97.0	92.9	NS	78.1	NS	NS	89.2	NS	NS
Amount Spiked		100	100	NS	100	NS	NS	100	NS	NS
Percent Recovery		97%	93%	NA	78%	NA	NA	89%	NA	NA
Background Clam		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 3		97.2	95.3 B	156.6	87.2	83.7	131.3	95.9 B	90.7	86.4
Concentration Recovered		97.2	95.3	NS	87.2	NS	NS	95.9	NS	NS
Amount Spiked		99.2	99.2	NS	99.2	NS	NS	99.2	NS	NS
Percent Recovery		98%	96%	NA	88%	NA	NA	97%	NA	NA
RPD		1%	3%	NA	12%	NA	NA	8%	NA	NA
I-STAT		0.00	0.02	NA	0.06	NA	NA	0.04	NA	NA
Background Clam		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 4		91.1	101.4 B	175.6	80.2	98.7	147.8	94.8 B	45.6	85.0
Concentration Recovered		91.1	101.4	NS	80.2	NS	NS	94.8	NS	NS
Amount Spiked		100	100	NS	100	NS	NS	100	NS	NS
Percent Recovery		91%	101%	NA	80%	NA	NA	95%	NA	NA
Background Clam		1.1 U	1.0 U	1.2 U	0.8 U	1.0 U	0.9 U	1.6 U	1.5 U	1.2 U
Background Clam MS 4		71.3	88.2 B	159.0	104.5	77.8	122.3	81.9 B	91.2	74.0
Concentration Recovered		71.3	88.2	NS	104.5	NS	NS	81.9	NS	NS
Amount Spiked		99.0	99.0	NS	99.0	NS	NS	99.0	NS	NS
Percent Recovery		72%	89%	NA	106%	NA	NA	83%	NA	NA
RPD		23%	13%	NA	27%	NA	NA	14%	NA	NA
I-STAT		0.12	0.06	NA	0.14	NA	NA	0.07	NA	NA
<u>Analytical Replicates</u>										
R-PF Replicate 1 4		2.7	3.7 B	1.1 U	0.7 U	0.9 U	0.8 U	3.2 B	1.4 U	2.6 B
R-PF Replicate 2 4		2.4	0.9 U	1.2 U	0.8 U	0.9 U	0.9 U	1.8 B	1.5 U	1.6 B
RPD		10%	NA	NA	NA	NA	NA	56%	NA	46%
I-STAT		0.05	NA	NA	NA	NA	NA	0.29	NA	0.23

TABLE P.10. (Contd)

		<i>M. nasuta</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ wet weight)							
Sediment		Benzo(a)-	Benzo(a)-	Benzo(b,k)-	Benzo-	Dibenzo-	Fluoran-	Indeno	
Treatment	Replicate	anthra-	Pyrene	fluorap-	(g,h,i)-	(a,h)	thene	(1,2,3-cd)	
		cene		thene	Perylene	anthracene		Pyrene	Pyrene
<u>Analytical Triplicates</u>									
I-C4 Replicate 1	5	3.1	0.9 U	3.1	0.7 U	1.5	0.8 U	5.3 B	7.8
I-C4 Replicate 2	5	2.3	0.9 U	3.2	0.7 U	1.1	0.9 U	4.9 B	6.6
I-C4 Replicate 3	5	8.7	6.2 B	5.0	0.8 U	3.0	0.9 U	6.3 B	6.7
RSD		74%	NA	28%	NA	53%	NA	13%	10%

- (a) All benzoflouranthene isomers (b,j and k) were analyzed together.
 (b) Undetected above given concentration.
 (c) Untreated clam tissue for spiking MS 1 through 4.
 (d) Not spiked.
 (e) Not applicable.
 (f) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

TABLE P.11. Surrogate Percent Recoveries for Polynuclear Aromatic Hydrocarbons (PAHs) in Tissue of *M. nasuta*, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recoveries</u>			
		<u>D-10 Fluorene</u>	<u>D-10 Anthracene</u>	<u>D-10 Pyrene</u>	<u>Terphenyl</u>
AC-1	1	NM ^(a)	NM	NM	43
AC-1	2	NM	NM	NM	NM
AC-1	3	NM	NM	NM	70
AC-1	4	NM	NM	NM	41
AC-1	5	NM	NM	NM	68
AC-3	1	NM	NM	NM	60
AC-3	2	NM	NM	NM	77
AC-3	3	NM	NM	NM	78
AC-3	4	NM	NM	NM	43
AC-3	5	NM	NM	NM	43
I-C4	1	82	84	70	NM
I-C4	2	109	103	85	NM
I-C4	3	LDC ^(b)	LDC	LDC	LDC
I-C4	4	67	60	62	NM
I-C4 Replicate 1	5	59	58	52	NM
I-C4 Replicate 2	5	59	65	61	NM
I-C4 Replicate 3	5	63	51	46	NM
I-C5	1	95	98	133	NM
I-C5	2	105	95	88	NM
I-C5	3	52	40	34	NM
I-C5	4	71	72	67	NM
I-C5	5	94	94	80	NM
I-C7	1	NM	NM	NM	52
I-C7	2	NM	NM	NM	40
I-C7	3	NM	NM	NM	50
I-C7	4	NM	NM	NM	89
I-C7	5	NM	NM	NM	95
I-C8	1	90	100	82	NM
I-C8	2	76	78	68	NM
I-C8	3	101	93	77	NM
I-C8	4	84	92	85	NM
I-C8	5	81	93	91	NM
I-C9	1	NM	NM	NM	69
I-C9	2	NM	NM	NM	76
I-C9	3	NM	NM	NM	71
I-C9	4	NM	NM	NM	50
I-C9	5	NM	NM	NM	71

TABLE P.11. (Contd)

Sediment Treatment	Replicate	Surrogate Percent Recoveries			
		D-10 Flourene	D-10 Anthracene	D-10 Pyrene	Terphenyl
I-C10	1	NM	NM	NM	39
I-C10	2	NM	NM	NM	93
I-C10	3	LE ^(c)	LE	LE	LE
I-C10	4	NM	NM	NM	45
I-C10	5	NM	NM	NM	56
I-C11	1	NM	NM	NM	46
I-C11	2	NM	NM	NM	82
I-C11	3	NM	NM	NM	38
I-C11	4	NM	NM	NM	61
I-C11	5	NM	NM	NM	66
I-C12	1	NM	NM	NM	62
I-C12	2	NM	NM	NM	81
I-C12	3	NM	NM	NM	63
I-C12	4	NM	NM	NM	47
I-C12	5	NM	NM	NM	39
I-C14	1	NM	NM	NM	52
I-C14	2	NM	NM	NM	55
I-C14	3	NM	NM	NM	41
I-C14	4	NM	NM	NM	67
I-C14	5	NM	NM	NM	50
I-C15	1	NM	NM	NM	68
I-C15	2	NM	NM	NM	94
I-C15	3	NM	NM	NM	23
I-C15	4	NM	NM	NM	77
I-C15	5	NM	NM	NM	35
I-C16	1	NM	NM	NM	35
I-C16	2	NM	NM	NM	56
I-C16	3	NM	NM	NM	62
I-C16	4	NM	NM	NM	74
I-C16	5	NM	NM	NM	55
I-C17	1	NM	NM	NM	60
I-C17	2	NM	NM	NM	40
I-C17	3	NM	NM	NM	27
I-C17	4	NM	NM	NM	73
I-C17	5	NM	NM	NM	26

TABLE P.11. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recoveries</u>			
		<u>D-10 Flourene</u>	<u>D-10 Anthracene</u>	<u>D-10 Pyrene</u>	<u>Terphenyl</u>
I-C18	1	NM	NM	NM	55
I-C18	2	NM	NM	NM	82
I-C18	3	NM	NM	NM	34
I-C18	4	NM	NM	NM	61
I-C18	5	NM	NM	NM	37
I-S1	1	88	92	84	NM
I-S1	2	78	86	83	NM
I-S1	3	85	61	53	NM
I-S1	4	57	53	44	NM
I-S1	5	LDC	LDC	LDC	LDC
I-T1	1	74	90	79	NM
I-T1	2	89	87	82	NM
I-T1	3	77	61	66	NM
I-T1	4	112	107	93	NM
I-T1	5	67	82	69	NM
I-T3	1	101	95	81	NM
I-T3	2	77	87	75	NM
I-T3	3	69	68	62	NM
I-T3	4	96	88	85	NM
I-T3	5	96	97	88	NM
I-T5	1	105	102	101	NM
I-T5	2	85	83	76	NM
I-T5	3	91	98	91	NM
I-T5	4	100	100	95	NM
I-T5	5	LDC	LDC	LDC	LDC
R-AC	1	89	81	77	NM
R-AC	2	92	90	75	NM
R-AC	3	73	74	65	NM
R-AC	4	63	69	64	NM
R-AC	5	90	96	88	NM
R-AM	1	100	101	82	NM
R-AM	2	70	87	71	NM
R-AM	3	62	81	72	NM
R-AM	4	90	89	91	NM
R-AM	5	105	100	108	NM

TABLE P.11. (Contd)

Sediment Treatment	Replicate	Surrogate Percent Recoveries			
		D-10 Flourene	D-10 Anthracene	D-10 Pyrene	Terphenyl
R-BF	1	NM	NM	NM	63
R-BF	2	NM	NM	NM	92
R-BF	3	NM	NM	NM	43
R-BF	4	NM	NM	NM	85
R-BF	5	NM	NM	NM	60
R-OS	1	80	67	60	NM
R-OS	2	96	110	102	NM
R-OS	3	76	84	79	NM
R-OS	4	75	78	66	NM
R-OS	5	76	78	64	NM
R-PC	1	72	87	75	NM
R-PC	2	113	94	91	NM
R-PC	3	90	90	79	NM
R-PC	4	71	66	62	NM
R-PC	5	90	59	57	NM
R-PF	1	83	81	71	NM
R-PF	2	84	84	75	NM
R-PF	3	LDC	LDC	LDC	LDC
R-PF Replicate 1	4	65	72	76	NM
R-PF Replicate 2	4	79	85	88	NM
R-PF	5	74	79	64	NM
C-SB	1	NM	NM	NM	44
C-SB	2	NM	NM	NM	35
C-SB	3	NM	NM	NM	54
C-SB	4	NM	NM	NM	58
C-SB	5	NM	NM	NM	74
C-WB	1	NM	NM	NM	46
C-WB	2	NM	NM	NM	42
C-WB	3	NM	NM	NM	NM
C-WB	4	NM	NM	NM	59
C-WB	5	NM	NM	NM	54

TABLE P.11. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recoveries</u>			
		<u>D-10 Flourene</u>	<u>D-10 Anthracene</u>	<u>D-10 Pyrene</u>	<u>Terphenyl</u>
C-NE	1	84	98	90	NM
C-NE	2	86	98	79	NM
C-NE	3	88	109	84	NM
C-NE	4	93	95	91	NM
C-NE	5	76	99	70	NM

(a) Not measured.

(b) Sample lost during GPC cleanup; all surrogate recoveries <1%.

(c) Sample lost during GPC extraction; all surrogate recoveries <1%.

TABLE P.12. Polychlorinated Biphenyls (PCBs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> PCBs (μg/kg wet weight)			
Sediment Treatment	Replicate	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Detection Limits					
Target DL		20	20	20	20
Achieved DL		20-45	20-40	20-50	20-40
AC-1	1	40.0 U ^(a)	40.0 U	40.0 U	40.0 U
AC-1	2	NM ^(b)	NM	NM	NM
AC-1	3	40.0 U	40.0 U	40.0 U	40.0 U
AC-1 Replicate 1	4	40.0 U	40.0 U	40.0 U	40.0 U
AC-1 Replicate 2	4	40.0 U	40.0 U	40.0 U	40.0 U
AC-1	5	40.0 U	40.0 U	40.0 U	40.0 U
AC-3	1	25.0 U	25.0 U	25.0 U	25.0 U
AC-3 Replicate 1	2	40.0 U	40.0 U	40.0 U	40.0 U
AC-3 Replicate 2	2	40.0 U	40.0 U	40.0 U	40.0 U
AC-3	3	25.0 U	25.0 U	25.0 U	25.0 U
AC-3	4	40.0 U	40.0 U	40.0 U	40.0 U
AC-3	5	40.0 U	40.0 U	40.0 U	40.0 U
I-C4	1	58.0	20.0 U	20.0 U	20.0 U
I-C4	2	20.0 U	20.0 U	20.0 U	20.0 U
I-C4	3	41.0	20.0 U	20.0 U	20.0 U
I-C4	4	92.0	20.0 U	50.0 U	49.0
I-C4 Replicate 1	5	33.0	20.0 U	20.0 U	20.0 U
I-C4 Replicate 3	5	54.0	20.0 U	20.0 U	20.0 U
I-C4 Replicate 3	5	31.0	20.0 U	65.0	20.0 U
I-C5	1	81.0	20.0 U	100.0	20.0 U
I-C5	2	20.0 U	20.0 U	34.0	20.0 U
I-C5	3	20.0 U	20.0 U	20.0 U	20.0 U
I-C5	4	67.0	20.0 U	400.0	77.0
I-C5	5	90.0	20.0 U	20.0 U	20.0 U
I-C7	1	40.0 U	40.0 U	40.0 U	40.0 U
I-C7	2	25.0 U	25.0 U	25.0 U	25.0 U
I-C7	3	NM	NM	NM	NM
I-C7	4	25.0 U	25.0 U	25.0 U	25.0 U
I-C7 Replicate 1	5	40.0 U	40.0 U	40.0 U	40.0 U
I-C7 Replicate 2	5	40.0 U	40.0 U	40.0 U	40.0 U
I-C8	1	20.0 U	20.0 U	20.0 U	20.0 U
I-C8	2	52.0	20.0 U	20.0 U	20.0 U
I-C8	3	NM	NM	NM	NM
I-C8	4	20.0 U	20.0 U	20.0 U	20.0 U
I-C8	5	130.0	20.0 U	42.0	20.0 U

TABLE P.12. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PCBs ($\mu\text{g/kg}$ wet weight)			
		Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
I-C9	1	25.0 U	25.0 U	25.0 U	25.0 U
I-C9	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C9	3	25.0 U	25.0 U	25.0 U	25.0 U
I-C9	4	25.0 U	25.0 U	25.0 U	25.0 U
I-C9	5	25.0 U	25.0 U	25.0 U	25.0 U
I-C10	1	25.0 U	25.0 U	25.0 U	25.0 U
I-C10 Replicate 1	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C10 Replicate 2	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C10	3	NM	NM	NM	NM
I-C10	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C10	5	25.0 U	25.0 U	25.0 U	25.0 U
I-C11	1	40.0 U	40.0 U	40.0 U	40.0 U
I-C11	2	25.0 U	25.0 U	25.0 U	25.0 U
I-C11	3	40.0 U	40.0 U	40.0 U	40.0 U
I-C11 Replicate 1	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C11 Replicate 2	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C11	5	25.0 U	25.0 U	25.0 U	25.0 U
I-C12	1	25.0 U	25.0 U	25.0 U	25.0 U
I-C12	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C12 Replicate 1	3	40.0 U	40.0 U	40.0 U	40.0 U
I-C12 Replicate 2	3	40.0 U	40.0 U	40.0 U	40.0 U
I-C12	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C12	5	40.0 U	40.0 U	40.0 U	40.0 U
I-C14	1	40.0 U	40.0 U	40.0 U	40.0 U
I-C14	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C14	3	25.0 U	25.0 U	25.0 U	25.0 U
I-C14	4	25.0 U	25.0 U	25.0 U	25.0 U
I-C14	5	25.0 U	25.0 U	25.0 U	25.0 U
I-C15	1	25.0 U	25.0 U	25.0 U	25.0 U
I-C15	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C15	3	25.0 U	25.0 U	25.0 U	25.0 U
I-C15	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C15	5	25.0 U	25.0 U	25.0 U	25.0 U
I-C16	1	25.0 U	25.0 U	25.0 U	25.0 U
I-C16	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C16 Replicate 1	3	40.0 U	40.0 U	40.0 U	40.0 U
I-C16 Replicate 2	3	40.0 U	40.0 U	40.0 U	40.0 U
I-C16	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C16	5	25.0 U	25.0 U	25.0 U	25.0 U

TABLE P.12. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PCBs ($\mu\text{g/kg}$ wet weight)			
		Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
I-C17	1	40.0 U	40.0 U	40.0 U	40.0 U
I-C17	2	25.0 U	25.0 U	25.0 U	25.0 U
I-C17	3	25.0 U	25.0 U	25.0 U	25.0 U
I-C17	4	25.0 U	25.0 U	25.0 U	25.0 U
I-C17	5	40.0 U	40.0 U	40.0 U	40.0 U
I-C18	Replicate 1 1	40.0 U	40.0 U	40.0 U	40.0 U
I-C18	Replicate 2 1	40.0 U	40.0 U	40.0 U	40.0 U
I-C18	2	40.0 U	40.0 U	40.0 U	40.0 U
I-C18	3	25.0 U	25.0 U	17.0 J ^(c)	25.0 U
I-C18	4	40.0 U	40.0 U	40.0 U	40.0 U
I-C18	5	40.0 U	40.0 U	40.0 U	40.0 U
I-S1	1	61.0	20.0 U	20.0 U	20.0 U
I-S1	2	20.0 U	20.0 U	90.0	20.0 U
I-S1	3	53.0	20.0 U	20.0 U	20.0 U
I-S1	4	63.0	20.0 U	20.0 U	20.0 U
I-S1	5	20.0 U	20.0 U	20.0 U	20.0 U
I-T1	1	20.0 U	20.0 U	20.0 U	20.0 U
I-T1	2	79.0	20.0 U	99.0	20.0 U
I-T1	3	45.0 U	20.0 U	62.0	20.0 U
I-T1	4	20.0 U	20.0 U	20.0 U	20.0 U
I-T1	5	31.0	20.0 U	46.0	20.0 U
I-T3	1	190.0	20.0 U	20.0 U	20.0 U
I-T3	2	57.0	20.0 U	80.0	20.0 U
I-T3	3	20.0 U	20.0 U	20.0 U	20.0 U
I-T3	4	37.0 U	20.0 U	53.0	25.0
I-T3	5	20.0 U	20.0 U	53.0	20.0 U
I-T5	1	20.0 U	20.0 U	69.0	20.0 U
I-T5	2	30.0	20.0 U	40.0	20.0 U
I-T5	3	65.0	20.0 U	42.0	20.0 U
I-T5	4	20.0 U	20.0 U	50.0	20.0 U
I-T5	5	45.0	20.0 U	20.0 U	20.0 U
R-AC	1	37.0	20.0 U	64.0	38.0
R-AC	2	30.0	20.0 U	73.0	40.0 U
R-AC	3	20.0 U	20.0 U	20.0 U	20.0 U
R-AC	4	20.0 U	20.0 U	20.0 U	20.0 U
R-AC	5	20.0 U	20.0 U	20.0 U	55.0

TABLE P.12. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PCBs ($\mu\text{g/kg}$ wet weight)			
		Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
R-AM	1	28.0 U	20.0 U	44.0 U	20.0 U
R-AM	2	20.0 U	20.0 U	20.0 U	20.0 U
R-AM	3	20.0 U	20.0 U	20.0 U	20.0 U
R-AM	4	20.0 U	20.0 U	58.0	53.0
R-AM	5	20.0 U	20.0 U	20.0 U	20.0 U
R-BF	1	40.0 U	40.0 U	40.0 U	40.0 U
R-BF	2	25.0 U	25.0 U	25.0 U	25.0 U
R-BF	3	25.0 U	25.0 U	25.0 U	25.0 U
R-BF	4	40.0 U	40.0 U	40.0 U	40.0 U
R-BF	5	40.0 U	40.0 U	40.0 U	40.0 U
R-OS	1	65.0	20.0 U	20.0 U	20.0 U
R-OS	2	20.0 U	20.0 U	63.0	20.0 U
R-OS	3	20.0 U	20.0 U	20.0 U	20.0 U
R-OS	4	20.0 U	20.0 U	20.0 U	20.0 U
R-OS	5	20.0 U	20.0 U	20.0 U	20.0 U
R-PC	1	20.0 U	20.0 U	20.0 U	20.0 U
R-PC	2	20.0 U	20.0 U	20.0 U	20.0 U
R-PC	3	20.0 U	20.0 U	20.0 U	20.0 U
R-PC	4	61.0	20.0 U	42.0	20.0 U
R-PC	5	82.0	20.0 U	47.0	20.0 U
R-PF	1	50.0	20.0 U	69.0	20.0 U
R-PF	2	110.0	20.0 U	20.0 U	20.0 U
R-PF	3	20.0 U	20.0 U	20.0 U	20.0 U
R-PF	4	NM	NM	NM	NM
R-PF	5	20.0 U	20.0 U	20.0 U	20.0 U
C-SB	1	40.0 U	40.0 U	40.0 U	40.0 U
C-SB	2	25.0 U	25.0 U	25.0 U	25.0 U
C-SB	3	40.0 U	40.0 U	40.0 U	40.0 U
C-SB	4	25.0 U	25.0 U	25.0 U	25.0 U
C-SB	5	40.0 U	40.0 U	40.0 U	40.0 U
C-WB	1	25.0 U	25.0 U	25.0 U	25.0 U
C-WB	2	25.0 U	25.0 U	25.0 U	25.0 U
C-WB	3	NM	NM	NM	NM
C-WB	4	40.0 U	40.0 U	40.0 U	40.0 U
C-WB	5	40.0 U	40.0 U	40.0 U	40.0 U

TABLE P.12. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PCBs ($\mu\text{g/kg}$ wet weight)			
		Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
C-NE	1	62.0	20.0 U	71.0	20.0 U
C-NE	2	20.0 U	20.0 U	20.0 U	20.0 U
C-NE	3	20.0 U	20.0 U	52.0	20.0 U
C-NE	4	84.0	20.0 U	20.0 U	20.0 U
C-NE	5	20.0 U	20.0 U	20.0 U	20.0 U

- (a) Undetected above given concentration.
 (b) Not measured.
 (c) Analyte detected below method detection limit, but above instrument detection limit.

TABLE P.13. Polychlorinated Biphenyls (PCBs), Dry Weight, in Tissue of *M. nasuta*; Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PCBs ($\mu\text{g}/\text{kg}$ dry weight)			
			Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
AC-1	1	15.50 ^(a)	258.1 U ^(b)	258.1 U	258.1 U	258.1 U
AC-1	2	NM ^(c)	NM	NM	NM	NM
AC-1	3	14.20 ^(a)	281.7 U	281.7 U	281.7 U	281.7 U
AC-1 Replicate 1	4	14.90 ^(a)	268.5 U	268.5 U	268.5 U	268.5 U
AC-1 Replicate 2	4	14.90 ^(a)	268.5 U	268.5 U	268.5 U	268.5 U
AC-1	5	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
AC-3	1	14.90 ^(a)	167.8 U	167.8 U	167.8 U	167.8 U
AC-3 Replicate 1	2	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
AC-3 Replicate 2	2	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
AC-3	3	15.50 ^(a)	161.3 U	161.3 U	161.3 U	161.3 U
AC-3	4	16.60 ^(a)	241.0 U	241.0 U	241.0 U	241.0 U
AC-3	5	15.10 ^(a)	264.9 U	264.9 U	264.9 U	264.9 U
I-C4	1	10.00	580.0	200.0 U	200.0 U	200.0 U
I-C4	2	13.00	153.8 U	153.8 U	153.8 U	153.8 U
I-C4	3	13.00	315.4	153.8 U	153.8 U	153.8 U
I-C4	4	12.00	766.7	166.7 U	416.7 U	408.3
I-C4 Replicate 1	5	12.00	275.0	166.7 U	166.7 U	166.7 U
I-C4 Replicate 2	5	12.00	450.0	166.7 U	166.7 U	166.7 U
I-C4 Replicate 3	5	12.00	258.3	166.7 U	541.7	166.7 U
I-C5	1	11.00	736.4	181.8 U	909.1	181.8 U
I-C5	2	13.00	153.8 U	153.8 U	261.5	153.8 U
I-C5	3	10.00	200.0 U	200.0 U	200.0 U	200.0 U
I-C5	4	12.00	558.3	166.7 U	3333.3	641.7
I-C5	5	12.00	750.0	166.7 U	166.7 U	166.7 U
I-C7	1	16.10 ^(a)	248.4 U	248.4 U	248.4 U	248.4 U
I-C7	2	14.50 ^(a)	172.4 U	172.4 U	172.4 U	172.4 U
I-C7	3	NM	NM	NM	NM	NM
I-C7	4	14.00 ^(a)	178.6 U	178.6 U	178.6 U	178.6 U
I-C7 Replicate 1	5	13.10 ^(a)	305.3 U	305.3 U	305.3 U	305.3 U
I-C7 Replicate 2	5	13.10 ^(a)	305.3 U	305.3 U	305.3 U	305.3 U
I-C8	1	9.00	222.2 U	222.2 U	222.2 U	222.2 U
I-C8	2	10.00	38.5	200.0 U	200.0 U	200.0 U
I-C8	3	NM	NM	NM	NM	NM
I-C8	4	12.00	166.7 U	166.7 U	166.7 U	166.7 U
I-C8	5	12.00	1083.3	166.7 U	350.0	166.7 U
I-C9	1	15.30 ^(a)	163.4 U	163.4 U	163.4 U	163.4 U
I-C9	2	15.00 ^(a)	266.7 U	266.7 U	266.7 U	266.7 U
I-C9	3	15.20 ^(a)	164.5 U	164.5 U	164.5 U	164.5 U
I-C9	4	15.30 ^(a)	163.4 U	163.4 U	163.4 U	163.4 U
I-C9	5	14.70 ^(a)	170.1 U	170.1 U	170.1 U	170.1 U
I-C10	1	13.70 ^(a)	182.5 U	182.5 U	182.5 U	182.5 U
I-C10 Replicate 1	2	14.30 ^(a)	279.7 U	279.7 U	279.7 U	279.7 U
I-C10 Replicate 2	2	14.30 ^(a)	279.7 U	279.7 U	279.7 U	279.7 U
I-C10	3	NM	NM	NM	NM	NM
I-C10	4	15.80 ^(a)	253.2 U	253.2 U	253.2 U	253.2 U
I-C10	5	13.70 ^(a)	182.5 U	182.5 U	182.5 U	182.5 U

TABLE P.13. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PCBs (Ug/kg dry weight)			
			Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
I-C11	1	13.60 ^(a)	294.1 U	294.1 U	294.1 U	294.1 U
I-C11	2	16.80 ^(a)	148.8 U	148.8 U	148.8 U	148.8 U
I-C11	3	14.30 ^(a)	279.7 U	279.7 U	279.7 U	279.7 U
I-C11 Replicate 1	4	16.10 ^(a)	248.4 U	248.4 U	248.4 U	248.4 U
I-C11 Replicate 2	4	16.10 ^(a)	248.4 U	248.4 U	248.4 U	248.4 U
I-C11	5	17.50 ^(a)	142.9 U	142.9 U	142.9 U	142.9 U
I-C12	1	15.90 ^(a)	157.2 U	157.2 U	157.2 U	157.2 U
I-C12	2	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
I-C12 Replicate 1	3	13.90 ^(a)	287.8 U	287.8 U	287.8 U	287.8 U
I-C12 Replicate 2	3	13.90 ^(a)	287.8 U	287.8 U	287.8 U	287.8 U
I-C12	4	15.00 ^(a)	266.7 U	266.7 U	266.7 U	266.7 U
I-C12	5	15.30 ^(a)	261.4 U	261.4 U	261.4 U	261.4 U
I-C14	1	14.60 ^(a)	274.0 U	274.0 U	274.0 U	274.0 U
I-C14	2	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
I-C14	3	16.50 ^(a)	151.5 U	151.5 U	151.5 U	151.5 U
I-C14	4	13.20 ^(a)	189.4 U	189.4 U	189.4 U	189.4 U
I-C14	5	16.00 ^(a)	156.2 U	156.2 U	156.2 U	156.2 U
I-C15	1	14.20 ^(a)	176.1 U	176.1 U	176.1 U	176.1 U
I-C15	2	14.60 ^(a)	274.0 U	274.0 U	274.0 U	274.0 U
I-C15	3	16.10 ^(a)	155.3 U	155.3 U	155.3 U	155.3 U
I-C15	4	15.50 ^(a)	258.1 U	258.1 U	258.1 U	258.1 U
I-C15	5	14.40 ^(a)	173.6 U	173.6 U	173.6 U	173.6 U
I-C16	1	15.10 ^(a)	165.6 U	165.6 U	165.6 U	165.6 U
I-C16	2	16.30 ^(a)	245.4 U	245.4 U	245.4 U	245.4 U
I-C16 Replicate 1	3	14.70 ^(a)	272.1 U	272.1 U	272.1 U	272.1 U
I-C16 Replicate 2	3	14.70 ^(a)	272.1 U	272.1 U	272.1 U	272.1 U
I-C16	4	15.40 ^(a)	259.7 U	259.7 U	259.7 U	259.7 U
I-C16	5	14.40 ^(a)	173.6 U	173.6 U	173.6 U	173.6 U
I-C17	1	13.50 ^(a)	296.3 U	296.3 U	296.3 U	296.3 U
I-C17	2	12.50 ^(a)	200.0 U	200.0 U	200.0 U	200.0 U
I-C17	3	14.00 ^(a)	178.6 U	178.6 U	178.6 U	178.6 U
I-C17	4	13.60 ^(a)	183.8 U	183.8 U	183.8 U	183.8 U
I-C17	5	16.00 ^(a)	250.0 U	250.0 U	250.0 U	250.0 U
I-C18 Replicate 1	1	14.40 ^(a)	277.8 U	277.8 U	277.8 U	277.8 U
I-C18 Replicate 2	1	14.40 ^(a)	277.8 U	277.8 U	277.8 U	277.8 U
I-C18	2	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
I-C18	3	16.20 ^(a)	154.3 U	154.3 U	104.9 U ^(e)	154.3 U
I-C18	4	15.80 ^(a)	253.2 U	253.2 U	253.2 U	253.2 U
I-C18	5	14.50 ^(a)	275.9 U	275.9 U	275.9 U	275.9 U
I-S1	1	14.00	435.7 U	142.9 U	142.9 U	142.9 U
I-S1	2	13.00	153.8 U	153.8 U	692.3	153.8 U
I-S1	3	11.00	481.8 U	181.8 U	181.8 U	181.8 U
I-S1	4	13.00	484.6 U	153.8 U	153.8 U	153.8 U
I-S1	5	11.00	181.8 U	181.8 U	181.8 U	181.8 U
I-T1	1	12.00	166.7 U	166.7 U	166.7 U	166.7 U
I-T1	2	12.00	658.3	166.7 U	825.0	166.7 U
I-T1	3	9.00	500.0 U	222.2 U	688.9	222.2 U
I-T1	4	13.00	153.8 U	153.8 U	153.8 U	153.8 U
I-T1	5	11.00	281.8	181.8 U	418.2	181.8 U

TABLE P.13. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PCBs ($\mu\text{g/kg}$ dry weight)			
			Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
I-T3	1	15.00	1266.7	133.3 U	133.3 U	133.3 U
I-T3	2	12.00	475.0	166.7 U	666.7	166.7 U
I-T3	3	13.00	153.8 U	153.8 U	153.8 U	153.8 U
I-T3	4	13.00	284.6 U	153.8 U	407.7	192.3
I-T3	5	14.00	142.9 U	142.9 U	378.6	142.9 U
I-T5	1	14.00	142.9 U	142.9 U	492.9	142.9 U
I-T5	2	11.00	272.7	181.8 U	363.6	181.8 U
I-T5	3	11.00	590.9	181.8 U	381.8	181.8 U
I-T5	4	14.00	142.9 U	142.9 U	357.1	142.9 U
I-T5	5	13.00	346.2	153.8 U	153.8 U	153.8 U
R-AC	1	11.00	336.4	181.8 U	581.8	345.5
R-AC	2	10.00	300.0	200.0 U	730.0	400.0 U
R-AC	3	13.00	153.8 U	153.8 U	153.8 U	153.8 U
R-AC	4	11.00	181.8 U	181.8 U	181.8 U	181.8 U
R-AC	5	13.00	153.8 U	153.8 U	153.8 U	423.1
R-AM	1	14.00	200.0 U	142.9 U	314.3 U	142.9 U
R-AM	2	12.00	166.7 U	166.7 U	166.7 U	166.7 U
R-AM	3	14.00	142.9 U	142.9 U	142.9 U	142.9 U
R-AM	4	10.00	200.0 U	200.0 U	580.0	530.0
R-AM	5	12.00	166.7 U	166.7 U	166.7 U	166.7 U
R-BF	1	14.90 ^(a)	268.5 U	268.5 U	268.5 U	268.5 U
R-BF	2	15.30 ^(a)	163.4 U	163.4 U	163.4 U	163.4 U
R-BF	3	13.60 ^(a)	183.8 U	183.8 U	183.8 U	183.8 U
R-BF	4	13.80 ^(a)	289.9 U	289.9 U	289.9 U	289.9 U
R-BF	5	16.90 ^(a)	236.7 U	236.7 U	236.7 U	236.7 U
R-OS	1	12.00	541.7	166.7 U	166.7 U	166.7 U
R-OS	2	9.00	222.2 U	222.2 U	700.0	222.2 U
R-OS	3	13.00	153.8 U	153.8 U	153.8 U	153.8 U
R-OS	4	11.00	181.8 U	181.8 U	181.8 U	181.8 U
R-OS	5	14.00	142.9 U	142.9 U	142.9 U	142.9 U
R-PC	1	13.00	153.8 U	153.8 U	153.8 U	153.8 U
R-PC	2	13.00	153.8 U	153.8 U	153.8 U	153.8 U
R-PC	3	13.00	153.8 U	153.8 U	153.8 U	153.8 U
R-PC	4	11.00	554.6	181.8 U	381.8	181.8 U
R-PC	5	13.00	630.8	153.8 U	361.5	153.8 U
R-PF	1	10.00	500.0	200.0 U	690.0	200.0 U
R-PF	2	11.00	1000.0	181.8 U	181.8 U	181.8 U
R-PF	3	11.00	181.8 U	181.8 U	181.8 U	181.8 U
R-PF	4	NM	NM	NM	NM	NM
R-PF	5	12.00	166.7 U	166.7 U	166.7 U	166.7 U
C-SB	1	12.30 ^(a)	325.2 U	325.2 U	325.2 U	325.2 U
C-SB	2	14.90 ^(a)	167.8 U	167.8 U	167.8 U	167.8 U
C-SB	3	15.70 ^(a)	254.8 U	254.8 U	254.8 U	254.8 U
C-SB	4	16.60 ^(a)	150.6 U	150.6 U	150.6 U	150.6 U
C-SB	5	16.40 ^(a)	243.9 U	243.9 U	243.9 U	243.9 U

TABLE P.13. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> PCBs ($\mu\text{g}/\text{kg}$ dry weight)			
			Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
C-WB	1	15.20 ^(a)	164.5 U	164.5 U	164.5 U	164.5 U
C-WB	2	16.00 ^(a)	156.2 U	156.2 U	156.2 U	156.2 U
C-WB	3	NM	NM	NM	NM	NM
C-WB	4	15.10 ^(a)	264.9 U	264.9 U	264.9 U	264.9 U
C-WB	5	15.20 ^(a)	263.2 U	263.2 U	263.2 U	263.2 U
C-NE	1	12.00	516.7	166.7 U	591.7	166.7 U
C-NE	2	10.00	200.0 U	200.0 U	200.0 U	200.0 U
C-NE	3	15.00	133.3 U	133.3 U	346.7	133.3 U
C-NE	4	12.00	700.0	166.7 U	166.7 U	166.7 U
C-NE	5	12.00	166.7 U	166.7 U	166.7 U	166.7 U

(a) Dry weight determination from metals analysis applied to this data.

(b) Undetected above given concentration.

(c) Not measured.

(d) Analyte detected below method detection limit, but above instrument detection limit.

TABLE P.14. Quality Control Data from Analytical Resources Inc. for Polychlorinated Biphenyls (PCBs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment		Replicate	<i>M. nasuta</i> (µg/kg wet weight)			
			Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
<u>Method Blanks</u>						
Blank		1	40 U ^(a)	40 U	40 U	40 U
Blank		2	40 U	40 U	40 U	40 U
Blank		1	40 U	40 U	40 U	40 U
Blank		2	40 U	40 U	40 U	40 U
Blank		1	40 U	40 U	40 U	40 U
Blank		2	40 U	40 U	40 U	40 U
<u>Analytical Replicates</u>						
AC-1	Replicate 1	4	40 U	40 U	40 U	40 U
AC-1	Replicate 2	4	40 U	40 U	40 U	40 U
AC-3	Replicate 1	2	40 U	40 U	40 U	40 U
AC-3	Replicate 2	2	40 U	40 U	40 U	40 U
I-C7	Replicate 1	5	40 U	40 U	40 U	40 U
I-C7	Replicate 2	5	40 U	40 U	40 U	40 U
I-C10	Replicate 1	2	40 U	40 U	40 U	40 U
I-C10	Replicate 2	2	40 U	40 U	40 U	40 U
I-C11	Replicate 1	4	40 U	40 U	40 U	40 U
I-C11	Replicate 2	4	40 U	40 U	40 U	40 U
I-C12	Replicate 1	3	40 U	40 U	40 U	40 U
I-C12	Replicate 2	3	40 U	40 U	40 U	40 U
I-C18	Replicate 1	1	40 U	40 U	40 U	40 U
I-C18	Replicate 2	1	40 U	40 U	40 U	40 U
I-C16	Replicate 1	3	40 U	40 U	40 U	40 U
I-C16	Replicate 2	3	40 U	40 U	40 U	40 U

NOTE: No RPD or I-Stat calculation necessary as no PCBs were detected above detection limit

(a) Undetected above given concentration.

TABLE P.15. Quality Control Data from Twin City Testing for Polychlorinated Biphenyls (PCBs), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> PCBs (µg/kg wet weight)			
Sediment Treatment	Replicate	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
<u>Method Blanks</u>					
Blank I		20.0 U ^(a)	20.0 U	20.0 U	20.0 U
Blank II		20.0 U	20.0 U	20.0 U	20.0 U
Blank III		20.0 U	20.0 U	20.0 U	20.0 U
Blank IV		20.0 U	20.0 U	20.0 U	20.0 U
Blank V		20.0 U	20.0 U	20.0 U	20.0 U
Blank VI		20.0 U	20.0 U	20.0 U	20.0 U
Blank VII		20.0 U	20.0 U	20.0 U	20.0 U
<u>Matrix Spikes</u>					
Background Clam MS 1	1	20.0 U 170 P	20.0 U 20.0 U	20.0 U 2000	20.0 U 20.0 U
Amount Spiked		NS ^(b)	NS	971	NS
Percent Recovery		NA ^(c)	NA	206%	NA
Background Clam MSD 1 ^(d)	1	20.0 U 20.0 U	20.0 U 20.0 U	20.0 U 20.0 U	20.0 U 20.0 U
Amount Spiked		NS	NS	NS	NS
Percent Recovery		NA	NA	NA	NA
Background Clam MS 2 ^(d)	2	20.0 U 20.0 U	20.0 U 20.0 U	20.0 U 20.0 U	20.0 U 20.0 U
Amount Spiked		NS	NS	NS	NS
Percent Recovery		NA	NA	NA	NA
Background Clam MSD 2 ^(d)	2	20.0 U 20.0 U	20.0 U 20.0 U	20.0 U 20.0 U	20.0 U 20.0 U
Amount Spiked		NS	NS	NS	NS
Percent Recovery		NA	NA	NA	NA
Background Clam MS 3	3	20.0 U 37.0 U	20.0 U 20.0 U	20.0 U 750.0	20.0 U 20.0 U
Amount Spiked		NS	NS	1000	NS
Percent Recovery		NA	NA	75%	NA
Background Clam MSD 3	3	20.0 U 56.0 U	20.0 U 20.0 U	20.0 U 1100	20.0 U 20.0 U
Amount Spiked		NS	NS	990	NS
Percent Recovery		NA	NA	111%	NA
RPD		NA	NA	39%	NA
I-STAT		NA	NA	0.19	NA

TABLE P.15. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> PCBs ($\mu\text{g/kg}$ wet weight)			
		Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Background Clam	4	20.0 U	20.0 U	20.0 U	20.0 U
MS 4		20.0 U	20.0 U	1100	20.0 U
Amount Spiked		NS	NS	1000	NS
Percent Recovery		NA	NA	110%	NA
Background Clam	4	20.0 U	20.0 U	20.0 U	20.0 U
MSD 4		25.0 U	20.0 U	990	65.0 U
Amount Spiked		NS	NS	990	NS
Percent Recovery		NA	NA	100%	NA
RPD		NA	NA	10%	NA
I-STAT		NA	NA	0.05	NA
<u>Analytical Triplicates</u>					
I-C4 Replicate 1	5	33.0	20.0 U	20.0 U	20.0 U
I-C4 Replicate 2	5	54.0	20.0 U	20.0 U	20.0 U
I-C4 Replicate 3	5	31.0	20.0 U	65.0	20.0 U
RSD		32%	NA	NA	NA

- (a) Undetected above given concentration.
 (b) Not spiked.
 (c) Not applicable.
 (d) Sample inadvertently not spiked.

TABLE P.16. Chlorinated Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
Detection Limits											
Target DL		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lowest Achieved DL		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Maximum Achieved DL		3.0	3.0	5.0	5.0	6.8	5.0	5.0	8.2	6.0	6.0
AC-1	1	3.0 U ^(a)	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-1	2	NM ^(b)	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-1 Replicate 1	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-1 Replicate 2	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-1	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-3	1	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
AC-3 Replicate 1	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-3 Replicate 2	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-3	3	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
AC-3	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-3	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C4	1	2.0 U	2.0 U	2.0 U	5.4	5.2	2.0 U	2.0 U	2.0 U	3.4	2.0 U
I-C4	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C4	3	2.0 U	2.0 U	2.4 U	2.0 U	5.4	2.0 U	2.6	2.0 U	2.4	2.0 U
I-C4	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.2 U	2.0 U	5.0	2.0 U
I-C4 Replicate 1	5	2.0 U	2.0 U	2.0 U	2.0 U	2.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C4 Replicate 2	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C4 Replicate 3	5	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C5	1	3.2	2.0 U	2.0 U	4.4	2.0 U	2.0 U	2.0 U	2.0 U	4.2	2.4
I-C5	2	2.0 U	2.0 U	2.0 U	2.8	2.6	2.0 U	2.0 U	2.0 U	2.0 U	3.0
I-C5	3	7.0	2.0 U	13.0	2.0 U	2.0 U	2.0 U	2.0 U	8.2 U	2.0 U	2.0 U
I-C5	4	2.0 U	2.0 U	2.0 U	2.0 U	2.6	2.0 U	10.0	2.0 U	10.0	2.4
I-C5	5	2.0 U	2.0 U	2.0 U	5.8 B ^(c)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.8
I-C7	1	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C7	2	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C7	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C7	4	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C7 Replicate 1	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C7 Replicate 2	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U

TABLE P.16. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DOD	4,4'-ODE	4,4'-DDT
I-C8	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C8	2	6.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C8	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C8	4	2.0 U	2.0 U	2.0 U	4.0	2.0 U	2.0 U	2.0 U	2.0 U	2.1	2.0 U
I-C8	5	2.0 U	2.0 U	2.0 U	4.6 B	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C9	1	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C9	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C9	3	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C9	4	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C9	5	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C10	1	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C10 Replicate 1	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C10 Replicate 2	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C10	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C10	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C10	5	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C11	1	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C11	2	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C11	3	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C11 Replicate 1	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C11 Replicate 2	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C11	5	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C12	1	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C12	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12 Replicate 1	3	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12 Replicate 2	3	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C14	1	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C14	2	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C14	3	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C14	4	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C14	5	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U

M. nasuta Pesticides ($\mu\text{g/kg}$ wet weight)

[illegible]

TABLE P.16. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane)	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
						Gamma-BHC					
I-T3	1	2.0 U	2.0 U	2.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-T3	2	2.0 U	2.0 U	2.0 U	2.2	2.0 U	2.0 U	2.0 U	5.3	4.4	2.0 U
I-T3	3	2.0 U	2.0 U	2.2	2.0 U	10.0	2.0 U	2.0 U	2.1	2.0 U	2.0 U
I-T3	4	2.0 U	2.0 U	2.0 U	2.8 B	2.0 U	2.0 U	2.0 U	10.0	2.0 U	2.8
I-T3	5	2.0 U	2.0 U	2.0 U	3.2 U	5.4	2.0 U	2.0 U	2.0 U	3.2	2.0 U
I-T5	1	2.0 U	2.0 U	2.0 U	4.4	2.0 U	2.0 U	2.0 U	2.0 U	2.4	2.0 U
I-T5	2	2.0 U	2.0 U	2.0 U	3.0	8.4	2.0 U	2.0 U	16.0	2.0 U	2.0 U
I-T5	3	2.0 U	2.0 U	2.0 U	3.2	2.0 U	2.0 U	2.2	2.0 U	4.0	2.0 U
I-T5	4	2.0 U	2.0 U	2.0 U	3.6	2.6 U	2.0 U	2.0 U	2.0 U	3.0	2.6
I-T5	5	2.0 U	2.0 U	2.0 U	2.0 U	3.3 U	2.0 U	2.0 U	2.0 U	2.3	2.0 U
R-AC	1	2.0 U	2.0 U	2.0 U	2.2 B	2.0 U	2.0 U	2.0 U	2.6 U	3.9	2.8
R-AC	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.4 U	2.0 U	2.0 U	2.0 U
R-AC	3	2.0 U	2.0 U	2.0 U	24.0	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-AC	4	2.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.7	2.0 U	2.0 U
R-AC	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0
R-AM	1	2.0 U	2.0 U	2.0 U	2.0 U	3.4 U	2.0 U	2.0 U	2.0 U	2.8	2.0 U
R-AM	2	2.0 U	2.0 U	2.0 U	2.0 U	19.0	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-AM	3	2.0 U	2.0 U	2.6 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-AM	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.4	2.0 U	2.0 U	2.0 U
R-AM	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-BF	1	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
R-BF	2	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
R-BF	3	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
R-BF	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
R-BF	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
R-OS	1	11.0	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	15.0	2.0 U	2.0 U
R-OS	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	6.1 U
R-OS	3	2.0 U	2.0 U	2.0 U	4.5 B	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-OS	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.3 U	4.8	38.0
R-OS	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-PC	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-PC	2	2.0 U	2.0 U	2.0 U	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-PC	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0	2.0 U	2.0 U	2.0 U
R-PC	4	9.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	15.0	2.0 U	2.0 U
R-PC	5	2.9 U	4.3	2.0 U	2.0 U	2.6	2.0 U	2.4	2.0 U	2.0 U	2.0 U

TABLE P.16. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
R-PF	1	2.0 U	2.2	2.0 U	5.2 B	16.0	2.0 U	2.0 U	17.0	2.0 U	2.0 U
R-PF	2	2.0 U	2.0 U	2.0 U	2.0 U	4.2	2.0 U	2.9	2.0 U	2.0 U	2.0 U
R-PF	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
R-PF	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-PF	5	2.0 U	2.0 U	2.0 U	2.0 U	2.4 U	2.0 U	2.0 U	14.0	2.0 U	2.0 U
C-SB	1	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
C-SB	2	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
C-SB	3	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
C-SB	4	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
C-SB	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
C-WB	1	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
C-WB	2	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
C-WB	5	3.0 U	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
C-NE	1	2.0 U	2.0 U	2.0 U	2.0 U	11.0	2.0 U	2.0 U	2.0 U	2.1	2.0 U
C-NE	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0
C-NE	3	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	6.6
C-NE	4	2.1 U	2.0 U	2.0 U	3.4 B	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
C-NE	5	2.0 U	2.0 U	2.0 U	2.0 U	6.8 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0

(a) Undetected above given concentration.

(b) Not measured.

(c) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

TABLE P.17. Chlorinated Pesticides (Alphabetical, Dieldrin - Toxaphene), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
Detection Limits											
Target DL		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	20.0
Lowest Acheived DL		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	8.0	20.0
Maximum Acheived DL		12.0	4.0	9.5	12.0	6.0	9.0	3.4	3.0	32.0	450.0
AC-1	1	6.0 U ^(a)	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-1	2	NM ^(b)	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-1 Replicate 1	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-1 Replicate 2	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-1	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-3	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
AC-3 Replicate 1	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-3 Replicate 2	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-3	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
AC-3	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
AC-3	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C4	1	2.0 U	2.0 U	2.0 U	2.0 U	2.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4	2	2.8 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	38.0	20.0 U
I-C4	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4	4	3.6 U	2.0 U	3.4 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4 Replicate 1	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4 Replicate 2	5	2.0 U	2.0 U	2.0 U	2.0 U	3.4	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4 Replicate 3	5	2.0 U	2.0 U	2.9 U	2.0 U	2.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C5	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C5	2	2.0 U	2.0 U	2.0 U	2.0 U	2.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C5	3	2.0 U	2.1 U	4.9 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C5	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.8	10.0 U	20.0 U
I-C5	5	2.6	2.0 U	2.0 U	2.0 U	2.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C7	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C7	2	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C7	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C7	4	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C7 Replicate 1	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C7 Replicate 2	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U

TABLE P.17. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor-Epoxide	Methoxy-chlor	Toxa-phene
I-C8	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.4 U	2.0 U	10.0 U	20.0 U
I-C8	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C8	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C8	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C8	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C9	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C9	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C9	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C9	4	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C9	5	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C10	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C10 Replicate 1	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C10 Replicate 2	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C10	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C10	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C10	5	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C11	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C11	2	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C11	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C11 Replicate 1	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C11 Replicate 2	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C11	5	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C12	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C12	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C12 Replicate 1	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C12 Replicate 2	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C12	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C12	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C14	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C14	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C14	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C14	4	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C14	5	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U

TABLE P.17. (Contd)

<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)											
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phen
Analytical Replicates (Contd)											
I-C15	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C15	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C15	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C15	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C15	5	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C16	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C16	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C16 Replicate 1	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C16 Replicate 2	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C16	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C16	5	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C17	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C17	2	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C17	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C17	4	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C17	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C18 Replicate 1	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C18 Replicate 2	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C18	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C18	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300.0 U
I-C18	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-C18	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450.0 U
I-S1	1	2.0 U	2.0 U	2.0 U	3.5	2.0 U	3.2	2.0 U	2.0 U	10.0 U	20.0 U
I-S1	2	12.0 U	2.0 U	9.5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-S1	3	2.0 U	2.0 U	4.2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-S1	4	2.0 U	2.0 U	6.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-S1	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T1	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T1	2	5.2	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T1	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T1	4	2.0 U	2.0 U	2.0 U	2.0 U	2.1	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T1	5	2.0 U	2.0 U	2.0 U	2.0 U	3.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U

TABLE P.17. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
		Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
I-T3	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T3	2	2.0 U	2.0 U	4.4 B(c)	2.0 U	2.0 U	2.0 U	3.4	2.0 U	10.0 U	20.0 U
I-T3	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T3	4	3.4	2.8 U	2.0 U	2.0 U	7.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T3	5	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T5	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T5	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T5	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T5	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-T5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.7	10.0 U	20.0 U
R-AC	1	2.0 U	2.0 U	2.0 U	2.0 U	4.6	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AC	2	2.0 U	2.0 U	11.0 B	2.0 U	3.4 U	3.4	2.0 U	2.0 U	10.0 U	20.0 U
R-AC	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AC	4	2.0 U	2.0 U	2.3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AC	5	8.9 U	2.0 U	9.5 U	2.0 U	2.9	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AM	1	2.0 U	2.0 U	2.0 U	2.0 U	3.5	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AM	2	2.0 U	2.0 U	2.0 U	2.0 U	2.4 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AM	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AM	4	2.0 U	2.0 U	8.4 B	2.0 U	2.8 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-AM	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-BF	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
R-BF	2	4.0 U	2.0 U	4.0 U	12.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
R-BF	3	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
R-BF	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
R-BF	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
R-OS	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-OS	2	14.0	2.0 U	7.3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	12.0 U	20.0 U
R-OS	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-OS	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-OS	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-PC	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-PC	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	41.0	20.0 U
R-PC	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-PC	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-PC	5	2.0 U	2.3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U

TABLE P.17. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
		Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor-Epoxy	Methoxy-chlor	Toxa-phene
R-PF	1	2.0 U	2.0 U	2.0 U	2.0 U	4.6	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-PF	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.3 U	2.0 U	10.0 U	20.0 U
R-PF	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
R-PF	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-PF	5	2.0 U	2.0 U	5.7	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
C-SB	1	6.0 U	3.0 U	6.0 U	12 U	6.0 U	9.0 U	3.0 U	3.0 U	12 U	450 U
C-SB	2	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
C-SB	3	6.0 U	3.0 U	6.0 U	12 U	6.0 U	9.0 U	3.0 U	3.0 U	12 U	450 U
C-SB	4	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
C-SB	5	6.0 U	3.0 U	6.0 U	12 U	6.0 U	9.0 U	3.0 U	3.0 U	12 U	450 U
C-WB	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
C-WB	2	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	6.0 U	3.0 U	6.0 U	12 U	6.0 U	9.0 U	3.0 U	3.0 U	12 U	450 U
C-WB	5	6.0 U	3.0 U	6.0 U	12 U	6.0 U	9.0 U	3.0 U	3.0 U	12 U	450 U
C-NE	1	2.0 U	2.0 U	2.0 U	2.0 U	2.6	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
C-NE	2	2.0 U	2.0 U	3.4	2.0 U	2.0 U	2.0 U	4.4	2.0 U	32.0 U	20.0 U
C-NE	3	2.9 B	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
C-NE	4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
C-NE	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U

(a) Undetected above given concentration.

(b) Not measured.

(c) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

TABLE P.18. Chlorinated Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Dry Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

			<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	(Lindane)									
			Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Alpha-chlordane	Gamma-chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
AC-1	1	15.50 ^(a)	19.4 U ^(b)	19.4 U	19.4 U	32.3 U	19.4 U	32.3 U	32.3 U	38.7 U	38.7 U	38.7 U
AC-1	2	NM ^(c)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	14.20 ^(a)	21.1 U	21.1 U	21.1 U	35.2 U	21.1 U	35.2 U	35.2 U	42.3 U	42.3 U	42.3 U
AC-1 Replicate 1	4	14.90 ^(a)	20.1 U	20.1 U	20.1 U	33.6 U	20.1 U	33.6 U	33.6 U	40.3 U	40.3 U	40.3 U
AC-1 Replicate 2	4	14.90 ^(a)	20.1 U	20.1 U	20.1 U	33.6 U	20.1 U	33.6 U	33.6 U	40.3 U	40.3 U	40.3 U
AC-1	5	15.20 ^(a)	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
AC-3	1	14.90 ^(a)	13.4 U	13.4 U	13.4 U	20.1 U	13.4 U	20.1 U	20.1 U	26.8 U	26.8 U	26.8 U
AC-3 Replicate 1	2	15.20 ^(a)	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
AC-3 Replicate 2	2	15.20 ^(a)	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
AC-3	3	15.50 ^(a)	12.9 U	12.9 U	12.9 U	19.4 U	12.9 U	19.4 U	19.4 U	25.8 U	25.8 U	25.8 U
AC-3	4	16.60 ^(a)	18.1 U	18.1 U	18.1 U	30.1 U	18.1 U	30.1 U	30.1 U	36.1 U	36.1 U	36.1 U
AC-3	5	15.10 ^(a)	19.9 U	19.9 U	19.9 U	33.1 U	19.9 U	33.1 U	33.1 U	39.7 U	39.7 U	39.7 U
I-C4	1	10.00	20.0 U	20.0 U	20.0 U	54.0	52.0	20.0 U	20.0 U	20.0 U	34.0	20.0 U
I-C4	2	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
I-C4	3	13.00	15.4 U	15.4 U	18.5 U	15.4 U	41.5	15.4 U	20.0	15.4 U	18.5	15.4 U
I-C4	4	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	18.3 U	16.7 U	41.7	16.7 U
I-C4 Replicate 1	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	20.0	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
I-C4 Replicate 2	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
I-C4 Replicate 3	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	41.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
I-C5	1	11.00	29.1	18.2 U	18.2 U	40.0	18.2 U	18.2 U	18.2 U	18.2 U	38.2	21.8
I-C5	2	13.00	15.4 U	15.4 U	15.4 U	21.5	20.0	15.4 U	15.4 U	15.4 U	15.4 U	23.1
I-C5	3	10.00	70.0	20.0 U	130.0 ^(d)	20.0 U	20.0 U	20.0 U	20.0 U	82.0 U	20.0 U	20.0 U
I-C5	4	12.00	16.7 U	16.7 U	16.7 U	16.7 U	21.7	16.7 U	83.3 ^(d)	16.7 U	83.3	20.0
I-C5	5	12.00	16.7 U	16.7 U	16.7 U	48.3 B ^(e)	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	23.3
I-C7	1	16.10 ^(a)	18.6 U	18.6 U	18.6 U	31.1 U	18.6 U	31.1 U	31.1 U	37.3 U	37.3 U	37.3 U
I-C7	2	14.50 ^(a)	13.8 U	13.8 U	13.8 U	20.7 U	13.8 U	20.7 U	20.7 U	27.6 U	27.6 U	27.6 U
I-C7	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C7	4	14.00 ^(a)	14.3 U	14.3 U	14.3 U	21.4 U	14.3 U	21.4 U	21.4 U	28.6 U	28.6 U	28.6 U
I-C7 Replicate 1	5	13.10 ^(a)	22.9 U	22.9 U	22.9 U	38.2 U	22.9 U	38.2 U	38.2 U	45.8 U	45.8 U	45.8 U
I-C7 Replicate 2	5	13.10 ^(a)	22.9 U	22.9 U	22.9 U	38.2 U	22.9 U	38.2 U	38.2 U	45.8 U	45.8 U	45.8 U
I-C8	1	9.00	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U
I-C8	2	10.00	66.0	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
I-C8	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C8	4	12.00	16.7 U	16.7 U	16.7 U	33.3	16.7 U	16.7 U	16.7 U	16.7 U	17.5	16.7 U
I-C8	5	12.00	16.7 U	16.7 U	16.7 U	38.3 B	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U

TABLE P.18. (Contd)

			<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	(Lindane)									
			Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Alpha-chlordane	Gamma-chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
I-C9	1	15.30 ^(a)	13.1 U	13.1 U	13.1 U	19.6 U	13.1 U	19.6 U	19.6 U	26.1 U	26.1 U	26.1 U
I-C9	2	15.00 ^(a)	20.0 U	20.0 U	20.0 U	33.3 U	20.0 U	33.3 U	33.3 U	40.0 U	40.0 U	40.0 U
I-C9	3	15.20 ^(a)	13.2 U	13.2 U	13.2 U	19.7 U	13.2 U	19.7 U	19.7 U	26.3 U	26.3 U	26.3 U
I-C9	4	15.30 ^(a)	13.1 U	13.1 U	13.1 U	19.6 U	13.1 U	19.6 U	19.6 U	26.1 U	26.1 U	26.1 U
I-C9	5	14.70 ^(a)	13.6 U	13.6 U	13.6 U	20.4 U	13.6 U	20.4 U	20.4 U	27.2 U	27.2 U	27.2 U
I-C10	1	13.70 ^(a)	14.6 U	14.6 U	14.6 U	21.9 U	14.6 U	21.9 U	21.9 U	29.2 U	29.2 U	29.2 U
I-C10 Replicate 1	2	14.30 ^(a)	21.0 U	21.0 U	21.0 U	35.0 U	21.0 U	35.0 U	35.0 U	42.0 U	42.0 U	42.0 U
I-C10 Replicate 2	2	14.30 ^(a)	21.0 U	21.0 U	21.0 U	35.0 U	21.0 U	35.0 U	35.0 U	42.0 U	42.0 U	42.0 U
I-C10	3	NM ^(a)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C10	4	15.80 ^(a)	19.0 U	19.0 U	19.0 U	31.6 U	19.0 U	31.6 U	31.6 U	38.0 U	38.0 U	38.0 U
I-C10	5	13.70 ^(a)	14.6 U	14.6 U	14.6 U	21.9 U	14.6 U	21.9 U	21.9 U	29.2 U	29.2 U	29.2 U
I-C11	1	13.60 ^(a)	22.1 U	22.1 U	22.1 U	36.8 U	22.1 U	36.8 U	36.8 U	44.1 U	44.1 U	44.1 U
I-C11	2	16.80 ^(a)	11.9 U	11.9 U	11.9 U	17.9 U	11.9 U	17.9 U	17.9 U	23.8 U	23.8 U	23.8 U
I-C11	3	14.30 ^(a)	21.0 U	21.0 U	21.0 U	35.0 U	21.0 U	35.0 U	35.0 U	42.0 U	42.0 U	42.0 U
I-C11 Replicate 1	4	16.10 ^(a)	18.6 U	18.6 U	18.6 U	31.1 U	18.6 U	31.1 U	31.1 U	37.3 U	37.3 U	37.3 U
I-C11 Replicate 2	4	16.10 ^(a)	18.6 U	18.6 U	18.6 U	31.1 U	18.6 U	31.1 U	31.1 U	37.3 U	37.3 U	37.3 U
I-C11	5	17.50 ^(a)	11.4 U	11.4 U	11.4 U	17.1 U	11.4 U	17.1 U	17.1 U	22.9 U	22.9 U	22.9 U
I-C12	1	15.90 ^(a)	12.6 U	12.6 U	12.6 U	18.9 U	12.6 U	18.9 U	18.9 U	25.2 U	25.2 U	25.2 U
I-C12	2	15.20 ^(a)	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
I-C12 Replicate 1	3	13.90 ^(a)	21.6 U	21.6 U	21.6 U	36.0 U	21.6 U	36.0 U	36.0 U	43.2 U	43.2 U	43.2 U
I-C12 Replicate 2	3	13.90 ^(a)	21.6 U	21.6 U	21.6 U	36.0 U	21.6 U	36.0 U	36.0 U	43.2 U	43.2 U	43.2 U
I-C12	4	15.00 ^(a)	20.0 U	20.0 U	20.0 U	33.3 U	20.0 U	33.3 U	33.3 U	40.0 U	40.0 U	40.0 U
I-C12	5	15.30 ^(a)	19.6 U	19.6 U	19.6 U	32.7 U	19.6 U	32.7 U	32.7 U	39.2 U	39.2 U	39.2 U
I-C14	1	14.60 ^(a)	20.5 U	20.5 U	20.5 U	34.2 U	20.5 U	34.2 U	34.2 U	41.1 U	41.1 U	41.1 U
I-C14	2	15.20 ^(a)	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
I-C14	3	16.50 ^(a)	12.1 U	12.1 U	12.1 U	18.2 U	12.1 U	18.2 U	18.2 U	24.2 U	24.2 U	24.2 U
I-C14	4	13.20 ^(a)	15.2 U	15.2 U	15.2 U	22.7 U	15.2 U	22.7 U	22.7 U	30.3 U	30.3 U	30.3 U
I-C14	5	16.00 ^(a)	12.5 U	12.5 U	12.5 U	18.7 U	12.5 U	18.7 U	18.7 U	25.0 U	25.0 U	25.0 U
I-C15	1	14.20 ^(a)	14.1 U	14.1 U	14.1 U	21.1 U	14.1 U	21.1 U	21.1 U	28.2 U	28.2 U	28.2 U
I-C15	2	14.60 ^(a)	20.5 U	20.5 U	20.5 U	34.2 U	20.5 U	34.2 U	34.2 U	41.1 U	41.1 U	41.1 U
I-C15	3	16.10 ^(a)	12.4 U	12.4 U	12.4 U	18.6 U	12.4 U	18.6 U	18.6 U	24.8 U	24.8 U	24.8 U
I-C15	4	15.50 ^(a)	19.4 U	19.4 U	19.4 U	32.3 U	19.4 U	32.3 U	32.3 U	38.7 U	38.7 U	38.7 U
I-C15	5	14.40 ^(a)	13.9 U	13.9 U	13.9 U	20.8 U	13.9 U	20.8 U	20.8 U	27.8 U	27.8 U	27.8 U

TABLE P.18. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
			Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-chlordane	Gamma-chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
I-C16	1	15.10 ^(a)	13.2 U	13.2 U	13.2 U	19.9 U	13.2 U	19.9 U	19.9 U	26.5 U	26.5 U	26.5 U
I-C16	2	16.30 ^(a)	18.4 U	18.4 U	18.4 U	30.7 U	18.4 U	30.7 U	30.7 U	36.8 U	36.8 U	36.8 U
I-C16 Replicate 1	3	14.70 ^(a)	20.4 U	20.4 U	20.4 U	34.0 U	20.4 U	34.0 U	34.0 U	40.8 U	40.8 U	40.8 U
I-C16 Replicate 2	3	14.70 ^(a)	20.4 U	20.4 U	20.4 U	34.0 U	20.4 U	34.0 U	34.0 U	40.8 U	40.8 U	40.8 U
I-C16	4	15.40 ^(a)	19.5 U	19.5 U	19.5 U	32.5 U	19.5 U	32.5 U	32.5 U	39.0 U	39.0 U	39.0 U
I-C16	5	14.40 ^(a)	13.9 U	13.9 U	13.9 U	20.8 U	13.9 U	20.8 U	20.8 U	27.8 U	27.8 U	27.8 U
I-C17	1	13.50 ^(a)	22.2 U	22.2 U	22.2 U	37.0 U	22.2 U	37.0 U	37.0 U	44.4 U	44.4 U	44.4 U
I-C17	2	12.50 ^(a)	16.0 U	16.0 U	16.0 U	24.0 U	16.0 U	24.0 U	24.0 U	32.0 U	32.0 U	32.0 U
I-C17	3	14.00 ^(a)	14.3 U	14.3 U	14.3 U	21.4 U	14.3 U	21.4 U	21.4 U	28.6 U	28.6 U	28.6 U
I-C17	4	13.60 ^(a)	14.7 U	14.7 U	14.7 U	22.1 U	14.7 U	22.1 U	22.1 U	29.4 U	29.4 U	29.4 U
I-C17	5	16.00 ^(a)	18.7 U	18.7 U	18.7 U	31.2 U	18.7 U	31.2 U	31.2 U	37.5 U	37.5 U	37.5 U
I-C18 Replicate 1	1	14.40 ^(a)	20.8 U	20.8 U	20.8 U	34.7 U	20.8 U	34.7 U	34.7 U	41.7 U	41.7 U	41.7 U
I-C18 Replicate 2	1	14.40 ^(a)	20.8 U	20.8 U	20.8 U	34.7 U	20.8 U	34.7 U	34.7 U	41.7 U	41.7 U	41.7 U
I-C18	2	15.20 ^(a)	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
I-C18	3	16.20 ^(a)	12.3 U	12.3 U	12.3 U	18.5 U	12.3 U	18.5 U	18.5 U	24.7 U	24.7 U	24.7 U
I-C18	4	15.80 ^(a)	19.0 U	19.0 U	19.0 U	31.6 U	19.0 U	31.6 U	31.6 U	38.0 U	38.0 U	38.0 U
I-C18	5	14.50 ^(a)	20.7 U	20.7 U	20.7 U	34.5 U	20.7 U	34.5 U	34.5 U	41.4 U	41.4 U	41.4 U
I-S1	1	14.00	14.3 U	14.3 U	14.3 U	14.3 U	24.3 U	14.3 U	14.3 U	14.3 U	14.3 U	45.7
I-S1	2	13.00	15.4 U	15.4 U	24.6	41.5 8	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
I-S1	3	11.00	18.2 U	18.2 U	18.2 U	18.2 U	20.0	18.2 U	19.1	90.9	18.2 U	30.0 U
I-S1	4	13.00	45.4	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	56.9	15.4 U	15.4 U
I-S1	5	11.00	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U
I-T1	1	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
I-T1	2	12.00	16.7 U	16.7 U	16.7 U	38.3	25.0 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
I-T1	3	9.00	24.4	51.1	31.1 U	288.9 8 ^(d)	22.2 U	22.2 U	22.2 U	22.2 U	28.9	22.2 U
I-T1	4	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
I-T1	5	11.00	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	43.6	18.2 U
I-T3	1	15.00	13.3 U	13.3 U	17.3	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U
I-T3	2	12.00	16.7 U	16.7 U	16.7 U	18.3	16.7 U	16.7 U	16.7 U	44.2	36.7	16.7 U
I-T3	3	13.00	15.4 U	15.4 U	16.9	15.4 U	76.9	15.4 U	15.4 U	16.2	15.4 U	15.4 U
I-T3	4	13.00	15.4 U	15.4 U	15.4 U	21.5 8	15.4 U	15.4 U	15.4 U	76.9	15.4 U	21.5
I-T3	5	14.00	14.3 U	14.3 U	14.3 U	22.9 U	38.6	14.3 U	14.3 U	14.3 U	22.9	14.3 U

TABLE P.18. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ dry weight)									
			Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-chlordane	Gamma-chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
I-T5	1	14.00	14.3 U	14.3 U	14.3 U	31.4	14.3 U	14.3 U	14.3 U	14.3 U ^(d)	17.1	14.3 U
I-T5	2	11.00	18.2 U	18.2 U	18.2 U	27.3	76.4	18.2 U	18.2 U	145.5 ^(d)	18.2 U	18.2 U
I-T5	3	11.00	18.2 U	18.2 U	18.2 U	29.1	18.2 U	18.2 U	20.0	18.2 U	36.4	18.2 U
I-T5	4	14.00	14.3 U	14.3 U	14.3 U	25.7	18.6 U	14.3 U	14.3 U	14.3 U	21.4	18.6
I-T5	5	13.00	15.4 U	15.4 U	15.4 U	15.4 U	25.4 U	15.4 U	15.4 U	15.4 U	17.7	15.4 U
R-AC	1	11.00	18.2 U	18.2 U	18.2 U	20.0 B	18.2 U	18.2 U	18.2 U	23.6 U	35.5	25.5
R-AC	2	10.00	20.0 U	20.0 U	20.0 U	20.0 U ^(d)	20.0 U	20.0 U	24.0 U	20.0 U	20.0 U	20.0 U
R-AC	3	13.00	15.4 U	15.4 U	15.4 U	184.6 ^(d)	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
R-AC	4	11.00	25.5	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	51.8	18.2 U	18.2 U
R-AC	5	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	38.5
R-AM	1	14.00	14.3 U	14.3 U	14.3 U	14.3 U	24.3 U ^(d)	14.3 U	14.3 U	14.3 U	20.0	14.3 U
R-AM	2	12.00	16.7 U	16.7 U	16.7 U	16.7 U	158.3 ^(d)	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
R-AM	3	14.00	14.3 U	14.3 U	18.6 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U
R-AM	4	10.00	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	34.0	20.0 U	20.0 U	20.0 U
R-AM	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
R-BF	1	14.90 ^(a)	20.1 U	20.1 U	20.1 U	33.6 U	20.1 U	33.6 U	33.6 U	40.3 U	40.3 U	40.3 U
R-BF	2	15.30 ^(a)	13.1 U	13.1 U	13.1 U	19.6 U	13.1 U	19.6 U	19.6 U	26.1 U	26.1 U	26.1 U
R-BF	3	13.60 ^(a)	14.7 U	14.7 U	14.7 U	22.1 U	14.7 U	22.1 U	22.1 U	29.4 U	29.4 U	29.4 U
R-BF	4	13.80 ^(a)	21.7 U	21.7 U	21.7 U	36.2 U	21.7 U	36.2 U	36.2 U	43.5 U	43.5 U	43.5 U
R-BF	5	16.90 ^(a)	17.8 U	17.8 U	17.8 U	29.6 U	17.8 U	29.6 U	29.6 U	35.5 U	35.5 U	35.5 U
R-DS	1	12.00	91.7 ^(d)	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	125.0 ^(d)	16.7 U	16.7 U
R-DS	2	9.00	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	67.8 U
R-DS	3	13.00	15.4 U	15.4 U	15.4 U	34.6 B	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
R-DS	4	11.00	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	48.2 U	43.6	345.5 ^(d)
R-DS	5	14.00	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U	14.3 U
R-PC	1	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
R-PC	2	13.00	15.4 U	15.4 U	15.4 U	36.9	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U
R-PC	3	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	30.8 U	15.4 U	15.4 U	15.4 U
R-PC	4	11.00	87.3 U ^(d)	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	136.4 U ^(d)	18.2 U	18.2 U
R-PC	5	13.00	22.3 U	33.1	15.4 U	15.4 U	20.0	15.4 U	18.5	15.4 U	15.4 U	15.4 U
R-PF	1	10.00	20.0 U	22.0	20.0 U	52.0 B	160.0 ^(d)	20.0 U	20.0 U	170.0	20.0 U	20.0 U
R-PF	2	11.00	18.2 U	18.2 U	18.2 U	18.2 U	38.2	18.2 U	26.4	18.2 U	18.2 U	18.2 U
R-PF	3	11.00	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U
R-PF	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-PF	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	20.0 U	16.7 U	16.7 U	116.7	16.7 U	16.7 U

TABLE P.18. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
			Aldrin	Alpha- BHC	Beta- BHC	Delta- BHC	(Lindane) Gamma- BHC	Alpha- chlordane	Gamma- chlordane	4,4'- DDD	4,4'- DDE	4,4'- DDT
C-SB	1	12.30	24.4 U	24.4 U	24.4 U	40.7 U	24.4 U	40.7 U	40.7 U	48.8 U	48.8 U	48.8 U
C-SB	2	14.90	13.4 U	13.4 U	13.4 U	20.1 U	13.4 U	20.1 U	20.1 U	26.8 U	26.8 U	26.8 U
C-SB	3	15.70	19.1 U	19.1 U	19.1 U	31.8 U	19.1 U	31.8 U	31.8 U	38.2 U	38.2 U	38.2 U
C-SB	4	16.60	12.0 U	12.0 U	12.0 U	18.1 U	12.0 U	18.1 U	18.1 U	24.1 U	24.1 U	24.1 U
C-SB	5	16.40	18.3 U	18.3 U	18.3 U	30.5 U	18.3 U	30.5 U	30.5 U	36.6 U	36.6 U	36.6 U
C-WB	1	15.20	13.2 U	13.2 U	13.2 U	19.7 U	13.2 U	19.7 U	19.7 U	26.3 U	26.3 U	26.3 U
C-WB	2	16.00	12.5 U	12.5 U	12.5 U	18.7 U	12.5 U	18.7 U	18.7 U	25.0 U	25.0 U	25.0 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	15.10	19.9 U	19.9 U	19.9 U	33.1 U	19.9 U	33.1 U	33.1 U	39.7 U	39.7 U	39.7 U
C-WB	5	15.20	19.7 U	19.7 U	19.7 U	32.9 U	19.7 U	32.9 U	32.9 U	39.5 U	39.5 U	39.5 U
C-NE	1	12.00	16.7 U	16.7 U	16.7 U	16.7 U	91.7	16.7 U	16.7 U	16.7 U	17.5	16.7 U
C-NE	2	10.00	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	80.0
C-NE	3	15.00	13.3 U	13.3 U	33.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	44.0
C-NE	4	12.00	17.5 U	16.7 U	16.7 U	28.3 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U
C-NE	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	56.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3

(a) Dry weight determinations from metals analysis applied to this data.

(b) Undetected above given concentration.

(c) Not measured.

(d) Anomalous Data; not used in statistical analysis.

(e) Analyte found in the method blank. Results presented are not correct for the amount in the blank.

			M. nasuta Pesticides (µg/kg dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-Sulfan II	Endo-sulfan-Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
AC-1	1	15.50 ^(a)	38.7 U ^(b)	19.4 U	38.7 U	77.4 U	38.7 U	58.1 U	19.4 U	19.4 U	77.4 U	2903.2 U
AC-1	2	NM ^(c)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	14.20 ^(a)	42.3 U	21.1 U	42.3 U	84.5 U	42.3 U	63.4 U	21.1 U	21.1 U	84.5 U	3169.0 U
AC-1 Replicate 1	4	14.90 ^(a)	40.3 U	20.1 U	40.3 U	80.5 U	40.3 U	60.4 U	20.1 U	20.1 U	80.5 U	3020.1 U
AC-1 Replicate 2	4	14.90 ^(a)	40.3 U	20.1 U	40.3 U	80.5 U	40.3 U	60.4 U	20.1 U	20.1 U	80.5 U	3020.1 U
AC-1	5	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
AC-3	1	14.90 ^(a)	26.8 U	13.4 U	26.8 U	53.7 U	26.8 U	40.3 U	13.4 U	13.4 U	53.7 U	2013.4 U
AC-3 Replicate 1	2	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
AC-3 Replicate 2	2	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
AC-3	3	15.50 ^(a)	25.8 U	12.9 U	25.8 U	51.6 U	25.8 U	38.7 U	12.9 U	12.9 U	51.6 U	1935.5 U
AC-3	4	16.60 ^(a)	36.1 U	18.1 U	36.1 U	72.3 U	36.1 U	54.2 U	18.1 U	18.1 U	72.3 U	2710.8 U
AC-3	5	15.10 ^(a)	39.7 U	19.9 U	39.7 U	79.5 U	39.7 U	59.6 U	19.9 U	19.9 U	79.5 U	2980.1 U
I-C4	1	10.00	20.0 U	20.0 U	20.0 U	20.0 U	28.0	20.0 U	20.0 U	20.0 U	100.0 U	200.0 U
I-C4	2	13.00	21.5 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	292.3	153.8 U
I-C4	3	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-C4	4	12.00	30.0 U	16.7 U	28.3 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-C4 Replicate 1	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-C4 Replicate 2	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	28.3	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-C4 Replicate 3	5	12.00	16.7 U	16.7 U	24.2 U	16.7 U	23.3	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-C5	1	11.00	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	90.9 U	181.8 U
I-C5	2	13.00	15.4 U	15.4 U	15.4 U	15.4 U	21.5	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-C5	3	10.00	20.0 U	21.0 U	49.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	100.0 U	200.0 U
I-C5	4	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	31.7	83.3 U	166.7 U
I-C5	5	12.00	21.7	16.7 U	16.7 U	16.7 U	23.3	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-C7	1	16.10 ^(a)	37.3 U	18.6 U	37.3 U	74.5 U	37.3 U	55.9 U	18.6 U	18.6 U	74.5 U	2795.0 U
I-C7	2	14.50 ^(a)	27.6 U	13.8 U	27.6 U	55.2 U	27.6 U	41.4 U	13.8 U	13.8 U	55.2 U	2069.0 U
I-C7	3	NM ^(a)	NM	NM	NM	NM	NM					

TABLE P.19. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ dry weight)										
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-Sulfan II	Endo-sulfan-Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
I-C9	1	15.30 ^(a)	26.1 U	13.1 U	26.1 U	52.3 U	26.1 U	39.2 U	13.1 U	13.1 U	52.3 U	1960.8 U
I-C9	2	15.00 ^(a)	40.0 U	20.0 U	40.0 U	80.0 U	40.0 U	60.0 U	20.0 U	20.0 U	80.0 U	3000.0 U
I-C9	3	15.20 ^(a)	26.3 U	13.2 U	26.3 U	52.6 U	26.3 U	39.5 U	13.2 U	13.2 U	52.6 U	1973.7 U
I-C9	4	15.30 ^(a)	26.1 U	13.1 U	26.1 U	52.3 U	26.1 U	39.2 U	13.1 U	13.1 U	52.3 U	1960.8 U
I-C9	5	14.70 ^(a)	27.2 U	13.6 U	27.2 U	54.4 U	27.2 U	40.8 U	13.6 U	13.6 U	54.4 U	2040.8 U
I-C10	1	13.70 ^(a)	29.2 U	14.6 U	29.2 U	58.4 U	29.2 U	43.8 U	14.6 U	14.6 U	58.4 U	2189.8 U
I-C10 Replicate 1	2	14.30 ^(a)	42.0 U	21.0 U	42.0 U	83.9 U	42.0 U	62.9 U	21.0 U	21.0 U	83.9 U	3146.9 U
I-C10 Replicate 2	2	14.30 ^(a)	42.0 U	21.0 U	42.0 U	83.9 U	42.0 U	62.9 U	21.0 U	21.0 U	83.9 U	3146.9 U
I-C10	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C10	4	15.80 ^(a)	38.0 U	19.0 U	38.0 U	75.9 U	38.0 U	57.0 U	19.0 U	19.0 U	75.9 U	2848.1 U
I-C10	5	13.70 ^(a)	29.2 U	14.6 U	29.2 U	58.4 U	29.2 U	43.8 U	14.6 U	14.6 U	58.4 U	2189.8 U
I-C11	1	13.60 ^(a)	44.1 U	22.1 U	44.1 U	88.2 U	44.1 U	66.2 U	22.1 U	22.1 U	88.2 U	3308.8 U
I-C11	2	16.80 ^(a)	23.8 U	11.9 U	23.8 U	47.6 U	23.8 U	35.7 U	11.9 U	11.9 U	47.6 U	1785.7 U
I-C11	3	14.30 ^(a)	42.0 U	21.0 U	42.0 U	83.9 U	42.0 U	62.9 U	21.0 U	21.0 U	83.9 U	3146.9 U
I-C11 Replicate 1	4	16.10 ^(a)	37.3 U	18.6 U	37.3 U	74.5 U	37.3 U	55.9 U	18.6 U	18.6 U	74.5 U	2795.0 U
I-C11 Replicate 2	4	16.10 ^(a)	37.3 U	18.6 U	37.3 U	74.5 U	37.3 U	55.9 U	18.6 U	18.6 U	74.5 U	2795.0 U
I-C11	5	17.50 ^(a)	22.9 U	11.4 U	22.9 U	45.7 U	22.9 U	34.3 U	11.4 U	11.4 U	45.7 U	1714.3 U
I-C12	1	15.90 ^(a)	25.2 U	12.6 U	25.2 U	50.3 U	25.2 U	37.7 U	12.6 U	12.6 U	50.3 U	1886.8 U
I-C12	2	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
I-C12 Replicate 1	3	13.90 ^(a)	43.2 U	21.6 U	43.2 U	86.3 U	43.2 U	64.7 U	21.6 U	21.6 U	86.3 U	3237.4 U
I-C12 Replicate 2	3	13.90 ^(a)	43.2 U	21.6 U	43.2 U	86.3 U	43.2 U	64.7 U	21.6 U	21.6 U	86.3 U	3237.4 U
I-C12	4	15.00 ^(a)	40.0 U	20.0 U	40.0 U	80.0 U	40.0 U	60.0 U	20.0 U	20.0 U	80.0 U	3000.0 U
I-C12	5	15.30 ^(a)	39.2 U	19.6 U	39.2 U	78.4 U	39.2 U	58.8 U	19.6 U	19.6 U	78.4 U	2941.2 U
I-C14	1	14.60 ^(a)	41.1 U	20.5 U	41.1 U	82.2 U	41.1 U	61.6 U	20.5 U	20.5 U	82.2 U	3082.2 U
I-C14	2	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
I-C14	3	16.50 ^(a)	24.2 U	12.1 U	24.2 U	48.5 U	24.2 U	36.4 U	12.1 U	12.1 U	48.5 U	1818.2 U
I-C14	4	13.20 ^(a)	30.3 U	15.2 U	30.3 U	60.6 U	30.3 U	45.5 U	15.2 U	15.2 U	60.6 U	2272.7 U
I-C14	5	16.00 ^(a)	25.0 U	12.5 U	25.0 U	50.0 U	25.0 U	37.5 U	12.5 U	12.5 U	50.0 U	1875.0 U
I-C15	1	14.20 ^(a)	28.2 U	14.1 U	28.2 U	56.3 U	28.2 U	42.3 U	14.1 U	14.1 U	56.3 U	2112.7 U
I-C15	2	14.60 ^(a)	41.1 U	20.5 U	41.1 U	82.2 U	41.1 U	61.6 U	20.5 U	20.5 U	82.2 U	3082.2 U
I-C15	3	16.10 ^(a)	24.8 U	12.4 U	24.8 U	49.7 U	24.8 U	37.3 U	12.4 U	12.4 U	49.7 U	1863.4 U
I-C15	4	15.50 ^(a)	38.7 U	19.4 U	38.7 U	77.4 U	38.7 U	58.1 U	19.4 U	19.4 U	77.4 U	2903.2 U
I-C15	5	14.40 ^(a)	27.8 U	13.9 U	27.8 U	55.6 U	27.8 U	41.7 U	13.9 U	13.9 U	55.6 U	2083.3 U

TABLE P.19. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)										
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-Sulfan II	Endo-sulfan-Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
I-C16	1	15.10 ^(a)	26.5 U	13.2 U	26.5 U	53.0 U	26.5 U	39.7 U	13.2 U	13.2 U	53.0 U	1986.8 U
I-C16	2	16.30 ^(a)	36.8 U	18.4 U	36.8 U	73.6 U	36.8 U	55.2 U	18.4 U	18.4 U	73.6 U	2760.7 U
I-C16 Replicate 1	3	14.70 ^(a)	40.8 U	20.4 U	40.8 U	81.6 U	40.8 U	61.2 U	20.4 U	20.4 U	81.6 U	3061.2 U
I-C16 Replicate 2	3	14.70 ^(a)	40.8 U	20.4 U	40.8 U	81.6 U	40.8 U	61.2 U	20.4 U	20.4 U	81.6 U	3061.2 U
I-C16	4	15.40 ^(a)	39.0 U	19.5 U	39.0 U	77.9 U	39.0 U	58.4 U	19.5 U	19.5 U	77.9 U	2922.1 U
I-C16	5	14.40 ^(a)	27.8 U	13.9 U	27.8 U	55.6 U	27.8 U	41.7 U	13.9 U	13.9 U	55.6 U	2083.3 U
I-C17	1	13.50 ^(a)	44.4 U	22.2 U	44.4 U	88.9 U	44.4 U	66.7 U	22.2 U	22.2 U	88.9 U	3333.3 U
I-C17	2	12.50 ^(a)	32.0 U	16.0 U	32.0 U	64.0 U	32.0 U	48.0 U	16.0 U	16.0 U	64.0 U	2400.0 U
I-C17	3	14.00 ^(a)	28.6 U	14.3 U	28.6 U	57.1 U	28.6 U	42.9 U	14.3 U	14.3 U	57.1 U	2142.9 U
I-C17	4	13.60 ^(a)	29.4 U	14.7 U	29.4 U	58.8 U	29.4 U	44.1 U	14.7 U	14.7 U	58.8 U	2205.9 U
I-C17	5	16.00 ^(a)	37.5 U	18.7 U	37.5 U	75.0 U	37.5 U	56.2 U	18.7 U	18.7 U	75.0 U	2812.5 U
I-C18 Replicate 1	1	14.40 ^(a)	41.7 U	20.8 U	41.7 U	83.3 U	41.7 U	62.5 U	20.8 U	20.8 U	83.3 U	3125.0 U
I-C18 Replicate 2	1	14.40 ^(a)	41.7 U	20.8 U	41.7 U	83.3 U	41.7 U	62.5 U	20.8 U	20.8 U	83.3 U	3125.0 U
I-C18	2	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
I-C18	3	16.20 ^(a)	24.7 U	12.3 U	24.7 U	49.4 U	24.7 U	37.0 U	12.3 U	12.3 U	49.4 U	1851.9 U
I-C18	4	15.80 ^(a)	38.0 U	19.0 U	38.0 U	75.9 U	38.0 U	57.0 U	19.0 U	19.0 U	75.9 U	2848.1 U
I-C18	5	14.50 ^(a)	41.4 U	20.7 U	41.4 U	82.8 U	41.4 U	62.1 U	20.7 U	20.7 U	82.8 U	3103.4 U
I-S1	1	14.00	14.3 U	14.3 U	14.3 U	25.0	14.3 U	22.9	14.3 U	14.3 U	71.4 U	142.9 U
I-S1	2	13.00	92.3 U	15.4 U	73.1 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-S1	3	11.00	18.2 U	18.2 U	38.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	90.9 U	181.8 U
I-S1	4	13.00	15.4 U	15.4 U	50.8	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-S1	5	11.00	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	18.2 U	90.9 U	181.8 U
I-T1	1	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-T1	2	12.00	43.3	33.3 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
I-T1	3	9.00	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	22.2 U	111.1 U	222.2 U
I-T1	4	13.00	15.4 U	15.4 U	15.4 U	15.4 U	16.2	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-T1	5	11.00	18.2 U	18.2 U	18.2 U	18.2 U	34.5	18.2 U	18.2 U	18.2 U	90.9 U	181.8 U
I-T3	1	15.00	13.3 U	13.3 U	13.3 U ^(d)	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	66.7 U	133.3 U
I-T3	2	12.00	16.7 U	16.7 U	36.7 U ^(d)	16.7 U	16.7 U	16.7 U	28.3	16.7 U	83.3 U	166.7 U
I-T3	3	13.00	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-T3	4	13.00	26.2	21.5 U	15.4 U	15.4 U	60.0	15.4 U	15.4 U	15.4 U	76.9 U	153.8 U
I-T3	5	14.00	14.3 U	14.3 U	14.3 U	14.3 U	21.4 U	14.3 U	14.3 U	14.3 U	71.4 U	142.9 U

TABLE P.19. (Contd)

			<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-Sulfan II	Endo-sulfan-Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
C-SB	1	12.30 ^(a)	48.8 U	24.4 U	48.8 U	97.6 U	48.8 U	73.2 U	24.4 U	24.4 U	97.6 U	3658.5 U
C-SB	2	14.90 ^(a)	26.8 U	13.4 U	26.8 U	53.7 U	26.8 U	40.3 U	13.4 U	13.4 U	53.7 U	2013.4 U
C-SB	3	15.70 ^(a)	38.2 U	19.1 U	38.2 U	76.4 U	38.2 U	57.3 U	19.1 U	19.1 U	76.4 U	2866.2 U
C-SB	4	16.60 ^(a)	24.1 U	12.0 U	24.1 U	48.2 U	24.1 U	36.1 U	12.0 U	12.0 U	48.2 U	1807.2 U
C-SB	5	16.40 ^(a)	36.6 U	18.3 U	36.6 U	73.2 U	36.6 U	54.9 U	18.3 U	18.3 U	73.2 U	2743.9 U
C-WB	1	15.20 ^(a)	26.3 U	13.2 U	26.3 U	52.6 U	26.3 U	39.5 U	13.2 U	13.2 U	52.6 U	1973.7 U
C-WB	2	16.00 ^(a)	25.0 U	12.5 U	25.0 U	50.0 U	25.0 U	37.5 U	12.5 U	12.5 U	50.0 U	1875.0 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	15.10 ^(a)	39.7 U	19.9 U	39.7 U	79.5 U	39.7 U	59.6 U	19.9 U	19.9 U	79.5 U	2980.1 U
C-WB	5	15.20 ^(a)	39.5 U	19.7 U	39.5 U	78.9 U	39.5 U	59.2 U	19.7 U	19.7 U	78.9 U	2960.5 U
C-NE	1	12.00	16.7 U	16.7 U	16.7 U	16.7 U	21.7	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
C-NE	2	10.00	20.0 U	20.0 U	34.0	20.0 U	20.0 U	20.0 U	44.0	20.0 U	320.0 U	200.0 U
C-NE	3	15.00	19.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	66.7 U	133.3 U
C-NE	4	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U
C-NE	5	12.00	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	83.3 U	166.7 U

(a) Dry weight determinations from metals analysis applied to this data.

(b) Undetected above given concentration.

(c) Not measured.

(d) Analyte found in the method blank. Results presented are not corrected for the amount in the blank.

TABLE P.20. Quality Control Data from Analytical Resources Inc. for Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
<u>Method Blanks</u>										
Blank 1		3.0 U ^(a)	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Blank 2		3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Blank 1		3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Blank 2		3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Blank 1		3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Blank 2		3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
<u>Matrix Spikes</u>										
I-C14	1	3.0 U	3.0 U ^(b)	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C14 MS	1	13.0	NA ^(c)	NA	15.0	NA	NA	NA	NA	36.0 U
Concentration Recovered		13.0	NS	NS	15.0	NS	NS	NS	NS	36.0
Amount Spiked		17.0	NS	NS	17.0	NS	NS	NS	NS	43.0
Percent Recovery		76%	NA	NA	88%	NA	NA	NA	NA	84%
R-BF	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
R-BF MS	1	7.2	NA	NA	7.9	NA	NA	NA	NA	18.0 U
Concentration Recovered		7.2	NS	NS	7.9	NS	NS	NS	NS	18.0
Amount Spiked		13.0	NS	NS	13.0	NS	NS	NS	NS	32.0
Percent Recovery		55%	NA	NA	61%	NA	NA	NA	NA	56%
I-C12	1	2.0 U	2.0 U	3.0 U	2.0 U	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U
I-C12 MS	1	19.0	NA	NA	23.0	NA	NA	NA	NA	47.0 U
Concentration Recovered		19.0	NS	NS	23.0	NS	NS	NS	NS	47.0
Amount Spiked		22.0	NS	NS	22.0	NS	NS	NS	NS	55.0
Percent Recovery		86%	NA	NA	105%	NA	NA	NA	NA	85%
I-C12	4	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12 MS	4	9.0	NA	NA	11.0	NA	NA	NA	NA	23.0 U
Concentration Recovered		9.0	NS	NS	11.0	NS	NS	NS	NS	23.0
Amount Spiked		12.0	NS	NS	12.0	NS	NS	NS	NS	30.0
Percent Recovery		75%	NA	NA	92%	NA	NA	NA	NA	77%

TABLE P.20. (Contd)

		<i>M. nasua</i> Pesticides ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
<u>Matrix Spikes (Contd)</u>										
Background Clam	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Background Clam MS 1	1	9.9	NA	NA	14.0	NA	NA	NA	NA	32.0 U
Amount Spiked		13.0	NS	NS	13.0	NS	NS	NS	NS	32.0
Percent Recovery		76%	NA	NA	108%	NA	NA	NA	NA	100%
Background Clam	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Background Clam MS 2	1	8.1	NA	NA	12.0	NA	NA	NA	NA	28.0 U
Amount Spiked		15.0	NS	NS	15.0	NS	NS	NS	NS	38.0
Percent Recovery		54%	NA	NA	80%	NA	NA	NA	NA	74%
Background Clam	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Background Clam MS 3	1	7.4	NA	NA	10.0	NA	NA	NA	NA	27.0 U
Amount Spiked		11.0	NS	NS	11.0	NS	NS	NS	NS	28.0
Percent Recovery		67%	NA	NA	91%	NA	NA	NA	NA	96%
Background Clam	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
Background Clam MS 4	1	7.6	NA	NA	10.0	NA	NA	NA	NA	26.0 U
Amount Spiked		11.0	NS	NS	11.0	NS	NS	NS	NS	29.0
Percent Recovery		69%	NA	NA	91%	NA	NA	NA	NA	90%
<u>Analytical Replicates</u>										
AC-1 Replicate 1	4	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-1 Replicate 2	4	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-3 Replicate 1	2	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
AC-3 Replicate 2	2	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C7 Replicate 1	5	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C7 Replicate 2	5	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C10 Replicate 1	2	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C10 Replicate 2	2	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C11 Replicate 1	4	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C11 Replicate 2	4	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12 Replicate 1	3	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C12 Replicate 2	3	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U

TABLE P.20. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
<u>Analytical Replicates</u> (Contd)										
I-C16 Replicate 1	3	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C16 Replicate 2	3	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C18 Replicate 1	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U
I-C18 Replicate 2	1	3.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U	6.0 U	6.0 U	6.0 U

NOTE: No RPD or I-Stat calculations necessary as no pesticides were detected above detection limit.

- (a) Undetected above given concentration.
- (b) Not applicable.
- (c) Not spiked.

TABLE P.21. Quality Control Data from Twin City Testing for Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

<i>M. nasua</i> Pesticides ($\mu\text{g/kg}$ wet weight)											
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Alpha-Chlordane	Gamma-Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
<u>Method Blanks</u>											
Blank I		2.0 U ^(a)	2.0 U	2.0 U	11.0	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank II		2.0 U	2.0 U	2.0 U	3.2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.4 U
Blank III		2.0 U	2.0 U	2.0 U	6.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank IV		2.0 U	2.0 U	2.0 U	2.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank V		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank VI		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Blank VII		2.0 U	2.0 U	2.0 U	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
<u>Analytical Triplicates</u>											
I-C4 Replicate 1	5	2.0 U	2.0 U	2.0 U	2.0 U	2.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C4 Replicate 2	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
I-C4 Replicate 3	5	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
RSD		NA ^(b)	NA	NA	NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Not applicable.

TABLE P.22. Quality Control Data from Analytical Resources Inc. for Pesticides (Alphabetical, Dieldrin - Toxaphene), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo sulfan I	Endo Sulfan II	Endo sulfan Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
<u>Method Blanks</u>											
Blank	1	6.0 U ^(a)	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Blank	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Blank	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Blank	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Blank	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Blank	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
<u>Matrix Spikes</u>											
I-C14	1	6.0 U	3.0 U ^(b)	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C14 MS	1	34.0	NA ^(c)	NA	NA	41.0	NA	15.0	NA	NA	NA
Concentration Recovered		34.0	NS	NS	NS	41.0	NS	15.0	NS	NS	NS
Amount Spiked		43.0	NS	NS	NS	43.0	NS	17.0	NS	NS	NS
Percent Recovery		79%	NA	NA	NA	95%	NA	88%	NA	NA	NA
R-BF	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
R-BF MS	1	18.0	NA	NA	NA	21.0	NA	8.2	NA	NA	NA
Concentration Recovered		18.0	NS	NS	NS	21.0	NS	8.2	NS	NS	NS
Amount Spiked		32.0	NS	NS	NS	32.0	NS	13.0	NS	NS	NS
Percent Recovery		56%	NA	NA	NA	66%	NA	63%	NA	NA	NA
I-C12	1	4.0 U	2.0 U	4.0 U	8.0 U	4.0 U	6.0 U	2.0 U	2.0 U	8.0 U	300 U
I-C12 MS	1	47.0	NA	NA	NA	58.0	NA	20.0	NA	NA	NA
Concentration Recovered		47.0	NS	NS	NS	58.0	NS	20.0	NS	NS	NS
Amount Spiked		55.0	NS	NS	NS	55.0	NS	22.0	NS	NS	NS
Percent Recovery		85%	NA	NA	NA	105%	NA	91%	NA	NA	NA
I-C12	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C12 MS	4	21.0	NA	NA	NA	28.0	NA	10.0	NA	NA	NA
Concentration Recovered		21.0	NS	NS	NS	28.0	NS	10.0	NS	NS	NS
Amount Spiked		30.0	NS	NS	NS	30.0	NS	12.0	NS	NS	NS
Percent Recovery		70%	NA	NA	NA	93%	NA	83%	NA	NA	NA

TABLE P.22. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo sulfan I	Endo Sulfan II	Endo sulfan Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
<u>Matrix Spikes (Contd)</u>											
Background Clam	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Background Clam MS 1	1	27.0	NA	NA	NA	32.0	NA	NA	NA	NA	NA
Amount Spiked		32.0	NS	NS	NS	32.0	NS	13.0	NS	NS	NS
Percent Recovery		84%	NA	NA	NA	100%	NA	92%	NA	NA	NA
Background Clam	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Background Clam MS 2	1	21.0	NA	NA	NA	27.0	NA	9.6	NA	NA	NA
Amount Spiked		38.0	NS	NS	NS	38.0	NS	15.0	NS	NS	NS
Percent Recovery		55%	NA	NA	NA	71%	NA	64%	NA	NA	NA
Background Clam	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Background Clam MS 3	1	21.0	NA	NA	NA	26.0	NA	8.7	NA	NA	NA
Amount Spiked		28.0	NS	NS	NS	28.0	NS	11.0	NS	NS	NS
Percent Recovery		75%	NA	NA	NA	93%	NA	79%	NA	NA	NA
Background Clam	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
Background Clam MS 4	1	21.0	NA	NA	NA	27.0	NA	8.8	NA	NA	NA
Amount Spiked		29.0	NS	NS	NS	29.0	NS	11.0	NS	NS	NS
Percent Recovery		72%	NA	NA	NA	93%	NA	80%	NA	NA	NA
<u>Analytical Replicates</u>											
AC-1 Replicate 1	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
AC-1 Replicate 2	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
AC-3 Replicate 1	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
AC-3 Replicate 2	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C7 Replicate 1	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C7 Replicate 2	5	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C10 Replicate 1	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C10 Replicate 2	2	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C11 Replicate 1	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C11 Replicate 2	4	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U

TABLE P.22. (Contd)

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo sulfan I	Endo Sulfan II	Endo sulfan Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
<u>Analytical Replicates</u> (Contd)											
I-C12 Replicate 1	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C12 Replicate 2	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C16 Replicate 1	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C16 Replicate 2	3	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C18 Replicate 1	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U
I-C18 Replicate 2	1	6.0 U	3.0 U	6.0 U	12.0 U	6.0 U	9.0 U	3.0 U	3.0 U	12.0 U	450 U

NOTE: No RPD or I-Stat calculations necessary as no pesticides were detected above detection limit.

- (a) Undetected above given concentration.
 (b) Not applicable.
 (c) Not spiked.

TABLE P.23. Quality Control Data from Twin City Testing for Pesticides (Alphabetical, Dieldrin - Toxaphene), Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		<i>M. nasuta</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-Sulfan II	Endo sulfan Sulfate	Endrin	Endrin Ketone	Hepta-chlor	Hepta-chlor Epoxide	Methoxy-chlor	Toxa-phene
<u>Method Blanks</u>											
Blank I		9.2	2.0 U ^(a)	3.2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank II		4.8	2.0 U	2.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank III		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	19.0	20.0 U
Blank IV		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank V		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank VI		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
Blank VII		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
<u>Analytical Triplicates</u>											
I-C4 Replicate 1	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4 Replicate 2	5	2.0 U	2.0 U	2.0 U	2.0 U	3.4	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
I-C4 Replicate 3	5	2.0 U	2.0 U	2.9 B	2.0 U	2.8	2.0 U	2.0 U	2.0 U	10.0 U	20.0 U
RSD		NA ^(b)	NA	NA	NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Not applicable.

TABLE P.24. Surrogate Percent Recoveries for Polychlorinated Biphenyls (PCBs) and Chlorinated Pesticides in Tissue of *M. nasuta*, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery DBC</u>
AC-1	1	71%
AC-1	2	NM ^(a)
AC-1	3	70%
AC-1 Replicate 1	4	64%
AC-1 Replicate 2	4	77%
AC-1	5	67%
AC-3	1	58%
AC-3 Replicate 1	2	80%
AC-3 Replicate 2	2	90%
AC-3	3	65%
AC-3	4	65%
AC-3	5	51%
I-C4	1	52%
I-C4	2	57%
I-C4	3	79%
I-C4	4	76%
I-C4 Replicate 1	5	57%
I-C4 Replicate 2	5	52%
I-C4 Replicate 3	5	54%
I-C5	1	67%
I-C5	2	56%
I-C5	3	55%
I-C5	4	38%
I-C5	5	68%
I-C7	1	71%
I-C7	2	47%
I-C7	3	NM
I-C7	4	66%
I-C7 Replicate 1	5	43%
I-C7 Replicate 2	5	42%
I-C8	1	78%
I-C8	2	15%
I-C8	3	NM
I-C8	4	63%
I-C8	5	60%

TABLE P.24. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery DBC</u>
I-C9	1	50%
I-C9	2	57%
I-C9	3	66%
I-C9	4	50%
I-C9	5	63%
I-C10	1	29%
I-C10 Replicate 1	2	72%
I-C10 Replicate 2	2	69%
I-C10	3	NM
I-C10	4	58%
I-C10	5	51%
I-C11	1	67%
I-C11	2	57%
I-C11	3	21%
I-C11 Replicate 1	4	71%
I-C11 Replicate 2	4	79%
I-C11	5	57%
I-C12	1	70%
I-C12	2	89%
I-C12 Replicate 1	3	73%
I-C12 Replicate 2	3	70%
I-C12	4	76%
I-C12	5	65%
I-C14	1	61%
I-C14	2	55%
I-C14	3	62%
I-C14	4	75%
I-C14	5	80%
I-C15	1	60%
I-C15	2	60%
I-C15	3	22%
I-C15	4	42%
I-C15	5	65%
I-C16	1	57%
I-C16	2	63%
I-C16 Replicate 1	3	71%
I-C16 Replicate 2	3	78%
I-C16	4	67%
I-C16	5	72%

TABLE P.24. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery DBC</u>
I-C17	1	75%
I-C17	2	56%
I-C17	3	30%
I-C17	4	67%
I-C17	5	43%
I-C18 Replicate 1	1	60%
I-C18 Replicate 2	1	74%
I-C18	2	61%
I-C18	3	59%
I-C18	4	72%
I-C18	5	65%
I-S1	1	89%
I-S1	2	219%
I-S1	3	104%
I-S1	4	63%
I-S1	5	0%
I-T1	1	46%
I-T1	2	52%
I-T1	3	68%
I-T1	4	60%
I-T1	5	66%
I-T3	1	74%
I-T3	2	83%
I-T3	3	59%
I-T3	4	94%
I-T3	5	65%
I-T5	1	59%
I-T5	2	76%
I-T5	3	68%
I-T5	4	91%
I-T5	5	63%
R-AC	1	51%
R-AC	2	63%
R-AC	3	87%
R-AC	4	63%
R-AC	5	56%

TABLE P.24. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery DBC</u>
R-AM	1	98%
R-AM	2	66%
R-AM	3	48%
R-AM	4	99%
R-AM	5	66%
R-BF	1	66%
R-BF	2	70%
R-BF	3	54%
R-BF	4	66%
R-BF	5	72%
R-OS	1	53%
R-OS	2	107%
R-OS	3	73%
R-OS	4	87%
R-OS	5	72%
R-PC	1	53%
R-PC	2	73%
R-PC	3	81%
R-PC	4	96%
R-PC	5	106%
R-PF	1	126%
R-PF	2	70%
R-PF	3	12%
R-PF	4	NM
R-PF	5	66%
C-SB	1	62%
C-SB	2	43%
C-SB	3	78%
C-SB	4	63%
C-SB	5	60%
C-WB	1	82%
C-WB	2	68%
C-WB	3	NM
C-WB	4	63%
C-WB	5	58%

TABLE P.24. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery DBC</u>
C-NE	1	62%
C-NE	2	63%
C-NE	3	79%
C-NE	4	55%
C-NE	5	67%
<u>Quality Control Samples Analyzed by ARI</u>		
Blank		68%
Blank		68%
Blank		91%
Blank		91%
Blank		71%
Blank		76%
MS		68%
MS		66%
MS		72%
MS		61%
MS		74%
MS		54%
MS		66%
MS		64%
<u>Quality Control Samples Analyzed by TCT</u>		
Blank I		59%
Blank II		58%
Blank III		71%
Blank IV		77%
Blank V		100%
Blank VI		31%
Blank VII		71%
MS		78%
MS		41%
MS		77%
MS		70%
MS		64%

(a) Not measured.

TABLE P.25. Metals and Metalloids, Dry Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment		<i>M. nasuta</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Aq	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
Detection Limit											
Target DL		1.0	1.00	0.10	1.00	1.00	0.020	1.00	1.00	0.10	1.0
AC-1	1	0.85	17.17	0.30	3.17	20.0	0.064	4.38	1.65	1.54	104.4
AC-1	2	NM ^(a)	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	0.92	19.98 x ^(b)	0.20	7.50	18.6	0.072	6.79	11.9	1.96	143.0
AC-1	4	1.46	22.35	0.36	3.56	54.8	0.086	4.67	1.89	1.70	119.8
AC-1	5	1.34	24.11	0.25	3.21	18.8	0.009	6.29	3.52	1.89	147.7
AC-3	1	0.66	14.04 x	0.18	3.72	13.9	0.044	5.04	3.39	1.34	150.1
AC-3	2	1.20	14.13 x	0.15	3.63	18.2	0.063	5.15	4.82	1.58	129.1
AC-3	3	0.80	18.31 x	0.01 U ^(c) (d)	3.00	15.3	0.049	4.23	3.51	1.57	86.2
AC-3 Replicate 1	4	1.04	18.55	0.35	4.56	33.9	0.064	4.50	2.52	1.59	140.1
AC-3 Replicate 2	4	1.06	19.49	0.41	3.72	20.7	0.066	4.07	3.39	1.74	137.5
AC-3 Replicate 3	4	1.22	19.43	0.38	4.15	21.4	0.065	4.13	2.51	1.63	132.7
AC-3	5	1.44	22.57	0.26	2.60	24.4	0.071	4.62	1.72	1.82	110.5
I-C4	1	0.64	22.99	0.14	2.04	11.4	0.039	4.69	1.02	1.44	116.2
I-C4	2	0.98	19.77	0.44	2.83	14.3	0.043	7.75	1.51	1.52	118.2
I-C4 Replicate 1	3	0.62	16.77	0.19	4.72	11.6	0.047	5.53	1.20	1.42	114.2
I-C4 Replicate 2	3	0.75	16.33	0.17	3.84	10.8	0.046	4.38	1.05	1.24	101.2
I-C4 Replicate 3	3	0.90	15.58	0.34	3.80	13.8	0.046	6.79	1.09	1.38	126.5
I-C4 Replicate 1	4	0.55	22.35	0.08	5.63	10.4	0.052	6.76	1.20	1.78	86.0
I-C4 Replicate 2	4	0.58	19.82	0.06	4.59	10.3	0.052	6.73	1.20	1.67	85.3
I-C4 Replicate 3	4	0.60	23.88	0.06	6.40	10.5	0.053	6.84	1.18	1.85	84.5
I-C4	5	0.76	31.01	0.33	4.11	24.2	0.132	8.16	2.87	1.42	102.1
I-C5	1	1.05	17.41	0.18	3.28	16.7	0.063	6.46	2.42	1.53	126.4
I-C5	2	0.77	14.75	0.29	3.75	16.0	0.065	5.95	1.87	1.67	116.8
I-C5	3	0.60	24.95	0.36	2.45	23.8	0.068	5.01	1.98	1.43	95.1
I-C5	4	0.84	26.03	0.14	3.80	13.9	0.056	5.48	1.65	1.59	78.9
I-C5	5	0.73	37.23	0.35	3.65	15.5	0.085	5.76	1.93	1.86	169.5
I-C7	1	0.89	20.51	0.23	3.54	19.7	0.045	4.45	0.96	1.51	90.1
I-C7	2	1.01	18.51	0.30	4.06	17.6	0.063	5.26	1.02	1.52	98.3
I-C7	3	0.72	21.32	0.26	4.71	16.0	0.057	5.56	1.16	1.42	98.1
I-C7	4	0.76	18.69 x	0.12	5.43	15.6	0.046	5.46	1.53	1.68	101.5
I-C7	5	0.76	15.90	0.02	3.03	14.3	0.042	4.33	1.99	1.50	130.1

TABLE P.25. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Metals (mg/kg dry weight)									
		Aq	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
I-C8	1	0.96	19.77	0.11	3.34	12.7	0.046	5.13	0.93	1.31	107.1
I-C8	2	0.59	23.72	0.46	1.79	20.6	0.074	4.81	1.15	1.50	141.0
I-C8	3	0.89	16.05	0.42	3.66	17.2	0.042	6.84	1.17	1.26	116.3
I-C8	4	1.06	25.91	0.13	2.89	14.8	0.056	4.57	1.47	1.45	91.2
I-C8	5	0.89	20.07	0.54	4.32	21.9	0.092	9.42	1.32	1.50	162.4
I-C9	1	1.11	15.68 X	0.04	3.78	18.5	0.044	6.28	4.10	1.37	89.8
I-C9	2	1.29	15.27 X	0.61	6.31	13.4	0.047	58.6	4.00	1.65	184.3
I-C9	3	0.83	18.21	0.08	5.57	16.8	0.048	6.94	3.48	1.48	118.3
I-C9	4	0.84	15.29	0.13	4.50	20.1	0.070	6.99	3.27	1.48	117.5
I-C9	5	1.12	15.86	0.35	2.51	18.0	0.042	6.25	1.59	1.33	98.5
I-C10	1	0.82	17.45 X	0.07	4.07	16.2	0.047	5.53	2.85	1.48	113.4
I-C10 Replicate 1	2	0.86	15.98 X	0.09	2.72	16.8	0.054	5.50	2.65	1.51	114.6
I-C10 Replicate 2	2	0.80	15.65 X	0.05	3.28	15.3	0.055	5.16	2.76	1.51	111.2
I-C10 Replicate 3	2	0.87	14.55 X	0.35	3.67	11.6	0.055	4.34	4.19	1.59	91.7
I-C10	3	0.64	17.73	0.09	3.75	15.3	0.051	5.69	3.69	1.65	128.3
I-C10	4	0.82	19.52	0.49	9.26	23.4	0.070	6.88	2.22	1.51	155.6
I-C10	5	0.97	23.54	0.44	4.67	21.9	0.078	6.93	1.48	1.77	173.0
I-C11	1	1.20	16.40 X	0.61	3.71	16.4	0.057	5.10	8.43	1.51	106.2
I-C11	2	0.84	13.75 X	0.13	5.48	16.7	0.083	6.40	3.08	1.53	102.7
I-C11	3	0.85	23.35	0.18	5.56	19.0	0.001	7.23	2.42	1.92	154.9
I-C11	4	1.06	22.12 X	0.40	4.17	14.4	0.062	4.91	3.22	1.54	101.7
I-C11	5	0.96	15.96	0.39	6.35	23.9	0.081	5.95	1.60	1.48	118.9
I-C12	1	0.93	16.18	0.27	2.46	17.0	0.069	3.96	1.05	1.84	132.2
I-C12	2	1.49	15.98 X	0.19	3.27	16.7	0.069	5.83	2.16	1.67	126.1
I-C12	3	0.85	20.26 X	0.13	3.69	11.4	0.053	5.58	1.77	1.69	138.5
I-C12	4	0.94	22.61	0.22	2.17	19.9	0.050	4.55	1.33	1.62	125.5
I-C12	5	0.67	20.21	0.31	4.03	19.6	0.074	5.54	1.03	1.63	122.3
I-C14	1	1.99	24.05	0.38	3.36	65.4	0.124	5.79	4.29	1.88	106.7
I-C14	2	1.00	21.16	0.47	2.83	84.0	0.085	7.19	9.00	1.64	113.4
I-C14	3	0.93	17.91	0.47	2.52	54.1	0.060	3.83	1.66	1.69	101.4
I-C14	4	1.06	15.89 X	0.01 U	2.47	18.9	0.058	4.53	2.71	1.53	99.5
I-C14	5	0.66	15.40	0.37	2.75	17.6	0.062	3.93	1.14	1.73	113.4
I-C15	1	0.93	19.30	0.21	2.55	18.3	0.086	6.14	3.95	1.62	162.7
I-C15	2	1.09	21.85	0.01 U	2.97	18.9	0.071	5.56	2.58	1.74	103.3
I-C15	3	0.68	11.95	0.29	4.26	16.4	0.065	4.77	1.17	1.55	100.5
I-C15	4	0.96	17.46	0.42	4.03	14.5	0.046	7.29	4.04	1.55	110.6
I-C15	5	0.90	20.91	0.25	4.43	22.9	0.047	5.71	1.67	1.40	97.8

TABLE P.25. (Contd)

Sediment		<i>M. nasuta</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
I-C16	1	0.77	24.43	0.35	3.70	18.2	0.049	5.43	1.58	1.41	92.6
I-C16	2	0.92	21.43	0.28	3.26	32.4	0.061	5.26	1.20	1.94	108.3
I-C16	3	1.19	24.18	0.19	3.27	23.4	0.072	6.43	4.35	1.59	116.2
I-C16 Replicate 1	4	0.99	24.83	0.22	1.87	27.5	0.071	4.15	1.44	1.81	106.3
I-C16 Replicate 2	4	0.71	25.12	0.21	1.84	26.0	0.071	4.27	2.58	1.84	116.7
I-C16 Replicate 3	4	0.92	26.33	0.24	1.47	27.1	0.071	5.73	1.34	1.81	91.7
I-C16	5	0.90	22.76 X	0.02	2.29	16.3	0.055	5.50	2.87	1.17	85.3
I-C17	1	1.84	21.25	0.24	2.94	31.7	0.100	6.33	11.4	1.67	116.6
I-C17	2	1.15	20.75	0.26	2.46	44.1	0.091	5.22	1.52	2.06	95.8
I-C17	3	0.57	13.12 X	0.02	1.95	13.0	0.040	3.55	2.54	1.17	84.6
I-C17	4	0.99	17.86 X	0.13	4.37	20.1	0.057	7.62	3.33	1.43	86.3
I-C17	5	0.81	18.09	0.19	2.59	22.3	0.044	3.89	1.25	1.34	86.0
I-C18	1	1.73	18.62	0.30	3.22	29.3	0.152	5.42	4.28	1.79	124.2
I-C18	2	0.74	12.74 X	0.51	3.22	17.7	0.090	6.96	3.83	1.65	205.1
I-C18	3	0.69	12.47	0.28	2.82	16.4	0.085	4.12	1.41	1.46	85.8
I-C18	4	0.70	22.02	0.27	2.12	19.5	0.060	3.89	1.60	1.68	125.0
I-C18	5	0.85	19.10	0.20	2.89	21.2	0.062	4.09	2.46	1.39	76.4
I-S1	1	1.15	14.52	0.42	3.73	26.2	0.108	7.51	2.43	1.77	117.1
I-S1	2	0.77	15.17	0.42	4.65	19.8	0.059	8.34	2.35	1.72	103.0
I-S1 Replicate 1	3	0.56	21.31	0.34	3.94	18.0	0.065	9.64	1.86	1.89	124.6
I-S1 Replicate 2	3	0.55	21.43	0.33	4.11	17.9	0.065	9.35	2.41	1.81	121.9
I-S1 Replicate 3	3	0.60	28.06	0.37	4.11	17.5	0.061	9.34	1.81	1.88	122.1
I-S1	4	0.62	13.87	0.43	3.29	17.4	0.077	8.27	1.82	2.08	172.0
I-S1	5	0.88	20.18	0.29	3.83	17.0	0.054	6.53	6.67	1.55	96.6
I-T1	1	0.54	17.63	0.48	3.21	47.2	0.076	6.24	2.18	1.36	159.2
I-T1	2	0.85	29.05	0.15	2.60	15.3	0.075	4.78	2.65	1.95	112.6
I-T1	3	0.49	24.90	0.45	3.33	19.4	0.069	6.67	1.79	1.58	150.6
I-T1	4	0.88	16.71	0.31	4.58	20.5	0.073	7.89	2.26	1.65	154.6
I-T1	5	0.84	36.97	0.22	3.83	14.8	0.070	6.28	2.15	2.00	167.4
I-T3	1	1.07	16.63	0.26	5.23	20.3	0.053	7.59	3.16	1.16	159.5
I-T3	2	0.95	20.02	0.18	3.24	18.5	0.073	6.30	5.17	1.38	84.6
I-T3	3	1.18	16.69	0.50	5.41	53.9	0.116	10.5	4.17	1.52	169.0
I-T3	4	0.73	16.93	0.11	2.17	16.0	0.058	4.24	2.84	1.41	98.2
I-T3	5	0.74	13.02	0.33	2.95	13.1	0.077	6.29	3.25	1.47	95.5

TABLE P.25. (Contd)

Sediment		<i>M. nasuta</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
I-T5	1	0.66	15.07	0.11	2.94	17.1	0.058	4.71	2.31	1.42	109.6
I-T5	2	0.89	16.99	0.29	3.65	16.4	0.066	6.76	2.09	1.45	117.2
I-T5	3	0.92	14.38	0.15	2.38	17.4	0.071	5.58	2.40	1.44	83.3
I-T5	4	0.99	16.53	0.40	5.38	18.8	0.082	9.53	3.19	1.49	111.6
I-T5	5	0.59	13.12	0.26	3.96	13.1	0.077	6.87	2.04	1.46	128.9
R-AC	1	0.73	22.44	0.19	2.57	15.4	0.065	4.70	2.34	1.65	104.3
R-AC	2	1.19	16.98	0.44	3.01	25.7	0.113	7.23	4.00	1.93	114.7
R-AC	3	0.81	14.70	0.55	3.30	15.5	0.063	6.50	2.41	1.86	149.3
R-AC	4	0.47	17.32	0.46	4.77	18.3	0.065	7.36	2.63	1.42	128.9
R-AC	5	0.60	20.21	0.45	3.27	14.9	0.058	10.3	2.12	1.58	110.9
R-AM	1	0.68	22.18	0.31	1.20	11.8	0.070	3.74	1.59	1.72	114.0
R-AM	2	0.68	20.89	0.17	0.59	12.6	0.053	2.17	1.23	1.66	104.0
R-AM	3	0.77	25.11	0.21	0.90	36.8	0.068	2.47	1.28	1.43	116.2
R-AM	4	0.98	24.22	0.24	1.49	14.9	0.063	3.78	1.43	1.61	112.8
R-AM	5	0.81	16.58	0.31	1.14	16.8	0.084	4.05	1.27	1.49	190.6
R-BF	1	0.93	17.04	0.40	4.53	20.3	0.076	4.85	2.15	1.89	175.7
R-BF	2	1.32	20.39	0.15	4.74	27.2	0.100	8.33	5.53	1.68	142.5
R-BF	3	0.88	16.95	0.34	3.64	21.8	0.076	5.81	1.94	1.70	97.9
R-BF	4	1.46	22.26	0.25	5.18	23.8	0.091	7.57	6.08	2.03	191.6
R-BF	5	0.84	14.28	0.29	2.15	18.6	0.076	3.86	1.75	1.50	121.5
R-OS	1	0.47	16.71	0.41	3.85	15.9	0.061	7.04	1.03	2.25	134.7
R-OS	2	0.53	12.57	0.54	2.90	39.8	0.068	6.23	1.21	1.75	156.1
R-OS	3	0.89	14.07	0.45	2.51	14.3	0.055	5.11	0.96	1.94	123.2
R-OS	4	0.77	18.33	0.49	2.58	16.8	0.052	5.34	1.51	1.78	140.3
R-OS	5	0.64	13.78	0.45	2.72	12.8	0.050	4.88	1.44	1.64	106.1
R-PC	Replicate 1 1	0.48	13.69	0.51	3.00	12.8	0.063	4.63	1.21	1.77	132.6
R-PC	Replicate 2 1	0.49	14.40	0.45	2.42	12.2	0.065	4.74	1.20	1.71	136.6
R-PC	Replicate 3 1	0.60	13.64	0.52	3.27	13.0	0.064	5.13	1.39	1.87	139.4
R-PC	2	0.84	17.44	0.56	4.67	20.0	0.081	6.21	1.65	1.65	122.5
R-PC	3	0.50	13.37	0.39	3.70	32.1	0.062	4.46	1.17	1.47	93.6
R-PC	4	0.56	22.64	0.50	4.19	16.0	0.079	6.76	1.15	1.65	142.3
R-PC	5	0.62	19.42	0.52	3.64	17.8	0.079	5.89	1.26	1.89	111.0
R-PF	1	0.76	NM	0.40	NM	11.6	0.058	4.27	1.33	1.44	144.7
R-PF	2	0.65	15.77	0.51	5.75	37.0	0.073	7.45	1.44	1.39	138.2
R-PF	3	0.58	20.61	0.46	3.00	28.0	0.067	5.35	1.41	1.33	113.5
R-PF	4	NM	15.18	NM	2.82	NM	0.057	NM	NM	1.74	NM
R-PF	5	0.82	17.21	0.42	3.55	19.7	0.064	5.67	1.72	1.72	99.9

TABLE P.25. (Contd)

Sediment Treatment	Replicate	<i>M. nasuta</i> Metals (mg/kg dry weight)									
		Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
C-SB	1	0.78	14.16	0.43	1.70	21.5	0.098	4.05	1.39	1.71	146.9
C-SB	2	1.09	13.54	0.17	2.08	18.2	0.055	3.29	1.55	1.51	91.8
C-SB	3	0.84	16.42 X	0.01 U	2.12	15.3	0.068	3.50	3.23	1.45	96.0
C-SB Replicate 1	4	1.19	17.86	0.50	4.73	14.2	0.065	4.98	5.85	1.82	134.5
C-SB Replicate 2	4	0.98	18.77	0.27	4.23	16.5	0.065	6.09	3.50	1.77	135.6
C-SB Replicate 3	4	1.03	16.87	0.26	3.68	16.2	0.063	6.54	3.77	1.71	136.2
C-SB	5	1.05	15.99 X	0.01 U	1.73	22.4	0.058	3.53	2.88	1.69	68.8
C-WB	1	0.79	18.54	0.22	1.38	18.9	0.058	3.39	1.16	1.52	99.3
C-WB	2	0.81	19.90	0.34	2.03	22.8	0.066	3.23	1.14	1.61	95.7
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	1.26	20.73	0.34	3.17	19.9	0.063	4.56	1.36	1.74	103.2
C-WB	5	1.22	24.43	0.29	1.66	24.5	0.097	4.13	1.14	2.14	111.5
C-NE	1	0.74	22.01	0.09	1.53	14.0	0.070	3.42	1.08	1.50	77.8
C-NE	2	0.72	27.22	0.35	2.02	15.7	0.095	5.76	1.34	1.83	178.6
C-NE	3	0.53	24.66	0.30	1.57	16.1	0.074	4.73	1.06	1.48	91.7
C-NE	4	0.70	22.90	0.38	1.95	67.3	0.076	4.35	1.38	1.51	109.9
C-NE	5	0.75	23.52	0.63	2.42	18.6	0.076	6.96	1.67	1.62	132.6

(a) Not measured.

(b) Indicates SRMs associated with this batch were low. Values may be biased low.

(c) Undetected above given concentration.

(d) Anomalous data; not used in statistical analysis.

TABLE P.26. Metals and Metalloids, Wet Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Metals (mg/kg wet weight)									
			Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
AC-1	1	15.5	0.13	2.66	0.05	0.49	3.11	0.010	0.68	0.256	0.24	16.18
AC-1	2	NM ^(a)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	14.2	0.13	2.84 X ^(b)	0.03	1.07	2.65	0.010	0.96	1.689	0.28	20.31
AC-1	4	14.9	0.22	3.33	0.05	0.53	8.16	0.013	0.70	0.282	0.25	17.85
AC-1	5	15.2	0.20	3.66	0.04	0.49	2.85	0.001	0.96	0.535	0.29	22.44
AC-3	1	14.9	0.10	2.09 X	0.03	0.55	2.07	0.007	0.75	0.505	0.20	22.36
AC-3	2	15.2	0.18	2.15 X	0.02	0.55	2.77	0.010	0.78	0.733	0.24	19.62
AC-3	3	15.5	0.12	2.84 X	0.00 U ^(c)	0.47	2.38	0.008	0.66	0.543	0.24	13.36
AC-3 Replicate 1	4	16.6	0.17	3.08	0.06	0.76	5.63	0.011	0.75	0.419	0.26	23.26
AC-3 Replicate 2	4	16.6	0.18	3.24	0.07	0.62	3.44	0.011	0.68	0.563	0.29	22.83
AC-3 Replicate 3	4	16.6	0.20	3.23	0.06	0.69	3.56	0.011	0.69	0.417	0.27	22.03
AC-3	5	15.1	0.22	3.41	0.04	0.39	3.69	0.011	0.70	0.259	0.27	16.69
I-C4	1	14.0	0.09	3.22	0.02	0.29	1.59	0.005	0.66	0.143	0.20	16.27
I-C4	2	14.8	0.13	2.93	0.08	0.42	3.24	0.006	1.39	0.196	0.22	24.03
I-C4 Replicate 1	3	13.5	0.08	2.26	0.03	0.64	1.56	0.006	0.75	0.161	0.19	15.42
I-C4 Replicate 2	3	13.5	0.10	2.20	0.02	0.52	1.45	0.006	0.59	0.142	0.17	13.66
I-C4 Replicate 3	3	13.5	0.12	2.10	0.05	0.51	1.87	0.006	0.92	0.148	0.19	17.08
I-C4 Replicate 1	4	15.0	0.08	3.35	0.01	0.84	1.57	0.008	1.01	0.180	0.27	12.90
I-C4 Replicate 2	4	15.0	0.09	2.97	0.01	0.69	1.55	0.008	1.01	0.180	0.25	12.79
I-C4 Replicate 3	4	15.0	0.09	3.58	0.01	0.96	1.58	0.008	1.03	0.177	0.28	12.67
I-C4	5	13.6	0.10	4.22	0.04	0.56	3.29	0.018	1.11	0.390	0.19	13.88
I-C5	1	15.0	0.16	2.61	0.03	0.49	2.50	0.009	0.97	0.363	0.23	18.96
I-C5	2	15.5	0.12	2.29	0.04	0.58	2.49	0.010	0.92	0.291	0.26	18.10
I-C5	3	14.1	0.08	3.52	0.05	0.35	3.36	0.010	0.71	0.280	0.20	13.40
I-C5	4	15.2	0.13	3.96	0.02	0.58	2.11	0.009	0.83	0.251	0.24	12.00
I-C5	5	14.4	0.11	5.36	0.05	0.53	2.24	0.012	0.83	0.278	0.27	24.41
I-C7	1	16.1	0.14	3.30	0.04	0.57	3.18	0.007	0.72	0.155	0.24	14.51
I-C7	2	14.5	0.15	2.68	0.04	0.59	2.55	0.009	0.76	0.148	0.22	14.26
I-C7	3	14.9	0.11	3.18	0.04	0.70	2.38	0.008	0.83	0.172	0.21	14.62
I-C7	4	14.0	0.11	2.62 X	0.02	0.76	2.19	0.006	0.76	0.214	0.24	14.21
I-C7	5	13.1	0.10	2.08	0.00	0.40	1.87	0.006	0.57	0.261	0.20	17.04
I-C8	1	13.7	0.13	2.71	0.02	0.46	1.74	0.006	0.70	0.128	0.18	14.68
I-C8	2	12.7	0.07	3.01	0.06	0.23	2.61	0.009	0.61	0.146	0.19	17.91
I-C8	3	16.1	0.14	2.58	0.07	0.59	2.77	0.007	1.10	0.189	0.20	18.72
I-C8	4	14.8	0.16	3.83	0.02	0.43	2.19	0.008	0.68	0.217	0.21	13.50
I-C8	5	15.7	0.15	3.15	0.07	0.68	2.24	0.014	1.22	0.237	0.24	18.56

TABLE P.26. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Metals (mg/kg wet weight)									
			Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
I-C9	1	15.3	0.17	2.40 X	0.01	0.58	2.83	0.007	0.96	0.628	0.21	13.75
I-C9	2	15.0	0.19	2.29 X	0.09	0.95	2.01	0.007	8.79	0.600	0.25	27.65
I-C9	3	15.2	0.13	2.77	0.01	0.85	2.55	0.007	1.05	0.529	0.22	17.98
I-C9	4	15.3	0.13	2.34	0.02	0.69	3.08	0.011	1.07	0.500	0.23	17.98
I-C9	5	14.7	0.16	2.33	0.05	0.37	2.64	0.006	0.92	0.233	0.20	14.48
I-C10	1	13.7	0.11	2.39 X	0.01	0.56	2.22	0.006	0.76	0.390	0.20	15.54
I-C10 Replicate 1	2	14.3	0.12	2.29 X	0.01	0.39	2.40	0.008	0.79	0.379	0.22	16.39
I-C10 Replicate 2	2	14.3	0.12	2.08 X	0.05	0.52	1.66	0.008	0.62	0.599	0.23	13.11
I-C10 Replicate 3	2	14.3	0.11	2.24 X	0.01	0.47	2.18	0.008	0.74	0.395	0.22	15.90
I-C10	3	14.6	0.09	2.59	0.01	0.55	2.23	0.007	0.83	0.538	0.24	18.73
I-C10	4	15.8	0.13	3.08	0.08	1.46	3.70	0.011	1.09	0.350	0.24	24.59
I-C10	5	13.7	0.13	3.22	0.06	0.64	3.00	0.011	0.95	0.203	0.24	23.70
I-C11	1	13.6	0.16	2.23 X	0.08	0.50	2.24	0.008	0.69	1.147	0.21	14.45
I-C11	2	16.8	0.14	2.31 X	0.02	0.92	2.80	0.014	1.08	0.517	0.26	17.25
I-C11	3	14.3	0.12	3.34 X	0.03	0.80	2.72	0.000	1.03	0.346	0.27	22.15
I-C11	4	16.1	0.17	3.56 X	0.07	0.67	2.32	0.010	0.79	0.518	0.25	16.38
I-C11	5	17.5	0.17	2.79	0.07	1.11	4.19	0.014	1.04	0.280	0.26	20.81
I-C12	1	15.9	0.15	2.57	0.04	0.39	2.71	0.011	0.63	0.167	0.29	21.02
I-C12	2	15.2	0.23	2.43 X	0.03	0.50	2.54	0.010	0.89	0.328	0.25	19.16
I-C12	3	13.9	0.12	2.82 X	0.02	0.51	1.59	0.007	0.78	0.246	0.23	19.26
I-C12	4	15.0	0.14	3.39	0.03	0.33	2.98	0.008	0.68	0.200	0.24	18.82
I-C12	5	15.3	0.10	3.09	0.05	0.62	3.01	0.011	0.85	0.157	0.25	18.72
I-C14	1	14.6	0.29	3.51	0.05	0.49	9.55	0.018	0.85	0.627	0.27	15.58
I-C14	2	15.2	0.15	3.22	0.07	0.43	12.77	0.013	1.09	1.368	0.25	17.24
I-C14	3	16.5	0.15	2.96	0.08	0.42	8.92	0.010	0.63	0.274	0.28	16.73
I-C14	4	13.2	0.14	2.10 X	0.00	0.33	2.49	0.008	0.60	0.357	0.20	13.14
I-C14	5	16.0	0.11	2.46	0.06	0.44	2.82	0.010	0.63	0.182	0.28	18.14
I-C15	1	14.2	0.13	2.74	0.03	0.36	2.60	0.012	0.87	0.562	0.23	23.10
I-C15	2	14.6	0.16	3.19 X	0.00	0.43	2.75	0.010	0.81	0.377	0.25	15.08
I-C15	3	16.1	0.11	1.92	0.05	0.69	2.65	0.010	0.77	0.188	0.25	16.18
I-C15	4	15.5	0.15	2.71	0.06	0.62	2.25	0.007	1.13	0.627	0.24	17.14
I-C15	5	14.4	0.13	3.01	0.04	0.64	3.29	0.007	0.82	0.240	0.20	14.08

TABLE P.26. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Metals (mg/kg wet weight)									
			Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
I-C16	1	15.1	0.12	3.69	0.05	0.56	2.74	0.007	0.82	0.238	0.21	13.99
I-C16	2	16.3	0.15	3.49	0.05	0.53	5.29	0.010	0.86	0.196	0.32	17.65
I-C16	3	14.7	0.17	3.55	0.03	0.48	3.44	0.011	0.94	0.640	0.23	17.08
I-C16 Replicate 1	4	15.4	0.15	3.82	0.03	0.29	4.24	0.011	0.64	0.222	0.28	16.37
I-C16 Replicate 2	4	15.4	0.11	3.87	0.03	0.28	4.01	0.011	0.66	0.397	0.28	17.97
I-C16 Replicate 3	4	15.4	0.14	4.05	0.04	0.23	4.17	0.011	0.88	0.207	0.28	14.12
I-C16	5	14.4	0.13	3.28 X	0.00	0.33	2.35	0.008	0.79	0.413	0.17	12.28
I-C17	1	13.5	0.25	2.87	0.03	0.40	4.28	0.014	0.85	1.538	0.23	15.74
I-C17	2	12.5	0.14	2.59	0.03	0.31	5.51	0.011	0.65	0.190	0.26	11.98
I-C17	3	14.0	0.08	1.84 X	0.00	0.27	1.82	0.006	0.50	0.356	0.16	11.85
I-C17	4	13.6	0.13	2.43 X	0.02	0.59	2.73	0.008	1.04	0.453	0.19	11.73
I-C17	5	16.0	0.13	2.89	0.03	0.41	3.57	0.007	0.62	0.201	0.21	13.75
I-C18	1	14.4	0.25	2.68	0.04	0.46	4.22	0.022	0.78	0.616	0.26	17.89
I-C18	2	15.2	0.11	1.94 X	0.08	0.49	2.69	0.014	1.06	0.581	0.25	31.18
I-C18	3	16.2	0.11	2.02	0.05	0.46	2.66	0.014	0.67	0.229	0.24	13.91
I-C18	4	15.8	0.11	3.48	0.04	0.33	3.08	0.009	0.61	0.253	0.27	19.76
I-C18	5	14.5	0.12	2.77	0.03	0.42	3.07	0.009	0.59	0.356	0.20	11.07
I-S1	1	14.8	0.17	2.15	0.06	0.55	3.88	0.016	1.11	0.360	0.26	17.33
I-S1	2	13.8	0.11	2.09	0.06	0.64	2.74	0.008	1.15	0.325	0.24	14.21
I-S1 Replicate 1	3	14.8	0.08	3.15	0.05	0.58	2.66	0.010	1.43	0.275	0.28	18.44
I-S1 Replicate 2	3	14.8	0.08	3.17	0.05	0.61	2.65	0.010	1.38	0.357	0.27	18.04
I-S1 Replicate 3	3	14.8	0.09	4.15	0.05	0.61	2.59	0.009	1.38	0.268	0.28	18.07
I-S1	4	14.4	0.09	2.00	0.06	0.47	2.50	0.011	1.19	0.261	0.30	24.77
I-S1	5	12.9	0.11	2.60	0.04	0.49	2.19	0.007	0.84	0.861	0.20	12.46
I-T1	1	15.1	0.08	2.66	0.07	0.48	7.12	0.011	0.94	0.328	0.21	24.04
I-T1	2	14.4	0.12	4.18	0.02	0.37	2.20	0.011	0.69	0.382	0.28	16.22
I-T1	3	15.0	0.07	3.74	0.07	0.50	2.92	0.010	1.00	0.268	0.24	22.59
I-T1	4	15.3	0.13	2.56	0.05	0.70	3.14	0.011	1.21	0.345	0.25	23.65
I-T1	5	14.6	0.12	5.40	0.03	0.56	2.16	0.010	0.92	0.314	0.29	24.44
I-T3	1	19.2	0.21	3.19	0.05	1.00	3.90	0.010	1.46	0.607	0.22	30.63
I-T3	2	14.2	0.13	2.84 X	0.03	0.46	2.62	0.010	0.89	0.733	0.20	12.02
I-T3	3	14.2	0.17	2.37	0.07	0.77	7.66	0.016	1.49	0.592	0.22	24.00
I-T3	4	14.2	0.10	2.40	0.02	0.31	2.28	0.008	0.60	0.404	0.20	13.94
I-T3	5	14.5	0.11	1.89	0.05	0.43	1.90	0.011	0.91	0.472	0.21	13.85

TABLE P.26. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>M. nasuta</i> Metals (mg/kg wet weight)									
			Aq	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
I-T5	1	15.0	0.10	2.26	0.02	0.44	2.56	0.009	0.71	0.346	0.21	16.44
I-T5	2	14.3	0.13	2.43	0.04	0.52	2.35	0.009	0.97	0.299	0.21	16.76
I-T5	3	13.9	0.13	2.00	0.02	0.33	2.42	0.010	0.78	0.334	0.20	11.58
I-T5	4	17.0	0.17	2.81	0.07	0.91	3.20	0.014	1.62	0.542	0.25	18.97
I-T5	5	15.8	0.09	2.07	0.04	0.63	2.08	0.012	1.08	0.322	0.23	20.36
R-AC	1	14.6	0.11	3.28	0.03	0.38	2.25	0.009	0.69	0.342	0.24	15.22
R-AC	2	12.5	0.15	2.12	0.06	0.38	3.21	0.014	0.90	0.500	0.24	14.34
R-AC	3	15.1	0.12	2.22	0.08	0.50	2.34	0.010	0.98	0.364	0.28	22.55
R-AC	4	15.4	0.07	2.67	0.07	0.73	2.82	0.010	1.13	0.405	0.22	19.86
R-AC	5	14.9	0.09	3.01 X	0.07	0.49	2.21	0.009	1.53	0.317	0.24	16.53
R-AM	1	15.0	0.10	3.33	0.05	0.18	1.77	0.011	0.56	0.238	0.26	17.10
R-AM	2	14.1	0.10	2.95	0.02	0.08	1.77	0.007	0.31	0.174	0.23	14.67
R-AM	3	13.1	0.10	3.29 X	0.03	0.12	4.82	0.009	0.32	0.168	0.19	15.22
R-AM	4	14.7	0.14	3.56	0.04	0.22	2.19	0.009	0.56	0.210	0.24	16.58
R-AM	5	15.0	0.12	2.49	0.05	0.17	2.52	0.013	0.61	0.191	0.22	28.59
R-BF	1	14.9	0.14	2.54	0.06	0.67	3.03	0.011	0.72	0.321	0.28	26.17
R-BF	2	15.3	0.20	3.12	0.02	0.73	4.16	0.015	1.27	0.845	0.26	21.80
R-BF	3	13.6	0.12	2.31	0.05	0.50	2.96	0.010	0.79	0.264	0.23	13.31
R-BF	4	13.8	0.20	3.07 X	0.04	0.71	3.29	0.013	1.04	0.839	0.28	26.44
R-BF	5	16.9	0.14	2.41	0.05	0.36	3.15	0.013	0.65	0.296	0.25	20.54
R-OS	1	15.4	0.07	2.57	0.06	0.59	2.45	0.009	1.08	0.159	0.35	20.75
R-OS	2	16.2	0.09	2.04 X	0.09	0.47	6.45	0.011	1.01	0.197	0.28	25.29
R-OS	3	15.0	0.13	2.11	0.07	0.38	2.14	0.008	0.77	0.144	0.29	18.49
R-OS	4	14.7	0.11	2.69 X	0.07	0.38	2.46	0.008	0.79	0.221	0.26	20.62
R-OS	5	14.3	0.09	1.97	0.06	0.39	1.83	0.007	0.70	0.206	0.23	15.17
R-PC Replicate 1	1	15.1	0.07	2.07	0.08	0.45	1.93	0.010	0.70	0.183	0.27	20.02
R-PC Replicate 2	1	15.1	0.07	2.17	0.07	0.37	1.84	0.010	0.72	0.181	0.26	20.63
R-PC Replicate 3	1	15.1	0.09	2.06	0.08	0.49	1.97	0.010	0.77	0.209	0.28	21.05
R-PC	2	14.6	0.12	2.55	0.08	0.68	2.91	0.012	0.91	0.241	0.24	17.89
R-PC	3	13.4	0.07	1.79	0.05	0.50	4.30	0.008	0.60	0.157	0.20	12.55
R-PC	4	16.3	0.09	3.69	0.08	0.68	2.61	0.013	1.10	0.187	0.27	23.19
R-PC	5	16.7	0.10	3.24	0.09	0.61	2.97	0.013	0.98	0.211	0.32	18.53
R-PF	1	14.3	0.11	NM	0.06	NM	1.65	0.008	0.61	0.190	0.21	20.70
R-PF	2	11.0	0.07	1.73	0.06	0.63	4.07	0.008	0.82	0.158	0.15	15.20
R-PF	3	14.8	0.09	3.05	0.07	0.44	4.14	0.010	0.79	0.208	0.20	16.80
R-PF	4	15.7	NM	2.38 X	NM	0.44	NM	0.009	NM	NM	0.27	NM
R-PF	5	13.1	0.11	2.25	0.06	0.47	2.59	0.008	0.74	0.225	0.23	13.09

TABLE P.26. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	M. nasuta Metals (mg/kg wet weight)									
			Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
C-SB	1	12.3	0.10	1.74	0.05	0.21	2.64	0.012	0.50	0.171	0.21	18.07
C-SB	2	14.9	0.16	2.02	0.03	0.31	2.71	0.008	0.49	0.232	0.22	13.67
C-SB	3	15.7	0.13	2.58 X	0.00	0.33	2.40	0.011	0.55	0.506	0.23	15.07
C-SB Replicate 1	4	16.6	0.20	2.96	0.08	0.79	2.36	0.011	0.83	0.971	0.30	22.33
C-SB Replicate 2	4	16.6	0.16	3.12	0.04	0.70	2.73	0.011	1.01	0.581	0.29	22.51
C-SB Replicate 3	4	16.6	0.17	2.80	0.04	0.61	2.69	0.010	1.09	0.625	0.28	22.62
C-SB	5	16.4	0.17	2.62 X	0.00 U	0.28	3.67	0.010	0.58	0.472	0.28	11.28
C-WB	1	15.2	0.12	2.82	0.03	0.21	2.87	0.009	0.51	0.176	0.23	15.10
C-WB	2	16.0	0.13	3.18	0.05	0.32	3.65	0.011	0.52	0.182	0.26	15.31
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	15.1	0.19	3.13	0.05	0.48	3.01	0.010	0.69	0.206	0.26	15.58
C-WB	5	15.2	0.19	3.71	0.04	0.25	3.72	0.015	0.63	0.173	0.33	16.94
C-NE	1	15.8	0.12	3.48	0.01	0.24	2.20	0.011	0.54	0.170	0.24	12.29
C-NE	2	14.2	0.10	3.87 X	0.05	0.29	2.23	0.013	0.82	0.190	0.26	25.36
C-NE	3	15.4	0.08	3.80 X	0.05	0.24	2.48	0.011	0.73	0.164	0.23	14.13
C-NE	4	15.2	0.11	3.48	0.06	0.30	10.22	0.012	0.66	0.210	0.23	16.70
C-NE	5	18.7	0.14	4.40 X	0.12	0.45	3.47	0.014	1.30	0.313	0.30	24.80

(a) Not measured.

(b) Indicates SRMs associated with this batch were low. Values may be biased low.

(c) Undetected above given concentration.

TABLE P.27. Quality Control Data for Metals in Tissue of *M. nasuta*, Oakland Phase III A Project

Sedimen Treatment	Replicate	<i>M. nasuta</i> Metals (mg/kg dry weight)									
		Aq	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
<u>Method Blanks</u>											
		1.0	1.0	0.1	1.0	1.0	0.02	1.0	1.0	0.1	1.0
Blank 1		0.5 U ^(a)	1.83	0.5 U	0.097	0.5 U	0.001 U	0.5 U	0.5 U	0.20 U	0.5 U
Blank 2		0.5 U	1.37 U	0.5 U	0.095	0.5 U	0.001 U	0.5 U	0.5 U	0.11 U	0.5 U
Blank 3		0.5 U	1.73	0.5 U	0.092	0.5 U	0.001 U	0.5 U	0.5 U	0.11 U	0.5 U
Blank 4		0.14	0.61 U	0.5 U	0.120	1.05	0.001 U	0.21	0.5 U	0.10 U	0.75
Blank 5		0.13	0.61 U	0.5 U	0.110	0.84	0.001 U	0.77	0.5 U	0.08 U	0.99
Blank 6		0.5 U	0.61 U	0.5 U	0.110	0.5 U	0.001 U	0.5 U	0.5 U	0.08 U	0.5 U
Blank 7		0.07	4.31	0.5 U	0.070	0.30	0.002 U	0.01 U	0.07	0.05 U	4.62
Blank 8		0.09	4.43	0.5 U	0.092	0.42	0.002 U	0.01 U	0.06	0.05	5.15
Blank 9		0.03	NM ^(b)	0.07	NM	0.24	0.002 U	0.03	0.02	0.05 U	0.59
Blank 10		0.04	1.04	0.06	0.092	0.67	0.002 U	0.13	0.06	0.10 U	0.76
Blank 11		0.04	1.08	0.05	0.110	0.31	0.002 U	0.04	0.08	0.10 U	0.52
Blank 12		NM	0.67	NM	0.110	NM	0.002 U	NM	NM	0.08 U	NM
<u>Matrix Spikes</u>											
AC-3	3	0.80	18.31 ^(c)	0.01 U	3.00	15.3	0.049	4.23	3.51	1.57	86.2
AC-3 MS		2.47	59.78	5.18	13.56	127.1	1.984	6.24	9.49	2.52	619
Amount Spiked		2	50	5	10	100.0	2	10	10	10	500
Percent Recovery		84%	83%	104%	106%	112%	97%	20%	60%	96%	107%
I-C8	5	0.89	20.07	0.54	4.32	21.9	0.092	9.42	1.32	1.50	162
I-C8 MS		4.01	65.33	5.44	14.76	121.6	2.185	18.4	10.2	10.88	659
Amount Spiked		2	50	5	10	100.0	2	10	10	10	500
Percent Recovery		156%	91%	98%	104%	100%	105%	90%	88%	94%	99%
I-C18	4	0.70	22.02	0.27	2.12	19.5	0.060	3.89	1.60	1.68	125
I-C18 MS		2.25	70.56	5.40	13.93	127.3	2.014	6.37	9.06	2.75	657
Amount Spiked		2	50	5	10	100.0	2	10	10	10	500
Percent Recovery		77%	97%	103%	118%	108%	98%	25%	75%	107%	106%
I-T1	3	0.49	24.90	0.45	3.33	19.4	0.069	6.67	1.79	1.58	151
I-T1 MS		2.58	81.84	5.29	14.13	132	2.098	19.5	9.23	9.63	685
Amount Spiked		2	50	5	10	100.0	2	10	10	10	500
Percent Recovery		104%	114%	97%	108%	113%	101%	128%	74%	81%	107%
I-T3	1	0.95	20.02	0.18	3.24	18.5	0.073	6.3	5.17	1.38	84.6
I-T3 MS		2.62	66.81	5.18	13.13	124.0	2.119	19.6	11.60	10.18	602.0
Amount Spiked		2	50	5	10	100.0	2	10	10	10	500
Percent Recovery		84%	94%	100%	99%	105%	102%	133%	64%	88%	103%

TABLE P.27. (Contd)

Sediment		<i>M. nasuta</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
<u>Matrix Spikes (Contd)</u>											
R-AC	2	1.19	16.98	0.44	3.01	25.7	0.113	7.23	4.00	1.93	115
R-AC MS		3.09	56.85	5.40	13.41	141	2.057	8.52	11.2	3.08	662
Amount Spiked	2	50	5	10	100	2	10	10	10	10	500
Percent Recovery		95%	80%	99%	104%	115%	97%	12.9%	72%	11.5%	109%
R-PF	1	0.76	NM	0.40	NM	11.6	0.058	4.27	1.33	1.44	145
R-PF MS		3.89	NS ^(d)	5.21	NS	113.6	2.09	16.2	9.16	10.90	655
Amount Spiked	2	NS	5	NS	100.0	2	10	10	10	10	500
Percent Recovery		156%	NA ^(e)	96%	NA	102%	102%	119%	78%	95%	102%
<u>Standard Reference Material</u>											
Certified Value		1.68 ±.15	14 ±1.2	4.15 ±.38	1.43 ±.46	66.3 ±4.3	0.064 ±.0067	2.25 ±.44	0.371 ±.014	2.21 ±.24	830 ±57
1566 Rep 1		1.60	NM	4.16	NM	65.9	NM	2.12	0.44 ^(f)	NM	836
1566 Rep 1		1.82 ^(f)	12.02 ^(f)	3.78	NM	76.3 ^(f)	NM	2.33 ^(f)	0.89 ^(f)	NM	957 ^(f)
1566 Rep 1		1.88 ^(f)	12.02 ^(f)	4.32	NM	85.2 ^(f)	NM	3.30 ^(f)	0.67 ^(f)	1.91 ^(f)	983 ^(f)
1566 Rep 1		1.63 ^(f)	12.02 ^(f)	4.08	1.07	70.5	0.063	2.12	0.32 ^(f)	2.05	857
1566 Rep 2		2.18 ^(f)	12.17 ^(f)	4.13	1.01	72.7 ^(f)	0.062	2.32 ^(f)	0.28 ^(f)	1.84 ^(f)	861
1566 Rep 3		2.08 ^(f)	11.63 ^(f)	4.27	1.00	69.3	0.062	2.78 ^(f)	0.29 ^(f)	1.80 ^(f)	850
1566 Rep 4		NM ^(f)	11.79 ^(f)	NM	1.25	NM	0.061	NM	NM	1.82 ^(f)	NM
1566 Rep 5		2.02 ^(f)	6.50 ^(f)	4.05	1.21	65.7	0.062	2.45	0.37 ^(f)	1.83 ^(f)	866
1566 Rep 6		1.95 ^(f)	6.31 ^(f)	4.24	1.24	67.2 ^(f)	0.063	2.05 ^(f)	0.30 ^(f)	1.78 ^(f)	872
1566 Rep 7		2.06 ^(f)	7.16 ^(f)	4.22	1.19	74.4 ^(f)	0.065	2.78 ^(f)	0.33 ^(f)	1.91 ^(f)	914 ^(f)
1566 Rep 8		1.85 ^(f)	6.57 ^(f)	4.07	1.05	66.8	0.061	2.37	0.32 ^(f)	1.80 ^(f)	857
1566 Rep 9		1.23 ^(f)	12.16 ^(f)	4.13	1.12	66.5	0.061	1.85 ^(f)	0.30 ^(f)	1.85 ^(f)	848
1566 Rep 10		1.16 ^(f)	NM	4.15	NM	67.6 ^(f)	0.061	2.74 ^(f)	0.30 ^(f)	1.71 ^(f)	851 ^(f)
1566 Rep 11		0.73 ^(f)	13.05 ^(f)	4.34	1.09	71.5 ^(f)	0.060	3.35 ^(f)	0.28 ^(f)	1.70 ^(f)	898 ^(f)
1566 Rep 12		0.78 ^(f)	10.29 ^(f)	4.24	1.00	68.7	0.060	2.45	0.29 ^(f)	1.73 ^(f)	869
1566 Rep 13		1.62	9.97 ^(f)	4.49	1.10	69.4	0.060	2.51	0.53 ^(f)	1.92 ^(f)	850
1566 Rep 13		1.62 ^(f)	NM	4.21	NM	68.0	NM	2.48	0.28 ^(f)	NM	866
1566 Rep 13		1.49 ^(f)	NM	4.71 ^(f)	NM	65.5 ^(f)	NM	2.00 ^(f)	1.18 ^(f)	NM	810
1566 Rep 14		1.73	8.23 ^(f)	4.23	1.47	75.8 ^(f)	0.062	3.87 ^(f)	0.43 ^(f)	1.76 ^(f)	919 ^(f)
1566 Rep 15		1.59	11.27 ^(f)	4.07	1.24	66.7	0.060	2.31	0.31 ^(f)	1.91 ^(f)	850
1566 Rep 16		1.55	9.44 ^(f)	4.22	1.04	67.9	0.060	2.71 ^(f)	0.29 ^(f)	1.81 ^(f)	878

TABLE P.27. (Contd)

Sediment			<i>M. nasuta</i> Metals (mg/kg dry weight)									
Treatment	Replicate		Ag	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
Standard Reference Materials (Contd)												
1566 Replicate 1 10X			1.59	NA	4.31	NA	69.0	NA	1.88	0.54 ^(f)	NA	846
1566 Replicate 1 20X			1.50 ^(f)	NA	4.16	NA	66.4	NA	2.26	0.89 ^(f)	NA	837
1566 Replicate 1 std			1.65	NA	4.11	NA	69.1	NA	2.06	0.44 ^(f)	NA	837
Analytical Replicates												
AC-3 Replicate 1	4		1.04	18.55	0.35	4.56	33.9	0.064	4.50	2.52	1.59	140
AC-3 Replicate 2	4		1.06	19.49	0.41	3.72	20.7	0.066	4.07	3.39	1.74	138
AC-3 Replicate 3	4		1.22	19.43	0.38	4.15	21.4	0.065	4.13	2.51	1.63	133
RSD			9%	3%	8%	10%	29%	2%	5%	18%	5%	3%
I-C4 Replicate 1	3		0.62	16.77	0.19	4.72	11.6	0.047	5.53	1.20	1.42	114
I-C4 Replicate 2	3		0.75	16.33	0.17	3.84	10.8	0.046	4.38	1.05	1.24	101
I-C4 Replicate 3	3		0.90	15.58	0.34	3.80	13.8	0.046	6.79	1.09	1.38	127
RSD			19%	4%	40%	13%	13%	1%	22%	7%	7%	11%
I-C4 Replicate 1	4		0.55	22.35	0.08	5.63	10.4	0.052	6.76	1.20	1.78	86.0
I-C4 Replicate 2	4		0.58	19.82	0.06	4.59	10.3	0.052	6.73	1.20	1.67	85.3
I-C4 Replicate 3	4		0.60	23.88	0.06	6.40	10.5	0.053	6.84	1.18	1.85	84.5
RSD			4%	9%	18%	16%	1%	1%	1%	1%	5%	1%
I-C10 Replicate 1	2		0.86	15.98 X	0.09	2.72	16.8	0.054	5.50	2.65	1.51	115
I-C10 Replicate 2	2		0.80	15.65 X	0.05	3.28	15.3	0.055	5.16	2.76	1.51	111
I-C10 Replicate 3	2		0.87	14.55 X	0.35	3.67	11.6	0.055	4.34	4.19	1.59	91.7
RSD			4%	5%	98%	15%	18%	1%	12%	27%	3%	12%
I-C16 Replicate 1	4		0.99	24.83	0.22	1.87	27.5	0.071	4.15	1.44	1.81	106
I-C16 Replicate 2	4		0.71	25.12	0.21	1.84	26.0	0.071	4.27	2.58	1.84	117
I-C16 Replicate 3	4		0.92	26.33	0.24	1.47	27.1	0.071	5.73	1.34	1.81	91.7
RSD			17%	3%	7%	13%	3%	0%	19%	38%	1%	12%
I-S1 Replicate 1	3		0.56	21.31	0.34	3.94	18.0	0.065	9.64	1.86	1.89	125
I-S1 Replicate 2	3		0.55	21.43	0.33	4.11	17.9	0.065	9.35	2.41	1.81	122
I-S1 Replicate 3	3		0.60	28.06	0.37	4.11	17.5	0.061	9.34	1.81	1.88	122
RSD			5%	16%	6%	2%	2%	4%	2%	17%	2%	1%
R-SB Replicate 1	4		1.19	17.86	0.50	4.73	14.2	0.065	4.98	5.85	1.82	135
R-SB Replicate 2	4		0.98	18.77	0.27	4.23	16.5	0.065	6.09	3.50	1.77	136
R-SB Replicate 3	4		1.03	16.87	0.26	3.68	16.2	0.063	6.54	3.77	1.71	136
RSD			10%	5%	41%	12%	8%	2%	14%	29%	3%	1%

TABLE P.27. (Contd)

Sediment			<i>M. nasuta</i> Metals (mg/kg dry weight)									
<u>Treatment</u>	<u>Replicate</u>		<u>Aq</u>	<u>As</u>	<u>Cd</u>	<u>Cr</u>	<u>Cu</u>	<u>Hg</u>	<u>Ni</u>	<u>Pb</u>	<u>Se</u>	<u>Zn</u>
<u>Analytical Replicates (Contd)</u>												
R-PC Replicate 1	1		0.48	13.69	0.51	3.00	12.8	0.063	4.63	1.21	1.77	133
R-PC Replicate 2	1		0.49	14.40	0.45	2.42	12.2	0.065	4.74	1.20	1.71	137
R-PC Replicate 3	1		0.60	13.64	0.52	3.27	13.0	0.064	5.13	1.39	1.87	139
RSD			12%	3%	8%	15%	4%	2%	5%	8%	5%	3%

(a) Undetected above given concentration.

(b) Not measured.

(c) Indicates SRMs associated with this batch were low. Values may be biased low.

(d) Not spiked.

(f) Not applicable.

(f) Value out of certified range.

TABLE P.28. Butyltins in Tissue of *M. nasuta*, Oakland Phase III A Project

Sediment Treatment	Replicate	Butyltins ($\mu\text{g}/\text{kg}$ dry weight)				Percent Dry Weight	Butyltins ($\mu\text{g}/\text{kg}$ wet weight)			
		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl
Detection Limits										
Target DL		NM ^(a)	NM	NM	NM	NA ^(b)	10.0	10.0	10.0	10.0
Lowest Achieved DL		NM	NM	NM	NM	NA	0.2	0.4	0.4	0.1
Maximum Achieved DL		NM	NM	NM	NM	NA	1.4	0.7	0.4	0.9
AC-1	1	2.3 U ^(c)	27.8	10.2	2.1 U	15.5	0.4 U	4.3	1.6	0.3 U
AC-1	2	NM	NM	NM	NM	NM	NM	NM	NM	NM
AC-1	3	2.6 U	21.6	10.6	3.2	14.2	0.4 U	3.1	1.5	0.5
AC-1	4	2.3 U	10.3	6.5	3.1	14.9	0.3 U	1.5	1.0	0.5
AC-1 Replicate 1	5	2.9 U	21.8	11.9	8.5	15.2	0.4	3.3	1.8	1.3
AC-1 Replicate 2	5	2.5 U	16.7	7.2	3.1	15.2	0.4 U	2.5	1.1	0.5
AC-3	1	2.8 U	19.2	10.9	3.0	14.9	0.4 U	2.9	1.6	0.4
AC-3	2	2.6 U	14.8	195.3	0.8 U	15.2	0.4 U	2.2	29.7	0.1 U
AC-3	3	3.2 U	17.2	8.4	2.9 U	15.5	0.5 U	2.7	1.3	0.4 U
AC-3	4	2.2 U	18.0	7.9	3.1	16.6	0.4 U	3.0	1.3	0.5
AC-3	5	2.2 U	11.6	4.9	2.1 U	15.1	0.3 U	1.8	0.7	0.3 U
I-C4	1	2.5 U	24.5	8.8	2.3 U	14.0	0.4 U	3.4	1.2	0.3 U
I-C4 Replicate 1	2	3.0 U	18.7	2.7 U	2.8	14.8	0.4 U	2.8	0.4 U	0.4
I-C4 Replicate 2	2	2.4 U	16.5	10.0	2.4	14.8	0.4 U	2.4	1.5	0.4
I-C4	3	3.3	20.0	7.4	3.0	13.5	0.4	2.7	1.0	0.4
I-C4 Replicate 1	4	2.8 U	15.2	10.4	2.2 U	15.0	0.4 U	2.3	1.6	0.3 U
I-C4 Replicate 2	4	8.3 U	50.9	24.1	4.0	15.0	1.2 U	7.6	3.6	0.6
I-C4 Replicate 3	4	2.8 U	20.8	12.3	2.7	15.0	0.4 U	3.1	1.8	0.4
I-C4	5	2.1 U	10.1	8.8	2.2	13.6	0.3 U	1.4	1.2	0.3
I-C5	1	2.7 U	11.1	6.4	2.5 U	15.0	0.4 U	1.7	1.0	0.4 U
I-C5	2	2.4 U	14.4	6.7	3.5	15.5	0.4 U	2.2	1.0	0.5
I-C5	3	2.3 U	10.9	5.7	2.2 U	14.1	0.3 U	1.5	0.8	0.3 U
I-C5	4	2.9 U	20.3	17.7	11.5	15.2	0.4 U	3.1	2.7	1.7
I-C5	5	3.2 U	12.4	5.7	4.2	14.4	0.5 U	1.8	0.8	0.6
I-C7	1	7.6	10.7	6.4	3.0	16.1	1.2	1.7	1.0	0.5
I-C7	2	3.8	3.0 U	6.2	2.5 U	14.5	0.6	0.4 U	0.9	0.4 U
I-C7	3	3.0 U	17.3	5.8	2.7 U	14.9	0.4 U	2.6	0.9	0.4 U
I-C7	4	13.1	17.5	12.8	3.6 U	14.0	1.8	2.5	1.8	0.5 U
I-C7 Replicate 1	5	2.7 U	8.7	5.7	2.4 U	13.1	0.4 U	1.1	0.7	0.3 U
I-C7 Replicate 2	5	2.4 U	13.5	8.4	2.4 U	13.1	0.3 U	1.8	1.1	0.3 U

TABLE P.28. (Contd)

Sediment Treatment	Replicate	Butyltins ($\mu\text{g}/\text{kg}$ dry weight)				Percent Dry Weight	Butyltins ($\mu\text{g}/\text{kg}$ wet weight)			
		Tetra- butyl	Tri- butyl	Di- butyl	Mono- butyl		Tetra- butyl	Tri- butyl	Di- butyl	Mono- butyl
I-C8	1	11.6	21.5	8.0	2.6 U	13.7	1.6	2.9	1.1	0.4 U
I-C8	2	2.3 U	11.9	5.3	2.2 U	12.7	0.3 U	1.5	0.7	0.3 U
I-C8	3	2.6 U	14.3	6.9	2.8	16.1	0.4 U	2.3	1.1	0.5
I-C8	4	2.5 U	15.5	8.9	3.8	14.8	0.4 U	2.3	1.3	0.6
I-C8	5	2.9 U	14.2	15.4	5.9	15.7	0.5 U	2.2	2.4	0.9
I-C9	1	2.7 U	19.6	19.0	2.7	15.3	0.4 U	3.0	2.9	0.4
I-C9	2	2.7 U	15.1	11.8	2.5 U	15.0	0.4 U	2.3	1.8	0.4 U
I-C9	3	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C9	4	2.4 U	7.6	7.8	4.2	15.3	0.4 U	1.2	1.2	0.6
I-C9	5	2.6 U	13.9	7.4	2.3 U	14.7	0.4 U	2.0	1.1	0.3 U
I-C10	1	3.0 U	19.9	13.8	7.6	13.7	0.4 U	2.7	1.9	1.0
I-C10 Replicate 1	2	2.4 U	24.8	12.4	3.5	14.3	0.3 U	3.5	1.8	0.5
I-C10 Replicate 2	2	16.2	25.7	11.9	3.3	14.3	2.3	3.7	1.7	0.5
I-C10	3	2.5 U	15.5	7.6	2.5	14.6	0.4 U	2.3	1.1	0.4
I-C10 Replicate 1	4	3.2 U	18.5	8.3	3.0 U	15.8	0.5 U	2.9	1.3	0.5 U
I-C10 Replicate 2	4	2.0 U	21.1	10.9	1.9 U	15.8	0.3 U	3.3	1.7	0.3 U
I-C10	5	3.4 U	32.6	14.2	3.1 U	13.7	0.5 U	4.5	1.9	0.4 U
I-C11	1	3.3	19.5	59.7	41.9	13.6	0.4	2.7	8.1	5.7
I-C11	2	2.5 U	22.4	9.7	2.3 U	16.8	0.4 U	3.8	1.6	0.4 U
I-C11	3	2.8 U	33.7	14.6	5.5	14.3	0.4 U	4.8	2.1	0.8
I-C11	4	10.5	16.7	9.2	2.8	16.1	1.7	2.7	1.5	0.5
I-C11	5	2.5 U	23.4	14.4	10.2	17.5	0.4 U	4.1	2.5	1.8
I-C12	1	6.1 U	7.1	11.6	5.4 U	15.9	1.0 U	1.1	1.8	0.9 U
I-C12 Replicate 1	2	2.7 U	25.4	9.3	2.5 U	15.2	0.4 U	3.9	1.4	0.4 U
I-C12 Replicate 2	2	2.4 U	15.3	13.9	4.0	15.2	0.4 U	2.3	2.1	0.6
I-C12	3	2.8 U	15.9	22.5	20.4	13.9	0.4 U	2.2	3.1	2.8
I-C12	4	29.4	13.9	11.2	2.3 U	15.0	4.4	2.1	1.7	0.3 U
I-C12	5	3.5 U	11.8	9.0	21.0	15.3	0.5 U	1.8	1.4	3.2
I-C14	1	2.3 U	18.1	9.1	2.2 U	14.6	0.3 U	2.6	1.3	0.3 U
I-C14	2	2.4 U	12.3	36.7	22.7	15.2	0.4 U	1.9	5.6	3.5
I-C14	3	2.3 U	2.6 U	6.1	5.2	16.5	0.4 U	0.4 U	1.0	0.9
I-C14	4	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C14 Replicate 1	5	2.2 U	9.5	4.9	2.1	16.0	0.4 U	1.5	0.8	0.3
I-C14 Replicate 2	5	3.9 U	11.1	11.5	3.4 U	16.0	0.6 U	1.8	1.8	0.5

TABLE P.28. (Contd)

Sediment Treatment	Replicate	Butyltins ($\mu\text{g/kg}$ dry weight)				Percent Dry Weight	Butyltins ($\mu\text{g/kg}$ wet weight)			
		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl
I-C15	1	2.7 U	19.6	9.0	2.5 U	14.2	0.4 U	2.8	1.3	0.4 U
I-C15	2	2.8 U	36.1	16.4	3.9	14.6	0.4 U	5.3	2.4	0.6
I-C15	3	1.5 U	10.8	7.7	2.4	16.1	0.2 U	1.7	1.2	0.4
I-C15	4	2.3 U	18.7	10.0	2.0 U	15.5	0.4 U	2.9	1.6	0.3 U
I-C15	5	2.4 U	9.6	7.8	5.5	14.4	0.3 U	1.4	1.1	0.8
I-C16 Replicate 1	1	2.4 U	11.4	5.3	2.3 U	15.1	0.4 U	1.7	0.8	0.3 U
I-C16 Replicate 2	1	4.3 U	9.2	18.8	3.8 U	15.1	0.6 U	1.4	2.8	0.6 U
I-C16 Replicate 3	1	2.6 U	10.6	7.2	2.4 U	15.1	0.4 U	1.6	1.1	0.4 U
I-C16	2	2.0 U	16.1	38.1	5.8	16.3	0.3 U	2.6	6.2	0.9
I-C16	3	4.6	10.4	6.1	2.9 U	14.7	0.7	1.5	0.9	0.4 U
I-C16	4	3.5 U	13.8	9.5	3.2 U	15.4	0.5 U	2.1	1.5	0.5 U
I-C16	5	2.9 U	6.8	6.5	5.6	14.4	0.4 U	1.0	0.9	0.8
I-C17	1	2.7 U	3.0 U	9.1	2.9	13.5	0.4 U	0.4 U	1.2	0.4
I-C17 Replicate 1	2	3.1 U	16.5	7.9	3.5	12.5	0.4 U	2.1	1.0	0.4
I-C17 Replicate 2	2	4.3 U	12.1	8.2	3.9 U	12.5	0.5 U	1.5	1.0	0.5 U
I-C17	3	2.9 U	10.3	9.8	2.6 U	14.0	0.4 U	1.4	1.4	0.4 U
I-C17	4	2.9 U	19.8	7.5	3.5	13.6	0.4 U	2.7	1.0	0.5
I-C17	5	2.8 U	17.1	15.6	13.3	16.0	0.4 U	2.7	2.5	2.1
I-C18	1	2.4 U	24.9	12.2	2.1 U	14.4	0.3 U	3.6	1.8	0.3 U
I-C18	2	2.5 U	26.8	26.2	3.5	15.2	0.4 U	4.1	4.0	0.5
I-C18	3	3.9	20.2	9.7	2.3	16.2	0.6	3.3	1.6	0.4
I-C18	4	3.1 U	23.1	15.9	22.2	15.8	0.5 U	3.6	2.5	3.5
I-C18	5	2.8 U	16.6	10.6	5.9	14.5	0.4 U	2.4	1.5	0.9
I-S1	1	2.5 U	20.5	9.4	2.2 U	14.8	0.4 U	3.0	1.4	0.3 U
I-S1	2	2.7 U	19.0	9.2	2.5 U	13.8	0.4 U	2.6	1.3	0.3 U
I-S1	3	2.4 U	14.1	7.2	3.7	14.8	0.4 U	2.1	1.1	0.5
I-S1	4	2.9 U	22.0	9.5	2.7 U	14.4	0.4 U	3.2	1.4	0.4 U
I-S1	5	2.9 U	40.9	10.5	3.9	12.9	0.4 U	5.3	1.4	0.5
I-T1	1	3.1 U	22.2	10.1	3.3	15.1	0.5 U	3.6	1.5	0.5
I-T1	2	8.2	45.6	13.7	4.0	14.4	1.2	6.6	2.0	0.6
I-T1	3	1.7 U	25.6	7.1	2.0	15.0	0.3 U	3.8	1.1	0.3
I-T1	4	2.2 U	29.2	11.9	5.4	15.3	0.3 U	4.5	1.8	0.8
I-T1	5	2.6	18.3	11.7	2.4 U	14.6	0.4	2.7	1.7	0.4 U

TABLE P.28. (Contd)

Sediment Treatment	Replicate	Butyltins ($\mu\text{g}/\text{kg}$ dry weight)				Percent Dry Weight	Butyltins ($\mu\text{g}/\text{kg}$ wet weight)			
		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl
I-T3	1	2.0 U	95.7	13.8	3.8	19.2	0.4 U	18.4	2.6	0.7
I-T3	2	4.1	148.7	21.8	3.4	14.2	0.6	21.1	3.1	0.5
I-T3 Replicate 1	3	3.1 U	80.9	15.7	2.8 U	14.2	0.4 U	11.5	2.2	0.4 U
I-T3 Replicate 2	3	3.9 U	88.2	16.6	3.5 U	14.2	0.6 U	12.5	2.4	0.5 U
I-T3	4	3.1 U	100.4	15.5	3.4	14.2	0.4 U	14.3	2.2	0.5
I-T3	5	4.7	89.8	14.7	2.5 U	14.5	0.7 U	13.0	2.1	0.4 U
I-T5 Replicate 1	1	2.8 U	261.5	33.8	4.9	15.0	0.4 U	39.2	5.1	0.7
I-T5 Replicate 2	1	4.2 U	234.8	23.8	3.8 U	15.0	0.6 U	35.2	3.6	0.6 U
I-T5	2	3.0 U	263.3	29.9	3.8	14.3	0.4 U	37.7	4.3	0.5
I-T5	3	2.9 U	273.3	34.6	2.6 U	13.9	0.4 U	38.0	4.8	0.4 U
I-T5	4	2.4 U	240.7	24.3	3.9	17.0	0.4 U	40.9	4.1	0.7
I-T5	5	2.3 U	238.2	33.2	5.2	15.8	0.4 U	37.6	5.2	0.8
R-AC	1	4.6	131.1	23.9	7.8	14.6	0.7	19.1	3.5	1.1
R-AC	2	2.8 U	67.2	13.4	2.5 U	12.5	0.4 U	8.4	1.7	0.3 U
R-AC	3	2.3 U	85.3	16.7	2.0 U	15.1	0.3 U	12.9	2.5	0.3 U
R-AC	4	2.9	64.1	15.5	4.5	15.4	0.4	9.9	2.4	0.7
R-AC	5	2.5 U	56.2	9.8	2.2 U	14.9	0.4 U	8.4	1.5	0.3 U
R-AM	1	5.3	36.5	12.0	5.4	15.0	0.8	5.5	1.8	0.8
R-AM Replicate 1	2	3.0	30.2	12.7	4.5	14.1	0.4	4.3	1.8	0.6
R-AM Replicate 2	2	3.0 U	24.0	101.3	2.7 U	14.1	0.4 U	3.4	14.3	0.4 U
R-AM	3	2.4 U	32.2	11.6	2.3 U	13.1	0.3 U	4.2	1.5	0.3 U
R-AM	4	2.3 U	24.5	8.3	2.8	14.7	0.3 U	3.6	1.2	0.4
R-AM Replicate 1	5	3.1 U	37.3	12.1	8.2	15.0	0.5 U	5.6	1.8	1.2
R-AM Replicate 2	5	2.5 U	28.3	10.4	2.3 U	15.0	0.4 U	4.2	1.6	0.3 U
R-BF	1	3.3 U	16.6	6.6	3.0 U	14.9	0.5 U	2.5	1.0	0.4 U
R-BF	2	2.1 U	20.4	15.1	1.9	15.3	0.3 U	3.1	2.3	0.3
R-8F	3	2.7 U	16.7	6.2	2.6 U	13.6	0.4 U	2.3	0.8	0.4 U
R-8F	4	2.5 U	20.6	15.5	2.3 U	13.8	0.3 U	2.8	2.1	0.3 U
R-8F	5	7.1	20.9	17.9	15.9	16.9	1.2	3.5	3.0	2.7
R-OS	1	3.8	15.3	8.4	2.4	15.4	0.6	2.4	1.3	0.4
R-OS	2	6.0	14.2	8.0	2.5	16.2	1.0	2.3	1.3	0.4
R-OS	3	2.7 U	18.8	10.6	2.4 U	15.0	0.4 U	2.8	1.6	0.4 U
R-OS	4	2.3 U	16.8	9.8	3.7	14.7	0.3 U	2.5	1.4	0.5
R-OS	5	2.6 U	14.5	6.8	2.3 U	14.3	0.4 U	2.1	1.0	0.3 U

TABLE P.28. (Contd)

Sediment Treatment	Replicate	Butyltins ($\mu\text{g/kg}$ dry weight)				Percent Dry Weight	Butyltins ($\mu\text{g/kg}$ wet weight)			
		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl		Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl
R-PC	1	2.6 U	12.6	9.9	3.3	15.1	0.4 U	1.9	1.5	0.5
R-PC Replicate 1	2	2.6 U	9.7	6.4	2.6	14.6	0.4 U	1.4	0.9	0.4
R-PC Replicate 2	2	4.4 U	4.9 U	11.3	3.9 U	14.6	0.6 U	0.7 U	1.6	0.6 U
R-PC Replicate 3	2	2.8 U	8.4	4.8	2.6 U	14.6	0.4 U	1.2	0.7	0.4 U
R-PC	3	2.6 U	10.7	5.7	2.4 U	13.4	0.3 U	1.4	0.8	0.3 U
R-PC	4	2.5 U	11.4	6.9	2.3 U	16.3	0.4 U	1.9	1.1	0.4 U
R-PC	5	2.1 U	12.1	5.8	6.5	16.7	0.4 U	2.0	1.0	1.1
R-PF	1	3.1 U	10.5	6.7	3.0	14.3	0.4 U	1.5	1.0	0.4
R-PF	2	3.4 U	11.2	6.2	3.0 U	12.5	0.4 U	1.4	0.8	0.4 U
R-PF	3	3.4	14.3	7.5	2.5 U	14.8	0.5	2.1	1.1	0.4 U
R-PF	4	9.1 U	16.0	14.0	8.2 U	15.7	1.4 U	2.5	2.2	1.3 U
R-PF	5	3.2 U	39.1	13.9	4.2	13.1	0.4 U	5.1	1.8	0.6
C-SB	1	2.9 U	14.9	10.9	4.5	12.3	0.4 U	1.8	1.3	0.6
C-SB	2	2.1 U	12.4	7.4	2.0 U	14.9	0.3 U	1.8	1.1	0.3 U
C-SB	3	2.3 U	31.7	15.4	2.2 U	15.7	0.4 U	5.0	2.4	0.3 U
C-SB	4	8.1	10.9	8.0	2.2 U	16.6	1.3	1.8	1.3	0.4 U
C-SB	5	2.7 U	12.3	12.5	3.9	16.4	0.4 U	2.0	2.1	0.6
C-WB	1	3.1 U	16.5	16.2	5.1	15.2	0.5 U	2.5	2.5	0.8
C-WB	2	1.8 U	9.8	3.8	1.7 U	16.0	0.3 U	1.6	0.6	0.3 U
C-WB	3	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-WB	4	13.3	15.6	6.9	2.7 U	15.1	2.0	2.4	1.0	0.4 U
C-WB	5	2.4 U	10.9	8.1	2.2 U	15.2	0.4 U	1.7	1.2	0.3 U
C-NE	1	2.5 U	17.8	8.7	2.9	15.8	0.4 U	2.8	1.4	0.5
C-NE	2	2.7	35.9	19.3	4.3	14.2	0.4	5.1	2.7	0.6
C-NE	3	2.2 U	9.2	4.0	2.1 U	15.4	0.3 U	1.4	0.6	0.3 U
C-NE	4	3.2	24.8	8.0	2.5	15.2	0.5	3.8	1.2	0.4
C-NE	5	15.9 U	50.6	40.3	14.2 U	4.1	0.7	2.1	1.7	0.6

(a) Not measured.

(b) Not applicable.

(c) Undetected above given concentration.

TABLE P.29. Quality Control Data for Butyltins, Dry Weight, in Tissue of *M. nasuta*, Oakland Phase III A Project

		Butyltin Species (μg/kg dry weight)			
<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Tetra-butyl</u>	<u>Tri-butyl</u>	<u>Di-butyl</u>	<u>Mono-butyl</u>
<u>Analytical Blanks</u>					
Blank 2		3.1 U ^(a)	5.3	2.9 U	1.5 U
Blank 3		2.1 U	3.0	2.0 U	2.0 U
Blank 5		2.4 U	2.6 U	2.2	2.9
Blank 6		2.5 U	4.3	2.3 U	2.3 U
Blank 7		3.0	2.6 U	2.1 U	2.1 U
Blank 8		5.4 U	6.1 U	5.2 U	4.9 U
Blank 9		4.1 U	4.6 U	3.9 U	4.2
Blank 10		4.6 U	5.1 U	4.3 U	4.1 U
Blank 11		2.0 U	3.3	2.6	2.0 U
Blank 12		2.2 U	3.3	1.9 U	1.3 U
Blank 13		2.2 U	2.0 U	2.0 U	1.3 U
<u>Matrix Spikes</u>					
AC-3	1	2.8 U	19.2	10.9	3.0
AC-3 MS	1	NS ^(b)	491.8	463.1	107.5
Amount Spiked		NS	699.0	699.0	699.0
Percent Recovery		NS	68%	65%	15%
I-C12	1	6.1 U	7.1	11.6	5.4 U
I-C12 MS	1	NS	747.4	706.6	305.1
Amount Spiked		NS	1176.0	1176.0	1176.0
Percent Recovery		NS	63%	59%	26%
I-C12	3	2.8 U	15.9	22.5	20.4
I-C12 MS	3	NS	507.1	523.1	480.4
Amount Spiked		NS	746.0	746.0	746.0
Percent Recovery		NS	66%	67%	62%
I-C16	3	13.4	25.3	12.0	4.3 U
I-C16 MS	3	NS	713.7	599.6	423.1
Amount Spiked		NS	735.0	735.0	735.0
Percent Recovery		NS	94%	80%	58%
I-S1	2	2.7 U	19.0	9.2	2.5 U
I-S1 MS	2	NS	589.3	537.8	277.7
Amount Spiked		NS	800.0	800.0	800.0
Percent Recovery		NS	71%	66%	35%
I-S1	2	2.7 U	19.0	9.2	2.5 U
I-S1 MS	2	NS	372.6	387.6	382.5
Amount Spiked		NS	806.0	806.0	806.0
Percent Recovery		NS	44%	47%	47%

TABLE P.29. (Contd)

Sediment Treatment	Replicate	Butyltin Species (µg/kg dry weight)			
		Tetra- butyl	Tri- butyl	Di- butyl	Mono- butyl
<u>Matrix Spikes</u> (Contd)					
I-T1	2	8.2	45.6	13.7	4.0
I-T1 MS	2	NS	470.8	463.2	422.5
Amount Spiked		NS	735.0	735.0	735.0
Percent Recovery		NS	58%	61%	57%
R-OS	5	2.6 U	14.5	6.8	2.3 U
R-OS MS	5	NS	544.1	444.3	198.6
Amount Spiked		NS	752.0	752.0	752.0
Percent Recovery		NS	70%	58%	26%
R-PF	4	9.1 U	16.0	14.0	8.2 U
R-PF MS	4	NS	1498.4	1495.9	1271.8
Amount Spiked		NS	2041.0	2041.0	2041.0
Percent Recovery		NS	73%	73%	62%
R-PF	4	1.8 U	9.1	3.3	1.7 U
R-PF MS	4	NS	291.4	286.1	242.1
Amount Spiked		NS	694.0	694.0	694.0
Percent Recovery		NS	41%	41%	35%
<u>Analytical Replicates</u>					
I-C4 Replicate 1	2	8.7 U	45.6	5.4 U	4.2
I-C4 Replicate 2	2	2.4 U	16.5	10.0	2.4
RPD		NA ^(c)	93.72%	NA	54.55%
I-Stat		NA	0.47	NA	0.27
I-C10 Replicate 1	4	3.2 U	18.5	8.3	3.0 U
I-C10 Replicate 2	4	2 U	21.1	10.9	1.9 U
RPD		NA	13.13%	27.08%	NA
I-Stat		NA	0.07	0.14	NA
I-C12 Replicate 1	2	2.4 U	15.3	13.9	4.0
I-C12 Replicate 2	2	8.0 U	62.0	18.2	3.7 U
RPD		NA	120.83%	26.79%	NA
I-Stat		NA	0.60	0.13	NA
I-T3 Replicate 1	3	9.1 U	197.3	30.8	4.2 U
I-T3 Replicate 2	3	3.9 U	88.2	16.6	3.5 U
RPD		NA	76.43%	59.92%	NA
I-Stat		NA	0.38	0.30	NA

TABLE P.29. (Contd)

Sediment Treatment			Butyltin Species ($\mu\text{g/kg}$ dry weight)			
			Tetra-butyl	Tri-butyl	Di-butyl	Mono-butyl
<u>Analytical Replicates</u>			(Contd)			
I-T5	Replicate 1	3	2.9 U	273.3	34.6	2.6 U
I-T5	Replicate 2	3	2.7 U	292.1	28.9	1.6 U
RPD			NA	6.65%	17.95%	NA
I-Stat			NA	0.03	0.09	NA
R-AM	Replicate 1	5	3.1 U	37.3	12.1	8.2
R-AM	Replicate 2	5	2.5 U	28.3	10.4	2.3 U
RPD			NA	27.44%	15.11%	NA
I-Stat			NA	0.14	0.08	NA
<u>Analytical Triplicates</u>						
I-C4	Replicate 1	4	2.8 U	15.2	10.4	2.2 U
I-C4	Replicate 2	4	8.3 U	50.9	24.1	4.0
I-C4	Replicate 3	4	2.5 U	17.8	11.4	1.5 U
RSD			NA	71%	50%	NA
I-C7	Replicate 1	5	2.7 U	8.7	5.7	2.4 U
I-C7	Replicate 2	5	2.4 U	13.5	8.4	2.4 U
I-C7	Replicate 3	5	2.7 U	7.1	4.2	1.6 U
RSD			NA	34%	35%	NA
I-T5	Replicate 1	1	2.8 U	261.5	33.8	4.9
I-T5	Replicate 2	1	2.7 U	258.6	25.9	3.6
I-T5	Replicate 3	1	4.2 U	234.8	23.8	3.8 U
RSD			NA	6%	19%	17%
R-PC	Replicate 1	2	2.6 U	9.7	6.4	2.6
R-PC	Replicate 2	2	4.4 U	4.9 U	11.3	3.9 U
R-PC	Replicate 3	2	2.8 U	8.4	4.8	2.6 U
RSD			NA	NA	45%	25%

(a) Undetected above given concentration.

(b) Not spiked.

(c) Not applicable.

TABLE P.30. Surrogate Percent Recoveries for Butyltins in
Tissue of *M. nasuta*, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery Propyltin</u>
AC-1	1	76.5
AC-1	2	NA (a)
AC-1	3	82.1
AC-1	4	61.2
AC-1	5	70.8
AC-3	1	90.4
AC-3	2	87.2
AC-3	3	104.6
AC-3	4	61.3
AC-3	5	78.3
I-C4	1	107.5
I-C4 Replicate 1	2	102.7
I-C4 Replicate 2	2	62.8
I-C4	3	85.1
I-C4 Replicate 1	4	99.1
I-C4 Replicate 2	4	89.2
I-C4 Replicate 3	4	101.4
I-C4	5	70.2
I-C5	1	98.3
I-C5	2	99.8
I-C5	3	69.1
I-C5	4	68.6
I-C5	5	68.3
I-C7	1	61.7
I-C7	2	64.4
I-C7	3	93.0
I-C7	4	109.7
I-C7 Replicate 1	5	47.8
I-C7 Replicate 2	5	67.9
I-C7 Replicate 3	5	50.8
I-C8	1	90.5
I-C8	2	65.6
I-C8	3	54.4
I-C8	4	93.6
I-C8	5	58.1

TABLE P.30. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery Propyltin</u>
I-C9	1	103.8
I-C9	2	90.2
I-C9	3	SLP ^(b)
I-C9	4	52.9
I-C9	5	75.8
I-C10	1	79.6
I-C10	2	78.4
I-C10	3	78.8
I-C10 Replicate 1	4	48.9
I-C10 Replicate 2	4	73.4
I-C10	5	113.5
I-C11	1	114.4
I-C11	2	86.9
I-C11	3	82.2
I-C11	4	84.5
I-C11	5	119.7
I-C12	1	66.6
I-C12 Replicate 1	2	95.2
I-C12 Replicate 2	2	89.5
I-C12	3	84.0
I-C12	4	68.2
I-C12	5	82.3
I-C14	1	75.2
I-C14	2	100.0
I-C14	3	110.4
I-C14	4	SLP
I-C14	5	75.3
I-C15	1	81.7
I-C15	2	99.7
I-C15	3	65.8
I-C15	4	78.0
I-C15	5	64.9
I-C16	1	64.7
I-C16	2	121.9
I-C16	3	65.4
I-C16	4	68.2
I-C16	5	59.9

TABLE P.30. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery Propyltin</u>
I-C17	1	61.0
I-C17	2	72.9
I-C17	3	52.0
I-C17	4	98.3
I-C17	5	93.3
I-C18	1	109.6
I-C18	2	120.7
I-C18	3	62.1
I-C18	4	68.7
I-C18	5	80.6
I-S1	1	57.2
I-S1	2	64.9
I-S1	3	50.3
I-S1	4	62.5
I-S1	5	46.4
I-T1	1	74.0
I-T1	2	72.4
I-T1	3	71.0
I-T1	4	64.0
I-T1	5	78.3
I-T3	1	58.9
I-T3	2	76.3
I-T3 Replicate 1	3	81.8
I-T3 Replicate 2	3	70.0
I-T3	4	111.7
I-T3	5	72.0
I-T5 Replicate 1	1	80.6
I-T5 Replicate 2	1	95.5
I-T5 Replicate 3	1	73.5
I-T5	2	111.0
I-T5 Replicate 1	3	77.9
I-T5 Replicate 2	3	94.7
I-T5	4	69.7
I-T5	5	52.9
R-AC	1	72.5
R-AC	2	68.6
R-AC	3	68.8
R-AC	4	59.0
R-AC	5	51.5

TABLE P.30. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery Propyltin</u>
R-AM	1	94.1
R-AM	2	61.8
R-AM	3	82.8
R-AM	4	64.1
R-AM Replicate 1	5	114.9
R-AM Replicate 2	5	79.2
R-BF	1	100.3
R-BF	2	108.9
R-BF	3	60.2
R-BF	4	80.5
R-BF	5	117.0
R-OS	1	54.5
R-OS	2	71.8
R-OS	3	73.8
R-OS	4	71.2
R-OS	5	53.8
R-PC	1	56.1
R-PC Replicate 1	2	42.1
R-PC Replicate 2	2	79.1
R-PC Replicate 3	2	64.7
R-PC	3	63.7
R-PC	4	77.1
R-PC	5	56.2
R-PF	1	69.0
R-PF	2	55.6
R-PF	3	60.1
R-PF	4	81.1
R-PF	5	65.7
C-SB	1	65.0
C-SB	2	57.0
C-SB	3	88.6
C-SB	4	84.0
C-SB	5	78.6
C-WB	1	99.5
C-WB	2	57.7
C-WB	3	SLP
C-WB	4	95.0
C-WB	5	52.5

TABLE P.30. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Surrogate Percent Recovery Propyltin</u>
C-NE	1	65.4
C-NE	2	68.2
C-NE	3	58.2
C-NE	4	76.1
C-NE	5	80.3
Blank 2		94.1
Blank 3		31.0
Blank 5		67.5
Blank 6		46.8
Blank 7		58.3
Blank 8		76.5
Blank 9		66.9
Blank 10		77.7
Blank 11		50.9
Blank 12		85.6
Blank 13		33.6
AC-3 MS	1	114.4
I-C12 MS	1	70.2
I-C12 MS	3	114.7
I-C16 MS	3	53.2
I-S1 MS	2	86.8
I-S1 MS	2	50.3
I-T1 MS	2	73.5
R-OS MS	5	71.5
R-PF MS	4	88.8
R-PF MS	4	47.7

-
- (a) Data not available.
 (b) Sample lost in preparation.

APPENDIX Q

TISSUE CHEMISTRY AND QUALITY ASSURANCE DATA
FOR *N. caecoides*

QA/QC SUMMARY

PROGRAM: Oakland Phase III A
PARAMETER: Low Molecular Weight PAHs (LPAHs)
LABORATORY: Alden Analytical Laboratories
MATRIX: *N. caecoides*
SAMPLE NUMBER: 125

HOLDING TIMES

All samples were held at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until extraction. Samples were extracted within 2 months of receipt at the analytical laboratory. Alden Analytical Laboratories analyzed the majority of sample extracts within 40 days. A limited number of sample extracts exceeded the EPA recommended extract holding time of 40 days. The integrity of the samples is not expected to be compromised because the PAH compounds of interest for this project remain stable in the extraction solvent. Based on results of the surrogate and matrix spike recoveries, the extended holding period did not adversely affect sample quality.

DETECTION LIMITS

Detection limits were acceptable ($< 20 \mu\text{g/kg}$ wet weight) for all LPAH compounds except naphthalene, which produced a detection limit of $70 \mu\text{g/kg}$.

METHOD BLANKS

A total of eight method blanks were analyzed with the samples. LPAH compounds were not detected in any of the method blanks associated with these samples.

SURROGATES

Alden Analytical Laboratories added four radiolabelled PAH compounds (surrogates) to samples prior to analyses. Recoveries for the majority of samples spiked with surrogates were within the target of range 50% to 150%, as stated in the QA/QC plan set by the laboratory. Sixty-seven of a possible total of 155 replicate samples (including test, reference, control and QA/QC samples) had recoveries outside of this range for one or more surrogates (43%). Only four samples had all four surrogates out of the recovery range. Therefore, the results were found to be acceptable with qualifications.

MATRIX SPIKES

One set of matrix spike/matrix spike duplicate samples were analyzed for approximately every ten samples, for a total of eight sets of MS/MSDs. Spikes were performed on background worm tissues as there was not a sufficient amount of tissue in the actual samples to perform matrix spikes. Recoveries for LPAH compounds were within the QC goals of 50% to 150% for all spikes with the exception of naphthalene for sample MSD 6, which was recovered at 32%. However, this recovery was within the acceptable recovery limit listed in Method 8270, therefore corrective action was not taken. The RPDs (measuring the relative percent difference between the samples) were within the permissible limit of $<20\%$ for 44 of a total possible 48 calculations used to estimate RPDs.

REPLICATES

Five analytical replicates were analyzed. Precision was measured by RPD between duplicate results. RPDs were not calculated for most compounds because at least one replicate was not detected. In all cases the calculated RPDs were less than the QC goal of <20%, indicating acceptable precision for the method.

SRMs

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Phase III A
PARAMETER: High Molecular Weight PAHs (HPAHs)
LABORATORY: Alden Analytical Laboratories
MATRIX: *N. caecoides* tissues
NUMBER SAMPLES: 125

HOLDING TIMES

All samples were held frozen $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until extraction. Samples were extracted and analyzed within 2 months of receipt at the laboratory. The majority of sample extracts were analyzed within the EPA-recommended holding time of 40 days. A limited number of sample extracts were held for up to 48 days before analysis. The integrity of the samples, however, was not expected to be compromised because the PAH compounds of interest remain stable in the solvent. Based on results of matrix spike and surrogate recoveries, no adverse effects were observed due to the extended holding time.

DETECTION LIMITS

Target detection limits were acceptable ($20\text{ }\mu\text{g/kg}$ wet weight) for all HPAH compounds except fluoranthene, which produced a detection limit of $50\text{ }\mu\text{g/kg}$ wet weight.

METHOD BLANKS

HPAH compounds were not detected in any of the eight method blanks associated with these samples.

SURROGATES

Alden Analytical Laboratories added four radiolabelled PAH compounds (surrogates) to the samples prior to analyses. Recoveries for the majority of surrogates were within the QA/QC range of 50% to 150% set by the laboratory. Sixty-seven of the possible 155 replicate samples (including test, reference, control and QA/QC samples) produced recoveries outside of this range for one or more surrogates (43%). Only four samples had all four surrogates out of the recovery range. Therefore, the results were found to be acceptable with qualifications.

MATRIX SPIKES

One set of matrix spike/matrix spike duplicate samples were analyzed with approximately every ten samples, for a total of eight MS/MSDs. Spikes were performed on background worm tissues as there was not a sufficient amount of tissue in actual samples to perform matrix spike analysis. Spike recoveries for 106 out of a possible 140 recoveries were within the ranges specified in the QA/QC Plan. Benzo(a)anthracene recoveries were higher than the QA/QC range (12% to 135%) for all samples. One sample, MSD-Rep 6, had recoveries outside of the range for five of the nine HPAH compounds analyzed. This same sample produced low surrogate recoveries ranging from 11% to 32%, which may explain the low spike recoveries. Overall, the percent

recovery results are interpretable with qualifications. The RPDs between the MS and MSD samples were within the permissible limit of <20% for 50 of the possible 69 RPD calculations and were found to be acceptable with qualifications.

REPLICATES

Five analytical replicates were analyzed because of insufficient quantities of sample material for triplicate analyses. Precision was measured by Relative Percent Difference (RPD) between replicates. RPDs were not calculated for most compounds because in at least one replicate the compound was not detected. Only four RPDs between replicates were calculated and they ranged from 5% to 32% with only one sample, I-C17 Rep 2, exceeding the precision goal of <20%.

SRMs

NOT APPLICABLE

PHASE IIIA

QA/QC SUMMARY

PROGRAM: Oakland Phase III A
PARAMETER: Polychlorinated Biphenyls (PCBs)
LABORATORY: Alden Analytical Laboratories
MATRIX: *N. caecoides* tissues
SAMPLE NUMBER: 125

HOLDING TIMES

All samples were held at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until extraction. Holding times have not been established for analyses of trace organics in tissues; however, holding times of up to 1 year have been recommended (PSEP 1986). All samples were analyzed within 2 months of receipt at the laboratory. The majority of sample extracts were analyzed within the EPA-recommended holding time of 40 days established for extracts. A limited number of sample extracts were held for up to 48 days before analysis. Because of the stable nature of PCBs in the extraction solvent and the results of matrix spike and surrogate recoveries, the extended holding time did not affect the integrity of the samples.

DETECTION LIMITS

Detection limits for PCBs ranged from 100 $\mu\text{g/kg}$ to 250 $\mu\text{g/kg}$ (wet weight). This is above the target detection limit goals of 20 $\mu\text{g/kg}$ because of the limited amount of *N. caecoides* tissue sample mass.

METHOD BLANKS

Eight method blanks were analyzed with the samples reported. PCBs were not detected in any of the method blanks associated with the samples.

SURROGATES

One surrogate, dibutylchlorodate (DBC), was added to all samples to assess extraction efficiency. Eleven out of a possible 152 percent recoveries were not within the QA/QC range of 50% to 150% set by the laboratory. Two of the eleven recoveries (C-NE Rep 1 and I-C11 Rep 5) were out of range because they were being inadvertently spiked twice; therefore, the results are considered acceptable with qualifications.

MATRIX SPIKES

PCBs were not used for matrix spikes. Pesticide matrix spike and matrix spike duplicate recovery information also applies to PCB results because the analyses are performed simultaneously.

REPLICATES

Five analytical replicates were analyzed with the samples. PCBs were not found in any of the samples that were replicated, therefore RPD calculations not were performed.

SRMs

NOT APPLICABLE

PHASE III A

QA/QC SUMMARY

PROGRAM: Oakland Phase III A Program
PARAMETER: Chlorinated Pesticides
LABORATORY: Alden Analytical Laboratories
MATRIX: *N. caecoides* tissues
SAMPLE NUMBER: 125

HOLDING TIMES

All samples were held at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until extraction. Samples were analyzed within 2 months of receipt at the laboratory. The majority of sample extracts were analyzed within the EPA-recommended extract holding time for organic analyses of 40 days. A limited number of sample extracts were held for up to 48 days before analysis. The integrity of the samples was not expected to be compromised because the compounds of interest are stable in the extract solvent. Based on results of matrix spike and surrogate recoveries, no adverse effects of the extended holding times were observed.

DETECTION LIMITS

Detection limits for chlorinated pesticides ranged from 10 $\mu\text{g/kg}$ to 40 $\mu\text{g/kg}$ wet weight for all compounds except toxaphene, which had a detection limit of 500 $\mu\text{g/kg}$ to 1000 $\mu\text{g/kg}$ wet weight. The achieved detection limits exceeded the target detection limit of 2 $\mu\text{g/kg}$ established in the QA/QC requirements. The higher detection limits may be attributed to the limited amount of worm tissue available for analysis. The elevated detection limits for toxaphene are due to potential co-elution with other pesticides and PCBs, resulting in false positive detections.

METHOD BLANKS

Eight method blanks were analyzed. Pesticides were not detected in any of the method blanks associated with these samples.

SURROGATES

One surrogate, dibutylchlorodate (DBC), was added to all samples to assess extraction efficiency. Eleven out of a possible 152 percent recoveries were not within the QA/QC range of 50% to 150% set by the laboratory. Two of the eleven recoveries (C-NE Rep 1 and I-C11 Rep 5) were out of range because they were being inadvertently spiked twice. The results are acceptable with qualifications.

MATRIX SPIKES

One set of matrix spike/matrix spike duplicate samples (MS/MSDs) were analyzed for every ten samples for a total of seven MS/MSDs. Spikes were performed on background worm tissue as there was not a sufficient amount of tissue in the actual samples to perform matrix spikes. Two compounds, aldrin and dieldrin, were used to spike the samples. Recoveries ranged from 12% to 71% for aldrin and 14% to 63% for dieldrin. The reason for low spike recoveries is inconclusive. In general, low recoveries for pesticides can be attributed to either sample handling or matrix interference from co-eluting peaks. The RPDs between the samples were within the permissible limit of <20% for 9 out of 14 RPD calculations, therefore the results were found to be acceptable with qualifications.

PHASE IIIA

REPLICATES

Five analytical duplicates were analyzed for all pesticides. Pesticides were not detected in any of the samples replicated, therefore no RPD calculations were performed.

SRMs

NOT APPLICABLE

QA/QC SUMMARY

PROGRAM: Oakland Phase III A Program
PARAMETER: Metals (Ag, As, Cd, Cr, Cu, Hg, Ni, Pb, Se, and Zn)
LABORATORY: Battelle/Marine Sciences Laboratory
MATRIX: *N. caecoides*
SAMPLE NUMBER: 125

NOTE: Each of 5 tissue replicates from 15 sediment treatments were combined to form 15 composites. This was performed because of the limited amount of worm tissue available for metals analysis. The *N. caecoides* tissue sample composites produced from these 15 treatments were then analyzed in triplicate by both AA and XRF. The remaining 10 sediment treatments produced a sufficient amount of worm tissues and were processed in the normal manner such that 5 replicates of each treatment were submitted separately for analysis by AA.

HOLDING TIMES All samples were freeze dried within 1 month of sample collection. Samples were held at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ prior to freeze drying and were either digested or analyzed whole within 9 months of drying. No recommended holding times have been published for samples that have been freeze dried, however, the National Institute of Science and Technology (NIST) and the National Research Council of Canada (NRCC) issue freeze dried tissue samples that have been certified for up to 10 years without noticeable changes to the metals concentrations.

DETECTION LIMITS Achieved detection limits, based on dry weight concentrations, were acceptable for all samples analyzed by both AA and XRF, with the exception of Ni and Se. The detection limit for Ni was 1.0 mg/kg, however the achieved detected values ranged from 1.5 mg/kg to 2.2 mg/kg. The detection limit for Se was 0.1 mg/kg; however, the lowest level detected was 0.84 mg/kg.

METHOD BLANKS Nine method blanks were analyzed with *N. caecoides* tissue samples. Method blanks were associated only with samples analyzed by AA. Low levels of Cr, Ni, As, and Cu were found in three method blanks. Also, low concentrations of Hg were detected in Blank 7 and Blank 9. The Hg concentrations detected in these method blanks was at least five times lower than those reported in associated samples. Therefore, the data were found to be acceptable with qualifications.

SURROGATES NOT APPLICABLE

MATRIX SPIKES Three matrix spikes were associated only with samples analyzed by AA. Spike recoveries ranged from 81.91% to 151.97%. These recoveries were within the QA/QC ranges established for As, Cd, Cr, Pb, Hg, and Se.

PHASE III A

REPLICATES

Precision of the analysis was measured by calculating RPDs between duplicates or RSD between triplicates. Four samples were analyzed in duplicate and ranged from 0% to 53.13%. Twenty-five out of the 34 RPDs were within the permissible QA/QC range of <20%. Fifteen samples were analyzed in triplicate and ranged from 0% to 49.44%. One hundred and five of the possible 130 RSD calculations were within the permissible level of <20%. The RPD and RSD exceedences were primarily due to the comparison of relatively low concentrations, which resulted in exaggerated RSD values. Therefore, the results were found to be acceptable with qualifications.

SRMs

SRM 1566a clam tissue, was obtained from the U.S. National Institute of Standards and Technology (NIST). This SRM was analyzed by both XRF and AA at a minimum of 1 per 10 samples. The majority of the analyses were within the certified values for the SRM. Zinc, Pb, and As were slightly out of certified range in samples analyzed by AA; however, the values reported were generally within the precision guideline of <20% established in the QA/QC Plan. Ni and Se were slightly out of certified range for samples analyzed by XRF.

QA/QC SUMMARY

PROGRAM: Oakland Phase III A
PARAMETER: Butyltins
LABORATORY: Battelle Ocean Sciences Laboratory/Duxbury Massachusetts
MATRIX: *N. caecoides* tissues
SAMPLE NUMBER: 125

HOLDING TIMES All samples were held frozen at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until extraction. All sample extracts were analyzed within the EPA-recommended holding time established for organic extracts of 40 days; however, there is no holding time set for analysis of tissue samples for organics. EPA Puget Sound Estuary Program recommends analyzing frozen tissues within 1 year of collection (PSEP 1986). Samples were analyzed within 2 months of receipt at the laboratory.

DETECTION LIMITS Detection limits for butyltins ranged from $10\text{ }\mu\text{g/kg}$ to $23\text{ }\mu\text{g/kg}$ (wet weight). Some of the samples exceeded the detection limit goal of $10\text{ }\mu\text{g/kg}$ (wet weight).

METHOD BLANKS Nine method blanks were analyzed with the samples. Low levels of tributyltin ranging from $16.8\text{ }\mu\text{g/kg}$ to $59.5\text{ }\mu\text{g/kg}$ were detected in seven out of nine method blanks. The samples associated with the blanks were blank corrected.

SURROGATES Propyltin was added to each sample prior to extraction as a surrogate. Percent recoveries were not established in the QA/QC plan; however, EPA has established an acceptable range of 40% to 120% for organics. One hundred and thirty-one of a possible 143 surrogate recoveries were within this range, therefore, the results are acceptable with qualifications.

MATRIX SPIKES Nine matrix spike samples were analyzed. Tri- and dibutyltins were used as spiking compounds. Percent recoveries were not established in the QA/QC plan; however, an acceptable range of 40% to 120% has been set for organics. Matrix spike recoveries ranged from 45% to 117%, with the exception of one spike recovery of 26%. Therefore, the results were found to be acceptable.

REPLICATES No analytical replicates were analyzed.

SRMs NOT APPLICABLE

REFERENCE Puget Sound Estuary Program (PSEP). 1986. Recommended Protocols for Measuring Selected Environmental Variables in Puget Sound. Volumes 1 and 2. Prepared by Tetra Tech, Inc. for the Puget Sound Estuary Program, Bellevue, Washington.

PHASE III A

TABLE Q.1. Total Detected Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
I-C3	1	NA ^(a)	NA	NA
I-C3	2	90	NA	90
I-C3	3	NA	NA	NA
I-C3	4	95	NA	95
I-C3	5	NA	NA	NA
I-C5	1	25	50	75
I-C5	2	NA	33	33
I-C5	3	52	33	85
I-C5	4	92	10	102
I-C5	5	NA	28	28
I-C7 Replicate 1	1	29	NA	29
I-C7 Replicate 2	1	28	NA	28
I-C7	2	NA	NA	NA
I-C7	3	NA	NA	NA
I-C7	4	234	NA	234
I-C7	5	NA	NA	NA
I-C8	1	46	18	64
I-C8	2	27	NA	27
I-C8	3	NA	18	18
I-C8	4	36	34	70
I-C8	5	121	17	138
I-C9	1	81	122	203
I-C9	2	NA	91	91
I-C9	3	13	101	114
I-C9	4	12	90	102
I-C9	5	41	118	159
I-C10	1	NA	250	250
I-C10	2	13	270	283
I-C10	3	NA	280	280
I-C10	4	NA	170	170
I-C10	5	391	1440	1831
I-C11	1	NA	NA	NA
I-C11	2	14	29	43
I-C11	3	14	32	46
I-C11	4	NA	NA	NA
I-C11	5	18	33	51

TABLE Q.1. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
I-C12	1	107	300	407
I-C12	2	NA	240	240
I-C12	3	174	240	414
I-C12	4	32	250	282
I-C12	5	NA	320	320
I-C14	1	NA	22	22
I-C14 Replicate 1	2	13	19	32
I-C14 Replicate 2	2	13	21	34
I-C14	3	NA	11	11
I-C14	4	NA	25	25
I-C14	5	NA	19	19
I-C15	1	78	28	106
I-C15	2	177	18	195
I-C15	3	114	122	236
I-C15	4	NA	NA	NA
I-C15	5	NA	NA	NA
I-C16	1	156	11	167
I-C16	2	26	NA	26
I-C16	3	87	NA	87
I-C16	4	140	13	153
I-C16	5	273	19	292
I-C17	1	NA	93	93
I-C17	2	13	113	126
I-C17	3	18	119	137
I-C17	4	NA	55	55
I-C17 Replicate 1	5	NA	90	90
I-C17 Replicate 2	5	NA	65	65
I-C18	1	84	NA	84
I-C18	2	NA	NA	NA
I-C18	3	NA	NA	NA
I-C18	4	127	NA	127
I-C18	5	62	12	74
I-S1	1	60	856	916
I-S1	2	169	1040	1209
I-S1	3	80	1123	1203
I-S1	4	86	940	1026
I-S1	5	70	871	941

TABLE Q.1. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ wet weight)		Total PAH
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
I-T1	1	14	184	198
I-T1	2	92	167	259
I-T1	3	107	168	275
I-T1	4	12	151	163
I-T1	5	11	171	182
I-T3	1	17	120	137
I-T3	2	35	506	541
I-T3	3	97	352	449
I-T3	4	166	369	535
I-T3	5	140	348	488
R-AC	1	25	62	87
R-AC	2	54	86	140
R-AC	3	33	123	156
R-AC	4	52	91	143
R-AC	5	81	96	177
R-AM	1	19	42	61
R-AM	2	128	80	208
R-AM	3	33	NA	33
R-AM	4	102	NA	102
R-AM	5	55	48	103
R-BF	1	15	35	50
R-BF	2	33	47	80
R-BF	3	23	38	61
R-BF	4	16	111	127
R-BF	5	15	36	51
R-OS	1	19	35	54
R-OS	2	17	34	51
R-OS	3	17	10	27
R-OS	4	14	26	40
R-OS	5	NA	NA	NA
R-PC	1	17	43	60
R-PC	2	21	31	52
R-PC	3	41	45	86
R-PC	4	10	NA	10
R-PC	5	13	27	40

TABLE Q.1. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ wet weight)		
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	Total PAH
R-PF	1	20	37	57
R-PF	2	13	31	44
R-PF Replicate 1	3	19	45	64
R-PF Replicate 2	3	19	40	59
R-PF	4	15	38	53
R-PF	5	15	30	45
C-SB	1	39	33	72
C-SB	2	70	NA	70
C-SB	3	139	36	175
C-SB	4	NA	NA	NA
C-SB	5	89	NA	89
C-NE	1	76	NA	76
C-NE	2	NA	NA	NA
C-NE	3	77	NA	77
C-NE	4	28	NA	28
C-NE	5	93	NA	93
C-NE-A Replicate 1	1	98	NA	98
C-NE-A Replicate 2	1	100	NA	100
C-NE-A	2	NA	NA	NA
C-NE-A	3	NA	NA	NA
C-NE-A	4	NA	NA	NA
C-NE-A	5	NA	NA	NA

(a) Not applicable: no PAHs detected.

TABLE Q.2. Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> Low PAHs ($\mu\text{g/kg}$ wet weight)						
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	2-Methyl-naph-thalene (a)	Phenan-threne
Detection Limits								
Target DL		20	20	20	20	20	20	20
Lowest Acheived DL		10	10	10	10	10	10	10
Maximum Acheived DL		10	10	10	10	70	25	10
I-C3	1	10 U ^(b)	10 U	10 U	10 U	50 U	20 U	10 U
I-C3	2	10 U	10 U	10 U	10 U	64	26	10 U
I-C3	3	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C3	4	10 U	10 U	10 U	10 U	67	28	10 U
I-C3	5	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C5	1	10 U	10 U	10 U	10 U	50 U	25	10 U
I-C5	2	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C5	3	10 U	10 U	10 U	10 U	52	20 U	10 U
I-C5	4	10 U	10 U	10 U	10 U	63	29	10 U
I-C5	5	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C7 Replicate 1	1	10 U	10 U	10 U	10 U	65 U	29	10 U
I-C7 Replicate 2	1	10 U	10 U	10 U	10 U	65 U	28	10 U
I-C7	2	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C7	3	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C7	4	13	10 U	10 U	12	110	72	27
I-C7	5	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C8	1	10 U	10 U	10 U	10 U	65 U	46	10 U
I-C8	2	10 U	10 U	10 U	10 U	65 U	27	10 U
I-C8	3	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C8	4	10 U	10 U	10 U	10 U	65 U	26	10
I-C8	5	10 U	10 U	10 U	10 U	79	42	10 U
I-C9	1	10 U	10 U	10 U	10 U	70	20 U	11
I-C9	2	10 U	10 U	10 U	10 U	70 U	20 U	10 U
I-C9	3	10 U	10 U	10 U	10 U	70 U	20 U	13
I-C9	4	10 U	10 U	10 U	10 U	70 U	20 U	12
I-C9	5	10 U	10 U	10 U	14	70 U	20 U	27
I-C10	1	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C10	2	10 U	10 U	10 U	10 U	65 U	25 U	13
I-C10	3	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C10	4	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C10	5	10 U	20	52	10 U	160	100	59
I-C11	1	10 U	10 U	10 U	10 U	40 U	20 U	10 U
I-C11	2	10 U	10 U	10 U	10 U	40 U	20 U	14
I-C11	3	10 U	10 U	10 U	10 U	40 U	20 U	14
I-C11	4	10 U	10 U	10 U	10 U	40 U	20 U	10 U
I-C11	5	10 U	10 U	10 U	10 U	40 U	20 U	18
I-C12	1	10 U	10 U	10 U	10 U	73	34	10 U
I-C12	2	10 U	10 U	10 U	10 U	65 U	25 U	10 U
I-C12	3	10 U	10 U	13	10 U	77	46	38
I-C12	4	10 U	10 U	10 U	10 U	65 U	32	10 U
I-C12	5	10 U	10 U	10 U	10 U	65 U	25 U	10 U

TABLE Q.2. (Contd)

		<i>N. caecoides</i> Low PAHs ($\mu\text{g}/\text{kg}$ wet weight)						
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	2-Methyl-naph-thalene	Phenan-threne
I-C14	1	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C14 Replicate 1	2	10 U	10 U	10 U	10 U	50 U	20 U	13
I-C14 Replicate 2	2	10 U	10 U	10 U	10 U	50 U	20 U	13
I-C14	3	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C14	4	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C14	5	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C15	1	10 U	10 U	10 U	10 U	60	20 U	18
I-C15	2	10 U	10 U	10 U	10 U	110	43	24
I-C15	3	10 U	10 U	10 U	10 U	84	20 U	30
I-C15	4	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C15	5	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C16	1	10 U	10 U	10 U	10 U	96	46	14
I-C16	2	10 U	10 U	10 U	10 U	50 U	26	10 U
I-C16	3	10 U	10 U	10 U	10 U	70	20 U	17
I-C16	4	10 U	10 U	10 U	10 U	140	20 U	10 U
I-C16	5	10 U	10 U	10 U	10 U	160	78	35
I-C17	1	10 U	10 U	10 U	10 U	70 U	20 U	10 U
I-C17	2	10 U	10 U	10 U	10 U	70 U	20 U	13
I-C17	3	10 U	10 U	10 U	10 U	70 U	20 U	18
I-C17	4	10 U	10 U	10 U	10 U	70 U	20 U	10 U
I-C17 Replicate 1	5	10 U	10 U	10 U	10 U	70 U	20 U	10 U
I-C17 Replicate 2	5	10 U	10 U	10 U	10 U	70 U	20 U	10 U
I-C18	1	10 U	10 U	10 U	10 U	57	27	10 U
I-C18	2	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C18	3	10 U	10 U	10 U	10 U	50 U	20 U	10 U
I-C18	4	10 U	10 U	10 U	10 U	66	34	27
I-C18	5	10 U	10 U	10 U	10 U	62	20 U	10 U
I-S1	1	10 U	10 U	20	10 U	40 U	20 U	40
I-S1	2	10 U	10 U	20	10 U	91	20 U	58
I-S1	3	10 U	10 U	22	10 U	40 U	20 U	58
I-S1	4	10 U	10 U	21	10 U	40 U	20 U	65
I-S1	5	10 U	10 U	19	10 U	40 U	20 U	51
I-T1	1	10 U	10 U	10 U	10 U	70 U	20 U	14
I-T1	2	10 U	10 U	10 U	10 U	73	20 U	19
I-T1	3	10 U	10 U	10 U	10 U	96	20 U	11
I-T1	4	10 U	10 U	10 U	10 U	70 U	20 U	12
I-T1	5	10 U	10 U	10 U	10 U	70 U	20 U	11
I-T3	1	10 U	10 U	10 U	10 U	70 U	20 U	17
I-T3	2	10 U	10 U	12	10 U	70 U	20 U	23
I-T3	3	10 U	10 U	10	10 U	75	20 U	12
I-T3	4	10 U	10 U	10 U	10 U	150	20 U	16
I-T3	5	10 U	10 U	11	10 U	95	20 U	34
R-AC	1	10 U	10 U	10 U	10 U	20 U	20 U	25
R-AC	2	10 U	10 U	10 U	10 U	27	20 U	27
R-AC	3	10 U	10 U	10 U	10 U	20 U	20 U	33
R-AC	4	10 U	10 U	10 U	10 U	20	20 U	32
R-AC	5	10 U	10 U	10 U	10 U	35	20 U	46

TABLE Q.2. (Contd)

		<i>N. caecoides</i> Low PAHs ($\mu\text{g/kg}$ wet weight)						
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	2-Methyl-naph-thalene	Phenan-threne
R-AM	1	10 U	10 U	10 U	10 U	20 U	20 U	19
R-AM	2	10 U	10 U	10 U	10 U	68	27	33
R-AM	3	10 U	10 U	10 U	10 U	33	20 U	10 U
R-AM	4	10 U	10 U	10 U	10 U	70	32	10 U
R-AM	5	10 U	10 U	10 U	10 U	32	20 U	23
R-BF	1	10 U	10 U	10 U	10 U	20 U	20 U	15
R-BF	2	10 U	10 U	10 U	10 U	20 U	20 U	33
R-BF	3	10 U	10 U	10 U	10 U	20 U	20 U	23
R-BF	4	10 U	10 U	10 U	10 U	20 U	20 U	16
R-BF	5	10 U	10 U	10 U	10 U	20 U	20 U	15
R-OS	1	10 U	10 U	10 U	10 U	20 U	20 U	19
R-OS	2	10 U	10 U	10 U	10 U	20 U	20 U	17
R-OS	3	10 U	10 U	10 U	10 U	20 U	20 U	17
R-OS	4	10 U	10 U	10 U	10 U	20 U	20 U	14
R-OS	5	10 U	10 U	10 U	10 U	20 U	20 U	10 U
R-PC	1	10 U	10 U	10 U	10 U	20 U	20 U	17
R-PC	2	10 U	10 U	10 U	10 U	20 U	20 U	21
R-PC	3	10 U	10 U	10 U	11	20 U	20 U	30
R-PC	4	10 U	10 U	10 U	10 U	20 U	20 U	10
R-PC	5	10 U	10 U	10 U	10 U	20 U	20 U	13
R-PF	1	10 U	10 U	10 U	10 U	20 U	20 U	20
R-PF	2	10 U	10 U	10 U	10 U	20 U	20 U	13
R-PF Replicate 1	3	10 U	10 U	10 U	10 U	20 U	20 U	19
R-PF Replicate 2	3	10 U	10 U	10 U	10 U	20 U	20 U	19
R-PF	4	10 U	10 U	10 U	10 U	20 U	20 U	15
R-PF	5	10 U	10 U	10 U	10 U	20 U	20 U	15
C-SB	1	10 U	10 U	10 U	10 U	23	20 U	16
C-SB	2	10 U	10 U	10 U	10 U	46	24	10 U
C-SB	3	10 U	10 U	10 U	10 U	77	40	22
C-SB	4	10 U	10 U	10 U	10 U	20 U	20 U	10 U
C-SB	5	10 U	10 U	10 U	10 U	57	32	10 U
C-NE	1	10 U	10 U	10 U	10 U	50	26	10 U
C-NE	2	10 U	10 U	10 U	10 U	20 U	20 U	10 U
C-NE	3	10 U	10 U	10 U	10 U	51	26	10 U
C-NE	4	10 U	10 U	10 U	10 U	28	20 U	10 U
C-NE	5	10 U	10 U	10 U	10 U	60	33	10 U
C-NE-A Replicate 1	1	10 U	10 U	10 U	10 U	68	30	10 U
C-NE-A Replicate 2	1	10 U	10 U	10 U	10 U	64	26	10
C-NE-A	2	10 U	10 U	10 U	10 U	50 U	20 U	10 U
C-NE-A	3	10 U	10 U	10 U	10 U	50 U	20 U	10 U
C-NE-A	4	10 U	10 U	10 U	10 U	50 U	20 U	10 U
C-NE-A	5	10 U	10 U	10 U	10 U	50 U	20 U	10 U

(a) Analyte not used in statistical analysis.

(b) Undetected above given concentration.

TABLE Q.3. High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> High PAHs ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo-(g,h,i)perylene	Benzo[a]pyrene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-1,2,3Pyrene	Pyrene
Detection Limits											
Target DL		20	20	20	20	20	20	20	20	20	20
Lowest Acheived DL		10	10	10	10	10	10	10	10	10	10
Maximum Acheived DL		10	10	10	10	10	10	10	50	10	10
I-C3	1	10 U ^(a)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	13	10 U	37
I-C5	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	33
I-C5	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	33
I-C5	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10	10 U	10 U
I-C5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	28
I-C7 Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7 Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C8	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	18
I-C8	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C8	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	18
I-C8	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	13	10 U	21
I-C8	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	17
I-C9	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	22	10 U	100
I-C9	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	91
I-C9	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16	10 U	85
I-C9	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16	10 U	74
I-C9	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	18	10 U	100

TABLE Q.3. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> High PAHs ($\mu\text{g}/\text{kg}$ wet weight)									
		Benzo[a] anthra- cene	Benzo[b] fluoran- thene	Benzo[k] fluoran- thene	Benzo- (g,h,i) perylene	Benzo[a] pyrene	Chrysene	Dibenzo- (a,h) anthracene	Fluoran- thene	Indeno- 1,2,3 Pyrene	Pyrene
I-C10	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250
I-C10	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	270
I-C10	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	280
I-C10	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	170
I-C10	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	40	10 U	1400
I-C11	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C11	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16	10 U	13
I-C11	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16	10 U	16
I-C11	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C11	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	18	10 U	15
I-C12	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	300
I-C12	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	240
I-C12	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	240
I-C12	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250
I-C12	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	320
I-C14	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	22
I-C14 Replicate 1	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	19
I-C14 Replicate 2	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	21
I-C14	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	11
I-C14	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	25
I-C14	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	19
I-C15	1	10 U	10 U	10 U	10 U	10 U	13	10 U	50 U	10 U	15
I-C15	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	18
I-C15	3	10 U	10 U	10 U	10 U	10 U	12	10 U	76	10 U	34
I-C15	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C15	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C16	1	11	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C16	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C16	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C16	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	13
I-C16	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	19

TABLE Q.3. (Contd)

		<i>N. caecoides</i> High PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo-[g,h,i]perylene	Benzo[a]pyrene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-1,2,3Pyrene	Pyrene
I-C17	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	17	10 U	76
I-C17	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	24	10 U	89
I-C17	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	21	10 U	98
I-C17	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	55
I-C17 Replicate 1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	90
I-C17 Replicate 2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	65
I-C18	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C18	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C18	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C18	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
I-C18	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	12
I-S1	1	38	38	10 U	10 U	10 U	180	10 U	140	10 U	460
I-S1	2	10 U	10 U	10 U	10 U	170	130	10 U	180	10 U	560
I-S1	3	42	41	10 U	10 U	10 U	230	10 U	210	10 U	600
I-S1	4	10 U	10 U	10 U	10 U	62	38	10 U	210	10 U	630
I-S1	5	10 U	10 U	10 U	10 U	67	44	10 U	190	10 U	570
I-T1	1	10 U	10 U	10 U	10 U	10 U	34	10 U	30	10 U	120
I-T1	2	10 U	10 U	10 U	10 U	10 U	25	10 U	32	10 U	110
I-T1	3	10 U	10 U	10 U	10 U	10 U	34	10 U	24	10 U	110
I-T1	4	10 U	10 U	10 U	10 U	10 U	30	10 U	21	10 U	100
I-T1	5	10 U	10 U	10 U	10 U	10 U	29	10 U	22	10 U	120
I-T3	1	10 U	21	10 U	10 U	10 U	54	10 U	45	10 U	10 U
I-T3	2	10 U	30	10 U	10 U	10 U	56	10 U	50	10 U	370
I-T3	3	10 U	11	10 U	10 U	10 U	35	10 U	26	10 U	280
I-T3	4	10 U	10 U	10 U	10 U	10 U	27	10 U	22	10 U	320
I-T3	5	10 U	10 U	10 U	10 U	10 U	48	10 U	40	10 U	260
R-AC	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	19	10 U	43
R-AC	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	29	10 U	57
R-AC	3	10 U	10 U	10 U	10 U	10 U	10	10 U	47	10 U	66
R-AC	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	37	10 U	54
R-AC	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	38	10 U	58

N. caecoides High PAHs ($\mu\text{g/kg}$ wet weight)

[illegible]

TABLE Q.3. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> High PAHs ($\mu\text{g/kg}$ wet weight)									
		Benzo[a] anthra- cene	Benzo[b] fluoran- thene	Benzo[k] fluoran- thene	Benzo- (g,h,i) perylene	Benzo[a] pyrene	Chrysene	Dibenzo- (a,h) anthracene	Fluoran- thene	Indeno- 1,2,3 Pyrene	Pyrene
C-NE	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

(a) Undetected above given concentration.

TABLE Q.4. Total Detected Polynuclear Aromatic Hydrocarbons (PAHs), Dry Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g}/\text{kg}$ dry weight)		Total Detected PAH
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
I-C3	1	NA ^(a)	NA	NA
I-C3	2	448.65	NA	448.65
I-C3	3	NA	NA	NA
I-C3	4	480.54	NA	480.54
I-C3	5	NA	NA	NA
I-C5	1	133.12	266.24	399.36
I-C5	2	NA	165.83	165.83
I-C5	3	294.95	187.18	482.13
I-C5	4	507.45	55.16	562.61
I-C5	5	NA	145.00	145.00
I-C7 Replicate 1	1	198.09	NA	198.09
I-C7 Replicate 2	1	191.26	NA	191.26
I-C7	2	NA	NA	NA
I-C7	3	NA	NA	NA
I-C7	4	1211.79	NA	1211.79
I-C7	5	NA	NA	NA
I-C8	1	217.70	85.19	302.89
I-C8	2	131.51	NA	131.51
I-C8	3	NA	90.77	90.77
I-C8	4	180.00	170.00	350.00
I-C8	5	951.26	133.65	1084.91
I-C9	1	408.89	615.86	1024.75
I-C9	2	NA	496.18	496.18
I-C9	3	68.86	534.96	603.82
I-C9	4	58.17	436.26	494.43
I-C9	5	192.03	552.69	744.72
I-C10	1	NA	1474.06	1474.06
I-C10	2	77.98	1619.68	1697.66
I-C10	3	NA	1564.25	1564.25
I-C10	4	NA	769.93	769.93
I-C10	5	2356.84	8921.04	11277.88
I-C11	1	NA	NA	NA
I-C11	2	88.11	182.50	270.61
I-C11	3	76.13	174.00	250.13
I-C11	4	NA	NA	NA
I-C11	5	114.72	210.32	325.04

TABLE Q.4. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ dry weight)		Total Detected PAH
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
I-C12 ^(b)	1	546.20	1531.39	2077.59
I-C12	2	NA	1494.40	1494.40
I-C12	3	804.06	1190.06	1994.12
I-C12	4	159.60	1246.88	1406.48
I-C12	5	NA	1552.64	1552.64
I-C14	1	NA	105.72	105.72
I-C14 Replicate 1	2	65.36	95.53	160.89
I-C14 Replicate 2	2	65.36	105.58	170.94
I-C14	3	NA	58.05	58.05
I-C14	4	NA	132.00	132.00
I-C14	5	NA	101.71	101.71
I-C15	1	479.70	172.20	651.90
I-C15	2	1160.66	118.03	1278.69
I-C15 ^(b)	3	693.43	742.09	1435.52
I-C15	4	NA	NA	NA
I-C15 ^(b)	5	NA	NA	NA
I-C16	1	741.10	52.26	793.36
I-C16	2	133.88	NA	133.88
I-C16	3	439.18	NA	439.18
I-C16	4	757.58	70.35	827.93
I-C16	5	1306.22	90.91	1397.13
I-C17	1	NA	489.22	489.22
I-C17	2	64.36	559.40	623.76
I-C17	3	91.51	604.98	696.49
I-C17	4	NA	264.04	264.04
I-C17 Replicate 1	5	NA	485.96	485.96
I-C17 Replicate 2	5	NA	350.97	350.97
I-C18	1	423.17	NA	423.17
I-C18	2	NA	NA	NA
I-C18	3	NA	NA	NA
I-C18	4	770.17	NA	770.17
I-C18	5	343.49	66.48	409.97
I-S1	1	331.31	4727.47	5058.78
I-S1	2	867.56	5338.80	6206.36
I-S1	3	419.95	5895.01	6314.96
I-S1	4	406.04	4438.14	4844.18
I-S1	5	369.20	4594.14	4963.34

TABLE Q.4. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ dry weight)		Total Detected PAH
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
I-T1	1	71.36	937.82	1009.18
I-T1	2	494.36	897.37	1391.73
I-T1	3	529.96	832.09	1362.05
I-T1	4	60.54	761.85	822.39
I-T1	5	58.11	903.33	961.44
I-T3	1	84.12	593.76	677.88
I-T3	2	181.25	2620.41	2801.66
I-T3	3	520.39	1888.41	2408.80
I-T3	4	868.66	1930.93	2799.59
I-T3	5	682.59	1696.73	2379.32
R-AC	1	138.66	343.87	482.53
R-AC	2	314.50	500.87	815.37
R-AC	3	190.97	711.80	902.77
R-AC	4	310.63	543.61	854.24
R-AC	5	467.40	553.95	1021.35
R-AM	1	124.02	274.15	398.17
R-AM	2	841.00	525.62	1366.62
R-AM	3	191.53	NA	191.53
R-AM	4	685.48	NA	685.48
R-AM	5	345.26	301.31	646.57
R-BF	1	84.60	197.40	282.00
R-BF	2	193.66	275.83	469.49
R-BF	3	141.45	233.70	375.15
R-BF	4	103.36	717.06	820.42
R-BF	5	103.31	247.93	351.24
R-OS	1	162.25	298.89	461.14
R-OS	2	100.29	200.59	300.88
R-OS ^(b)	3	112.58	66.23	178.81
R-OS	4	86.31	160.30	246.61
R-OS	5	NA	NA	NA
R-PC	1	109.68	277.42	387.10
R-PC	2	152.06	224.48	376.54
R-PC	3	259.65	284.99	544.64
R-PC	4	57.27	NA	57.27
R-PC	5	82.64	171.64	254.28

TABLE Q.4. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PAHs ($\mu\text{g/kg}$ dry weight)		Total Detected PAH
		Total Low Molecular Weight PAH	Total High Molecular Weight PAH	
R-PF ^(b)	1	118.62	219.45	338.07
R-PF	2	83.39	198.84	282.23
R-PF Replicate 1	3	106.80	252.95	359.75
R-PF Replicate 2	3	106.80	224.84	331.64
R-PF	4	94.04	238.24	332.28
R-PF	5	87.41	174.83	262.24
C-SB	1	293.89	248.68	542.57
C-SB	2	424.76	NA	424.76
C-SB	3	828.37	214.54	1042.91
C-SB	4	NA	NA	NA
C-SB	5	584.76	NA	584.76
C-NE ^(b)	1	590.06	NA	590.06
C-NE	2	NA	NA	NA
C-NE	3	490.13	NA	490.13
C-NE	4	261.44	NA	261.44
C-NE	5	753.64	NA	753.64
C-NE-A Replicate 1 ^(b)	1	552.73	NA	552.73
C-NE-A Replicate 2 ^(b)	1	564.01	NA	564.01
C-NE-A	2	NA	NA	NA
C-NE-A	3	NA	NA	NA
C-NE-A	4	NA	NA	NA
C-NE-A	5	NA	NA	NA

(a) Not applicable: no PAHs detected.

(b) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

TABLE Q.5. Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Dry Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)						
			Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	2-Methyl-naph-thalene ^(a)	Phenan-threne
I-C3	1	19.81	50.48 U ^(b)	50.48 U	50.48 U	50.48 U	252.40 U	100.96 U	50.48 U
I-C3	2	20.06	49.85 U	49.85 U	49.85 U	49.85 U	319.04	129.61	49.85 U
I-C3	3	20.34	49.16 U	49.16 U	49.16 U	49.16 U	245.82 U	98.33 U	49.16 U
I-C3	4	19.77	50.58 U	50.58 U	50.58 U	50.58 U	338.90	141.63	50.58 U
I-C3	5	18.39	54.38 U	54.38 U	54.38 U	54.38 U	271.89 U	108.75 U	54.38 U
I-C5	1	18.78	53.25 U	53.25 U	53.25 U	53.25 U	266.24 U	133.12	53.25 U
I-C5	2	19.90	50.25 U	50.25 U	50.25 U	50.25 U	251.26 U	100.50 U	50.25 U
I-C5	3	17.63	56.72 U	56.72 U	56.72 U	56.72 U	294.95	113.44 U	56.72 U
I-C5	4	18.13	55.16 U	55.16 U	55.16 U	55.16 U	347.49	159.96	55.16 U
I-C5	5	19.31	51.79 U	51.79 U	51.79 U	51.79 U	258.93 U	103.57 U	51.79 U
I-C7 Replicate 1	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	443.99 U	198.09	68.31 U
I-C7 Replicate 2	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	443.99 U	191.26	68.31 U
I-C7	2	19.33	51.73 U	51.73 U	51.73 U	51.73 U	336.26 U	129.33 U	51.73 U
I-C7	3	19.01	52.60 U	52.60 U	52.60 U	52.60 U	341.93 U	131.51 U	52.60 U
I-C7	4	19.31	67.32	51.79 U	51.79 U	62.14	569.65	372.86	139.82
I-C7	5	18.97	52.71 U	52.71 U	52.71 U	52.71 U	342.65 U	131.79 U	52.71 U
I-C8	1	21.13	47.33 U	47.33 U	47.33 U	47.33 U	307.62 U	217.70	47.33 U
I-C8	2	20.53	48.71 U	48.71 U	48.71 U	48.71 U	316.61 U	131.51	48.71 U
I-C8	3	19.83	50.43 U	50.43 U	50.43 U	50.43 U	327.79 U	126.07 U	50.43 U
I-C8	4	20.00	50.00 U	50.00 U	50.00 U	50.00 U	325.00 U	130.00	50.00
I-C8	5	12.72	78.62 U	78.62 U	78.62 U	78.62 U	621.07	330.19	78.62 U
I-C9	1	19.81	50.48 U	50.48 U	50.48 U	50.48 U	353.36	100.96 U	55.53
I-C9	2	18.34	54.53 U	54.53 U	54.53 U	54.53 U	381.68 U	109.05 U	54.53 U
I-C9	3	18.88	52.97 U	52.97 U	52.97 U	52.97 U	370.76 U	105.93 U	68.86
I-C9	4	20.63	48.47 U	48.47 U	48.47 U	48.47 U	339.31 U	96.95 U	58.17
I-C9	5	21.35	46.84 U	46.84 U	46.84 U	65.57	327.87 U	93.68 U	126.46
I-C10	1	16.96	58.96 U	58.96 U	58.96 U	58.96 U	383.25 U	147.41 U	58.96 U
I-C10	2	16.67	59.99 U	59.99 U	59.99 U	59.99 U	389.92 U	149.97 U	77.98
I-C10	3	17.90	55.87 U	55.87 U	55.87 U	55.87 U	363.13 U	139.66 U	55.87 U
I-C10	4	22.08	45.29 U	45.29 U	45.29 U	45.29 U	294.38 U	113.22 U	45.29 U
I-C10 ^(c)	5	16.59	60.28 U	120.55	313.44	60.28 U	964.44	602.77	355.64
I-C11	1	18.57	53.85 U	53.85 U	53.85 U	53.85 U	215.40 U	107.70 U	53.85 U
I-C11	2	15.89	62.93 U	62.93 U	62.93 U	62.93 U	251.73 U	125.87 U	88.11
I-C11	3	18.39	54.38 U	54.38 U	54.38 U	54.38 U	217.51 U	108.75 U	76.13
I-C11	4	16.98	58.89 U	58.89 U	58.89 U	58.89 U	235.57 U	117.79 U	58.89 U
I-C11	5	15.69	63.73 U	63.73 U	63.73 U	63.73 U	254.94 U	127.47 U	114.72
I-C12 ^(d)	1	19.59	51.05 U	51.05 U	51.05 U	51.05 U	372.64	173.56	51.05 U
I-C12	2	16.06	62.27 U	62.27 U	62.27 U	62.27 U	404.73 U	155.67 U	62.27 U
I-C12	3	21.64	46.21 U	46.21 U	60.07	46.21 U	355.82	212.57	175.60
I-C12	4	20.05	49.88 U	49.88 U	49.88 U	49.88 U	324.19 U	159.60	49.88 U
I-C12	5	20.61	48.52 U	48.52 U	48.52 U	48.52 U	315.38 U	121.30 U	48.52 U
I-C14	1	20.81	48.05 U	48.05 U	48.05 U	48.05 U	240.27 U	96.11 U	48.05 U
I-C14 Replicate 1	2	19.89	50.28 U	50.28 U	50.28 U	50.28 U	251.38 U	100.55 U	65.36
I-C14 Replicate 2	2	19.89	50.28 U	50.28 U	50.28 U	50.28 U	251.38 U	100.55 U	65.36
I-C14	3	18.95	52.77 U	52.77 U	52.77 U	52.77 U	263.85 U	105.54 U	52.77 U
I-C14	4	18.94	52.80 U	52.80 U	52.80 U	52.80 U	263.99 U	105.60 U	52.80 U
I-C14	5	18.68	53.53 U	53.53 U	53.53 U	53.53 U	267.67 U	107.07 U	53.53 U

TABLE Q.5. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Low Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)						
			Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	2-Methyl-naph-thalene	Phenan-threne
I-C15	1	16.26	61.50 U	61.50 U	61.50 U	61.50 U	369.00	123.00 U	110.70
I-C15	2	15.25	65.57 U	65.57 U	65.57 U	65.57 U	721.31	281.97	157.38
I-C15 ^(d)	3	16.32	61.27 U	61.27 U	61.27 U	61.27 U	514.71	122.55 U	183.82
I-C15 ^(d)	4	17.45	57.31 U	57.31 U	57.31 U	57.31 U	286.53 U	114.61 U	57.31 U
I-C15 ^(d)	5	16.32	61.27 U	61.27 U	61.27 U	61.27 U	306.37 U	122.55 U	61.27 U
I-C16	1	21.05	47.51 U	47.51 U	47.51 U	47.51 U	456.06	218.53	66.51
I-C16	2	19.42	51.49 U	51.49 U	51.49 U	51.49 U	257.47 U	133.88	51.49 U
I-C16	3	19.81	50.48 U	50.48 U	50.48 U	50.48 U	353.36	100.96 U	85.82
I-C16	4	18.48	54.11 U	54.11 U	54.11 U	54.11 U	757.58	108.23 U	54.11 U
I-C16	5	20.90	47.85 U	47.85 U	47.85 U	47.85 U	765.55	373.21	167.46
I-C17	1	19.01	52.60 U	52.60 U	52.60 U	52.60 U	368.23 U	105.21 U	52.60 U
I-C17	2	20.20	49.50 U	49.50 U	49.50 U	49.50 U	346.53 U	99.01 U	64.36
I-C17	3	19.67	50.84 U	50.84 U	50.84 U	50.84 U	355.87 U	101.68 U	91.51
I-C17	4	20.83	48.01 U	48.01 U	48.01 U	48.01 U	336.05 U	96.02 U	48.01 U
I-C17 Replicate 1	5	18.52	54.00 U	54.00 U	54.00 U	54.00 U	377.97 U	107.99 U	54.00 U
I-C17 Replicate 2	5	18.52	54.00 U	54.00 U	54.00 U	54.00 U	377.97 U	107.99 U	54.00 U
I-C18	1	19.85	50.38 U	50.38 U	50.38 U	50.38 U	287.15	136.02	50.38 U
I-C18	2	21.09	47.42 U	47.42 U	47.42 U	47.42 U	237.08 U	94.83 U	47.42 U
I-C18	3	17.72	56.43 U	56.43 U	56.43 U	56.43 U	282.17 U	112.87 U	56.43 U
I-C18	4	16.49	60.64 U	60.64 U	60.64 U	60.64 U	400.24	206.19	163.74
I-C18	5	18.05	55.40 U	55.40 U	55.40 U	55.40 U	343.49	110.80 U	55.40 U
I-S1	1	18.11	55.22 U	55.22 U	110.44	55.22 U	220.87 U	110.44 U	220.87
I-S1	2	19.48	51.33 U	51.33 U	102.67	51.33 U	467.15	102.67 U	297.74
I-S1	3	19.05	52.49 U	52.49 U	115.49	52.49 U	209.97 U	104.99 U	304.46
I-S1	4	21.18	47.21 U	47.21 U	99.15	47.21 U	188.86 U	94.43 U	306.89
I-S1	5	18.96	52.74 U	52.74 U	100.21	52.74 U	210.97 U	105.49 U	268.99
I-T1	1	19.62	50.97 U	50.97 U	50.97 U	50.97 U	356.78 U	101.94 U	71.36
I-T1	2	18.61	53.73 U	53.73 U	53.73 U	53.73 U	392.26	107.47 U	102.10
I-T1	3	20.19	49.53 U	49.53 U	49.53 U	49.53 U	475.48	99.06 U	54.48
I-T1	4	19.82	50.45 U	50.45 U	50.45 U	50.45 U	353.18 U	100.91 U	60.54
I-T1	5	18.93	52.83 U	52.83 U	52.83 U	52.83 U	369.78 U	105.65 U	58.11
I-T3	1	20.21	49.48 U	49.48 U	49.48 U	49.48 U	346.36 U	98.96 U	84.12
I-T3	2	19.31	51.79 U	51.79 U	62.14	51.79 U	362.51 U	103.57 U	119.11
I-T3	3	18.64	53.65 U	53.65 U	53.65	53.65 U	402.36	107.30 U	64.38
I-T3	4	19.11	52.33 U	52.33 U	52.33 U	52.33 U	784.93	104.66 U	83.73
I-T3	5	20.51	48.76 U	48.76 U	53.63	48.76 U	463.19	97.51 U	165.77
R-AC	1	18.03	55.46 U	55.46 U	55.46 U	55.46 U	110.93 U	110.93 U	138.66
R-AC	2	17.17	58.24 U	58.24 U	58.24 U	58.24 U	157.25	116.48 U	157.25
R-AC	3	17.28	57.87 U	57.87 U	57.87 U	57.87 U	115.74 U	115.74 U	190.97
R-AC	4	16.74	59.74 U	59.74 U	59.74 U	59.74 U	119.47	119.47 U	191.16
R-AC	5	17.33	57.70 U	57.70 U	57.70 U	57.70 U	201.96	115.41 U	265.44
R-AM	1	15.32	65.27 U	65.27 U	65.27 U	65.27 U	130.55 U	130.55 U	124.02
R-AM	2	15.22	65.70 U	65.70 U	65.70 U	65.70 U	446.78	177.40	216.82
R-AM	3	17.23	58.04 U	58.04 U	58.04 U	58.04 U	191.53	116.08 U	58.04 U
R-AM	4	14.88	67.20 U	67.20 U	67.20 U	67.20 U	470.43	215.05	67.20 U
R-AM	5	15.93	62.77 U	62.77 U	62.77 U	62.77 U	200.88	125.55 U	144.38

TABLE Q.5. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Low Molecular Weight PAHs ($\mu\text{g}/\text{kg}$ dry weight)						Phenanthrene
			Acenaphthene	Acenaphthylene	Anthracene	Fluorene	Naphthalene	2-Methylnaphthalene	
R-BF	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	112.80 U	112.80 U	84.60
R-BF	2	17.04	58.69 U	58.69 U	58.69 U	58.69 U	117.37 U	117.37 U	193.66
R-BF	3	16.26	61.50 U	61.50 U	61.50 U	61.50 U	123.00 U	123.00 U	141.45
R-BF	4	15.48	64.60 U	64.60 U	64.60 U	64.60 U	129.20 U	129.20 U	103.36
R-BF	5	14.52	68.87 U	68.87 U	68.87 U	68.87 U	137.74 U	137.74 U	103.31
R-OS	1	11.71	85.40 U	85.40 U	85.40 U	85.40 U	170.79 U	170.79 U	162.25
R-OS	2	16.95	59.00 U	59.00 U	59.00 U	59.00 U	117.99 U	117.99 U	100.29
R-OS ^(d)	3	15.10	66.23 U	66.23 U	66.23 U	66.23 U	132.45 U	132.45 U	112.58
R-OS	4	16.22	61.65 U	61.65 U	61.65 U	61.65 U	123.30 U	123.30 U	86.31
R-OS	5	15.50	64.52 U	64.52 U	64.52 U	64.52 U	129.03 U	129.03 U	64.52 U
R-PC	1	15.50	64.52 U	64.52 U	64.52 U	64.52 U	129.03 U	129.03 U	109.68
R-PC	2	13.81	72.41 U	72.41 U	72.41 U	72.41 U	144.82 U	144.82 U	152.06
R-PC	3	15.79	63.33 U	63.33 U	63.33 U	69.66	126.66 U	126.66 U	189.99
R-PC	4	17.46	57.27 U	57.27 U	57.27 U	57.27 U	114.55 U	114.55 U	57.27
R-PC	5	15.73	63.57 U	63.57 U	63.57 U	63.57 U	127.15 U	127.15 U	82.64
R-PF ^(d)	1	16.62	60.17 U	60.17 U	60.17 U	60.17 U	120.34 U	120.34 U	120.34
R-PF	2	15.59	64.14 U	64.14 U	64.14 U	64.14 U	128.29 U	128.29 U	83.39
R-PF Replicate 1	3	17.79	56.21 U	56.21 U	56.21 U	56.21 U	112.42 U	112.42 U	106.80
R-PF Replicate 2	3	17.79	56.21 U	56.21 U	56.21 U	56.21 U	112.42 U	112.42 U	106.80
R-PF	4	15.95	62.70 U	62.70 U	62.70 U	62.70 U	125.39 U	125.39 U	94.04
R-PF	5	17.16	58.28 U	58.28 U	58.28 U	58.28 U	116.55 U	116.55 U	87.41
C-SB	1	13.27	75.36 U	75.36 U	75.36 U	75.36 U	173.32	150.72 U	120.57
C-SB	2	16.48	60.68 U	60.68 U	60.68 U	60.68 U	279.13	145.63	60.68 U
C-SB	3	16.78	59.59 U	59.59 U	59.59 U	59.59 U	458.88	238.38	131.11
C-SB	4	13.23	75.59 U	75.59 U	75.59 U	75.59 U	151.17 U	151.17 U	75.59 U
C-SB	5	15.22	65.70 U	65.70 U	65.70 U	65.70 U	374.51	210.25	65.70 U
C-NE ^(d)	1	12.88	77.64 U	77.64 U	77.64 U	77.64 U	388.20	201.86	77.64 U
C-NE	2	12.75	78.43 U	78.43 U	78.43 U	78.43 U	156.86 U	156.86 U	78.43 U
C-NE	3	15.71	63.65 U	63.65 U	63.65 U	63.65 U	324.63	165.50	63.65 U
C-NE	4	10.71	93.37 U	93.37 U	93.37 U	93.37 U	261.44	186.74 U	93.37 U
C-NE	5	12.34	81.04 U	81.04 U	81.04 U	81.04 U	486.22	267.42	81.04 U
C-NE-A Replicate 1 ^(d)	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	383.53	169.20	56.40 U
C-NE-A Replicate 2 ^(d)	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	360.97	146.64	56.40
C-NE-A	2	18.21	54.91 U	54.91 U	54.91 U	54.91 U	274.57 U	109.83 U	54.91 U
C-NE-A	3	17.20	58.14 U	58.14 U	58.14 U	58.14 U	290.70 U	116.28 U	58.14 U
C-NE-A	4	17.56	56.95 U	56.95 U	56.95 U	56.95 U	284.74 U	113.90 U	56.95 U
C-NE-A	5	17.93	55.77 U	55.77 U	55.77 U	55.77 U	278.86 U	111.54 U	55.77 U

(a) Analyte not used in statistical analysis.

(b) Undetected above given concentration.

(c) Anomalous data: not used in statistical analysis.

(d) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

TABLE Q.6. High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Dry Weight, in Tissues of *N. caecoides*, Oakland Phase III A Project

			<i>N. caecoides</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	Benzo[a] anthracene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo-(g,h,i) perylene	Benzo[a] pyrene	Chrysene	Dibenzo-(a,h) anthracene	Fluoranthene	Indeno-1,2,3 Pyrene	Pyrene
I-C3	1	19.81	50.48 U ^(a)	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U
I-C3	2	20.06	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U
I-C3	3	20.34	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U
I-C3	4	19.77	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U
I-C3	5	18.39	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U
I-C5	1	18.78	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	69.22	53.25 U	197.02
I-C5	2	19.90	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	165.83
I-C5	3	17.63	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	187.18
I-C5	4	18.13	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U
I-C5	5	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	145.00
I-C7 Replicate 1	1	14.84	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U
I-C7 Replicate 2	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U
I-C7	2	19.33	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U
I-C7	3	19.01	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U
I-C7	4	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U
I-C7	5	18.97	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U
I-C8	1	21.13	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	85.19
I-C8	2	20.53	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U
I-C8	3	19.83	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	90.77
I-C8	4	20.00	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	65.00	50.00 U	105.00
I-C8	5	12.72	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	133.65
I-C9	1	19.81	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	111.06	50.48 U	504.80
I-C9	2	18.34	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	496.18
I-C9	3	18.88	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	84.75	52.97 U	450.21
I-C9	4	20.63	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	77.56	48.47 U	358.70
I-C9	5	21.35	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	84.31	46.84 U	468.38
I-C10	1	16.96	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	1474.06
I-C10	2	16.67	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	1619.68
I-C10	3	17.90	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	1564.25
I-C10	4	22.08	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	769.93
I-C10	5	16.59	60.28 U	60.28 U	60.28 U	60.28 U	60.28 U	60.28 U	60.28 U	241.11	60.28 U	8679.93

TABLE Q.6. (Contd)

		<i>N. caecoides</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)										
Sediment Treatment	Replicate	Percent Dry Weight	Benzo[a] anthracene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo-(g,h,i) perylene	Benzo[a] pyrene	Chrysene	Dibenzo-(a,h) anthracene	Fluoranthene	Indeno-1,2,3 Pyrene	Pyrene
I-C11	1	18.57	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U
I-C11	2	15.89	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	100.69	62.93 U	81.81
I-C11	3	18.39	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	87.00	54.38 U	87.00
I-C11	4	16.98	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U
I-C11	5	15.69	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	114.72	63.73 U	95.60
I-C12 ^(b)	1	19.59	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	1531.39
I-C12	2	16.06	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	1494.40
I-C12	3	21.64	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	1190.06
I-C12	4	20.05	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	1246.88
I-C12	5	20.61	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	1552.64
I-C14	1	20.81	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	240.27 U	48.05 U	105.72
I-C14 Replicate 1	2	19.89	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	251.38 U	50.28 U	95.53
I-C14 Replicate 2	2	19.89	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	251.38 U	50.28 U	105.58
I-C14	3	18.95	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	263.85 U	52.77 U	58.05
I-C14	4	18.94	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	263.99 U	52.80 U	132.00
I-C14	5	18.68	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	267.67 U	53.53 U	101.71
I-C15	1	16.26	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	79.95	61.50 U	307.50 U	61.50 U	92.25
I-C15	2	15.25	65.57 U	65.57 U	65.57 U	65.57 U	65.57 U	65.57 U	65.57 U	327.87 U	65.57 U	118.03
I-C15 ^(b)	3	16.32	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	73.53	61.27 U	465.69	61.27 U	208.33
I-C15 ^(b)	4	17.45	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	286.53 U	57.31 U	57.31 U
I-C15 ^(b)	5	16.32	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	306.37 U	61.27 U	61.27 U
I-C16	1	21.05	52.26	47.51 U	47.51 U	47.51 U	47.51 U	47.51 U	47.51 U	237.53 U	47.51 U	47.51 U
I-C16	2	19.42	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	257.47 U	51.49 U	51.49 U
I-C16	3	19.81	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	252.40 U	50.48 U	50.48 U
I-C16	4	18.48	54.11 U	54.11 U	54.11 U	54.11 U	54.11 U	54.11 U	54.11 U	270.56 U	54.11 U	70.35
I-C16	5	20.90	47.85 U	47.85 U	47.85 U	47.85 U	47.85 U	47.85 U	47.85 U	239.23 U	47.85 U	90.91
I-C17	1	19.01	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	89.43	52.60 U	399.79
I-C17	2	20.20	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	118.81	49.50 U	440.59
I-C17	3	19.67	50.84 U	50.84 U	50.84 U	50.84 U	50.84 U	50.84 U	50.84 U	106.76	50.84 U	498.22
I-C17	4	20.83	48.01 U	48.01 U	48.01 U	48.01 U	48.01 U	48.01 U	48.01 U	48.01 U	48.01 U	264.04
I-C17 Replicate 1	5	18.52	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	485.96
I-C17 Replicate 2	5	18.52	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	54.00 U	350.97

TABLE Q.6. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)									
			Benzo[a] anthracene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo-[g,h,i] perylene	Benzo[a] pyrene	Chrysene	Dibenzo-(a,h) anthracene	Fluoranthene	Indeno-1,2,3 Pyrene	Pyrene
I-C18	1	19.85	50.38 U	50.38 U	50.38 U	50.38 U	50.38 U	50.38 U	50.38 U	251.89 U	50.38 U	50.38 U
I-C18	2	21.09	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	237.08 U	47.42 U	47.42 U
I-C18	3	17.72	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	282.17 U	56.43 U	56.43 U
I-C18	4	16.49	60.64 U	60.64 U	60.64 U	60.64 U	60.64 U	60.64 U	60.64 U	303.21 U	60.64 U	60.64 U
I-C18	5	18.05	55.40 U	55.40 U	55.40 U	55.40 U	55.40 U	55.40 U	55.40 U	277.01 U	55.40 U	66.48
I-S1	1	18.11	209.83	209.83	55.22 U	55.22 U	55.22 U	993.93	55.22 U	773.05	55.22 U	2540.83
I-S1	2	19.48	51.33 U	51.33 U	51.33 U	51.33 U	872.69	667.35	51.33 U	924.02	51.33 U	2874.74
I-S1	3	19.05	220.47	215.22	52.49 U	52.49 U	52.49 U	1207.35	52.49 U	1102.36	52.49 U	3149.61
I-S1	4	21.18	47.21 U	47.21 U	47.21 U	47.21 U	292.73	179.41	47.21 U	991.50	47.21 U	2974.50
I-S1	5	18.96	52.74 U	52.74 U	52.74 U	52.74 U	353.38	232.07	52.74 U	1002.36	52.74 U	3006.33
I-T1	1	19.62	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	173.29	50.97 U	152.91	50.97 U	611.62
I-T1	2	18.61	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	134.34	53.73 U	171.95	53.73 U	591.08
I-T1	3	20.19	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	168.40	49.53 U	118.87	49.53 U	544.82
I-T1	4	19.82	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	151.36	50.45 U	105.95	50.45 U	504.54
I-T1	5	18.93	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	153.20	52.83 U	116.22	52.83 U	633.91
I-T3	1	20.21	49.48 U	103.91	49.48 U	49.48 U	49.48 U	267.19	49.48 U	222.66	49.48 U	49.48 U
I-T3	2	19.31	51.79 U	155.36	51.79 U	51.79 U	51.79 U	290.01	51.79 U	258.93	51.79 U	1916.11
I-T3	3	18.64	53.65 U	59.01	53.65 U	53.65 U	53.65 U	187.77	53.65 U	139.48	53.65 U	1502.15
I-T3	4	19.11	52.33 U	52.33 U	52.33 U	52.33 U	52.33 U	141.29	52.33 U	115.12	52.33 U	1674.52
I-T3	5	20.51	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	234.03	48.76 U	195.03	48.76 U	1267.67
R-AC	1	18.03	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	105.38	55.46 U	238.49
R-AC	2	17.17	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	168.90	58.24 U	331.97
R-AC	3	17.28	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	271.99	57.87 U	381.94
R-AC	4	16.74	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	221.03	59.74 U	322.58
R-AC	5	17.33	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	219.27	57.70 U	334.68
R-AM	1	15.32	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	143.60	65.27 U	130.55
R-AM	2	15.22	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	282.52	65.70 U	243.10
R-AM	3	17.23	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U
R-AM	4	14.88	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U
R-AM	5	15.93	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	163.21	62.77 U	138.10
R-BF	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	90.24	56.40 U	107.16
R-BF	2	17.04	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	140.85	58.69 U	134.98
R-BF	3	16.26	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	116.85	61.50 U	116.85
R-BF	4	15.48	129.20	90.44	64.60 U	64.60 U	64.60 U	213.18	64.60 U	142.12	64.60 U	142.12
R-BF	5	14.52	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	117.08	68.87 U	130.85

TABLE Q.6. (Contd)

[illegible]

TABLE Q.6. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> High Molecular Weight PAHs ($\mu\text{g/kg}$ dry weight)									
			Benzo[a] anthracene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo-(g,h,i) perylene	Benzo[a] pyrene	Chrysene	Dibenzo-(a,h) anthracene	Fluoranthene	Indeno-1,2,3 Pyrene	Pyrene
C-NE-A Replicate 1 ^(b)	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U
C-NE-A Replicate 2	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U
C-NE-A	2	18.21	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U
C-NE-A	3	17.20	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U
C-NE-A	4	17.56	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U
C-NE-A	5	17.93	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U

(a) Undetected above given concentration.

(b) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

TABLE Q.7. Quality Control Data for Low Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs) in Tissues of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> Low Molecular PAHs ($\mu\text{g/kg}$ wet weight)						
Sediment Treatment	Replicate	Acenaph-thene	Acenaph- thylene	Anthra- cene	Fluorene	Naph- thalene	2-Methyl- naph- thalene ^(a)	Phenan- threne
Analytical Blanks								
Blank 1		10 U ^(b)	10 U	10 U	10 U	50 U	20 U	10 U
Blank 2		10 U	10 U	10 U	10 U	70 U	20 U	10 U
Blank 3		10 U	10 U	10 U	10 U	40 U	20 U	10 U
Blank 4		10 U	10 U	10 U	10 U	50 U	20 U	30 U
Blank 5		10 U	10 U	10 U	10 U	20 U	20 U	10 U
Blank 6		10 U	10 U	10 U	10 U	20 U	20 U	10 U
Blank 7		10 U	10 U	10 U	10 U	65 U	25 U	10 U
Blank 8		10 U	10 U	10 U	10 U	50 U	20 U	10 U
Matrix Spikes								
Background Worm ^(c)		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS 1		110	100	110	110	76	NA ^(d)	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	100%	110%	110%	76%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD 1		110	110	120	120	79	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	110%	120%	120%	79%	NA	110%
RPD		0.00%	9.52%	8.70%	8.70%	3.87%	NA	0.00%
I-Stat		0.00	0.05	0.04	0.04	0.02	NA	0.00
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS 2		110	98	120	110	80	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	98%	120%	110%	80%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD 2		110	98	120	120	64	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	98%	120%	120%	64%	NA	110%
RPD		0.00%	0.00%	0.00%	8.70%	22.22%	NA	0.00%
I-Stat		0.00	0.00	0.00	0.04	0.11	NA	0.00
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS 3		110	110	110	120	110	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	110%	110%	120%	110%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD 3		120	110	120	120	100	NA	120
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		120%	110%	120%	120%	100%	NA	120%
RPD		8.70%	0.00%	8.70%	0.00%	9.52%	NA	8.70%
I-Stat		0.04	0.00	0.04	0.00	0.05	NA	0.04

TABLE Q.7. (Contd)

		<i>N. caecoides</i> Low Molecular PAHs ($\mu\text{g/kg}$ wet weight)						
Sediment Treatment	Replicate	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naph-thalene	2-Methyl-naph-thalene	Phenan-threne
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	4	110	120	120	110	91	NA	94
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	120%	120%	110%	91%	NA	94%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	4	110	120	130	110	120	NA	94
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	120%	130%	110%	120%	NA	94%
RPD		0.00%	0.00%	8.00%	0.00%	27.49%	NA	0.00%
I-Stat		0.00	0.00	0.04	0.00	0.14	NA	0.00
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	5	100	100	120	110	98	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		100%	100%	120%	110%	98%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	5	96	95	100	100	77	NA	95
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		96%	95%	100%	100%	77%	NA	95%
RPD		4.08%	5.13%	18.18%	9.52%	24.00%	NA	14.63%
I-Stat		0.02	0.03	0.09	0.05	0.12	NA	0.07
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	6	95	86	99	96	73	NA	100
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		95%	86%	99%	96%	73%	NA	100%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	6	110	100	110	110	32	NA	120
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	100%	110%	110%	32%	NA	120%
RPD		14.63%	15.05%	10.53%	13.59%	78.10%	NA	18.18%
I-Stat		0.07	0.08	0.05	0.07	0.39	NA	0.09
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	7	100	100	120	110	110	NA	100
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		100%	100%	120%	110%	110%	NA	100%
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	7	100	100	110	100	94	NA	94
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		100%	100%	110%	100%	94%	NA	94%
RPD		0.00%	0.00%	8.70%	9.52%	15.69%	NA	6.19%
I-Stat		0.00	0.00	0.04	0.05	0.08	NA	0.03
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	8	100	100	100	110	87	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		100%	100%	100%	110%	87%	NA	110%

TABLE Q.7. (Contd)

		<i>N. caecoides</i> Low Molecular PAHs ($\mu\text{g/kg}$ wet weight)						
<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Acenaph-thene</u>	<u>Acenaph-thylene</u>	<u>Anthra-cene</u>	<u>Fluorene</u>	<u>Naph-thalene</u>	<u>2-Methyl-naph-thalene</u>	<u>Phenan-threne</u>
Background Worm		10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD 8		110	100	110	110	82	NA	110
Amount Spiked		100	100	100	100	100	NS	100
Percent Recovery		110%	100%	110%	110%	82%	NA	110%
RPD		9.52%	0.00%	9.52%	0.00%	5.92%	NA	0.00%
I-Stat		0.05	0.00	0.05	0.00	0.03	NA	0.00
<u>Analytical Duplicates</u>								
I-C7	1	10 U	10 U	10 U	10 U	65 U	29	10 U
I-C7 Duplicate	1	10 U	10 U	10 U	10 U	65 U	28	10 U
RPD		NA	NA	NA	NA	NA	3.51%	NA
I-Stat		NA	NA	NA	NA	NA	0.02	NA
I-C14	2	10 U	10 U	10 U	10 U	50 U	20 U	13
I-C14 Duplicate	2	10 U	10 U	10 U	10 U	50 U	20 U	13
RPD		NA	NA	NA	NA	NA	NA	0.00%
I-Stat		NA	NA	NA	NA	NA	NA	0.00
I-C17	5	10 U	10 U	10 U	10 U	70 U	20 U	10 U
I-C17 Duplicate	5	10 U	10 U	10 U	10 U	70 U	20 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA
R-PF	3	10 U	10 U	10 U	10 U	20 U	20 U	19
R-PF Duplicate	3	10 U	10 U	10 U	10 U	20 U	20 U	19
RPD		NA	NA	NA	NA	NA	NA	0.00%
I-Stat		NA	NA	NA	NA	NA	NA	0.00
C-NE-A	1	10 U	10 U	10 U	10 U	68	30	10 U
C-NE-A Duplicate	1	10 U	10 U	10 U	10 U	64	26	10
RPD		NA	NA	NA	NA	6.06%	14.29%	NA
I-Stat		NA	NA	NA	NA	0.03	0.07	NA

(a) Analyte was not used in statistical analysis.

(b) Undetected above given concentration.

(c) Untreated worm tissue used for spiking MS and MSD 1 through 8.

(d) Not applicable.

TABLE Q.8. Quality Control Data for High Molecular Weight Polynuclear Aromatic Hydrocarbons (PAHs), Wet Weight, in Tissues of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> High Molecular PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo-(g,h,i)perylene	Benzo[a]pyrene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-1,2,3Pyrene	Pyrene
<u>Analytical Blanks</u>											
Blank 1		10 U ^(a)	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Blank 2		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 3		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 4		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 6		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 7		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 8		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
<u>Matrix Spikes</u>											
Background Worm ^(b)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS 1		260	170	150	33	100	240	NA ^(c)	110	NA	110
Amount Spiked		100	100	100	100	100	100	NS ^(d)	100	NS	100
Percent Recovery		260%	170%	150%	33%	100%	240%	NA	110%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD 1		150	120	120	36	100	140	59	110	NA	110
Amount Spiked		100	100	100	100	100	100	100	100	NS	100
Percent Recovery		150%	120%	120%	36%	100%	140%	59%	110%	NA	110%
RPD		53.66%	34.48%	22.22%	8.70%	0.00%	52.63%	NA	0.00%	NA	0.00%
I-Stat		0.27	0.17	0.11	0.04	0.00	0.26	NA	0.00	NA	0.00
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS 2		200	140	140	NA	100	170	25	110	NA	110
Amount Spiked		100	100	100	NS	100	100	100	100	NS	100
Percent Recovery		200%	140%	140%	NA	100%	170%	25%	110%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD 2		190	140	120	NA	110	170	34	110	NA	110
Amount Spiked		100	100	100	NS	100	100	100	100	NS	100
Percent Recovery		190%	140%	120%	NA	110%	170%	34%	110%	NA	110%
RPD		5.13%	0.00%	15.38%	NA	9.52%	0.00%	30.51%	0.00%	NA	0.00%
I-Stat		0.03	0.00	0.08	NA	0.05	0.00	0.15	0.00	NA	0.00

TABLE 0.8. (Contd)

		<i>N. caecoides</i> High Molecular PAHs ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo-[g,h,i]perylene	Benzo[a]pyrene	Chrysene	Dibenzo-[a,h]anthracene	Fluoranthene	Indeno-1,2,3Pyrene	Pyrene
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	3	300	220	210	NA	120	280	NA	110	NA	110
Amount Spiked		100	100	100	NS	100	100	NS	100	NS	100
Percent Recovery		300%	220%	210%	NA	120%	280%	NA	110%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	3	160	130	120	NA	110	150	NA	120	NA	110
Amount Spiked		100	100	100	NS	100	100	NS	100	NS	100
Percent Recovery		160%	130%	120%	NA	110%	150%	NA	120%	NA	110%
RPD		60.87%	51.43%	54.55%	NA	8.70%	60.47%	NA	8.70%	NA	0.00%
I-Stat		0.30	0.26	0.27	NA	0.04	0.30	NA	0.04	NA	0.00
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	4	170	130	130	NA	110	160	NA	120	NA	110
Amount Spiked		100	100	100	NS	100	100	NS	100	NS	100
Percent Recovery		170%	130%	130%	NA	110%	160%	NA	120%	NA	110%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	4	180	130	130	NA	110	160	NA	120	NA	110
Amount Spiked		100	100	100	NS	100	100	NS	100	NS	100
Percent Recovery		180%	130%	130%	NA	110%	160%	NA	120%	NA	110%
RPD		5.71%	0.00%	0.00%	NA	0.00%	0.00%	NA	0.00%	NA	0.00%
I-Stat		0.03	0.00	0.00	NA	0.00	0.00	NA	0.00	NA	0.00
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MS	5	160	130	120	93	110	140	57	110	67	110
Amount Spiked		100	100	100	100	100	100	100	100	100	100
Percent Recovery		160%	130%	120%	93%	110%	140%	57%	110%	67%	110%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Background MSD	5	140	120	110	85	91	120	55	100	68	97
Amount Spiked		100	100	100	100	100	100	100	100	100	100
Percent Recovery		140%	120%	110%	85%	91%	120%	55%	100%	68%	97%
RPD		13.33%	8.00%	8.70%	8.99%	18.91%	15.38%	3.57%	9.52%	1.48%	12.56%
I-Stat		0.07	0.04	0.04	0.04	0.09	0.08	0.02	0.05	0.01	0.06

TABLE Q.8. (Contd)

		<i>N. caecoides</i> High Molecular PAHs ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo-(g,h,i)perylene	Benzo[a]pyrene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-1,2,3Pyrene
Matrix Spikes (Contd)										
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Background MS 6		160	120	120	41	100	140	31	95	68
Amount Spiked		100	100	100	100	100	100	100	100	100
Percent Recovery		160%	120%	120%	41%	100%	140%	31%	95%	68%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Background MSO 6		250	160	180	130	NA	200	13	110	33
Amount Spiked		100	100	100	100	MS	100	100	100	100
Percent Recovery		250%	160%	180%	130%	NA	200%	13%	110%	33%
RPD		43.90%	28.57%	40.00%	104.09%	NA	35.29%	81.82%	14.63%	69.31%
I-Stat		0.22	0.14	0.20	0.52	NA	0.18	0.41	0.07	0.35
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Background MS 7		200	130	140	91	110	160	61	100	64
Amount Spiked		100	100	100	100	100	100	100	100	100
Percent Recovery		200%	130%	140%	91%	110%	160%	61%	100%	64%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Background MSD 7		200	150	140	120	130	160	100	100	130
Amount Spiked		100	100	100	100	100	100	100	100	100
Percent Recovery		200%	150%	140%	120%	130%	160%	100%	100%	130%
RPD		0.00%	14.29%	0.00%	27.49%	16.67%	0.00%	48.45%	0.00%	68.04%
I-Stat		0.00	0.07	0.00	0.14	0.08	0.00	0.24	0.00	0.34
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Background MS 8		140	110	120	98	97	120	66	110	72
Amount Spiked		100	100	100	100	100	100	100	100	100
Percent Recovery		140%	110%	120%	98%	97%	120%	66%	110%	72%
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Background MSD 8		150	120	120	110	100	130	77	110	85
Amount Spiked		100	100	100	100	100	100	100	100	100
Percent Recovery		150%	120%	120%	110%	100%	130%	77%	110%	85%
RPD		6.90%	8.70%	0.00%	11.54%	3.05%	8.00%	15.38%	0.00%	16.56%
I-Stat		0.03	0.04	0.00	0.06	0.02	0.04	0.08	0.00	0.08

TABLE Q.8. (Contd)

		<i>N. caecoides</i> High Molecular PAHs ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo-(g,h,i)perylene	Benzo[a]pyrene	Chrysene	Dibenzo-(a,h)anthracene	Fluoranthene	Indeno-1,2,3-Pyrene	Pyrene
<u>Analytical Replicates</u>											
I-C7 Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7 Replicate 2	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C14 Replicate 1	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	19
I-C14 Replicate 2	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	21
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	10.00%
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05
I-C17 Replicate 1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	90
I-C17 Replicate 2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	65
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	32.26%
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16
R-PF Replicate 1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	26	10 U	19
R-PF Replicate 2	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	22	10 U	18
RPD		NA	NA	NA	NA	NA	NA	NA	16.67%	NA	5.41%
I-Stat		NA	NA	NA	NA	NA	NA	NA	0.08	NA	0.03
C-NE-A Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Untreated worm tissue used for spiking MS and MSD 1 through 8.

(c) Not applicable.

(d) Not spiked.

TABLE Q.9. Surrogate Recoveries for Polynuclear Aromatic Hydrocarbons (PAHs) in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	<i>N. caecoides</i> Surrogate Percent Recoveries			
		Napthalene d8	Acenaphthene d10	Phenanthrene d10	Benzo(a) pyrene-d12
I-C3	1	52	60	69	59
I-C3	2	44	54	63	49
I-C3	3	56	61	72	51
I-C3	4	54	58	65	48
I-C3	5	64	67	72	36
I-C5	1	32	57	67	55
I-C5	2	59	63	69	53
I-C5	3	51	57	65	52
I-C5	4	55	61	70	50
I-C5	5	62	63	71	53
I-C7 Replicate 1	1	83	93	99	74
I-C7 Replicate 2	1	77	94	100	78
I-C7	2	55	95	98	63
I-C7	3	87	100	110	82
I-C7	4	69	83	89	67
I-C7	5	74	92	100	72
I-C8	1	85	86	89	56
I-C8	2	87	93	92	71
I-C8	3	14	86	98	73
I-C8	4	94	100	100	76
I-C8	5	87	92	93	68
I-C9	1	60	72	80	58
I-C9	2	58	71	81	50
I-C9	3	75	90	97	68
I-C9	4	59	71	86	52
I-C9	5	0	39	89	55
I-C10	1	12	78	94	71
I-C10	2	75	85	85	66
I-C10	3	31	96	100	76
I-C10	4	84	96	100	75
I-C10	5	77	94	95	72
I-C11	1	77	82	85	59
I-C11	2	76	82	88	51
I-C11	3	77	80	84	47
I-C11	4	77	74	77	55
I-C11	5	75	80	84	39

TABLE Q.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Surrogate Percent Recoveries			
		Napthalene d8	Acenaphthene d10	Phenanthrene d10	Benzo(a) pyrene-d12
I-C12	1	89	91	88	72
I-C12	2	1	60	92	72
I-C12	3	91	96	94	75
I-C12	4	100	110	110	87
I-C12	5	86	92	91	70
I-C14	1	65	90	100	45
I-C14 Replicate 1	2	61	79	96	46
I-C14 Replicate 2	2	52	71	82	51
I-C14	3	53	72	86	45
I-C14	4	46	57	70	21
I-C14	5	62	84	91	42
I-C15	1	70	81	90	18
I-C15	2	41	51	66	20
I-C15	3	63	79	91	33
I-C15	4	48	65	86	27
I-C15	5	69	92	100	81
I-C16	1	62	74	87	53
I-C16	2	71	80	89	59
I-C16	3	25	53	79	52
I-C16	4	43	56	74	33
I-C16	5	35	50	70	65
I-C17	1	51	58	85	63
I-C17	2	58	69	85	66
I-C17	3	69	71	87	75
I-C17	4	57	69	85	53
I-C17 Replicate 1	5	69	80	89	72
I-C17 Replicate 2	5	67	77	90	82
I-C18	1	69	78	91	35
I-C18	2	77	84	94	53
I-C18	3	26	65	85	61
I-C18	4	60	76	94	52
I-C18	5	62	80	94	30
I-S1	1	72	76	82	71
I-S1	2	16	16	19	4
I-S1	3	76	79	81	59
I-S1	4	78	80	82	53
I-S1	5	79	82	84	53

TABLE Q.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Surrogate Percent Recoveries			
		Napthalene d8	Acenapthene d10	Phenanthrene d10	Benzo(a) pyrene-d12
I-T1	1	56	82	92	56
I-T1	2	46	75	90	69
I-T1	3	50	64	82	57
I-T1	4	66	78	89	55
I-T1	5	71	82	89	69
I-T3	1	62	82	90	54
I-T3	2	63	75	88	64
I-T3	3	50	73	91	75
I-T3	4	69	72	87	45
I-T3	5	71	82	91	57
R-AC	1	0	23	67	49
R-AC	2	81	81	83	73
R-AC	3	10	70	88	63
R-AC	4	89	90	89	76
R-AC	5	10	27	30	4
R-AM	1	80	83	84	59
R-AM	2	32	29	30	13
R-AM	3	96	97	94	59
R-AM	4	59	58	58	43
R-AM	5	57	77	79	61
R-BF	1	62	74	79	48
R-BF	2	71	76	79	38
R-BF	3	67	78	86	51
R-BF	4	65	74	72	41
R-BF	5	80	77	75	33
R-OS	1	75	71	70	43
R-OS	2	63	68	72	25
R-OS	3	80	79	78	39
R-OS	4	38	61	65	26
R-OS	5	70	72	70	28
R-PC	1	30	67	75	56
R-PC	2	0	51	67	34
R-PC	3	63	70	76	46
R-PC	4	61	74	79	44
R-PC	5	76	78	78	36

TABLE Q.9. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Surrogate Percent Recoveries			
		Napthalene d8	Acenaphthene d10	Phenanthrene d10	Benzo(a) pyrene-d12
R-PF	1	74	82	85	50
R-PF	2	65	73	80	43
R-PF Replicate 1	3	75	82	87	60
R-PF Replicate 2	3	49	61	67	46
R-PF	4	80	81	80	59
R-PF	5	72	77	79	52
C-SB	1	39	68	70	53
C-SB	2	63	67	66	53
C-SB	3	63	68	68	52
C-SB	4	37	75	77	55
C-SB	5	93	99	97	80
C-NE	1	67	76	80	46
C-NE	2	25	100	110	88
C-NE	3	47	53	59	35
C-NE	4	91	99	95	71
C-NE	5	74	82	84	73
C-NE-A Replicate 1	1	51	60	70	59
C-NE-A Replicate 2	1	61	63	71	30
C-NE-A	2	50	61	71	53
C-NE-A	3	55	64	73	59
C-NE-A	4	51	63	74	55
C-NE-A	5	39	58	71	51
Blank 1		73	63	80	50
Blank 2		68	60	61	13
Blank 3		77	68	72	6
Blank 4		91	82	89	36
Blank 5		97	80	81	23
Blank 6		95	81	78	64
Blank 7		86	83	87	46
Blank 8		42	38	39	28
Background Worm ^(a)		61	81	85	43
MS 1		51	74	81	43
MSD 1		73	89	93	92
MS 2		71	86	88	69
MSD 2		47	71	83	69
MS 3		72	73	75	40
MSD 3		76	80	80	83

TABLE Q.9. (Contd)

Sediment Treatment	Replicate	<u><i>N. caecoides</i> Surrogate Percent Recoveries</u>			
		<u>Napthalene</u> <u>d8</u>	<u>Acenapthene</u> <u>d10</u>	<u>Phenanthrene</u> <u>d10</u>	<u>Benzo(a)</u> <u>pyrene-d12</u>
MS 4		79	83	88	87
MSD 4		86	79	83	82
MS 5		87	86	89	72
MSD 5		78	86	92	79
MS 6		60	64	64	54
MSD 6		11	28	32	18
MS 7		94	93	90	72
MSD 7		73	76	74	55
MS 8		60	62	68	59
MSD 8		55	60	68	54

(a) Untreated worm tissue used for spiking MS and MSD 1 through 8.

TABLE Q.10. Polychlorinated Biphenyls (PCBs), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

		N. caecoides PCBs (µg/kg wet weight)						
Sediment Treatment	Replicate	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
Detection Limits								
Target DL		20	20	20	20	20	20	20
Lowest Achieved DL		100	100	100	100	100	100	100
Maximum Achieved DL		250	250	250	250	250	250	250
I-C3	1	100 U ^(a)	100 U	100 U	100 U	100 U	100 U	100 U
I-C3	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C3	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C3	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C3	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C5	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C5	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C5	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C5	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C5	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7 Replicate 1	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7 Replicate 2	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C8	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C8	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C8	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C8	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C8	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C9	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C9	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C9	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C9	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C9	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C10	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C10	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C10	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C10	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C10	5	100 U	100 U	100 U	100 U	100 U	340	100 U
I-C11	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C11	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C11	3	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C11	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C11	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C12	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C12	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C12	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C12	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C12	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U

TABLE Q.10. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PCBs (µg/kg wet weight)						
		Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
I-C14	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C14 Replicate 1	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C14 Replicate 2	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C14	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C14	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C14	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C15	1	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C15	2	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C15	3	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C15	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C15	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C16	1	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C16	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C16	3	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C16	4	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C16	5	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C17	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C17	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C17	3	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C17	4	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C17 Replicate 1	5	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C17 Replicate 2	5	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C18	1	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C18	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C18	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C18	4	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C18	5	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-S1	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-S1	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-S1	3	100 U	100 U	100 U	100 U	100 U	200	100 U
I-S1	4	100 U	100 U	100 U	100 U	100 U	220	100 U
I-S1	5	100 U	100 U	100 U	100 U	100 U	170	100 U
I-T1	1	250 U	250 U	250 U	250 U	250 U	250 U	250 U
I-T1	2	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-T1	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-T1	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-T1	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-T3	1	100 U	100 U	100 U	100 U	100 U	440	100 U
I-T3	2	100 U	100 U	100 U	100 U	100 U	580	100 U
I-T3	3	100 U	100 U	100 U	100 U	100 U	480	100 U
I-T3	4	200 U	200 U	200 U	200 U	200 U	350	200 U
I-T3	5	100 U	100 U	100 U	100 U	100 U	360	100 U
R-AC	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AC	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AC	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AC	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AC	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U

TABLE Q.10. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> PCBs ($\mu\text{g/kg}$ wet weight)						
		Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
R-AM	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AM	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AM	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AM	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-AM	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-BF	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-BF	2	100 U	100 U	100 U	100 U	100 U	110	100 U
R-BF	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-BF	4	100 U	100 U	100 U	100 U	100 U	150	100 U
R-BF	5	100 U	100 U	100 U	100 U	100 U	190	100 U
R-OS	1	100 U	100 U	100 U	100 U	100 U	110	100 U
R-OS	2	100 U	100 U	100 U	100 U	100 U	170	100 U
R-OS	3	100 U	100 U	100 U	100 U	100 U	200	100 U
R-OS	4	100 U	100 U	100 U	100 U	100 U	300	100 U
R-OS	5	100 U	100 U	100 U	100 U	100 U	170	100 U
R-PC	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PC	2	100 U	100 U	100 U	100 U	100 U	180	100 U
R-PC	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PC	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PC	5	100 U	100 U	100 U	100 U	100 U	200	100 U
R-PF	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PF	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PF Replicate 1	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PF Replicate 2	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PF	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PF	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-SB	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-SB	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-SB	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-SB	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-SB	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A Replicate 1	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A Replicate 2	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A	4	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A	5	100 U	100 U	100 U	100 U	100 U	100 U	100 U

(a) Undetected above given concentration.

TABLE Q.11. Polychlorinated Biphenyls (PCBs), Dry Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> PCBs ($\mu\text{g/kg}$ dry weight)						
			Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
I-C3	1	19.81	504.80 U ^(a)	504.80 U	504.80 U	504.80 U	504.80 U	504.80 U	504.80 U
I-C3	2	20.06	498.50 U	498.50 U	498.50 U	498.50 U	498.50 U	498.50 U	498.50 U
I-C3	3	20.34	491.64 U	491.64 U	491.64 U	491.64 U	491.64 U	491.64 U	491.64 U
I-C3	4	19.77	505.82 U	505.82 U	505.82 U	505.82 U	505.82 U	505.82 U	505.82 U
I-C3	5	18.39	543.77 U	543.77 U	543.77 U	543.77 U	543.77 U	543.77 U	543.77 U
I-C5	1	18.78	532.48 U	532.48 U	532.48 U	532.48 U	532.48 U	532.48 U	532.48 U
I-C5	2	19.90	502.51 U	502.51 U	502.51 U	502.51 U	502.51 U	502.51 U	502.51 U
I-C5	3	17.63	567.21 U	567.21 U	567.21 U	567.21 U	567.21 U	567.21 U	567.21 U
I-C5	4	18.13	551.57 U	551.57 U	551.57 U	551.57 U	551.57 U	551.57 U	551.57 U
I-C5	5	19.31	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U
I-C7 Replicate 1	1	14.64	683.06 U	683.06 U	683.06 U	683.06 U	683.06 U	683.06 U	683.06 U
I-C7 Replicate 2	1	14.64	683.06 U	683.06 U	683.06 U	683.06 U	683.06 U	683.06 U	683.06 U
I-C7	2	19.33	517.33 U	517.33 U	517.33 U	517.33 U	517.33 U	517.33 U	517.33 U
I-C7	3	19.01	526.04 U	526.04 U	526.04 U	526.04 U	526.04 U	526.04 U	526.04 U
I-C7	4	19.31	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U
I-C7	5	18.97	527.15 U	527.15 U	527.15 U	527.15 U	527.15 U	527.15 U	527.15 U
I-C8	1	21.13	473.26 U	473.26 U	473.26 U	473.26 U	473.26 U	473.26 U	473.26 U
I-C8	2	20.53	487.09 U	487.09 U	487.09 U	487.09 U	487.09 U	487.09 U	487.09 U
I-C8	3	19.83	504.29 U	504.29 U	504.29 U	504.29 U	504.29 U	504.29 U	504.29 U
I-C8	4	20.00	500.00 U	500.00 U	500.00 U	500.00 U	500.00 U	500.00 U	500.00 U
I-C8	5	12.72	786.16 U	786.16 U	786.16 U	786.16 U	786.16 U	786.16 U	786.16 U
I-C9	1	19.81	504.80 U	504.80 U	504.80 U	504.80 U	504.80 U	504.80 U	504.80 U
I-C9	2	18.34	545.26 U	545.26 U	545.26 U	545.26 U	545.26 U	545.26 U	545.26 U
I-C9	3	18.88	529.66 U	529.66 U	529.66 U	529.66 U	529.66 U	529.66 U	529.66 U
I-C9	4	20.63	484.73 U	484.73 U	484.73 U	484.73 U	484.73 U	484.73 U	484.73 U
I-C9	5	21.35	468.38 U	468.38 U	468.38 U	468.38 U	468.38 U	468.38 U	468.38 U
I-C10	1	16.96	589.62 U	589.62 U	589.62 U	589.62 U	589.62 U	589.62 U	589.62 U
I-C10	2	16.67	599.88 U	599.88 U	599.88 U	599.88 U	599.88 U	599.88 U	599.88 U
I-C10	3	17.90	558.66 U	558.66 U	558.66 U	558.66 U	558.66 U	558.66 U	558.66 U
I-C10	4	22.08	452.90 U	452.90 U	452.90 U	452.90 U	452.90 U	452.90 U	452.90 U
I-C10 ^(b)	5	16.59	602.77 U	602.77 U	602.77 U	602.77 U	602.77 U	2049.43	602.77 U
I-C11	1	18.57	538.50 U	538.50 U	538.50 U	538.50 U	538.50 U	538.50 U	538.50 U
I-C11	2	15.89	629.33 U	629.33 U	629.33 U	629.33 U	629.33 U	629.33 U	629.33 U
I-C11	3	18.39	1087.55 U	1087.55 U	1087.55 U	1087.55 U	1087.55 U	1087.55 U	1087.55 U
I-C11	4	16.98	588.93 U	588.93 U	588.93 U	588.93 U	588.93 U	588.93 U	588.93 U
I-C11	5	15.69	637.35 U	637.35 U	637.35 U	637.35 U	637.35 U	637.35 U	637.35 U
I-C12 ^(c)	1	19.59	510.46 U	510.46 U	510.46 U	510.46 U	510.46 U	510.46 U	510.46 U
I-C12	2	16.06	622.67 U	622.67 U	622.67 U	622.67 U	622.67 U	622.67 U	622.67 U
I-C12	3	21.64	462.11 U	462.11 U	462.11 U	462.11 U	462.11 U	462.11 U	462.11 U
I-C12	4	20.05	498.75 U	498.75 U	498.75 U	498.75 U	498.75 U	498.75 U	498.75 U
I-C12	5	20.61	485.20 U	485.20 U	485.20 U	485.20 U	485.20 U	485.20 U	485.20 U
I-C14	1	20.81	480.54 U	480.54 U	480.54 U	480.54 U	480.54 U	480.54 U	480.54 U
I-C14 Replicate 1	2	19.89	502.77 U	502.77 U	502.77 U	502.77 U	502.77 U	502.77 U	502.77 U
I-C14 Replicate 2	2	19.89	502.77 U	502.77 U	502.77 U	502.77 U	502.77 U	502.77 U	502.77 U
I-C14	3	18.95	527.70 U	527.70 U	527.70 U	527.70 U	527.70 U	527.70 U	527.70 U
I-C14	4	18.94	527.98 U	527.98 U	527.98 U	527.98 U	527.98 U	527.98 U	527.98 U
I-C14	5	18.68	535.33 U	535.33 U	535.33 U	535.33 U	535.33 U	535.33 U	535.33 U

TABLE Q.11. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	N. caecoides PCBs ($\mu\text{g/kg}$ dry weight)						
			Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
I-C15	1	16.26	1230.01 U	1230.01 U	1230.01 U	1230.01 U	1230.01 U	1230.01 U	1230.01 U
I-C15	2	15.25	1311.48 U	1311.48 U	1311.48 U	1311.48 U	1311.48 U	1311.48 U	1311.48 U
I-C15(c)	3	16.32	1225.49 U	1225.49 U	1225.49 U	1225.49 U	1225.49 U	1225.49 U	1225.49 U
I-C15	4	17.45	573.07 U	573.07 U	573.07 U	573.07 U	573.07 U	573.07 U	573.07 U
I-C15(c)	5	16.32	612.75 U	612.75 U	612.75 U	612.75 U	612.75 U	612.75 U	612.75 U
I-C16	1	21.05	950.12 U	950.12 U	950.12 U	950.12 U	950.12 U	950.12 U	950.12 U
I-C16	2	19.42	514.93 U	514.93 U	514.93 U	514.93 U	514.93 U	514.93 U	514.93 U
I-C16	3	19.81	1009.59 U	1009.59 U	1009.59 U	1009.59 U	1009.59 U	1009.59 U	1009.59 U
I-C16	4	18.48	1082.25 U	1082.25 U	1082.25 U	1082.25 U	1082.25 U	1082.25 U	1082.25 U
I-C16	5	20.90	956.94 U	956.94 U	956.94 U	956.94 U	956.94 U	956.94 U	956.94 U
I-C17	1	19.01	526.04 U	526.04 U	526.04 U	526.04 U	526.04 U	526.04 U	526.04 U
I-C17	2	20.20	495.05 U	495.05 U	495.05 U	495.05 U	495.05 U	495.05 U	495.05 U
I-C17	3	19.67	1016.78 U	1016.78 U	1016.78 U	1016.78 U	1016.78 U	1016.78 U	1016.78 U
I-C17	4	20.83	960.15 U	960.15 U	960.15 U	960.15 U	960.15 U	960.15 U	960.15 U
I-C17 Replicate 1	5	18.52	1079.91 U	1079.91 U	1079.91 U	1079.91 U	1079.91 U	1079.91 U	1079.91 U
I-C17 Replicate 2	5	18.52	1079.91 U	1079.91 U	1079.91 U	1079.91 U	1079.91 U	1079.91 U	1079.91 U
I-C18	1	19.85	1007.56 U	1007.56 U	1007.56 U	1007.56 U	1007.56 U	1007.56 U	1007.56 U
I-C18	2	21.09	474.16 U	474.16 U	474.16 U	474.16 U	474.16 U	474.16 U	474.16 U
I-C18	3	17.72	564.33 U	564.33 U	564.33 U	564.33 U	564.33 U	564.33 U	564.33 U
I-C18	4	16.49	1212.86 U	1212.86 U	1212.86 U	1212.86 U	1212.86 U	1212.86 U	1212.86 U
I-C18	5	18.05	1108.03 U	1108.03 U	1108.03 U	1108.03 U	1108.03 U	1108.03 U	1108.03 U
I-S1	1	18.11	552.18 U	552.18 U	552.18 U	552.18 U	552.18 U	552.18 U	552.18 U
I-S1	2	19.48	513.35 U	513.35 U	513.35 U	513.35 U	513.35 U	513.35 U	513.35 U
I-S1	3	19.05	524.93 U	524.93 U	524.93 U	524.93 U	524.93 U	1049.87	524.93 U
I-S1	4	21.18	472.14 U	472.14 U	472.14 U	472.14 U	472.14 U	1038.72	472.14 U
I-S1	5	18.96	527.43 U	527.43 U	527.43 U	527.43 U	527.43 U	896.62	527.43 U
I-T1	1	19.62	1274.21 U	1274.21 U	1274.21 U	1274.21 U	1274.21 U	1274.21 U	1274.21 U
I-T1	2	18.61	1074.69 U	1074.69 U	1074.69 U	1074.69 U	1074.69 U	1074.69 U	1074.69 U
I-T1	3	20.19	495.29 U	495.29 U	495.29 U	495.29 U	495.29 U	495.29 U	495.29 U
I-T1	4	19.82	504.54 U	504.54 U	504.54 U	504.54 U	504.54 U	504.54 U	504.54 U
I-T1	5	18.93	528.26 U	528.26 U	528.26 U	528.26 U	528.26 U	528.26 U	528.26 U
I-T3	1	20.21	494.80 U	494.80 U	494.80 U	494.80 U	494.80 U	2177.14	494.80 U
I-T3	2	19.31	517.87 U	517.87 U	517.87 U	517.87 U	517.87 U	3003.63	517.87 U
I-T3	3	18.64	536.48 U	536.48 U	536.48 U	536.48 U	536.48 U	2575.11	536.48 U
I-T3	4	19.11	1046.57 U	1046.57 U	1046.57 U	1046.57 U	1046.57 U	1831.50	1046.57 U
I-T3	5	20.51	487.57 U	487.57 U	487.57 U	487.57 U	487.57 U	1755.24	487.57 U
R-AC	1	18.03	554.63 U	554.63 U	554.63 U	554.63 U	554.63 U	554.63 U	554.63 U
R-AC	2	17.17	582.41 U	582.41 U	582.41 U	582.41 U	582.41 U	582.41 U	582.41 U
R-AC	3	17.28	578.70 U	578.70 U	578.70 U	578.70 U	578.70 U	578.70 U	578.70 U
R-AC	4	16.74	597.37 U	597.37 U	597.37 U	597.37 U	597.37 U	597.37 U	597.37 U
R-AC	5	17.33	577.03 U	577.03 U	577.03 U	577.03 U	577.03 U	577.03 U	577.03 U
R-AM	1	15.32	652.74 U	652.74 U	652.74 U	652.74 U	652.74 U	652.74 U	652.74 U
R-AM	2	15.22	657.03 U	657.03 U	657.03 U	657.03 U	657.03 U	657.03 U	657.03 U
R-AM	3	17.23	580.38 U	580.38 U	580.38 U	580.38 U	580.38 U	580.38 U	580.38 U
R-AM	4	14.88	672.04 U	672.04 U	672.04 U	672.04 U	672.04 U	672.04 U	672.04 U
R-AM	5	15.93	627.75 U	627.75 U	627.75 U	627.75 U	627.75 U	627.75 U	627.75 U

TABLE Q.11. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> PCBs ($\mu\text{g/kg}$ dry weight)						
			Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
R-BF	1	17.73	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U
R-BF	2	17.04	586.85 U	586.85 U	586.85 U	586.85 U	586.85 U	645.54	586.85 U
R-BF	3	16.26	615.01 U	615.01 U	615.01 U	615.01 U	615.01 U	615.01 U	615.01 U
R-BF	4	15.48	645.99 U	645.99 U	645.99 U	645.99 U	645.99 U	968.99	645.99 U
R-BF	5	14.52	688.71 U	688.71 U	688.71 U	688.71 U	688.71 U	1308.54	688.71 U
R-OS	1	11.71	853.97 U	853.97 U	853.97 U	853.97 U	853.97 U	939.37	853.97 U
R-OS	2	16.95	589.97 U	589.97 U	589.97 U	589.97 U	589.97 U	1002.95	589.97 U
R-OS ^(c)	3	15.10	662.25 U	662.25 U	662.25 U	662.25 U	662.25 U	1324.50	662.25 U
R-OS	4	16.22	616.52 U	616.52 U	616.52 U	616.52 U	616.52 U	1849.57	616.52 U
R-OS	5	15.50	645.16 U	645.16 U	645.16 U	645.16 U	645.16 U	1096.77	645.16 U
R-PC	1	15.50	645.16 U	645.16 U	645.16 U	645.16 U	645.16 U	645.16 U	645.16 U
R-PC	2	13.81	724.11 U	724.11 U	724.11 U	724.11 U	724.11 U	1303.40	724.11 U
R-PC	3	15.79	633.31 U	633.31 U	633.31 U	633.31 U	633.31 U	633.31 U	633.31 U
R-PC	4	17.46	572.74 U	572.74 U	572.74 U	572.74 U	572.74 U	572.74 U	572.74 U
R-PC	5	15.73	635.73 U	635.73 U	635.73 U	635.73 U	635.73 U	1271.46	635.73 U
R-PF ^(c)	1	16.62	601.68 U	601.68 U	601.68 U	601.68 U	601.68 U	601.68 U	601.68 U
R-PF	2	15.59	641.44 U	641.44 U	641.44 U	641.44 U	641.44 U	641.44 U	641.44 U
R-PF Replicate 1	3	17.79	562.11 U	562.11 U	562.11 U	562.11 U	562.11 U	562.11 U	562.11 U
R-PF Replicate 2	3	17.79	562.11 U	562.11 U	562.11 U	562.11 U	562.11 U	562.11 U	562.11 U
R-PF	4	15.95	626.96 U	626.96 U	626.96 U	626.96 U	626.96 U	626.96 U	626.96 U
R-PF	5	17.16	582.75 U	582.75 U	582.75 U	582.75 U	582.75 U	582.75 U	582.75 U
C-SB	1	13.27	753.58 U	753.58 U	753.58 U	753.58 U	753.58 U	753.58 U	753.58 U
C-SB	2	16.48	606.80 U	606.80 U	606.80 U	606.80 U	606.80 U	606.80 U	606.80 U
C-SB	3	16.78	595.95 U	595.95 U	595.95 U	595.95 U	595.95 U	595.95 U	595.95 U
C-SB	4	13.23	755.86 U	755.86 U	755.86 U	755.86 U	755.86 U	755.86 U	755.86 U
C-SB	5	15.22	657.03 U	657.03 U	657.03 U	657.03 U	657.03 U	657.03 U	657.03 U
C-NE ^(c)	1	12.88	776.40 U	776.40 U	776.40 U	776.40 U	776.40 U	776.40 U	776.40 U
C-NE	2	12.75	784.31 U	784.31 U	784.31 U	784.31 U	784.31 U	784.31 U	784.31 U
C-NE	3	15.71	636.54 U	636.54 U	636.54 U	636.54 U	636.54 U	636.54 U	636.54 U
C-NE	4	10.71	933.71 U	933.71 U	933.71 U	933.71 U	933.71 U	933.71 U	933.71 U
C-NE	5	12.34	810.37 U	810.37 U	810.37 U	810.37 U	810.37 U	810.37 U	810.37 U
C-NE-A Replicate 1 ^(c)	1	17.73	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U
C-NE-A Replicate 2	1	17.73	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U	564.02 U
C-NE-A	2	18.21	549.15 U	549.15 U	549.15 U	549.15 U	549.15 U	549.15 U	549.15 U
C-NE-A	3	17.20	581.40 U	581.40 U	581.40 U	581.40 U	581.40 U	581.40 U	581.40 U
C-NE-A	4	17.56	569.48 U	569.48 U	569.48 U	569.48 U	569.48 U	569.48 U	569.48 U
C-NE-A	5	17.93	557.72 U	557.72 U	557.72 U	557.72 U	557.72 U	557.72 U	557.72 U

(a) Undetected above given concentration.

(b) Anomalous data; not used in statistical analysis.

(c) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

TABLE Q.12. Quality Control Data for Polychlorinated Biphenyls (PCBs), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> PCBs ($\mu\text{g/kg}$ wet weight)						
<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Aroclor-1016</u>	<u>Aroclor-1221</u>	<u>Aroclor-1232</u>	<u>Aroclor-1242</u>	<u>Aroclor-1248</u>	<u>Aroclor-1254</u>	<u>Aroclor-1260</u>
<u>Analytical Blanks</u>								
Blank 1		200 U ^(a)	200 U	200 U	200 U	200 U	200 U	200 U
Blank 2		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Blank 3		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Blank 4		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Blank 5		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Blank 6		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Blank 7		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Blank 8		100 U	100 U	100 U	100 U	100 U	100 U	100 U
<u>Matrix Spikes</u>								
Background Worm ^(b)		100 U	100 U	100 U	100 U	100 U	100 U	100
MS 1		NS ^(c)	NS	NS	NS	NS	NS	NS
MSD 1		NS	NS	NS	NS	NS	NS	NS
MS 2		NS	NS	NS	NS	NS	NS	NS
MSD 2		NS	NS	NS	NS	NS	NS	NS
MS 3		NS	NS	NS	NS	NS	NS	NS
MSD 3		NS	NS	NS	NS	NS	NS	NS
MS 4		NS	NS	NS	NS	NS	NS	NS
MSD 4		NS	NS	NS	NS	NS	NS	NS
MS 5		NS	NS	NS	NS	NS	NS	NS
MSD 5		NS	NS	NS	NS	NS	NS	NS
MS 6		NS	NS	NS	NS	NS	NS	NS
MSD 6		NS	NS	NS	NS	NS	NS	NS
MS 7		NS	NS	NS	NS	NS	NS	NS
MSD 7		NS	NS	NS	NS	NS	NS	NS
MS 8		NS	NS	NS	NS	NS	NS	NS
MSD 8		NS	NS	NS	NS	NS	NS	NS
<u>Analytical Replicates</u>								
I-C7	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C7 Duplicate	1	100 U ^(d)	100 U	100 U	100 U	100 U	100 U	100 U
RPD		NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA
I-C14	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
I-C14 Duplicate	2	100 U	100 U	100 U	100 U	100 U	100 U	100 U
RPD		NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA

TABLE Q.12. (Contd)

		<i>N. caecoides</i> PCBs ($\mu\text{g/kg}$ wet weight)						
<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Aroclor-1016</u>	<u>Aroclor-1221</u>	<u>Aroclor-1232</u>	<u>Aroclor-1242</u>	<u>Aroclor-1248</u>	<u>Aroclor-1254</u>	<u>Aroclor-1260</u>
<u>Analytical Replicates</u> (Contd)								
I-C17	5	200 U	200 U	200 U	200 U	200 U	200 U	200 U
I-C17 Duplicate	5	200 U	200 U	200 U	200 U	200 U	200 U	200 U
RPD		NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA
R-PF	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
R-PF Duplicate	3	100 U	100 U	100 U	100 U	100 U	100 U	100 U
RPD		NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA
C-NE-A ^(e)	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
C-NE-A Duplicate ^(e)	1	100 U	100 U	100 U	100 U	100 U	100 U	100 U
RPD		NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Untreated worm tissue used for spiking MS and MSD 1 through 8.

(c) Not spiked.

(d) Not applicable.

(e) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

TABLE Q.13. Chlorinated Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)								
		(Lindane)					Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC				
Detection Limit										
Target DL		2	2	2	2	2	2	2	2	2
Lowest Achieved DL		10	10	10	10	10	10	10	10	10
Maximum Achieved DL		40	20	20	30	20	20	20	20	30
I-C3	1	10 U ^(a)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C5	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C5	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C5	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7 Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7 Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C8	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C8	2	10 U	10 U	10 U	30 U	10 U	10 U	10 U	10 U	10 U
I-C8	3	10 U	10 U	10 U	17	10 U	10 U	10 U	10 U	10 U
I-C8	4	10 U	10 U	10 U	120	10 U	10 U	10 U	10 U	10 U
I-C8	5	10 U	10 U	10 U	15 U	10 U	10 U	10 U	10 U	10 U
I-C9	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C9	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C9	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C9	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C9	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C10	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C10	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C10	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C10	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C10	5	10 U	10 U	10 U	10 U	10 U	10 U	15 U	20 U	30 U
I-C11	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C11	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C11	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C11	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C11	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C12	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C12	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C12	3	10 U	10 U	10 U	30 U	10 U	10 U	10 U	10 U	10 U
I-C12	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11	10 U
I-C12	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

TABLE Q.13. (Contd)

		<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	(Lindane)		Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
					Delta-BHC	Gamma-BHC				
I-C14	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C14 Replicate 1	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C14 Replicate 2	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C14	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C14	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C14	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C15	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C15	2	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C15	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C15	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C15	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C16	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C16	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C16	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C16	4	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C16	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C17	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C17	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C17	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C17	4	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C17 Replicate 1	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C17 Replicate 2	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C18	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C18	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C18	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C18	4	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C18	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-S1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-S1	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-S1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-S1	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-S1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T1	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T1	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T3	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11	10 U
I-T3	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T3	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-T3	4	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-T3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AC	1	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U
R-AC	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AC	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AC	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AC	5	10 U	10 U	10 U	24	10 U	10 U	10 U	10 U	10 U

TABLE Q.13. (Contd)

		<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Aldrin	(Lindane)					Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
			Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC					
R-AM	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AM	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AM	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AM	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-AM	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-BF	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-BF	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-BF	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-BF	4	40 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-BF	5	30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-OS	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-OS	2	30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-OS	3	30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-OS	4	30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-OS	5	25 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PC	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PC	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	12 U	25 U
R-PC	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PC	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PC	5	25 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	15 U	10 U
R-PF	1	20 U	10 U	10 U	10 U	10 U	11	10 U	10 U	10 U	10 U
R-PF	2	25 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PF Replicate 1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PF Replicate 2	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PF	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	15 U	10 U
R-PF	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-SB	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-SB	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-SB	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-SB	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-SB	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

(a) Undetected above given concentration.

TABLE Q.14. Chlorinated Pesticides (Alphabetical, Dieldrin - Toxaphene), Wet Weight, in Tissues of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-Aldehyde	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
Detection Limits											
Target DL		2	2	2	2	2	2	2	2	2	2
Lowest Achieved DL		10	10	10	10	10	10	10	10	10	500-1000
Maximum Achieved DL		20	20	20	20	40	20	20	20	20	1000
I-C3	1	10 U ^(a)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C3	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C3	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C3	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C5	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C5	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C5	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7 Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7 Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C8	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C8	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C8	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C8	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C8	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C9	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C9	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C9	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C9	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C9	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U

N. caecoides Pesticides ($\mu\text{g/kg}$ wet weight)

[illegible]

TABLE Q.14. (Contd)

[illegible]

N. caecoides Pesticides ($\mu\text{g/kg}$ wet weight)

[illegible]

TABLE Q.14. (Contd)

		<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Dieldrin</u>	<u>Endo-sulfan I</u>	<u>Endo-sulfan II</u>	<u>Endo-sulfan-sulfate</u>	<u>Endrin</u>	<u>Endrin-Aldehyde</u>	<u>Hepta-chlor</u>	<u>Hepta-chlor-Epoxide</u>	<u>Methoxy-chlor</u>	<u>Toxa-phene</u>
C-NE	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A Replicate 1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A Replicate 2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U

(a) Undetected above given concentration.

TABLE Q.15. Chlorinated Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Dry Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)								
			Aldrin	Alpha-8HC	Beta-8HC	Delta-8HC	(Lindane) Gamma-8HC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
I-C3	1	19.81	50.48 U ^(a)	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U
I-C3	2	20.06	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U
I-C3	3	20.34	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U
I-C3	4	19.77	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U
I-C3	5	18.39	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U
I-C5	1	18.78	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U
I-C5	2	19.90	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U
I-C5	3	17.63	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U
I-C5	4	18.13	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U
I-C5	5	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U
I-C7 Replicate 1	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U
I-C7 Replicate 2	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U
I-C7	2	19.33	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U
I-C7	3	19.01	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U
I-C7	4	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U
I-C7	5	18.97	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U
I-C8	1	21.13	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U
I-C8	2	20.53	48.71 U	48.71 U	48.71 U	146.13 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U
I-C8	3	19.83	50.43 U	50.43 U	50.43 U	85.73	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U
I-C8	4	20.00	50.00 U	50.00 U	50.00 U	600.00	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U
I-C8	5	12.72	78.62 U	78.62 U	78.62 U	117.92 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U
I-C9	1	19.81	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U
I-C9	2	18.34	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U
I-C9	3	18.88	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U
I-C9	4	20.63	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U
I-C9	5	21.35	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U
I-C10	1	16.96	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U
I-C10	2	16.67	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U
I-C10	3	17.90	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U
I-C10	4	22.08	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U
I-C10	5	16.59	60.28 U	60.28 U	60.28 U	60.28 U	60.28 U	60.28 U	90.42 U	120.55 U	180.83 U

TABLE Q.15. (Contd)

TABLE Q.15. (Contd)

			<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ dry weight)									
Sediment Treatment	Replicate	Percent Dry Weight	(Lindane)						Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
			Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC					
I-C18	1	19.85	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	
I-C18	2	21.09	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	
I-C18	3	17.72	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	
I-C18	4	16.49	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	
I-C18	5	18.05	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	
I-S1	1	18.11	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	
I-S1	2	19.48	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	
I-S1	3	19.05	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	
I-S1	4	21.18	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	
I-S1	5	18.96	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	
I-T1	1	19.62	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	
I-T1	2	18.61	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	
I-T1	3	20.19	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	
I-T1	4	19.82	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	
I-T1	5	18.93	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	
I-T3	1	20.21	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	54.43	49.48 U	
I-T3	2	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	
I-T3	3	18.64	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	
I-T3	4	19.11	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	
I-T3	5	20.51	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	
R-AC	1	18.03	55.46 U	55.46 U	55.46 U	66.56 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	
R-AC	2	17.17	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	
R-AC	3	17.28	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	
R-AC	4	16.74	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	
R-AC	5	17.33	57.70 U	57.70 U	57.70 U	138.49	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	
R-AM	1	15.32	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	
R-AM	2	15.22	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	
R-AM	3	17.23	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	
R-AM	4	14.88	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	
R-AM	5	15.93	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	
R-BF	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	
R-BF	2	17.04	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	58.69 U	
R-BF	3	16.26	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	61.50 U	
R-BF	4	15.48	258.40 U	64.60 U	64.60 U	64.60 U	64.60 U	64.60 U	64.60 U	64.60 U	64.60 U	
R-BF	5	14.52	206.61 U	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	68.87 U	

N. caecoides Pesticides ($\mu\text{g/kg}$ dry weight)

[illegible]

TABLE Q.15. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ dry weight)								
			Aldrin	Alpha- BHC	Beta- BHC	Delta- BHC	(Lindane) Gamma- BHC	Chlordane	4,4'- DDD	4,4'- DDE	4,4'- DDT
C-NE-A Replicate 1 ^(b)	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U
C-NE-A Replicate 2	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U
C-NE-A	2	18.21	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U
C-NE-A	3	17.20	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U
C-NE-A	4	17.56	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U
C-NE-A	5	17.93	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U

(a) Undetected above given concentration.

(b) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

TABLE Q.16. Chlorinated Pesticides (Alphabetical, Dieldrin - Toxaphene), Dry Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ dry weight)									
			Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-Aldehyde	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
I-C3	1	19.81	50.48 U ^(a)	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	2523.98 U
I-C3	2	20.06	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	49.85 U	2492.52 U
I-C3	3	20.34	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	49.16 U	2458.21 U
I-C3	4	19.77	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	50.58 U	2529.08 U
I-C3	5	18.39	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	54.38 U	2718.87 U
I-C5	1	18.78	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	53.25 U	2662.41 U
I-C5	2	19.90	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	50.25 U	2512.56 U
I-C5	3	17.63	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	56.72 U	2836.07 U
I-C5	4	18.13	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	55.16 U	2757.86 U
I-C5	5	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	2589.33 U
I-C7 Replicate 1	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	3415.30 U
I-C7 Replicate 2	1	14.64	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	68.31 U	3415.30 U
I-C7	2	19.33	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	51.73 U	2586.65 U
I-C7	3	19.01	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	2630.19 U
I-C7	4	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	2589.33 U
I-C7	5	18.97	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	52.71 U	2635.74 U
I-C8	1	21.13	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	47.33 U	2366.30 U
I-C8	2	20.53	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	48.71 U	2435.46 U
I-C8	3	19.83	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	50.43 U	2521.43 U
I-C8	4	20.00	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	50.00 U	2500.00 U
I-C8	5	12.72	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	78.62 U	3930.82 U
I-C9	1	19.81	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	50.48 U	2523.98 U
I-C9	2	18.34	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	54.53 U	2726.28 U
I-C9	3	18.88	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	52.97 U	2648.31 U
I-C9	4	20.63	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	48.47 U	2423.65 U
I-C9	5	21.35	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	46.84 U	2341.92 U
I-C10	1	16.96	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	58.96 U	2948.11 U
I-C10	2	16.67	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	59.99 U	2999.40 U
I-C10	3	17.90	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	55.87 U	2793.30 U
I-C10	4	22.08	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	45.29 U	2264.49 U
I-C10	5	16.59	60.28 U	60.28 U	60.28 U	60.28 U	241.11 U	120.55 U	60.28 U	90.42 U	60.28 U	3013.86 U

TABLE Q.16. (Contd)

N. caecoides Pesticides ($\mu\text{g/kg}$ dry weight)

IV. Carbocyclic Pesticides (µg/kg dry weight)												
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-Aldehyde	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
I-C11	1	18.57	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	53.85 U	2692.51 U
I-C11	2	15.89	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	62.93 U	3146.63 U
I-C11	3	18.39	108.75 U	108.75 U	108.75 U	108.75 U	108.75 U	108.75 U	108.75 U	108.75 U	108.75 U	5437.74 U
I-C11	4	16.98	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	58.89 U	2944.64 U
I-C11	5	15.69	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	63.73 U	3186.74 U
I-C12 ^(b)	1	19.59	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	51.05 U	2552.32 U
I-C12	2	16.06	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	62.27 U	3113.33 U
I-C12	3	21.64	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	46.21 U	2310.54 U
I-C12	4	20.05	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	49.88 U	2493.77 U
I-C12	5	20.61	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	48.52 U	2426.01 U
I-C14	1	20.81	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	48.05 U	2402.69 U
I-C14 Replicate 1	2	19.89	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	2513.83 U
I-C14 Replicate 2	2	19.89	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	50.28 U	2513.83 U
I-C14	3	18.95	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	52.77 U	2638.52 U
I-C14	4	18.94	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	52.80 U	2639.92 U
I-C14	5	18.68	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	53.53 U	2676.66 U
I-C15	1	16.26	123.00 U	123.00 U	123.00 U	123.00 U	123.00 U	123.00 U	123.00 U	123.00 U	123.00 U	6150.06 U
I-C15	2	15.25	131.15 U	131.15 U	131.15 U	131.15 U	131.15 U	131.15 U	131.15 U	131.15 U	131.15 U	6557.38 U
I-C15 ^(b)	3	16.32	122.55 U	122.55 U	122.55 U	122.55 U	122.55 U	122.55 U	122.55 U	122.55 U	122.55 U	6127.45 U
I-C15	4	17.45	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	57.31 U	2865.33 U
I-C15 ^(b)	5	16.32	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	61.27 U	3063.73 U
I-C16	1	21.05	95.01 U	95.01 U	95.01 U	95.01 U	95.01 U	95.01 U	95.01 U	95.01 U	95.01 U	4750.59 U
I-C16	2	19.42	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	51.49 U	2574.67 U
I-C16	3	19.81	100.96 U	100.96 U	100.96 U	100.96 U	100.96 U	100.96 U	100.96 U	100.96 U	100.96 U	5047.96 U
I-C16	4	18.48	108.23 U	108.23 U	108.23 U	108.23 U	108.23 U	108.23 U	108.23 U	108.23 U	108.23 U	5411.26 U
I-C16	5	20.90	95.69 U	95.69 U	95.69 U	95.69 U	95.69 U	95.69 U	95.69 U	95.69 U	95.69 U	4784.69 U
I-C17	1	19.01	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	52.60 U	2630.19 U
I-C17	2	20.20	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	49.50 U	2475.25 U
I-C17	3	19.67	101.68 U	101.68 U	101.68 U	101.68 U	101.68 U	101.68 U	101.68 U	101.68 U	101.68 U	5083.88 U
I-C17	4	20.83	96.02 U	96.02 U	96.02 U	96.02 U	96.02 U	96.02 U	96.02 U	96.02 U	96.02 U	4800.77 U
I-C17 Replicate 1	5	18.52	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	5399.57 U
I-C17 Replicate 2	5	18.52	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	107.99 U	5399.57 U

TABLE Q.16. (Contd)

<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ dry weight)												
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-Aldehyde	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
I-C18	1	19.85	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	100.76 U	5037.78 U
I-C18	2	21.09	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	47.42 U	2370.79 U
I-C18	3	17.72	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	56.43 U	2821.67 U
I-C18	4	16.49	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	121.29 U	6064.28 U
I-C18	5	18.05	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	110.80 U	5540.17 U
I-S1	1	18.11	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	55.22 U	2760.91 U
I-S1	2	19.48	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	51.33 U	2566.74 U
I-S1	3	19.05	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	52.49 U	2624.67 U
I-S1	4	21.18	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	47.21 U	2360.72 U
I-S1	5	18.96	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	52.74 U	2637.13 U
I-T1	1	19.62	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	50.97 U	2548.42 U
I-T1	2	18.61	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	53.73 U	2686.73 U
I-T1	3	20.19	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	49.53 U	2476.47 U
I-T1	4	19.82	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	50.45 U	2522.70 U
I-T1	5	18.93	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	52.83 U	2641.31 U
I-T3	1	20.21	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	49.48 U	2474.02 U
I-T3	2	19.31	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	51.79 U	2589.33 U
I-T3	3	18.64	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	53.65 U	2682.40 U
I-T3	4	19.11	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	104.66 U	5232.86 U
I-T3	5	20.51	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	48.76 U	2437.84 U
R-AC	1	18.03	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	55.46 U	2773.16 U
R-AC	2	17.17	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	58.24 U	2912.06 U
R-AC	3	17.28	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	57.87 U	69.44	57.87 U	2893.52 U
R-AC	4	16.74	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	59.74 U	2986.86 U
R-AC	5	17.33	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	57.70 U	2885.17 U
R-AM	1	15.32	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	65.27 U	3263.71 U
R-AM	2	15.22	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	65.70 U	3285.15 U
R-AM	3	17.23	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	58.04 U	87.06 U	2901.92 U
R-AM	4	14.88	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	67.20 U	3360.22 U
R-AM	5	15.93	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	62.77 U	3138.73 U

N. caecoides Pesticides ($\mu\text{g/kg}$ dry weight)

[illegible]

TABLE Q.16. (Contd)

		<i>N. caecipides</i> Pesticides ($\mu\text{g/kg}$ dry weight)										
Sediment Treatment	Replicate	Percent Dry Weight	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-Aldehyde	Hepta-chlor	Hepta-chlor-Epoxyde	Methoxy-chlor	Toxa-phene
C-NE-A Replicate 1 ^(b)	1	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	2820.08 U
C-NE-A Replicate 2 ^(b)	2	17.73	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	56.40 U	2820.08 U
C-NE-A	2	18.21	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	54.91 U	2745.74 U
C-NE-A	3	17.20	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	58.14 U	2906.98 U
C-NE-A	4	17.56	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	56.95 U	2847.38 U
C-NE-A	5	17.93	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	55.77 U	2788.62 U

(a) Undetected above given concentration.

(b) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the replicate within the sediment treatment.

TABLE Q.17. Quality Control Data for Chlorinated Pesticides (Alphabetical, Aldrin - 4,4'-DDT), Wet Weight, in Tissues of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ wet weight)								
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
Analytical Blanks										
Blank 1		20 U ^(a)	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Blank 2		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 3		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 4		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 6		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 7		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Blank 8		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Matrix Spikes										
Background Worm ^(b)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS	1	119	NS ^(c)	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		320	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		37%	NA ^(d)	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD	1	113	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		320	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		35%	NA	NA	NA	NA	NA	NA	NA	NA
RPD		5.56%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.03	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS	2	90	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		310	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		29%	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD	2	116	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		310	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		37%	NA	NA	NA	NA	NA	NA	NA	NA
RPD		24.24%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.12	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS	3	91	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		330	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		28%	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD	3	93	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		300	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		31%	NA	NA	NA	NA	NA	NA	NA	NA
RPD		10.17%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.05	NA	NA	NA	NA	NA	NA	NA	NA

TABLE Q.17. (contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)								
		Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
Background Worm	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS		112	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		332	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		34%	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm	4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD		123	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		330	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		37%	NA	NA	NA	NA	NA	NA	NA	NA
RPD	5	8.50%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.04	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS		100	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked	5	165	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		61%	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD		113	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked	6	160	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		71%	NA	NA	NA	NA	NA	NA	NA	NA
RPD		15.20%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.08	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm	6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS		91	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		770	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		12%	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm	6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD		93	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		450	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		21%	NA	NA	NA	NA	NA	NA	NA	NA
RPD	7	54.60%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.27	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MS		76	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked	7	370	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		21%	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Background MSD		79	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked	7	330	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		24%	NA	NA	NA	NA	NA	NA	NA	NA
RPD		13.30%	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.07	NA	NA	NA	NA	NA	NA	NA	NA

TABLE Q.17. (contd)

		<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)								
Sediment Treatment	Replicate	Aldrin	Alpha-BHC	Beta-BHC	Delta-BHC	(Lindane) Gamma-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT
<u>Analytical Replicates</u>										
I-C7 Replicate	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C7 Replicate	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C14 Replicate	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
I-C14 Replicat	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C17 Replicate	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
I-C17 Replicate	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA
R-PF Replicate	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
R-PF Replicate	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA
C-NE-A Replicate	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
C-NE-A Replicate	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA

(a) Undetected above given concentration.

(b) Untreated worm tissue used for spiking MS and MSD 1 through 8.

(c) Not spiked.

(d) Not applicable.

TABLE Q.18. Quality Control Data for Chlorinated Pesticides (Alphabetical, Dieldrin - Toxaphene), Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

		<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-aldehyde	Hepta-chlor	Hepta-chlor-epoxide	Methoxy-chlor	Toxa-phene
<u>Analytical Blanks</u>											
Blank 1		20 U ^(a)	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U
Blank 2		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Blank 3		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Blank 4		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Blank 5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Blank 6		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Blank 7		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Blank 8		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
<u>Matrix Spikes</u>											
Background Worm ^(b)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MS	1	122	NS ^(c)	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		320	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		38%	NA ^(d)	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MSD	1	122	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		320	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		38%	NA	NA	NA	NA	NA	NA	NA	NA	NA
RPD		0.00%	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MS	2	97	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		310	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		31%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MSD	2	126	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		310	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		41%	NA	NA	NA	NA	NA	NA	NA	NA	NA
RPD		26.01%	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA

N. caecoides Pesticides ($\mu\text{g/kg}$ wet weight)

[illegible]

TABLE Q.18. (contd)

		<i>N. caecoides</i> Pesticides ($\mu\text{g/kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-aldehyde	Hepta-chlor	Hepta-chlor-epoxide	Methoxy-chlor	Toxa-phene
<u>Matrix Spikes (contd)</u>											
Background Worm	6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MS		110	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		770	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		14%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm	6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MSD		102	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		450	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		23%	NA	NA	NA	NA	NA	NA	NA	NA	NA
RPD		48.65%	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MS		100	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		370	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		27%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Background Worm	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Background MSO		106	NS	NS	NS	NS	NS	NS	NS	NS	NS
Amount Spiked		330	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Recovery		32%	NA	NA	NA	NA	NA	NA	NA	NA	NA
RPD		16.95%	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		0.08	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Analytical Duplicates</u>											
I-C14	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C14 Duplicate	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C17	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U
I-C17 Duplicate	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE Q.18. (contd)

		<i>N. caecoides</i> Pesticides ($\mu\text{g}/\text{kg}$ wet weight)									
Sediment Treatment	Replicate	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan-sulfate	Endrin	Endrin-aldehyde	Hepta-chlor	Hepta-chlor-Epoxide	Methoxy-chlor	Toxa-phene
Analytical Duplicates (Contd)											
R-PF	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
R-PF Duplicate	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-C7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
I-C7 Duplicate	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C-NE-A	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
C-NE-A Duplicate	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
RPD		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I-Stat		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

(a) Undetected at detection limit.

(b) Untreated worm tissue used for spiking MS and MSD 1 through 8.

(c) Not spiked.

(d) Not applicable.

TABLE Q.19. Surrogate Recoveries for Polychlorinated Biphenyls (PCBs) and Chlorinated Pesticides in Tissue of *N. caecoides*, Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Dibutyl-chlorendate Percent Recovery</u>
I-C3	1	100
I-C3	2	85
I-C3	3	75
I-C3	4	78
I-C3	5	111
I-C5	1	87
I-C5	2	90
I-C5	3	76
I-C5	4	98
I-C5	5	84
I-C7 Replicate 1	1	95
I-C7 Replicate 2	1	99
I-C7	2	91
I-C7	3	94
I-C7	4	92
I-C7	5	101
I-C8	1	93
I-C8	2	110
I-C8	3	103
I-C8	4	112
I-C8	5	118
I-C9	1	77
I-C9	2	93
I-C9	3	79
I-C9	4	91
I-C9	5	95
I-C10	1	102
I-C10	2	85
I-C10	3	110
I-C10	4	112
I-C10	5	88
I-C11	1	104
I-C11	2	72
I-C11	3	113
I-C11	4	83
I-C11	5	217 ^(a)

TABLE Q.19. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Dibutyl- chloroendate Percent Recovery</u>
I-C12	1	104
I-C12	2	115
I-C12	3	90
I-C12	4	102
I-C12	5	94
I-C14	1	110
I-C14 Replicate 1	2	109
I-C14 Replicate 2	2	215
I-C14	3	99
I-C14	4	81
I-C14	5	86
I-C15	1	97
I-C15	2	81
I-C15	3	106
I-C15	4	102
I-C15	5	119
I-C16	1	107
I-C16	2	91
I-C16	3	92
I-C16	4	87
I-C16	5	90
I-C17	1	87
I-C17	2	91
I-C17	3	90
I-C17	4	87
I-C17 Replicate 1	5	89
I-C17 Replicate 2	5	68
I-C18	1	104
I-C18	2	101
I-C18	3	100
I-C18	4	118
I-C18	5	107
I-S1	1	58
I-S1	2	29
I-S1	3	93
I-S1	4	97
I-S1	5	101

TABLE Q.19. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Dibutyl- chloroendate Percent Recovery</u>
I-T1	1	82
I-T1	2	85
I-T1	3	84
I-T1	4	86
I-T1	5	65
I-T3	1	90
I-T3	2	88
I-T3	3	89
I-T3	4	101
I-T3	5	98
R-AC	1	125
R-AC	2	122
R-AC	3	149
R-AC	4	53
R-AC	5	47
R-AM	1	118
R-AM	2	106
R-AM	3	126
R-AM	4	92
R-AM	5	122
R-BF	1	88
R-BF	2	68
R-BF	3	71
R-BF	4	118
R-BF	5	133
R-OS	1	97
R-OS	2	113
R-OS	3	104
R-OS	4	155
R-OS	5	127
R-PC	1	134
R-PC	2	164
R-PC	3	107
R-PC	4	101
R-PC	5	119

TABLE Q.19. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Dibutyl- chloroendate Percent Recovery</u>
R-PF	1	82
R-PF	2	81
R-PF Replicate 1	3	113
R-PF Replicate 2	3	81
R-PF	4	122
R-PF	5	110
C-SB	1	122
C-SB	2	130
C-SB	3	112
C-SB	4	126
C-SB	5	146
C-NE	1	254 ^(a)
C-NE	2	157
C-NE	3	82
C-NE	4	144
C-NE	5	151
C-NE-A Replicate 1	1	95
C-NE-A Replicate 2	1	102
C-NE-A	2	81
C-NE-A	3	107
C-NE-A	4	84
C-NE-A	5	87
Blank 1		106
Blank 2		60
Blank 3		99
Blank 4		100
Blank 5		108
Blank 6		90
Blank 7		46
Background worm ^(b)		75
MS 1		79
MSD 1		77
MS 2		69
MSD 2		104
MS 3		74
MSD 3		74

TABLE Q.19. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Dibutyl- chlorendate Percent Recovery</u>
MS	4	74
MSD	4	83
MS	5	90
MSD	5	36
MS	6	94
MSD	6	81
MS	7	.65
MSD	7	66

-
- (a) Sample was spiked twice with surrogate.
 (b) Untreated worm tissue used for spiking
 MS and MSD 1 through 8.

TABLE Q.20. Metals and Metalloids, Dry Weight, in Tissue of *N. caecoides* after 28-Day Exposure to Sediments, Oakland Phase III A Project

Sediment		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
Detection Limit											
Target DL		1.0	1.0	1.0	1.0	0.1	1.0	1.0	0.1	1.0	0.02
Minimum Achieved DL		0.15	1.5	NA ^(a)	NA	0.84	0.24	NA	NA	NA	NA
Maximum Achieved DL		0.15	2.2	NA	NA	1.2	0.24	NA	NA	NA	NA
I-C3	1	0.58	5.04	13.60	171.0	1.20 U ^(b)	0.43	18.60	1.36	0.03	0.038
I-C3	2	0.58	3.40	11.21	165.6	1.20 U	0.48	18.00	1.10	0.03	0.036
I-C3	3	0.58	2.97	11.14	166.9	1.10 U	0.44	18.40	1.24	0.04	0.038
I-C5	1	0.86	1.50 U	12.29	182.4	0.94 U	0.93	28.30	1.21	0.03	0.036
I-C5	2	0.58	1.86	12.73	169.0	1.10 U	1.05	26.60	1.16	0.02	0.040
I-C5	3	0.58	2.03	10.77	167.1	1.20 U	0.99	25.90	1.23	0.02	0.037
I-C7	1	0.88	2.10	10.77	160.1	0.90 U	0.51	17.90	1.17	0.05	0.038
I-C7	2	0.57	3.21	12.92	175.5	1.16	0.46	18.20	1.21	0.05	0.044
I-C7	3	0.58	2.67	12.12	186.8	0.98 U	0.51	18.10	1.10	0.06	0.038
I-C8	1	0.88	2.86	14.60	181.3	0.94 U	0.40	19.60	1.17	0.09	0.045
I-C8	2	0.56	2.61	14.30	198.0	0.94 U	0.42	19.80	1.05	0.06	0.046
I-C8	3	0.57	1.57	13.70	188.8	1.26	0.39	18.60	1.01	0.06	0.044
I-C9	1	0.33	2.14	15.6	238	1.31	0.93	6.84	1.18	0.04	0.288
I-C9	2	0.34	2.65	11.7	247	1.44	1.02	6.63	1.37	0.06	0.167
I-C9	3	0.23	1.73	10.0	245	1.74	1.03	12.48	0.80	0.06	0.121
I-C9	4	0.78	2.29	13.1	218	1.23	1.55	10.28	1.63	0.03	0.308
I-C9	5	0.26	2.23	13.3	260	2.28	1.07	15.55	0.93	0.02	0.209
I-C10	1	0.58	2.30	10.75	196.0	0.94 U	0.94	18.90	1.30	0.03	0.034
I-C10	2	0.58	2.67	12.34	178.6	1.00 U	0.99	18.10	1.10	0.02	0.034
I-C10	3	0.58	2.66	10.96	189.9	0.99 U	0.97	18.00	1.16	0.03	0.034
I-C11	1	0.96	4.97	19.8	286	1.67	0.63	10.33	1.68	0.10	0.128
I-C11	2	0.20	3.44	7.8	260	1.42	0.34	7.35	1.03	0.02	0.073
I-C11	3	0.32	3.56	10.5	245	1.56	0.24 U	17.13	1.91	0.04	0.103
I-C11	4	0.65	4.31	13.0	292	1.98	0.67	15.47	1.62	0.07	0.094
I-C11	5	0.44	3.58	10.9	227	2.12	0.57	18.17	1.78	0.03	0.472
I-C12	1	0.58	2.73	12.59	183.3	0.94 U	0.99	20.70	1.17	0.05	0.034
I-C12	2	0.58	2.50	12.58	165.8	1.19	1.06	20.40	1.17	0.02	0.034
I-C12	3	0.58	2.07	10.86	177.8	1.14	0.91	21.00	1.17	0.03	0.034

TABLE Q.20. (Contd)

Sediment		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Aq	Hq
I-C14 Replicate 1	1	1.21	3.66	12.0	211	2.26	2.24	11.86	1.13	0.07	0.092
I-C14 Replicate 2	1	1.54	3.31	12.5	266	1.88	1.93	9.27	1.06	0.06	0.092
I-C14 Replicate 1	2	0.81	3.86	13.9	368	1.73	0.82	9.44	1.10	0.06	0.090
I-C14 Replicate 2	2	0.47	3.33	14.7	280	2.00	0.69	7.03	0.92	0.04	0.090
I-C14	3	0.54	1.96	9.1	224	1.16	0.63	4.85	1.14	0.06	0.039
I-C14	4	0.81	3.35	24.6	296	1.15	0.84	5.45	1.58	0.08	0.173
I-C14	5	0.41	2.30	9.2	252	1.48	0.76	8.54	1.29	0.05	0.092
I-C15	1	NM ^(c)	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C15	2	0.44	3.54	8.1	253	1.74	0.56	8.85	1.43	0.05	0.104
I-C15	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C15	4	0.25	2.01	10.1	223	0.96	0.55	4.59	1.54	0.09	0.070
I-C15	5	0.32	2.22	9.1	273	1.92	0.48	7.72	1.53	0.08	0.075
I-C16	1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	5	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C17	1	0.54	2.76	18.7	296	1.88	0.56	8.16	1.46	0.10	0.350
I-C17	2	0.70	2.45	10.3	247	1.94	0.65	11.36	1.28	0.05	0.137
I-C17	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C17	4	1.21	3.56	18.5	320	2.52	0.99	21.08	1.32	0.06	0.440
I-C17	5	0.44	2.15	16.1	244	1.22	0.62	5.76	1.42	0.09	0.171
I-C18	1	0.47	2.85	14.9	240	0.60	0.67	12.41	1.64	0.23	0.096
I-C18	2	1.26	3.21	26.1	266	0.81	0.24 U	12.13	1.29	0.16	0.124
I-C18	3	0.51	1.96	14.0	260	1.51	0.24 U	8.43	1.48	0.10	0.124
I-C18	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C18	5	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-S1	1	0.34	2.74	12.3	264	1.30	1.11	7.36	1.21	0.04	0.358
I-S1	2	0.36	2.03	12.8	242	1.11	1.25	7.01	1.67	0.02	0.307
I-S1	3	0.56	2.30	19.3	283	1.62	1.28	15.32	1.54	0.03	0.321
I-S1	4	0.25	2.30	11.2	444	2.13	1.08	14.65	1.36	0.04	0.170
I-S1	5	0.38	2.41	11.7	252	1.09	0.97	7.11	1.23	0.04	0.089

TABLE Q.20. (Contd)

Sediment		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
I-T1 Replicate 1	1	0.23	3.16	12.8	268	2.50	1.13	14.41	1.41	0.05	0.431
I-T1 Replicate 2	1	0.23	2.65	13.1	298	2.65	1.16	18.21	1.25	0.04	0.505
I-T1	2	1.37	2.13	20.3	241	1.90	1.46	11.56	1.30	0.05	0.446
I-T1	3	0.29	1.89	18.1	212	1.28	1.16	8.10	0.81	0.04	0.306
I-T1	4	0.28	2.76	13.3	238	2.20	1.07	16.50	1.73	0.03	0.337
I-T1	5	0.29	2.52	15.9	254	1.38	1.39	5.74	1.10	0.04	0.263
I-T3	1	0.54	3.23	19.9	239	1.43	0.96	7.61	1.27	0.04	0.316
I-T3	2	0.40	3.17	19.2	222	2.11	1.19	5.98	0.92	0.03	0.761
I-T3	3	0.18	2.27	18.8	244	2.04	1.12	9.94	1.03	0.09	0.443
I-T3	4	0.50	3.90	9.4	212	1.07	1.16	4.55	1.31	0.06	0.080
I-T3	5	0.52	2.86	12.0	253	1.52	1.40	6.88	1.32	0.04	0.238
R-AC	1	0.15	2.40	14.60	191.4	0.86 U	1.14	25.80	1.11	0.04	0.267
R-AC	2	0.29	2.50	16.80	191.0	0.97	1.24	27.30	1.03	0.04	0.271
R-AC	3	0.44	5.30	18.20	192.6	0.86	1.14	26.80	1.11	0.03	0.326
R-AM	1	0.30	2.60	23.50	188.1	0.87	0.96	20.40	1.11	0.06	0.645
R-AM	2	0.30	3.40	26.90	189.7	1.57	0.62	19.40	1.03	0.07	0.665
R-AM	3	0.30	3.30	26.60	188.6	1.07	0.77	19.40	1.25	0.06	0.669
R-BF	1	0.30	2.20	15.70	192.6	1.52	0.74	22.30	1.05	0.04	0.220
R-BF	2	0.29	3.30	15.90	195.3	0.96	0.75	23.10	1.15	0.04	0.202
R-BF	3	0.30	4.56	18.00	189.3	1.58	0.84	22.90	1.18	0.04	0.202
R-OS	1	0.30	2.93	12.80	201.0	1.24	0.66	22.90	1.11	0.06	0.165
R-OS	2	0.59	3.29	16.1	200.0	0.98 U	0.58	22.50	1.10	0.06	0.160
R-OS	3	0.44	2.95	12.01	195.3	0.99 U	0.69	22.90	1.03	0.06	0.124
R-PC	1	0.29	1.92	11.21	198.0	0.97	0.58	19.70	0.89	0.04	0.072
R-PC	2	0.29	2.34	11.61	193.4	1.79	0.69	19.90	0.75	0.04	0.072
R-PC	3	0.15	3.29	9.70	190.5	1.22	0.63	19.50	0.83	0.03	0.071
R-PF	1	0.15	2.27	13.00	186.1	0.89 U	0.66	20.70	1.25	0.04	0.184
R-PF	2	0.15	2.59	13.10	181.6	0.97 U	0.66	20.00	0.96	0.02	0.185
R-PF	3	0.15	2.55	12.33	185.9	1.64	0.51	20.00	0.90	0.03	0.193
C-SB	1	0.30	2.20 U	14.90	182.0	1.55	0.44	21.00	1.04	0.04	0.243
C-SB	2	0.15	2.30	16.70	185.1	0.91	0.44	22.10	1.03	0.04	0.334
C-SB	3	0.30	2.51	15.20	184.4	0.84 U	0.51	21.80	0.97	0.04	0.276

TABLE Q.20. (Contd)

Sediment Treatment	Replicate	<i>N. caecoides</i> Metals (mg/kg dry weight)									
		Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Aq	Hg
C-NE	1	0.30	2.80	14.60	179.9	1.38	0.44	17.70	0.76	0.04	0.301
C-NE	2	0.15	3.00	15.90	185.6	0.90 U	0.88	17.20	0.83	0.06	0.320
C-NE	3	0.15 U	NT ^(d)	NT	NT	NT	0.51	NT	0.89	0.06	0.386
C-NE-A	1	0.15 U	1.48	11.86	168.6	1.10 U	0.48	15.70	1.17	0.04	0.052
C-NE-A	2	0.15 U	1.58	11.59	171.7	1.24	0.55	15.99	0.96	0.03	0.044
C-NE-A	3	0.15	2.28	11.70	171.3	1.10 U	0.55	14.90	1.18	0.03	0.042

(a) Not applicable.

(b) Undetected above given concentration.

(c) Not measured; insufficient sample for analysis (<0.2g dry weight).

(d) Not triplicated.

TABLE Q.21. Metals and Metalloids, Wet Weight, in Tissues of *N. caecoides* after 28-Day Exposure to Sediments, Oakland Phase III A Project

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Metals (mg/kg wet weight)									
			Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
I-C3	1	19.67	0.11	0.99	2.68	33.64	0.24 U ^(a)	0.08	3.66	0.27	0.006	0.0075
I-C3	2	19.67	0.11	0.67	2.21	32.57	0.24 U	0.09	3.54	0.22	0.006	0.0071
I-C3	3	19.67	0.11	0.58	2.19	32.83	0.22 U	0.09	3.62	0.24	0.008	0.0075
I-C5	1	18.75	0.16	0.28 U	2.30	34.20	0.18 U	0.17	5.31	0.23	0.006	0.0068
I-C5	2	18.75	0.11	0.35	2.39	31.69	0.21 U	0.20	4.99	0.22	0.004	0.0075
I-C5	3	18.75	0.11	0.38	2.02	31.33	0.23 U	0.19	4.86	0.23	0.004	0.0069
I-C7	1	18.25	0.16	0.38	1.97	29.22	0.16 U	0.09	3.27	0.21	0.009	0.0069
I-C7	2	18.25	0.10	0.59	2.36	32.03	0.21	0.08	3.32	0.22	0.009	0.0080
I-C7	3	18.25	0.11	0.49	2.21	34.09	0.18 U	0.09	3.30	0.20	0.011	0.0069
I-C8	1	18.82	0.17	0.54	2.75	34.12	0.18 U	0.08	3.69	0.22	0.017	0.0085
I-C8	2	18.82	0.11	0.49	2.69	37.26	0.18 U	0.08	3.73	0.20	0.011	0.0087
I-C8	3	18.82	0.11	0.30	2.58	35.53	0.24	0.07	3.50	0.19	0.011	0.0083
I-C9	1	19.81	0.07	0.42	3.09	47.15	0.26	0.18	1.36	0.23	0.008	0.057
I-C9	2	18.34	0.06	0.49	2.15	45.30	0.26	0.19	1.22	0.25	0.011	0.031
I-C9	3	18.88	0.04	0.33	1.89	46.26	0.33	0.19	2.36	0.15	0.011	0.023
I-C9	4	20.63	0.16	0.47	2.70	44.97	0.25	0.32	2.12	0.34	0.006	0.064
I-C9	5	21.35	0.06	0.48	2.84	55.51	0.49	0.23	3.32	0.20	0.004	0.045
I-C10	1	18.04	0.10	0.41	1.94	35.36	0.17 U	0.17	3.41	0.23	0.005	0.0061
I-C10	2	18.04	0.10	0.48	2.23	32.22	0.18 U	0.18	3.27	0.20	0.004	0.0061
I-C10	3	18.04	0.10	0.48	1.98	34.26	0.18 U	0.17	3.25	0.21	0.005	0.0061
I-C11	1	18.57	0.18	0.92	3.68	53.11	0.31	0.12	1.92	0.31	0.019	0.024
I-C11	2	15.89	0.03	0.55	1.24	41.31	0.23	0.05	1.17	0.16	0.003	0.012
I-C11	3	18.39	0.06	0.65	1.93	45.06	0.29	0.04 U	3.15	0.35	0.007	0.019
I-C11	4	16.98	0.11	0.73	2.21	49.58	0.34	0.11	2.63	0.28	0.012	0.016
I-C11	5	15.69	0.07	0.56	1.71	35.62	0.33	0.09	2.85	0.28	0.005	0.074
I-C12	1	22.49	0.13	0.61	2.83	41.22	0.21 U	0.22	4.66	0.26	0.011	0.0076
I-C12	2	22.49	0.13	0.56	2.83	37.29	0.27	0.24	4.59	0.26	0.004	0.0076
I-C12	3	22.49	0.13	0.47	2.44	39.99	0.26	0.20	4.72	0.26	0.007	0.0076

TABLE Q.21. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Metals (mg/kg wet weight)									
			Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Aq	Hq
I-C14 Replicate 1	1	20.81	0.25	0.76	2.50	43.91	0.47	0.47	2.47	0.24	0.015	0.019
I-C14 Replicate 2	1	20.81	0.32	0.69	2.60	55.35	0.39	0.40	1.93	0.22	0.012	0.019
I-C14 Replicate 1	2	19.89	0.16	0.77	2.76	73.20	0.34	0.16	1.88	0.22	0.012	0.018
I-C14 Replicate 2	2	19.89	0.09	0.66	2.92	55.69	0.40	0.14	1.40	0.18	0.008	0.018
I-C14	3	18.95	0.10	0.37	1.72	42.45	0.22	0.12	0.92	0.22	0.011	0.007
I-C14	4	18.94	0.15	0.63	4.66	56.06	0.22	0.16	1.03	0.30	0.015	0.033
I-C14	5	18.68	0.08	0.43	1.72	47.07	0.28	0.14	1.60	0.24	0.009	0.017
I-C15	1	16.26	NM ^(b)	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C15	2	15.25	0.07	0.54	1.24	38.58	0.27	0.09	1.35	0.22	0.008	0.016
I-C15	3	16.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C15	4	17.45	0.04	0.35	1.76	38.91	0.17	0.10	0.80	0.27	0.016	0.012
I-C15	5	16.32	0.05	0.36	1.49	44.55	0.31	0.08	1.26	0.25	0.013	0.012
I-C16	1	21.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	2	19.42	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	3	19.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	4	18.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C16	5	20.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C17	1	19.01	0.10	0.52	3.55	56.27	0.36	0.11	1.55	0.28	0.019	0.067
I-C17	2	20.20	0.14	0.49	2.08	49.89	0.39	0.13	2.29	0.26	0.010	0.028
I-C17	3	19.67	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C17	4	20.83	0.25	0.74	3.85	66.66	0.52	0.21	4.39	0.27	0.012	0.092
I-C17	5	18.52	0.08	0.40	2.98	45.19	0.23	0.11	1.07	0.26	0.017	0.032
I-C18	1	19.85	0.09	0.57	2.96	47.64	0.12	0.13	2.46	0.33	0.046	0.019
I-C18	2	21.09	0.27	0.68	5.50	56.10	0.17	0.05 U	2.56	0.27	0.034	0.026
I-C18	3	17.72	0.09	0.35	2.48	46.07	0.27	0.04 U	1.49	0.26	0.018	0.022
I-C18	4	16.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-C18	5	18.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
I-S1	1	18.11	0.06	0.50	2.23	47.81	0.24	0.20	1.33	0.22	0.007	0.065
I-S1	2	19.48	0.07	0.40	2.49	47.14	0.22	0.24	1.37	0.33	0.004	0.060
I-S1	3	19.05	0.11	0.44	3.68	53.91	0.31	0.24	2.92	0.29	0.006	0.061
I-S1	4	21.18	0.05	0.49	2.37	94.04	0.45	0.23	3.10	0.29	0.008	0.036
I-S1	5	18.96	0.07	0.46	2.22	47.78	0.21	0.18	1.35	0.23	0.008	0.017

TABLE Q.21. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Metals (mg/kg wet weight)									
			Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
I-T1 Replicate 1	1	19.62	0.05	0.62	2.51	52.58	0.49	0.22	2.83	0.28	0.010	0.085
I-T1 Replicate 2	1	19.62	0.05	0.52	2.57	58.47	0.52	0.23	3.57	0.25	0.008	0.099
I-T1	2	18.61	0.25	0.40	3.78	44.85	0.35	0.27	2.15	0.24	0.009	0.083
I-T1	3	20.19	0.06	0.38	3.65	42.80	0.26	0.23	1.64	0.16	0.008	0.062
I-T1	4	19.82	0.06	0.55	2.64	47.17	0.44	0.21	3.27	0.34	0.006	0.067
I-T1	5	18.93	0.05	0.48	3.01	48.08	0.26	0.26	1.09	0.21	0.008	0.050
I-T3	1	20.21	0.11	0.65	4.02	48.30	0.29	0.19	1.54	0.26	0.008	0.064
I-T3	2	19.31	0.08	0.61	3.71	42.87	0.41	0.23	1.15	0.18	0.006	0.147
I-T3	3	18.64	0.03	0.42	3.50	45.48	0.38	0.21	1.85	0.19	0.017	0.083
I-T3	4	19.11	0.10	0.75	1.80	40.51	0.20	0.22	0.87	0.25	0.011	0.015
I-T3	5	20.51	0.11	0.59	2.46	51.89	0.31	0.29	1.41	0.27	0.008	0.049
R-AC	1	17.31	0.03	0.42	2.53	33.13	0.15 U	0.20	4.47	0.19	0.007	0.0462
R-AC	2	17.31	0.05	0.43	2.91	33.06	0.17	0.21	4.73	0.18	0.007	0.0469
R-AC	3	17.31	0.08	0.92	3.15	33.34	0.15	0.20	4.64	0.19	0.005	0.0564
R-AM	1	15.72	0.05	0.41	3.69	29.57	0.14	0.15	3.21	0.17	0.009	0.1014
R-AM	2	15.72	0.05	0.53	4.23	29.82	0.25	0.10	3.05	0.16	0.011	0.1045
R-AM	3	15.72	0.05	0.52	4.18	29.65	0.17	0.12	3.05	0.20	0.009	0.1052
R-BF	1	16.21	0.05	0.36	2.54	31.22	0.25	0.12	3.61	0.17	0.006	0.0357
R-BF	2	16.21	0.05	0.53	2.58	31.66	0.16	0.12	3.74	0.19	0.006	0.0327
R-BF	3	16.21	0.05	0.74	2.92	30.69	0.26	0.14	3.71	0.19	0.006	0.0327
R-OS	1	14.07	0.04	0.41	1.80	28.28	0.17	0.09	3.22	0.16	0.008	0.0232
R-OS	2	14.07	0.08	0.46	2.27	28.14	0.14 U	0.08	3.17	0.15	0.008	0.0225
R-OS	3	14.07	0.06	0.42	1.69	27.48	0.14 U	0.10	3.22	0.14	0.008	0.0174
R-PC	1	15.66	0.05	0.30	1.76	31.01	0.15	0.09	3.09	0.14	0.006	0.0113
R-PC	2	15.66	0.05	0.37	1.82	30.29	0.28	0.11	3.12	0.12	0.006	0.0113
R-PC	3	15.66	0.02	0.52	1.52	29.83	0.19	0.10	3.05	0.13	0.005	0.0111
R-PF	1	15.22	0.02	0.35	1.98	28.32	0.14 U	0.10	3.15	0.19	0.006	0.0280
R-PF	2	15.22	0.02	0.39	1.99	27.64	0.15 U	0.10	3.04	0.15	0.003	0.0282
R-PF	3	15.22	0.02	0.39	1.88	28.29	0.25	0.08	3.04	0.14	0.005	0.0294
C-SB	1	15.00	0.05	0.33 U	2.24	27.30	0.23	0.07	3.15	0.16	0.006	0.0365
C-SB	2	15.00	0.02	0.35	2.51	27.77	0.14	0.07	3.32	0.15	0.006	0.0501
C-SB	3	15.00	0.05	0.38	2.28	27.66	0.13 U	0.08	3.27	0.15	0.006	0.0414

TABLE 0.21. (Contd)

Sediment Treatment	Replicate	Percent Dry Weight	<i>N. caecoides</i> Metals (mg/kg wet weight)									
			Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
C-NE	1	11.35	0.03	0.32	1.66	20.42	0.16	0.05	2.01	0.09	0.005	0.0342
C-NE	2	11.35	0.02	0.34	1.80	21.07	0.10 U	0.10	1.95	0.09	0.007	0.0363
C-NE	3	11.35	0.02 U	NT ^(c)	NT	NT	NT	0.06	NT	0.10	0.007	0.0438
C-NE-A	1	15.56	0.02 U	0.23	1.85	26.23	0.17 U	0.07	2.44	0.18	0.006	0.008
C-NE-A	2	15.56	0.02 U	0.25	1.80	26.72	0.19	0.09	2.49	0.15	0.005	0.007
C-NE-A	3	15.56	0.02	0.35	1.82	26.65	0.17 U	0.09	2.32	0.18	0.005	0.007

(a) Undetected above given concentration.

(b) Not measured; insufficient sample for analysis (<0.2g dry weight).

(c) Not triplicated.

TABLE Q.22. Quality Control Data for Metals, Dry Weight, in Tissue of *N. caecoides* after 28-Day Exposure to Sediments, Oakland Phase III A Project

Sample		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
<u>Method Blanks</u>											
Blank	1	0.15 U ^(a)	NM ^(b)	NM	NM	NM	0.06 U	NM	0.07 U	0.01 U	0.001 U
Blank	2	0.15 U	NM	NM	NM	NM	0.06 U	NM	0.07 U	0.01 U	0.001 U
Blank	3	0.29 U	NM	NM	NM	NM	0.06 U	NM	0.07 U	0.02 U	0.001 U
Blank	4	0.29 U	NM	NM	1 U	NM	0.24 U	NM	0.07 U	0.02 U	0.001 U
Blank	7	0.06	0.27	1.22	1 U	0.18 U	0.24 U	0.91	0.003 U	0.01 U	0.001
Blank	8	0.06	0.40	1.26	1 U	0.18 U	0.24 U	0.94	0.003 U	0.01 U	0.001 U
Blank	9	0.06	0.33	1.22	1 U	0.18 U	0.24 U	1.04	0.003 U	0.01 U	0.001
<u>Matrix Spikes</u>											
I-T1	5	0.29	2.52	15.9	254	1.38	1.39	5.74	1.10	0.04	0.263
I-T1 MS	5	21.05	20.00	197.2	1198	21.26	24.22	94.67	12.20	3.66	4.259
Amount Spiked		21.00	21.00	210.00	1050	20.99	21.00	104.95	10.50	4.20	4.198
Percent Recovery		98.86%	83.24%	86.33%	89.90%	94.71%	108.71%	84.74%	105.71%	86.19%	95.19%
I-S1	4	0.25	2.30	11.2	444	2.13	1.08	14.65	1.36	0.04	0.170
I-S1 MS	4	15.28	15.82	152.3	1678	16.06	18.18	81.54	9.68	2.88	3.013
Amount Spiked		16.2	16.2	162	812	16.24	16.2	81.20	8.10	3.25	3.248
Percent Recovery		92.78%	83.46%	87.10%	151.97%	85.78%	105.56%	82.38%	102.72%	87.38%	87.53%
I-C12		0.58	-(c)	-(c)	-(c)	-(c)	0.99	-(c)	1.17	0.03	0.034
I-C12 MS		11.42	-	-	-	-	10.11	-	6.40	1.66	1.804
Amount Spiked		10.00	-	-	-	-	10.00	-	5.00	1.99	2.00
Percent Recovery		108.40%	-	-	-	-	91.20%	-	104.60%	81.91%	88.50%
<u>Standard Reference Material by AA Analysis</u>											
Certified Value		1.43 ±0.46	2.25 ±0.44	66.3 ±4.3	827 ±57	2.21 ±0.24	0.371 ±0.014	14 ±1	4.15 ±0.38	1.68 ±0.15	0.0642 ±0.0067
SRM 1566a	3	1.05	NM	66.6	727 ^(d)	NM	0.329 ^(d)	NM	4.37	NM	NM
SRM 1566a	4	NM	NM	NM	697 ^(d)	2.19	NM	NM	NM	NM	NM
SRM 1566a	5	1.08	NM	NM	NM	2.20	NM	12.26 ^(d)	NM	NM	NM
SRM 1566a	5	NM	NM	NM	NM	2.24	0.39 ^(d)	NM	4.51	1.56	0.065
SRM 1566a	5	1.08	2.26	64.8	727 ^(d)	2.28	0.325 ^(d)	NM	4.32	NM	NM
SRM 1566a	6	NM	2.18	65.2	740 ^(d)	2.18	0.396 ^(d)	10.05 ^(d)	NM	NM	NM
SRM 1566a	6	1.03	2.12	NM	NM	NM	NM	10.39 ^(d)	NM	NM	NM
SRM 1566a	6	NM	NM	NM	NM	NM	0.360	10.39 ^(d)	4.54	1.56	0.062

TABLE Q.22. (Contd)

Sample		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Aq	Hg
Standard Reference Material by AA Analysis (Contd)											
SRM 1566a	7	1.33	NM	NM	NM	NM	0.365	NM	4.84 ^(d)	1.59	0.061
SRM 1566a	8	1.16	NM	NM	NM	NM	0.360	NM	4.97 ^(d)	1.72	0.062
SRM 1566a	9	1.72	NM	NM	NM	NM	0.39 ^(d)	NM	4.75 ^(d)	1.59	0.065
SRM 1566a	10	1.72	NM	NM	NM	NM	0.39 ^(d)	NM	4.67 ^(d)	1.58	0.059
Standard Reference Material by XRF Analysis											
Certified Value		1.43 ±0.46	2.25 ±0.44	66.3 ±4.3	827 ±57	2.21 ±0.24	0.371 ±0.014	14 ±1	4.15 ±0.38	1.68 ±0.15	0.0642 ±0.0067
SRM 1566a	1	NA ^(e)	1.84	66.3	836	2.40 ^(d)	NA	13.91	NA	NA	NA
SRM 1566a	1	NA	2.06	65.1	837	2.90 ^(d)	NA	14.46	NA	NA	NA
SRM 1566a	1	NA	2.38	64.8	848	2.05	NA	14.75	NA	NA	NA
SRM 1566a	1	NA	2.26	69.4	857	2.13	NA	14.68	NA	NA	NA
SRM 1566a	1	NA	1.78 ^(d)	65.5	846	2.39	NA	13.99	NA	NA	NA
SRM 1566a	2	NA	2.64	67.3	851	1.79	NA	14.57	NA	NA	NA
SRM 1566a	3	NA	2.42	66.3	867	2.14	NA	14.21	NA	NA	NA
SRM 1566a	3	NA	2.28	67.0	856	2.29	NA	14.57	NA	NA	NA
SRM 1566a	4	NA	2.22	70.0	863	2.25	NA	14.73	NA	NA	NA
SRM 1566a	5	NA	1.61 ^(d)	66.3	832	2.36	NA	14.81	NA	NA	NA
SRM 1566a	5	NA	1.87	65.8	828	2.02	NA	14.13	NA	NA	NA
SRM 1566a	6	NA	1.91	65.9	843	2.39	NA	14.06	NA	NA	NA
SRM 1566a	7	NA	2.60	65.6	850	3.36 ^(d)	NA	14.43	NA	NA	NA
SRM 1566a	7	NA	2.50	66.2	845	2.32	NA	14.15	NA	NA	NA
SRM 1566a	8	NA	2.27	68.5	866	2.55 ^(d)	NA	14.26	NA	NA	NA
SRM 1566a	8	NA	1.79 ^(d)	66.4	866	2.20	NA	14.96	NA	NA	NA
Analytical Replicates											
I-C14 Replicate 1	1	1.21	3.66	12.0	211	2.26	2.24	11.86	1.13	0.07	0.092
I-C14 Replicate 2	1	1.54	3.31	12.5	266	1.88	1.93	9.27	1.06	0.06	0.092
RPD		24.00%	10.04%	4.08%	23.06%	18.36%	14.87%	24.51%	6.39%	15.38%	0.00%
I-Stat		0.12	0.05	0.02	0.12	0.09	0.07	0.12	0.032	0.077	0.000
I-C14 Replicate 1	2	0.81	3.86	13.9	368	1.73	0.82	9.44	1.10	0.06	0.090
I-C14 Replicate 2	2	0.47	3.33	14.7	280	2.00	0.69	7.03	0.92	0.04	0.090
RPD		53.13%	14.74%	5.59%	27.16%	14.48%	17.22%	29.27%	17.82%	40.00%	0.00%
I-Stat		0.27	0.07	0.03	0.14	0.07	0.09	0.15	0.089	0.200	0.000

TABLE Q.22. (Contd)

Sample		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
<u>Analytical Duplicates</u> (Contd)											
I-T1 Replicate 1	1	0.23	3.16	12.8	268	2.50	1.13	14.41	1.41	0.05	0.431
I-T1 Replicate 2	1	0.23	2.65	13.1	298	2.65	1.16	18.21	1.25	0.04	0.505
RPD		0.00%	17.56%	2.32%	10.60%	5.83%	2.62%	23.30%	12.03%	22.22%	15.81%
I-Stat		0.00	0.09	0.01	0.05	0.03	0.01	0.12	0.060	0.111	0.079
C-NE	1	ST ^(f)	2.80	14.60	179.9	1.38	ST	17.70	ST	ST	ST
C-NE	2	ST	3.00	15.90	185.6	0.90 U	ST	17.20	ST	ST	ST
RPD		NA	6.90%	8.52%	3.12%	NA	NA	2.87%	NA	NA	NA
I-Stat		NA	0.03	0.04	0.02	NA	NA	0.01	NA	NA	NA
<u>Analytical Triplicates</u>											
I-C3	1	0.58	5.04	13.60	171.0	1.20 U	0.43	18.60	1.36	0.03	0.038
I-C3	2	0.58	3.40	11.21	165.6	1.20 U	0.48	18.00	1.10	0.03	0.036
I-C3	3	0.58	2.97	11.14	166.9	1.10 U	0.44	18.40	1.24	0.04	0.038
RSD		0.00%	28.72%	11.69%	1.68%	NA	5.88%	1.67%	10.55%	17.32%	3.09%
I-C5	1	0.86	1.50 U	12.29	182.4	0.94 U	0.93	28.30	1.21	0.03	0.036
I-C5	2	0.58	1.86	12.73	169.0	1.10 U	1.05	26.60	1.16	0.02	0.040
I-C5	3	0.58	2.03	10.77	167.1	1.20 U	0.99	25.90	1.23	0.02	0.037
RSD		24.01%	NA	8.62%	4.83%	NA	6.06%	4.58%	3.00%	24.74%	5.53%
I-C7	1	0.88	2.10	10.77	160.1	0.90 U	0.51	17.90	1.17	0.05	0.038
I-C7	2	0.57	3.21	12.92	175.5	1.16	0.46	18.20	1.21	0.05	0.044
I-C7	3	0.58	2.67	12.12	186.8	0.98 U	0.51	18.10	1.10	0.06	0.038
RSD		26.03%	20.87%	9.10%	7.70%	NA	5.85%	0.85%	4.80%	10.83%	6.66%
I-C8	1	0.88	2.86	14.60	181.3	0.94 U	0.40	19.60	1.17	0.09	0.045
I-C8	2	0.56	2.61	14.30	198.0	0.94 U	0.42	19.80	1.05	0.06	0.046
I-C8	3	0.57	1.57	13.70	188.8	1.26	0.39	18.60	1.01	0.06	0.044
RSD		27.15%	29.15%	3.23%	4.42%	NA	3.79%	3.33%	7.73%	24.74%	2.22%
I-C10	1	0.58	2.30	10.75	196.0	0.94 U	0.94	18.90	1.30	0.03	0.034
I-C10	2	0.58	2.67	12.34	178.6	1.00 U	0.99	18.10	1.10	0.02	0.034
I-C10	3	0.58	2.66	10.96	189.9	0.99 U	0.97	18.00	1.16	0.03	0.034
RSD		0.00%	8.29%	7.61%	4.69%	NA	2.60%	2.69%	8.65%	21.65%	0.00%

TABLE Q.22. (Contd)

Sample		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Ag	Hg
Analytical Triplicates (Contd)											
I-C12	1	0.58	2.73	12.59	183.3	0.94 U	0.99	20.70	1.17	0.05	0.034
I-C12	2	0.58	2.50	12.58	165.8	1.19	1.06	20.40	1.17	0.02	0.034
I-C12	3	0.58	2.07	10.86	177.8	1.14	0.91	21.00	1.17	0.03	0.034
RSD		0.00%	13.77%	8.29%	5.10%	NA	7.61%	1.45%	0.00%	45.83%	0.00%
R-AC	1	0.15	2.40	14.60	191.4	0.86 U	1.14	25.80	1.11	0.04	0.267
R-AC	2	0.29	2.50	16.80	191.0	0.97	1.24	27.30	1.03	0.04	0.271
R-AC	3	0.44	5.30	18.20	192.6	0.86	1.14	26.80	1.11	0.03	0.326
RSD		49.44%	48.42%	10.98%	0.43%	NA	4.92%	2.87%	4.26%	15.75%	11.45%
R-AM	1	0.30	2.60	23.50	188.1	0.87	0.96	20.40	1.11	0.06	0.645
R-AM	2	0.30	3.40	26.90	189.7	1.57	0.62	19.40	1.03	0.07	0.665
R-AM	3	0.30	3.30	26.60	188.6	1.07	0.77	19.40	1.25	0.06	0.669
RSD		0.00%	14.06%	7.33%	0.43%	30.82%	21.75%	2.93%	9.85%	9.12%	1.95%
R-BF	1	0.30	2.20	15.70	192.6	1.52	0.74	22.30	1.05	0.04	0.220
R-BF	2	0.29	3.30	15.90	195.3	0.96	0.75	23.10	1.15	0.04	0.202
R-BF	3	0.30	4.56	18.00	189.3	1.58	0.84	22.90	1.18	0.04	0.202
RSD		1.95%	35.22%	7.71%	1.56%	25.27%	7.09%	1.83%	6.04%	0.00%	5.00%
R-OS	1	0.30	2.93	12.80	201.0	1.24	0.66	22.90	1.11	0.06	0.165
R-OS	2	0.59	3.29	16.1	200.0	0.98 U	0.58	22.50	1.10	0.06	0.160
R-OS	3	0.44	2.95	12.01	195.3	0.99 U	0.69	22.90	1.03	0.06	0.124
RSD		32.71%	6.62%	15.91%	1.53%	NA	8.84%	1.01%	4.04%	0.00%	14.95%
R-PC	1	0.29	1.92	11.21	198.0	0.97	0.58	19.70	0.89	0.04	0.072
R-PC	2	0.29	2.34	11.61	193.4	1.79	0.69	19.90	0.75	0.04	0.072
R-PC	3	0.15	3.29	9.70	190.5	1.22	0.63	19.50	0.83	0.03	0.071
RSD		33.22%	27.89%	9.29%	1.95%	31.68%	8.70%	1.02%	8.53%	15.75%	0.81%
R-PF	1	0.15	2.27	13.00	186.1	0.89 U	0.66	20.70	1.25	0.04	0.184
R-PF	2	0.15	2.59	13.10	181.6	0.97 U	0.66	20.00	0.96	0.02	0.185
R-PF	3	0.15	2.55	12.33	185.9	1.64	0.51	20.00	0.90	0.03	0.193
RSD		0.00%	7.06%	3.27%	1.38%	NA	14.20%	2.00%	18.06%	33.33%	2.63%
C-SB	1	0.30	2.20 U	14.90	182.0	1.55	0.44	21.00	1.04	0.04	0.243
C-SB	2	0.15	2.30	16.70	185.1	0.91	0.44	22.10	1.03	0.04	0.334
C-SB	3	0.30	2.51	15.20	184.4	0.84 U	0.51	21.80	0.97	0.04	0.276
RSD		34.64%	NA	6.18%	0.88%	NA	8.72%	2.63%	3.74%	0.00%	16.20%

TABLE Q.22. (Contd)

Sample		<i>N. caecoides</i> Metals (mg/kg dry weight)									
Treatment	Replicate	Cr	Ni	Cu	Zn	Se	Pb	As	Cd	Aq	Hg
Analytical Triplicates (Contd)											
C-NE	1	0.30	SD ^(g)	SD	SD	SD	0.44	SD	0.76	0.04	0.301
C-NE	2	0.15	SD	SD	SD	SD	0.88	SD	0.83	0.06	0.320
C-NE	3	0.15 U	SD	SD	SD	SD	0.51	SD	0.89	0.06	0.386
RSD		NA	NA	NA	NA	NA	38.76%	NA	7.87%	21.65%	13.29%
C-NE-A	1	0.15 U	1.48	11.86	168.6	1.10 U	0.48	15.70	1.17	0.04	0.052
C-NE-A	2	0.15 U	1.58	11.59	171.7	1.24	0.55	15.99	0.96	0.03	0.044
C-NE-A	3	0.15	2.28	11.70	171.3	1.10 U	0.55	14.90	1.18	0.03	0.042
RSD		NA	24.49%	1.16%	0.99%	NA	7.67%	3.64%	11.26%	17.32%	11.50%

(a) Undetected above given concentration.

(b) Not measured.

(c) This metal was analyzed by XRF method which precludes spiking.

(d) Value out of certified range.

(e) Not applicable.

(f) Sample analyzed in triplicate for these metals.

(g) Sample analyzed in duplicate for these metals.

TABLE Q.23. Butyltins in Tissues of *N. caecoides*, Oakland Phase III A Project

Sediment Treatment	Replicate	Butyltin Species ($\mu\text{g/g}$ wet weight)			Percent Dry Weight	Butyltin Species ($\mu\text{g/g}$ dry weight)		
		Tri-butyl	Di-butyl	Mono-butyl		Tri-butyl	Di-butyl	Mono-butyl
DL Goals		10	10	10		NA ^(a)	NA	NA
DL Achieved		23	11	10		NA	NA	NA
I-C3	1	13.040 J ^(b)	4.888 J	4.455 J	19.81	65.824 J	24.674 J	22.489 J
I-C3	2	14.159 J	5.097 J	3.26 J	20.06	70.581 J	25.409 J	16.251 J
I-C3	3	23.300 U ^(c)	6.042 J	4.647 J	20.34	114.553 U	29.705 J	22.847 J
I-C3	4	23.300 U	5.828 J	5.345 J	19.77	117.855 U	29.479 J	27.036 J
I-C3	5	14.122 J	6.236 J	5.193 J	18.39	76.790 J	33.910 J	28.238 J
I-C5	1	2.319 J	9.99 J	10.000 U	18.78	12.348 J	53.195 J	53.248 U
I-C5	2	23.300 U	3.869 J	10.000 U	19.90	117.085 U	19.442 J	50.251 U
I-C5	3	23.300 U	11.000 U	10.000 U	17.63	132.161 U	62.394 U	56.722 U
I-C5	4	1.916 J	3.808 J	10.000 U	18.13	10.566 J	21.004 J	55.157 U
I-C5	5	7.431 J	11.000 U	10.000 U	19.31	38.482 J	56.965 U	51.787 U
I-C7	1	23.300 U	3.214 J	10.000 U	14.64	159.153 U	21.954 J	68.306 U
I-C7	2	5.882 J	4.706 J	10.000 U	19.33	30.428 J	24.346 J	51.733 U
I-C7	3	23.300 U	4.839 J	3.212 J	19.01	122.567 U	25.455 J	16.896 J
I-C7	4	7.972 J	7.038 J	10.000 U	19.31	41.285 J	36.447 J	51.787 U
I-C7	5	23.300 U	11.000 U	10.000 U	18.97	122.826 U	57.986 U	52.715 U
I-C8	1	15.679 J	11.000 U	10.000 U	21.13	74.203 J	52.059 U	47.326 U
I-C8	2	12.446 J	8.028 J	10.000 U	20.53	60.622 J	39.104 J	48.709 U
I-C8	3	19.636 J	7.376 J	10.000 U	19.83	99.021 J	37.196 J	50.429 U
I-C8	4	19.892 J	6.097 J	10.000 U	20.00	99.462 J	30.485 J	50.000 U
I-C8	5	16.424 J	8.146 J	10.000 U	12.72	129.118 J	64.041 J	78.616 U
I-C9	1	23.300 U	11.000 U	6.404 J	19.81	117.617 U	55.528 U	32.327 J
I-C9	2	23.300 U	1.819 J	2.958 J	18.34	127.045 U	9.918 J	16.129 J
I-C9	3	23.300 U	3.634 J	5.21 J	18.88	123.411 U	19.250 J	27.595 J
I-C9	4	23.300 U	3.177 J	6.405 J	20.63	112.942 U	15.400 E ^(d)	31.047 E
I-C9	5	23.300 U	11.000 U	4.007 J	21.35	109.134 U	51.522 U	18.768 J
I-C10	1	33.586 E	11.000 U	10.000 U	16.96	198.031 E	64.859 U	58.962 U
I-C10 ^(e)	2	3.649 JE ^(f)	3.538 JE	10.000 U	16.67	21.892 JE	21.224 JE	59.988 U
I-C10	3	4.244 J	4.23 J	10.000 U	17.90	23.707 J	23.631 J	55.866 U
I-C10	4	23.300 U	6.434 J	10.000 U	22.08	105.525 U	29.139 J	45.290 U
I-C10	5	41.581	17.3	10.000 U	16.59	250.641	104.280	60.277 U

TABLE Q.23. (Contd)

Sediment Treatment	Replicate	Butyltin Species ($\mu\text{g/g}$ wet weight)			Percent Dry Weight	Butyltin Species ($\mu\text{g/g}$ dry weight)		
		Tri-butyl	Di-butyl	Mono-butyl		Tri-butyl	Di-butyl	Mono-butyl
I-C11	1	23.300 U	1.115 J	9.961 J	18.57	125.471 U	6.005 J	53.640 J
I-C11	2	23.300 U	0.686 J	3.732 J	15.89	146.633 U	4.318 J	23.486 J
I-C11	3	23.300 U	11.000 U	28.071	18.39	126.699 U	59.815 U	152.643
I-C11	4	8.348 J	7.409 J	15.092	16.98	49.164 J	43.634 J	88.881
I-C11	5	23.300 U	5.651 J	12.11	15.69	148.502 U	36.017 J	77.183
I-C12(g)	1	34.304	11.316	3.193 J	19.59	175.110	57.764	16.299 J
I-C12	2	11.662 J	5.476 J	10.000 U	16.06	72.613 J	34.097 J	62.267 U
I-C12	3	15.302 J	5.337 J	10.000 U	21.64	70.710 J	24.663 J	46.211 U
I-C12	4	8.379 J	4.197 J	10.000 U	20.05	41.791 J	20.933 J	49.875 U
I-C12	5	18.866 J	7.094 J	2.079 J	20.61	91.540 J	34.420 J	10.087 J
I-C14	1	23.300 U	6.888 J	11.65	20.81	111.965 U	33.099 J	55.983
I-C14	2	23.300 U	2.78 J	4.946 J	19.89	117.144 U	13.977 J	24.867 J
I-C14	3	9.449 J	5.324 J	4.511 J	18.95	49.864 J	28.095 J	23.805 J
I-C14	4	5.833 J	7.846 J	3.298 J	18.94	30.796 J	41.426 J	17.413 J
I-C14	5	6.758 J	5.948 J	2.844 J	18.68	36.179 J	31.842 J	15.225 J
I-C15	1	23.300 U	11.000 U	60.227	16.26	143.296 U	67.651 U	370.400
I-C15	2	23.300 U	11.000 U	18.137	15.25	152.787 U	72.131 U	118.931
I-C15(g)	3	21.017 J	7.93 J	60.354	16.32	128.780 J	48.590 J	369.820
I-C15	4	23.300 U	11.000 U	13.527	17.45	133.524 U	63.037 U	77.519
I-C15(g)	5	23.300 U	13.919	14.634	16.32	142.770 U	85.290	89.670
I-C16	1	18.593 J	13.338	8.154 J	21.05	88.329 J	63.363	38.736 J
I-C16	2	10.437 J	11.658	10.273	19.42	53.743 J	60.031	52.899
I-C16	3	16.915 J	12.005	10.000 U	19.81	85.384 J	60.601	50.480 U
I-C16	4	8.885 J	11.000 U	17.901	18.48	48.078 J	59.524 U	96.867
I-C16	5	19.534 J	11.000 U	49.728	20.90	93.463 J	52.632 U	237.933
I-C17	1	23.300 U	6.047 J	3.532 J	19.01	122.567 U	31.810 J	18.580 J
I-C17	2	23.300 U	11.000 U	8.193 J	20.20	115.347 U	54.455 U	40.559 J
I-C17	3	35.231	11.000 U	10.000 U	19.67	179.112	55.923 U	50.839 U
I-C17	4	5.952 J	11.000 U	10.000 U	20.83	28.574 J	52.808 U	48.008 U
I-C17	5	4.664 J	6.475 J	10.000 U	18.52	25.185 J	34.962 J	53.996 U
I-C18	1	23.300 U	11.000 U	45.354	19.85	117.380 U	55.416 U	228.484 E
I-C18	2	23.300 U	16.104	10.139	21.09	110.479 U	76.358	48.075
I-C18	3	4.151 J	6.779 J	18.357	17.72	23.426 J	38.256 J	103.595
I-C18	4	23.300 U	8.854 J	47.886	16.49	141.298 U	53.693 J	290.394
I-C18	5	23.300 U	16.208	73.35	18.05	129.086 U	89.795	406.371

TABLE Q.23. (Contd)

Sediment Treatment	Replicate	Butyltin Species (µg/g wet weight)			Percent Dry Weight	Butyltin Species (µg/g dry weight)		
		Tri-butyl	Di-butyl	Mono-butyl		Tri-butyl	Di-butyl	Mono-butyl
I-S1	1	23.300 U	11.000 U	8.118 J	18.11	128.658 U	60.740 U	44.826 J
I-S1	2	23.300 U	1.471 J	7.716 J	19.48	119.610 U	7.552 J	39.610 J
I-S1	3	3.757 J	5.840 J	13.824	19.05	19.721 JE	30.658 JE	72.567 E
I-S1	4	23.300 U	2.275 J	7.014 J	21.18	110.009 U	10.743 J	33.116 J
I-S1	5	23.300 U	1.378 J	4.107 J	18.96	122.890 U	7.269 J	21.661 J
I-T1	1	23.300 U	1.006 J	10.000 U	19.62	118.756 U	5.128 J	50.968 U
I-T1	2	23.300 U	2.885 J	10.754	18.61	125.202 U	15.501 J	57.786
I-T1	3	23.300 U	7.471 J	8.248 J	20.19	115.404 U	37.005 J	40.852 J
I-T1	4	23.300 U	11.000 U	7.136 J	19.82	117.558 U	55.500 U	36.004 J
I-T1	5	23.300 U	0.742 J	2.926 J	18.93	123.085 U	3.918 J	15.457 J
I-T3	1	101.147	20.291	4.136 J	20.21	500.482	100.401	20.465 J
I-T3	2	80.750	13.972	4.837 J	19.31	418.177	72.356	25.049 J
I-T3	3	83.199	23.413	5.601 J	18.64	446.349	125.606	30.048 J
I-T3	4	125.926	20.776	10.000 U	19.11	658.951	108.718	52.329 U
I-T3	5	116.620	20.598	10.000 U	20.51	568.599	100.429	48.757 U
R-AC	1	3.289 J	9.553 J	6.748 J	18.03	18.242 J	52.984 J	37.427 J
R-AC	2	23.300 U	11.000 U	10.000 U	17.17	135.702 U	64.065 U	58.241 U
R-AC	3	3.125 J	4.816 J	10.000 U	17.28	18.082 J	27.870 J	57.870 U
R-AC	4	3.666 J	6.012 J	5.361 J	16.74	21.900 J	35.914 J	32.025 J
R-AC	5	5.416 J	5.163 J	10.000 U	17.33	31.253 J	29.792 J	57.703 U
R-AM	1	7.283 JE	11.000 U	10.000 U	15.32	47.538 JE	71.802 U	65.274 U
R-AM	2	5.342 J	4.117 J	10.000 U	15.22	35.095 J	27.050 J	65.703 U
R-AM	3	1.892 J	4.323 J	10.000 U	17.23	10.982 J	25.090 J	58.038 U
R-AM	4	11.327 J	11.000 U	10.000 U	14.88	76.123 J	73.925 U	67.204 U
R-AM	5	5.901 J	11.000 U	5.349 J	15.93	37.044 J	69.052 U	33.578 J
R-BF	1	10.577 J	15.904	6.563 J	17.73	59.659 J	89.701	37.016 J
R-BF	2	5.512 J	4.224 J	10.000 U	17.04	32.350 J	24.789 J	58.685 U
R-BF	3	5.544 JE	11.000 U	10.000 U	16.26	34.096 JE	67.651 U	61.501 U
R-BF	4	23.300 U	11.000 U	10.000 U	15.48	150.517 U	71.059 U	64.600 U
R-BF	5	0.851 J	5.192 J	5.374 J	14.52	5.864 J	35.758 J	37.011 J
R-OS	1	5.061 J	10.638 J	10.000 U	11.71	43.223 J	90.845 J	85.397 U
R-OS	2	7.131 J	4.813 J	10.000 U	16.95	42.069 J	28.395 J	58.997 U
R-OS ^(g)	3	3.767 J	5.160 J	10.000 U	15.10	24.947 J	34.172 J	66.225 U
R-OS	4	4.517 J	3.725 J	10.000 U	16.22	27.847 J	22.965 J	61.652 U
R-OS	5	6.764 J	3.333 J	10.000 U	15.50	43.637 J	21.503 J	64.516 U

TABLE Q.23. (Contd)

Sediment Treatment	Replicate	Butyltin Species ($\mu\text{g/g}$ wet weight)			Percent Dry Weight	Butyltin Species ($\mu\text{g/g}$ dry weight)		
		Tri-butyl	Di-butyl	Mono-butyl		Tri-butyl	Di-butyl	Mono-butyl
R-PC	1	23.300 U	3.272 J	4.586 J	15.50	150.323 U	21.111 J	29.587 J
R-PC	2	2.832 J	1.492 J	3.711 J	13.81	20.504 J	10.801 J	26.872 J
R-PC	3	2.868 J	1.830 J	5.551 J	15.79	18.165 J	11.590 J	35.155 J
R-PC	4	8.178 J	2.133 J	5.139 J	17.46	46.837 JE	12.217 JE	29.433 JE
R-PC(h)	5	47.918	40.602	17.958	15.73	304.627	258.118	114.164
R-PF(g)	1	7.269 J	6.678 J	3.684 J	16.62	43.737 J	40.181 J	22.166 J
R-PF	2	2.085 J	3.918 J	4.324 J	15.59	13.372 J	25.133 J	27.736 J
R-PF	3	3.342 J	1.653 J	3.53 J	17.79	18.788 J	9.292 J	19.843 J
R-PF	4	5.830 J	11.886	6.908 J	15.95	36.555 J	74.520	43.310 J
R-PF	5	8.196 J	2.659 J	3.331 J	17.16	47.765 J	15.494 J	19.411 J
C-S8	1	3.518 J	7.948 J	4.845 J	13.27	26.511 J	59.894 J	36.511 J
C-S8	2	3.066 J	12.157	5.164 J	16.48	18.605 J	73.768	31.335 J
C-SB	3	4.121 J	6.77 J	10.000 U	16.78	24.558 J	40.346 J	59.595 U
C-SB	4	0.305 J	3.068 J	3.262 J	13.23	2.302 J	23.190 J	24.656 J
C-SB	5	0.095 J	7.191 J	7.024 J	15.22	0.627 J	47.247 J	46.150 J
C-NE(g)	1	7.555 J	5.523 J	3.967 J	12.88	58.657 J	42.880 J	30.800 J
C-NE	2	23.300 U	11.000 U	3.907 J	12.75	182.745 U	86.275 U	30.643 J
C-NE	3	5.982 J	11.000 U	10.000 U	15.71	38.079 J	70.019 U	63.654 U
C-NE	4	3.705 J	5.734 J	4.884 J	10.71	34.589 J	53.539 J	45.602 J
C-NE	5	3.208 J	11.000 U	11.664	12.34	25.995 J	89.141 U	94.522
C-NE-A(g)	1	2.055 J	12.310	3.522 J	17.73	11.591 J	69.430	19.865 J
C-NE-A	2	23.300 U	3.807 J	10.000 U	18.21	127.952 U	20.906 J	54.915 U
C-NE-A	3	3.126 J	4.447 J	3.104 J	17.20	18.177 J	25.855 J	18.047 J
C-NE-A	4	2.618 J	4.826 J	4.516 J	17.56	14.909 J	27.483 J	25.718 J
C-NE-A	5	5.736 J	11.000 U	10.000 U	17.93	31.991 J	61.350 U	55.772 U

NOTE: All values are "blank corrected" according to corresponding method blanks.

(a) Not applicable.

(b) Analyte detected below method detection limit, but above instrument detection limit.

(c) Undetected above given concentration.

(d) Value is estimated due to surrogate recovery outside QC limits.

(e) Surrogate inadvertently not added to this sample.

(f) See footnote (b) and (d).

(g) Percent dry weight for this replicate was anomalous. Reported dry weight is an average of the other replicates within the sediment treatment.

(h) Anomalous data; not used in statistical analysis.

TABLE Q.24. Quality Control Data for Butyltins, Wet Weight, in Tissue of *N. caecoides*, Oakland Phase III A Project

Sample Treatment	Replicate	Butyltin Species ($\mu\text{g/g}$ wet weight)		
		Tri-butyl	Di-butyl	Mono-butyl
<u>Analytical Blanks</u>				
Blank	1	23.3 U ^(a)	11.0 U	10.0 U
Blank	2	23.3 U	11.0 U	10.0 U
Blank	3	17.9 J ^(b)	11.0 U	10.0 U
Blank	4	59.5	5.9 J	10.0 U
Blank	5	24.8	3.5 J	10.0 U
Blank	6	16.8 J	11.0 U	10.0 U
Blank	7	25.8	11.0 U	10.0 U
Blank	8	21.7 J	11.0 U	10.0 U
Blank	9	19.1 J	11.0 U	10.0 U
<u>Matrix Spikes</u>				
Background Worm ^(c)		23.3 U	11.0 U	10.0 U
Background MS	1	56.71	56.82	NS ^(d)
Amount Spiked	1	51.26	48.64	NS
Percent Recovery	1	111%	117%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	2	50.29	46.59	NS
Amount Spiked	2	53.23	50.50	NS
Percent Recovery	2	94%	92%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	3	50.75	48.56	2.59 J
Amount Spiked	3	53.77	51.02	NS
Percent Recovery	3	94%	95%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	4	13.69	35.24	NS
Amount Spiked	4	51.97	49.31	NS
Percent Recovery	4	26%	71%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	5	48.97	49.36	1.648 J
Amount Spiked	5	52.80	50.10	NS
Percent Recovery	5	93%	99%	NS

TABLE Q.24. (Contd)

		Butyltin Species ($\mu\text{g/g}$ wet weight)		
Sample Treatment	Replicate	Tri-butyl	Di-butyl	Mono-butyl
<u>Matrix Spikes</u> (Contd)				
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	6	53.30	48.31	2.09 J
Amount Spiked	6	51.66	49.02	NS
Percent Recovery	6	103%	99%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	7	23.47	33.01	NS
Amount Spiked	7	51.97	49.31	NS
Percent Recovery	7	45%	67%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	8	27.38	26.00	NS
Amount Spiked	8	50.97	48.36	NS
Percent Recovery	8	54%	54%	NS
Background Worm		23.3 U	11.0 U	10.0 U
Background MS	9	45.01	47.97	NS
Amount Spiked	9	53.66	50.91	NS
Percent Recovery	9	84%	94%	NS

NOTE: All sample results are presented "blank corrected".

- (a) Undetected above given concentration.
- (b) Analyte detected below the method detection limit, but above the instrument detection limit.
- (c) Untreated worm tissue used for spiking MS and MSD 1 through 8.
- (d) Not spiked.

TABLE Q.25. Surrogate Recovery for Butyltin Analysis of *N. caecoides*,
Oakland Phase III A Project

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Propyltin Surrogate Percent Recovery</u>
I-C3	1	84.2
I-C3	2	58.4
I-C3	3	82.0
I-C3	4	78.0
I-C3	5	41.0
I-C5	1	73.8
I-C5	2	78.9
I-C5	3	75.6
I-C5	4	65.0
I-C5	5	59.7
I-C7	1	76.9
I-C7	2	68.0
I-C7	3	70.7
I-C7	4	48.7
I-C7	5	72.9
I-C8	1	78.6
I-C8	2	82.5
I-C8	3	82.9
I-C8	4	87.1
I-C8	5	77.7
I-C9	1	77.6
I-C9	2	100.8
I-C9	3	70.5
I-C9	4	39.8 ^(a)
I-C9	5	86.2
I-C10	1	27.7 ^(a)
I-C10	2	** ^(b)
I-C10	3	54.0
I-C10	4	80.7
I-C10	5	52.6
I-C11	1	59.8
I-C11	2	106.4
I-C11	3	86.9
I-C11	4	84.5
I-C11	5	85.4

TABLE 0.25. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Propyltin Surrogate Percent Recovery</u>
I-C12	1	68.0
I-C12	2	88.3
I-C12	3	87.4
I-C12	4	90.6
I-C12	5	80.7
I-C14	1	89.0
I-C14	2	88.1
I-C14	3	81.1
I-C14	4	99.3
I-C14	5	81.3
I-C15	1	40.3
I-C15	2	76.3
I-C15	3	67.9
I-C15	4	61.1
I-C15	5	73.7
I-C16	1	83.4
I-C16	2	81.9
I-C16	3	69.3
I-C16	4	85.8
I-C16	5	92.5
I-C17	1	98.9
I-C17	2	80.9
I-C17	3	76.9
I-C17	4	91.0
I-C17	5	55.8
I-C18	1	34.6 ^(a)
I-C18	2	67.2
I-C18	3	79.3
I-C18	4	52.1
I-C18	5	70.5
I-S1	1	84.9
I-S1	2	83.1
I-S1	3	37.0 ^(a)
I-S1	4	57.4
I-S1	5	92.9

TABLE Q.25. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Propyltin Surrogate Percent Recovery</u>
I-T1	1	95.0
I-T1	2	80.4
I-T1	3	109.9
I-T1	4	101.6
I-T1	5	94.4
I-T3	1	97.9
I-T3	2	96.7
I-T3	3	71.6
I-T3	4	76.3
I-T3	5	56.0
R-AC	1	88.7
R-AC	2	73.2
R-AC	3	82.4
R-AC	4	71.2
R-AC	5	52.9
R-AM	1	33.3 ^(a)
R-AM	2	68.4
R-AM	3	61.5
R-AM	4	48.0
R-AM	5	67.8
R-BF	1	85.6
R-BF	2	52.3
R-BF	3	38.5 ^(a)
R-BF	4	70.1
R-BF	5	64.7
R-OS	1	94.6
R-OS	2	104.3
R-OS	3	102.3
R-OS	4	86.9
R-OS	5	97.5
R-PC	1	88.6
R-PC	2	68.5
R-PC	3	67.2
R-PC	4	33.3 ^(a)
R-PC	5	7.3 ^(a)

TABLE Q.25. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Propyltin Surrogate Percent Recovery</u>
R-PF	1	63.4
R-PF	2	67.9
R-PF	3	65.7
R-PF	4	61.7
R-PF	5	61.5
C-SB	1	78.0
C-SB	2	71.9
C-SB	3	67.6
C-SB	4	76.6
C-SB	5	72.2
C-NE	1	65.4
C-NE	2	79.9
C-NE	3	66.6
C-NE	4	66.1
C-NE	5	67.3
C-NE-A	1	71.3
C-NE-A	2	70.0
C-NE-A	3	66.7
C-NE-A	4	69.7
C-NE-A	5	53.1
Blank	1	81.4
Blank	2	30.3 ^(a)
Blank	3	75.9
Blank	4	31.8 ^(a)
Blank	5	71.0
Blank	6	89.4
Blank	7	73.4
Blank	8	78.6
Blank	9	72.3

TABLE Q.25. (Contd)

<u>Sediment Treatment</u>	<u>Replicate</u>	<u>Propyltin Surrogate Percent Recovery</u>
Background Worm ^(c)	1	66.0
Background Worm	2	68.6
Background Worm	3	74.6
Background Worm	4	58.8
Background Worm	5	72.8
Background Worm	6	92.7
Background Worm	7	31.8 ^(b)
Background Worm	8	47.9
Background Worm	9	74.4

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- (a) Recovery outside established quality assurance range.
 (b) Surrogate inadvertently not added to this sample.
 (c) Untreated worm tissue used for spiking MS and MSD 1 through 8.

APPENDIX R

STATISTICAL ANALYSIS OF *M. nasuta* BIOACCUMULATION

TABLE R.1. Mean Concentrations and Statistical Grouping for Acenaphthylene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration</u> <u>(μg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-AM	7.7 U ^(a)	A
R-AC	8.0	A
AC-3	9.1	A
R-PF	8.2	A
I-C4	8.6	A
I-C15	9.4	A
R-BF	12.1 U	A
I-C5	15.6	A
R-OS	26.4	A
R-PC	37.9	A
I-S1	96.3	A

(a) Undetected above given concentration.

TABLE R.2. ANOVA Results for Acenaphthylene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	9.759	10	0.976	1.531	0.1606
Residual	28.043	44	0.637		

TABLE R.3. Mean Concentrations and Statistical Grouping for Acenaphthene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
I-C16	10.5	A
R-BF	12.1 U ^(a)	A
AC-3	17.1	A
I-C11	14.1	A
I-C7	18.0	A
I-C10	19.1	A
R-PF	19.0 U	A
R-AM	19.2 U	A
R-OS	19.8 U	A
R-PC	21.7 U	A
R-AC	23.2	A

(a) Undetected above given concentration.

TABLE R.4. ANOVA Results for Acenaphthene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	4.090	10	0.409	1.837	0.0826
Residual	9.575	43	0.223		

TABLE R.5. Mean Concentrations and Statistical Grouping for Fluorene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C7	11.2	A
AC-3	11.8	A
I-C10	12.1	A
R-BF	12.1 U ^(a)	A
I-S1	14.6	A
R-PF	15.2 U	A
R-AM	15.4	A
R-PC	17.4 U	A
R-OS	18.2	A
I-C5	20.1	A
I-T1	23.7	A
R-AC	25.1	A

(a) Undetected above given concentration.

TABLE R.6. ANOVA Results for Fluorene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	4.473	11	0.407	2.374	0.0202
Residual	7.879	46	0.171		

TABLE R.7. Mean Concentrations and Statistical Grouping for Phenanthrene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C9	7.9	A
I-C15	10.5	AB
I-C14	10.7	AB
I-C18	11.9	ABC
R-BF	13.7	ABC
I-C17	14.8	ABCD
I-C16	14.4	ABCD
I-C12	14.5	ABCD
I-C11	17.5	ABCD
AC-1	16.8	ABCD
AC-3	35.5	ABCD
I-C4	24.3	ABCD
I-C7	40.8	ABCD
R-OS	28.1	ABCD
R-PF	33.9	ABCD
R-PC	54.2	ABCD
I-T1	35.1	ABCD
R-AM	44.0	BCD
I-C8	50.7	BCD
I-T5	48.3	BCD
I-C5	57.0	CD
I-C10	64.8	CD
I-S1	57.7	CD
I-T3	74.1	D
R-AC	591.8	E

TABLE R.8. ANOVA Results for Phenanthrene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	93.559	24	3.898	9.300	0.0001
Residual	40.661	97	0.419		

TABLE R.9. Mean Concentrations and Statistical Grouping for Anthracene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C9	9.2	A
R-PF	8.8 U ^(a)	A
I-T3	9.1	A
I-C16	10.5	A
R-OS	9.6	A
R-PC	10.1 U	A
R-AM	10.2	A
I-C5	11.0	A
I-S1	12.3	A
I-T1	12.8	A
I-C15	13.1	A
I-C17	16.4	A
R-BF	15.0	A
I-C18	17.5	A
I-C11	16.4	A
AC-1	15.1	A
AC-3	47.5	A
I-C12	18.3	A
I-C7	37.3	A
I-C10	82.4	A
R-AC	290.6	B

(a) Undetected above given concentration.

TABLE R.10. ANOVA Results for Anthracene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	56.929	20	2.846	6.872	0.0001
Residual	33.549	81	0.414		

TABLE R.11. Mean Concentrations and Statistical Grouping for Fluoranthene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C9	9.3	A
I-C14	12.2	AB
R-PC	20.2	AB
I-C16	18.4	AB
I-C17	41.9	AB
R-OS	27.1	AB
I-C12	29.7	AB
R-PF	28.3	AB
I-C18	25.0	A8
I-C15	28.7	AB
I-C11	33.3	AB
R-BF	37.4	AB
I-C7	68.4	AB
I-C8	41.6	ABC
R-AM	46.0	ABC
AC-1	42.2	ABCD
I-C4	48.2	ABCD
AC-3	68.1	ABCD
I-C5	64.2	BCD
I-T1	81.9	BCD
I-T3	88.6	BCD
I-T5	71.2	BCD
I-C10	234.3	CD
I-S1	241.2	D
R-AC	3952.2	E

TABLE R.12. ANOVA Results for Fluoranthene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	170.081	24	7.087	11.572	0.0001
Residual	59.402	97	0.612		

TABLE R.13. Mean Concentrations and Statistical Groupings for Pyrene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C14	10.7	A
R-PC	13.0	A
R-OS	13.5	A
R-PF	11.9	A
I-C9	18.7	A
R-AM	24.8	A
R-BF	19.4	A
I-C17	30.9	A
I-C16	18.9	A
I-C18	23.6	AB
I-C12	27.2	AB
AC-3	57.4	ABC
I-C8	89.6	ABC
I-C5	59.4	ABC
I-C7	62.9	ABCD
I-C4	56.5	ABCDE
AC-1	80.4	ABCDEF
I-C11	93.0	ABCDEF
I-C15	191.2	BCDEFG
I-T1	415.2	CDEFG
I-C10	391.2	DEFG
I-S1	378.1	EFG
I-T5	573.8	FGH
I-T3	1531.1	GH
R-AC	4031.4	H

TABLE R.14. ANOVA Results for Pyrene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	325.393	24	13.558	14.515	0.0001
Residual	90.603	97	0.934		

TABLE R.15. Mean Concentrations and Statistical Grouping for Benzo(a)anthracene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C18	8.0	A
I-C9	7.9	A
I-C15	8.1	A
R-OS	9.3	A
I-C16	10.5	A
I-C17	13.2	AB
R-PF	12.6	AB
R-BF	13.5	AB
R-AM	14.9	AB
I-C11	14.1	AB
I-C5	18.0	AB
AC-3	18.1	AB
I-C7	18.1	AB
AC-1	16.8	AB
I-C4	24.9	ABC
R-PC	31.9	ABC
I-T5	28.5	ABC
I-C10	46.2	BCD
I-T3	69.2	CDE
I-T1	146.9	DE
I-S1	276.5	E
R-AC	1052.6	F

TABLE R.16. ANOVA Results for Benzo(a)anthracene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	147.270	21	7.013	20.416	0.0001
Residual	29.197	85	0.343		

TABLE R.17. Mean Concentrations and Statistical Grouping for Chrysene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
R-PF	7.6 U ^(a)	A
I-C14	8.0	AB
R-OS	8.0	AB
I-C9	9.3	AB
R-AM	11.1	AB
R-PC	14.2	AB
I-C4	11.7	AB
I-C16	11.8	AB
I-C18	13.0	AB
I-C17	14.8	AB
I-C15	14.7	AB
I-C5	16.6	AB
I-C12	13.3	AB
R-BF	17.8	ABC
AC-3	23.3	ABC
I-C11	20.2	ABC
AC-1	21.8	ABC
I-C7	31.8	ABCD
I-T5	35.5	BCD
I-T3	58.4	CDE
I-C10	74.0	CDE
I-T1	117.3	DE
I-S1	216.4	E
R-AC	1086.4	F

(a) Undetected above given concentration.

TABLE R.18. ANOVA Results for Chrysene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	145.116	23	6.309	19.277	0.0001
Residual	30.439	93	0.327		

TABLE R.19. Mean Concentrations and Statistical Grouping for Benzo(b)fluoranthene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
I-C9	9.3	A
R-PF	9.5 U ^(a)	A
R-OS	9.9 U	A
R-PC	11.3	A
I-C7	12.6	A
I-C17	13.2	AB
R-BF	13.5	AB
I-C16	16.0	AB
R-AM	22.0	AB
AC-3	20.6	ABC
I-C4	22.0	ABC
AC-1	42.0	ABCD
I-C15	46.1	ABCD
I-C11	53.7	ABCD
I-C18	77.1	BCD
I-T5	119.5	BCD
I-C10	122.4	CDE
I-T1	202.1	CDE
I-S1	138.9	DE
I-T3	314.6	DE
R-AC	642.7	E

(a) Undetected above given concentration.

TABLE R.20. ANOVA Results for Benzo(b)fluoranthene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	132.334	20	6.617	10.839	0.0001
Residual	49.445	81	0.610		

TABLE R.21. Mean Concentrations and Statistical Grouping for Benzo(a)pyrene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
I-C9	6.6	A
R-AM	7.7 U ^(a)	A
I-C17	10.0	A
R-BF	12.1 U	AB
AC-3	15.6	AB
I-C7	13.9	ABC
I-C4	18.9	ABC
R-PF	20.5	ABC
R-OS	33.0	ABC
I-C5	23.6	ABC
AC-1	19.9	ABC
R-PC	27.5	ABC
I-C18	29.0	ABC
I-C11	21.1	ABC
I-C15	25.5	ABC
I-C10	63.0	ABC
I-S1	84.2	BCD
I-T1	113.7	BCD
I-T5	169.4	CDE
I-T3	324.5	DE
R-AC	598.5	E

(a) Undetected above given concentration.

TABLE R.22. ANOVA Results for Benzo(a)pyrene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	135.161	20	6.758	9.556	0.0001
Residual	57.284	81	0.707		

TABLE R.23. Mean Concentrations and Statistical Grouping for Benzo(g,h,i)perylene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
R-PF	6.1 U ^(a)	A
R-AM	6.2 U	A
R-OS	6.4 U	A
R-PC	6.9 U	A
I-C15	9.3	A
R-BF	12.1 U	A
I-C18	13.2	A
I-T1	18.0	A
I-T5	52.3	B
I-T3	101.4	BC
R-AC	213.7	C

(a) Undetected above given concentration.

TABLE R.24. ANOVA Results for Benzo(g,h,i)perylene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	73.878	10	7.388	41.003	0.0001
Residual	7.748	43	0.180		

TABLE R.25. Mean Concentrations and Statistical Grouping for Indeno(1,2,3-cd) pyrene in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C9	6.6	A
I-C14	9.4	A
I-C16	10.5	A
R-BF	12.1 U ^(a)	A
I-C7	12.5	A
R-PF	12.0 U	A
R-AM	12.1 U	A
I-C18	13.2	A
AC-1	13.4	A
R-OS	12.7 U	A
I-C11	14.1	A
R-PC	13.8 U	A
AC-3	15.5	A
I-C12	13.3	A
I-C15	19.7	AB
I-C10	24.4	AB
I-T5	24.9	AB
I-T3	34.2	AB
R-AC	722.3	B

(a) Undetected above given concentration.

TABLE R.26. ANOVA Results for Indeno(1,2,3-cd)pyrene in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	23.609	18	1.312	2.587	0.0023
Residual	37.017	73	0.507		

TABLE R.27. Mean Concentrations and Statistical Grouping for Aroclor 1254 in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
R-OS	269	A
R-PC	241	A
I-S1	271	A
I-C18	242 UJ ^(a)	A
R-BF	229 U ^(b)	A
I-C4	257	A
I-C8	235	A
R-AM	274	A
R-PF	305	A
R-AC	360	A
I-T3	348	A
I-T5	350	A
I-T1	451	A
I-C5	974	A

(a) Undetected or detected below method detection limit (MDL) in all replicates; value is mean of dry weight detection limits and detected values.

(b) Undetected above given concentration.

TABLE R.28. ANOVA Results for Aroclor 1254 in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	3.818	13	0.294	0.687	0.7676
Residual	23.952	56	0.428		

TABLE R.29. Mean Concentrations and Statistical Grouping for Aroclor 1260 in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-T3	158	A
R-PC	160 U ^(a)	A
R-OS	174 U	A
R-PF	183 U	A
I-C4	202	A
R-AM	230	A
R-BF	229 U	A
I-C5	269	A
R-AC	301	A

(a) Undetected above given concentration.

TABLE R.30. ANOVA Results for Aroclor 1260 in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	1.379	8	0.172	1.349	0.2509
Residual	4.726	37	0.128		

TABLE R.31. Mean Concentrations and Statistical Grouping for Silver in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-PC	0.6	A
R-OS	0.7	AB
I-C4	0.7	AB
R-PF	0.7	AB
I-T1	0.7	AB
I-S1	0.8	AB
R-AC	0.8	AB
R-AM	0.8	AB
I-C5	0.8	AB
I-T5	0.8	AB
I-C10	0.8	AB
I-C7	0.8	AB
I-C8	0.9	AB
I-C18	0.9	AB
I-C15	0.9	AB
I-C16	0.9	AB
I-T3	0.9	AB
I-C12	1.0	AB
I-C11	1.0	AB
I-C17	1.1	AB
I-C9	1.0	B
AC-3	1.1	B
I-C14	1.1	B
R-BF	1.1	B
AC-1	1.1	B

TABLE R.32. ANOVA Results for Silver in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	4.137	24	0.172	2.780	0.0002
Residual	6.944	112	0.062		

TABLE R.33. Mean Concentrations and Statistical Grouping for Arsenic in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-OS	15.09	A
I-T5	15.22	A
I-C9	16.06	AB
R-PC	16.37	AB
I-T3	16.66	AB
I-C18	16.99	AB
R-PF	17.19	AB
I-C10	17.77	AB
AC-3	18.07	AB
I-C15	18.29	AB
I-C11	18.32	AB
I-C17	18.21	AB
R-BF	18.18	A8
R-AC	18.33	AB
I-C14	18.88	AB
I-S1	19.22	AB
I-C12	19.05	AB
I-C7	18.99	A8
I-C4	20.94	AB
AC-1	20.90	AB
I-C8	21.10	AB
R-AM	21.80	AB
I-C5	24.07	AB
I-T1	25.05	B
I-C16	24.15	B

TABLE R.34. ANOVA Results for Arsenic in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	2.251	24	0.094	2.397	0.0011
Residual	4.382	112	0.039		

TABLE R.35. Mean Concentrations and Statistical Grouping for Cadmium in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C17	0.17	A
I-C7	0.19	A
I-C15	0.24	A
I-C9	0.24	A
I-C10	0.23	A
I-C4	0.20	A
I-C16	0.22	A
I-C14	0.34	A
I-C12	0.22	A
I-T5	0.24	A
R-AM	0.25	A
I-T3	0.28	A
I-C5	0.26	A
AC-3	0.29	A
AC-1	0.28	A
R-BF	0.29	A
I-C8	0.33	A
I-T1	0.32	A
I-C11	0.34	A
I-C18	0.31	A
I-S1	0.37	A
R-AC	0.42	A
R-PF	0.45	A
R-OS	0.47	A
R-PC	0.49	A

TABLE R.36. ANOVA Results for Cadmium in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	20.794	24	0.866	1.543	0.0685
Residual	62.330	111	0.562		

TABLE R.37. Mean Concentrations and Statistical Grouping for Chromium in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-AM	1.06	A
I-C16	2.53	B
I-C17	2.86	BC
I-C14	2.79	BC
I-C18	2.85	BC
R-OS	2.91	BC
I-C12	3.12	BC
I-C8	3.20	BC
R-AC	3.38	BC
I-C5	3.39	BC
I-T1	3.51	BC
R-PC	3.56	BC
I-T5	3.66	BC
I-C15	3.65	BC
AC-3	3.63	BC
I-T3	3.80	BC
R-PF	3.78	BC
R-BF	4.05	BC
I-S1	3.95	BC
I-C4	4.22	BC
AC-1	4.36	BC
I-C7	4.15	BC
I-C10	4.49	BC
I-C9	4.53	BC
I-C11	5.05	C

TABLE R.38. ANOVA Results for Chromium in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	11.071	24	0.461	5.688	0.0001
Residual	9.083	112	0.081		

TABLE R.39. Mean Concentrations and Statistical Grouping for Copper in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C4	13.0	A
I-T5	16.6	A
I-C7	16.6	A
I-C12	16.9	A
R-PC	17.7	A
I-C10	17.2	A
R-AM	18.6	A
I-C5	17.2	A
I-C8	17.4	A
I-C9	17.4	A
R-AC	18.0	A
I-C11	18.1	A
I-C15	18.2	A
R-OS	19.9	A
I-S1	19.1	AB
AC-3	21.1	AB
I-C18	20.8	AB
I-T3	24.4	AB
I-T1	23.4	AB
R-PF	24.1	AB
R-8F	22.3	AB
I-C16	24.4	AB
I-C17	26.2	AB
AC-I	28.1	AB
I-C14	48.0	B

TABLE R.40. ANOVA Results for Copper in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	6.414	24	0.267	2.389	0.0012
Residual	12.531	112	0.112		

TABLE R.41. Mean Concentrations and Statistical Grouping for Mercury in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C11	0.06	A
AC-1	0.06	AB
I-C9	0.05	AB
I-C7	0.05	AB
I-C4	0.06	AB
R-OS	0.06	AB
I-C10	0.06	AB
I-C8	0.06	AB
AC-3	0.06	AB
I-C15	0.07	AB
I-C17	0.07	AB
I-C12	0.06	AB
R-PF	0.06	AB
I-C16	0.06	AB
I-C5	0.07	AB
R-AM	0.07	AB
I-S1	0.07	AB
R-PC	0.07	AB
I-T5	0.07	AB
R-AC	0.07	AB
I-T3	0.08	AB
I-T1	0.07	AB
I-C14	0.08	AB
R-BF	0.09	AB
I-C18	0.09	B

TABLE R.42. ANOVA Results for Mercury in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	5.709	24	0.238	1.131	0.3225
Residual	23.758	113	0.210		

TABLE R.43. Mean Concentrations and Statistical Grouping for Nickel in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-AM	3.24	A
AC-3	4.53	AB
I-C18	4.90	AB
I-C14	5.05	AB
I-C7	5.01	AB
I-C12	5.09	AB
I-C17	5.32	AB
I-C16	5.25	AB
R-PC	5.40	AB
AC-1	5.53	ABC
R-PF	5.69	ABC
I-C10	5.72	ABC
R-OS	5.72	ABC
I-C5	5.73	ABC
I-C15	5.89	ABC
R-BF	6.08	ABC
I-C11	5.92	ABC
I-C8	6.15	ABC
I-C4	6.40	BC
I-T1	6.37	BC
I-T5	6.69	BC
I-T3	7.00	BC
R-AC	7.22	BC
I-S1	8.43	BC
I-C9	17.01	C

TABLE R.44. ANOVA Results for Nickel in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	6.051	24	0.252	3.203	0.0001
Residual	8.816	112	0.079		

TABLE R.45. Mean Concentrations and Statistical Grouping for Lead in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C8	1.21	A
R-OS	1.23	AB
R-PC	1.29	ABC
I-C7	1.33	ABC
I-C4	1.37	ABC
R-AM	1.36	ABC
I-C12	1.47	ABCD
R-PF	1.48	ABCD
I-C5	1.97	ABCD
I-C16	2.19	ABCD
I-T1	2.21	ABCD
I-T5	2.41	ABCD
I-C15	2.68	ABCD
I-C18	2.72	ABCD
I-S1	2.76	ABCD
R-AC	2.70	ABCD
I-C10	2.83	ABCD
I-C17	4.01	ABCD
I-C14	3.76	ABCD
AC-3	3.12	ABCD
R-BF	3.49	ABCD
I-C9	3.29	ABCD
I-C11	3.75	BCD
AC-1	4.74	CD
I-T3	3.72	D

TABLE R.46. ANOVA Results for Lead in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	18.166	24	0.757	4.106	0.0001
Residual	20.646	112	0.184		

TABLE R.47. Mean Concentrations and Statistical Grouping for Selenium in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-T3	1.39	A
I-C8	1.40	A
I-T5	1.45	AB
I-C9	1.46	AB
I-C17	1.53	AB
I-C4	1.52	AB
R-PF	1.52	AB
I-C7	1.53	AB
I-C15	1.57	AB
I-C10	1.57	A8
R-AM	1.58	A8
I-C18	1.59	AB
I-C11	1.60	AB
AC-3	1.61	AB
I-C5	1.62	AB
I-C16	1.65	AB
R-AC	1.69	AB
I-C12	1.69	AB
I-C14	1.69	AB
I-T1	1.71	AB
R-PC	1.72	AB
R-BF	1.76	AB
AC-1	1.77	AB
I-S1	1.81	B
R-OS	1.87	B

TABLE R.48. ANOVA Results for Selenium in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	0.753	24	0.031	2.538	0.0005
Residual	1.397	113	0.012		

TABLE R.49. Mean Concentrations and Statistical Grouping for Zinc in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C17	94	A
I-C16	102	AB
I-C4	104	AB
I-C7	104	AB
I-C14	107	AB
I-T5	110	AB
I-C15	115	AB
I-C5	117	AB
I-C11	117	AB
I-C18	123	AB
I-T3	121	AB
I-C9	122	AB
R-AC	122	AB
I-S1	123	AB
I-C8	124	AB
R-PF	124	AB
R-PC	126	AB
R-AM	128	AB
I-C10	127	AB
AC-3	127	AB
AC-1	129	AB
I-C12	129	AB
R-OS	132	AB
R-BF	146	AB
I-T1	149	B

TABLE R.50. ANOVA Results for Zinc in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	1.426	24	0.059	1.470	0.0926
Residual	4.524	112	0.040		

TABLE R.51. Mean Concentrations and Statistical Grouping for Tributyltin in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
I-C14	10.7	A
R-PC	10.0	AB
I-C7	11.8	AB
I-C16	11.2	AB
I-C17	13.1	AB
I-C9	14.1	ABC
I-C5	13.8	ABC
I-C12	14.9	ABC
I-C8	15.5	ABC
R-OS	15.9	ABC
AC-3	16.2	ABC
R-PF	18.2	ABC
I-C15	19.0	ABC
AC-1	19.6	ABC
R-BF	19.0	ABC
I-C4	22.1	ABC
I-S1	23.3	BC
I-C10	22.6	BC
I-C18	22.3	BC
I-C11	23.1	BC
I-T1	28.2	C
R-AM	30.4	C
R-AC	80.8	D
I-T3	100.6	D
I-T5	252.0	E

TABLE R.52. ANOVA Results for Tributyltin in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	82.243	24	3.427	23.251	0.0001
Residual	16.975	115	0.148		

TABLE R.53. Mean Concentrations and Statistical Grouping for Dibutyltin in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
R-PC	7.3	A
I-C7	7.6	A
I-C5	8.4	A
I-C8	8.9	A
R-OS	8.7	A
AC-1	9.3	A
R-PF	9.7	A
I-S1	9.2	AB
I-C4	10.6	AB
I-C17	9.7	AB
I-C15	10.2	AB
I-C16	13.1	AB
I-C14	13.7	AB
I-T1	10.9	AB
I-C9	11.5	AB
I-C10	11.3	AB
R-BF	12.3	AB
I-C12	12.9	AB
I-C18	14.9	AB
AC-3	45.5	AB
R-AM	24.1	AB
R-AC	15.9	AB
I-T3	16.4	AB
I-C11	21.5	AB
I-T5	29.9	AB

TABLE R.54. ANOVA Results for Dibutyltin in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	14.643	24	0.610	2.185	0.0032
Residual	32.106	115	0.279		

TABLE R.55. Mean Concentrations and Statistical Grouping for Monobutyltin in *M. nasuta* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
AC-3	2.4	A
R-OS	2.7	A
I-C4	2.7	A
I-C7	2.8	A
I-C9	2.9	A
I-S1	3.0	A
I-C15	3.3	A
R-PC	3.4	A
I-T3	3.2	A
I-T1	3.4	A
I-C8	3.5	A
I-C10	3.6	A
R-AC	3.8	A
I-C16	3.7	A
R-BF	5.1	A
AC-1	4.0	A
R-AM	4.0	A
R-PF	4.2	A
I-C5	4.8	A
I-T5	4.0	A
I-C17	5.0	A
I-C14	7.1	A
I-C18	7.2	A
I-C12	9.3	A
I-C11	12.5	A

TABLE R.56. ANOVA Results for Monobutyltin in *M. nasuta* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	8.504	24	0.354	1.115	0.3387
Residual	36.536	115	0.318		

APPENDIX S

STATISTICAL ANALYSIS OF *N. caecoides* BIOACCUMULATION

TABLE S.1. Mean Concentrations and Statistical Grouping for Anthracene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C12	54.36	A
I-T3	54.25	A
R-AC	57.80 U ^(a)	AB
R-PF	59.62 U	AB
R-BF	62.01 U	AB
R-AM	63.80 U	AB
R-PC	64.22 U	AB
R-OS	67.36 U	B
I-S1	105.60	C

(a) Undetected above given concentration.

TABLE S.2. ANOVA Results for Anthracene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	1.626	8	0.203	28.273	0.0001
Residual	0.266	37	0.007		

TABLE S.3. Mean Concentrations and Statistical Grouping for Napthalene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration</u> ($\mu\text{g/kg}$ dry weight)	<u>Statistical Grouping</u>
R-PF	119.2 U ^(a)	A
R-BF	124.0 U	A
R-PC	128.4 U	A
R-OS	134.7 U	A
R-AC	141.1	AB
I-S1	259.6	BC
R-AM	288.0	CD
I-C5	283.8	CDE
I-C3	285.6	CDE
I-C18	310.0	CDE
I-C12	354.6	CDE
I-C9	354.6	CDE
I-C8	379.6	CDE
I-T1	389.5	CDE
I-C7	413.1	CDE
I-C15	439.6	CDE
I-T3	471.9	DE
I-C16	518.0	E

TABLE S.4. ANOVA Results for Napthalene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	21.273	17	1.251	17.864	0.0001
Residual	5.184	74	0.070		

TABLE S.5. Mean Concentrations and Statistical Grouping for Phenanthrene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C8	55.02	A
I-C14	56.31	A
I-C10	59.53	A
I-C17	60.75	A
I-C18	74.67	A
I-C12	77.46	A
I-C7	72.25	A
I-T1	69.32	A
I-C9	72.71	A
I-C11	78.34	A
I-C16	85.08	A
I-T3	103.40	AB
R-PF	99.80	AB
R-OS	105.20	AB
I-C15	114.10	AB
R-PC	118.33	AB
R-AM	122.10	AB
R-BF	125.28	AB
R-AC	188.70	BC
I-S1	279.80	C

TABLE S.6. ANOVA Results for Phenanthrene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	16.688	19	0.878	6.748	0.0001
Residual	10.803	83	0.130		

TABLE S.7. Mean Concentrations and Statistical Grouping for Fluoranthene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C5	56.63	A
I-C8	58.02	A
I-C10	92.24 U ^(a)	AB
I-C17	78.50	AB
I-C11	83.03	AB
I-C9	82.44	AB
R-OS	94.16	ABC
R-PC	113.95	ABC
P-PF	119.64	ABC
R-BF	121.43	ABC
R-AM	142.91	ABC
I-T1	133.18	BC
I-T3	186.24	CD
R-AC	197.31	CD
I-C15	338.79	D
I-S1	958.66	E

TABLE S.8. ANOVA Results for Fluoranthene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	38.935	15	2.596	21.159	0.0001
Residual	8.097	66	0.123		

TABLE S.9. Mean Concentrations and Statistical Grouping for Pyrene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C18	56.27	A
I-C16	62.15	A
I-C11	75.43	A
R-OS	90.10	A
I-C8	92.66	A
I-C15	107.44	A
R-PC	100.66	A
I-C14	99.77	A
R-PF	99.09	A
R-AM	127.40	AB
R-BF	126.39	AB
I-C5	150.04	ABC
R-AC	321.93	BCD
I-C17	406.60	CD
I-C9	455.65	D
I-T1	577.19	DE
I-T3	1281.99	DEF
I-C12	1403.07	EFG
I-C10	2821.57	FG
I-S1	2909.20	G

TABLE S.10. ANOVA Results for Pyrene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	143.896	19	7.573	31.902	0.0001
Residual	19.704	83	0.237		

TABLE S.11. Mean Concentrations and Statistical Grouping for Benzo(a)anthracene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C16	51.24	A
R-AC	57.80 U ^(a)	A
R-PF	59.62 U	A
R-AM	63.80 U	A
R-PC	64.22 U	A
R-OS	67.36 U	A
R-BF	74.93	A
I-S1	116.32	A

(a) Undetected above given concentration.

TABLE S.12. ANOVA Results for Benzo(a)anthracene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	0.975	7	0.139	1.456	0.2170
Residual	3.157	33	0.096		

TABLE S.13. Mean Concentrations and Statistical Grouping for Benzo(b)fluoranthene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
R-AC	57.80 U ^(a)	A
R-PF	59.62 U	A
R-AM	63.80 U	A
R-PC	64.22 U	A
R-BF	67.18	A
R-OS	67.36 U	A
I-T3	83.87	A
I-S1	115.27	A

(a) Undetected above given concentration.

TABLE S.14. ANOVA Results for Benzo(b)fluoranthene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	0.708	7	0.101	0.881	0.5323
Residual	3.790	33	0.115		

TABLE S.15. Mean Concentrations and Statistical Grouping for Benzo(a)pyrene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg dry weight}$)</u>	<u>Statistical Grouping</u>
R-AC	57.80 U ^(a)	A
R-PF	59.62 U	A
R-BF	62.01 U	A
R-AM	63.80 U	A
R-PC	64.22 U	A
R-OS	67.36 U	A
I-S1	325.3	B

(a) Undetected above given concentration.

TABLE S.16. ANOVA Results for Benzo(a)pyrene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	5.558	6	0.926	4.302	0.0032
Residual	6.245	29	0.215		

TABLE S.17. Mean Concentrations and Statistical Grouping for Chrysene in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
R-AC	57.80	A
R-PF	59.62 U ^(a)	A
R-AM	63.80 U	A
R-PC	64.22 U	A
R-OS	67.36 U	A
I-C15	67.53	A
R-BF	91.73	AB
I-T1	156.12	BC
I-T3	224.06	C
I-S1	656.02	D

(a) Undetected above given concentration.

TABLE S.18. ANOVA Results for Chrysene in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	24.133	9	2.681	22.742	0.0001
Residual	4.834	41	0.118		

TABLE S.19. Mean Concentrations and Statistical Grouping for Aroclor 1254 in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration</u> <u>($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
R-AC	578.03 U ^(a)	A
R-PF	596.18 U	A
R-AM	637.99 U	A
I-S1	810.15	AB
R-BF	820.42	AB
R-PC	885.21	AB
R-OS	1242.63	B
I-T3	2268.52	C

(a) Undetected above given concentration.

TABLE S.20. ANOVA Results for Aroclor 1254 in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	7.230	7	1.033	15.563	0.0001
Residual	2.190	33	0.066		

TABLE S.21. Mean Concentrations and Statistical Grouping for Silver in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C5	0.02	A
I-C10	0.03	AB
R-PF	0.03	ABC
I-C12	0.03	ABC
I-S1	0.03	ABC
I-C3	0.03	ABC
R-PC	0.04	ABC
R-AC	0.04	ABC
I-C9	0.04	ABC
R-BF	0.04	ABC
I-T1	0.04	ABC
I-C11	0.05	ABC
I-T3	0.05	ABC
I-C7	0.05	ABC
I-C14	0.06	BC
R-OS	0.06	BC
R-AM	0.06	BCD
I-C8	0.07	CD
I-C15	0.07	CD
I-C17	0.08	CD
I-C18	0.16	D

TABLE S.22. ANOVA Results for Silver in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	12.311	20	0.616	5.759	0.0001
Residual	6.199	58	0.107		

TABLE S.23. Mean Concentrations and Statistical Grouping for Arsenic in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-T3	6.99	A
I-C15	7.05	A
I-C14	8.06	A
I-S1	10.29	AB
I-C9	10.36	AB
I-C17	11.59	ABC
I-C18	10.99	ABC
I-T1	12.42	ABC
I-C11	13.69	ABCD
I-C7	18.07	BCD
I-C10	18.33	BCD
I-C3	18.33	BCD
I-C8	19.33	BCD
R-PC	19.70	BCD
R-AM	19.73	BCD
R-PF	20.23	BCD
I-C12	20.70	BCD
R-BF	22.77	CD
R-OS	22.77	CD
R-AC	26.63	D
I-C5	26.93	D

TABLE S.24. ANOVA Results for Arsenic in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	15.217	20	0.761	8.792	0.0001
Residual	5.020	58	0.087		

TABLE S.25. Mean Concentrations and Statistical Grouping for Cadmium in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-PC	0.82	A
R-PF	1.04	AB
I-C8	1.08	AB
R-OS	1.08	AB
R-AC	1.08	AB
R-BF	1.13	AB
R-AM	1.13	AB
I-C9	1.18	AB
I-T3	1.17	AB
I-C7	1.16	AB
I-C14	1.17	AB
I-C12	1.17	AB
I-C10	1.19	AB
I-C5	1.20	AB
I-C3	1.23	AB
I-T1	1.27	AB
I-C17	1.37	B
I-S1	1.40	B
I-C18	1.47	B
I-C15	1.50	B
I-C11	1.60	B

TABLE S.26. ANOVA Results for Cadmium in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	1.474	20	0.074	2.930	0.0007
Residual	1.459	58	0.025		

TABLE S.27. Mean Concentrations and Statistical Grouping for Chromium in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-PF	0.15	A
R-PC	0.24	AB
R-AC	0.29	AB
R-BF	0.30	AB
R-AM	0.30	AB
I-C15	0.34	AB
I-T1	0.45	AB
I-C9	0.39	AB
I-S1	0.38	AB
I-T3	0.43	AB
R-OS	0.44	AB
I-C11	0.51	AB
I-C12	0.58	B
I-C10	0.58	B
I-C3	0.58	B
I-CB	0.67	B
I-C5	0.67	B
I-C7	0.68	B
I-C17	0.72	B
I-C18	0.75	B
I-C14	0.83	B

TABLE S.28. ANOVA Results for Chromium in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	12.814	20	0.641	3.657	0.0001
Residual	10.162	58	0.175		

TABLE S.29. Mean Concentrations and Statistical Grouping for Copper in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C15	9.10	A
R-PC	10.84	AB
I-C10	11.35	AB
I-C11	12.40	AB
I-C5	11.93	AB
I-C7	11.94	AB
I-C3	11.98	AB
I-C12	12.01	AB
I-C9	12.74	AB
R-PF	12.81	AB
I-C14	13.71	AB
I-S1	13.46	AB
R-OS	13.64	AB
I-C8	14.20	ABC
I-T3	15.86	ABC
I-T1	15.58	ABC
I-C17	15.90	ABC
R-AC	16.53	ABC
R-BF	16.53	ABC
I-C18	18.33	BC
R-AM	25.67	C

TABLE S.30. ANOVA Results for Copper in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	2.962	20	0.148	3.077	0.0004
Residual	2.791	58	0.048		

TABLE S.31. Mean Concentrations and Statistical Grouping for Mercury in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C10	0.03	A
I-C12	0.03	A
I-C7	0.04	AB
I-C5	0.04	AB
I-C3	0.04	AB
I-C8	0.05	ABC
R-PC	0.07	ABCD
I-C15	0.08	ABCDE
I-C14	0.10	ABCDE
I-C18	0.11	BCDEF
I-C11	0.17	CDEFG
R-OS	0.15	DEFG
R-PF	0.19	DEFG
R-BF	0.21	DEFG
I-C9	0.22	DEFG
I-S1	0.25	EFGH
I-C17	0.27	EFGH
R-AC	0.29	FGH
I-T3	0.37	FGH
I-T1	0.38	GH
R-AM	0.66	H

TABLE S.32. ANOVA Results for Mercury in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	56.533	20	2.827	17.168	0.0001
Residual	9.550	58	0.165		

TABLE S.33. Mean Concentrations and Statistical Grouping for Nickel in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C5	1.80	A
I-C9	2.21	AB
I-C8	2.35	AB
I-S1	2.36	AB
I-C12	2.43	AB
R-PC	2.52	AB
R-PF	2.47	AB
I-T1	2.52	AB
I-C15	2.59	AB
I-C10	2.54	AB
I-C18	2.67	AB
I-C7	2.66	AB
I-C17	2.73	AB
I-C14	3.11	AB
I-T3	3.09	AB
R-OS	3.06	AB
R-AM	3.10	AB
R-AC	3.40	AB
R-BF	3.35	AB
I-C3	3.80	B
I-C11	3.97	B

TABLE S.34. ANOVA Results for Nickel in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	2.522	20	0.126	2.577	0.0027
Residual	2.838	58	0.049		

TABLE S.35. Mean Concentrations and Statistical Grouping for Lead in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C18	0.38	A
I-C8	0.40	AB
I-C3	0.45	AB
I-C11	0.49	AB
I-C7	0.49	ABC
I-C15	0.53	ABC
R-PF	0.61	ABCD
R-PC	0.63	ABCD
R-OS	0.64	ABCD
I-C17	0.71	ABCD
R-AM	0.78	BCD
R-BF	0.78	BCD
I-C10	0.97	CD
I-C12	0.99	CD
I-C5	0.99	CD
I-C14	1.13	CD
I-C9	1.12	D
I-S1	1.14	D
I-T3	1.17	D
R-AC	1.17	D
I-T1	1.23	D

TABLE S.36. ANOVA Results for Lead in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	12.010	20	0.600	9.007	0.0001
Residual	3.867	58	0.067		

TABLE S.37. Mean Concentrations and Statistical Grouping for Selenium in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
R-AC	0.90	A
I-C18	0.97	A
I-C10	0.98 U ^(a)	AB
I-C7	1.01	AB
I-C8	1.05	AB
R-OS	1.07	AB
I-C5	1.08 U	AB
I-C12	1.09	AB
R-PF	1.17	AB
R-AM	1.17	AB
I-C3	1.17 U	AB
R-PC	1.33	AB
R-BF	1.35	AB
I-S1	1.45	AB
I-C15	1.54	AB
I-C9	1.60	AB
I-T3	1.63	AB
I-C14	1.67	AB
I-C11	1.75	AB
I-C17	1.89	AB
I-T1	1.99	B

(a) Undetected above given concentration.

TABLE S.38. ANOVA Results for Selenium in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	4.393	20	0.220	3.338	0.0002
Residual	3.817	58	0.066		

TABLE S.39. Mean Concentrations and Statistical Grouping for Zinc in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration (mg/kg dry weight)</u>	<u>Statistical Grouping</u>
I-C3	167.83	A
I-C5	172.83	AB
I-C7	174.13	AB
I-C12	175.63	AB
R-PF	184.53	ABC
I-C10	188.17	ABCD
R-AM	188.80	ABCD
I-C8	189.37	ABCD
R-AC	191.67	ABCDE
R-BF	192.40	ABCDE
R-PC	193.97	ABCDE
R-OS	198.77	ABCDEF
I-T3	234.00	BCDEFG
I-C9	241.60	CDEFG
I-C15	249.67	CDEFG
I-T1	251.83	CDEFG
I-C18	255.33	DEFG
I-C11	262.00	EFG
I-C14	271.00	FG
I-C17	276.75	G
I-S1	297.00	G

TABLE S.40. ANOVA Results for Zinc in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	2.459	20	0.123	10.021	0.0001
Residual	0.712	58	0.012		

TABLE S.41. Mean Concentrations and Statistical Grouping for Tributyltin in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
R-PF	32.04 J ^(a)	A
R-AC	45.03 UJ ^(b)	A
R-AM	41.36 J	A
R-OS	36.35 J	A
R-BF	56.50 UJ	A
I-C5	62.13 UJ	A
R-PC	58.96 UJ	A
I-C14	69.19 UJ	A
I-C16	73.80 J	A
I-C17	94.16	A
I-C10	119.96	A
I-C7	95.25 UJ	A
I-C12	90.35	A
I-S1	100.18 UJ	A
I-C3	89.12 UJ	A
I-C18	104.34 UJ	A
I-C8	92.49 J	A
I-C11	119.29 UJ	AB
I-C15	140.23 UJ	AB
I-T3	518.51	B

- (a) Analyte detected below method detection limit (MDL), but above instrument detection limit (IDL).
 (b) Undetected or detected below method detection limit (MDL) in all replicates; value is mean of dry weight detection limits and detected values.

TABLE S.42. ANOVA Results for Tributyltin in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	41.845	19	2.202	4.236	0.0001
Residual	41.077	79	0.520		

TABLE S.43. Mean Concentrations and Statistical Grouping for Dibutyltin in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
R-PC	13.93 J ^(a)	A
I-T1	23.41 UJ ^(b)	A
I-S1	23.39 UJ	AB
I-C11	29.96 UJ	ABC
I-C9	30.32 UJ	ABC
R-PF	32.92	ABCD
I-C14	29.69 J	ABCD
I-C3	28.64 J	ABCD
I-C7	33.24 UJ	ABCD
I-C12	34.38	ABCD
R-OS	39.58 J	ABCD
I-C5	42.60 UJ	ABCD
I-C10	48.63	ABCD
R-AC	42.13 UJ	ABCD
I-C8	44.58 UJ	ABCD
I-C17	45.99 UJ	ABCD
R-AM	53.38 UJ	ABCD
R-BF	57.79	ABCD
I-C16	59.23	BCD
I-C18	62.70	BCD
I-C15	67.34	CD
I-T3	101.50	D

- (a) Analyte detected below method detection limit (MOL), but above instrument detection limit (IDL).
 (b) Undetected or detected below method detection limit (MDL) in all replicates; value is mean of dry weight detection limits and detected values.

TABLE S.44. ANOVA Results for Dibutyltin in *N. caecoides* Tissues

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	26.540	21	1.264	3.532	0.0001
Residual	31.130	87	0.358		

TABLE S.45. Mean Concentrations and Statistical Grouping for Monobutyltin in *N. caecoides* Tissues

<u>Sediment Treatment</u>	<u>Mean Concentration ($\mu\text{g/kg}$ dry weight)</u>	<u>Statistical Grouping</u>
I-C3	23.37 J ^(a)	A
I-C9	25.17 J	AB
I-C14	27.46	AB
R-PF	26.49 J	AB
I-C12	36.95 UJ ^(b)	AB
R-PC	30.26 J	AB
I-T3	35.33 UJ	AB
I-T1	40.21	AB
I-S1	42.36 J	AB
I-C17	42.40 UJ	AB
I-C7	48.29 UJ	AB
R-AC	48.65 UJ	AB
R-BF	51.76 UJ	AB
R-AM	57.96 UJ	ABC
I-C11	79.17	ABC
R-OS	67.36 U ^(c)	ABC
I-C16	95.38	BC
I-C15	205.27	C
I-C18	215.38	C

- (a) Analyte detected below method detection limit (MDL), but above instrument detection limit (IDL).
 (b) Undetected or detected below method detection limit (MDL) in all replicates; value is mean of dry weight detection limits and detected values.
 (c) Undetected above given concentration.

TABLE S.46. ANOVA Results for Monobutyltin in *N. caecoides* Tissue

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>d.f.</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Significance Level</u>
Treatment	30.140	18	1.674	6.420	0.0001
Residual	19.563	75	0.261		

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