

February 20, 2006

Jennifer Bell
The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

Subject: **CalScience Work Order No.: 06-02-0643**
Client Reference: **Sediment Sampling**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/10/2006 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak', written in a cursive style.

CalScience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Analytical Report



The RETEC Group, Inc
 5000 East Spring Street, Suite 250
 Long Beach, CA 90815-5227

Date Received: 02/10/06
 Work Order No: 06-02-0643
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Sediment Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number				Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
R8-021006	06-02-0643-1				02/10/06	Solid	02/13/06	02/14/06	060213L12	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Cadmium	0.737	0.500	1		Lead		71.3	0.5	1	
Chromium	11.0	0.2	1		Nickel		9.46	0.25	1	
Copper	26.2	0.5	1		Zinc		147	1	1	
R7-021006	06-02-0643-2				02/10/06	Solid	02/13/06	02/14/06	060213L12	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Cadmium	0.661	0.500	1		Lead		79.1	0.5	1	
Chromium	8.43	0.25	1		Nickel		6.75	0.25	1	
Copper	38.6	0.5	1		Zinc		129	1	1	
R6-021006	06-02-0643-3				02/10/06	Solid	02/13/06	02/14/06	060213L12	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Cadmium	1.21	0.50	1		Lead		77.2	0.5	1	
Chromium	35.2	0.2	1		Nickel		11.5	0.2	1	
Copper	79.0	0.5	1		Zinc		362	1	1	
Method Blank	097-01-002-7,317				N/A	Solid	02/13/06	02/15/06	060213L12	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Cadmium	ND	0.500	1		Lead		ND	0.500	1	
Chromium	ND	0.250	1		Nickel		ND	0.250	1	
Copper	ND	0.500	1		Zinc		ND	1.00	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



The RETEC Group, Inc
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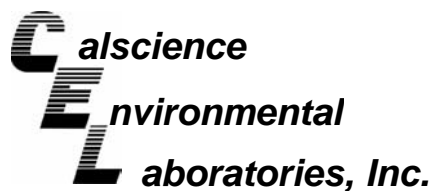
Date Received: 02/10/06
Work Order No: 06-02-0643
Preparation: EPA 3550B
Method: TPH - Carbon Range
Units: mg/kg

Project: Sediment Sampling

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID			
R8-021006	06-02-0643-1	02/10/06	Solid	02/11/06	02/15/06	060211B18			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		2		C21-C22	7.3		2	
C8	ND		2		C23-C24	9.4		2	
C9-C10	ND		2		C25-C28	25		2	
C11-C12	0.41		2		C29-C32	40		2	
C13-C14	1.1		2		C33-C36	27		2	
C15-C16	1.5		2		C37-C40	32		2	
C17-C18	2.3		2		C41-C44	34		2	
C19-C20	4.6		2		C7-C44 Total	190	10	2	
Surrogates:	REC (%)	Control Limits		Qual					
Decachlorobiphenyl	111	61-145							
R7-021006	06-02-0643-2	02/10/06	Solid	02/11/06	02/15/06	060211B18			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		2		C21-C22	5.9		2	
C8	ND		2		C23-C24	10		2	
C9-C10	ND		2		C25-C28	24		2	
C11-C12	ND		2		C29-C32	39		2	
C13-C14	0.30		2		C33-C36	34		2	
C15-C16	1.1		2		C37-C40	29		2	
C17-C18	2.1		2		C41-C44	26		2	
C19-C20	4.4		2		C7-C44 Total	180	10	2	
Surrogates:	REC (%)	Control Limits		Qual					
Decachlorobiphenyl	103	61-145							
R6-021006	06-02-0643-3	02/10/06	Solid	02/11/06	02/15/06	060211B18			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	3.6		1	
C8	ND		1		C23-C24	6.1		1	
C9-C10	0.22		1		C25-C28	18		1	
C11-C12	0.67		1		C29-C32	23		1	
C13-C14	0.63		1		C33-C36	16		1	
C15-C16	0.85		1		C37-C40	13		1	
C17-C18	1.2		1		C41-C44	17		1	
C19-C20	2.1		1		C7-C44 Total	100	5	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decachlorobiphenyl	95	61-145							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

Date Received: 02/10/06
Work Order No: 06-02-0643
Preparation: EPA 3550B
Method: TPH - Carbon Range
Units: mg/kg

Project: Sediment Sampling

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	098-03-002-5,224	N/A	Solid	02/11/06	02/14/06	060211B18

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
TPH as Diesel	ND	5.0	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Decachlorobiphenyl	94	61-145		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



The RETEC Group, Inc
 5000 East Spring Street, Suite 250
 Long Beach, CA 90815-5227

Date Received: 02/10/06
 Work Order No: 06-02-0643
 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: Sediment Sampling

Page 1 of 2

Client Sample Number	Lab Sample Number				Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
R8-021006	06-02-0643-1				02/10/06	Solid	02/11/06	02/14/06	060211L02
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	0.40	1		Benzo (a) Anthracene	ND	0.40	1	
Acenaphthylene	ND	0.40	1		Chrysene	ND	0.40	1	
Acenaphthene	ND	0.40	1		Benzo (k) Fluoranthene	ND	0.40	1	
Fluorene	ND	0.40	1		Benzo (b) Fluoranthene	ND	0.40	1	
Phenanthrene	ND	0.40	1		Benzo (a) Pyrene	ND	0.35	1	
Anthracene	ND	0.40	1		Indeno (1,2,3-c,d) Pyrene	ND	0.40	1	
Fluoranthene	ND	0.40	1		Dibenz (a,h) Anthracene	ND	0.40	1	
Pyrene	ND	0.40	1		Benzo (g,h,i) Perylene	ND	0.40	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
2-Fluorophenol	63	42-120			Phenol-d6	73	46-118		
Nitrobenzene-d5	77	42-150			2-Fluorobiphenyl	79	38-134		
2,4,6-Tribromophenol	93	36-132			p-Terphenyl-d14	73	35-167		
R7-021006	06-02-0643-2				02/10/06	Solid	02/11/06	02/14/06	060211L02
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	0.40	1		Benzo (a) Anthracene	ND	0.40	1	
Acenaphthylene	ND	0.40	1		Chrysene	ND	0.40	1	
Acenaphthene	ND	0.40	1		Benzo (k) Fluoranthene	ND	0.40	1	
Fluorene	ND	0.40	1		Benzo (b) Fluoranthene	ND	0.40	1	
Phenanthrene	ND	0.40	1		Benzo (a) Pyrene	ND	0.35	1	
Anthracene	ND	0.40	1		Indeno (1,2,3-c,d) Pyrene	ND	0.40	1	
Fluoranthene	ND	0.40	1		Dibenz (a,h) Anthracene	ND	0.40	1	
Pyrene	ND	0.40	1		Benzo (g,h,i) Perylene	ND	0.40	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
2-Fluorophenol	55	42-120			Phenol-d6	62	46-118		
Nitrobenzene-d5	68	42-150			2-Fluorobiphenyl	70	38-134		
2,4,6-Tribromophenol	81	36-132			p-Terphenyl-d14	69	35-167		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



The RETEC Group, Inc
 5000 East Spring Street, Suite 250
 Long Beach, CA 90815-5227

Date Received: 02/10/06
 Work Order No: 06-02-0643
 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: Sediment Sampling

Page 2 of 2

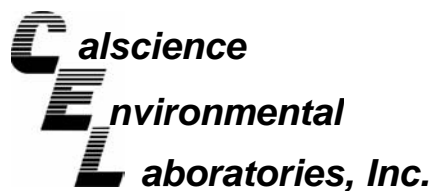
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
R6-021006	06-02-0643-3	02/10/06	Solid	02/11/06	02/14/06	060211L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	0.40	1		Benzo (a) Anthracene	ND	0.40	1	
Acenaphthylene	ND	0.40	1		Chrysene	ND	0.40	1	
Acenaphthene	ND	0.40	1		Benzo (k) Fluoranthene	ND	0.40	1	
Fluorene	ND	0.40	1		Benzo (b) Fluoranthene	ND	0.40	1	
Phenanthrene	ND	0.40	1		Benzo (a) Pyrene	ND	0.35	1	
Anthracene	ND	0.40	1		Indeno (1,2,3-c,d) Pyrene	ND	0.40	1	
Fluoranthene	ND	0.40	1		Dibenz (a,h) Anthracene	ND	0.40	1	
Pyrene	ND	0.40	1		Benzo (g,h,i) Perylene	ND	0.40	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
2-Fluorophenol	53	42-120			Phenol-d6	61	46-118		
Nitrobenzene-d5	66	42-150			2-Fluorobiphenyl	66	38-134		
2,4,6-Tribromophenol	80	36-132			p-Terphenyl-d14	73	35-167		

Method Blank	095-01-002-1,494	N/A	Solid	02/11/06	02/15/06	060211L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	0.40	1		Benzo (a) Anthracene	ND	0.40	1	
Acenaphthylene	ND	0.40	1		Chrysene	ND	0.40	1	
Acenaphthene	ND	0.40	1		Benzo (k) Fluoranthene	ND	0.40	1	
Fluorene	ND	0.40	1		Benzo (b) Fluoranthene	ND	0.40	1	
Phenanthrene	ND	0.40	1		Benzo (a) Pyrene	ND	0.35	1	
Anthracene	ND	0.40	1		Indeno (1,2,3-c,d) Pyrene	ND	0.40	1	
Fluoranthene	ND	0.40	1		Dibenz (a,h) Anthracene	ND	0.40	1	
Pyrene	ND	0.40	1		Benzo (g,h,i) Perylene	ND	0.40	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
2-Fluorophenol	79	42-120			Phenol-d6	84	46-118		
Nitrobenzene-d5	83	42-150			2-Fluorobiphenyl	71	38-134		
2,4,6-Tribromophenol	68	36-132			p-Terphenyl-d14	64	35-167		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

Date Received: 02/10/06
Work Order No: 06-02-0643

Project: Sediment Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
R8-021006	06-02-0643-1	02/10/06	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	3600	500	1		mg/kg	N/A	02/16/06	EPA 9060

R7-021006	06-02-0643-2	02/10/06	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	4400	500	1		mg/kg	N/A	02/16/06	EPA 9060

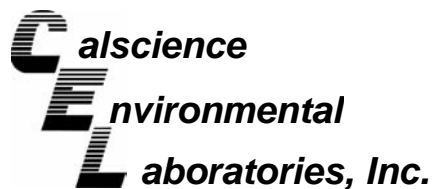
R6-021006	06-02-0643-3	02/10/06	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	26000	500	1		mg/kg	N/A	02/16/06	EPA 9060

Method Blank	N/A	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	ND	500	1		mg/kg	N/A	02/16/06	EPA 9060

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

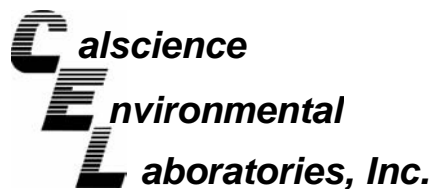
Date Received: 02/10/06
Work Order No: 06-02-0643
Preparation: EPA 3050B
Method: EPA 6010B

Project Sediment Sampling

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
06-02-0576-3	Solid	ICP 3300	02/13/06	02/14/06	060213S12

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cadmium	96	94	75-125	3	0-20	
Chromium	87	97	75-125	4	0-20	
Copper	95	101	75-125	4	0-20	
Lead	92	86	75-125	5	0-20	
Nickel	91	93	75-125	1	0-20	
Zinc	92	102	75-125	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



The RETEC Group, Inc
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Long Beach, CA 90815-5227

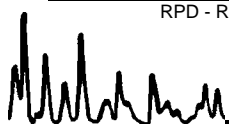
Date Received: 02/10/06
Work Order No: 06-02-0643
Preparation: EPA 3550B
Method: TPH - Carbon Range

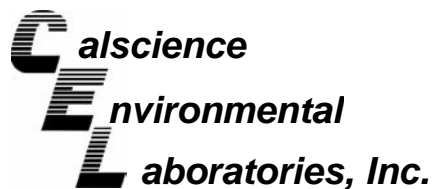
Project Sediment Sampling

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
06-02-0647-2	Solid	GC 15	02/11/06	02/14/06	060211S18

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	85	92	64-130	7	0-15	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



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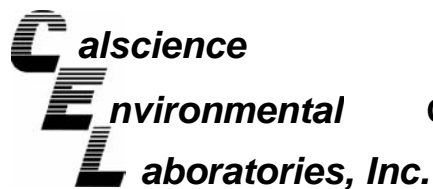
Date Received: 02/10/06
Work Order No: 06-02-0643
Preparation: EPA 3545
Method: EPA 8270C

Project Sediment Sampling

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
06-02-0648-32	Solid	GC/MS J	02/11/06	02/15/06	060211S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Phenol	90	85	57-123	6	0-16	
2-Chlorophenol	85	82	57-111	4	0-17	
1,4-Dichlorobenzene	85	85	49-127	1	0-20	
N-Nitroso-di-n-propylamine	91	85	54-144	6	0-17	
1,2,4-Trichlorobenzene	85	83	42-132	2	0-20	
4-Chloro-3-Methylphenol	102	95	50-128	8	0-17	
Acenaphthene	88	86	49-133	2	0-18	
4-Nitrophenol	83	75	30-144	10	0-21	
2,4-Dinitrotoluene	105	97	50-128	8	0-18	
Pentachlorophenol	47	49	29-113	5	0-22	
Pyrene	102	102	47-149	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



The RETEC Group, Inc
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Long Beach, CA 90815-5227

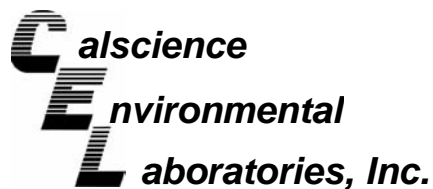
Date Received: N/A
Work Order No: 06-02-0643

Project: Sediment Sampling

Matrix: Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	EPA 9060	R8-021006	02/16/06	N/A	102	101	70-130	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



The RETEC Group, Inc
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Long Beach, CA 90815-5227

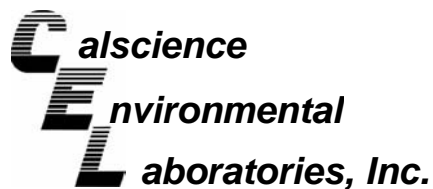
Date Received: N/A
Work Order No: 06-02-0643
Preparation: EPA 3050B
Method: EPA 6010B

Project: Sediment Sampling

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-7,317	Solid	ICP 3300	02/13/06	02/15/06	060213L12

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cadmium	107	109	80-120	2	0-20	
Chromium	106	108	80-120	2	0-20	
Copper	97	98	80-120	1	0-20	
Lead	107	111	80-120	4	0-20	
Nickel	109	111	80-120	2	0-20	
Zinc	109	111	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

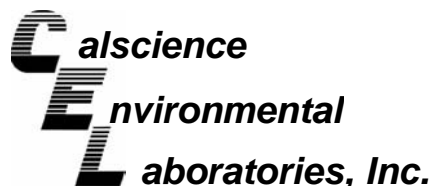
Date Received: N/A
Work Order No: 06-02-0643
Preparation: EPA 3550B
Method: TPH - Carbon Range

Project: Sediment Sampling

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-002-5,224	Solid	GC 15	02/11/06	02/14/06	060211B18

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	98	96	75-123	2	0-12	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

Date Received: N/A
Work Order No: 06-02-0643
Preparation: EPA 3545
Method: EPA 8270C

Project: Sediment Sampling

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-002-1,494	Solid	GC/MS J	02/11/06	02/15/06	060211L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Phenol	74	84	59-125	12	0-15	
2-Chlorophenol	73	81	60-114	11	0-15	
1,4-Dichlorobenzene	76	84	61-121	10	0-21	
N-Nitroso-di-n-propylamine	76	85	64-136	11	0-15	
1,2,4-Trichlorobenzene	69	77	58-118	11	0-18	
4-Chloro-3-Methylphenol	77	85	61-121	10	0-14	
Acenaphthene	74	86	59-125	14	0-15	
4-Nitrophenol	69	79	38-152	13	0-31	
2,4-Dinitrotoluene	83	97	51-141	16	0-16	
Pentachlorophenol	46	52	38-116	12	0-20	
Pyrene	69	78	51-141	12	0-14	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Laboratory Control Sample



The RETEC Group, Inc
5000 East Spring Street, Suite 250
Long Beach, CA 90815-5227

Date Received: N/A
Work Order No: 06-02-0643

Project: Sediment Sampling

Matrix : Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	EPA 9060	099-06-013-122	02/16/06	N/A	6000	5900	98	80-120	

RPD - Relative Percent Difference , CL - Control Limit

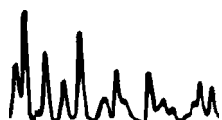
A handwritten signature in black ink, appearing to be 'M. J. ...', is written over the footer line.

Glossary of Terms and Qualifiers



Work Order Number: 06-02-0643

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

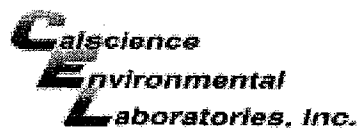




DATE: _____

PAGE: 1 OF 1

Page 17 of 56



WORK ORDER #:

06 - 02 - 0643

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: DetecDATE: 2/10/16

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- ☐ Chilled, cooler with temperature blank provided.
☐ Chilled, cooler without temperature blank.
☒ Chilled and placed in cooler with wet ice.
☐ Ambient and placed in cooler with wet ice.
☐ Ambient temperature.

☒ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- ☐ °C Temperature blank.
☐ °C IR thermometer.
☐ Ambient temperature.

Initial: [Signature]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): _____

Initial: [Signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/> CLN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOA vial(s) free of headspace.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: [Signature]

COMMENTS:

- Sample - (1) received 3 cont
 - Sample - (2) received 5 cont
 - Sample - (3) received 5 cont. CLN



ANALYTICAL RESULTS

Prepared for:

Calscience
7440 Lincoln Way
Garden Grove CA 92841-1432

714-895-5494

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 978051. Samples arrived at the laboratory on Tuesday, February 14, 2006. The PO# for this group is 06-02-0643.

Client Description

R8-021006 Soil Sample
R7-021006 Soil Sample
R6-021006 Soil Sample

Lancaster Labs Number

4709689
4709690
4709691

1 COPY TO

Calscience

Attn: Stephen Nowak

Questions? Contact your Client Services Representative
Lynn M Frederiksen at (717) 656-2300

Respectfully Submitted,

Melissa A. McDermott
Senior Chemist



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 4709689

R8-021006 Soil Sample
Prj. 06-02-0643

Collected: 02/10/2006 15:30

Account Number: 11053

Submitted: 02/14/2006 09:35
Reported: 02/27/2006 at 11:09
Discard: 03/30/2006Calscience
7440 Lincoln Way
Garden Grove CA 92841-1432

062R8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01363	OC Pesticides in Solids					
01993	PCB-1016	12674-11-2	< 74.	74.	ug/kg	10
01994	PCB-1221	11104-28-2	< 33.	33.	ug/kg	10
01995	PCB-1232	11141-16-5	< 48.	48.	ug/kg	10
01996	PCB-1242	53469-21-9	< 30.	30.	ug/kg	10
01997	PCB-1248	12672-29-6	< 110.	110.	ug/kg	10
01998	PCB-1254	11097-69-1	< 33.	33.	ug/kg	10
01999	PCB-1260	11096-82-5	< 110.	110.	ug/kg	10
03062	p,p-DDE	72-55-9	8.4 J	3.3	ug/kg	10
03063	p,p-DDD	72-54-8	10. J	3.3	ug/kg	10
03064	p,p-DDT	50-29-3	< 3.3	3.3	ug/kg	10
07080	o,p-DDE	3424-82-6	< 3.3	3.3	ug/kg	10
07081	o,p-DDD	53-19-0	3.6 J	3.3	ug/kg	10
07082	o,p-DDT	789-02-6	< 3.3	3.3	ug/kg	10

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01363	OC Pesticides in Solids	SW-846 8081A/SW-846 8082	1	02/23/2006 12:15	Mark E McNulty	10
06006	PPL Pesticide Solid Extraction	SW-846 3550B	1	02/16/2006 02:30	Michael E Cunningham	1

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 4709690

R7-021006 Soil Sample
Prj. 06-02-0643

Collected: 02/10/2006 14:55

Account Number: 11053

Submitted: 02/14/2006 09:35
Reported: 02/27/2006 at 11:09
Discard: 03/30/2006Calscience
7440 Lincoln Way
Garden Grove CA 92841-1432

062R7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	Units	Dilution Factor
				Detection Limit		
01363	OC Pesticides in Solids					
01993	PCB-1016	12674-11-2	< 74.	74.	ug/kg	10
01994	PCB-1221	11104-28-2	< 33.	33.	ug/kg	10
01995	PCB-1232	11141-16-5	< 48.	48.	ug/kg	10
01996	PCB-1242	53469-21-9	< 30.	30.	ug/kg	10
01997	PCB-1248	12672-29-6	< 110.	110.	ug/kg	10
01998	PCB-1254	11097-69-1	< 33.	33.	ug/kg	10
01999	PCB-1260	11096-82-5	< 110.	110.	ug/kg	10
03062	p,p-DDE	72-55-9	8.9 J	3.3	ug/kg	10
03063	p,p-DDD	72-54-8	8.5 J	3.3	ug/kg	10
03064	p,p-DDT	50-29-3	5.0 J	3.3	ug/kg	10
07080	o,p-DDE	3424-82-6	< 3.3	3.3	ug/kg	10
07081	o,p-DDD	53-19-0	< 3.3	3.3	ug/kg	10
07082	o,p-DDT	789-02-6	< 3.3	3.3	ug/kg	10

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01363	OC Pesticides in Solids	SW-846 8081A/SW-846 8082	1	02/23/2006 13:38	Mark E McNulty	10
06006	PPL Pesticide Solid Extraction	SW-846 3550B	1	02/16/2006 02:30	Michael E Cunningham	1

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 4709691

R6-021006 Soil Sample
Prj. 06-02-0643

Collected: 02/10/2006 13:05

Account Number: 11053

Submitted: 02/14/2006 09:35
Reported: 02/27/2006 at 11:09
Discard: 03/30/2006Calscience
7440 Lincoln Way
Garden Grove CA 92841-1432

062R6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01363	OC Pesticides in Solids					
01993	PCB-1016	12674-11-2	< 74.	74.	ug/kg	10
01994	PCB-1221	11104-28-2	< 33.	33.	ug/kg	10
01995	PCB-1232	11141-16-5	< 48.	48.	ug/kg	10
01996	PCB-1242	53469-21-9	< 30.	30.	ug/kg	10
01997	PCB-1248	12672-29-6	< 110.	110.	ug/kg	10
01998	PCB-1254	11097-69-1	60. J	33.	ug/kg	10
01999	PCB-1260	11096-82-5	< 110.	110.	ug/kg	10
03062	p,p-DDE	72-55-9	34.	3.3	ug/kg	10
03063	p,p-DDD	72-54-8	31.	3.3	ug/kg	10
03064	p,p-DDT	50-29-3	15. J	3.3	ug/kg	10
07080	o,p-DDE	3424-82-6	< 3.3	3.3	ug/kg	10
07081	o,p-DDD	53-19-0	9.4 J	3.3	ug/kg	10
07082	o,p-DDT	789-02-6	< 3.3	3.3	ug/kg	10

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01363	OC Pesticides in Solids	SW-846 8081A/SW-846 8082	1	02/23/2006 13:58	Mark E McNulty	10
06006	PPL Pesticide Solid Extraction	SW-846 3550B	1	02/16/2006 02:30	Michael E Cunningham	1

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Quality Control Summary

Client Name: Calscience
Reported: 02/27/06 at 11:09 AM

Group Number: 978051

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 060460013A	Sample number(s): 4709689-4709691							
PCB-1016	< 7.4	7.4	ug/kg					
PCB-1221	< 3.3	3.3	ug/kg					
PCB-1232	< 4.8	4.8	ug/kg					
PCB-1242	< 3.0	3.0	ug/kg					
PCB-1248	< 11.	11.	ug/kg					
PCB-1254	< 3.3	3.3	ug/kg					
PCB-1260	< 11.	11.	ug/kg					
p,p-DDE	< 0.33	0.33	ug/kg	86		71-143		
p,p-DDD	< 0.33	0.33	ug/kg	80		60-153		
p,p-DDT	< 0.33	0.33	ug/kg	80		67-152		
o,p-DDE	< 0.33	0.33	ug/kg					
o,p-DDD	< 0.33	0.33	ug/kg					
o,p-DDT	< 0.33	0.33	ug/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 060460013A	Sample number(s): 4709689-4709691 UNSPK: 4709689								
p,p-DDE	63	59	48-175	2	50				
p,p-DDD	87	78	52-181	4	50				
p,p-DDT	205*	143	62-166	36	50				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: OC Pesticides in Solids
Batch number: 060460013A

Tetrachloro-m-xylene Decachlorobiphenyl

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Quality Control Summary

Client Name: Calscience
Reported: 02/27/06 at 11:09 AM

Group Number: 978051

Surrogate Quality Control

4709689	91	123
4709690	92	118
4709691	73	97
Blank	102	99
LCS	83	85
MS	82	121
MSD	86	117

Limits:	58-149	62-159
---------	--------	--------

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

February 28, 2006

Mr. Stephen Nowak
Calscience Env.
7440 Lincoln Way
Garden Grove, CA 92841

Re: 06-02-0643
PTS File: 36097

Dear Mr. Nowak:

Enclosed are final data for samples submitted from your Project # 06-02-0643. Electronic versions of the data have been previously sent to your attention. All analyses were performed by applicable ASTM, EPA or API methodology. The samples are currently in storage and will be held for thirty days before disposal.

We appreciate the opportunity to be of service and trust these data will prove beneficial in the development of this project. Please call me at (562) 907-3607 with any questions or if you require additional information.

Sincerely,
PTS Laboratories, Inc.



Larry Kunkel
District Manager

LAK:vk

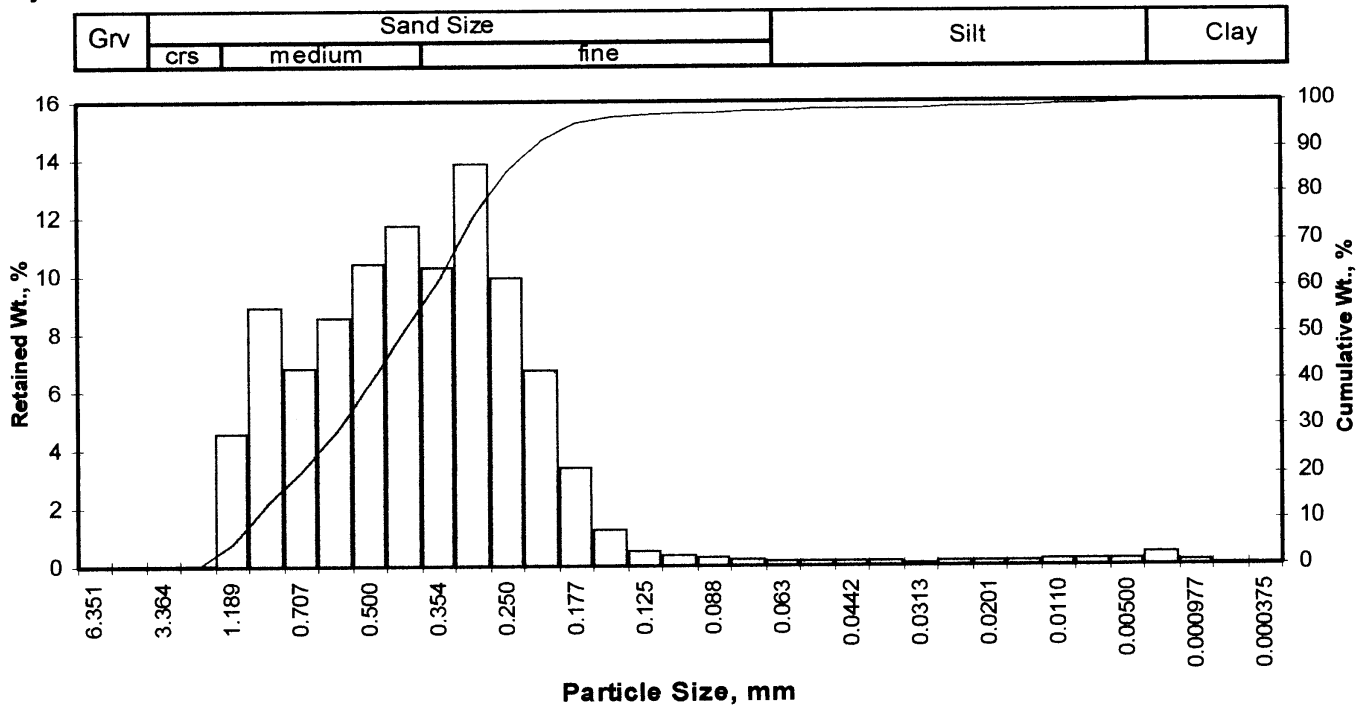
Encl.

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D464M

Client: Calscience
Project: N/A
Project No: 06-02-0643

PTS File No: 36097
Sample ID: R8-021006
Depth, ft: N/A



Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent	Cumulative Weight Percent greater than			
Inches	Millimeters						Weight percent	Phi Value	Particle Size	
									Inches	Millimeters
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00	5	-0.22	0.0460	1.168
0.1873	4.757	-2.25	4	0.00	0.00	0.00	10	0.06	0.0378	0.961
0.1324	3.364	-1.75	6	0.00	0.00	0.00	16	0.34	0.0310	0.788
0.0787	2.000	-1.00	10	0.00	0.00	0.00	25	0.64	0.0253	0.643
0.0468	1.189	-0.25	16	4.53	4.53	4.53	40	1.02	0.0195	0.495
0.0331	0.841	0.25	20	8.92	8.91	13.44	50	1.23	0.0168	0.426
0.0278	0.707	0.50	25	6.86	6.85	20.29	60	1.47	0.0142	0.361
0.0234	0.595	0.75	30	8.59	8.58	28.88	75	1.75	0.0117	0.298
0.0197	0.500	1.00	35	10.40	10.39	39.27	84	1.97	0.0100	0.255
0.0166	0.420	1.25	40	11.70	11.69	50.96	90	2.18	0.0087	0.220
0.0139	0.354	1.50	45	10.30	10.29	61.25	95	2.49	0.0070	0.178
0.0117	0.297	1.75	50	13.90	13.89	75.14				
0.0098	0.250	2.00	60	9.91	9.90	85.04				
0.0083	0.210	2.25	70	6.74	6.73	91.78				
0.0070	0.177	2.50	80	3.40	3.40	95.18				
0.0059	0.149	2.75	100	1.25	1.25	96.42				
0.0049	0.125	3.00	120	0.51	0.51	96.93				
0.0041	0.105	3.25	140	0.36	0.36	97.29				
0.0035	0.088	3.50	170	0.30	0.30	97.59				
0.0029	0.074	3.75	200	0.22	0.22	97.81				
0.0025	0.063	4.00	230	0.17	0.17	97.98				
0.0021	0.053	4.25	270	0.14	0.14	98.12				
0.00174	0.0442	4.50	325	0.12	0.12	98.24				
0.00146	0.0372	4.75	400	0.11	0.11	98.35				
0.00123	0.0313	5.00	450	0.10	0.10	98.45				
0.000986	0.0250	5.32	500	0.13	0.13	98.58				
0.000790	0.0201	5.64	635	0.13	0.13	98.71				
0.000615	0.0156	6.00		0.14	0.14	98.85				
0.000435	0.0110	6.50		0.19	0.19	99.04				
0.000308	0.00781	7.00		0.19	0.19	99.23				
0.000197	0.00500	7.65		0.23	0.23	99.46				
0.000077	0.00195	9.00		0.39	0.39	99.85				
0.000038	0.000977	10.00		0.14	0.14	99.99				
0.000019	0.000488	11.00		0.01	0.01	100.00				
0.000015	0.000375	11.38		0.00	0.00	100.00				
TOTALS				100.10	100.00	100.00				

Measure	Trask	Inman	Folk-Ward
Median, phi	1.23	1.23	1.23
Median, in.	0.0168	0.0168	0.0168
Median, mm	0.426	0.426	0.426
Mean, phi	1.09	1.16	1.18
Mean, in.	0.0185	0.0176	0.0173
Mean, mm	0.470	0.448	0.441
Sorting	1.469	0.815	0.818
Skewness	1.026	-0.087	-0.080
Kurtosis	0.233	0.663	1.000

Grain Size Description		Medium sand	
(ASTM-USCS Scale)		(based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	50.96
Fine Sand	200	46.85
Silt	>0.005 mm	1.65
Clay	<0.005 mm	0.54
Total		100

PARTICLE SIZE SUMMARY
(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: N/A
PROJECT NO: 06-02-0643

Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
R8-021006	N/A	Medium sand	0.426	0.00	0.00	50.96	46.85	1.65	0.54	2.19
R7-021006	N/A	Fine sand	0.344	0.00	0.00	38.46	55.55	4.26	1.73	5.99
R6-021006	N/A	Fine sand	0.186	1.34	1.28	18.59	67.85	(2)	(2)	10.95

(1) Based on Mean from Trask

(2) Mechanical sieve does not differentiate silt/clay fractions

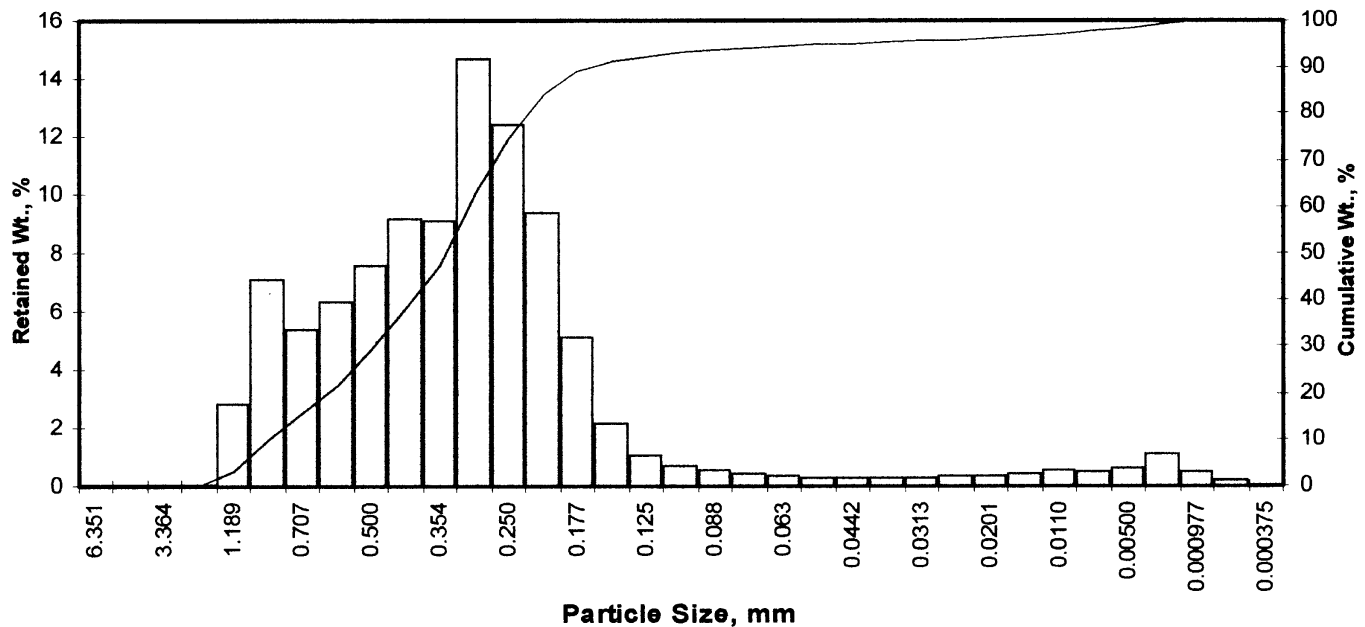
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Calscience
Project: N/A
Project No: 06-02-0643

PTS File No: 36097
Sample ID: R7-021006
Depth, ft: N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	2.84	2.84	2.84
0.0331	0.841	0.25	20	7.10	7.10	9.94
0.0278	0.707	0.50	25	5.37	5.37	15.31
0.0234	0.595	0.75	30	6.34	6.34	21.65
0.0197	0.500	1.00	35	7.62	7.62	29.27
0.0166	0.420	1.25	40	9.20	9.20	38.46
0.0139	0.354	1.50	45	9.13	9.13	47.59
0.0117	0.297	1.75	50	14.70	14.70	62.29
0.0098	0.250	2.00	60	12.40	12.40	74.69
0.0083	0.210	2.25	70	9.41	9.41	84.10
0.0070	0.177	2.50	80	5.13	5.13	89.22
0.0059	0.149	2.75	100	2.13	2.13	91.35
0.0049	0.125	3.00	120	1.03	1.03	92.38
0.0041	0.105	3.25	140	0.71	0.71	93.09
0.0035	0.088	3.50	170	0.52	0.52	93.61
0.0029	0.074	3.75	200	0.40	0.40	94.01
0.0025	0.063	4.00	230	0.35	0.35	94.36
0.0021	0.053	4.25	270	0.31	0.31	94.67
0.00174	0.0442	4.50	325	0.28	0.28	94.95
0.00146	0.0372	4.75	400	0.28	0.28	95.23
0.00123	0.0313	5.00	450	0.27	0.27	95.50
0.000986	0.0250	5.32	500	0.35	0.35	95.85
0.000790	0.0201	5.64	635	0.36	0.36	96.21
0.000615	0.0156	6.00		0.39	0.39	96.60
0.000435	0.0110	6.50		0.52	0.52	97.12
0.000308	0.00781	7.00		0.51	0.51	97.63
0.000197	0.00500	7.65		0.64	0.64	98.27
0.000077	0.00195	9.00		1.07	1.07	99.34
0.000038	0.000977	10.00		0.45	0.45	99.79
0.000019	0.000488	11.00		0.19	0.19	99.98
0.000015	0.000375	11.38		0.02	0.02	100.00
TOTALS				100.00	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	-0.10	0.0421	1.070
10	0.25	0.0330	0.839
16	0.53	0.0273	0.694
25	0.86	0.0217	0.551
40	1.29	0.0161	0.408
50	1.54	0.0135	0.344
60	1.71	0.0120	0.305
75	2.01	0.0098	0.249
84	2.25	0.0083	0.211
90	2.59	0.0065	0.166
95	4.54	0.0017	0.043

Measure	Trask	Inman	Folk-Ward
Median, phi	1.54	1.54	1.54
Median, in.	0.0135	0.0135	0.0135
Median, mm	0.344	0.344	0.344
Mean, phi	1.32	1.39	1.44
Mean, in.	0.0157	0.0150	0.0145
Mean, mm	0.400	0.382	0.369
Sorting	1.489	0.860	1.133
Skewness	1.077	-0.179	0.057
Kurtosis	0.225	1.697	1.656
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

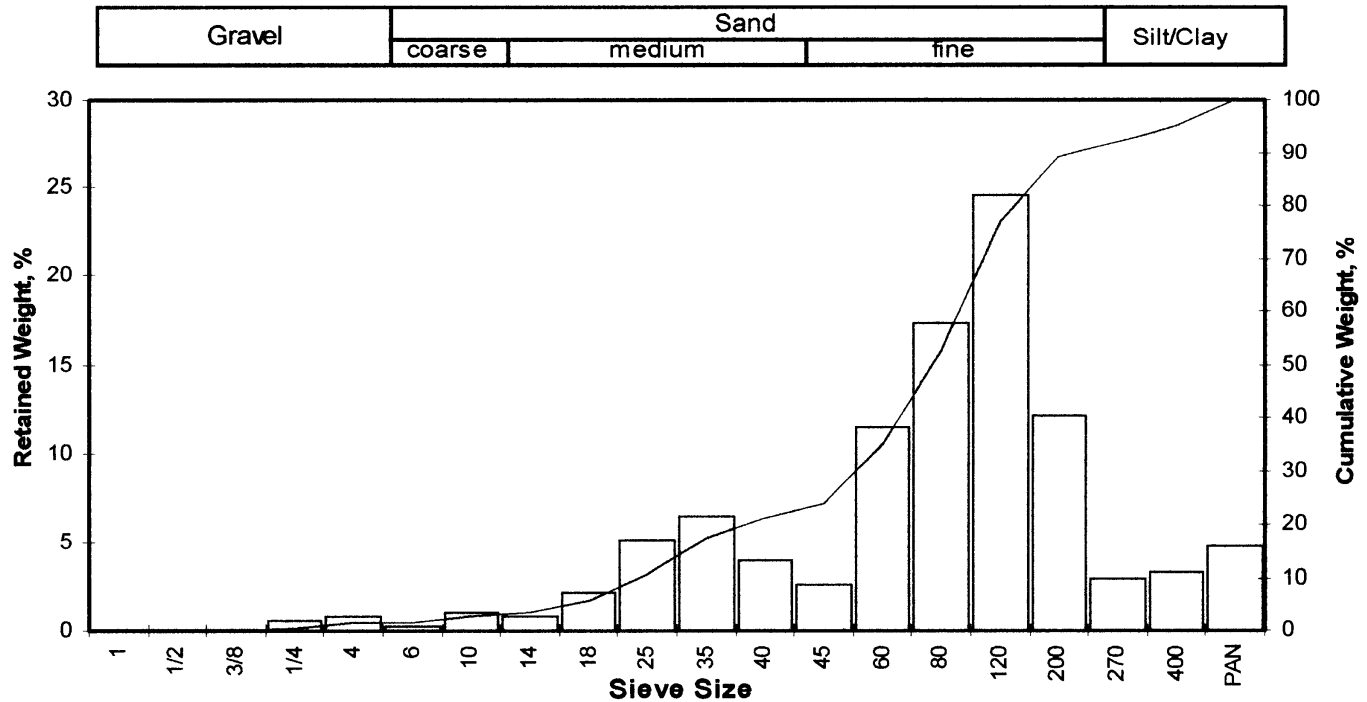
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	38.46
Fine Sand	200	55.55
Silt	>0.005 mm	4.26
Clay	<0.005 mm	1.73
Total		100

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client: Calscience
Project: N/A
Project No: 06-02-0643

PTS File No: 36097
Sample ID: R6-021006
Depth, ft: N/A



Opening		Phi of Screen	U.S. Sieve No.	Sample Weight grams	Incremental Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	0.00	0.00	0.00
0.3740	9.500	-3.25	3/8	0.00	0.00	0.00
0.2500	6.351	-2.67	1/4	0.27	0.56	0.56
0.1873	4.757	-2.25	4	0.38	0.78	1.34
0.1324	3.364	-1.75	6	0.13	0.27	1.61
0.0787	2.000	-1.00	10	0.49	1.01	2.61
0.0557	1.414	-0.50	14	0.41	0.84	3.46
0.0394	1.000	0.00	18	1.06	2.18	5.64
0.0278	0.707	0.50	25	2.48	5.10	10.75
0.0197	0.500	1.00	35	3.15	6.48	17.23
0.0166	0.420	1.25	40	1.93	3.97	21.20
0.0139	0.354	1.50	45	1.24	2.55	23.75
0.0098	0.250	2.00	60	5.53	11.38	35.14
0.0070	0.177	2.50	80	8.39	17.27	52.41
0.0049	0.125	3.00	120	11.91	24.52	76.92
0.0029	0.074	3.75	200	5.89	12.12	89.05
0.0021	0.053	4.25	270	1.43	2.94	91.99
0.0015	0.037	4.75	400	1.58	3.25	95.24
			PAN	2.31	4.76	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	-0.15	0.0436	1.107
10	0.43	0.0293	0.744
16	0.91	0.0210	0.534
25	1.55	0.0134	0.340
40	2.14	0.0089	0.227
50	2.43	0.0073	0.186
60	2.65	0.0063	0.159
75	2.96	0.0051	0.128
84	3.44	0.0036	0.092
90	3.91	0.0026	0.066
95	4.71	0.0015	0.038

Measure	Trask	Inman	Folk-Ward
Median, phi	2.43	2.43	2.43
Median, in.	0.0073	0.0073	0.0073
Median, mm	0.186	0.186	0.186
Mean, phi	2.09	2.17	2.26
Mean, in.	0.0092	0.0087	0.0082
Mean, mm	0.234	0.222	0.209
Sorting	1.628	1.266	1.369
Skewness	1.127	-0.204	-0.133
Kurtosis	0.156	0.919	1.416
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	1.34
Coarse Sand	10	1.28
Medium Sand	40	18.59
Fine Sand	200	67.85
Silt/Clay	<200	10.95

TOTALS 48.58 100.00 100.00

Total 100

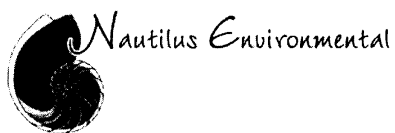


Toxicity Evaluation of Dominguez Channel Sediment Site R6-021006 and R7-021006

Prepared for
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March 2006



INTRODUCTION

An evaluation of sediment toxicity was performed on two samples collected from the Dominguez Channel. Toxicity testing utilizing the amphipod *Eohaustorius estuarius* was conducted between February 17 and 27, 2006 at the Nautilus Environmental Bioassay Laboratory (Nautilus) in San Diego, California. Mr. Stephen Nowak of Calscience Environmental Laboratories (CEL) in Garden Grove, California coordinated the sediment collection and testing programs.

METHODS AND MATERIALS

Sample Collection and Transport

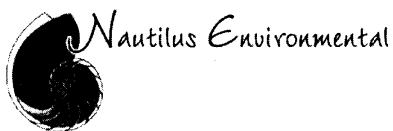
RETEC personnel collected the sediment samples on February 10, 2006. Following collection, each sediment sample was separately placed in 3 glass jars and sealed to minimize headspace. The samples were then placed in an ice chest with wet ice, and delivered to Nautilus by courier service on February 13, 2006. The samples were identified as Site R6-021006 and Site R7-021006 (hereafter referred to as R6 and R7, respectively). Appropriate chain-of-custody procedures were employed during collection and transport.

Sample Receipt

Upon arrival at Nautilus, the ice chest was opened, its contents verified, and a sediment receipt temperature was recorded. In addition, interstitial porewater was collected for measurement of ammonia. Interstitial water consisted of a subsample of water obtained by centrifuging the samples at 2500 revolutions per minute (rpm). The samples were then placed in a 4 °C cold room until test initiation.

Sediment Preparation and Handling

The entire volume of the sediment samples received was sieved through a 500-micron (μm) Nitex screen to remove resident organisms and debris that may interfere with the survival and/or recovery of test organisms. The samples were then thoroughly homogenized prior to distribution to each replicate chamber for testing.



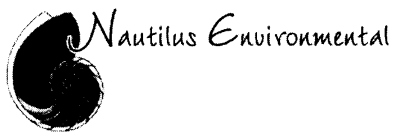
Organism Procurement and Handling

Test specimens (*Eohaustorius estuarius*) were obtained from Northwest Aquatic Laboratories in Newport, Oregon on February 16, 2006. The amphipods were transported to Nautilus in clean sediment with oxygen-saturated seawater contained within in 500-milliliter (ml) plastic containers. An insulated ice chest containing the organisms was shipped by overnight delivery service. Upon arrival at Nautilus, organism receipt information was recorded and physical parameters and animal condition were specified. The amphipods were acclimated to test conditions in order to promote and confirm animal health prior to test initiation. During the acclimation period, the animals were observed for any indications of stress or significant mortality. Observed mortality is monitored and recorded in animal holding logbooks. Mortality is considered significant if it is greater than 10 percent during the holding and acclimation period. Obvious indications of stress include abnormal swimming behavior, discoloration, or failure to burrow.

Bioassay Protocol

Marine amphipod bioassays using *Eohaustorius estuarius* were conducted in accordance with "Standard Guide for Conducting 10-day Static Toxicity Tests with Marine and Estuarine Amphipods (E1367-92)," (ASTM 1993). Animals were exposed to test sediment for ten days to determine the effects of both site sediments on amphipod survival. Test chambers consisted of 1-L glass jars with a 2-cm layer of sieved sediment and 900 ml of overlying lab-filtered seawater at a salinity of 30 parts per thousand (ppt). The tests were performed at a temperature of $15 \pm 1^\circ\text{C}$ under continuous lighting. Aeration was provided continuously to each test chamber through microtubing at a rate of two to three bubbles per second. Twenty amphipods were carefully placed in each test chamber at test initiation. A negative control consisting of native sediment from the amphipod collection location in Newport, OR was tested concurrently.

Temperature, DO, pH, and salinity were monitored daily in a surrogate test chamber for each site. Subsamples of overlying water from each site were collected for ammonia analysis both at the beginning and end of the test period. Ammonia was measured using Hach Method 10031. Each test chamber was examined daily to ensure proper airflow. Abnormal conditions or unusual animal behavior, if observed, were also noted



at this time. Examples of unusual behavior include failure to bury, erratic or slow movements, and slow response to stimulation.

A concurrent reference toxicant test (positive control) using cadmium (II) chloride (CdCl_2) was conducted in conjunction with the sediment tests. Reference toxicant testing is a QA/QC procedure used to evaluate the quality and sensitivity of organisms used with each round of testing.

Statistical Analyses

Statistical analyses were performed using GraphPad Prism software, Version 4.02. An unpaired t-test was performed to determine if a significant difference in survival existed between the control and test sediments. Prior to the analysis, normality was evaluated using D'Agostino & Pearson normality test and differences in variance were assessed with the F-test. If significant differences in variance were found, Welch's correction was applied to the unpaired t-test.

Linear Regression analysis was used to calculate the median lethal concentration (LC_{50}) value and associated confidence intervals for reference toxicant tests using CETIS Comprehensive Toxicity Data Analysis and Database Software, Version 1.025b.

RESULTS AND DISCUSSION

Test results are summarized in Figure 1. Survival summary, water quality data, reference toxicant data, and statistical summary are contained in Appendices A, B, C, and D, respectively. Chain-of-custody information is located in Appendix E.

Amphipod Bioassay

Mean survival in the control was 92 percent. This value exceeds the recommended EPA guideline survival criterion of 90 percent. Average survival of amphipods exposed to Site R6 and R7 was 0 and 10 percent, respectively (Figure 1, Appendix A-1). An unpaired t-test detected significant reduction in survival of amphipods exposed to both test sediments relative to the control (Appendix D-1).

All water quality measurements recorded during the 10-day exposure were within the range defined as acceptable by the test protocol, with the exception of temperature on

test day 1. The temperature of all sites and control on this day was slightly above 16°C. The environmental chamber was adjusted and temperatures brought within test protocol parameters. In addition, some abnormal amphipod behavior was observed during the test. Many of the amphipods were swimming up in the water column and not burrowing in the sediment of test sites. It was apparent that the amphipods were avoiding sediment contact in these test chambers. Towards the end of the testing period, dead bodies were observed on the surface of the sediment in these same test chambers.

A concurrent reference toxicant test using cadmium chloride (CdCl_2) was conducted to assess the health of the test organisms and soundness of procedures. Mean control survival was 90 percent. An LC_{50} value of 4.6 milligrams per liter (mg/L) cadmium was determined using Linear Regression analysis. This LC_{50} value is within internal control chart limits of \pm two standard deviations (Appendix C). This indicates that the test organism sensitivity was similar to that of organisms historically tested at Nautilus.

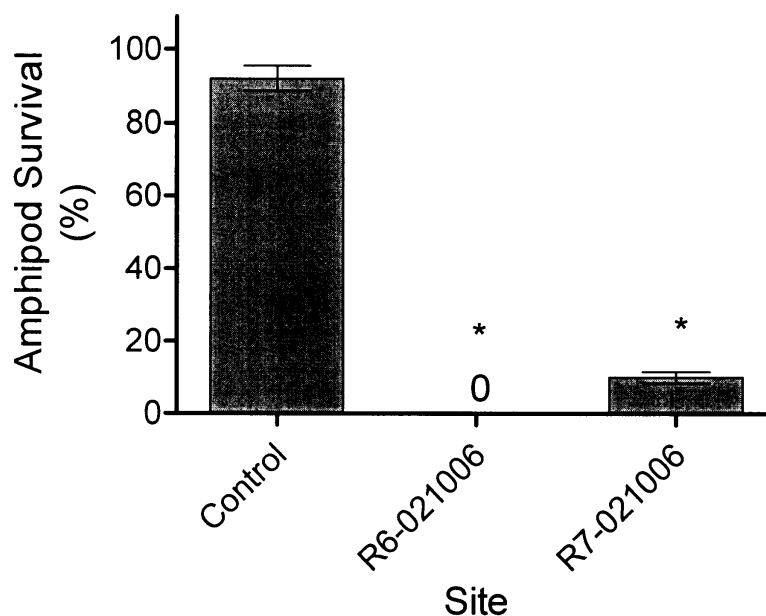
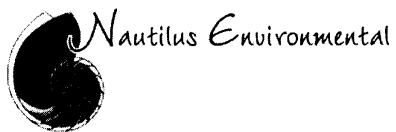
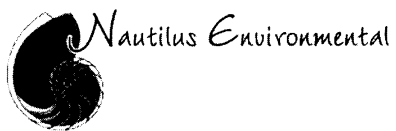


Figure 1. Summary of *Eohaustorius* Survival ($\pm 95\%$ CI; $n=5$). * Asterisk indicates a statistically significant reduction from the control.



Total Ammonia Analyses

Total ammonia levels in the interstitial porewater of test sediments R6 and R7 were 23.4 and 13.7 mg/L, respectively. Ammonia in overlying water of the test sediment R6 was 3.8 and 12.7 mg/L on day zero and day ten, respectively (Appendix B-1). Ammonia in overlying water of the test sediment R7 was 1.8 and 3.8 mg/L on day zero and day ten, respectively (Appendix B-1). Levels of total ammonia for porewater and overlying water were below those (30-60 mg/L) reported to be toxic to this species (Kohn et al. 1994).



REFERENCES

American Society for Testing and Materials (ASTM), 1993. Conducting 10-day static sediment toxicity tests with marine and estuarine amphipods. ASTM Designation E 1367-92.

GraphPad Software Inc. 1994-2000. GraphPad Prism, Version 4.02.

Kohn, N.P., J.Q. Word, D.K. Niyogi, L.T. Ross, T. Dillon, and D.W. Moore. 1994. Acute toxicity of ammonia to four species of marine amphipod. *Marine Env. Res.* 38: 1-15.

Tidepool Scientific Software. 2001-2002. CETIS Comprehensive Toxicity Data Analysis and Database Software, Version 1.025b.

APPENDIX A
SURVIVAL SUMMARY

Appendix A-1. Summary of Test Results for 10-day Amphipod Bioassay

CalScience Environmental Laboratories

Eohaustorius estuarius

Test Initiation Date: February 17, 2006

Site	Rep	Rand#	# Alive	% Survival	Mean % Survival
CONTROL <i>Eohaustorius</i> Native Sed.	A	15	18	90	
	B	14	18	90	
	C	6	19	95	
	D	1	19	95	
	E	11	18	90	92
Site R6	A	10	0	0	
	B	2	0	0	
	C	5	0	0	
	D	9	0	0	
	E	8	0	0	0
Site R7	A	7	2	10	
	B	3	1	5	
	C	12	3	15	
	D	13	2	10	
	E	4	2	10	10

APPENDIX B

WATER QUALITY RESULTS

Appendix Table B-1. 10-Day Amphipod Water Quality Results
Eohaustorius estuarius
Calscience Environmental Laboratories

<i>Eohaustorius</i> Native Sediment Control						
Day	Temp. (°C)	D.O. (mg/L)	pH (units)	Salinity (ppt)	Total NH₃ (mg/L)	
					Overlying Water	Porewater
0	15.4	8.2	8.00	29.0	0.4	--
1	16.7	8.1	8.19	28.8	--	--
2	15.6	7.9	8.11	28.7	--	--
3	15.5	8.1	8.12	28.7	--	--
4	15.6	8.5	8.12	28.7	--	--
5	15.7	8.6	8.09	28.7	--	--
6	15.4	8.4	8.07	28.8	--	--
7	15.5	7.9	8.09	28.7	--	--
8	15.4	8.0	8.11	28.7	--	--
9	15.5	7.9	8.09	28.7	--	--
10	15.6	8.5	8.04	28.6	0.5	--

Appendix Table B-1 (cont.). 10-Day Amphipod Water Quality Results
Eohaustorius estuarius
Calscience Environmental Laboratories

Site R6						
Day	Temp. (°C)	D.O. (mg/L)	pH (units)	Salinity (ppt)	Total NH ₃ (mg/L)	
					Overlying Water	Porewater
0	15.2	8.1	8.07	29.8	3.8	23.4
1	16.4	8.1	8.21	29.7	--	--
2	15.4	7.8	8.22	29.7	--	--
3	15.4	8.0	8.26	29.8	--	--
4	15.4	8.4	8.31	29.8	--	--
5	15.3	8.6	8.33	29.8	--	--
6	15.2	8.0	8.30	29.8	--	--
7	15.3	8.0	8.36	29.9	--	--
8	15.2	8.0	8.42	29.8	--	--
9	15.3	8.0	8.39	29.8	--	--
10	15.3	8.4	8.46	29.7	12.7	--

Appendix Table B-1 (cont.). 10-Day Amphipod Water Quality Results
Eohaustorius estuarius
Calscience Environmental Laboratories

Site R7						
Day	Temp. (°C)	D.O. (mg/L)	pH (units)	Salinity (ppt)	Total NH ₃ (mg/L)	
					Overlying Water	Porewater
0	15.2	8.0	8.06	29.9	1.8	13.7
1	16.5	7.9	8.18	29.9	--	--
2	15.3	7.9	8.15	29.8	--	--
3	15.1	8.0	8.18	30.0	--	--
4	15.3	8.4	8.20	30.1	--	--
5	15.0	8.7	8.17	30.1	--	--
6	15.0	7.9	8.14	30.1	--	--
7	15.1	8.0	8.19	30.1	--	--
8	14.9	8.1	8.19	30.1	--	--
9	14.9	8.2	8.14	30.1	--	--
10	15.0	8.5	8.18	30.0	3.8	--

APPENDIX C

REFERENCE TOXICANT TESTS

CETIS Test Summary

Report Date: 14 Mar-06 10:58 AM

Link: 12-0435-3541/060217eera

Acute Amphipod Survival Test				Nautilus Environmental (CA)				
Test No:	08-8990-6433	Test Type:	Survival (96h)	Duration:	4d 0h			
Start Date:	17 Feb-06 12:15 PM	Protocol:	ASTM E1367-99 (1999)	Species:	Eohaustorius estuarius			
Ending Date:	21 Feb-06 12:30 PM	Dil Water:	Diluted Natural Seawater	Source:	Northwestern Aquatic Science, OR			
Setup Date:	17 Feb-06 12:15 PM	Brine:						
Sample No:	13-7148-8811	Material:	Cadmium chloride	Client:	Reference Toxicant Test			
Sample Date:	17 Feb-06	Code:	060217eera	Project:				
Receive Date:	17 Feb-06	Source:	Reference Toxicant					
Sample Age:	12h	Station:						
Comparison Summary								
Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method		
09-2735-4690	96h Proportion Survived	< 1.25	1.25	N/A	15.38%	Steel's Many-One Rank		
Point Estimate Summary								
Analysis	Endpoint	% Effect	Conc-mg/L	95% LCL	95% UCL	Method		
13-4210-4498	96h Proportion Survived	25	2.35366	1.23143	3.41987	Linear Regression		
		50	4.64269	3.13361	6.19194			
96h Proportion Survived Summary								
Conc-mg/L	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Lab Control	4	0.90000	0.90000	0.90000	0.00000	0.00000	0.00%
1.25		4	0.75000	0.70000	0.80000	0.02887	0.05774	7.70%
2.5		4	0.60000	0.50000	0.70000	0.04082	0.08165	13.61%
5		4	0.47500	0.30000	0.60000	0.07500	0.15000	31.58%
10		4	0.27500	0.10000	0.50000	0.08539	0.17078	62.10%
20		4	0.00000	0.00000	0.00000	0.00000	0.00000	0.00%

Comparisons: Page 1 of 2

Report Date: 14 Mar-06 10:58 AM

Analysis: 09-2735-4690/060217eera

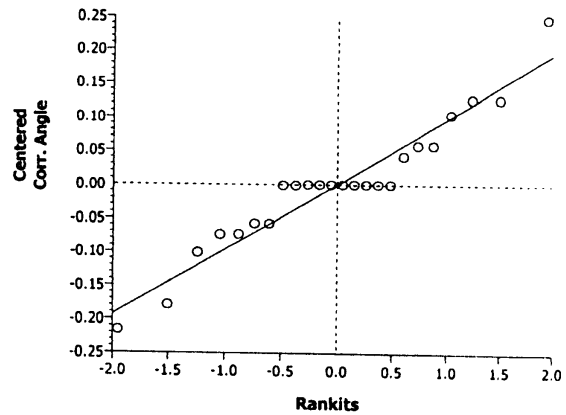
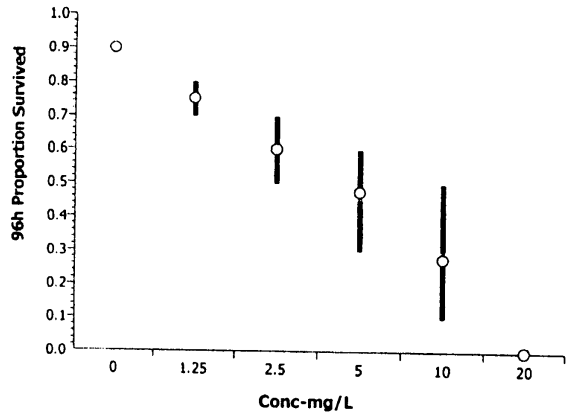
CETIS Analysis Detail

Acute Amphipod Survival Test					Nautilus Environmental (CA)						
Endpoint	Analysis Type		Sample Link	Control Link	Date Analyzed	Version					
96h Proportion Survived	Comparison		12-0435-3541	12-0435-3541	14 Mar-06 10:56 AM	CETISv1.025					
Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp			
Steel's Many-One Rank	C > T	Angular (Corrected)		<1.25	1.25		N/A	15.38%			
ANOVA Assumptions											
Attribute	Test	Statistic	Critical	P Level	Decision(0.01)						
Variances	Modified Levene	5.32106	4.24788	0.00356	Unequal Variances						
Distribution	Shapiro-Wilk W	0.93740	0.88421	0.14929	Normal Distribution						
ANOVA Table											
Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)					
Between	2.995129	0.5990258	5	49.05	0.00000	Significant Effect					
Error	0.2198434	0.0122135	18								
Total	3.21497223	0.6112393	23								
Group Comparisons											
Control	vs	Conc-mg/L	Statistic	Critical	P Level	Ties	Decision(0.05)				
Lab Control		1.25	10	10	<= 0.0500	3	Significant Effect				
		2.5	10	10	<= 0.0500	2	Significant Effect				
		5	10	10	<= 0.0500	2	Significant Effect				
		10	10	10	<= 0.0500	1	Significant Effect				
		20	10	10	<= 0.0500	2	Significant Effect				
Data Summary											
Conc-mg/L	Control Type	Count	Original Data				Transformed Data				
			Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD	
0	Lab Control	4	0.90000	0.90000	0.90000	0.00014	1.24905	1.24905	1.24905	0.00015	
1.25		4	0.75000	0.70000	0.80000	0.05774	1.04915	0.99116	1.10715	0.06697	
2.5		4	0.60000	0.50000	0.70000	0.08165	0.88718	0.78540	0.99116	0.08401	
5		4	0.47500	0.30000	0.60000	0.15000	0.75913	0.57964	0.88608	0.15274	
10		4	0.27500	0.10000	0.50000	0.17078	0.53761	0.32175	0.78540	0.19599	
20		4	0.00000	0.00000	0.00000	0.00000	0.15878	0.15878	0.15878	0.00001	
Data Detail											
Conc-mg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Control	0.90000	0.90000	0.90000	0.90000						
1.25		0.70000	0.80000	0.80000	0.70000						
2.5		0.50000	0.60000	0.70000	0.60000						
5		0.60000	0.30000	0.40000	0.60000						
10		0.20000	0.30000	0.10000	0.50000						
20		0.00000	0.00000	0.00000	0.00000						

CETIS Analysis Detail

Comparisons: Page 2 of 2
Report Date: 14 Mar-06 10:58 AM
Analysis: 09-2735-4690/060217eera

Graphics



Linear Regression: Page 1 of 2

Report Date: 14 Mar-06 10:58 AM

Analysis: 13-4210-4498/060217eera

CETIS Analysis Detail

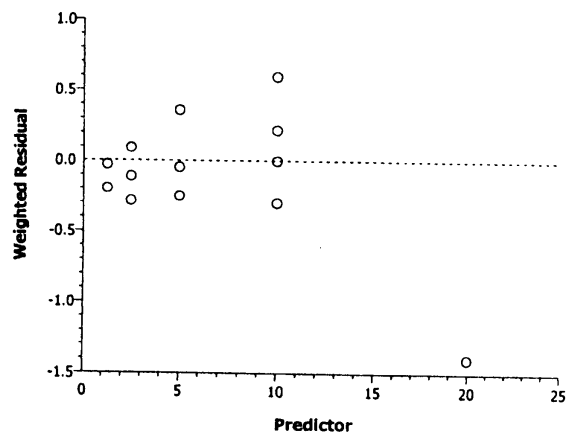
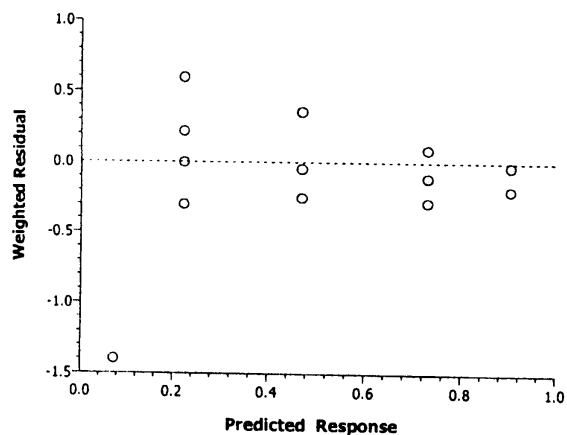
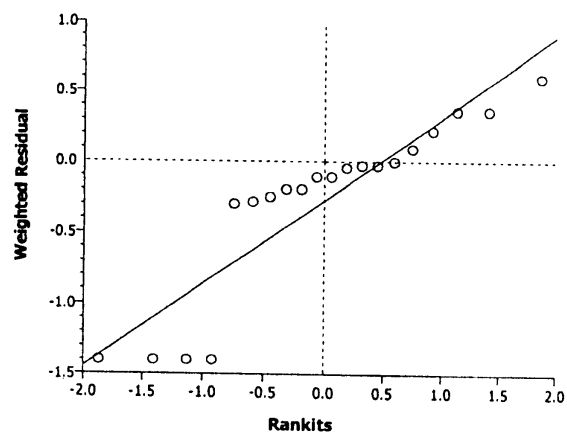
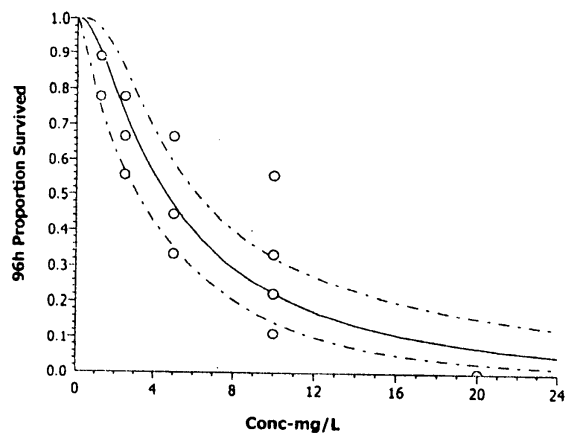
Analysis: 13-4210-4498/060217eer

Acute Amphipod Survival Test							Nautilus Environmental (CA)			
Endpoint	Analysis Type		Sample Link	Control Link	Date Analyzed	Version				
96h Proportion Survived	Linear Regression		12-0435-3541	12-0435-3541	14 Mar-06 10:57 AM	CETISv1.025				
Linear Regression Options										
Model	Threshold Option	Lower Threshold	Threshold Optimized		Reweighted	Pooled Groups	Heterogeneity Corr.			
Log-Normal	Control Threshold	0.1	Yes		Yes	No	No			
Regression Parameters										
Parameter	Estimate	Std Error	95% LCL	95% UCL	t Statistic	P Level	Decision(0.05)			
Threshold	0.12271	0.04943	0.02583	0.21959	2.483	0.08907	Not Significant			
Slope	2.28620	0.38797	1.52577	3.04663	5.893	0.00976	Significant			
Intercept	3.47563	0.32742	2.83389	4.11737	10.615	0.00179	Significant			
Regression Summary										
Iters	Log Likelihood	Mu	Sigma	G Stat	Chi-Sq	Critical	P Level	Decision(0.05)		
9	-51.81714	1.52026	0.43741	0.11063	15.55116	28.86930	0.62384	Non-Significant Heterogeneity		
Residual Analysis										
Attribute	Method	Statistic		Critical	P Level	Decision(0.05)				
Variances	Modified Levene	3.45321		2.95825	0.03055	Unequal Variances				
Distribution	Shapiro-Wilk W	0.96457		0.90456	0.61623	Normal Distribution				
Point Estimates										
% Effect	Conc-mg/L	95% LCL	95% UCL							
25	2.35366	1.23143	3.41987							
50	4.64269	3.13361	6.19194							
Data Summary										
Conc-mg/	Control Type	Count	Calculated Variate(A/B)						A	B
			Mean	Minimum	Maximum	SE	SD			
0	Lab Control	4	0.90000	0.90000	0.90000	0.00003	0.00014	36	40	
1.25		4	0.75000	0.70000	0.80000	0.01179	0.05774	30	40	
2.5		4	0.60000	0.50000	0.70000	0.01667	0.08165	24	40	
5		4	0.47500	0.30000	0.60000	0.03062	0.15000	19	40	
10		4	0.27500	0.10000	0.50000	0.03486	0.17078	11	40	
20		4	0.00000	0.00000	0.00000	0.00000	0.00000	0	40	

Linear Regression: Page 2 of 2
Report Date: 14 Mar-06 10:58 AM
Analysis: 13-4210-4498/060217eera

CETIS Analysis Detail

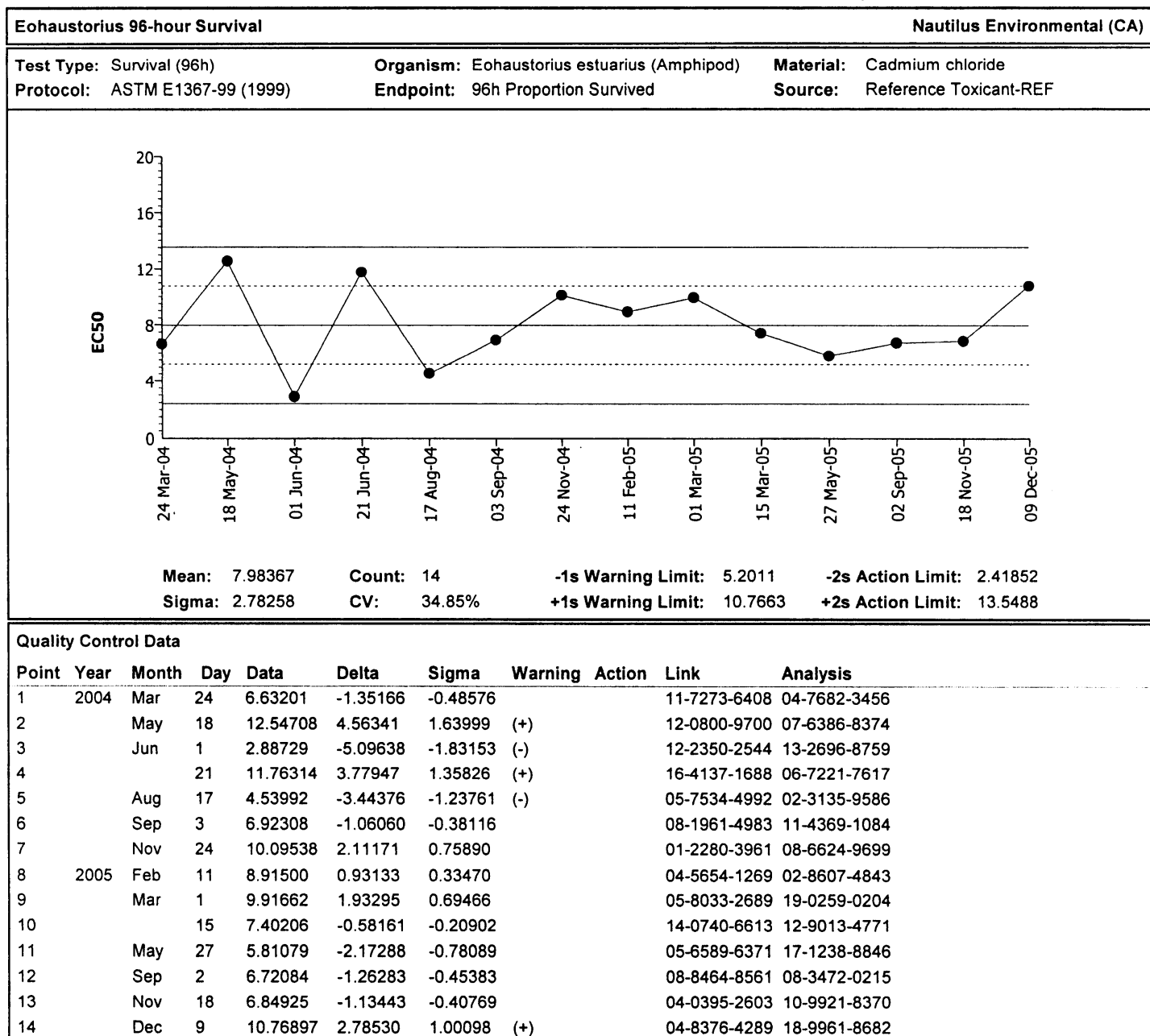
Graphics



CETIS QC Chart

Page 1 of 1

Report Date: 14 Mar-06 3:26 PM



Marine Acute Bioassay
Static Conditions

Water Quality Measurements
& Test Organism Survival

Client: Internal
Sample ID: CdCl₂
Test No.: 060217 pva

Test Species: E. estuarius
Start Date/Time: 2-17-06 / 1215
End Date/Time: 2-21-06 / 1230

Tech Initials					
0	24	48	72	96	
SH					SH
SH	MC	SD	SD	SD	

Counts:

Readings:

Concentration mg/L	Rep	Number of Live Organisms		Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)				
		0	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Lab Control	A	10	9	29.7	29.7	29.7	29.8	29.4	15.2	15.6	14.9	15.1	15.4	8.7	8.1	7.1	7.1	7.4	8.07	7.92	7.86	7.83	7.81
	B	10	9																				
	C	10	9																				
	D	10	9																				
1.25	A	10	7	29.7	29.9	29.9	29.8	29.9	15.0	15.6	14.9	15.0	15.3	8.7	8.3	7.0	7.1	7.4	8.07	7.94	7.87	7.85	7.86
	B	10	8																				
	C	10	8																				
	D	10	7																				
2.5	A	10	5	29.7	29.8	29.8	29.9	29.8	14.8	15.4	14.9	14.9	15.0	8.7	8.4	7.0	7.1	7.4	8.07	7.95	7.87	7.87	7.88
	B	10	6																				
	C	10	7																				
	D	10	6																				
5	A	10	6	29.7	29.8	29.7	29.9	29.8	14.9	15.4	14.9	14.9	15.0	8.7	8.2	7.0	7.1	7.4	8.08	7.95	7.91	7.89	7.89
	B	10	3																				
	C	10	4																				
	D	10	6																				
10	A	10	2	29.7	29.7	29.8	29.8	29.8	14.9	15.4	14.9	14.9	14.9	8.7	8.2	7.2	7.7	7.6	8.08	7.97	7.90	7.99	7.98
	B	10	3																				
	C	10	1																				
	D	10	5																				
20	A	10	0	29.6	29.7	29.7	29.7	29.9	15.0	15.4	14.9	14.8	14.9	8.7	8.3	7.6	7.8	8.0	8.08	7.99	7.98	8.00	8.00
	B	10	0																				
	C	10	0																				
	D	10	0																				

Animal Source/Date Received: NW Aquatic Sciences Age at Initiation: 3-5 mm
2/17/06

Comments:

QC Check: SH 3-14-06

Final Review: SH 3-14-06

APPENDIX D

STATISTICAL SUMMARY

**Appendix Table D-1. Unpaired t-test Summary Table
Amphipod Survival
CalScience - Site R6 and SiteR7
February 2006**

Site R6

Parameter	Value
Table Analyzed	Ee Survival
Column A	Control
vs	vs
Column B	R6-021006
Unpaired t test with Welch's correction	
P value	P<0.0001
P value summary	***
Are means signif. different? (P < 0.05)	Yes
One- or two-tailed P value?	One-tailed
Welch-corrected t, df	t=75.12 df=4
How big is the difference?	
Mean \pm SEM of column A	0.9200 \pm 0.01225 N=5
Mean \pm SEM of column B	0.0000 \pm 0.0000 N=5
Difference between means	0.9200 \pm 0.01225
95% confidence interval	0.8860 to 0.9540
R squared	0.9993
F test to compare variances	
F,DFn, Dfd	3750000000000000000000, 4, 4
P value	P<0.0001
P value summary	***
Are variances significantly different?	Yes

Site R7

Parameter	Value
Table Analyzed	Percent Survival
Column A	Control
vs	vs
Column C	R7-021006
Unpaired t test	
P value	P<0.0001
P value summary	***
Are means signif. different? (P < 0.05)	Yes
One- or two-tailed P value?	One-tailed
t, df	t=41.00 df=8
How big is the difference?	
Mean \pm SEM of column A	92.00 \pm 1.225 N=5
Mean \pm SEM of column C	10.00 \pm 1.581 N=5
Difference between means	82.00 \pm 2.000
95% confidence interval	77.39 to 86.61
R squared	0.9953
F test to compare variances	
F,DFn, Dfd	1.667, 4, 4
P value	0.6328
P value summary	ns
Are variances significantly different?	No

APPENDIX E

CHAIN-OF-CUSTODY FORMS

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 • FAX: (714) 894-7501

To: Nantibus

Date 2/13/06
Page 1 of 1

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