Prepared for:
BASF Corporation
Florham Park, New Jersey

Appendix F

Sediment Toxicity Testing Report Appendices

Hudson River Operable Unit 2 Investigation Report

BASF Rensselaer

Rensselaer, New York

ENSR | AECOM

Aqua Survey, Inc.

APPENDICES

Appendix A: Chains of Custody
Appendix B: Sample Use Forms
Appendix C: Statistical Analyses

Technical Report
Toxicological Evaluation of Freshwater Sediment
Collected Adjacent to the BASF Facility
Rensselaer, New York

Long Term Exposure *Chironomus tentans* Study

ENSR Corporation
Westford, MA 01886

ASI Job No. 27-303

469 Point Breeze Road
Flemington, NJ 08822

Phone: 908-788-8700
Fax: 908-788-9165
mail@aquasurvey.com
www.aquasurvey.com

Aqua Survey, Inc.

APPENDICES

Appendix A

Chains of Custody

07-303

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CHAIN OF CUSTODY RECORD

Page 1 of 8

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**
Project Number: **00760-171-502**	Field Logbook No.:
Sampler (Print Name)/(Affiliation): RYAN MCCARTHY/ENSR	Chain of Custody Tape Nos.:
Signature:	Send Results/Report to: **Christine Archer/Westford**
	TAT: **4 weeks of test termination**

Analysis Requested: Toxicity testing – 35 day *C. tentans*; # Coolers

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H_2SO_4, 4°; 3 – HNO_3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – $Na_2S_2O_3$, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*	# Coolers	Lab I.D.	Remarks
03SD 061C -TX-A-1	11/13/07	1304		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	8	20070929	ALL STATIONS 2L x1 500ml x2
03SD 111C -TX-A-1	"	1317		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	6	20070930	big cooler ~~TOX 1~~ 1
03SD 064C -TX-A-1	"	1250		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	10	20070931	
03SD 124C -TX-A-1	"	1153		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	5	20070932	
03SD 125C -TX-A-1	"	1109		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	8	20070933	
03SD 071C -TX-A-1	"	1135		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	6	20070934	
03SD 126C -TX-A-1	"	1037		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	5	20070935	
03SD 059N -TX-A-1	"	1421		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	10	20070936	
~~03SD -TX-A-1~~				X	~~1 x 2 L Plastic 2 x 500 ml Plastic~~	SD	4°C	NA				
03SD -TX-A-1				X	~~1 x 2 L Plastic~~ 2 x 500 ml Plastic	SD	4°C	NA				

Relinquished by: (Print Name)/(Affiliation) RYAN MCCARTHY	Date: 11/14/07 Time: 1330	Received by: (Print Name)/(Affiliation) Liz Horn	Date: 11/20/07 Time: 1230
Signature:		Signature:	
Relinquished by: (Print Name)/(Affiliation)	Date: Time:	Received by: (Print Name)/(Affiliation)	Date: Time:
Signature:		Signature:	
Relinquished by: (Print Name)/(Affiliation)	Date: Time:	Received by: (Print Name)/(Affiliation)	Date: Time:
Signature:		Signature:	

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

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Serial No._____

27-303

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CHAIN OF CUSTODY RECORD

Page 2 of 8

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**
Project Number: **00760-171-502**	Field Logbook No.:
Sampler (Print Name)/(Affiliation): RYAN MCCARTHY / ENSR	Chain of Custody Tape Nos.:
Signature:	Send Results/Report to: **Christine Archer/Westford**
	TAT: **4 weeks of test termination**

Analysis Requested

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H2SO4, 4°; 3 – HNO3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – Na2S2O3, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*									Lab I.D.	Remarks
03SD 007C -TX-A-1	11/13/07	1342		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X		VI							20070937	All stations: 2Lx1 500mLx2
03SD 100N -TX-A-1	"	1441		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X		VI							20070938	blue cooler "Tox 1"
03SD 063W -TX-A-1		1536		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X		1							20070939	
03SD 134W -TX-A-1		1549		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X		1							20070940	
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											

Relinquished by: (Print Name)/(Affiliation) RYAN MCCARTHY / ENSR Signature:	Date: 11/14/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1230
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

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Serial No._____

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CHAIN OF CUSTODY RECORD

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**	Analysis Requested
Project Number: **00760-171-502**	Field Logbook No.:	
Sampler (Print Name)/(Affiliation): RYAN MCARTHY / ENSR	Chain of Custody Tape Nos.:	
Signature:	Send Results/Report to: **Christine Archer/Westford**	TAT: **4 weeks of test termination**

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H2SO4, 4°; 3 – HNO3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – Na2S2O3, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*			# (cooler)						Lab I.D.	Remarks
03SD 0040 -TX-A-1	11/14/07	1216		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X			2						20070941	TOX II
① 03SD ~~132W~~ 131W -TX-A-1	"	939		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X			9						20070942	ALL STATIONS
03SD 130W -TX-A-1	"	0956		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X			2						20070943	1x2 L
03SD 082N -TX-A-1	"	0851		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X			10						20070944	2x500ml
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA											

Relinquished by: (Print Name)/(Affiliation) RYAN MCARTHY Signature:	Date: 11/19/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1320
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

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① Should be 03SD131W (as per client confirmation) mf 11/21/07

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CHAIN OF CUSTODY RECORD

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**
Project Number: **00760-171-502**	Field Logbook No.:
Sampler (Print Name)/(Affiliation): RYAN MCARTHY/ENSR	Chain of Custody Tape Nos.:
Signature:	Send Results/Report to: **Christine Archer/Westford** — TAT: **4 weeks of test termination**

Analysis Requested: Toxicity testing – 35 day *C. tentans*; COOLER #

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H_2SO_4, 4°; 3 – HNO_3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – $Na_2S_2O_3$, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*	COOLER #	Lab I.D.	Remarks
03SD 120F -TX-A-1	11/14/07	0806		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	3	20070945	2 x 500 mL
03SD 118F -TX-A-1	"	0836		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	3	20070946	1 x 2 L
03SD 056N -TX-A-1	"	0821		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	3	20070947	ALL STATIONS "TOX III"
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				

Relinquished by: (Print Name)/(Affiliation) RYAN MCARTHY/ENSR Signature:	Date: 11/15/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1230
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

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CHAIN OF CUSTODY RECORD

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Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**	Analysis Requested
Project Number: **00760-171-502**	Field Logbook No.:	
Sampler (Print Name)/(Affiliation): RYAN MCCARTHY / ENSR	Chain of Custody Tape Nos.:	
Signature:	Send Results/Report to: **Christine Archer/Westford**	TAT: **4 weeks of test termination**

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H2SO4, 4°; 3 – HNO3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – Na2S2O3, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*	Lab I.D.	Remarks
03SD0280 -TX-A-1	11/14/07	1133		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070948	2 x 500 mL
03SD132W -TX-A-1	"	1017		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070949	1 x 2 L
03SD0180 -TX-A-1	"	1100		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070950	ALL STATIONS
03SD010U -TX-A-1	"	1113		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070951	"TOX 12"
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			

Relinquished by: (Print Name)/(Affiliation) RYAN MCCARTHY Signature:	Date: 11/15/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1230
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

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CHAIN OF CUSTODY RECORD

Page 6 of 8

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**
Project Number: **00760-171-502**	Field Logbook No.:
Sampler (Print Name)/(Affiliation): RYAN MCCARTHY/ENSR	Chain of Custody Tape Nos.:
Signature:	Send Results/Report to: **Christine Archer/Westford** — TAT: **4 weeks of test termination**

Analysis Requested: Toxicity testing – 35 day *C. tentans*; # containers

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H2SO4, 4°; 3 – HNO3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – Na2S2O3, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*	# containers	Lab I.D.	Remarks
03SD 006V -TX-A-1	11/15/07	1400		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	1	20070952	2L x1
03SD 027V -TX-A-1		1427		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	5	20070953	500mL x2
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				TGX V
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				

Relinquished by: (Print Name)/(Affiliation) RYAN MCCARTHY/ENSR Signature:	Date: 11/15/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1230
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

Serial No._____

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07-303

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CHAIN OF CUSTODY RECORD

Page 7 of 8

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**
Project Number: **00760-171-502**	Field Logbook No.:
Sampler (Print Name)/(Affiliation): RYAN MCCARTHY/ENSR	Chain of Custody Tape Nos.:
Signature:	Send Results/Report to: **Christine Archer/Westford** — TAT: **4 weeks of test termination**

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H_2SO_4, 4°; 3 – HNO_3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – $Na_2S_2O_3$, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Analysis Requested: Toxicity testing – 35 day *C. tentans*	Analysis Requested: Coulter-4	Lab I.D.	Remarks
03SD097N -TX-A-1	11/1/07	0913		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	9	20070954	2L x 1
03SD069C -TX-A-1		0928		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	9	20070955	500mL x 2
03SD133W -TX-A-1		0847		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	6	20070956	TOX VI
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA				

Relinquished by: (Print Name)/(Affiliation) RYAN MCCARTHY/ENSR Signature:	Date: 11/19/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1230
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

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Serial No._____

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CHAIN OF CUSTODY RECORD

Client/Project Name: **BASF-Rensselaer**	Project Location: **Rensselaer, NY**
Project Number: **00760-171-502**	Field Logbook No.:
Sampler (Print Name)/(Affiliation): RYAN MCCARTHY / ENSR	Chain of Custody Tape Nos.:
Signature:	Send Results/Report to: **Christine Archer/Westford** — TAT: **4 weeks of test termination**

Analysis Requested: Toxicity testing – 35 day *C. tentans*; Cooler #1

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H2SO4, 4°; 3 – HNO3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – Na2S2O3, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Toxicity testing – 35 day *C. tentans*	Lab I.D.	Remarks
03SD087N -TX-A-1		1118		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070957	500 mL x 2
03SD085N -TX-A-1		1150		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070958	2L x 1
03SD083N -TX-A-1		0240		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070959	TOX ILH
03SD 054N -TX-A-1		1008		X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA	X	20070960	
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			
03SD -TX-A-1				X	1 x 2 L Plastic 2 x 500 ml Plastic	SD	4°C	NA			

Relinquished by: (Print Name)/(Affiliation) RYAN MCCARTHY / ENSR Signature:	Date: 11/19/07 Time: 1330	Received by: (Print Name)/(Affiliation) Signature:	Date: 11/20/07 Time: 1230
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:

Analytical Laboratory (Destination):

Aqua Survey, Inc.
469 Point Breeze Road
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
ATTN: Jon Doi

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

A-8

J:\Indl_Service\Project Files\BASF-0760\Rensaleer NY\Field Program\Nov_2007\LabelsandCoCs\BulkSedCoC_Tox.doc

Serial No._____

Appendix B

Sample Use Forms

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 2007929 **Sample ID:** 035D061C-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: Petr Color: Dark brown/Grey

Consistency (sandy, silty, clayey): Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~4 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

90+% pass 1.0 sieve

Total Sample Volume: 2.5 l Date/ Initials: 11/21/07 MA

2 live No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	2. l	0	**Sieved**	MA
11/xx/07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 07-300 **Client:** ENSR - Albany **ASI Sample #:** 20070930 **Sample ID:** 03SD11VC-TK-A-1

SEDIMENT CHARACTERIZATION

Odor: Chemically / Sweet Petro Color: gray brown

Consistency (sandy, silty, clayey): Silty - Sandy w/ tr small rocks ; slight detritis
post serie - Smooth Silty Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~ 5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~ 3L Date/ Initials: 11/21/07 MJ

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~2L		**Sieved** 1.0mm	MJ
11/ /07			**Used in Test**	MJ
	~500mL		Not Sieved	MJ

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070931 **Sample ID:** 035D0064C-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Dark Brown

Consistency (sandy, silty, clayey): Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~1 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2.5 l Date/ Initials: 11/23/07

90%+ Pass 1.0 sieve No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/23/07	~2 l	~.5 l	**Sieved**	AM
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070932 **Sample ID:** 035D124 C-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Dark Brown

Consistency (sandy, silty, clayey): Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~1 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Post sieve ~ smooth sandy Brown

Total Sample Volume: ~2.5l Date/ Initials: 11/21/07 SH

No Organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~2l	.5l	**Sieved**	SH
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070933 **Sample ID:** 03SD125C-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: Slight Color: brown

Consistency (sandy, silty, clayey): presieve - Silty Sand w/some Stones & Shells
postSieve - Silty Sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~3L Date/ Initials: 11/21/07 LDH

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~2L	~1L	**Sieved** 1.0	LDH
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** EnSR **ASI Sample #:** 20070934 **Sample ID:** 03SD071C-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Brown

Consistency (sandy, silty, clayey): sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Pre Sieve - Sandy Brown

Post Sieve - Smooth Sandy brown

Total Sample Volume: ~2.5 l Date/ Initials: 11/21 /07 MA

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~2 l	~.5 l	**Sieved**	MA
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070935 **Sample ID:** 035D12GC-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: Slight Color: brown

Consistency (sandy, silty, clayey): pre sieve - Silty sand w/some shells & gravel
post sieve - Silty sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~1 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2.5L Date/ Initials: 11/21/07 DDT

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~2L	~.5L	**Sieved 1.0**	DDT
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070937 **Sample ID:** 035D067C-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: Petro Color: Grey brown

Consistency (sandy, silty, clayey): gravely sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~4 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: 2.5 l Date/ Initials: 11/ 2 /07

~50% pass 1.0

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/ /07	~1.5 l	~	**Sieved**	
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 2730 **Client:** ENSR **ASI Sample #:** 20070955 **Sample ID:** 035D069C

SEDIMENT CHARACTERIZATION

Odor: Petro Color: Dark Brown

Consistency (sandy, silty, clayey): Sandy Silt w/stones

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2.5L Date/ Initials: 11/ 23/07

90+% pass 1.0 sieve No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/23/07	2 L	.5	**Sieved**	AW
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070941 **Sample ID:** 035D004U-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Brown

Consistency (sandy, silty, clayey): Sandy silt w/gravel

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Post sieve – smooth sandy silt Brown

Total Sample Volume: 2.5 l Date/ Initials: 11/21/07 MH

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	2 l	.3	**Sieved**	MH
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 07-303 **Client:** ENSR **ASI Sample #:** 20070945 **Sample ID:** 035D120F-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: slight Color: brown

Consistency (sandy, silty, clayey): presieve. Silt w/clay, sand, gravel, and shells
postsieve- Silt w/clay and sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~3 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~23L Date/ Initials: 11/26/07 DDJ

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/26/07	~2L	~1L	**Sieved 1.0**	DDJ
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27.303 **Client:** ENSR **ASI Sample #:** 20070946 **Sample ID:** 035D118F-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Brown

Consistency (sandy, silty, clayey): Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Sieved 1.0

Total Sample Volume: ~2.5 l Date/ Initials: 11/26/07

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/ /07	1.5 l		**Sieved** 0 remaining	
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27303 **Client:** ENSR **ASI Sample #:** 20070939 **Sample ID:** 035D063W

SEDIMENT CHARACTERIZATION

Odor: None Color: Brown

Consistency (sandy, silty, clayey): Gravely sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2 l Date/ Initials: 11/23/07

Screened through #4 and #10 (2mm) No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/23/07	2l		**Sieved** 2.0mm ~ 1.3 l	
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070940 **Sample ID:** 035D034W

SEDIMENT CHARACTERIZATION

Odor: None Color: Dark grey brown

Consistency (sandy, silty, clayey): Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: _____ Date/ Initials: 11/ /07

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/ /07			**Sieved**	
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070942 **Sample ID:** 035D13IW-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: light brown

Consistency (sandy, silty, clayey): pre Sieve - Coarse sand w/silt, gravel, & shells
post sieve - Coarse sand w/silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~1 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~3L ~2.5L Date/ Initials: 11/26/07 DDJ

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/26/07	~2.5L		**Sieved** 2.0	DDJ
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070943 **Sample ID:** 035D130W-TX-A-

SEDIMENT CHARACTERIZATION

Odor: None Color: brown

Consistency (sandy, silty, clayey): presieve - Silt, Coarse Sand, rocks
Post sieve - silt, Sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~4 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2.5L Date/ Initials: 11/26/07 dpd
Snails and zebra muscles found

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/26/07	~2.5L		**Sieved** 1.0	dpd
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070~~132~~0949 **Sample ID:** 035R132W-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: fishy Color: Brown

Consistency (sandy, silty, clayey): Gravely Sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: hand Duration of Mixing: ~~~5 mins~~

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

2.0mm sieved - 2 zebra mussels found (live)

Total Sample Volume: 2.5 l Date/ Initials: 11/26/07 MS

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/26/07	1.5 l		**Sieved** 2.0	MS
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070956 **Sample ID:** _____

SEDIMENT CHARACTERIZATION

Odor: None Color: light brown

Consistency (sandy, silty, clayey): presieve - coarse sand, gravel, some silt
post sieve - coarse sand, some silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~3L Date/ Initials: 11/26/07 DDT

NO organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/26/07	~3L		**Sieved** 1.0	DDT
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27303 **Client:** _____ **ASI Sample #:** 20070951 **Sample ID:** 035D0104-TX-AH

SEDIMENT CHARACTERIZATION

Odor: None Color: brown

Consistency (sandy, silty, clayey): pre sieve - gravel w/some Sand
post sieve - Coarse Sand

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: hand Duration of Mixing: ~1 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Sieved with 2.0

Total Sample Volume: ~3L Date/ Initials: 11/21/07 DJH

organisms found

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~3L		**Sieved 2.0**	DJH
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070953 **Sample ID:** 03SD027U-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Dark Brown

Consistency (sandy, silty, clayey): Cobble / Gravel / Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

2.5 l

Many large mussels and small ~~shells~~ spiral mollusks

Total Sample Volume: ~1 l after sieving <2.0mm Date/ Initials: 11/26/07 HO

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/26/07	1.0 l		**Sieved**	HO
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070936 **Sample ID:** 035D059N-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Brown

Consistency (sandy, silty, clayey): Sandy

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Prisieved Sandy Post sieve - Sandy

Total Sample Volume: 12.5 l Date/ Initials: 11/27 /07 MA

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/27/07	1.5	1.0	**Sieved**	MA
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27303 **Client:** ENSR **ASI Sample #:** 20070938 **Sample ID:** 035D100N-7K-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: dark brown

Consistency (sandy, silty, clayey): presieve - sandy silt w/ some plant mat.
postsieve - sandy silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~1 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~3L Date/ Initials: 11/27/07 JDT

C. tentans ~~tarve~~ larvae found

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/27/07	~2L	~1L	**Sieved** 1.0	JDT
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 200709444 **Sample ID:** 03SD082N-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: Petrol Color: Dark Brown

Consistency (sandy, silty, clayey): sandy silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2.5 L Date/ Initials: 11/27/07 MA

CT like larvae present

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/27/07	2.0		**Sieved**	MA
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070947 **Sample ID:** 035D056N-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Grey

Consistency (sandy, silty, clayey): Sandy silt.

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Sieved 1.0

Total Sample Volume: ~2.5 l Date/ Initials: 11/26/07 NA

No Organisms

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/ /07	2 l	.5	**Sieved**	NA
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070954 **Sample ID:** 03SD097N-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: Petro Color: dark gray

Consistency (sandy, silty, clayey): presieve - sandy silt w/coarse sand & plant mat. & some shells
postsieve - sandy silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~3L Date/ Initials: 11/28/07 dpt

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	~2L	~1L	**Sieved** 1.0	dpt
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 07363 **Client:** ENSR **ASI Sample #:** 20070957 **Sample ID:** 035D087N-TK-A-1

SEDIMENT CHARACTERIZATION

Odor: petro Color: dark gray

Consistency (sandy, silty, clayey): presieve - sandy silt w/ coarse sand & rocks
postsieve - sandy silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~3L Date/ Initials: 11/28/07 SDT
small larvea and snails found

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	~2L	~1L	**Sieved** 1.0	SDT
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070958 **Sample ID:** 035D085N-DX-A-

SEDIMENT CHARACTERIZATION

Odor: petro Color: dark gray

Consistency (sandy, silty, clayey): presieve & postsieve - silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

when sieved saw red, dark red, orange, yellow, and black streaks on sieve

Total Sample Volume: ~32 Date/ Initials: 11/28/07 DH

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	~2L	~1L	**Sieved 1.0**	DH
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070959 **Sample ID:** 035D032AV-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: None Color: Dark Brown

Consistency (sandy, silty, clayey): silty w/ cobble and gravel

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~4 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: 2.5 L Date/ Initials: 11/28/07 MA

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	2.5 L	0	**Sieved** 2.0 after sieving	MA
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070960 **Sample ID:** 035D094N-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: strong Petro Color: Dark Brown/grey

Consistency (sandy, silty, clayey): silty

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~4 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

1.0mm sieved - same purple/red streaks

Total Sample Volume: ~3L Date/ Initials: 11/28/07 MP

No organisms

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	2L	1L	**Sieved**	MP
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-303 **Client:** ENSR **ASI Sample #:** 20070952 **Sample ID:** 035D00604-TX-14-1

SEDIMENT CHARACTERIZATION

Odor: petro Color: dark gray

Consistency (sandy, silty, clayey): presieve - silty w/ coarse sand & rocks
postsieve - silty

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2.5L Date/ Initials: 11/28/07 KDJ

Snails found

ELUTRIATE PREPARATION

Water used: site dilution other: _____

Water Volume Used: _____ Sediment Volume Used: _____

Mixing Duration: _____ Time to Settle: _____

Centrifuge (if necessary)/ Time (mins)/ @ RPM: _____

Elutriate Prepared By (name/ date/ time): _____

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	~1.5L	~1L	**Sieved** 1.0	KDJ
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 07-203 **Client:** ENSR **ASI Sample #:** 20070950 **Sample ID:** 035D018U-TX-A

SEDIMENT CHARACTERIZATION

Odor: None Color: Dark Brown

Consistency (sandy, silty, clayey): Silty w/sand High Moisture

Pre sieve - silty clumps w/free water Post sieve - smooth sandy silty

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: Drill Duration of Mixing: ~5 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Total Sample Volume: ~2500 ml Date/ Initials: 11/21/07 MA

No organisms noted.

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/21/07	~2 l	~.5 l	**Sieved**	MA
11/ /07			**Used in Test**	

AQUA SURVEY, INC.
SPECIAL STUDIES DEPARTMENT
SAMPLE USE FORM

Job #: 27-307 **Client:** ENSR **ASI Sample #:** 20070948 **Sample ID:** 035D028U-TX-A-1

SEDIMENT CHARACTERIZATION

Odor: none Color: Dark Brown

Consistency (sandy, silty, clayey): Gravely Sandy Silt

HOMOGENIZATION/ COMPOSITING/ AMENDING

Method Used: drill Duration of Mixing: ~4 mins

If Composite, list all constituent ASI sample #'s:
(Also provide the amount of each sample used, of the number of cores)

Sieved 2.0mm

Total Sample Volume: 2.5l Date/ Initials: 11/28/07 MA

some musseles

ELUTRIATE PREPARATION

Water used: site dilution other:

Water Volume Used: Sediment Volume Used:

Mixing Duration: Time to Settle:

Centrifuge (if necessary)/ Time (mins)/ @ RPM:

Elutriate Prepared By (name/ date/ time):

RECORD OF SAMPLE USE

DATE	AMOUNT USED	AMOUNT REMAINING	USED FOR	INITIALS
11/28/07	2.5l		**Sieved** ~1.2 l remain	MA
11/ /07			**Used in Test**	

35 Day Results

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070930
Start Date: 12/1/2007 End Date: 1/5/2008

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
123	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
114	9	1	Sediment	12	6	1	0	5	0.50	0.42	
88	10	2	Sediment	12	3	0	0	3	0.25	0.25	
60	11	3	Sediment	12	4	0	1	3	0.33	0.25	
30	12	4	Sediment	12	5	0	1	4	0.42	0.33	
23	13	5	Sediment	12	3	0	0	3	0.25	0.25	
42	14	6	Sediment	12	5	1	0	4	0.42	0.33	
57	15	7	Sediment	12	6	1	0	5	0.50	0.42	
48	16	8	Sediment	12	4	1	0	3	0.33	0.25	

Comments: SD-11V

Chironomid Test-Survival

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070930
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-11V				

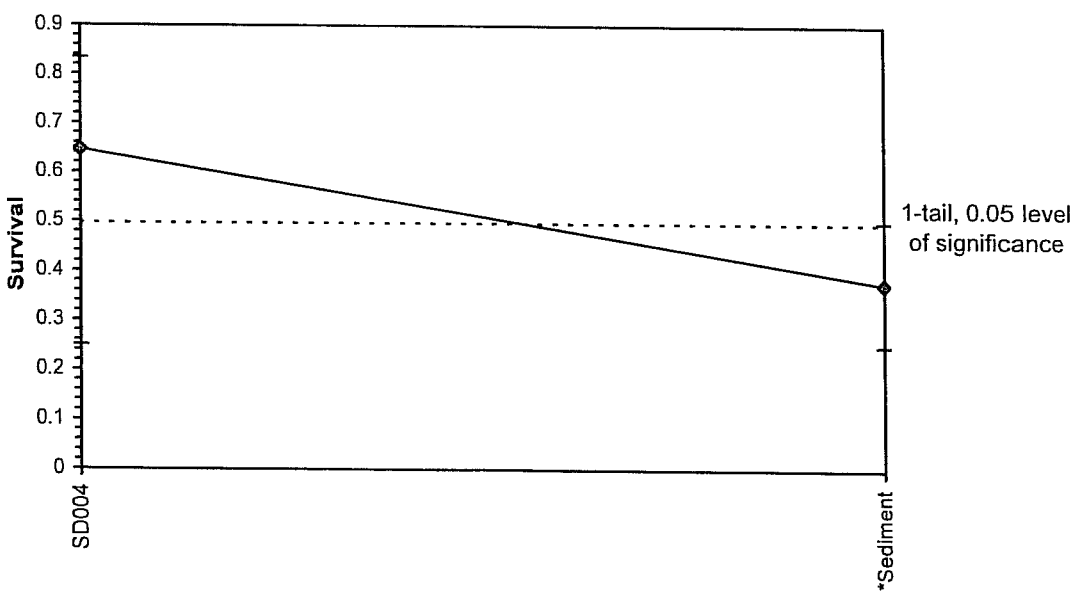
Conc-%	1	2	3	4	5	6	7	8
SD004	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833
Sediment	0.5000	0.2500	0.3333	0.4167	0.2500	0.4167	0.5000	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.6458	1.0000	0.6458	0.2500	0.8333	33.612	8			
*Sediment	0.3750	0.5806	0.3750	0.2500	0.5000	26.561	8	3.207	1.761	0.1487

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92093	0.844	-0.9365	0.80969
F-Test indicates equal variances (p = 0.06)	4.75	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs SD004	0.14873	0.23029	0.2934	0.02852	0.00633	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070930
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-11V				

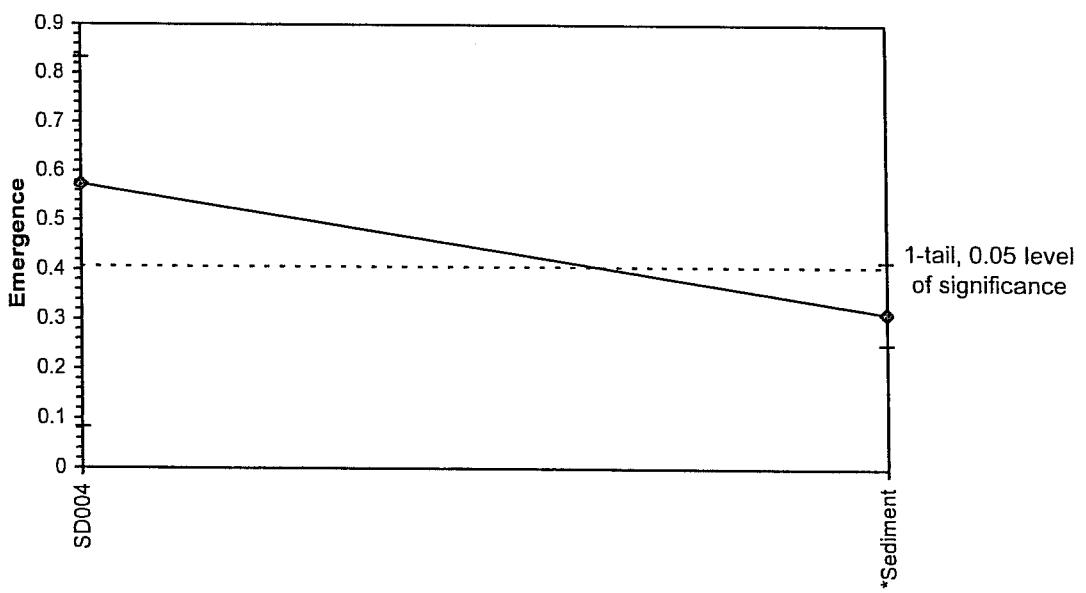
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.4167	0.2500	0.2500	0.3333	0.2500	0.3333	0.4167	0.2500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
*Sediment	0.3125	0.5455	0.3125	0.2500	0.4167	23.637	8	2.915	1.860	0.1661

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.8855	0.844	-1.3425	3.58415
F-Test indicates unequal variances (p = 5.72E-03)	10.7045	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Heteroscedastic t Test indicates significant differences Treatments vs SD004	0.16615	0.29	0.27127	0.03193	0.01131	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-131

Test: CT-Chironomid Test | Test ID: 27-303 (1)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070929 | Sample Type: Sediment
Start Date: 12/1/2007 | End Date: 1/5/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
123	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
108	9	1	Sediment	12	8	3	1	4	0.67	0.33	
64	10	2	Sediment	12	9	3	0	6	0.75	0.50	
84	11	3	Sediment	12	6	0	0	6	0.50	0.50	
68	12	4	Sediment	12	11	4	0	7	0.92	0.58	
100	13	5	Sediment	12	7	0	0	7	0.58	0.58	
98	14	6	Sediment	12	5	0	0	5	0.42	0.42	
16	15	7	Sediment	12	8	0	0	8	0.67	0.67	
38	16	8	Sediment	12	7	1	0	6	0.58	0.50	

Comments: SD-61

Reviewed by: RF

Chironomid Test-Survival

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070929
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-61				

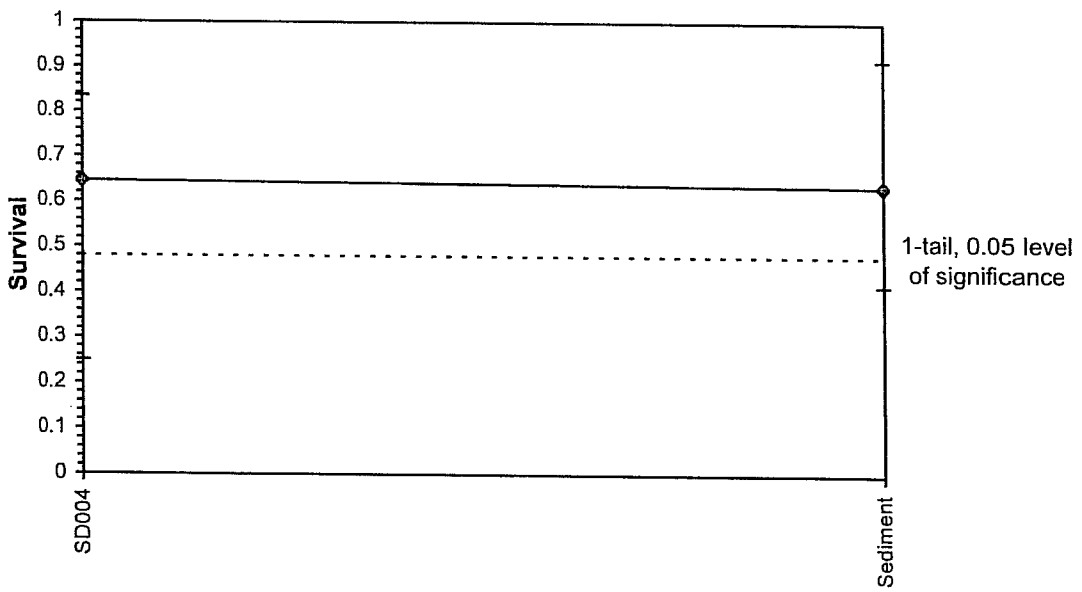
Conc-%	1	2	3	4	5	6	7	8
SD004	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833
Sediment	0.6667	0.7500	0.5000	0.9167	0.5833	0.4167	0.6667	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.6458	1.0000	0.6458	0.2500	0.8333	33.612	8			
Sediment	0.6354	0.9839	0.6354	0.4167	0.9167	24.220	8	0.111	1.761	0.1657

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9631	0.844	-0.543	-0.0387
F-Test indicates equal variances (p = 0.38)	1.98953	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.1657	0.25657	0.00043	0.0354	0.91341	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070929
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-61				

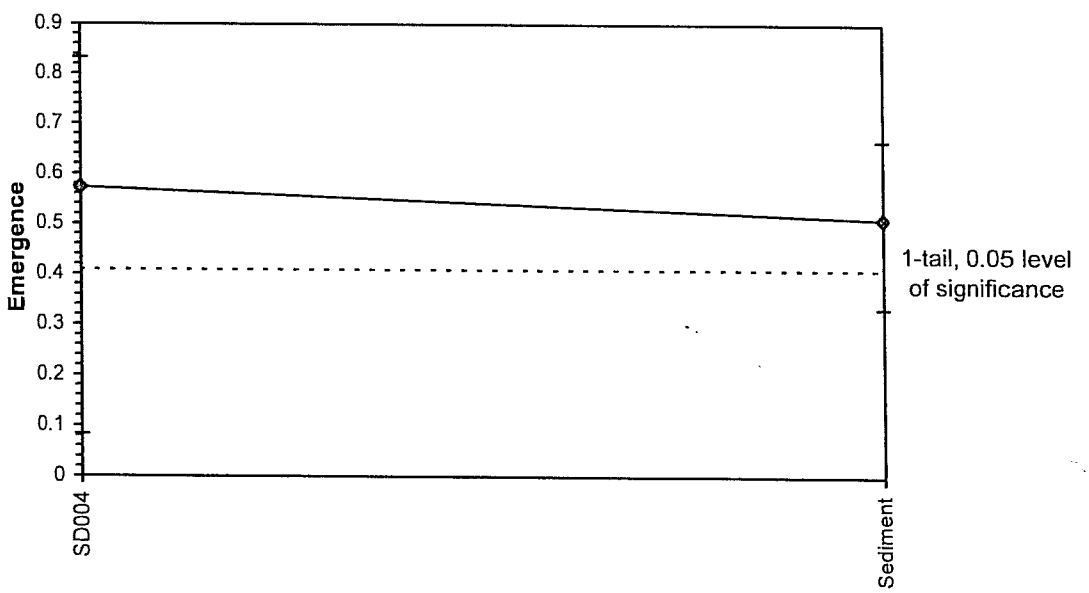
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.3333	0.5000	0.5000	0.5833	0.5833	0.4167	0.6667	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
Sediment	0.5104	0.8909	0.5104	0.3333	0.6667	20.350	8	0.672	1.761	0.1638

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91592	0.844	-1.2309	2.63879
F-Test indicates equal variances (p = 0.04)	5.41379	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.16381	0.28592	0.01563	0.0346	0.51251	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test | Test ID: 27-303 (1)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070931 | Sample Type: Sediment
Start Date: 12/1/2007 End Date: 1/5/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
123	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
112	9	1	Sediment	12	11	0	4	7	0.92	0.58	
82	10	2	Sediment	12	10	1	0	9	0.83	0.75	
94	11	3	Sediment	12	10	3	2	5	0.83	0.42	
39	12	4	Sediment	12	10	1	1	8	0.83	0.67	
101	13	5	Sediment	12	10	3	0	7	0.83	0.58	
31	14	6	Sediment	12	10	1	0	9	0.83	0.75	
127	15	7	Sediment	12	10	4	1	5	0.83	0.42	
89	16	8	Sediment	12	9	5	0	4	0.75	0.33	

Comments: SD-64

Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070931
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-64				

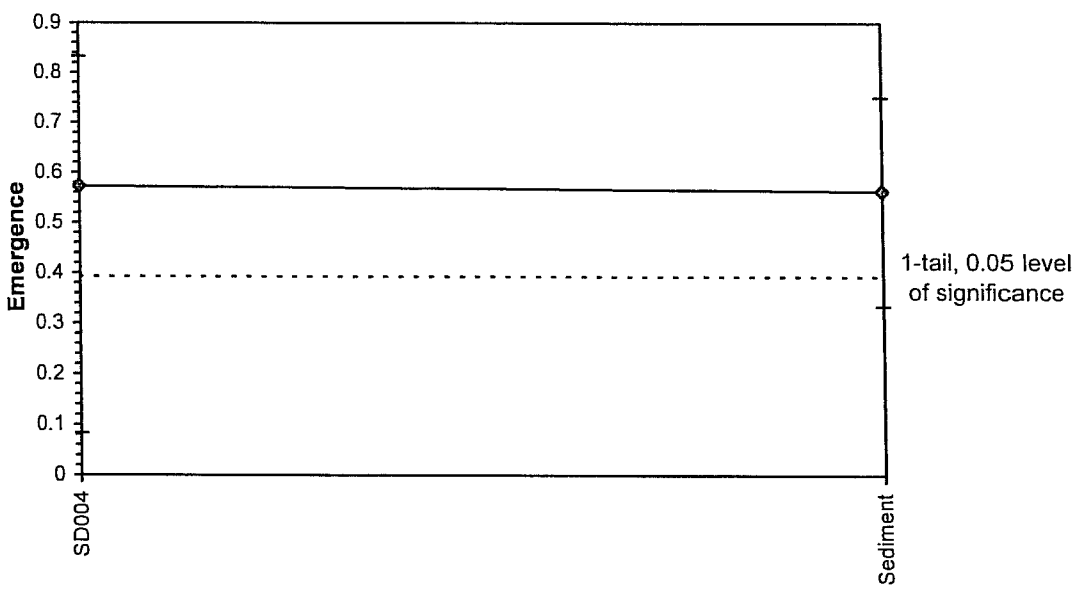
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.5833	0.7500	0.4167	0.6667	0.5833	0.7500	0.4167	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
Sediment	0.5625	0.9818	0.5625	0.3333	0.7500	28.276	8	0.102	1.761	0.1802

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92204	0.844	-0.9461	0.92541
F-Test indicates equal variances (p = 0.29)	2.30882	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.18016	0.31447	0.00043	0.04185	0.92033	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-136

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070937
Start Date: 12/1/2007 End Date: 1/5/2008

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
123	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
75	9	1	Sediment	12	8	2	2	4	0.67	0.33	
18	10	2	Sediment	12	8	0	0	8	0.67	0.67	
120	11	3	Sediment	12	11	5	1	5	0.92	0.42	
14	12	4	Sediment	12	7	0	0	7	0.58	0.58	
93	13	5	Sediment	12	7	2	0	5	0.58	0.42	
85	14	6	Sediment	12	7	0	0	7	0.58	0.58	
20	15	7	Sediment	12	9	0	0	9	0.75	0.75	
49	16	8	Sediment	12	10	0	0	10	0.83	0.83	

Comments: SD-67

Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070937
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-67				

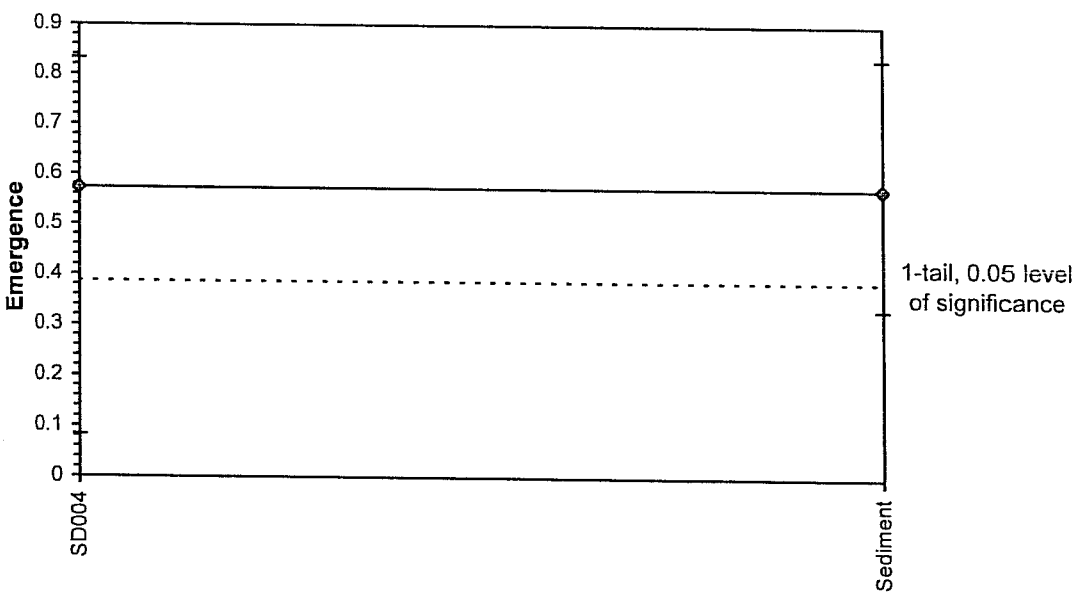
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.3333	0.6667	0.4167	0.5833	0.4167	0.5833	0.7500	0.8333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
Sediment	0.5729	1.0000	0.5729	0.3333	0.8333	30.548	8	0.000	1.761	0.1858

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93233	0.844	-0.8033	0.61168
F-Test indicates equal variances (p = 0.41)	1.90688	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.18581	0.32433	0	0.04452	1	1, 14

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070955
Start Date: 12/1/2007 End Date: 1/5/2008

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
12	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
26	9	1	Sediment	12	0	0	0	0	0.00	0.00	
121	10	2	Sediment	12	2	1	0	1	0.17	0.08	
96	11	3	Sediment	12	0	0	0	0	0.00	0.00	
78	12	4	Sediment	12	1	0	0	1	0.08	0.08	
63	13	5	Sediment	12	3	0	0	3	0.25	0.25	
47	14	6	Sediment	12	5	1	0	4	0.42	0.33	
58	15	7	Sediment	12	3	0	1	2	0.25	0.17	
66	16	8	Sediment	12	2	1	0	1	0.17	0.08	

Comments: SD-69

Reviewed by:

Chironomid Test-Survival

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070955
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-69				

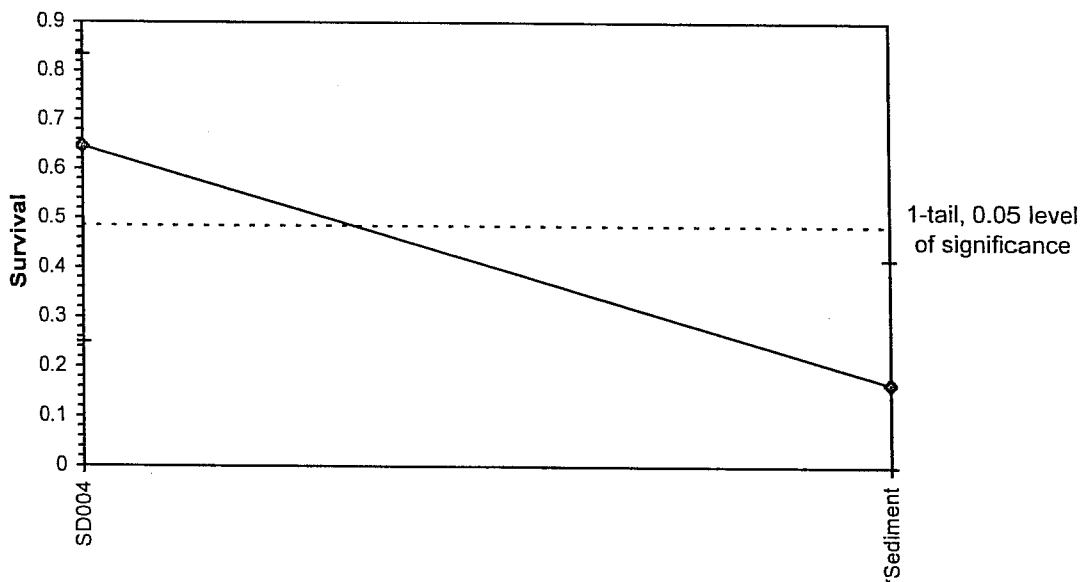
Conc-%	1	2	3	4	5	6	7	8
SD004	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833
Sediment	0.0000	0.1667	0.0000	0.0833	0.2500	0.4167	0.2500	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.6458	1.0000	0.6458	0.2500	0.8333	33.612	8			
*Sediment	0.1667	0.2581	0.1667	0.0000	0.4167	84.515	8	5.237	1.761	0.1611

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95398	0.844	-0.6405	0.03993
F-Test indicates equal variances (p = 0.28)	2.375	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs SD004	0.16114	0.24951	0.9184	0.03348	1.3E-04	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-140

Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070955
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-69				

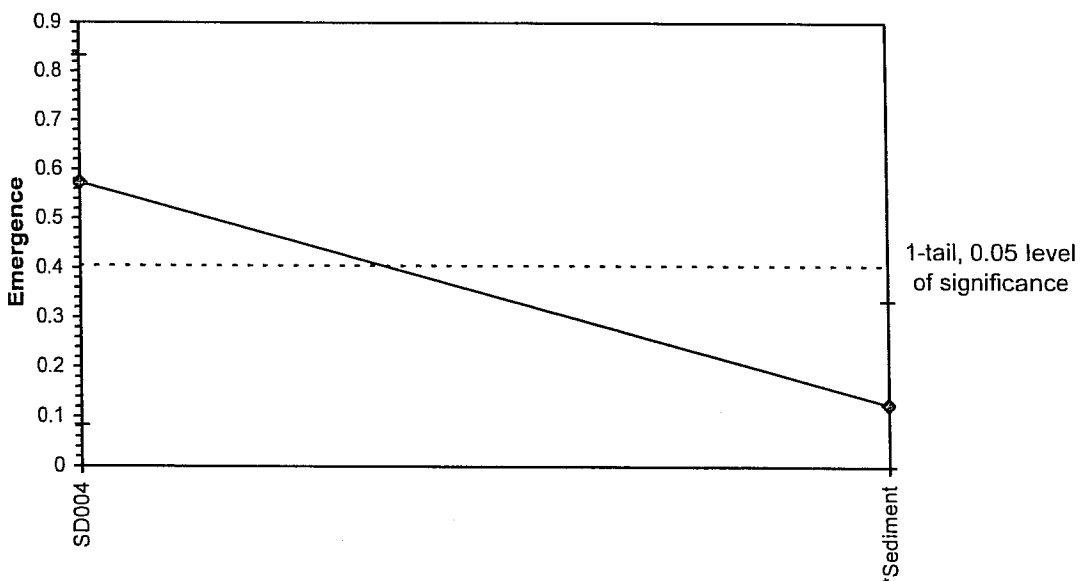
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.0000	0.0833	0.0000	0.0833	0.2500	0.3333	0.1667	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
*Sediment	0.1250	0.2182	0.1250	0.0000	0.3333	94.281	8	4.712	1.761	0.1674

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91931	0.844	-1.0452	2.18616
F-Test indicates equal variances (p = 0.08)	4.20536	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs SD004	0.16744	0.29225	0.80252	0.03615	3.3E-04	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070934
Start Date: 12/1/2007 End Date: 1/5/2008

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
12	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
13	9	1	Sediment	12	9	2	0	7	0.75	0.58	
7	10	2	Sediment	12	9	1	0	8	0.75	0.67	
1	11	3	Sediment	12	6	1	0	5	0.50	0.42	
22	12	4	Sediment	12	8	1	0	7	0.67	0.58	
119	13	5	Sediment	12	8	1	0	7	0.67	0.58	
61	14	6	Sediment	12	8	0	2	6	0.67	0.50	
74	15	7	Sediment	12	10	3	0	7	0.83	0.58	
106	16	8	Sediment	12	10	4	0	6	0.83	0.50	

Comments: SD-71

Chironomid Test-Emergence

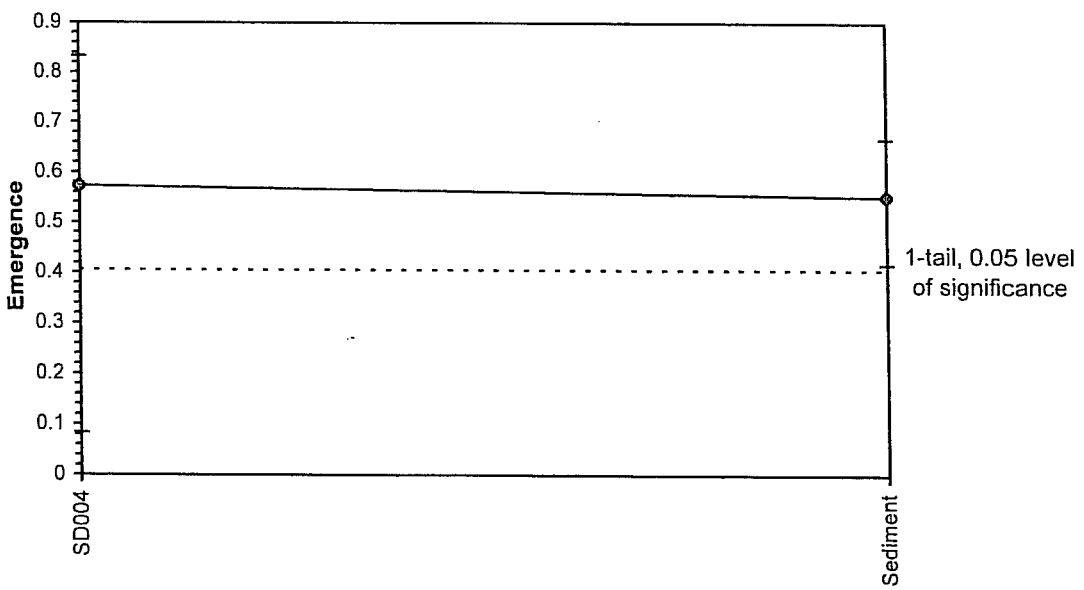
Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070934
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-71				

Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.5833	0.6667	0.4167	0.5833	0.5833	0.5000	0.5833	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
Sediment	0.5521	0.9636	0.5521	0.4167	0.6667	13.828	8	0.232	1.860	0.1666

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89595		0.844		-1.3667	3.52545
F-Test indicates unequal variances (p = 6.98E-03)	10.0213		8.88539			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Heteroscedastic t Test indicates no significant differences Treatments vs SD004	0.16663	0.29084	0.00174	0.03212	0.81952	1, 14

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070932
Start Date: 12/1/2007 End Date: 1/5/2008

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
12	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
11	9	1	Sediment	12	6	0	0	6	0.50	0.50	
5	10	2	Sediment	12	6	0	0	6	0.50	0.50	
29	11	3	Sediment	12	8	0	0	8	0.67	0.67	
105	12	4	Sediment	12	6	1	1	4	0.50	0.33	
55	13	5	Sediment	12	9	1	0	8	0.75	0.67	
46	14	6	Sediment	12	7	0	0	7	0.58	0.58	
45	15	7	Sediment	12	8	0	1	7	0.67	0.58	
83	16	8	Sediment	12	8	1	0	7	0.67	0.58	

Comments: SD-124

Chironomid Test-Survival

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070932
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-124				

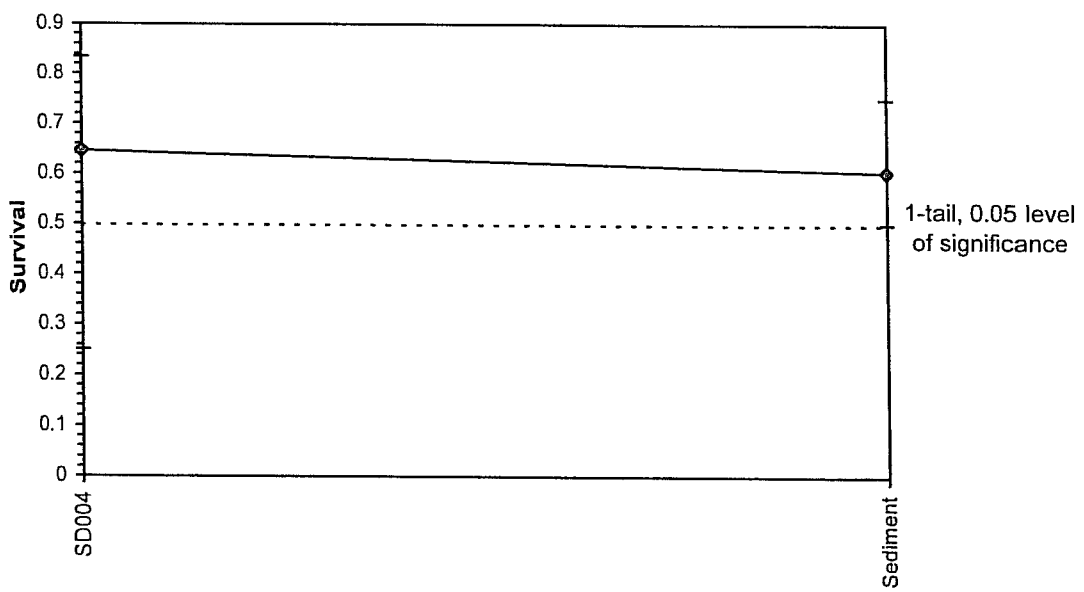
Conc-%	1	2	3	4	5	6	7	8
SD004	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833
Sediment	0.5000	0.5000	0.6667	0.5000	0.7500	0.5833	0.6667	0.6667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.6458	1.0000	0.6458	0.2500	0.8333	33.612	8			
Sediment	0.6042	0.9355	0.6042	0.5000	0.7500	16.068	8	0.496	1.761	0.1481

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91703	0.844	-0.9411	0.86968
F-Test indicates equal variances (p = 0.05)	5	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.14808	0.22929	0.00694	0.02827	0.62787	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-145

Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070932
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-124				

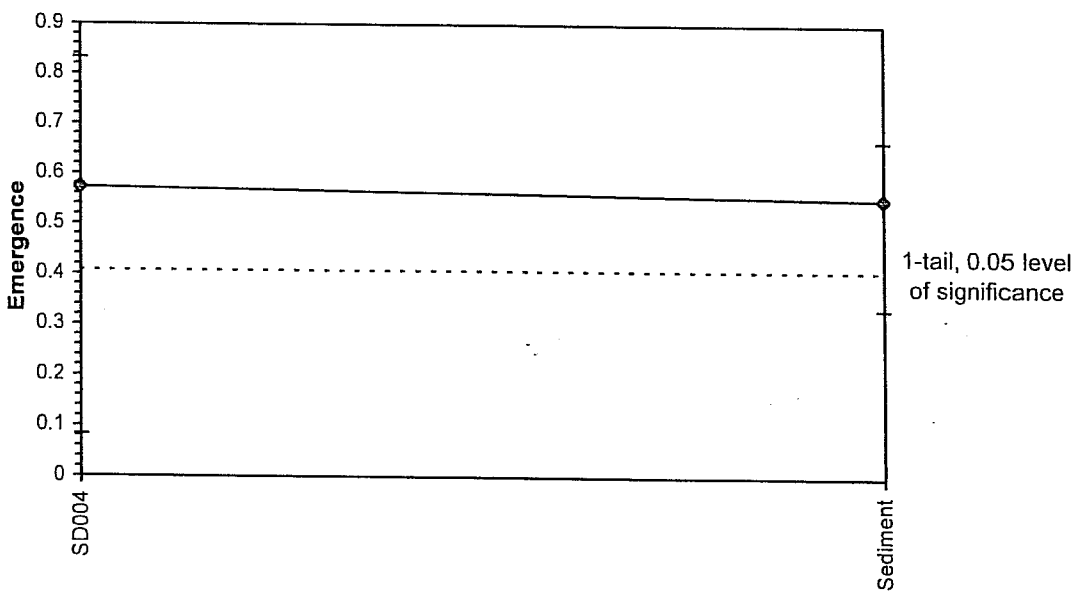
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.5000	0.5000	0.6667	0.3333	0.6667	0.5833	0.5833	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
Sediment	0.5521	0.9636	0.5521	0.3333	0.6667	19.660	8	0.222	1.761	0.1650

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91319	0.844	-1.2802	2.54781
F-Test indicates equal variances (p = 0.05)	4.95789	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.16498	0.28796	0.00174	0.03509	0.8272	1, 14

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303 (1)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070933 | Sample Type: Sediment
Start Date: 12/1/2007 | End Date: 1/5/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
125	1	1	SD004	12	3	2	0	1	0.25	0.08	
2	2	2	SD004	12	10	0	0	10	0.83	0.83	
65	3	3	SD004	12	9	2	1	6	0.75	0.50	
12	4	4	SD004	12	8	0	0	8	0.67	0.67	
34	5	5	SD004	12	5	0	0	5	0.42	0.42	
81	6	6	SD004	12	10	0	1	9	0.83	0.75	
97	7	7	SD004	12	10	0	1	9	0.83	0.75	
130	8	8	SD004	12	7	0	0	7	0.58	0.58	
19	9	1	Sediment	12	10	0	1	9	0.83	0.75	
41	10	2	Sediment	12	5	1	1	3	0.42	0.25	
69	11	3	Sediment	12	10	4	0	6	0.83	0.50	
59	12	4	Sediment	12	7	0	0	7	0.58	0.58	
32	13	5	Sediment	12	12	2	0	10	1.00	0.83	
3	14	6	Sediment	12	2	0	0	2	0.17	0.17	
67	15	7	Sediment	12	5	2	2	1	0.42	0.08	
95	16	8	Sediment	12	10	4	1	5	0.83	0.42	

Comments: SD-125

Chironomid Test-Survival

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070933
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-125				

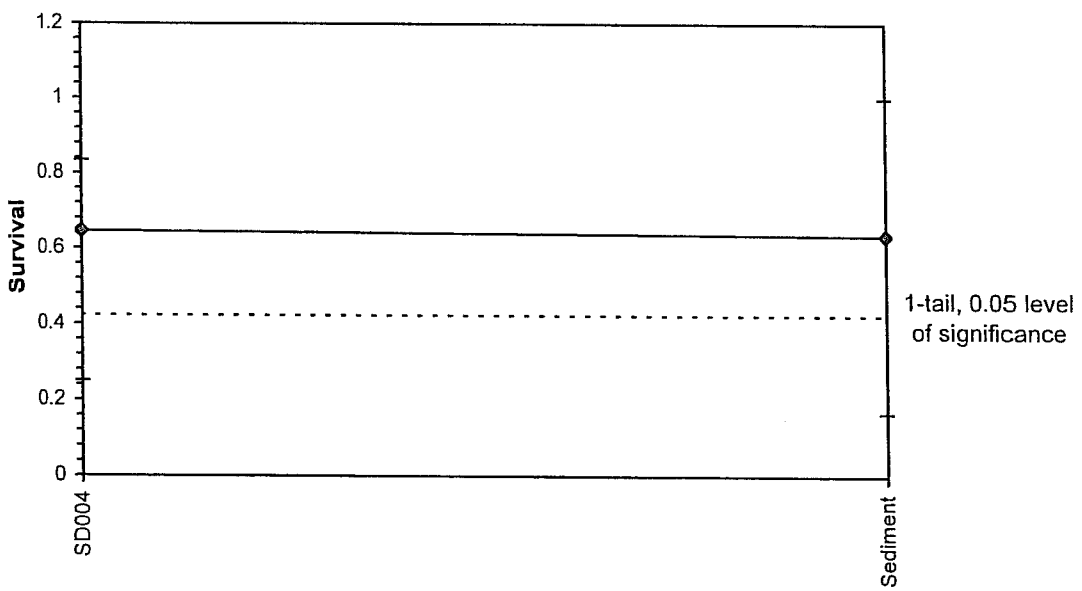
Conc-%	1	2	3	4	5	6	7	8
SD004	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833
Sediment	0.8333	0.4167	0.8333	0.5833	1.0000	0.1667	0.4167	0.8333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.6458	1.0000	0.6458	0.2500	0.8333	33.612	8			
Sediment	0.6354	0.9839	0.6354	0.1667	1.0000	44.853	8	0.082	1.761	0.2231

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91138	0.844	-0.5496	-0.757
F-Test indicates equal variances (p = 0.49)	1.72368	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.22309	0.34543	0.00043	0.06417	0.93562	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070933
End Date:	1/5/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-125				

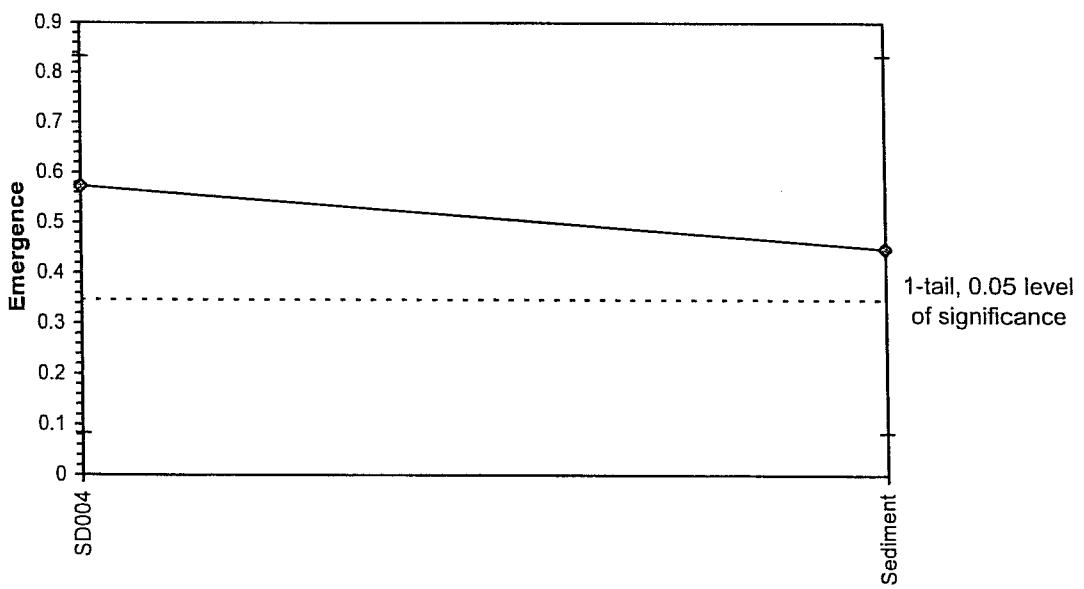
Conc-%	1	2	3	4	5	6	7	8
SD004	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833
Sediment	0.7500	0.2500	0.5000	0.5833	0.8333	0.1667	0.0833	0.4167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD004	0.5729	1.0000	0.5729	0.0833	0.8333	42.184	8			
Sediment	0.4479	0.7818	0.4479	0.0833	0.8333	60.440	8	0.974	1.761	0.2260

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97569	0.844	-0.4151	-0.5192
F-Test indicates equal variances (p = 0.77)	1.25478	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD004	0.22598	0.39444	0.0625	0.06585	0.34647	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test | Test ID: 27-303 (2)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070939 | Sample Type: Sediment
Start Date: 12/3/2007 End Date: 1/7/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
87	1	1	SD010	12	0	0	0	0	0.00	0.00	
43	2	2	SD010	12	1	0	0	1	0.08	0.08	
92	3	3	SD010	12	1	0	0	1	0.08	0.08	
15	4	4	SD010	12	1	0	0	1	0.08	0.08	
9	5	5	SD010	12	6	3	1	2	0.50	0.17	
41	6	6	SD010	12	2	2	0	0	0.17	0.00	
125	7	7	SD010	12	4	1	0	3	0.33	0.25	
25	8	8	SD010	12	4	0	0	4	0.33	0.33	
67	9	1	Sediment	12	7	5	0	2	0.58	0.17	
48	10	2	Sediment	12	8	6	1	1	0.67	0.08	
31	11	3	Sediment	12	6	3	0	3	0.50	0.25	
131	12	4	Sediment	12	7	6	1	0	0.58	0.00	
61	13	5	Sediment	12	2	2	0	0	0.17	0.00	
122	14	6	Sediment	12	11	8	0	3	0.92	0.25	
97	15	7	Sediment	12	4	4	0	0	0.33	0.00	
76	16	8	Sediment	12	9	8	0	1	0.75	0.08	

Comments: SD-63

Chironomid Test-Emergence

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070939
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-63				

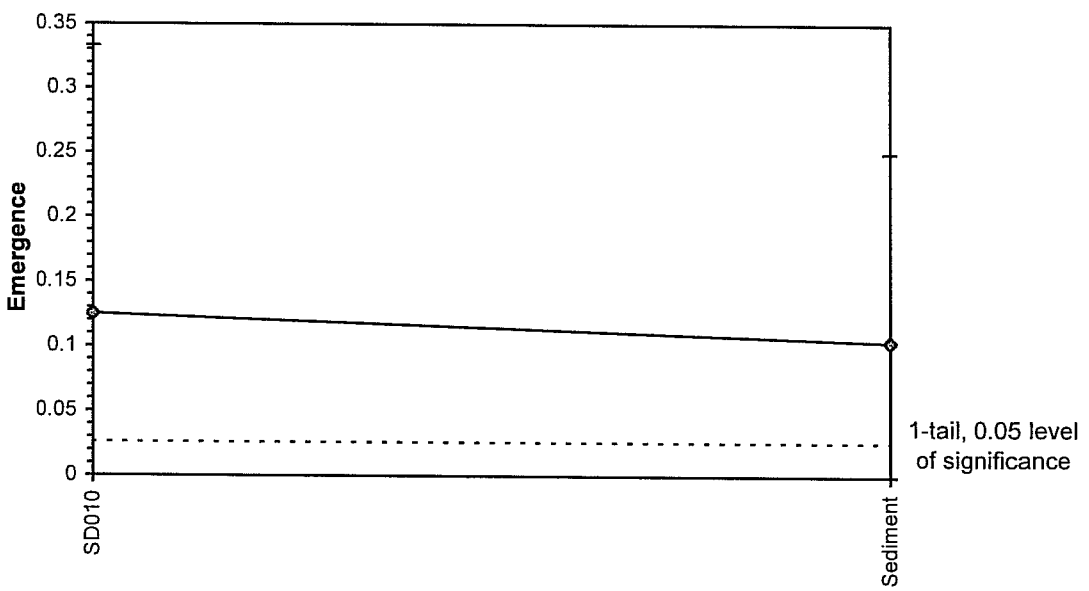
Conc-%	1	2	3	4	5	6	7	8
SD010	0.0000	0.0833	0.0833	0.0833	0.1667	0.0000	0.2500	0.3333
Sediment	0.1667	0.0833	0.2500	0.0000	0.0000	0.2500	0.0000	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD010	0.1250	1.0000	0.1250	0.0000	0.3333	94.281	8			
Sediment	0.1042	0.8333	0.1042	0.0000	0.2500	102.539	8	0.370	1.761	0.0990

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.90007	0.844	0.59295	-0.9195
F-Test indicates equal variances (p = 0.80)	1.21739	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD010	0.09904	0.79236	0.00174	0.01265	0.71657	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RL

C-151

Test: CT-Chironomid Test								Test ID: 27-303 (2)			
Species: CT-Chironomous tentans								Protocol: EPA 600 MA			
Sample ID: 20070945								Sample Type: Sediment			
Start Date: 12/3/2007			End Date: 1/7/2008					Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
87	1	1	SD010	12	0	0	0	0	0.00	0.00	
43	2	2	SD010	12	1	0	0	1	0.08	0.08	
92	3	3	SD010	12	1	0	0	1	0.08	0.08	
15	4	4	SD010	12	1	0	0	1	0.08	0.08	
9	5	5	SD010	12	6	3	1	2	0.50	0.17	
41	6	6	SD010	12	2	2	0	0	0.17	0.00	
125	7	7	SD010	12	4	1	0	3	0.33	0.25	
25	8	8	SD010	12	4	0	0	4	0.33	0.33	
2	9	1	Sediment	12	3	0	0	3	0.25	0.25	
14	10	2	Sediment	12	1	0	0	1	0.08	0.08	
35	11	3	Sediment	12	0	0	0	0	0.00	0.00	
18	12	4	Sediment	12	0	0	0	0	0.00	0.00	
7	13	5	Sediment	12	3	0	1	2	0.25	0.17	
30	14	6	Sediment	12	4	0	0	4	0.33	0.33	
79	15	7	Sediment	12	2	1	0	1	0.17	0.08	
8	16	8	Sediment	12	2	0	0	2	0.17	0.17	

Comments: SD-120

Chironomid Test-Survival

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070945
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-120				

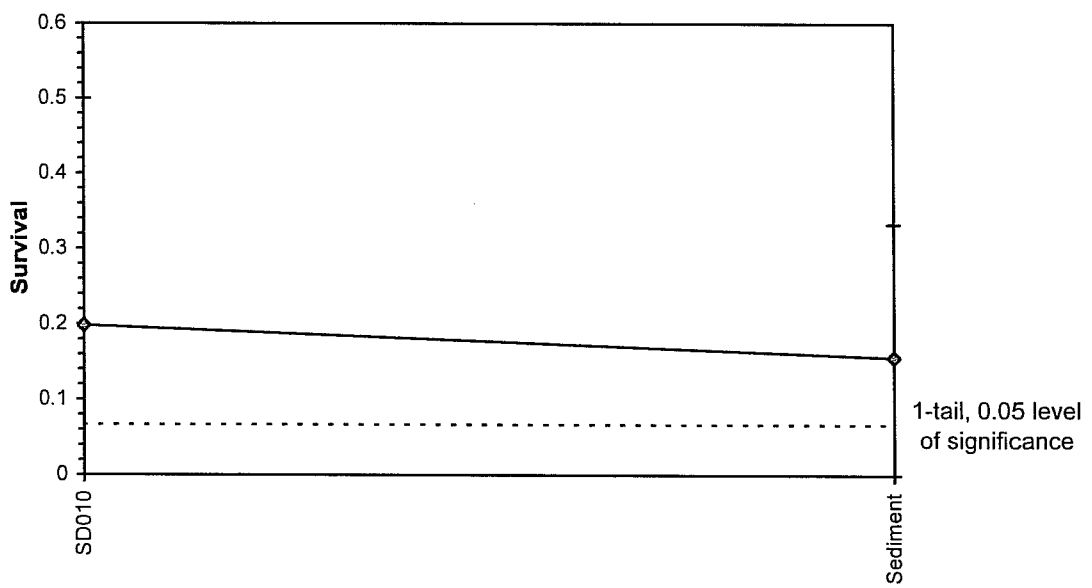
Conc-%	1	2	3	4	5	6	7	8
SD010	0.0000	0.0833	0.0833	0.0833	0.5000	0.1667	0.3333	0.3333
Sediment	0.2500	0.0833	0.0000	0.0000	0.2500	0.3333	0.1667	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD010	0.1979	1.0000	0.1979	0.0000	0.5000	86.984	8			
Sediment	0.1563	0.7895	0.1563	0.0000	0.3333	77.746	8	0.559	1.761	0.1312

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9429	0.844	0.49625	-0.5958
F-Test indicates equal variances (p = 0.38)	2.0084	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD010	0.13121	0.66294	0.00694	0.0222	0.58477	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070939
Start Date: 12/3/2007 End Date: 1/7/2008

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
38	1	1	SD027	12	3	0	0	3	0.25	0.25	
83	2	2	SD027	12	10	0	0	10	0.83	0.83	
29	3	3	SD027	12	8	0	0	8	0.67	0.67	
110	4	4	SD027	12	6	0	0	6	0.50	0.50	
46	5	5	SD027	12	7	0	1	6	0.58	0.50	
75	6	6	SD027	12	6	0	0	6	0.50	0.50	
96	7	7	SD027	12	5	0	0	5	0.42	0.42	
57	8	8	SD027	12	8	0	0	8	0.67	0.67	
67	9	1	Sediment	12	7	5	0	2	0.58	0.17	
48	10	2	Sediment	12	8	6	1	1	0.67	0.08	
31	11	3	Sediment	12	6	3	0	3	0.50	0.25	
131	12	4	Sediment	12	7	6	1	0	0.58	0.00	
61	13	5	Sediment	12	2	2	0	0	0.17	0.00	
122	14	6	Sediment	12	11	8	0	3	0.92	0.25	
97	15	7	Sediment	12	4	4	0	0	0.33	0.00	
76	16	8	Sediment	12	9	8	0	1	0.75	0.08	

Comments: SD-63

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070939
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-63				

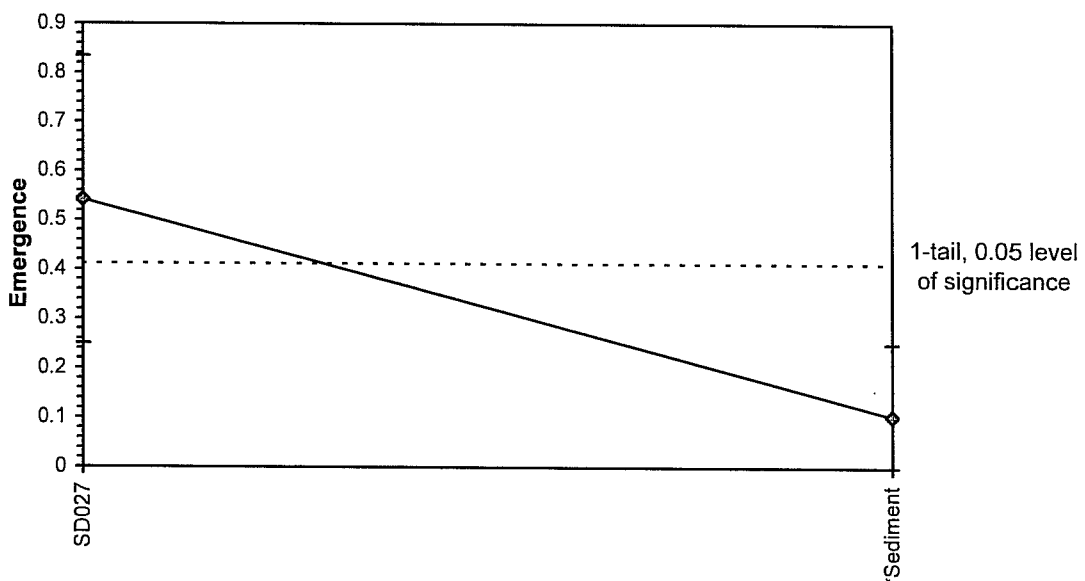
Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667
Sediment	0.1667	0.0833	0.2500	0.0000	0.0000	0.2500	0.0000	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5417	1.0000	0.5417	0.2500	0.8333	32.894	8			
*Sediment	0.1042	0.1923	0.1042	0.0000	0.2500	102.539	8	5.957	1.761	0.1294

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95379	0.844	0.12728	0.34179
F-Test indicates equal variances (p = 0.20)	2.78261	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs SD027	0.12936	0.23882	0.76563	0.02158	3.5E-05	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-155

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070942
Start Date: 12/3/2007 End Date: 1/7/2008

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
38	1	1	SD027	12	3	0	0	3	0.25	0.25	
83	2	2	SD027	12	10	0	0	10	0.83	0.83	
29	3	3	SD027	12	8	0	0	8	0.67	0.67	
110	4	4	SD027	12	6	0	0	6	0.50	0.50	
46	5	5	SD027	12	7	0	1	6	0.58	0.50	
75	6	6	SD027	12	6	0	0	6	0.50	0.50	
96	7	7	SD027	12	5	0	0	5	0.42	0.42	
57	8	8	SD027	12	8	0	0	8	0.67	0.67	
64	9	1	Sediment	12	6	0	0	6	0.50	0.50	
82	10	2	Sediment	12	10	0	0	10	0.83	0.83	
12	11	3	Sediment	12	7	0	0	7	0.58	0.58	
124	12	4	Sediment	12	5	0	0	5	0.42	0.42	
119	13	5	Sediment	12	3	0	0	3	0.25	0.25	
81	14	6	Sediment	12	4	0	0	4	0.33	0.33	
100	15	7	Sediment	12	8	1	0	7	0.67	0.58	
5	16	8	Sediment	12	9	1	0	8	0.75	0.67	

Comments: SD-131

Chironomid Test-Survival

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070942
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-131				

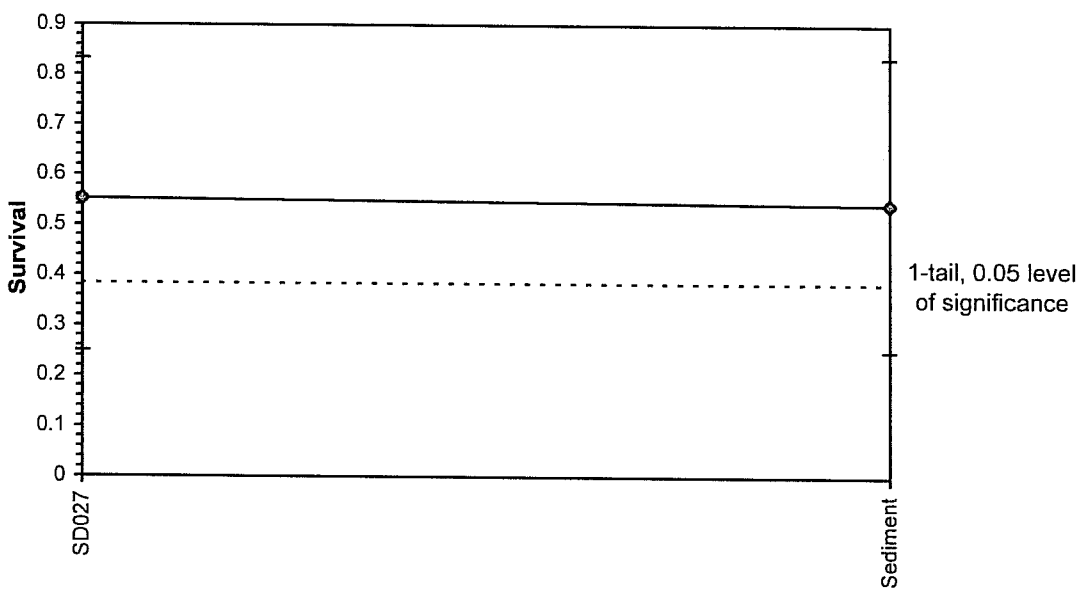
Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667
Sediment	0.5000	0.8333	0.5833	0.4167	0.2500	0.3333	0.6667	0.7500

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5521	1.0000	0.5521	0.2500	0.8333	32.210	8			
Sediment	0.5417	0.9811	0.5417	0.2500	0.8333	37.684	8	0.109	1.761	0.1686

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96232	0.844	-0.0608	-0.8114
F-Test indicates equal variances (p = 0.73)	1.31765	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD027	0.16858	0.30535	0.00043	0.03664	0.91488	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Chironomid Test-Emergence

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070942
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-131				

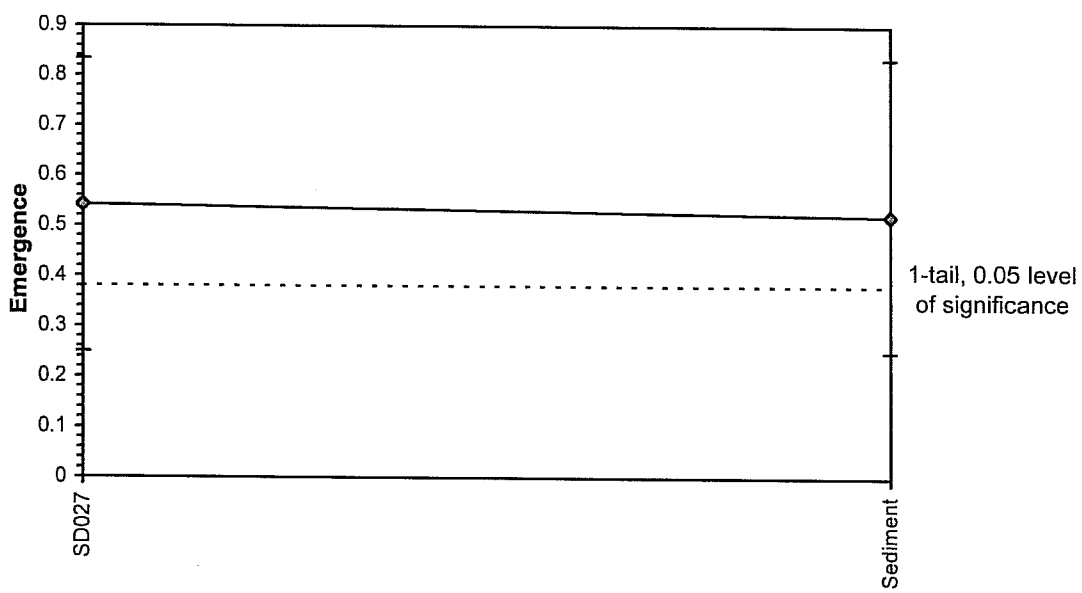
Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667
Sediment	0.5000	0.8333	0.5833	0.4167	0.2500	0.3333	0.5833	0.6667

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5417	1.0000	0.5417	0.2500	0.8333	32.894	8			
Sediment	0.5208	0.9615	0.5208	0.2500	0.8333	36.032	8	0.228	1.761	0.1611

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96697	0.844	0.11374	-0.4472
F-Test indicates equal variances (p = 0.89)	1.10938	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD027	0.16114	0.2975	0.00174	0.03348	0.82316	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: KF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070949
Start Date: 12/3/2007 End Date: 1/7/2008

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
38	1	1	SD027	12	3	0	0	3	0.25	0.25	
83	2	2	SD027	12	10	0	0	10	0.83	0.83	
29	3	3	SD027	12	8	0	0	8	0.67	0.67	
110	4	4	SD027	12	6	0	0	6	0.50	0.50	
46	5	5	SD027	12	7	0	1	6	0.58	0.50	
75	6	6	SD027	12	6	0	0	6	0.50	0.50	
96	7	7	SD027	12	5	0	0	5	0.42	0.42	
57	8	8	SD027	12	8	0	0	8	0.67	0.67	
44	9	1	Sediment	12	6	3	0	3	0.50	0.25	
77	10	2	Sediment	12	8	7	0	1	0.67	0.08	
88	11	3	Sediment	12	9	8	1	0	0.75	0.00	
94	12	4	Sediment	12	6	5	0	1	0.50	0.08	
33	13	5	Sediment	12	8	3	0	5	0.67	0.42	
17	14	6	Sediment	12	10	7	1	2	0.83	0.17	
115	15	7	Sediment	12	4	0	0	4	0.33	0.33	
55	16	8	Sediment	12	6	4	2	0	0.50	0.00	

Comments: SD-132

Chironomid Test-Emergence

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070949
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-132				

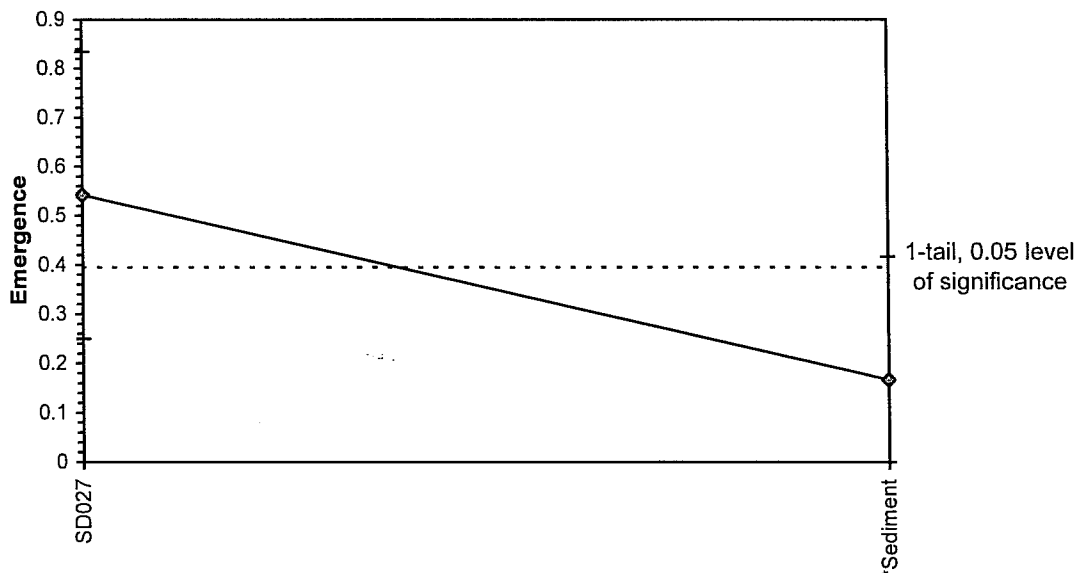
Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667
Sediment	0.2500	0.0833	0.0000	0.0833	0.4167	0.1667	0.3333	0.0000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5417	1.0000	0.5417	0.2500	0.8333	32.894	8			
*Sediment	0.1667	0.3077	0.1667	0.0000	0.4167	92.582	8	4.500	1.761	0.1468

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96908	0.844	0.22181	-0.5099
F-Test indicates equal variances (p = 0.71)	1.33333	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs SD027	0.14678	0.27097	0.5625	0.02778	5.0E-04	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070956
Start Date: 12/3/2007 End Date: 1/7/2008

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
38	1	1	SD027	12	3	0	0	3	0.25	0.25	
83	2	2	SD027	12	10	0	0	10	0.83	0.83	
29	3	3	SD027	12	8	0	0	8	0.67	0.67	
110	4	4	SD027	12	6	0	0	6	0.50	0.50	
46	5	5	SD027	12	7	0	1	6	0.58	0.50	
75	6	6	SD027	12	6	0	0	6	0.50	0.50	
96	7	7	SD027	12	5	0	0	5	0.42	0.42	
57	8	8	SD027	12	8	0	0	8	0.67	0.67	
58	9	1	Sediment	12	8	1	1	6	0.67	0.50	
13	10	2	Sediment	12	7	3	0	4	0.58	0.33	
71	11	3	Sediment	12	9	1	0	8	0.75	0.67	
70	12	4	Sediment	12	10	2	3	5	0.83	0.42	
111	13	5	Sediment	12	9	1	1	7	0.75	0.58	
128	14	6	Sediment	12	8	0	0	8	0.67	0.67	
104	15	7	Sediment	12	4	0	0	4	0.33	0.33	
105	16	8	Sediment	12	9	1	0	8	0.75	0.67	

Comments: SD-133

Chironomid Test-Emergence

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070956
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-133				

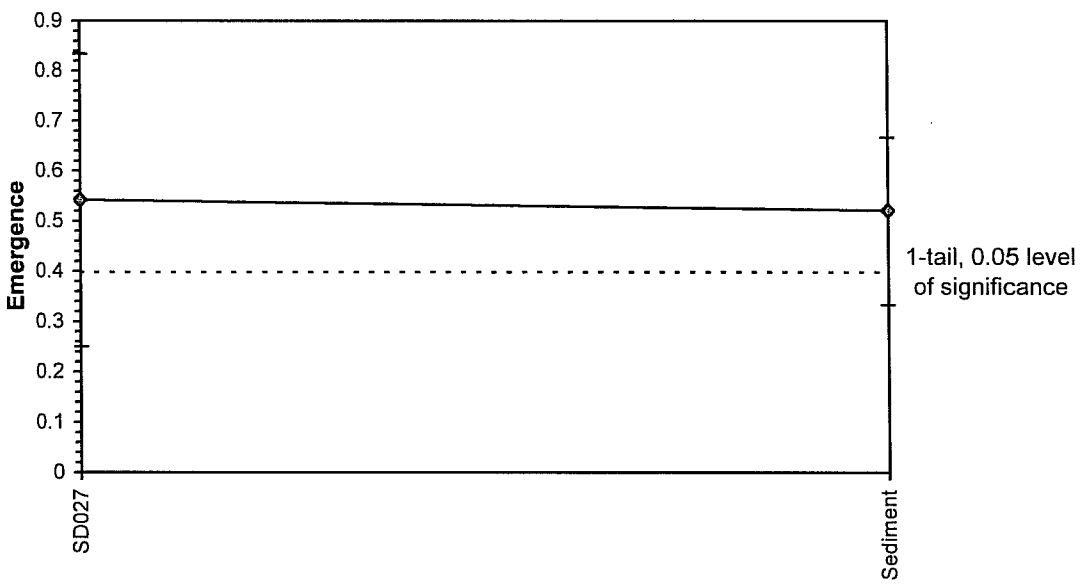
Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667
Sediment	0.5000	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.6667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5417	1.0000	0.5417	0.2500	0.8333	32.894	8			
Sediment	0.5208	0.9615	0.5208	0.3333	0.6667	28.041	8	0.256	1.761	0.1435

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96138	0.844	-0.0594	-0.5943
F-Test indicates equal variances (p = 0.61)	1.48837	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs SD027	0.14346	0.26485	0.00174	0.02654	0.80184	1, 14

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070945
Start Date: 12/3/2007 End Date: 1/7/2008

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
38	1	1	SD027	12	3	0	0	3	0.25	0.25	
83	2	2	SD027	12	10	0	0	10	0.83	0.83	
29	3	3	SD027	12	8	0	0	8	0.67	0.67	
110	4	4	SD027	12	6	0	0	6	0.50	0.50	
46	5	5	SD027	12	7	0	1	6	0.58	0.50	
75	6	6	SD027	12	6	0	0	6	0.50	0.50	
96	7	7	SD027	12	5	0	0	5	0.42	0.42	
57	8	8	SD027	12	8	0	0	8	0.67	0.67	
2	9	1	Sediment	12	3	0	0	3	0.25	0.25	
14	10	2	Sediment	12	1	0	0	1	0.08	0.08	
35	11	3	Sediment	12	0	0	0	0	0.00	0.00	
18	12	4	Sediment	12	0	0	0	0	0.00	0.00	
7	13	5	Sediment	12	3	0	1	2	0.25	0.17	
30	14	6	Sediment	12	4	0	0	4	0.33	0.33	
79	15	7	Sediment	12	2	1	0	1	0.17	0.08	
8	16	8	Sediment	12	2	0	0	2	0.17	0.17	

Comments: SD-120

Chironomid Test-Survival

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070945
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-120				

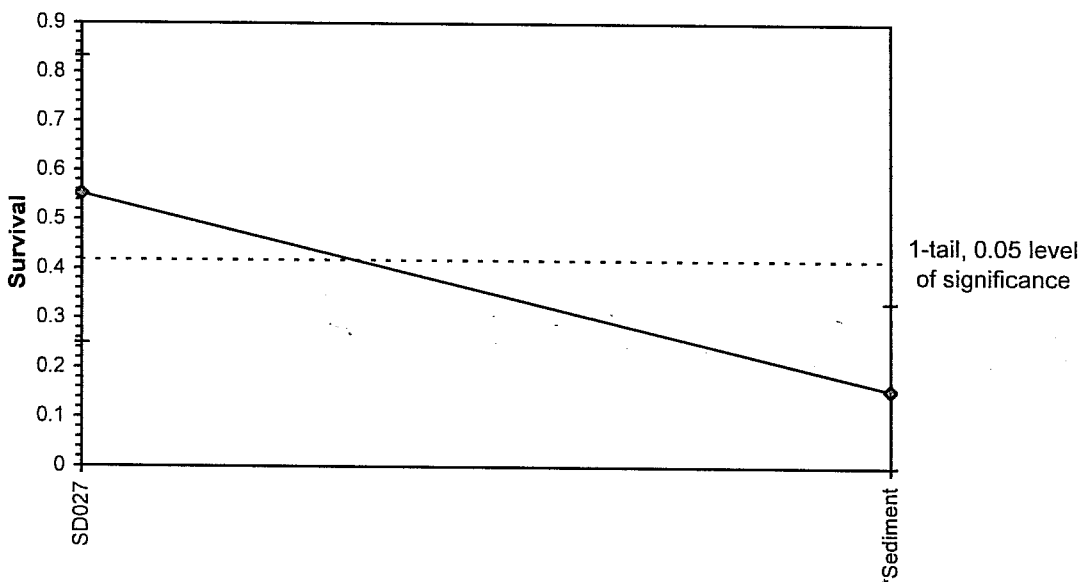
Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667
Sediment	0.2500	0.0833	0.0000	0.0000	0.2500	0.3333	0.1667	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5521	1.0000	0.5521	0.2500	0.8333	32.210	8			
*Sediment	0.1563	0.2830	0.1563	0.0000	0.3333	77.746	8	5.199	1.761	0.1341

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.98351	0.844	-0.1402	0.04295
F-Test indicates equal variances (p = 0.34)	2.14286	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs SD027	0.13411	0.24291	0.62674	0.02319	1.3E-04	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

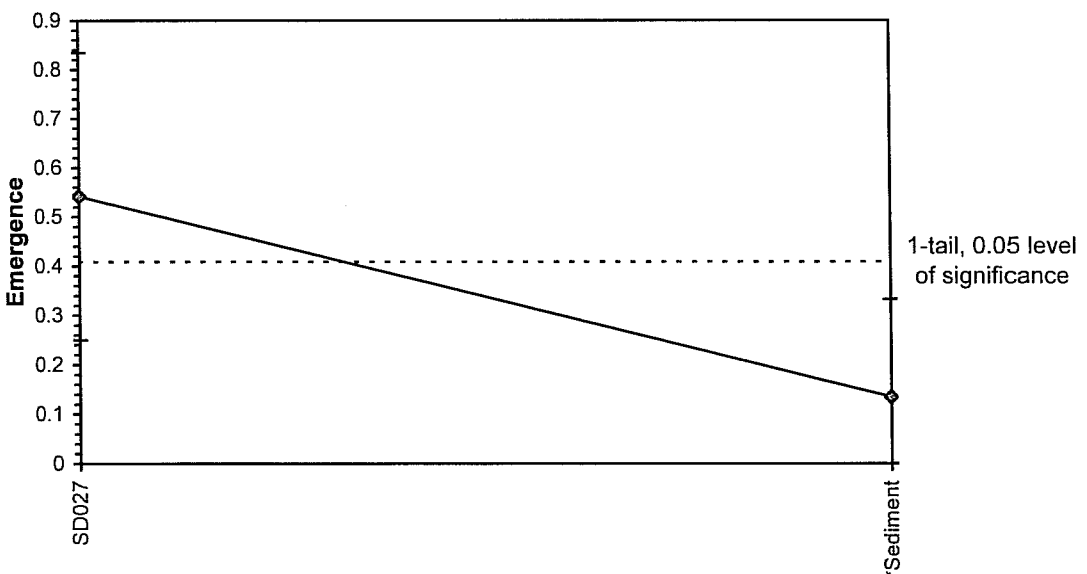
Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070945
End Date:	1/7/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD-120				

Conc-%	1	2	3	4	5	6	7	8
SD027	0.2500	0.8333	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667
Sediment	0.2500	0.0833	0.0000	0.0000	0.1667	0.3333	0.0833	0.1667

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
SD027	0.5417	1.0000	0.5417	0.2500	0.8333	32.894	8			
*Sediment	0.1354	0.2500	0.1354	0.0000	0.3333	86.639	8	5.386	1.761	0.1328

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96877		0.844		0.1429	0.18117
F-Test indicates equal variances (p = 0.29)	2.30631		8.88539			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs SD027	0.13285	0.24525	0.66016	0.02276	9.6E-05	1, 14

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070959 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
11	1	1	Ref SD006	12	5	1	0	4	0.42	0.33	
122	2	2	Ref SD006	12	8	0	0	8	0.67	0.67	
8	3	3	Ref SD006	12	5	0	0	5	0.42	0.42	
153	4	4	Ref SD006	12	8	1	0	7	0.67	0.58	
105	5	5	Ref SD006	12	8	0	0	8	0.67	0.67	
149	6	6	Ref SD006	12	4	0	0	4	0.33	0.33	
72	7	7	Ref SD006	12	7	0	0	7	0.58	0.58	
4	8	8	Ref SD006	12	2	0	0	2	0.17	0.17	
130	9	1	Sediment	12	6	0	0	6	0.50	0.50	
97	10	2	Sediment	12	4	1	0	3	0.33	0.25	
28	11	3	Sediment	12	2	0	0	2	0.17	0.17	
7	12	4	Sediment	12	2	0	0	2	0.17	0.17	
81	13	5	Sediment	12	7	0	0	7	0.58	0.58	
80	14	6	Sediment	12	6	1	0	5	0.50	0.42	
33	15	7	Sediment	12	8	3	1	4	0.67	0.33	
23	16	8	Sediment	12	6	0	0	6	0.50	0.50	

Comments: SD032

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD032				

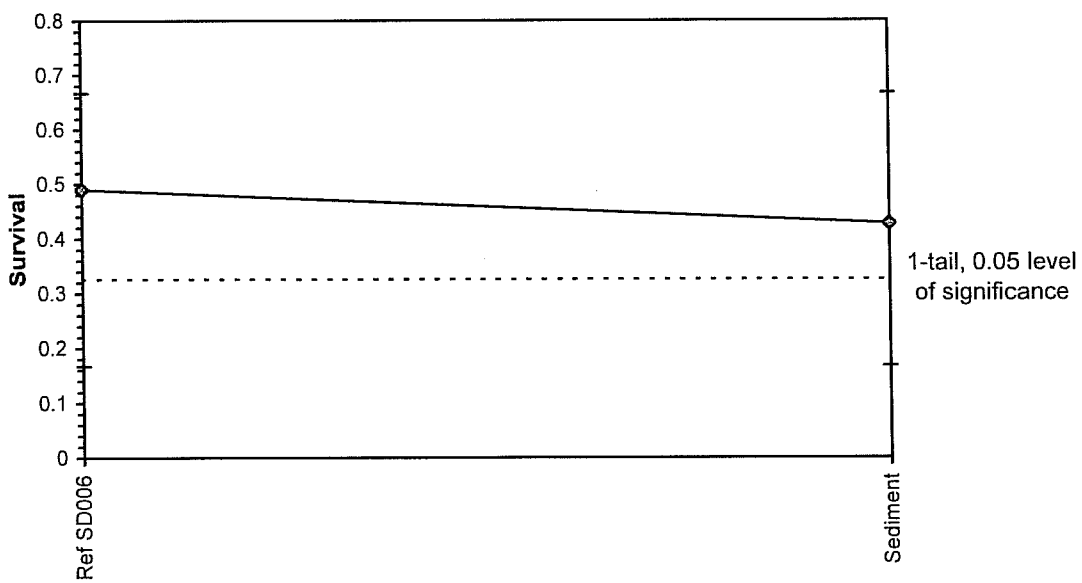
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.4167	0.6667	0.4167	0.6667	0.6667	0.3333	0.5833	0.1667
Sediment	0.5000	0.3333	0.1667	0.1667	0.5833	0.5000	0.6667	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4896	1.0000	0.4896	0.1667	0.6667	37.993	8			
Sediment	0.4271	0.8723	0.4271	0.1667	0.6667	43.553	8	0.672	1.761	0.1638

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91253	0.844	-0.5015	-1.0521
F-Test indicates equal variances (p = 1.00)	1	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.16381	0.33458	0.01563	0.0346	0.51251	1, 14
Treatments vs Ref SD006						

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: KE

C-167

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD032				

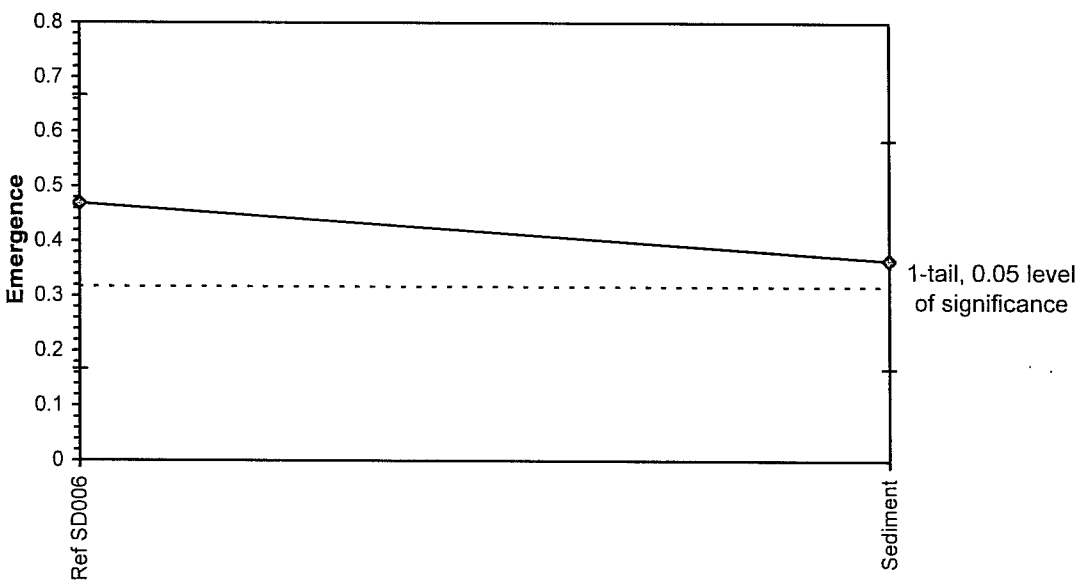
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.5833	0.1667
Sediment	0.5000	0.2500	0.1667	0.1667	0.5833	0.4167	0.3333	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4688	1.0000	0.4688	0.1667	0.6667	39.108	8			
Sediment	0.3646	0.7778	0.3646	0.1667	0.5833	43.945	8	1.210	1.761	0.1516

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92524	0.844	-0.2588	-1.2827
F-Test indicates equal variances (p = 0.73)	1.30918	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD006	0.15161	0.32344	0.0434	0.02964	0.24626	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RS

C-168

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070944
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
11	1	1	Ref SD006	12	5	1	0	4	0.42	0.33	
122	2	2	Ref SD006	12	8	0	0	8	0.67	0.67	
8	3	3	Ref SD006	12	5	0	0	5	0.42	0.42	
153	4	4	Ref SD006	12	8	1	0	7	0.67	0.58	
105	5	5	Ref SD006	12	8	0	0	8	0.67	0.67	
149	6	6	Ref SD006	12	4	0	0	4	0.33	0.33	
72	7	7	Ref SD006	12	7	0	0	7	0.58	0.58	
4	8	8	Ref SD006	12	2	0	0	2	0.17	0.17	
130	9	1	Sediment	12	2	0	0	2	0.17	0.17	
97	10	2	Sediment	12	1	0	0	1	0.08	0.08	
28	11	3	Sediment	12	3	0	0	3	0.25	0.25	
7	12	4	Sediment	12	7	0	1	6	0.58	0.50	
81	13	5	Sediment	12	2	0	0	2	0.17	0.17	
80	14	6	Sediment	12	3	0	0	3	0.25	0.25	
38	15	7	Sediment	12	4	0	0	4	0.33	0.33	
28	16	8	Sediment	12	2	0	0	2	0.17	0.17	

Comments: SD082

N/A JH 2/7/08

Reviewed by: RL

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD082				

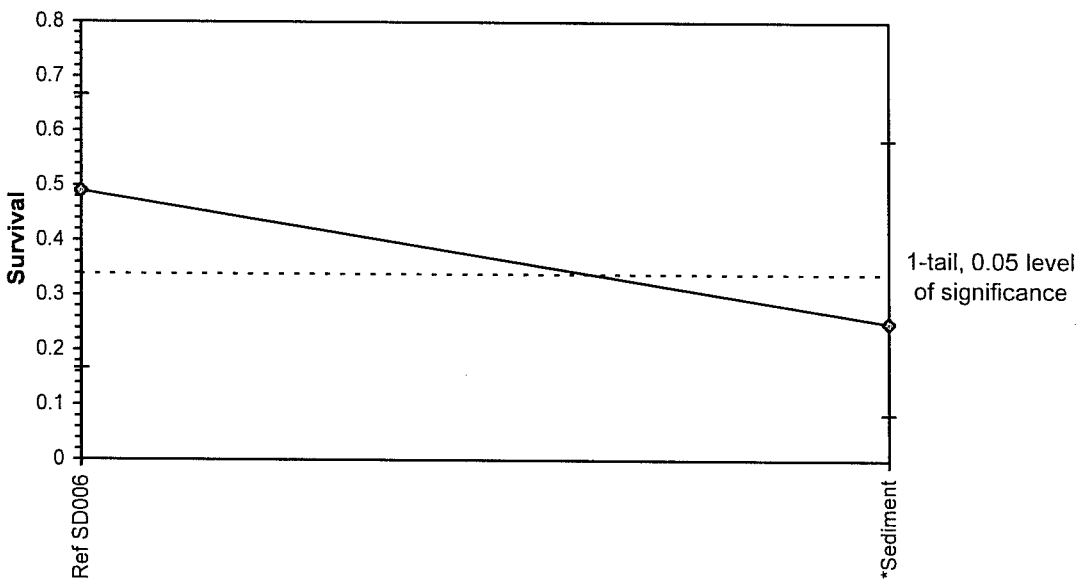
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.4167	0.6667	0.4167	0.6667	0.6667	0.3333	0.5833	0.1667
Sediment	0.1667	0.0833	0.2500	0.5833	0.1667	0.2500	0.3333	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4896	1.0000	0.4896	0.1667	0.6667	37.993	8			
*Sediment	0.2500	0.5106	0.2500	0.0833	0.5833	61.721	8	2.804	1.761	0.1505

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96322	0.844	0.17728	0.02789
F-Test indicates equal variances (p = 0.63)	1.45313	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD006	0.1505	0.3074	0.2296	0.0292	0.01407	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD082				

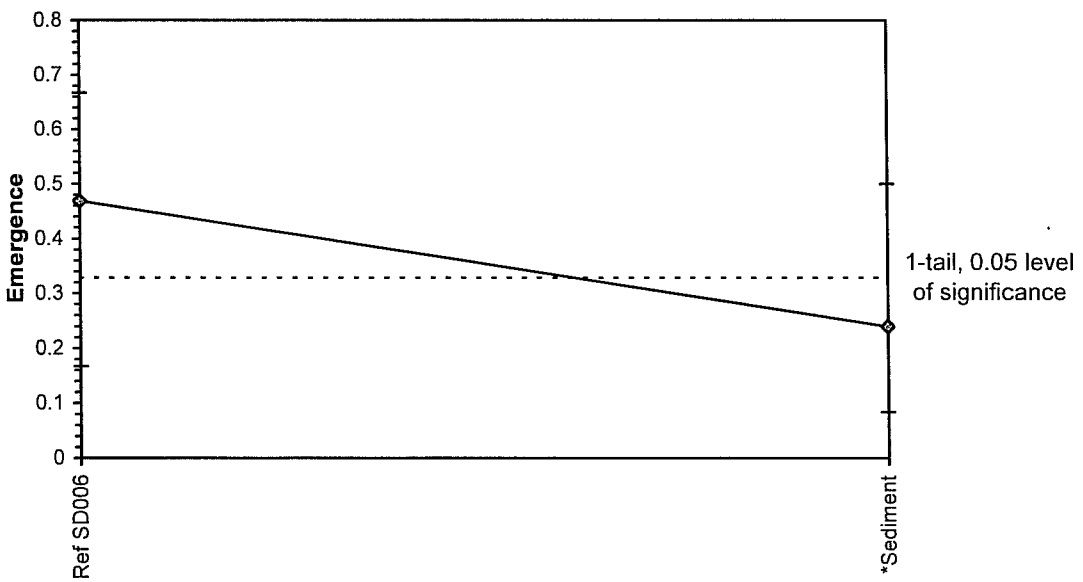
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.5833	0.1667
Sediment	0.1667	0.0833	0.2500	0.5000	0.1667	0.2500	0.3333	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4688	1.0000	0.4688	0.1667	0.6667	39.108	8			
*Sediment	0.2396	0.5111	0.2396	0.0833	0.5000	54.005	8	2.889	1.761	0.1397

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96599	0.844	-0.0138	-0.5001
F-Test indicates equal variances (p = 0.38)	2.00741	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD006	0.13973	0.29808	0.21007	0.02517	0.0119	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070958
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
11	1	1	Ref SD006	12	5	1	0	4	0.42	0.33	
122	2	2	Ref SD006	12	8	0	0	8	0.67	0.67	
8	3	3	Ref SD006	12	5	0	0	5	0.42	0.42	
153	4	4	Ref SD006	12	8	1	0	7	0.67	0.58	
105	5	5	Ref SD006	12	8	0	0	8	0.67	0.67	
149	6	6	Ref SD006	12	4	0	0	4	0.33	0.33	
72	7	7	Ref SD006	12	7	0	0	7	0.58	0.58	
4	8	8	Ref SD006	12	2	0	0	2	0.17	0.17	
130	9	1	Sediment	12	4	0	0	4	0.33	0.33	
97	10	2	Sediment	12	3	0	0	3	0.25	0.25	
28	11	3	Sediment	12	3	0	0	3	0.25	0.25	
7	12	4	Sediment	12	1	0	0	1	0.08	0.08	
81	13	5	Sediment	12	5	0	0	5	0.42	0.42	
80	14	6	Sediment	12	2	0	0	2	0.17	0.17	
33	15	7	Sediment	12	2	0	0	2	0.17	0.17	
23	16	8	Sediment	12	1	0	0	1	0.08	0.08	

NA
27
2/7/08

Comments: SD085

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD085				

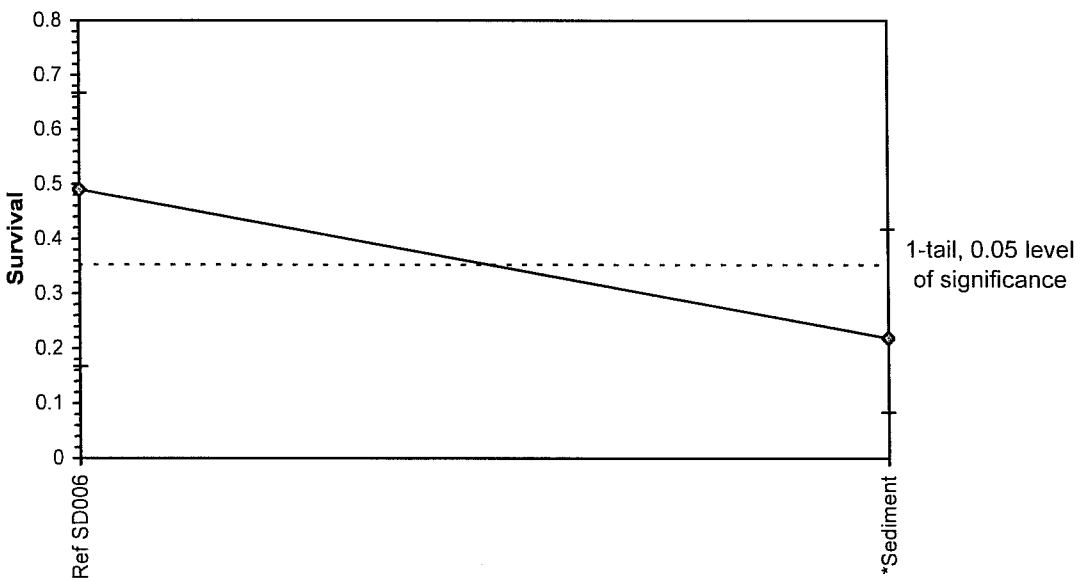
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.4167	0.6667	0.4167	0.6667	0.6667	0.3333	0.5833	0.1667
Sediment	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4896	1.0000	0.4896	0.1667	0.6667	37.993	8			
*Sediment	0.2188	0.4468	0.2188	0.0833	0.4167	53.634	8	3.483	1.761	0.1369

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93572	0.844	-0.3755	-0.3936
F-Test indicates equal variances (p = 0.25)	2.51351	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD006	0.13695	0.27972	0.2934	0.02418	0.00365	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD085				

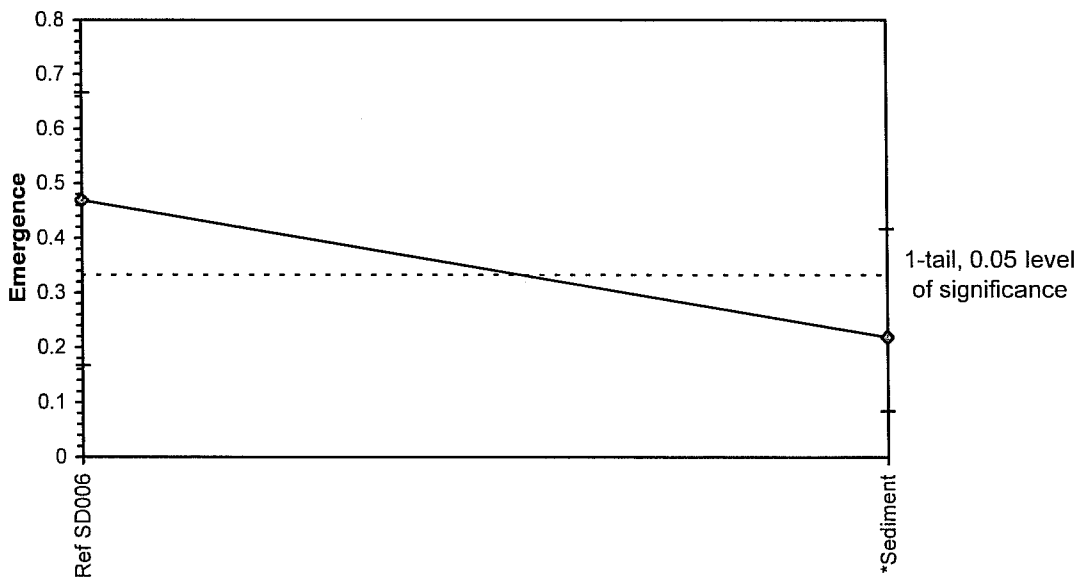
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.5833	0.1667
Sediment	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4688	1.0000	0.4688	0.1667	0.6667	39.108	8			
*Sediment	0.2188	0.4667	0.2188	0.0833	0.4167	53.634	8	3.249	1.761	0.1355

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92716	0.844	-0.2339	-0.688
F-Test indicates equal variances (p = 0.26)	2.44144	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD006	0.13553	0.28914	0.25	0.02369	0.00583	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070960 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
11	1	1	Ref SD006	12	5	1	0	4	0.42	0.33	
122	2	2	Ref SD006	12	8	0	0	8	0.67	0.67	
8	3	3	Ref SD006	12	5	0	0	5	0.42	0.42	
153	4	4	Ref SD006	12	8	1	0	7	0.67	0.58	
105	5	5	Ref SD006	12	8	0	0	8	0.67	0.67	
149	6	6	Ref SD006	12	4	0	0	4	0.33	0.33	
72	7	7	Ref SD006	12	7	0	0	7	0.58	0.58	
4	8	8	Ref SD006	12	2	0	0	2	0.17	0.17	
130	9	1	Sediment	12	1	0	0	1	0.08	0.08	
97	10	2	Sediment	12	0	0	0	0	0.00	0.00	
28	11	3	Sediment	12	0	0	0	0	0.00	0.00	
7	12	4	Sediment	12	0	0	0	0	0.00	0.00	
81	13	5	Sediment	12	0	0	0	0	0.00	0.00	
80	14	6	Sediment	12	0	0	0	0	0.00	0.00	
33	15	7	Sediment	12	2	0	0	2	0.17	0.17	
23	16	8	Sediment	12	0	0	0	0	0.00	0.00	

Comments: SD094

N/A JH 2/7/08

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD094				

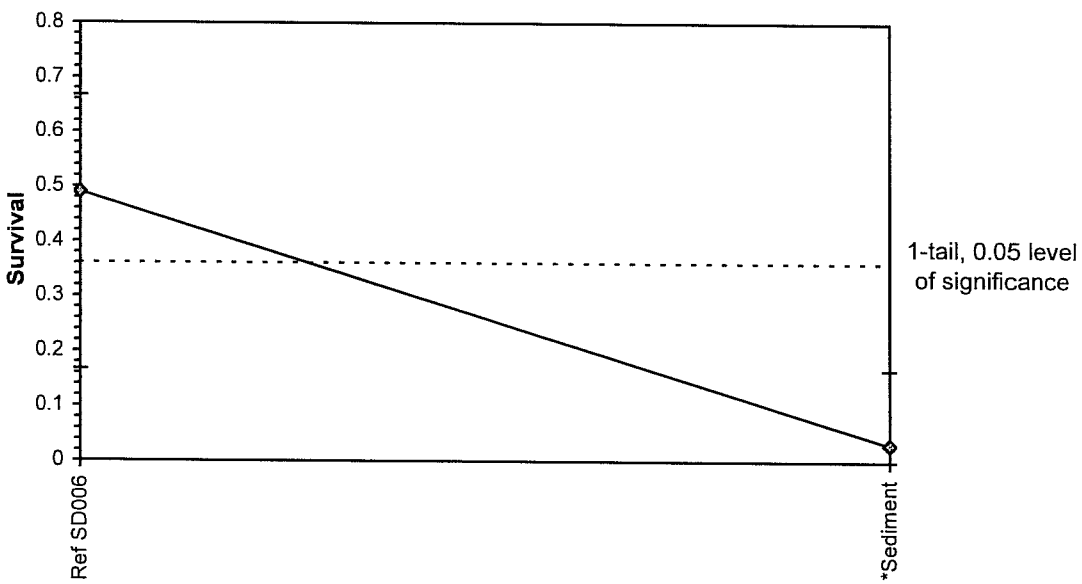
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.4167	0.6667	0.4167	0.6667	0.6667	0.3333	0.5833	0.1667
Sediment	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4896	1.0000	0.4896	0.1667	0.6667	37.993	8			
*Sediment	0.0313	0.0638	0.0313	0.0000	0.1667	198.406	8	6.612	1.860	0.1289

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.90082	0.844	-0.5815	0.90472
F-Test indicates unequal variances (p = 9.63E-03)	9	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Heteroscedastic t Test indicates significant differences Treatments vs Ref SD006	0.1289	0.26329	0.84028	0.01922	1.2E-05	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD094				

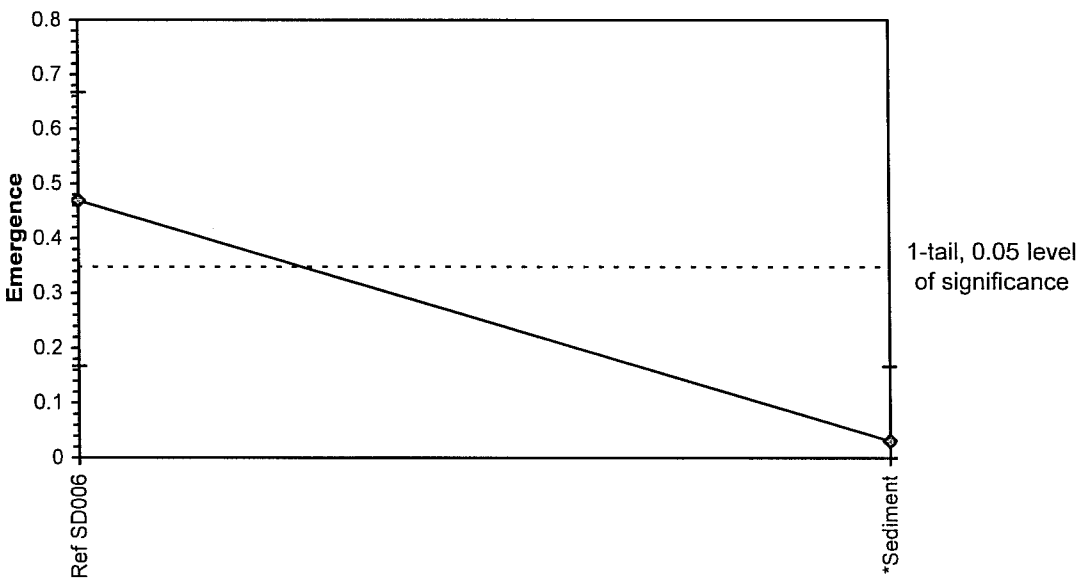
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.5833	0.1667
Sediment	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4688	1.0000	0.4688	0.1667	0.6667	39.108	8			
*Sediment	0.0313	0.0667	0.0313	0.0000	0.1667	198.406	8	6.394	1.761	0.1205

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92539	0.844	-0.3864	0.45678
F-Test indicates equal variances (p = 0.01)	8.74194	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD006	0.12051	0.25709	0.76563	0.01873	1.7E-05	1, 14

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070954
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
11	1	1	Ref SD006	12	5	1	0	4	0.42	0.33	
122	2	2	Ref SD006	12	8	0	0	8	0.67	0.67	
8	3	3	Ref SD006	12	5	0	0	5	0.42	0.42	
153	4	4	Ref SD006	12	8	1	0	7	0.67	0.58	
105	5	5	Ref SD006	12	8	0	0	8	0.67	0.67	
149	6	6	Ref SD006	12	4	0	0	4	0.33	0.33	
72	7	7	Ref SD006	12	7	0	0	7	0.58	0.58	
4	8	8	Ref SD006	12	2	0	0	2	0.17	0.17	
130	9	1	Sediment	12	1	0	0	1	0.08	0.08	
97	10	2	Sediment	12	5	1	0	4	0.42	0.33	
28	11	3	Sediment	12	4	0	0	4	0.33	0.33	
7	12	4	Sediment	12	8	1	0	7	0.67	0.58	
81	13	5	Sediment	12	7	0	1	6	0.58	0.50	
80	14	6	Sediment	12	6	0	0	6	0.50	0.50	
33	15	7	Sediment	12	7	2	1	4	0.58	0.33	
23	16	8	Sediment	12	7	0	0	7	0.58	0.58	

Comments: SD097

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD097				

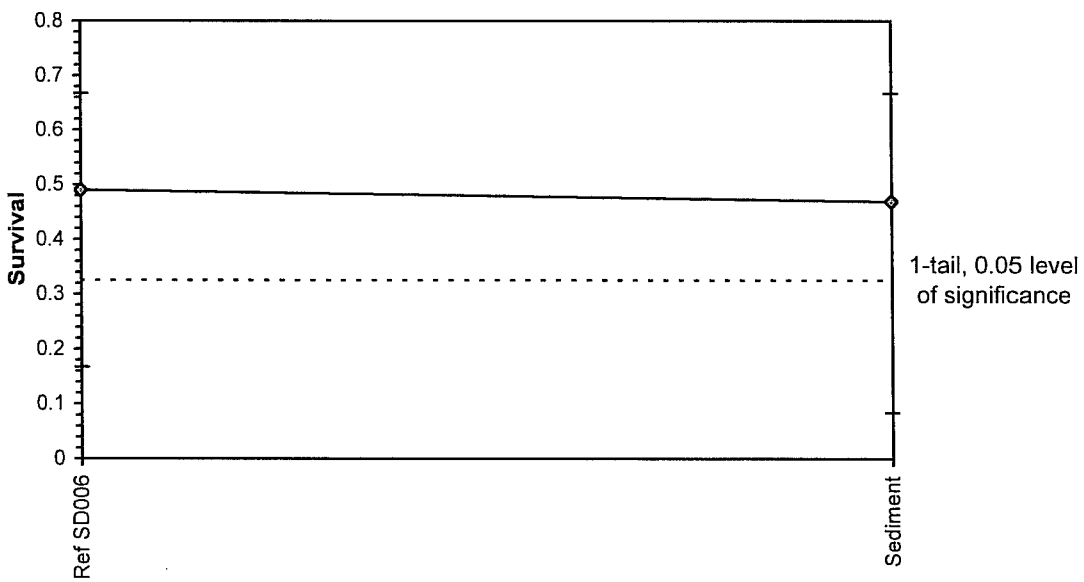
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.4167	0.6667	0.4167	0.6667	0.6667	0.3333	0.5833	0.1667
Sediment	0.0833	0.4167	0.3333	0.6667	0.5833	0.5000	0.5833	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4896	1.0000	0.4896	0.1667	0.6667	37.993	8			
Sediment	0.4688	0.9574	0.4688	0.0833	0.6667	40.246	8	0.222	1.761	0.1650

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88967	0.844	-0.8786	-0.0856
F-Test indicates equal variances (p = 0.97)	1.02867	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD006	0.16498	0.33697	0.00174	0.03509	0.8272	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD097				

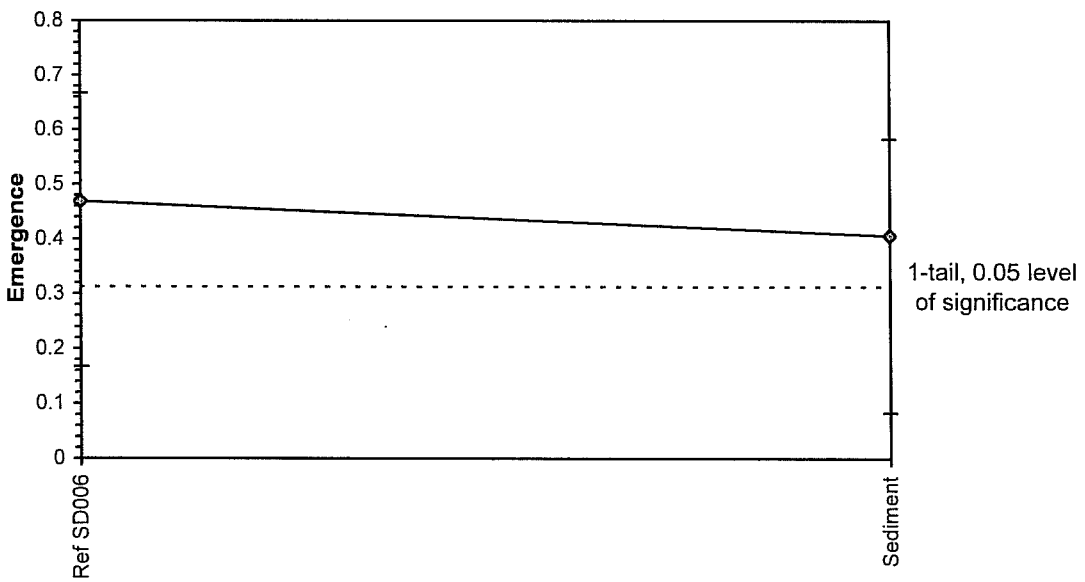
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.5833	0.1667
Sediment	0.0833	0.3333	0.3333	0.5833	0.5000	0.5000	0.3333	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4688	1.0000	0.4688	0.1667	0.6667	39.108	8			
Sediment	0.4063	0.8667	0.4063	0.0833	0.5833	41.662	8	0.709	1.761	0.1554

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89907	0.844	-0.5577	-0.6984
F-Test indicates equal variances (p = 0.84)	1.17316	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD006	0.15537	0.33146	0.01563	0.03113	0.49026	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test								Test ID: 27-303 (3)			
Species: CT-Chironomous tentans								Protocol: EPA 600 MA			
Sample ID: 20070938								Sample Type: Sediment			
Start Date: 12/7/2007			End Date: 1/11/2008					Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
11	1	1	Ref SD006	12	5	1	0	4	0.42	0.33	
122	2	2	Ref SD006	12	8	0	0	8	0.67	0.67	
8	3	3	Ref SD006	12	5	0	0	5	0.42	0.42	
153	4	4	Ref SD006	12	8	1	0	7	0.67	0.58	
105	5	5	Ref SD006	12	8	0	0	8	0.67	0.67	
149	6	6	Ref SD006	12	4	0	0	4	0.33	0.33	
72	7	7	Ref SD006	12	7	0	0	7	0.58	0.58	
4	8	8	Ref SD006	12	2	0	0	2	0.17	0.17	
130	9	1	Sediment	12	6	0	0	6	0.50	0.50	
97	10	2	Sediment	12	7	0	0	7	0.58	0.58	
28	11	3	Sediment	12	10	0	0	10	0.83	0.83	
7	12	4	Sediment	12	9	0	0	9	0.75	0.75	
81	13	5	Sediment	12	1	0	0	1	0.08	0.08	
80	14	6	Sediment	12	5	0	0	5	0.42	0.42	
33	15	7	Sediment	12	3	0	0	3	0.25	0.25	
23	16	8	Sediment	12	5	0	1	4	0.42	0.33	

Comments: SD100

Chironomid Test-Survival

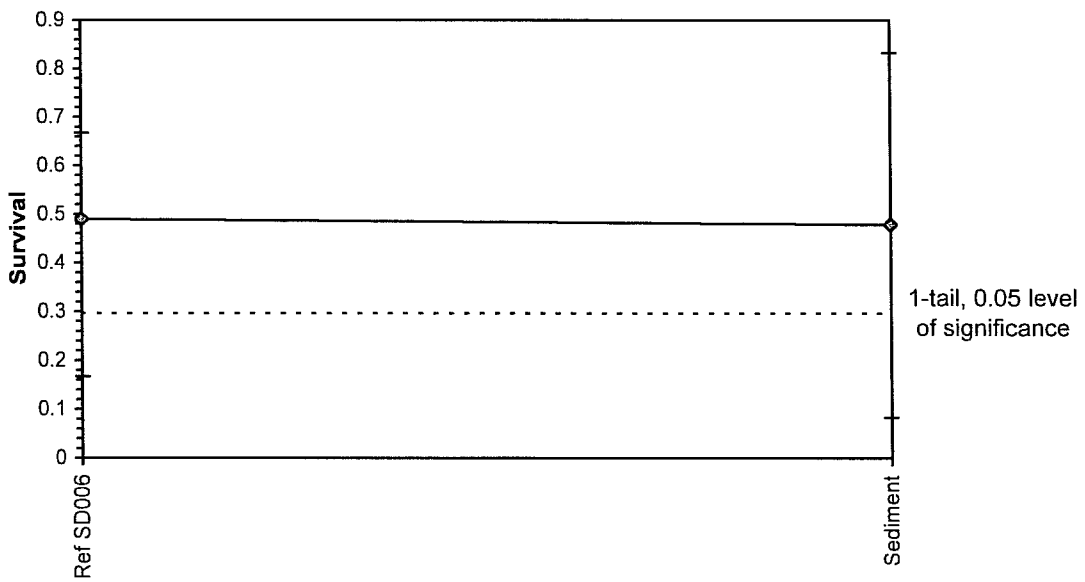
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD100				

Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.4167	0.6667	0.4167	0.6667	0.6667	0.3333	0.5833	0.1667
Sediment	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167	0.2500	0.4167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4896	1.0000	0.4896	0.1667	0.6667	37.993	8			
Sediment	0.4792	0.9787	0.4792	0.0833	0.8333	51.549	8	0.095	1.761	0.1925

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97178		0.844		-0.2417	-0.5496
F-Test indicates equal variances (p = 0.47)	1.76344		8.88539			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD006	0.19255	0.39329	0.00043	0.04781	0.92544	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD100				

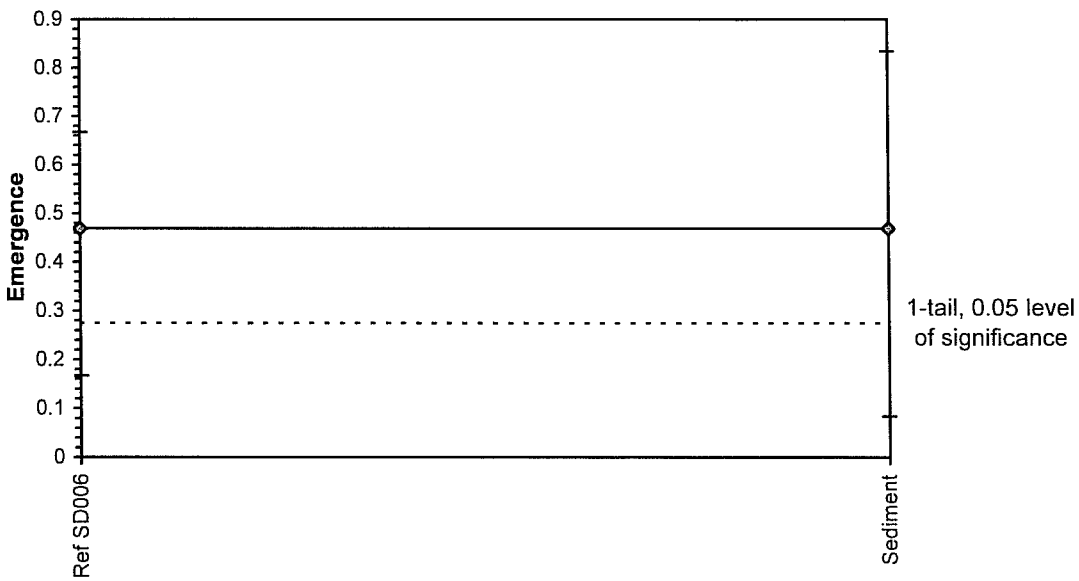
Conc-%	1	2	3	4	5	6	7	8
Ref SD006	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.5833	0.1667
Sediment	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167	0.2500	0.3333

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD006	0.4688	1.0000	0.4688	0.1667	0.6667	39.108	8			
Sediment	0.4688	1.0000	0.4688	0.0833	0.8333	53.702	8	0.000	1.761	0.1939

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97516	0.844	-0.097	-0.7305
F-Test indicates equal variances (p = 0.42)	1.88561	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD006	0.19392	0.41369	4.4E-16	0.04849	1	1, 14

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070959
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPAM 02
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
20	1	1	Ref 018	12		0	0	7	0.58	0.58	
95	2	2	Ref 018	12		0	0	6	0.50	0.50	
57	3	3	Ref 018	12		0	0	6	0.50	0.50	
61	4	4	Ref 018	12		0	0	9	0.75	0.75	
17	5	5	Ref 018	12		0	0	8	0.67	0.67	
48	6	6	Ref 018	12		3	2	5	0.83	0.42	
151	7	7	Ref 018	12		0	0	4	0.33	0.33	
15	8	8	Ref 018	12		0	0	6	0.50	0.50	
130	9	1	Sediment	12		0	0	6	0.50	0.50	
97	10	2	Sediment	12		1	0	3	0.33	0.25	
23	11	3	Sediment	12		0	0	2	0.17	0.17	
7	12	4	Sediment	12		0	0	2	0.17	0.17	
81	13	5	Sediment	12		0	0	7	0.58	0.58	
80	14	6	Sediment	12		1	0	5	0.50	0.42	
33	15	7	Sediment	12		3	1	4	0.67	0.33	
28	16	8	Sediment	12		0	0	6	0.50	0.50	

Comments: SD-32

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD032				

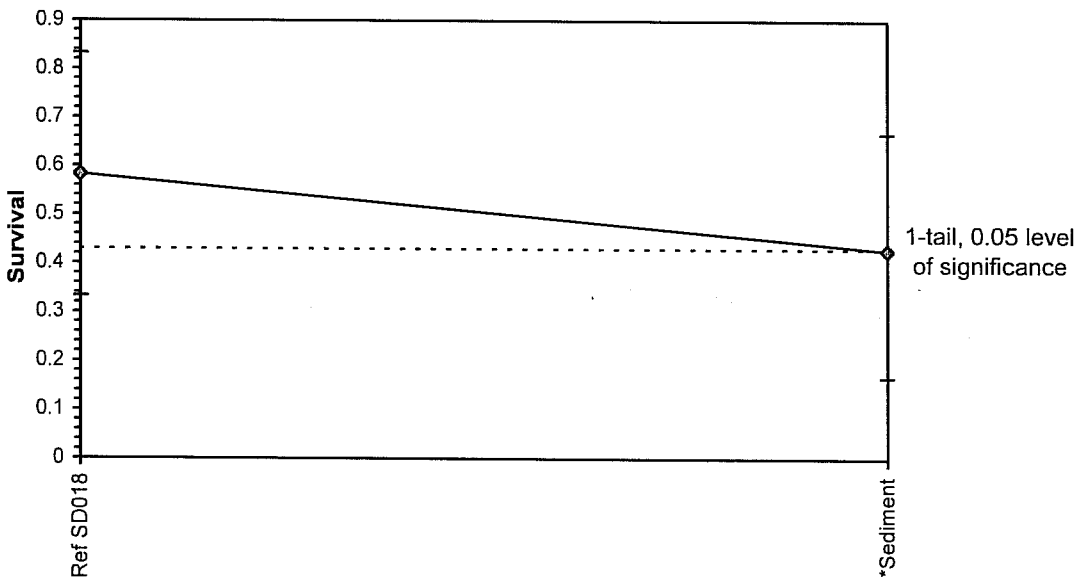
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.5000	0.3333	0.1667	0.1667	0.5833	0.5000	0.6667	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
*Sediment	0.4271	0.7321	0.4271	0.1667	0.6667	43.553	8	1.798	1.761	0.1530

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92876	0.844	-0.2245	-0.9456
F-Test indicates equal variances (p = 0.71)	1.34135	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD018	0.15303	0.26234	0.09766	0.0302	0.09371	1, 14

Dose-Response Plot



Reviewed by: _____

Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070947 | Sample Type: Sediment
Start Date: 12/7/2007 | End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD018	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD018	12	6	0	0	6	0.50	0.50	
	3	3	Ref SD018	12	6	0	0	6	0.50	0.50	
	4	4	Ref SD018	12	9	0	0	9	0.75	0.75	
	5	5	Ref SD018	12	8	0	0	8	0.67	0.67	
	6	6	Ref SD018	12	10	3	2	5	0.83	0.42	
	7	7	Ref SD018	12	4	0	0	4	0.33	0.33	
	8	8	Ref SD018	12	6	0	0	6	0.50	0.50	
	9	1	Sediment	12	8	1	0	7	0.67	0.58	
	10	2	Sediment	12	9	0	1	8	0.75	0.67	
	11	3	Sediment	12	11	0	0	11	0.92	0.92	
	12	4	Sediment	12	7	0	0	7	0.58	0.58	
	13	5	Sediment	12	6	0	0	6	0.50	0.50	
	14	6	Sediment	12	7	0	0	7	0.58	0.58	
	15	7	Sediment	12	3	0	0	3	0.25	0.25	
	16	8	Sediment	12	4	0	0	4	0.33	0.33	

Comments: SD056

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070947
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD056				

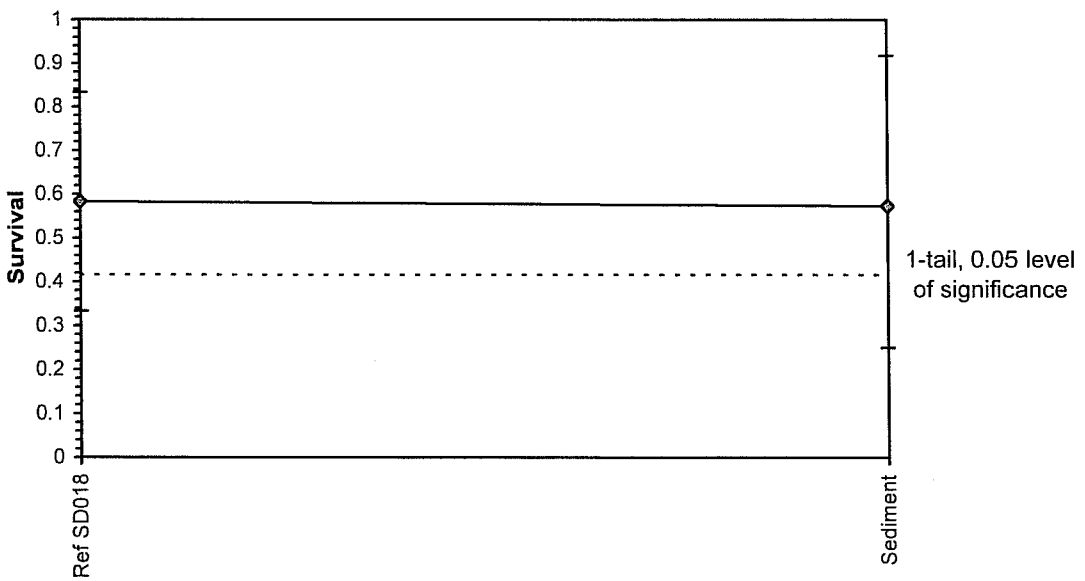
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.6667	0.7500	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
Sediment	0.5729	0.9821	0.5729	0.2500	0.9167	37.640	8	0.110	1.761	0.1674

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97545	0.844	0.03268	-0.3829
F-Test indicates equal variances (p = 0.45)	1.80288	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD018	0.16744	0.28703	0.00043	0.03615	0.9143	1, 14

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPAM 02
Sample ID: 20070944 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
20	1	1	Ref 018	12		0	0	7	0.58	0.58	
95	2	2	Ref 018	12		0	0	6	0.50	0.50	
57	3	3	Ref 018	12		0	0	6	0.50	0.50	
61	4	4	Ref 018	12		0	0	9	0.75	0.75	
17	5	5	Ref 018	12		0	0	8	0.67	0.67	
48	6	6	Ref 018	12		3	2	5	0.83	0.42	
151	7	7	Ref 018	12		0	0	4	0.33	0.33	
15	8	8	Ref 018	12		0	0	6	0.50	0.50	
43	9	1	Sediment	12		0	0	2	0.17	0.17	
101	10	2	Sediment	12		0	0	1	0.08	0.08	
58	11	3	Sediment	12		0	0	3	0.25	0.25	
144	12	4	Sediment	12		0	1	6	0.58	0.50	
146	13	5	Sediment	12		0	0	2	0.17	0.17	
152	14	6	Sediment	12		0	0	3	0.25	0.25	
134	15	7	Sediment	12		0	0	4	0.33	0.33	
91	16	8	Sediment	12		0	0	2	0.17	0.17	

Comments: SD-82

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD082				

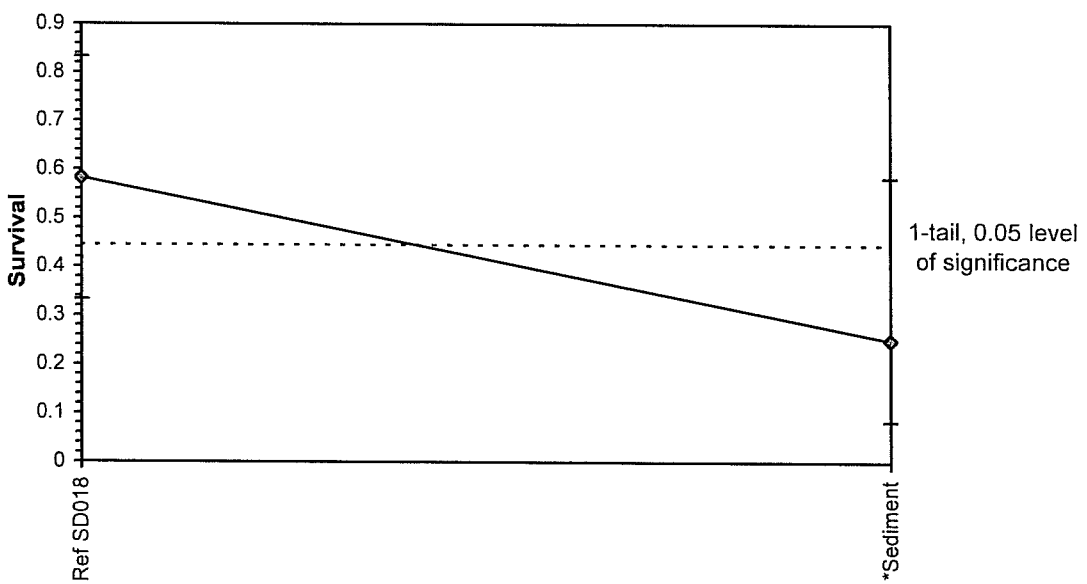
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.1667	0.0833	0.2500	0.5833	0.1667	0.2500	0.3333	0.1667

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
*Sediment	0.2500	0.4286	0.2500	0.0833	0.5833	61.721	8	4.233	1.761	0.1387

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92401	0.844	0.75116	0.39811
F-Test indicates equal variances (p = 0.92)	1.08333	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD018	0.13869	0.23775	0.44444	0.0248	8.3E-04	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RT

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPAM 02	Test Species:	CT-Chironomous tentans
Comments:	SD-82				

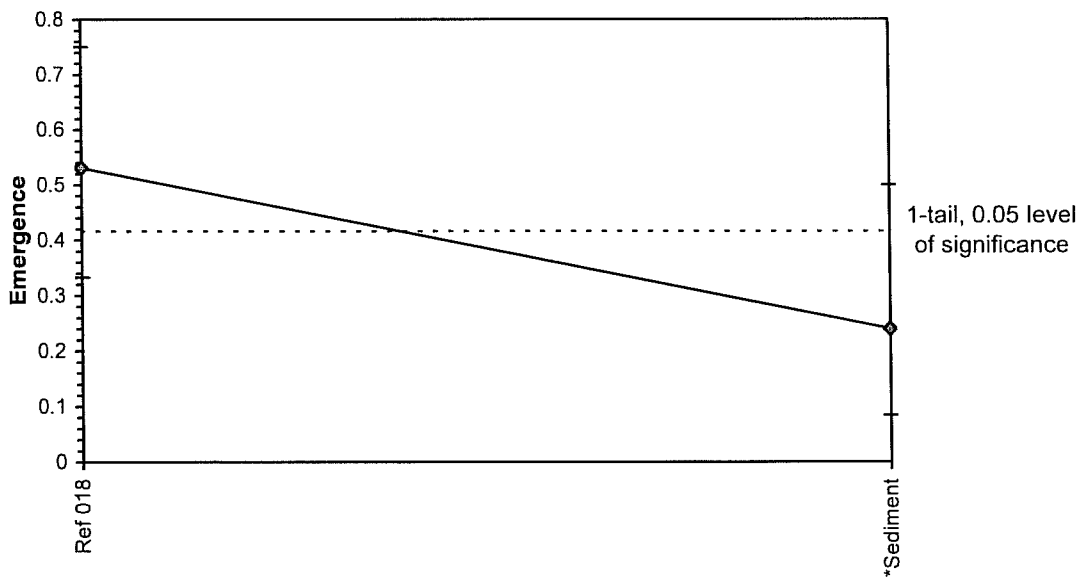
Conc-%	1	2	3	4	5	6	7	8
Ref 018	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167	0.3333	0.5000
Sediment	0.1667	0.0833	0.2500	0.5000	0.1667	0.2500	0.3333	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 018	0.5313	1.0000	0.5313	0.3333	0.7500	25.067	8			
*Sediment	0.2396	0.4510	0.2396	0.0833	0.5000	54.005	8	4.443	1.761	0.1156

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9523	0.844	0.64417	0.02532
F-Test indicates equal variances (p = 0.94)	1.05926	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref 018	0.11562	0.21764	0.34028	0.01724	5.6E-04	1, 14

Dose-Response Plot



Test: CT-Chironomid Test								Test ID: 27-303 (3)			
Species: CT-Chironomous tentans								Protocol: EPAM 02			
Sample ID: 20070958								Sample Type: Sediment			
Start Date: 12/7/2007			End Date: 1/11/2008					Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
20	1	1	Ref 018	12	7	0	0	7	0.58	0.58	
95	2	2	Ref 018	12	6	0	0	6	0.50	0.50	
57	3	3	Ref 018	12	6	0	0	6	0.50	0.50	
61	4	4	Ref 018	12	9	0	0	9	0.75	0.75	
17	5	5	Ref 018	12	8	0	0	8	0.67	0.67	
48	6	6	Ref 018	12	10	3	2	5	0.83	0.42	
151	7	7	Ref 018	12	4	0	0	4	0.33	0.33	
15	8	8	Ref 018	12	6	0	0	6	0.50	0.50	
	9	1	Sediment	12	4	0	0	4	0.33	0.33	
	10	2	Sediment	12	3	0	0	3	0.25	0.25	
	11	3	Sediment	12	3	0	0	3	0.25	0.25	
	12	4	Sediment	12	1	0	0	1	0.08	0.08	
	13	5	Sediment	12	5	0	0	5	0.42	0.42	
	14	6	Sediment	12	2	0	0	2	0.17	0.17	
	15	7	Sediment	12	2	0	0	2	0.17	0.17	
	16	8	Sediment	12	1	0	0	1	0.08	0.08	

Comments: SD-85

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD085				

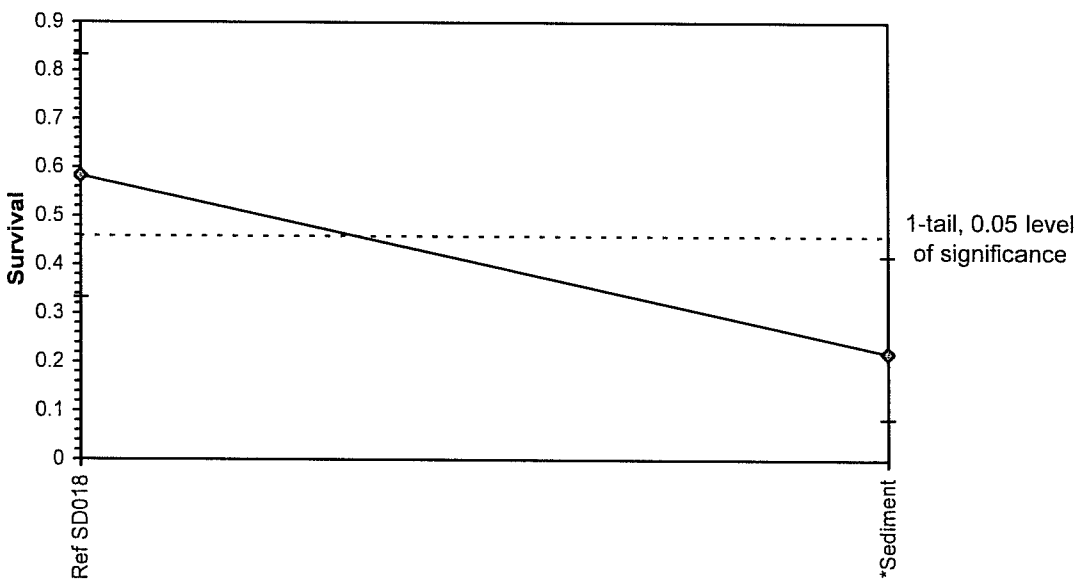
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
*Sediment	0.2188	0.3750	0.2188	0.0833	0.4167	53.634	8	5.185	1.761	0.1239

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97121	0.844	0.22907	-0.4423
F-Test indicates equal variances (p = 0.43)	1.87387	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD018	0.12385	0.21232	0.53168	0.01978	1.4E-04	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPAM 02	Test Species:	CT-Chironomous tentans
Comments:	SD-85				

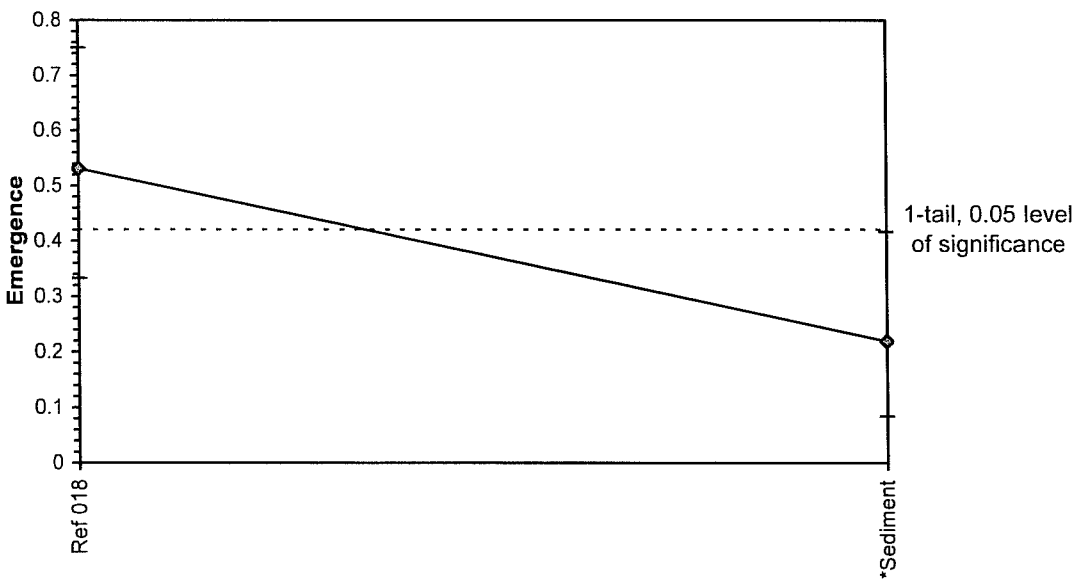
Conc-%	1	2	3	4	5	6	7	8
Ref 018	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167	0.3333	0.5000
Sediment	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 018	0.5313	1.0000	0.5313	0.3333	0.7500	25.067	8			
*Sediment	0.2188	0.4118	0.2188	0.0833	0.4167	53.634	8	4.980	1.761	0.1105

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96053	0.844	0.33401	-0.6013
F-Test indicates equal variances (p = 0.75)	1.28829	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref 018	0.11052	0.20803	0.39063	0.01575	2.0E-04	1, 14

Dose-Response Plot



Test: CT-Chironomid Test								Test ID: 27-303 (3)			
Species: CT-Chironomous tentans								Protocol: EPAM 02			
Sample ID: 20070960								Sample Type: Sediment			
Start Date: 12/7/2007			End Date: 1/11/2008					Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref 018	12	7	0	0	7	0.58	0.58	
	2	2	Ref 018	12	6	0	0	6	0.50	0.50	
	3	3	Ref 018	12	6	0	0	6	0.50	0.50	
	4	4	Ref 018	12	9	0	0	9	0.75	0.75	
	5	5	Ref 018	12	8	0	0	8	0.67	0.67	
	6	6	Ref 018	12	10	3	2	5	0.83	0.42	
	7	7	Ref 018	12	4	0	0	4	0.33	0.33	
	8	8	Ref 018	12	6	0	0	6	0.50	0.50	
111	9	1	Sediment	12	1	0	0	1	0.08	0.08	
13	10	2	Sediment	12	0	0	0	0	0.00	0.00	
19	11	3	Sediment	12	0	0	0	0	0.00	0.00	
31	12	4	Sediment	12	0	0	0	0	0.00	0.00	
148	13	5	Sediment	12	0	0	0	0	0.00	0.00	
51	14	6	Sediment	12	0	0	0	0	0.00	0.00	
88	15	7	Sediment	12	2	0	0	2	0.17	0.17	
29	16	8	Sediment	12	0	0	0	0	0.00	0.00	

Comments: SD-94

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD094				

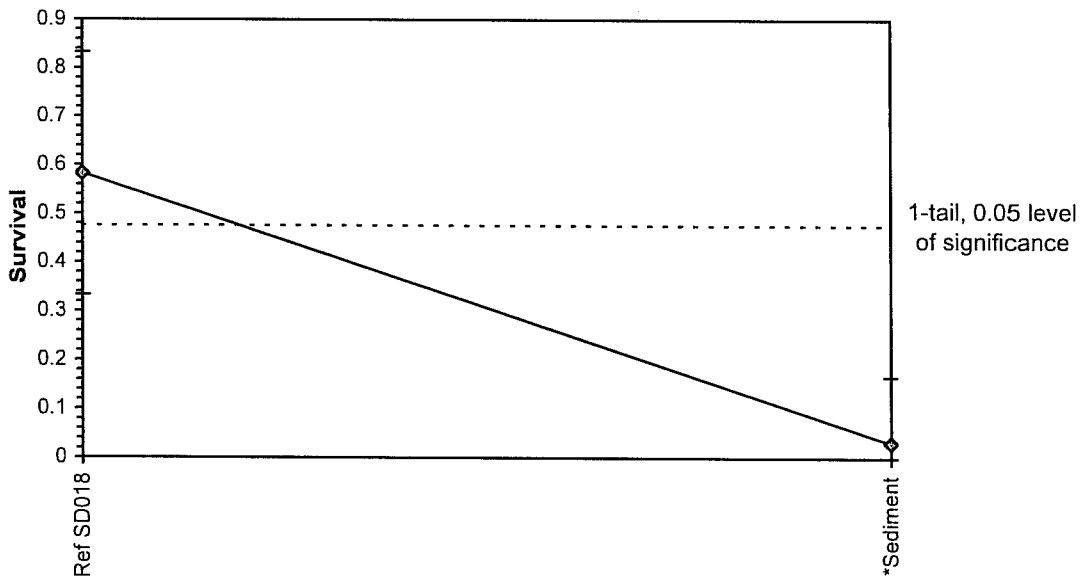
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
*Sediment	0.0313	0.0536	0.0313	0.0000	0.1667	198.406	8	9.070	1.761	0.1072

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92349	0.844	0.277	1.04451
F-Test indicates equal variances (p = 0.02)	6.70968	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD018	0.1072	0.18378	1.21918	0.01482	3.1E-07	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

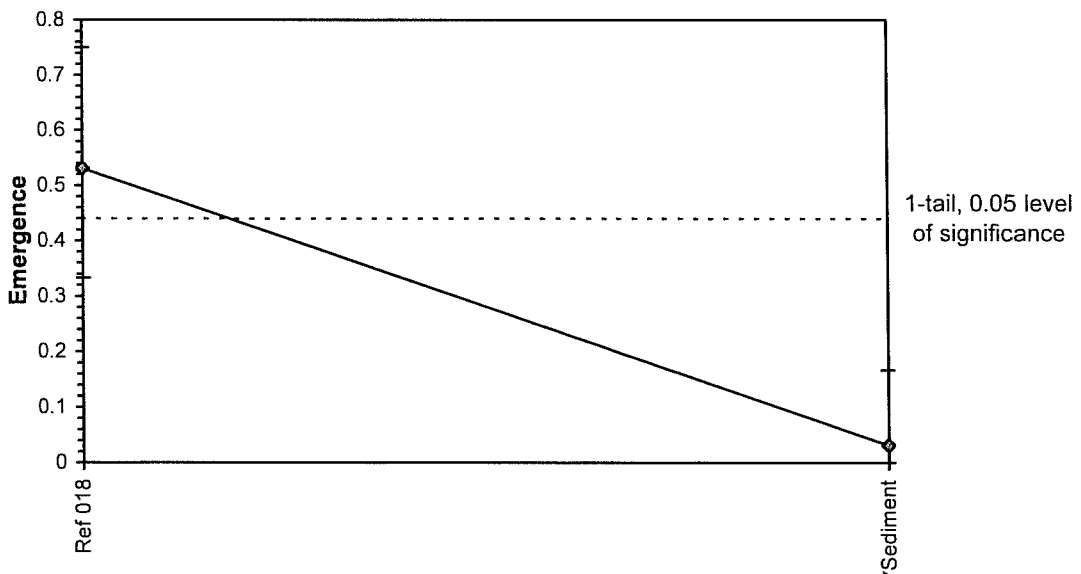
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End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPAM 02	Test Species:	CT-Chironomous tentans
Comments:	SD-94				

Conc-%	1	2	3	4	5	6	7	8
Ref 018	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167	0.3333	0.5000
Sediment	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 018	0.5313	1.0000	0.5313	0.3333	0.7500	25.067	8			
*Sediment	0.0313	0.0588	0.0313	0.0000	0.1667	198.406	8	9.628	1.761	0.0915

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.87312		0.844		0.46636	0.90212
F-Test indicates equal variances (p = 0.06)	4.6129		8.88539			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Ref 018	0.09147	0.17218	1	0.01079	1.5E-07	1, 14

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPAM 02
Sample ID: 20070954 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref 018	12	7	0	0	7	0.58	0.58	
	2	2	Ref 018	12	6	0	0	6	0.50	0.50	
	3	3	Ref 018	12	6	0	0	6	0.50	0.50	
	4	4	Ref 018	12	9	0	0	9	0.75	0.75	
	5	5	Ref 018	12	8	0	0	8	0.67	0.67	
	6	6	Ref 018	12	10	3	2	5	0.83	0.42	
	7	7	Ref 018	12	4	0	0	4	0.33	0.33	
	8	8	Ref 018	12	6	0	0	6	0.50	0.50	
73	9	1	Sediment	12	1	0	0	1	0.08	0.08	
145	10	2	Sediment	12	5	1	0	4	0.42	0.33	
45	11	3	Sediment	12	4	0	0	4	0.33	0.33	
135	12	4	Sediment	12	8	1	0	7	0.67	0.58	
142	13	5	Sediment	12	7	0	1	6	0.58	0.50	
27	14	6	Sediment	12	6	0	0	6	0.50	0.50	
34	15	7	Sediment	12	7	2	1	4	0.58	0.33	
102	16	8	Sediment	12	7	0	0	7	0.58	0.58	

Comments: SD-97

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD097				

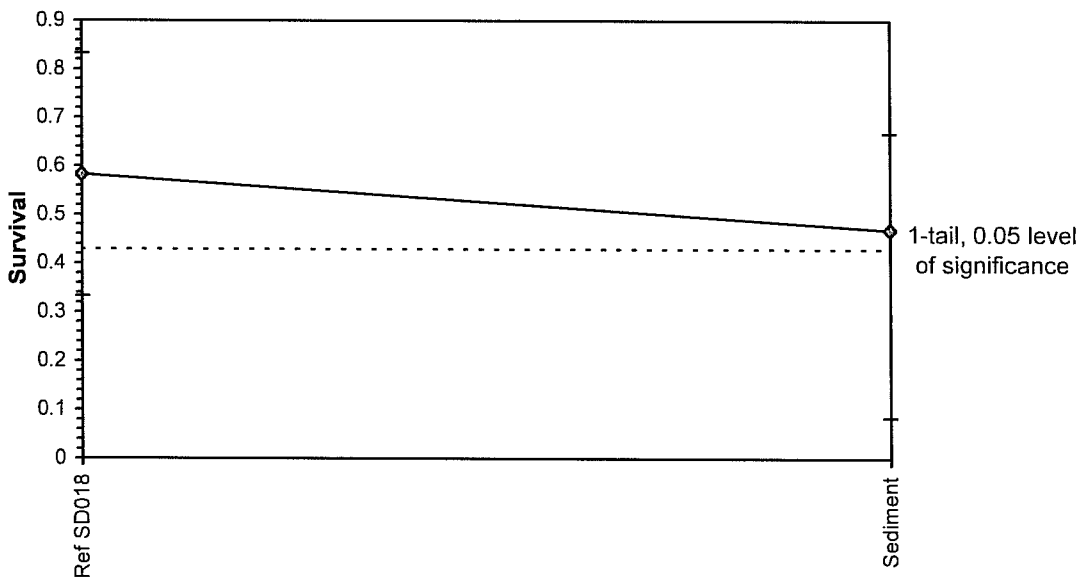
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.0833	0.4167	0.3333	0.6667	0.5833	0.5000	0.5833	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
Sediment	0.4688	0.8036	0.4688	0.0833	0.6667	40.246	8	1.308	1.761	0.1543

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95425	0.844	-0.6931	0.32703
F-Test indicates equal variances (p = 0.68)	1.37981	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD018	0.15428	0.26449	0.05252	0.03069	0.21191	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPAM 02	Test Species:	CT-Chironomous tentans
Comments:	SD-97				

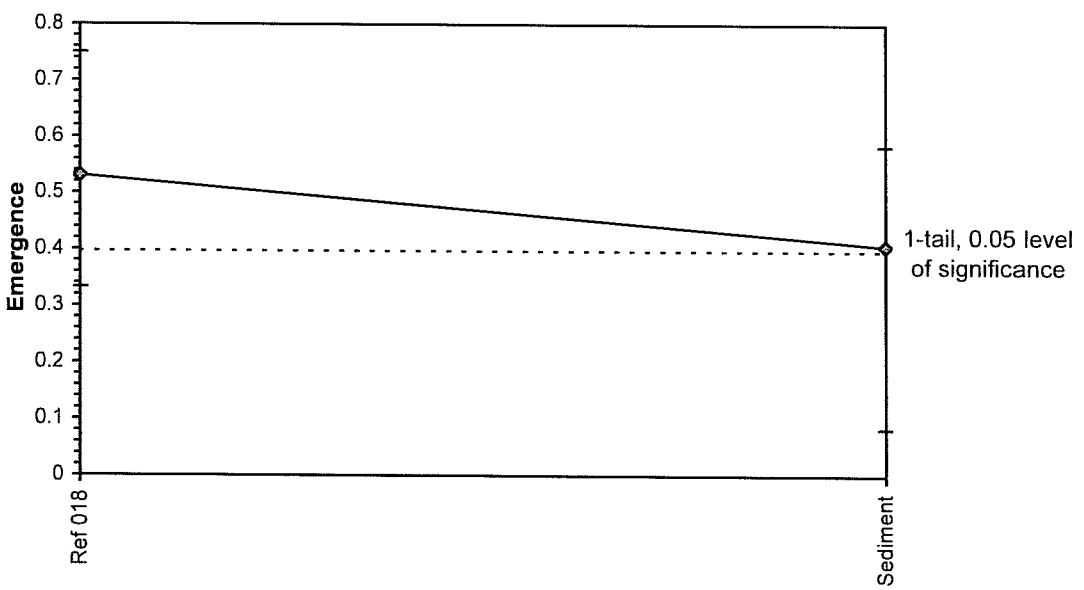
Conc-%	1	2	3	4	5	6	7	8
Ref 018	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167	0.3333	0.5000
Sediment	0.0833	0.3333	0.3333	0.5833	0.5000	0.5000	0.3333	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 018	0.5313	1.0000	0.5313	0.3333	0.7500	25.067	8			
Sediment	0.4063	0.7647	0.4063	0.0833	0.5833	41.662	8	1.642	1.761	0.1341

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95555	0.844	-0.4388	-0.0032
F-Test indicates equal variances (p = 0.54)	1.61538	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref 018	0.13411	0.25244	0.0625	0.02319	0.12292	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPAM 02
Sample ID: 20070938 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref 018	12	7	0	0	7	0.58	0.58	
	2	2	Ref 018	12	6	0	0	6	0.50	0.50	
	3	3	Ref 018	12	6	0	0	6	0.50	0.50	
	4	4	Ref 018	12	9	0	0	9	0.75	0.75	
	5	5	Ref 018	12	8	0	0	8	0.67	0.67	
	6	6	Ref 018	12	10	3	2	5	0.83	0.42	
	7	7	Ref 018	12	4	0	0	4	0.33	0.33	
	8	8	Ref 018	12	6	0	0	6	0.50	0.50	
107	9	1	Sediment	12	6	0	0	6	0.50	0.50	
71	10	2	Sediment	12	7	0	0	7	0.58	0.58	
147	11	3	Sediment	12	10	0	0	10	0.83	0.83	
70	12	4	Sediment	12	9	0	0	9	0.75	0.75	
86	13	5	Sediment	12	1	0	0	1	0.08	0.08	
85	14	6	Sediment	12	5	0	0	5	0.42	0.42	
156	15	7	Sediment	12	3	0	0	3	0.25	0.25	
1	16	8	Sediment	12	5	0	1	4	0.42	0.33	

Comments: SD-100

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD100				

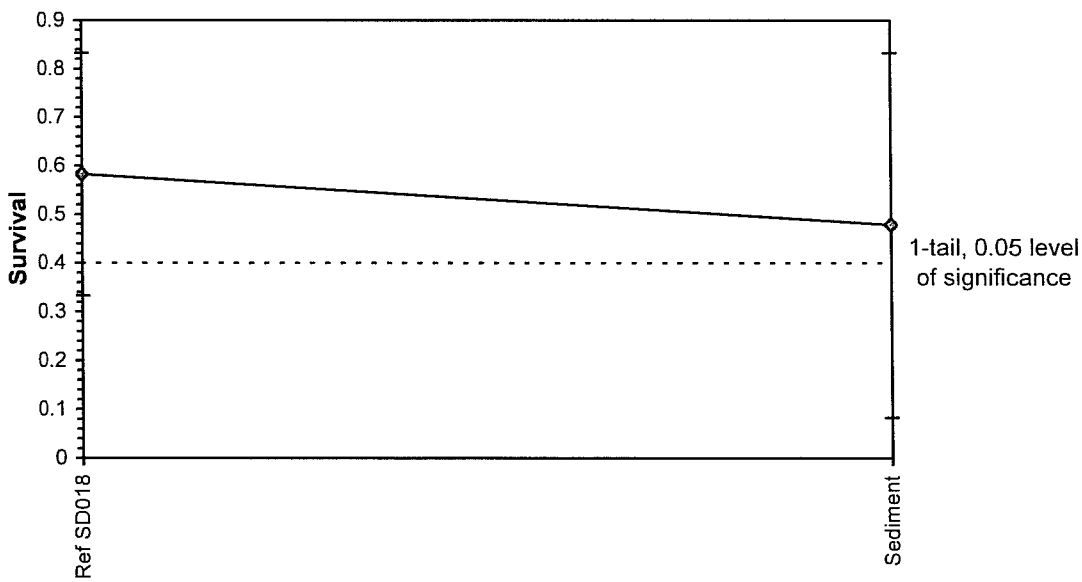
Conc-%	1	2	3	4	5	6	7	8
Ref SD018	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333	0.3333	0.5000
Sediment	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167	0.2500	0.4167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD018	0.5833	1.0000	0.5833	0.3333	0.8333	27.532	8			
Sediment	0.4792	0.8214	0.4792	0.0833	0.8333	51.549	8	1.000	1.761	0.1835

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97543	0.844	-0.0527	-0.2269
F-Test indicates equal variances (p = 0.28)	2.36538	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD018	0.18347	0.31452	0.0434	0.0434	0.33428	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPAM 02	Test Species:	CT-Chironomous tentans
Comments:	SD-100				

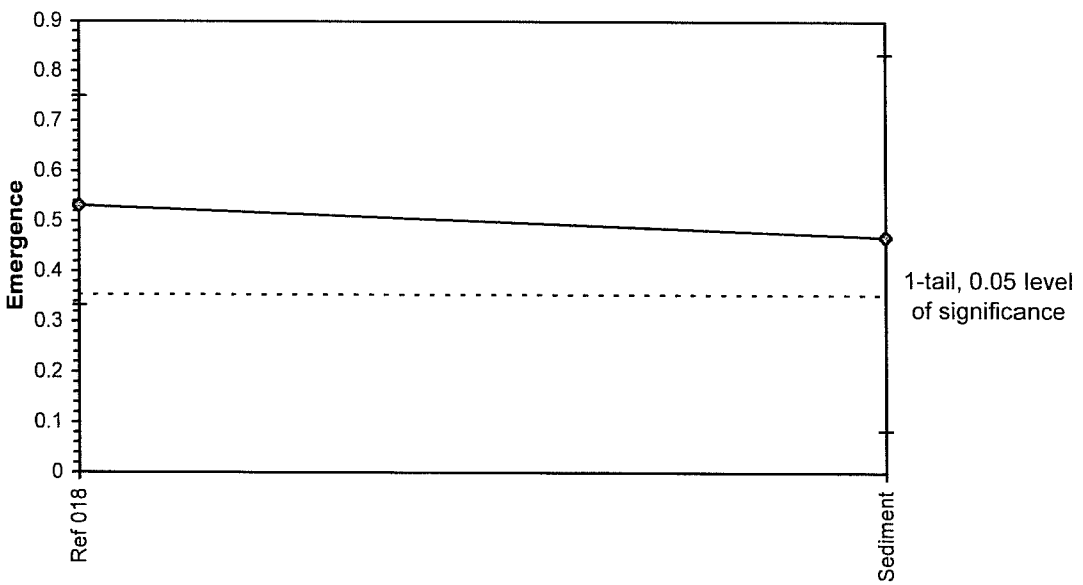
Conc-%	1	2	3	4	5	6	7	8
Ref 018	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167	0.3333	0.5000
Sediment	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167	0.2500	0.3333

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 018	0.5313	1.0000	0.5313	0.3333	0.7500	25.067	8			
Sediment	0.4688	0.8824	0.4688	0.0833	0.8333	53.702	8	0.621	1.761	0.1773

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.98711	0.844	0.05839	-0.0125
F-Test indicates equal variances (p = 0.11)	3.57343	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref 018	0.17734	0.33381	0.01563	0.04055	0.54474	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070959 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	6	0	0	6	0.50	0.50	
	10	2	Sediment	12	4	1	0	3	0.33	0.25	
	11	3	Sediment	12	2	0	0	2	0.17	0.17	
	12	4	Sediment	12	2	0	0	2	0.17	0.17	
	13	5	Sediment	12	7	0	0	7	0.58	0.58	
	14	6	Sediment	12	6	1	0	5	0.50	0.42	
	15	7	Sediment	12	8	3	1	4	0.67	0.33	
	16	8	Sediment	12	6	0	0	6	0.50	0.50	

Comments: SD032

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD032				

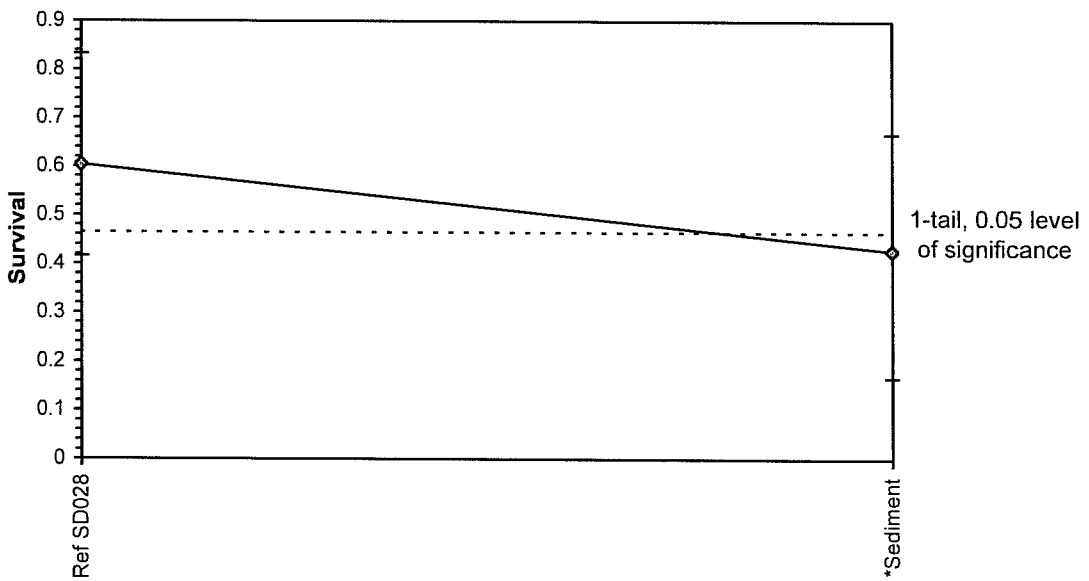
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.5000	0.3333	0.1667	0.1667	0.5833	0.5000	0.6667	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
*Sediment	0.4271	0.7069	0.4271	0.1667	0.6667	43.553	8	2.241	1.761	0.1392

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94505	0.844	-0.2704	-0.5225
F-Test indicates equal variances (p = 0.31)	2.25	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD028	0.13921	0.23042	0.12543	0.02499	0.0418	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD032				

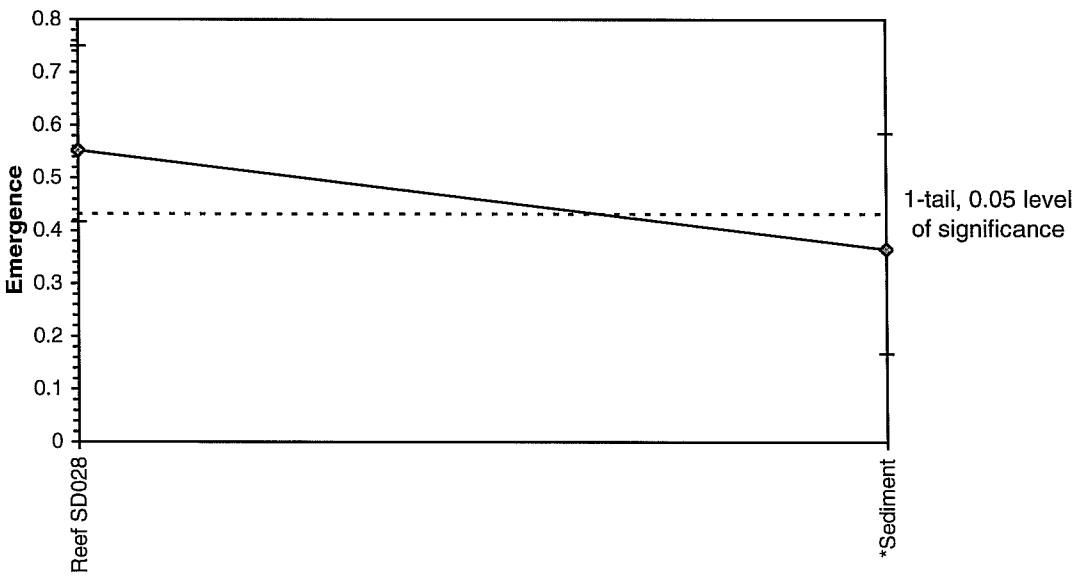
Conc-%	1	2	3	4	5	6	7	8
Reef SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.5000	0.2500	0.1667	0.1667	0.5833	0.4167	0.3333	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reef SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
*Sediment	0.3646	0.6604	0.3646	0.1667	0.5833	43.945	8	2.740	1.761	0.1205

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94559	0.844	0.04294	-0.959
F-Test indicates equal variances (p = 0.33)	2.17895	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reef SD028	0.12051	0.21828	0.14063	0.01873	0.01594	1, 14

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070947
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	8	1	0	7	0.67	0.58	
	10	2	Sediment	12	9	0	1	8	0.75	0.67	
	11	3	Sediment	12	11	0	0	11	0.92	0.92	
	12	4	Sediment	12	7	0	0	7	0.58	0.58	
	13	5	Sediment	12	6	0	0	6	0.50	0.50	
	14	6	Sediment	12	7	0	0	7	0.58	0.58	
	15	7	Sediment	12	3	0	0	3	0.25	0.25	
	16	8	Sediment	12	4	0	0	4	0.33	0.33	

Comments: SD056

Reviewed by:

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070947
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD056				

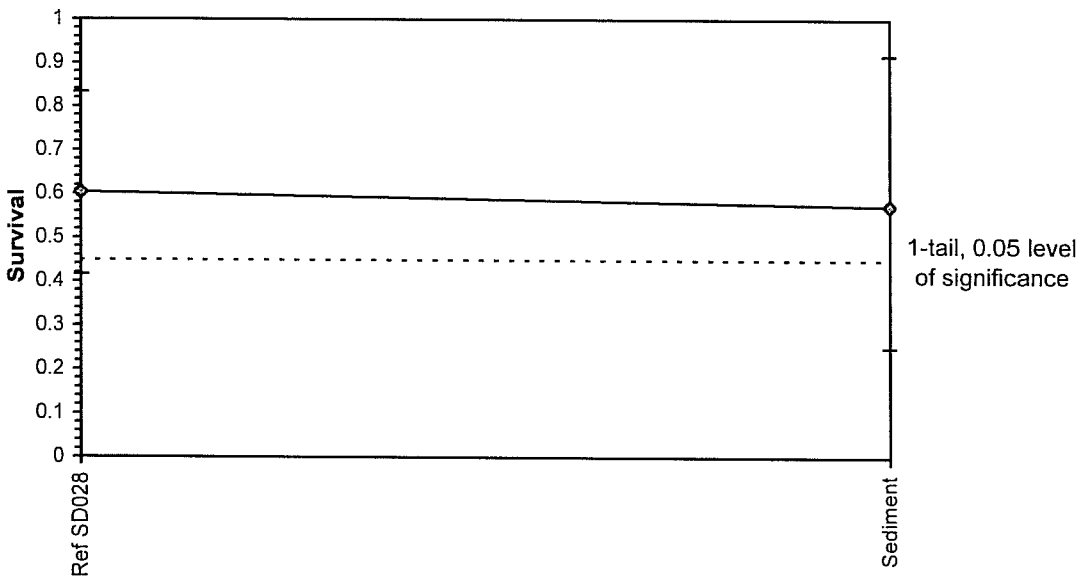
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.6667	0.7500	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
Sediment	0.5729	0.9483	0.5729	0.2500	0.9167	37.640	8	0.355	1.761	0.1549

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.98143	0.844	0.06149	0.27735
F-Test indicates equal variances (p = 0.17)	3.02419	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD028	0.15491	0.25639	0.00391	0.03094	0.72765	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-207

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070947
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD056				

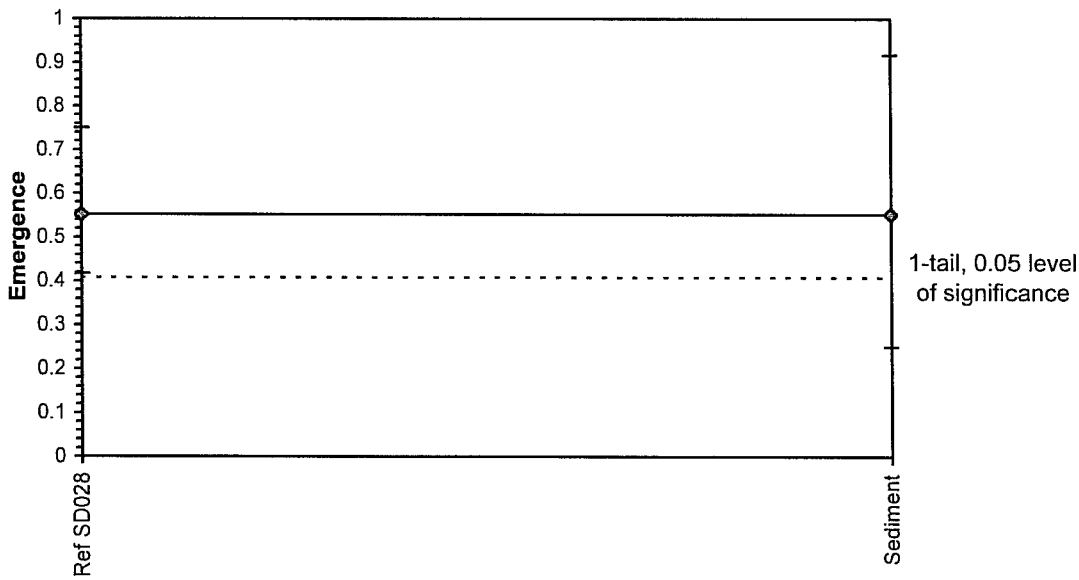
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.5833	0.6667	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
Sediment	0.5521	1.0000	0.5521	0.2500	0.9167	36.918	8	0.000	1.761	0.1438

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93235	0.844	0.28432	1.22856
F-Test indicates equal variances (p = 0.12)	3.52632	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.1438	0.26046	0	0.02666	1	1, 14
Treatments vs Ref SD028						

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070944 | Sample Type: Sediment
Start Date: 12/7/2007 | End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	2	0	0	2	0.17	0.17	
	10	2	Sediment	12	1	0	0	1	0.08	0.08	
	11	3	Sediment	12	3	0	0	3	0.25	0.25	
	12	4	Sediment	12	7	0	1	6	0.58	0.50	
	13	5	Sediment	12	2	0	0	2	0.17	0.17	
	14	6	Sediment	12	3	0	0	3	0.25	0.25	
	15	7	Sediment	12	4	0	0	4	0.33	0.33	
	16	8	Sediment	12	2	0	0	2	0.17	0.17	

Comments: SD082

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD082				

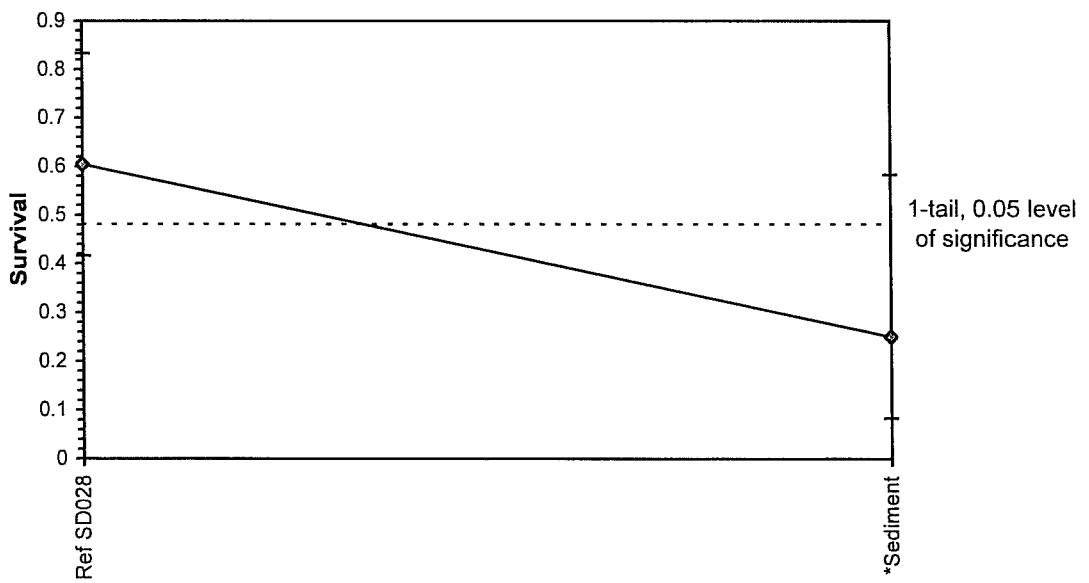
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.1667	0.0833	0.2500	0.5833	0.1667	0.2500	0.3333	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
*Sediment	0.2500	0.4138	0.2500	0.0833	0.5833	61.721	8	5.060	1.761	0.1233

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91074	0.844	1.10989	1.49106
F-Test indicates equal variances (p = 0.58)	1.54839	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD028	0.12327	0.20403	0.50174	0.01959	1.7E-04	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD082				

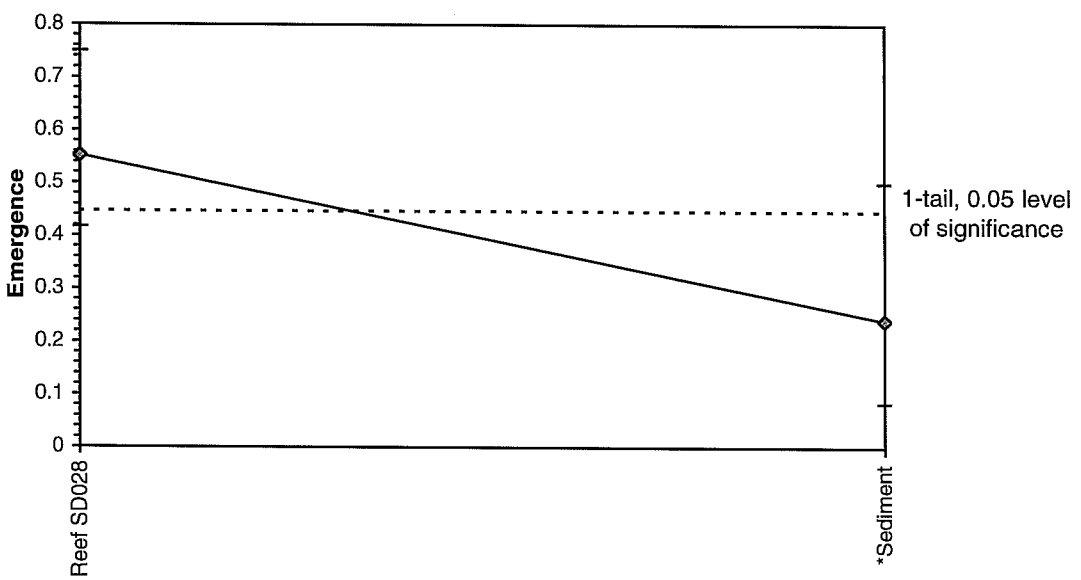
Conc-%	1	2	3	4	5	6	7	8
Reef SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.1667	0.0833	0.2500	0.5000	0.1667	0.2500	0.3333	0.1667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reef SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
*Sediment	0.2396	0.4340	0.2396	0.0833	0.5000	54.005	8	5.234	1.761	0.1052

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92089	0.844	0.80756	0.5515
F-Test indicates equal variances (p = 0.65)	1.42105	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reef SD028	0.10517	0.19049	0.39063	0.01426	1.3E-04	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: KF

C-211

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070958
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	4	0	0	4	0.33	0.33	
	10	2	Sediment	12	3	0	0	3	0.25	0.25	
	11	3	Sediment	12	3	0	0	3	0.25	0.25	
	12	4	Sediment	12	1	0	0	1	0.08	0.08	
	13	5	Sediment	12	5	0	0	5	0.42	0.42	
	14	6	Sediment	12	2	0	0	2	0.17	0.17	
	15	7	Sediment	12	2	0	0	2	0.17	0.17	
	16	8	Sediment	12	1	0	0	1	0.08	0.08	

Comments: SD085

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD085				

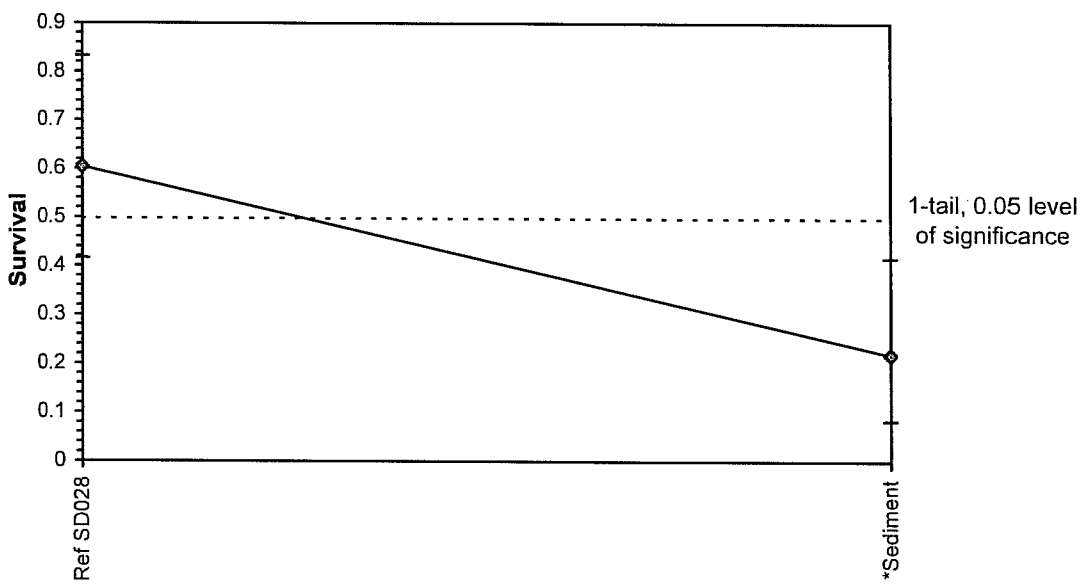
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
*Sediment	0.2188	0.3621	0.2188	0.0833	0.4167	53.634	8	6.386	1.761	0.1063

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96516	0.844	0.42484	-0.1863
F-Test indicates equal variances (p = 0.89)	1.11712	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD028	0.1063	0.17595	0.59418	0.01457	1.7E-05	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RS

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD085				

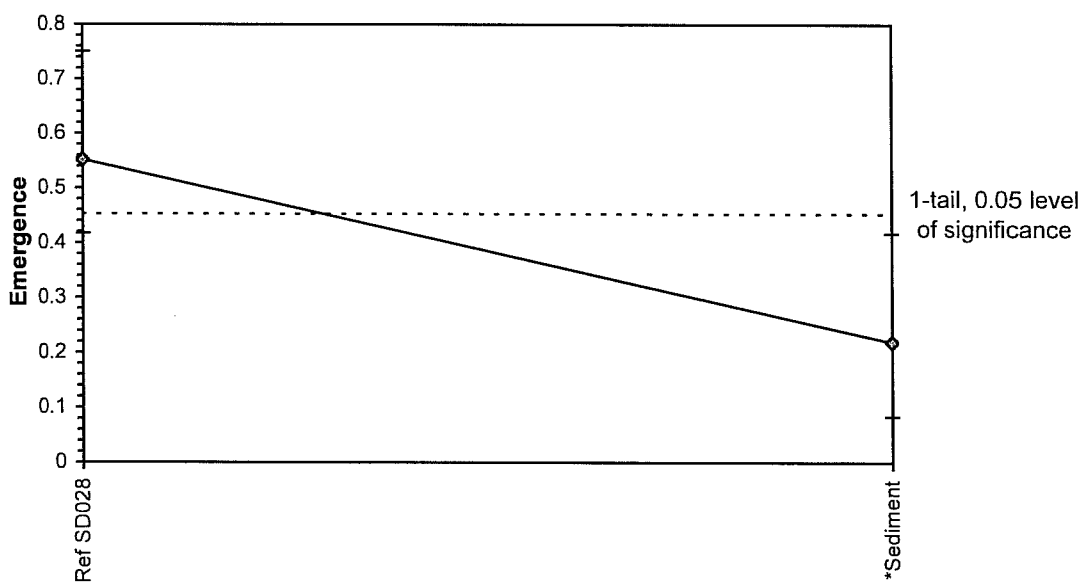
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
*Sediment	0.2188	0.3962	0.2188	0.0833	0.4167	53.634	8	5.899	1.761	0.0995

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88992	0.844	0.40014	-0.4741
F-Test indicates equal variances (p = 0.84)	1.16842	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD028	0.09953	0.18028	0.44444	0.01277	3.9E-05	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070960
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	1	0	0	1	0.08	0.08	
	10	2	Sediment	12	0	0	0	0	0.00	0.00	
	11	3	Sediment	12	0	0	0	0	0.00	0.00	
	12	4	Sediment	12	0	0	0	0	0.00	0.00	
	13	5	Sediment	12	0	0	0	0	0.00	0.00	
	14	6	Sediment	12	0	0	0	0	0.00	0.00	
	15	7	Sediment	12	2	0	0	2	0.17	0.17	
	16	8	Sediment	12	0	0	0	0	0.00	0.00	

Comments: SD094

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD094				

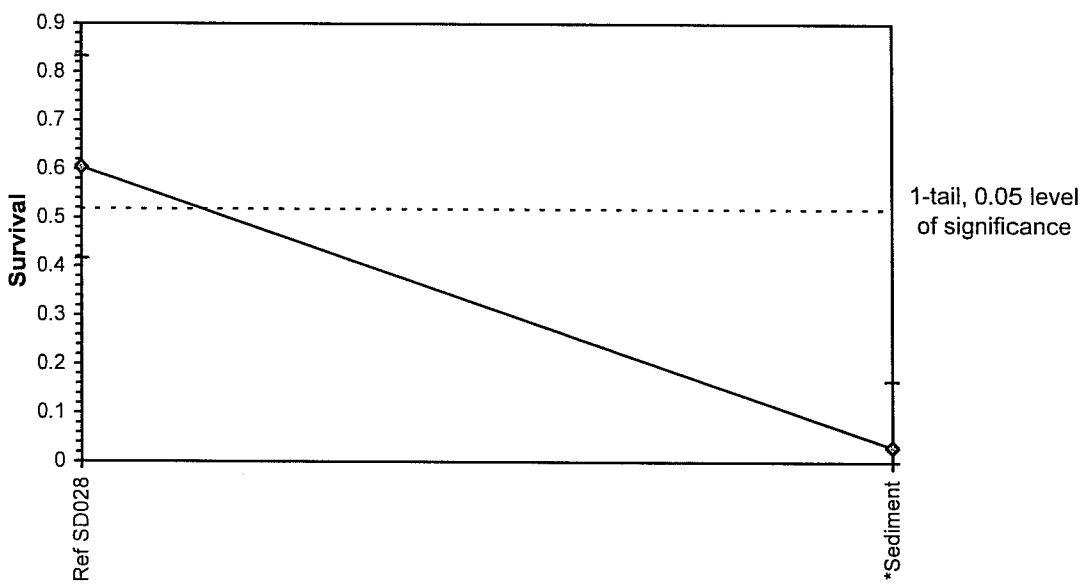
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
*Sediment	0.0313	0.0517	0.0313	0.0000	0.1667	198.406	8	11.688	1.761	0.0863

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.8858	0.844	0.64714	1.85397
F-Test indicates equal variances (p = 0.09)	4	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Ref SD028	0.08633	0.1429	1.31293	0.00961	1.3E-08	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD094				

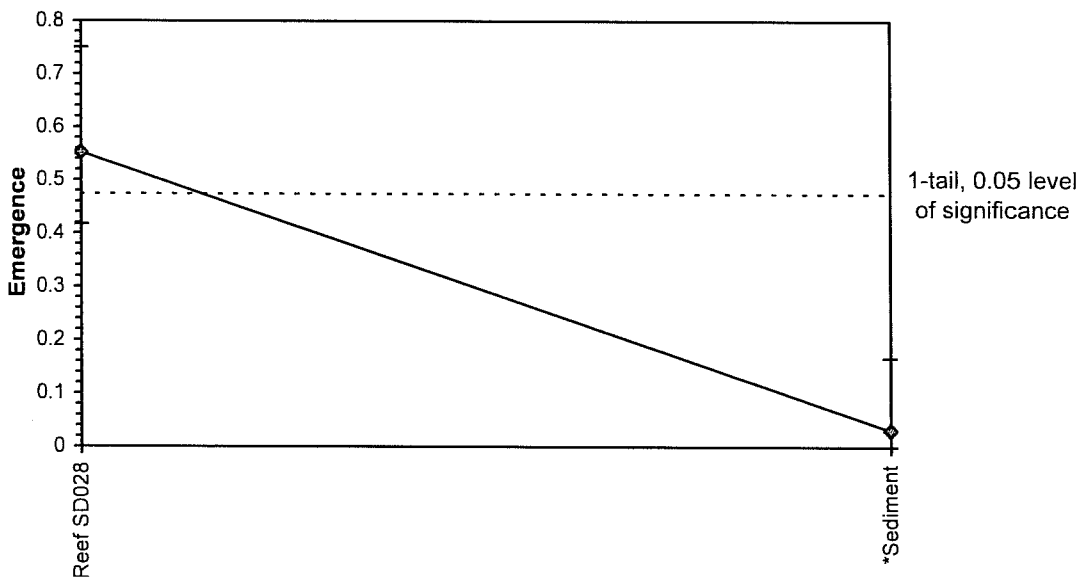
Conc-%	1	2	3	4	5	6	7	8
Reef SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reef SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
*Sediment	0.0313	0.0566	0.0313	0.0000	0.1667	198.406	8	11.785	1.761	0.0778

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.90748	0.844	0.63732	1.10239
F-Test indicates equal variances (p = 0.16)	3.06452	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reef SD028	0.07784	0.14099	1.08507	0.00781	1.2E-08	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070954
Start Date: 12/7/2007 End Date: 1/11/2008

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	1	0	0	1	0.08	0.08	
	10	2	Sediment	12	5	1	0	4	0.42	0.33	
	11	3	Sediment	12	4	0	0	4	0.33	0.33	
	12	4	Sediment	12	8	1	0	7	0.67	0.58	
	13	5	Sediment	12	7	0	1	6	0.58	0.50	
	14	6	Sediment	12	6	0	0	6	0.50	0.50	
	15	7	Sediment	12	7	2	1	4	0.58	0.33	
	16	8	Sediment	12	7	0	0	7	0.58	0.58	

Comments: SD097

Reviewed by: _____

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD097				

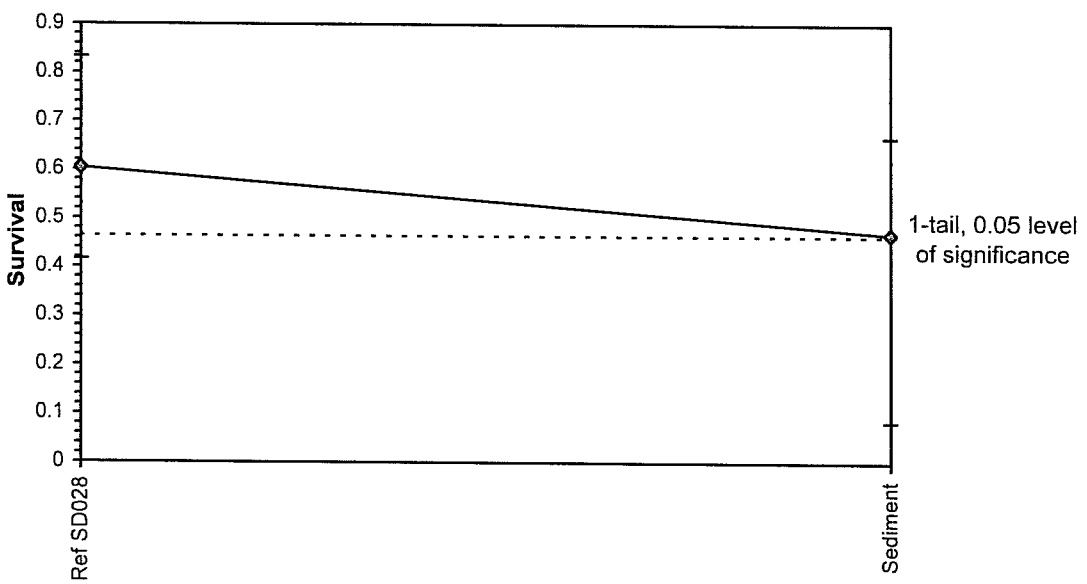
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.0833	0.4167	0.3333	0.6667	0.5833	0.5000	0.5833	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
Sediment	0.4688	0.7759	0.4688	0.0833	0.6667	40.246	8	1.697	1.761	0.1406

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94756	0.844	-0.8891	1.32911
F-Test indicates equal variances (p = 0.29)	2.31452	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD028	0.14058	0.23269	0.07335	0.02548	0.11189	1, 14

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD097				

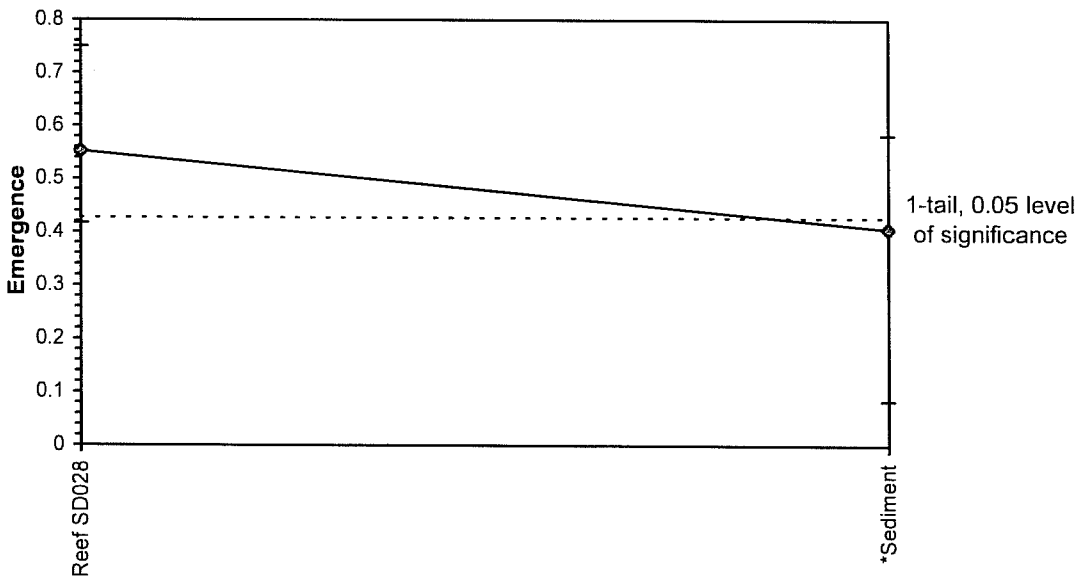
Conc-%	1	2	3	4	5	6	7	8
Reef SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.0833	0.3333	0.3333	0.5833	0.5000	0.5000	0.3333	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reef SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
*Sediment	0.4063	0.7358	0.4063	0.0833	0.5833	41.662	8	2.051	1.761	0.1252

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94369	0.844	-0.5679	0.5735
F-Test indicates equal variances (p = 0.26)	2.43158	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reef SD028	0.12521	0.22679	0.08507	0.02021	0.05942	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test | Test ID: 27-303 (3)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070938 | Sample Type: Sediment
Start Date: 12/7/2007 End Date: 1/11/2008 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
	1	1	Ref SD028	12	7	0	0	7	0.58	0.58	
	2	2	Ref SD028	12	8	0	1	7	0.67	0.58	
	3	3	Ref SD028	12	10	1	0	9	0.83	0.75	
	4	4	Ref SD028	12	8	2	0	6	0.67	0.50	
	5	5	Ref SD028	12	7	0	0	7	0.58	0.58	
	6	6	Ref SD028	12	5	0	0	5	0.42	0.42	
	7	7	Ref SD028	12	7	0	0	7	0.58	0.58	
	8	8	Ref SD028	12	6	0	1	5	0.50	0.42	
	9	1	Sediment	12	6	0	0	6	0.50	0.50	
	10	2	Sediment	12	7	0	0	7	0.58	0.58	
	11	3	Sediment	12	10	0	0	10	0.83	0.83	
	12	4	Sediment	12	9	0	0	9	0.75	0.75	
	13	5	Sediment	12	1	0	0	1	0.08	0.08	
	14	6	Sediment	12	5	0	0	5	0.42	0.42	
	15	7	Sediment	12	3	0	0	3	0.25	0.25	
	16	8	Sediment	12	5	0	1	4	0.42	0.33	

Comments: SD100

Chironomid Test-Survival

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD100				

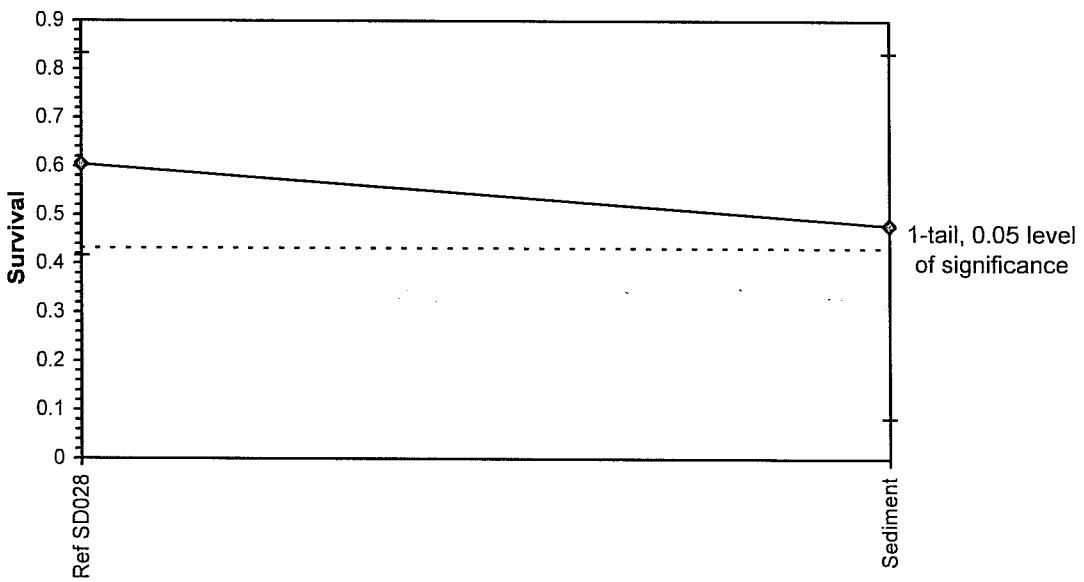
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
Sediment	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167	0.2500	0.4167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.6042	1.0000	0.6042	0.4167	0.8333	20.525	8			
Sediment	0.4792	0.7931	0.4792	0.0833	0.8333	51.549	8	1.279	1.761	0.1721

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97557	0.844	-0.0491	0.42408
F-Test indicates equal variances (p = 0.09)	3.96774	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD028	0.17211	0.28487	0.0625	0.03819	0.22162	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	1/11/2008	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	SD100				

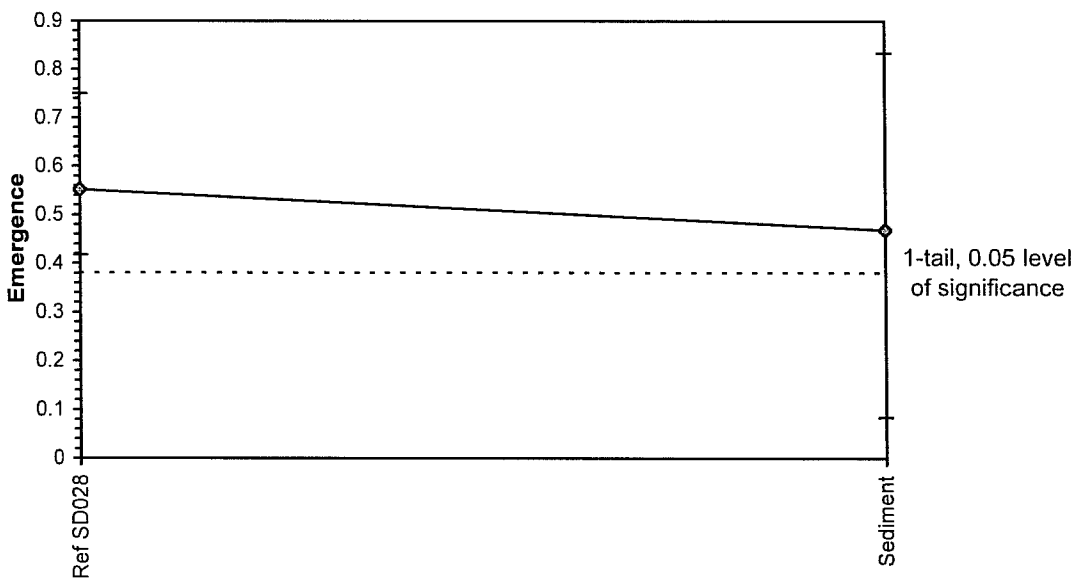
Conc-%	1	2	3	4	5	6	7	8
Ref SD028	0.5833	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
Sediment	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167	0.2500	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref SD028	0.5521	1.0000	0.5521	0.4167	0.7500	19.660	8			
Sediment	0.4688	0.8491	0.4688	0.0833	0.8333	53.702	8	0.860	1.761	0.1707

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96814	0.844	0.05413	0.42409
F-Test indicates equal variances (p = 0.04)	5.37895	8.88539		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref SD028	0.17071	0.30921	0.02778	0.03757	0.40438	1, 14

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
Ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08	
Ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83	
Ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50	
Ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67	
Ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42	
Ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75	
Ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75	
Ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58	
Ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25	
Ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83	
Ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67	
Ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50	
Ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50	
Ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50	
Ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42	
Ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67	
Ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33	
Ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67	
Ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42	
Ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58	
Ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67	
Ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33	
Ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58	
Ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17	
Ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58	
Ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50	
Ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50	
Ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75	
Ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67	
Ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42	
Ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33	
Ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50	
Ref 5 028	33	33	reference	12	7	0	0	6	0.50	0.50	
Ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58	
Ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75	
Ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50	
Ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58	
Ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42	
Ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58	
Ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42	
Sed 118	41	1	sediment	12	5	0	0	5	0.42	0.42	
Sed 118	42	2	sediment	12	11	0	0	11	0.92	0.92	
Sed 118	43	3	sediment	12	9	1	1	7	0.75	0.58	
Sed 118	44	4	sediment	12	5	0	0	5	0.42	0.42	
Sed 118	45	5	sediment	12	8	0	0	8	0.67	0.67	
Sed 118	46	6	sediment	12	9	0	1	8	0.75	0.67	
Sed 118	47	7	sediment	12	8	0	0	8	0.67	0.67	
Sed 118	48	8	sediment	12	8	1	0	7	0.67	0.58	
Sed 120	49	9	sediment	12	3	0	0	3	0.25	0.25	
Sed 120	50	10	sediment	12	1	0	0	1	0.08	0.08	
Sed 120	51	11	sediment	12	0	0	0	0	0.00	0.00	
Sed 120	52	12	sediment	12	0	0	0	0	0.00	0.00	
Sed 120	53	13	sediment	12	3	0	1	2	0.25	0.17	

Test: CT-Chironomid Test									Test ID: 27-303		
Species: CT-Chironomous tentans									Protocol: EPA 600 MA		
Sample ID: Adj Farfield									Sample Type: Sediment		
Start Date:		End Date:							Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
Sed 120	54	14	sediment	12	4	0	0	4	0.33	0.33	
Sed 120	55	15	sediment	12	2	1	0	1	0.17	0.08	
Sed 120	56	16	sediment	12	2	0	0	2	0.17	0.17	

Comments: 5 references

Chironomid Test-Survival

Start Date:	Test ID: 27-303	Sample ID:	Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

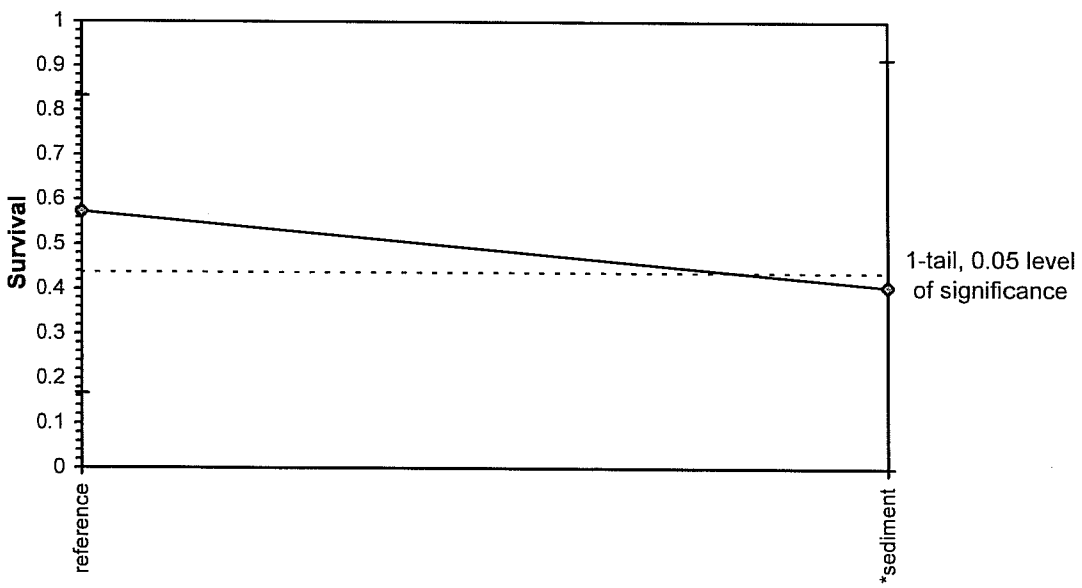
Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667	0.4167	0.6667	0.4167	0.6667
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333
reference	0.3333	0.5000	0.5000	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
sediment	0.4167	0.9167	0.7500	0.4167	0.6667	0.7500	0.6667	0.6667	0.2500	0.0833
sediment	0.0000	0.0000	0.2500	0.3333	0.1667	0.1667				

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.5729	1.0000	0.5729	0.1667	0.8333	30.580	40			
*sediment	0.4063	0.7091	0.4063	0.0000	0.9167	72.572	16	2.117	1.729	0.1362

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.78365	1.035	0.00918	-0.5054
F-Test indicates unequal variances (p = 9.15E-03)	2.83191	2.79785		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Heteroscedastic t Test indicates significant differences Treatments vs reference	0.13615	0.23765	0.31746	0.04631	0.01145	1, 54

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-226

Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

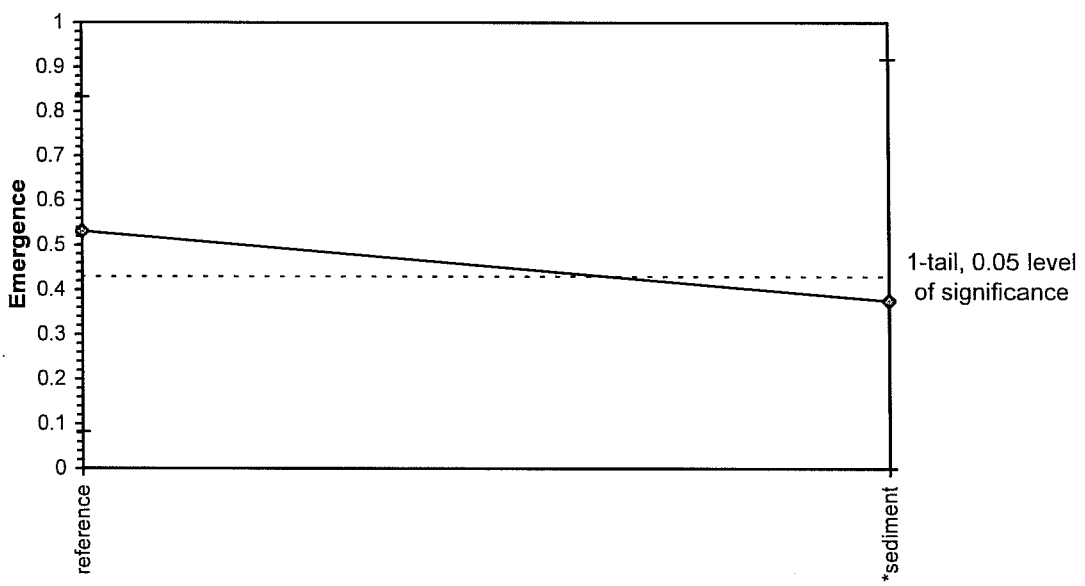
Conc-gm/L	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
sediment	0.4167	0.9167	0.5833	0.4167	0.6667	0.6667	0.6667	0.5833	0.2500	0.0833
sediment	0.0000	0.0000	0.1667	0.3333	0.0833	0.1667				

			Transform: Untransformed					1-Tailed		
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.5313	1.0000	0.5313	0.0833	0.8333	31.908	40			
*sediment	0.3750	0.7059	0.3750	0.0000	0.9167	75.250	16	2.551	1.674	0.1025

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.6246	1.035	-0.0084	-0.1115
F-Test indicates equal variances (p = 0.01)	2.77119	2.79785		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs reference	0.1025	0.19295	0.27902	0.04287	0.0136	1, 54

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: Adj Nearshore | Sample Type:
Start Date: End Date: | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08	
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83	
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50	
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67	
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42	
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75	
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75	
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58	
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25	
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83	
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67	
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50	
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50	
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50	
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42	
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67	
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33	
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67	
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42	
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58	
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67	
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33	
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58	
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17	
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58	
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50	
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50	
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75	
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67	
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42	
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33	
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50	
ref 5 028	33	33	reference	12	7	0	0	6	0.50	0.50	
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58	
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75	
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50	
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58	
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42	
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58	
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42	
sed 032	41	1	sediment	12	6	0	0	6	0.50	0.50	
sed 032	42	2	sediment	12	4	1	0	3	0.33	0.25	
sed 032	43	3	sediment	12	2	0	0	2	0.17	0.17	
sed 032	44	4	sediment	12	2	0	0	2	0.17	0.17	
sed 032	45	5	sediment	12	7	0	0	7	0.58	0.58	
sed 032	46	6	sediment	12	6	1	0	5	0.50	0.42	
sed 032	47	7	sediment	12	8	3	1	4	0.67	0.33	
sed 032	48	8	sediment	12	6	0	0	6	0.50	0.50	
sed 056	49	9	sediment	12	8	1	0	7	0.67	0.58	
sed 056	50	10	sediment	12	9	0	1	8	0.75	0.67	
sed 056	51	11	sediment	12	11	0	0	11	0.92	0.92	
sed 056	52	12	sediment	12	7	0	0	7	0.58	0.58	
sed 056	53	13	sediment	12	6	0	0	6	0.50	0.50	

Test: CT-Chironomid Test								Test ID: 27-303			
Species: CT-Chironomous tentans								Protocol: EPA 600 MA			
Sample ID: Adj Nearshore								Sample Type:			
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
sed 056	54	14	sediment	12	7	0	0	7	0.58	0.58	
sed 056	55	15	sediment	12	3	0	0	3	0.25	0.25	
sed 056	56	16	sediment	12	4	0	0	4	0.33	0.33	
sed 059	57	17	sediment	12	7	1	0	6	0.58	0.50	
sed 059	58	18	sediment	12	11	5	0	6	0.92	0.50	
sed 059	59	19	sediment	12	11	4	0	7	0.92	0.58	
sed 059	60	20	sediment	12	7	1	0	6	0.58	0.50	
sed 059	61	21	sediment	12	7	0	0	7	0.58	0.58	
sed 059	62	22	sediment	12	8	4	1	3	0.67	0.25	
sed 059	63	23	sediment	12	11	0	0	11	0.92	0.92	
sed 059	64	24	sediment	12	8	0	0	8	0.67	0.67	
sed 082	65	25	sediment	12	2	0	0	2	0.17	0.17	
sed 082	66	26	sediment	12	1	0	0	1	0.08	0.08	
sed 082	67	27	sediment	12	3	0	0	3	0.25	0.25	
sed 082	68	28	sediment	12	7	0	1	6	0.58	0.50	
sed 082	69	29	sediment	12	2	0	0	2	0.17	0.17	
sed 082	70	30	sediment	12	3	0	0	3	0.25	0.25	
sed 082	71	31	sediment	12	4	0	0	4	0.33	0.33	
sed 082	72	32	sediment	12	2	0	0	2	0.17	0.17	
sed 085	73	33	sediment	12	4	0	0	4	0.33	0.33	
sed 085	74	34	sediment	12	3	0	0	3	0.25	0.25	
sed 085	75	35	sediment	12	3	0	0	3	0.25	0.25	
sed 085	76	36	sediment	12	1	0	0	1	0.08	0.08	
sed 085	77	37	sediment	12	5	0	0	5	0.42	0.42	
sed 085	78	38	sediment	12	2	0	0	2	0.17	0.17	
sed 085	79	39	sediment	12	2	0	0	2	0.17	0.17	
sed 085	80	40	sediment	12	1	0	0	1	0.08	0.08	
sed 087	81	41	sediment	12	8	2	0	6	0.67	0.50	
sed 087	82	42	sediment	12	10	3	0	7	0.83	0.58	
sed 087	83	43	sediment	12	10	3	0	7	0.83	0.58	
sed 087	84	44	sediment	12	9	0	0	9	0.75	0.75	
sed 087	85	45	sediment	12	6	0	0	6	0.50	0.50	
sed 087	86	46	sediment	12	7	0	0	7	0.58	0.58	
sed 087	87	47	sediment	12	7	0	0	7	0.58	0.58	
sed 087	88	48	sediment	12	5	0	0	5	0.42	0.42	
sed 094	89	49	sediment	12	1	0	0	1	0.08	0.08	
sed 094	90	50	sediment	12	0	0	0	0	0.00	0.00	
sed 094	91	51	sediment	12	0	0	0	0	0.00	0.00	
sed 094	92	52	sediment	12	0	0	0	0	0.00	0.00	
sed 094	93	53	sediment	12	0	0	0	0	0.00	0.00	
sed 094	94	54	sediment	12	0	0	0	0	0.00	0.00	
sed 094	95	55	sediment	12	2	0	0	2	0.17	0.17	
sed 094	96	56	sediment	12	0	0	0	0	0.00	0.00	
sed 097	97	57	sediment	12	1	0	0	1	0.08	0.08	
sed 097	98	58	sediment	12	5	1	0	4	0.42	0.33	
sed 097	99	59	sediment	12	4	0	0	4	0.33	0.33	
sed 097	100	60	sediment	12	8	1	0	7	0.67	0.58	
sed 097	101	61	sediment	12	7	0	1	6	0.58	0.50	
sed 097	102	62	sediment	12	6	0	0	6	0.50	0.50	
sed 097	103	63	sediment	12	7	2	1	4	0.58	0.33	
sed 097	104	64	sediment	12	7	0	0	7	0.58	0.58	
sed 100	105	65	sediment	12	6	0	0	6	0.50	0.50	
sed 100	106	66	sediment	12	7	0	0	7	0.58	0.58	

Test: CT-Chironomid Test								Test ID: 27-303			
Species: CT-Chironomous tentans								Protocol: EPA 600 MA			
Sample ID: Adj Nearshore								Sample Type:			
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
sed 100	107	67	sediment	12	10	0	0	10	0.83	0.83	
sed 100	108	68	sediment	12	9	0	0	9	0.75	0.75	
sed 100	109	69	sediment	12	1	0	0	1	0.08	0.08	
sed 100	110	70	sediment	12	5	0	0	5	0.42	0.42	
sed 100	111	71	sediment	12	3	0	0	3	0.25	0.25	
sed 100	112	72	sediment	12	5	0	1	4	0.42	0.33	

Comments: 5 references

Chironomid Test-Survival

Start Date:	Test ID: 27-303	Sample ID:	Adj Nearshore
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans

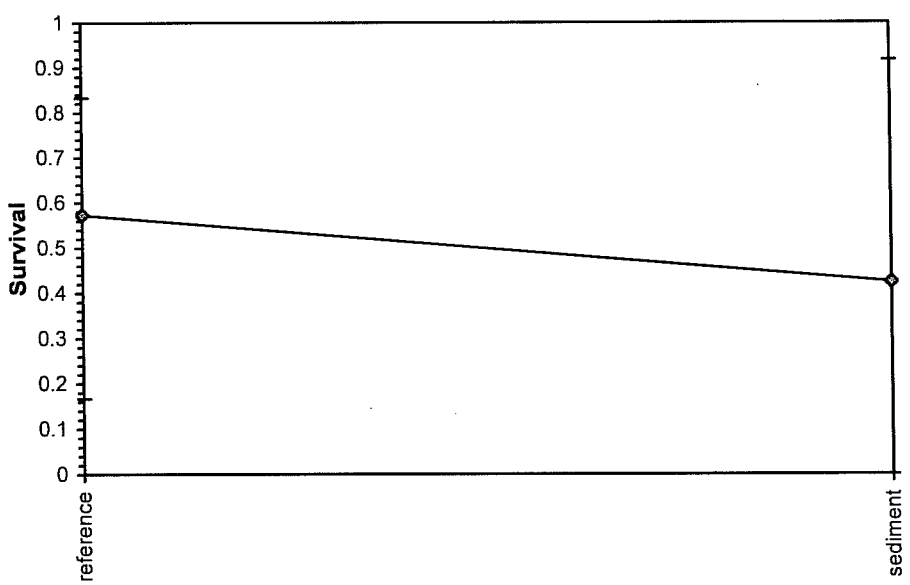
Comments: 5 references

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667	0.4167	0.6667	0.4167	0.6667
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333
reference	0.3333	0.5000	0.5000	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
sediment	0.5000	0.3333	0.1667	0.1667	0.5833	0.5000	0.6667	0.5000	0.6667	0.7500
sediment	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333	0.5833	0.9167	0.9167	0.5833
sediment	0.5833	0.6667	0.9167	0.6667	0.1667	0.0833	0.2500	0.5833	0.1667	0.2500
sediment	0.3333	0.1667	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833
sediment	0.6667	0.8333	0.8333	0.7500	0.5000	0.5833	0.5833	0.4167	0.0833	0.0000
sediment	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000	0.0833	0.4167	0.3333	0.6667
sediment	0.5833	0.5000	0.5833	0.5833	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167
sediment	0.2500	0.4167								

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
reference	0.5729	1.0000	0.5729	0.1667	0.8333	30.580	40		
sediment	0.4248	0.7414	0.4248	0.0000	0.9167	62.748	72	3591.00	1989.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.0408	1.035	-0.0053	-0.7134
F-Test indicates unequal variances (p = 5.32E-03)	2.31451	2.16511		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs reference				

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Adj Nearshore
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
sediment	0.5000	0.2500	0.1667	0.1667	0.5833	0.4167	0.3333	0.5000	0.5833	0.6667
sediment	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333	0.5000	0.5000	0.5833	0.5000
sediment	0.5833	0.2500	0.9167	0.6667	0.1667	0.0833	0.2500	0.5000	0.1667	0.2500
sediment	0.3333	0.1667	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833
sediment	0.5000	0.5833	0.5833	0.7500	0.5000	0.5833	0.5833	0.4167	0.0833	0.0000
sediment	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000	0.0833	0.3333	0.3333	0.5833
sediment	0.5000	0.5000	0.3333	0.5833	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167
sediment	0.2500	0.3333								

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
reference	0.5313	1.0000	0.5313	0.0833	0.8333	31.908	40		
sediment	0.3785	0.7124	0.3785	0.0000	0.9167	61.498	72	3504.50	1989.00

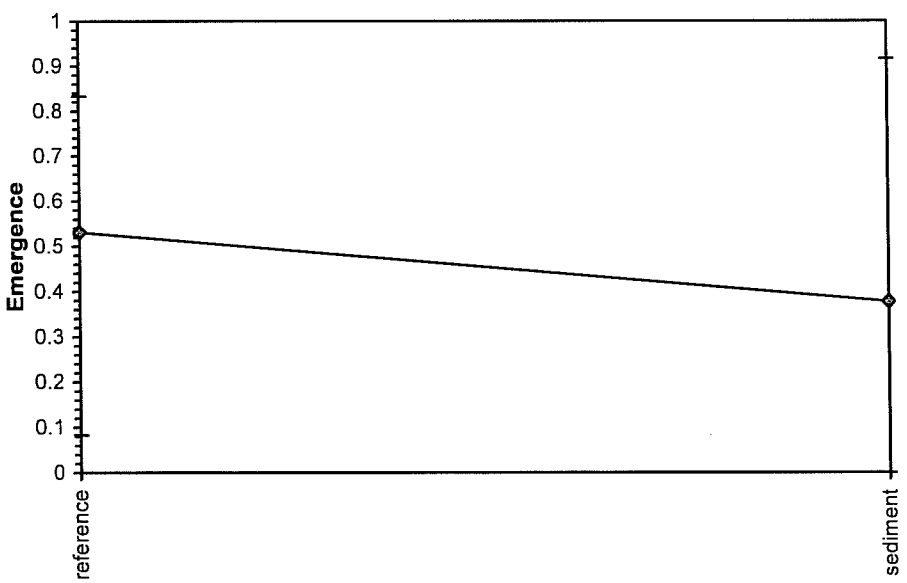
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.17231	1.035	0.03525	-0.3631
F-Test indicates equal variances (p = 0.03)	1.88531	2.16511		

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs reference

Dose-Response Plot



Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Upper Nav Channel								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50
ref 5 028	33	33	reference	12	7	0	0	6	0.50	0.50
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42
sed 11 inv	41	1	sediment	12	6	1	0	5	0.50	0.42
sed 11 inv	42	2	sediment	12	3	0	0	3	0.25	0.25
sed 11 inv	43	3	sediment	12	4	0	1	3	0.33	0.25
sed 11 inv	44	4	sediment	12	5	0	1	4	0.42	0.33
sed 11 inv	45	5	sediment	12	3	0	0	3	0.25	0.25
sed 11 inv	46	6	sediment	12	5	1	0	4	0.42	0.33
sed 11 inv	47	7	sediment	12	6	1	0	5	0.50	0.42
sed 11 inv	48	8	sediment	12	4	1	0	3	0.33	0.25
sed 061	49	9	sediment	12	8	3	1	4	0.67	0.33
sed 061	50	10	sediment	12	9	3	0	6	0.75	0.50
sed 061	51	11	sediment	12	6	0	0	6	0.50	0.50
sed 061	52	12	sediment	12	11	4	0	7	0.92	0.58
sed 061	53	13	sediment	12	7	0	0	7	0.58	0.58

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Upper Nav Channel								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 061	54	14	sediment	12	5	0	0	5	0.42	0.42
sed 061	55	15	sediment	12	8	0	0	8	0.67	0.67
sed 061	56	16	sediment	12	7	1	0	6	0.58	0.50
sed 064	57	17	sediment	12	11	0	4	7	0.92	0.58
sed 064	58	18	sediment	12	10	1	0	9	0.83	0.75
sed 064	59	19	sediment	12	10	3	2	5	0.83	0.42
sed 064	60	20	sediment	12	10	1	1	8	0.83	0.67
sed 064	61	21	sediment	12	10	3	0	7	0.83	0.58
sed 064	62	22	sediment	12	10	1	0	9	0.83	0.75
sed 064	63	23	sediment	12	10	4	1	5	0.83	0.42
sed 064	64	24	sediment	12	9	5	0	4	0.75	0.33
sed 067	65	25	sediment	12	8	2	2	4	0.67	0.33
sed 067	66	26	sediment	12	8	0	0	8	0.67	0.67
sed 067	67	27	sediment	12	11	5	1	5	0.92	0.42
sed 067	68	28	sediment	12	7	0	0	7	0.58	0.58
sed 067	69	29	sediment	12	7	2	0	5	0.58	0.42
sed 067	70	30	sediment	12	7	0	0	7	0.58	0.58
sed 067	71	31	sediment	12	9	0	0	9	0.75	0.75
sed 067	72	32	sediment	12	10	0	0	10	0.83	0.83
sed 069	73	33	sediment	12	0	0	0	0	0.00	0.00
sed 069	74	34	sediment	12	2	1	0	1	0.17	0.08
sed 069	75	35	sediment	12	0	0	0	0	0.00	0.00
sed 069	76	36	sediment	12	1	0	0	1	0.08	0.08
sed 069	77	37	sediment	12	3	0	0	3	0.25	0.25
sed 069	78	38	sediment	12	5	1	0	4	0.42	0.33
sed 069	79	39	sediment	12	3	0	1	2	0.25	0.17
sed 069	80	40	sediment	12	2	1	0	1	0.17	0.08
sed 071	81	41	sediment	12	9	2	0	7	0.75	0.58
sed 071	82	42	sediment	12	9	1	0	8	0.75	0.67
sed 071	83	43	sediment	12	6	1	0	5	0.50	0.42
sed 071	84	44	sediment	12	8	1	0	7	0.67	0.58
sed 071	85	45	sediment	12	8	1	0	7	0.67	0.58
sed 071	86	46	sediment	12	8	0	2	6	0.67	0.50
sed 071	87	47	sediment	12	10	3	0	7	0.83	0.58
sed 071	88	48	sediment	12	10	4	0	6	0.83	0.50
sed 124	89	49	sediment	12	6	0	0	6	0.50	0.50
sed 124	90	50	sediment	12	6	0	0	6	0.50	0.50
sed 124	91	51	sediment	12	8	0	0	8	0.67	0.67
sed 124	92	52	sediment	12	6	1	1	4	0.50	0.33
sed 124	93	53	sediment	12	9	1	0	8	0.75	0.67
sed 124	94	54	sediment	12	7	0	0	7	0.58	0.58
sed 124	95	55	sediment	12	8	0	1	7	0.67	0.58
sed 124	96	56	sediment	12	8	1	0	7	0.67	0.58
sed 125	97	57	sediment	12	10	0	1	9	0.83	0.75
sed 125	98	58	sediment	12	5	1	1	3	0.42	0.25
sed 125	99	59	sediment	12	10	4	0	6	0.83	0.50
sed 125	100	60	sediment	12	7	0	0	7	0.58	0.58
sed 125	101	61	sediment	12	12	2	0	10	1.00	0.83
sed 125	102	62	sediment	12	2	0	0	2	0.17	0.17
sed 125	103	63	sediment	12	5	2	2	1	0.42	0.08
sed 125	104	64	sediment	12	10	4	1	5	0.83	0.42
sed 126	105	65	sediment	12	9	1	1	7	0.75	0.58
sed 126	106	66	sediment	12	7	3	0	4	0.58	0.33

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Upper Nav Channel								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 126	107	67	sediment	12	8	0	0	8	0.67	0.67
sed 126	108	68	sediment	12	7	1	0	6	0.58	0.50
sed 126	109	69	sediment	12	10	1	1	8	0.83	0.67
sed 126	110	70	sediment	12	9	1	0	8	0.75	0.67
sed 126	111	71	sediment	12	12	0	2	10	1.00	0.83
sed 126	112	72	sediment	12	6	0	0	6	0.50	0.50

Comments: 5 references

Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Upper Nav Channel
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
sediment	0.4167	0.2500	0.2500	0.3333	0.2500	0.3333	0.4167	0.2500	0.3333	0.5000
sediment	0.5000	0.5833	0.5833	0.4167	0.6667	0.5000	0.5833	0.7500	0.4167	0.6667
sediment	0.5833	0.7500	0.4167	0.3333	0.3333	0.6667	0.4167	0.5833	0.4167	0.5833
sediment	0.7500	0.8333	0.0000	0.0833	0.0000	0.0833	0.2500	0.3333	0.1667	0.0833
sediment	0.5833	0.6667	0.4167	0.5833	0.5833	0.5000	0.5833	0.5000	0.5000	0.5000
sediment	0.6667	0.3333	0.6667	0.5833	0.5833	0.5833	0.7500	0.2500	0.5000	0.5833
sediment	0.8333	0.1667	0.0833	0.4167	0.5833	0.3333	0.6667	0.5000	0.6667	0.6667
sediment	0.8333	0.5000								

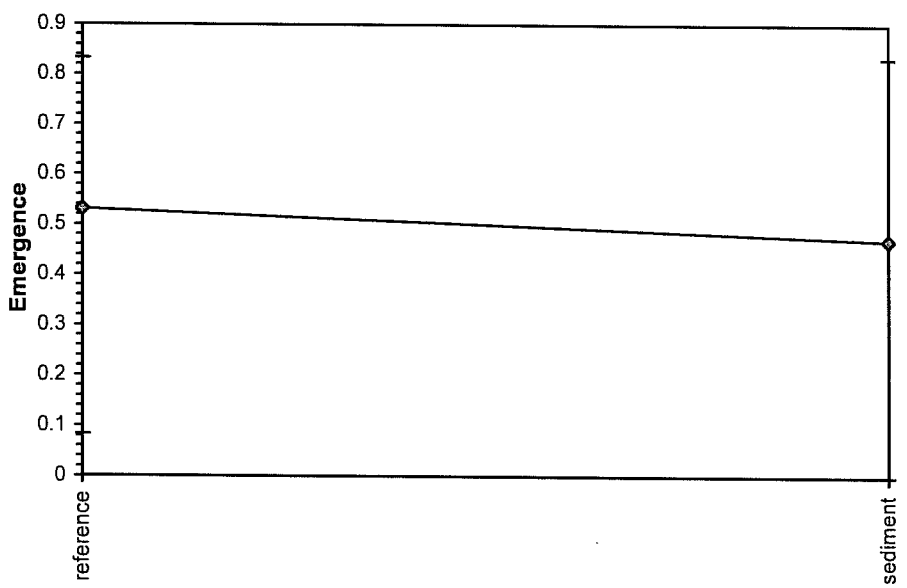
			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
reference	0.5313	1.0000	0.5313	0.0833	0.8333	31.908	40		
sediment	0.4699	0.8845	0.4699	0.0000	0.8333	43.368	72	3837.50	1989.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.14135	1.035	-0.4411	-0.1728
F-Test indicates equal variances (p = 0.21)	1.44531	2.16511		

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences
Treatments vs reference

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08	
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83	
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50	
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67	
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42	
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75	
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75	
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58	
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25	
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83	
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67	
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50	
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50	
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50	
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42	
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67	
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33	
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67	
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42	
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58	
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67	
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33	
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58	
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17	
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58	
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50	
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50	
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75	
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67	
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42	
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33	
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50	
ref 5 028	33	33	reference	12	6	0	0	6	0.50	0.50	
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58	
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75	
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50	
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58	
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42	
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58	
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42	
sed 063	41	1	sediment	12	7	5	0	2	0.58	0.17	
sed 063	42	2	sediment	12	8	6	1	1	0.67	0.08	
sed 063	43	3	sediment	12	6	3	0	3	0.50	0.25	
sed 063	44	4	sediment	12	7	6	1	0	0.58	0.00	
sed 063	45	5	sediment	12	2	2	0	0	0.17	0.00	
sed 063	46	6	sediment	12	11	8	0	3	0.92	0.25	
sed 063	47	7	sediment	12	4	4	0	0	0.33	0.00	
sed 063	48	8	sediment	12	9	8	0	1	0.75	0.08	
sed 130	49	9	sediment	12	5	0	0	5	0.42	0.42	
sed 130	50	10	sediment	12	10	0	0	10	0.83	0.83	
sed 130	51	11	sediment	12	6	1	0	5	0.50	0.42	
sed 130	52	12	sediment	12	6	0	0	6	0.50	0.50	
sed 130	53	13	sediment	12	6	0	0	6	0.50	0.50	

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence	Notes
sed 130	54	14	sediment	12	6	0	0	6	0.50	0.50	
sed 130	55	15	sediment	12	8	0	0	8	0.67	0.67	
sed 130	56	16	sediment	12	9	0	0	9	0.75	0.75	
sed 131	57	17	sediment	12	6	0	0	6	0.50	0.50	
sed 131	58	18	sediment	12	10	0	0	10	0.83	0.83	
sed 131	59	19	sediment	12	7	0	0	7	0.58	0.58	
sed 131	60	20	sediment	12	5	0	0	5	0.42	0.42	
sed 131	61	21	sediment	12	3	0	0	3	0.25	0.25	
sed 131	62	22	sediment	12	4	0	0	4	0.33	0.33	
sed 131	63	23	sediment	12	8	1	0	7	0.67	0.58	
sed 131	64	24	sediment	12	9	1	0	8	0.75	0.67	
sed 132	65	25	sediment	12	6	3	0	3	0.50	0.25	
sed 132	66	26	sediment	12	8	7	0	1	0.67	0.08	
sed 132	67	27	sediment	12	9	8	1	0	0.75	0.00	
sed 132	68	28	sediment	12	6	5	0	1	0.50	0.08	
sed 132	69	29	sediment	12	8	3	0	5	0.67	0.42	
sed 132	70	30	sediment	12	10	7	1	2	0.83	0.17	
sed 132	71	31	sediment	12	4	0	0	4	0.33	0.33	
sed 132	72	32	sediment	12	6	4	2	0	0.50	0.00	
sed 133	73	33	sediment	12	8	1	1	6	0.67	0.50	
sed 133	74	34	sediment	12	7	3	0	4	0.58	0.33	
sed 133	75	35	sediment	12	9	1	0	8	0.75	0.67	
sed 133	76	36	sediment	12	10	2	3	5	0.83	0.42	
sed 133	77	37	sediment	12	9	1	1	7	0.75	0.58	
sed 133	78	38	sediment	12	8	0	0	8	0.67	0.67	
sed 133	79	39	sediment	12	4	0	0	4	0.33	0.33	
sed 133	80	40	sediment	12	9	1	0	8	0.75	0.67	
sed 134	81	41	sediment	12	8	0	0	8	0.67	0.67	
sed 134	82	42	sediment	12	9	0	0	9	0.75	0.75	
sed 134	83	43	sediment	12	7	0	0	7	0.58	0.58	
sed 134	84	44	sediment	12	9	1	0	8	0.75	0.67	
sed 134	85	45	sediment	12	8	0	1	7	0.67	0.58	
sed 134	86	46	sediment	12	8	0	0	8	0.67	0.67	
sed 134	87	47	sediment	12	6	0	0	6	0.50	0.50	
sed 134	88	48	sediment	12	10	0	1	9	0.83	0.75	

Comments: 5 references

Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline
End Date:	Lab ID: ASI Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

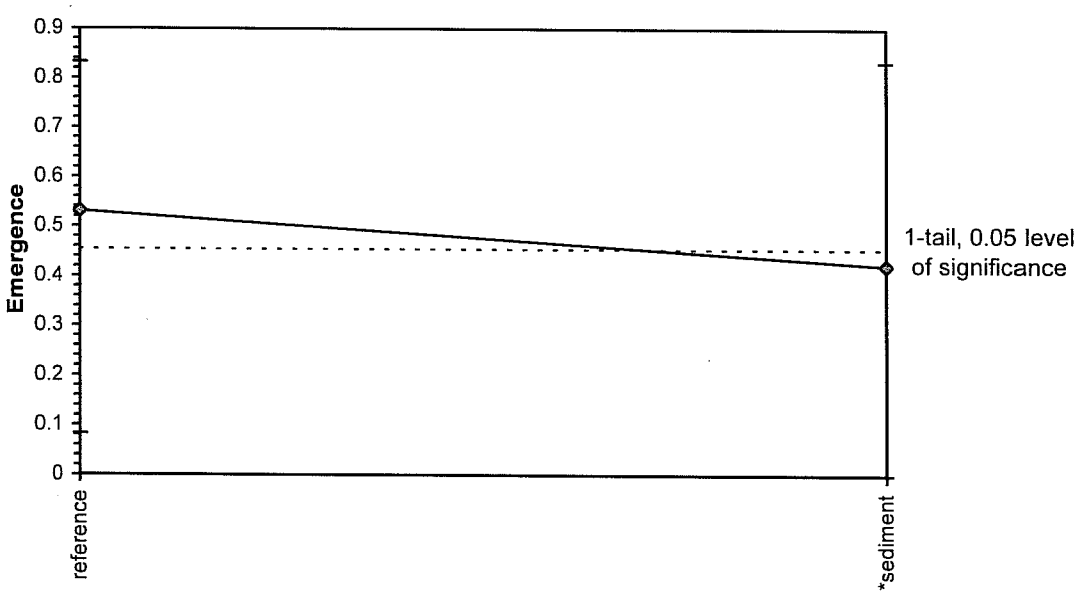
Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
sediment	0.1667	0.0833	0.2500	0.0000	0.0000	0.2500	0.0000	0.0833	0.4167	0.8333
sediment	0.4167	0.5000	0.5000	0.5000	0.6667	0.7500	0.5000	0.8333	0.5833	0.4167
sediment	0.2500	0.3333	0.5833	0.6667	0.2500	0.0833	0.0000	0.0833	0.4167	0.1667
sediment	0.3333	0.0000	0.5000	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.6667
sediment	0.6667	0.7500	0.5833	0.6667	0.5833	0.6667	0.5000	0.7500		

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.5313	1.0000	0.5313	0.0833	0.8333	31.908	40			
*sediment	0.4219	0.7941	0.4219	0.0000	0.8333	59.246	48	2.352	1.663	0.0773

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.85338	1.035	-0.3278	-0.5843
F-Test indicates equal variances (p = 0.01)	2.17409	2.26392		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs reference	0.07732	0.14554	0.26101	0.04717	0.02094	1, 86

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline + Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI Inc.

Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50
ref 5 028	33	33	reference	12	6	0	0	6	0.50	0.50
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42
sed 063	41	1	sediment	12	7	5	0	2	0.58	0.17
sed 063	42	2	sediment	12	8	6	1	1	0.67	0.08
sed 063	43	3	sediment	12	6	3	0	3	0.50	0.25
sed 063	44	4	sediment	12	7	6	1	0	0.58	0.00
sed 063	45	5	sediment	12	2	2	0	0	0.17	0.00
sed 063	46	6	sediment	12	11	8	0	3	0.92	0.25
sed 063	47	7	sediment	12	4	4	0	0	0.33	0.00
sed 063	48	8	sediment	12	9	8	0	1	0.75	0.08
sed 130	49	9	sediment	12	5	0	0	5	0.42	0.42
sed 130	50	10	sediment	12	10	0	0	10	0.83	0.83
sed 130	51	11	sediment	12	6	1	0	5	0.50	0.42
sed 130	52	12	sediment	12	6	0	0	6	0.50	0.50
sed 130	53	13	sediment	12	6	0	0	6	0.50	0.50

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Western Shoreline + Adj Farfield								Sample Type: Sediment		
Start Date:		End Date:						Lab ID: ASI Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 130	54	14	sediment	12	6	0	0	6	0.50	0.50
sed 130	55	15	sediment	12	8	0	0	8	0.67	0.67
sed 130	56	16	sediment	12	9	0	0	9	0.75	0.75
sed 131	57	17	sediment	12	6	0	0	6	0.50	0.50
sed 131	58	18	sediment	12	10	0	0	10	0.83	0.83
sed 131	59	19	sediment	12	7	0	0	7	0.58	0.58
sed 131	60	20	sediment	12	5	0	0	5	0.42	0.42
sed 131	61	21	sediment	12	3	0	0	3	0.25	0.25
sed 131	62	22	sediment	12	4	0	0	4	0.33	0.33
sed 131	63	23	sediment	12	8	1	0	7	0.67	0.58
sed 131	64	24	sediment	12	9	1	0	8	0.75	0.67
sed 132	65	25	sediment	12	6	3	0	3	0.50	0.25
sed 132	66	26	sediment	12	8	7	0	1	0.67	0.08
sed 132	67	27	sediment	12	9	8	1	0	0.75	0.00
sed 132	68	28	sediment	12	6	5	0	1	0.50	0.08
sed 132	69	29	sediment	12	8	3	0	5	0.67	0.42
sed 132	70	30	sediment	12	10	7	1	2	0.83	0.17
sed 132	71	31	sediment	12	4	0	0	4	0.33	0.33
sed 132	72	32	sediment	12	6	4	2	0	0.50	0.00
sed 133	73	33	sediment	12	8	1	1	6	0.67	0.50
sed 133	74	34	sediment	12	7	3	0	4	0.58	0.33
sed 133	75	35	sediment	12	9	1	0	8	0.75	0.67
sed 133	76	36	sediment	12	10	2	3	5	0.83	0.42
sed 133	77	37	sediment	12	9	1	1	7	0.75	0.58
sed 133	78	38	sediment	12	8	0	0	8	0.67	0.67
sed 133	79	39	sediment	12	4	0	0	4	0.33	0.33
sed 133	80	40	sediment	12	9	1	0	8	0.75	0.67
sed 134	81	41	sediment	12	8	0	0	8	0.67	0.67
sed 134	82	42	sediment	12	9	0	0	9	0.75	0.75
sed 134	83	43	sediment	12	7	0	0	7	0.58	0.58
sed 134	84	44	sediment	12	9	1	0	8	0.75	0.67
sed 134	85	45	sediment	12	8	0	1	7	0.67	0.58
sed 134	86	46	sediment	12	8	0	0	8	0.67	0.67
sed 134	87	47	sediment	12	6	0	0	6	0.50	0.50
sed 134	88	48	sediment	12	10	0	1	9	0.83	0.75
sed 118	89	49	sediment	12	5	0	0	5	0.42	
sed 118	90	50	sediment	12	11	0	0	11	0.92	
sed 118	91	51	sediment	12	9	1	1	7	0.75	
sed 118	92	52	sediment	12	5	0	0	5	0.42	
sed 118	93	53	sediment	12	8	0	0	8	0.67	
sed 118	94	54	sediment	12	9	0	1	8	0.75	
sed 118	95	55	sediment	12	8	0	0	8	0.67	
sed 118	96	56	sediment	12	8	1	0	7	0.67	
sed 120	97	57	sediment	12	3	0	0	3	0.25	
sed 120	98	58	sediment	12	1	0	0	1	0.08	
sed 120	99	59	sediment	12	0	0	0	0	0.00	
sed 120	100	60	sediment	12	0	0	0	0	0.00	
sed 120	101	61	sediment	12	3	0	1	2	0.25	
sed 120	102	62	sediment	12	4	0	0	4	0.33	
sed 120	103	63	sediment	12	2	1	0	1	0.17	
sed 120	104	64	sediment	12	2	0	0	2	0.17	

Comments: 5 references

Chironomid Test-Survival

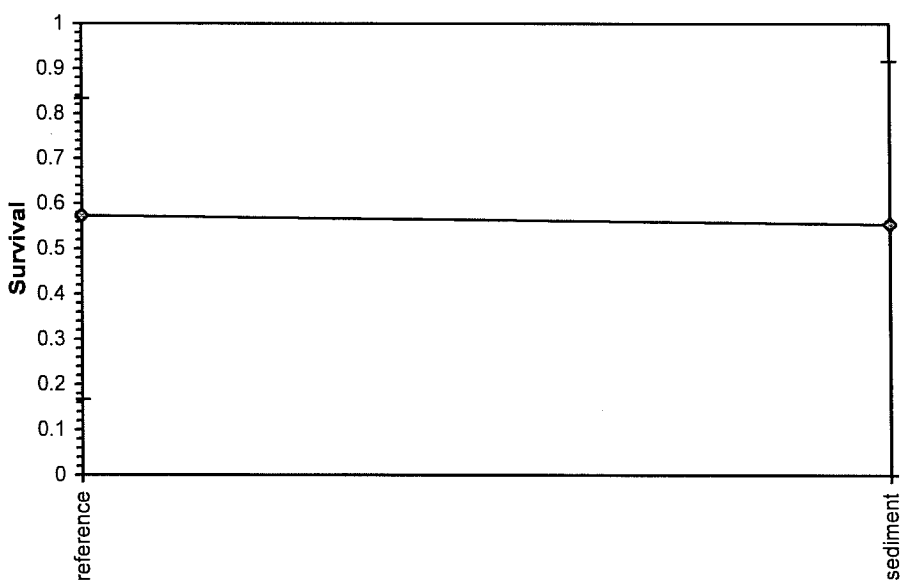
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667	0.4167	0.6667	0.4167	0.6667
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333
reference	0.3333	0.5000	0.5000	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
sediment	0.5833	0.6667	0.5000	0.5833	0.1667	0.9167	0.3333	0.7500	0.4167	0.8333
sediment	0.5000	0.5000	0.5000	0.5000	0.6667	0.7500	0.5000	0.8333	0.5833	0.4167
sediment	0.2500	0.3333	0.6667	0.7500	0.5000	0.6667	0.7500	0.5000	0.6667	0.8333
sediment	0.3333	0.5000	0.6667	0.5833	0.7500	0.8333	0.7500	0.6667	0.3333	0.7500
sediment	0.6667	0.7500	0.5833	0.7500	0.6667	0.6667	0.5000	0.8333	0.4167	0.9167
sediment	0.7500	0.4167	0.6667	0.7500	0.6667	0.6667	0.2500	0.0833	0.0000	0.0000
sediment	0.2500	0.3333	0.1667	0.1667						

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
reference	0.5729	1.0000	0.5729	0.1667	0.8333	30.580	40		
sediment	0.5547	0.9682	0.5547	0.0000	0.9167	40.349	64	3358.00	1854.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.41085	1.035	-0.6021	-0.1066
F-Test indicates equal variances (p = 0.10)	1.63201	2.19024		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs reference				

Dose-Response Plot



Chironomid Test-Emergence

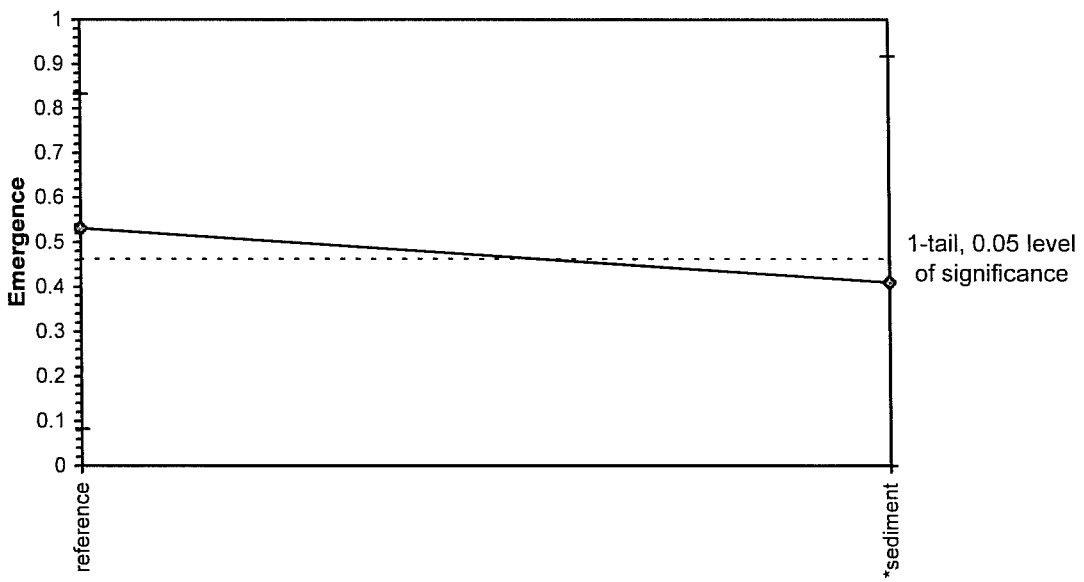
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 5 references			

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
sediment	0.1667	0.0833	0.2500	0.0000	0.0000	0.2500	0.0000	0.0833	0.4167	0.8333
sediment	0.4167	0.5000	0.5000	0.5000	0.6667	0.7500	0.5000	0.8333	0.5833	0.4167
sediment	0.2500	0.3333	0.5833	0.6667	0.2500	0.0833	0.0000	0.0833	0.4167	0.1667
sediment	0.3333	0.0000	0.5000	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.6667
sediment	0.6667	0.7500	0.5833	0.6667	0.5833	0.6667	0.5000	0.7500	0.4167	0.9167
sediment	0.5833	0.4167	0.6667	0.6667	0.6667	0.5833	0.2500	0.0833	0.0000	0.0000
sediment	0.1667	0.3333	0.0833	0.1667						

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.5313	1.0000	0.5313	0.0833	0.8333	31.908	40			
*sediment	0.4102	0.7721	0.4102	0.0000	0.9167	62.628	64	2.895	1.660	0.0694

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.73247		1.035		-0.1943	-0.7138
F-Test indicates unequal variances (p = 6.45E-03)	2.29631		2.19024			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Heteroscedastic t Test indicates significant differences Treatments vs reference	0.06943	0.1307	0.36095	0.05174	0.00956	1, 102

Dose-Response Plot



Test: CT-Chironomid Test							Test ID: 27-303			
Species: CT-Chironomous tentans							Protocol: EPA 600 MA			
Sample ID: Adj Farfield							Sample Type: Sediment			
Start Date:		End Date:					Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50
ref 5 028	33	33	reference	12	7	0	0	6	0.50	0.50
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42
ref 6 010	41	41	reference	12	0	0	0	0	0.00	0.00
ref 6 010	42	42	reference	12	1	0	0	1	0.08	0.08
ref 6 010	43	43	reference	12	1	0	0	1	0.08	0.08
ref 6 010	44	44	reference	12	1	0	0	1	0.08	0.08
ref 6 010	45	45	reference	12	6	3	1	2	0.50	0.17
ref 6 010	46	46	reference	12	2	2	0	0	0.17	0.00
ref 6 010	47	47	reference	12	4	1	0	3	0.33	0.25
ref 6 010	48	48	reference	12	4	0	0	4	0.33	0.33
sed 118	49	1	sediment	12	5	0	0	5	0.42	0.42
sed 118	50	2	sediment	12	11	0	0	11	0.92	0.92
sed 118	51	3	sediment	12	9	1	1	7	0.75	0.58
sed 118	52	4	sediment	12	5	0	0	5	0.42	0.42
sed 118	53	5	sediment	12	8	0	0	8	0.67	0.67

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Adj Farfield								Sample Type: Sediment		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 118	54	6	sediment	12	9	0	1	8	0.75	0.67
sed 118	55	7	sediment	12	8	0	0	8	0.67	0.67
sed 118	56	8	sediment	12	8	1	0	7	0.67	0.58
sed 120	57	9	sediment	12	3	0	0	3	0.25	0.25
sed 120	58	10	sediment	12	1	0	0	1	0.08	0.08
sed 120	59	11	sediment	12	0	0	0	0	0.00	0.00
sed 120	60	12	sediment	12	0	0	0	0	0.00	0.00
sed 120	61	13	sediment	12	3	0	1	2	0.25	0.17
sed 120	62	14	sediment	12	4	0	0	4	0.33	0.33
sed 120	63	15	sediment	12	2	1	0	1	0.17	0.08
sed 120	64	16	sediment	12	2	0	0	2	0.17	0.17

Comments: 6 references

Chironomid Test-Survival

Start Date:	Test ID: 27-303	Sample ID:	Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 6 references			

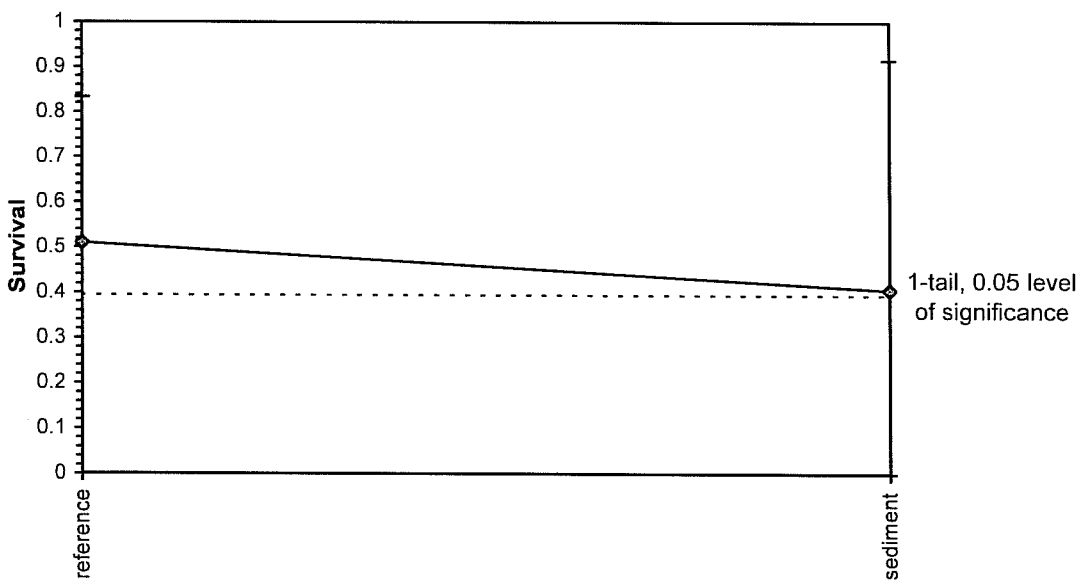
Conc-gm/L	1	2	3	4	5	6	7	8	9	10
reference	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667	0.4167	0.6667	0.4167	0.6667
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333
reference	0.3333	0.5000	0.5000	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
reference	0.0000	0.0833	0.0833	0.0833	0.5000	0.1667	0.3333	0.3333		
sediment	0.4167	0.9167	0.7500	0.4167	0.6667	0.7500	0.6667	0.6667	0.2500	0.0833
sediment	0.0000	0.0000	0.2500	0.3333	0.1667	0.1667				

			Transform: Untransformed					1-Tailed		
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.5104	1.0000	0.5104	0.0000	0.8333	43.734	48			
sediment	0.4063	0.7959	0.4063	0.0000	0.9167	72.572	16	1.488	1.670	0.1169

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.82075	1.035	-0.2112	-0.702
F-Test indicates equal variances (p = 0.15)	1.74435	2.68531		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs reference	0.11689	0.22901	0.13021	0.0588	0.14181	1, 62

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Emergence

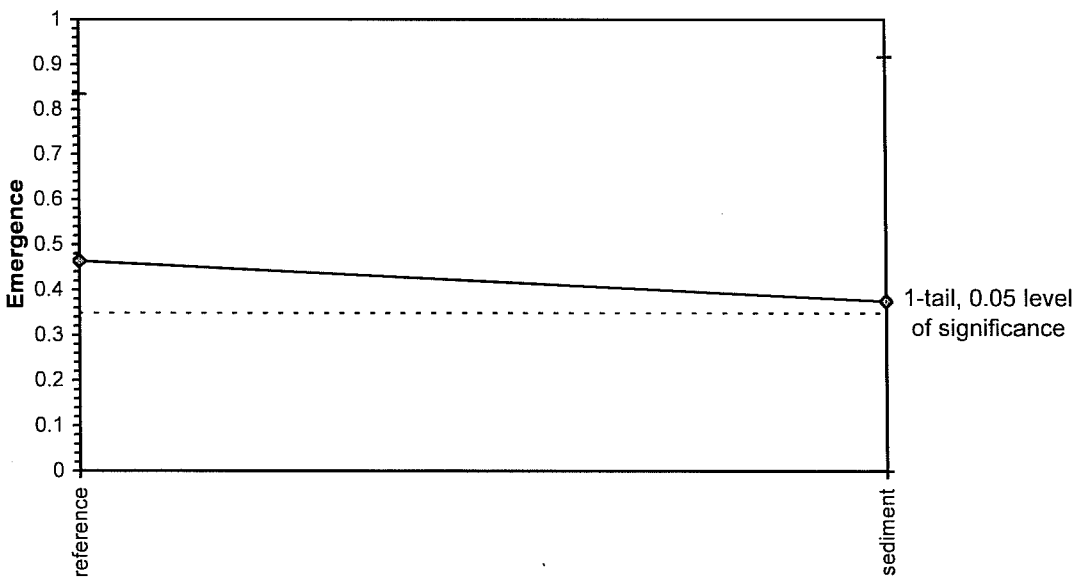
Start Date:	Test ID: 27-303	Sample ID:	Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 6 references			

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
reference	0.0000	0.0833	0.0833	0.0833	0.1667	0.0000	0.2500	0.3333		
sediment	0.4167	0.9167	0.5833	0.4167	0.6667	0.6667	0.6667	0.5833	0.2500	0.0833
sediment	0.0000	0.0000	0.1667	0.3333	0.0833	0.1667				

			Transform: Untransformed						1-Tailed	
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.4635	1.0000	0.4635	0.0000	0.8333	47.911	48			
sediment	0.3750	0.8090	0.3750	0.0000	0.9167	75.250	16	1.289	1.670	0.1147

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	1.00275		1.035		-0.2066	-0.6636
F-Test indicates equal variances (p = 0.21)	1.61448		2.68531			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	0.11473	0.24752	0.09408	0.05665	0.20232	1, 62
Treatments vs reference						

Dose-Response Plot



Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Adj Nearshore								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50
ref 5 028	33	33	reference	12	7	0	0	6	0.50	0.50
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42
ref 6 010	41	41	reference	12	0	0	0	0	0.00	0.00
ref 6 010	42	42	reference	12	1	0	0	1	0.08	0.08
ref 6 010	43	43	reference	12	1	0	0	1	0.08	0.08
ref 6 010	44	44	reference	12	1	0	0	1	0.08	0.08
ref 6 010	45	45	reference	12	6	3	1	2	0.50	0.17
ref 6 010	46	46	reference	12	2	2	0	0	0.17	0.00
ref 6 010	47	47	reference	12	4	1	0	3	0.33	0.25
ref 6 010	48	48	reference	12	4	0	0	4	0.33	0.33
sed 032	49	1	sediment	12	6	0	0	6	0.50	0.50
sed 032	50	2	sediment	12	4	1	0	3	0.33	0.25
sed 032	51	3	sediment	12	2	0	0	2	0.17	0.17
sed 032	52	4	sediment	12	2	0	0	2	0.17	0.17
sed 032	53	5	sediment	12	7	0	0	7	0.58	0.58

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Adj Nearshore								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 032	54	6	sediment	12	6	1	0	5	0.50	0.42
sed 032	55	7	sediment	12	8	3	1	4	0.67	0.33
sed 032	56	8	sediment	12	6	0	0	6	0.50	0.50
sed 056	57	9	sediment	12	8	1	0	7	0.67	0.58
sed 056	58	10	sediment	12	9	0	1	8	0.75	0.67
sed 056	59	11	sediment	12	11	0	0	11	0.92	0.92
sed 056	60	12	sediment	12	7	0	0	7	0.58	0.58
sed 056	61	13	sediment	12	6	0	0	6	0.50	0.50
sed 056	62	14	sediment	12	7	0	0	7	0.58	0.58
sed 056	63	15	sediment	12	3	0	0	3	0.25	0.25
sed 056	64	16	sediment	12	4	0	0	4	0.33	0.33
sed 059	65	17	sediment	12	7	1	0	6	0.58	0.50
sed 059	66	18	sediment	12	11	5	0	6	0.92	0.50
sed 059	67	19	sediment	12	11	4	0	7	0.92	0.58
sed 059	68	20	sediment	12	7	1	0	6	0.58	0.50
sed 059	69	21	sediment	12	7	0	0	7	0.58	0.58
sed 059	70	22	sediment	12	8	4	1	3	0.67	0.25
sed 059	71	23	sediment	12	11	0	0	11	0.92	0.92
sed 059	72	24	sediment	12	8	0	0	8	0.67	0.67
sed 082	73	25	sediment	12	2	0	0	2	0.17	0.17
sed 082	74	26	sediment	12	1	0	0	1	0.08	0.08
sed 082	75	27	sediment	12	3	0	0	3	0.25	0.25
sed 082	76	28	sediment	12	7	0	1	6	0.58	0.50
sed 082	77	29	sediment	12	2	0	0	2	0.17	0.17
sed 082	78	30	sediment	12	3	0	0	3	0.25	0.25
sed 082	79	31	sediment	12	4	0	0	4	0.33	0.33
sed 082	80	32	sediment	12	2	0	0	2	0.17	0.17
sed 085	81	33	sediment	12	4	0	0	4	0.33	0.33
sed 085	82	34	sediment	12	3	0	0	3	0.25	0.25
sed 085	83	35	sediment	12	3	0	0	3	0.25	0.25
sed 085	84	36	sediment	12	1	0	0	1	0.08	0.08
sed 085	85	37	sediment	12	5	0	0	5	0.42	0.42
sed 085	86	38	sediment	12	2	0	0	2	0.17	0.17
sed 085	87	39	sediment	12	2	0	0	2	0.17	0.17
sed 085	88	40	sediment	12	1	0	0	1	0.08	0.08
sed 087	89	41	sediment	12	8	2	0	6	0.67	0.50
sed 087	90	42	sediment	12	10	3	0	7	0.83	0.58
sed 087	91	43	sediment	12	10	3	0	7	0.83	0.58
sed 087	92	44	sediment	12	9	0	0	9	0.75	0.75
sed 087	93	45	sediment	12	6	0	0	6	0.50	0.50
sed 087	94	46	sediment	12	7	0	0	7	0.58	0.58
sed 087	95	47	sediment	12	7	0	0	7	0.58	0.58
sed 087	96	48	sediment	12	5	0	0	5	0.42	0.42
sed 094	97	49	sediment	12	1	0	0	1	0.08	0.08
sed 094	98	50	sediment	12	0	0	0	0	0.00	0.00
sed 094	99	51	sediment	12	0	0	0	0	0.00	0.00
sed 094	100	52	sediment	12	0	0	0	0	0.00	0.00
sed 094	101	53	sediment	12	0	0	0	0	0.00	0.00
sed 094	102	54	sediment	12	0	0	0	0	0.00	0.00
sed 094	103	55	sediment	12	2	0	0	2	0.17	0.17
sed 094	104	56	sediment	12	0	0	0	0	0.00	0.00
sed 097	105	57	sediment	12	1	0	0	1	0.08	0.08
sed 097	106	58	sediment	12	5	1	0	4	0.42	0.33

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Adj Nearshore								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 097	107	59	sediment	12	4	0	0	4	0.33	0.33
sed 097	108	60	sediment	12	8	1	0	7	0.67	0.58
sed 097	109	61	sediment	12	7	0	1	6	0.58	0.50
sed 097	110	62	sediment	12	6	0	0	6	0.50	0.50
sed 097	111	63	sediment	12	7	2	1	4	0.58	0.33
sed 097	112	64	sediment	12	7	0	0	7	0.58	0.58
sed 100	113	65	sediment	12	6	0	0	6	0.50	0.50
sed 100	114	66	sediment	12	7	0	0	7	0.58	0.58
sed 100	115	67	sediment	12	10	0	0	10	0.83	0.83
sed 100	116	68	sediment	12	9	0	0	9	0.75	0.75
sed 100	117	69	sediment	12	1	0	0	1	0.08	0.08
sed 100	118	70	sediment	12	5	0	0	5	0.42	0.42
sed 100	119	71	sediment	12	3	0	0	3	0.25	0.25
sed 100	120	72	sediment	12	5	0	1	4	0.42	0.33

Comments: 6 references

Chironomid Test-Survival

Start Date:	Test ID: 27-303	Sample ID:	Adj Nearshore
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 6 references			

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.2500	0.8333	0.7500	0.6667	0.4167	0.8333	0.8333	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5833	0.5000	0.4167	0.6667	0.4167	0.6667	0.4167	0.6667
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.8333
reference	0.3333	0.5000	0.5000	0.6667	0.8333	0.6667	0.5833	0.4167	0.5833	0.5000
reference	0.0000	0.0833	0.0833	0.0833	0.5000	0.1667	0.3333	0.3333		
sediment	0.5000	0.3333	0.1667	0.1667	0.5833	0.5000	0.6667	0.5000	0.6667	0.7500
sediment	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333	0.5833	0.9167	0.9167	0.5833
sediment	0.5833	0.6667	0.9167	0.6667	0.1667	0.0833	0.2500	0.5833	0.1667	0.2500
sediment	0.3333	0.1667	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833
sediment	0.6667	0.8333	0.8333	0.7500	0.5000	0.5833	0.5833	0.4167	0.0833	0.0000
sediment	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000	0.0833	0.4167	0.3333	0.6667
sediment	0.5833	0.5000	0.5833	0.5833	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167
sediment	0.2500	0.4167								

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
reference	0.5104	1.0000	0.5104	0.0000	0.8333	43.734	48		
sediment	0.4248	0.8322	0.4248	0.0000	0.9167	62.748	72	4024.50	2597.00

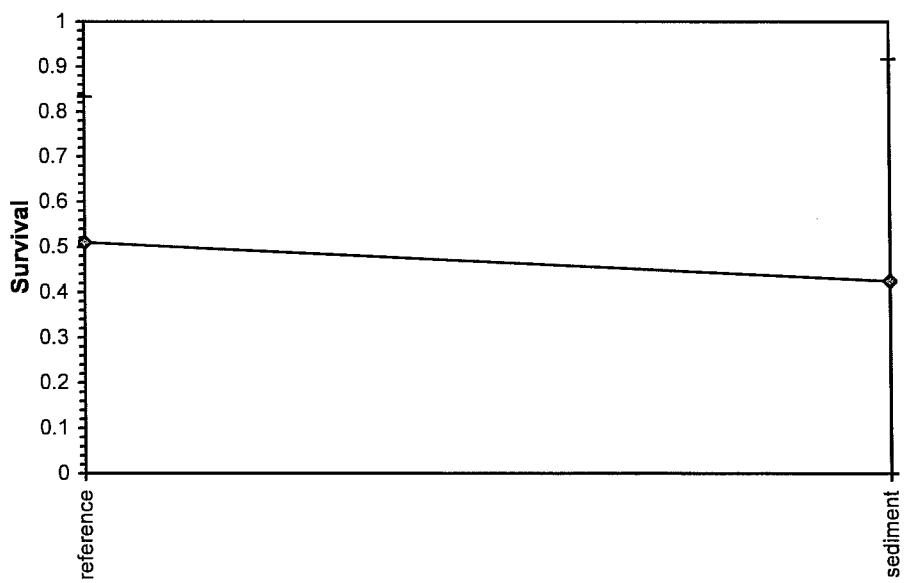
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.30129	1.035	-0.106	-0.817
F-Test indicates equal variances (p = 0.20)	1.42566	2.04673		

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs reference

Dose-Response Plot



Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Adj Nearshore
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 6 references			

Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
reference	0.0000	0.0833	0.0833	0.0833	0.1667	0.0000	0.2500	0.3333		
sediment	0.5000	0.2500	0.1667	0.1667	0.5833	0.4167	0.3333	0.5000	0.5833	0.6667
sediment	0.9167	0.5833	0.5000	0.5833	0.2500	0.3333	0.5000	0.5000	0.5833	0.5000
sediment	0.5833	0.2500	0.9167	0.6667	0.1667	0.0833	0.2500	0.5000	0.1667	0.2500
sediment	0.3333	0.1667	0.3333	0.2500	0.2500	0.0833	0.4167	0.1667	0.1667	0.0833
sediment	0.5000	0.5833	0.5833	0.7500	0.5000	0.5833	0.5833	0.4167	0.0833	0.0000
sediment	0.0000	0.0000	0.0000	0.0000	0.1667	0.0000	0.0833	0.3333	0.3333	0.5833
sediment	0.5000	0.5000	0.3333	0.5833	0.5000	0.5833	0.8333	0.7500	0.0833	0.4167
sediment	0.2500	0.3333								

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
reference	0.4635	1.0000	0.4635	0.0000	0.8333	47.911	48		
sediment	0.3785	0.8165	0.3785	0.0000	0.9167	61.498	72	3975.50	2597.00

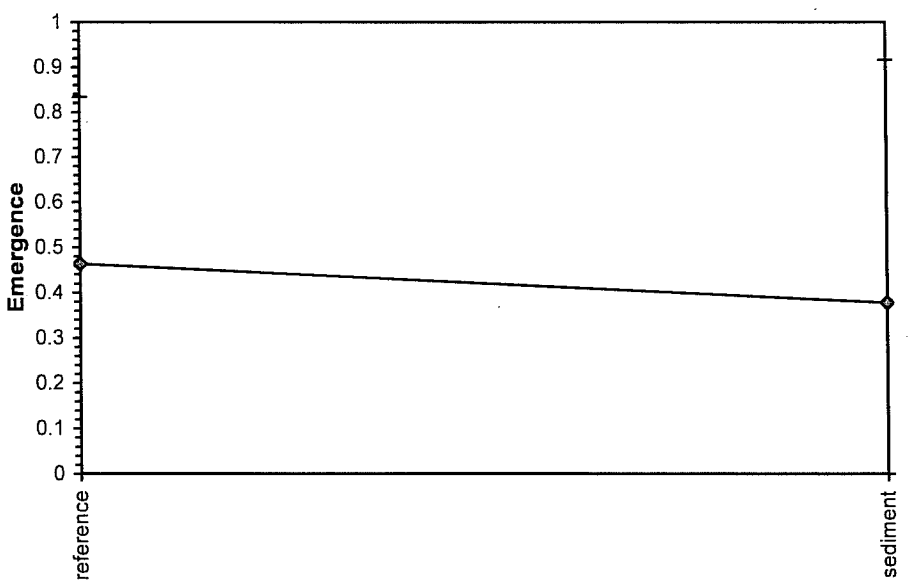
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.38511	1.035	-0.0912	-0.6144
F-Test indicates equal variances (p = 0.74)	1.09837	2.04673		

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs reference

Dose-Response Plot



Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Western Shoreline								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50
ref 5 028	33	33	reference	12	6	0	0	6	0.50	0.50
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42
ref 6 010	41	41	reference	12	0	0	0	0	0.00	0.00
ref 6 010	42	42	reference	12	1	0	0	1	0.08	0.08
ref 6 010	43	43	reference	12	1	0	0	1	0.08	0.08
ref 6 010	44	44	reference	12	1	0	0	1	0.08	0.08
ref 6 010	45	45	reference	12	6	3	1	2	0.50	0.17
ref 6 010	46	46	reference	12	2	2	0	0	0.17	0.00
ref 6 010	47	47	reference	12	4	1	0	3	0.33	0.25
ref 6 010	48	48	reference	12	4	0	0	4	0.33	0.33
sed 063	49	1	sediment	12	7	5	0	2	0.58	0.17
sed 063	50	2	sediment	12	8	6	1	1	0.67	0.08
sed 063	51	3	sediment	12	6	3	0	3	0.50	0.25
sed 063	52	4	sediment	12	7	6	1	0	0.58	0.00
sed 063	53	5	sediment	12	2	2	0	0	0.17	0.00

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Western Shoreline								Sample Type:		
Start Date:		End Date:						Lab ID: ASI-Aqua Survey Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 063	54	6	sediment	12	11	8	0	3	0.92	0.25
sed 063	55	7	sediment	12	4	4	0	0	0.33	0.00
sed 063	56	8	sediment	12	9	8	0	1	0.75	0.08
sed 130	57	9	sediment	12	5	0	0	5	0.42	0.42
sed 130	58	10	sediment	12	10	0	0	10	0.83	0.83
sed 130	59	11	sediment	12	6	1	0	5	0.50	0.42
sed 130	60	12	sediment	12	6	0	0	6	0.50	0.50
sed 130	61	13	sediment	12	6	0	0	6	0.50	0.50
sed 130	62	14	sediment	12	6	0	0	6	0.50	0.50
sed 130	63	15	sediment	12	8	0	0	8	0.67	0.67
sed 130	64	16	sediment	12	9	0	0	9	0.75	0.75
sed 131	65	17	sediment	12	6	0	0	6	0.50	0.50
sed 131	66	18	sediment	12	10	0	0	10	0.83	0.83
sed 131	67	19	sediment	12	7	0	0	7	0.58	0.58
sed 131	68	20	sediment	12	5	0	0	5	0.42	0.42
sed 131	69	21	sediment	12	3	0	0	3	0.25	0.25
sed 131	70	22	sediment	12	4	0	0	4	0.33	0.33
sed 131	71	23	sediment	12	8	1	0	7	0.67	0.58
sed 131	72	24	sediment	12	9	1	0	8	0.75	0.67
sed 132	73	25	sediment	12	6	3	0	3	0.50	0.25
sed 132	74	26	sediment	12	8	7	0	1	0.67	0.08
sed 132	75	27	sediment	12	9	8	1	0	0.75	0.00
sed 132	76	28	sediment	12	6	5	0	1	0.50	0.08
sed 132	77	29	sediment	12	8	3	0	5	0.67	0.42
sed 132	78	30	sediment	12	10	7	1	2	0.83	0.17
sed 132	79	31	sediment	12	4	0	0	4	0.33	0.33
sed 132	80	32	sediment	12	6	4	2	0	0.50	0.00
sed 133	81	33	sediment	12	8	1	1	6	0.67	0.50
sed 133	82	34	sediment	12	7	3	0	4	0.58	0.33
sed 133	83	35	sediment	12	9	1	0	8	0.75	0.67
sed 133	84	36	sediment	12	10	2	3	5	0.83	0.42
sed 133	85	37	sediment	12	9	1	1	7	0.75	0.58
sed 133	86	38	sediment	12	8	0	0	8	0.67	0.67
sed 133	87	39	sediment	12	4	0	0	4	0.33	0.33
sed 133	88	40	sediment	12	9	1	0	8	0.75	0.67
sed 134	89	41	sediment	12	8	0	0	8	0.67	0.67
sed 134	90	42	sediment	12	9	0	0	9	0.75	0.75
sed 134	91	43	sediment	12	7	0	0	7	0.58	0.58
sed 134	92	44	sediment	12	9	1	0	8	0.75	0.67
sed 134	93	45	sediment	12	8	0	1	7	0.67	0.58
sed 134	94	46	sediment	12	8	0	0	8	0.67	0.67
sed 134	95	47	sediment	12	6	0	0	6	0.50	0.50
sed 134	96	48	sediment	12	10	0	1	9	0.83	0.75

Comments: 6 references

Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 6 references			

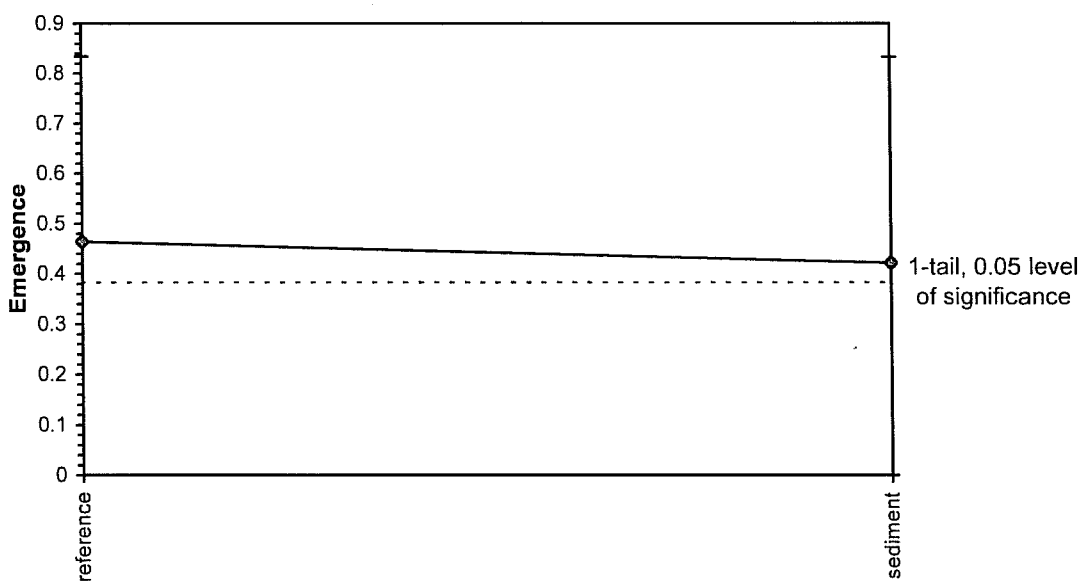
Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
reference	0.0000	0.0833	0.0833	0.0833	0.1667	0.0000	0.2500	0.3333		
sediment	0.1667	0.0833	0.2500	0.0000	0.0000	0.2500	0.0000	0.0833	0.4167	0.8333
sediment	0.4167	0.5000	0.5000	0.5000	0.6667	0.7500	0.5000	0.8333	0.5833	0.4167
sediment	0.2500	0.3333	0.5833	0.6667	0.2500	0.0833	0.0000	0.0833	0.4167	0.1667
sediment	0.3333	0.0000	0.5000	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.6667
sediment	0.6667	0.7500	0.5833	0.6667	0.5833	0.6667	0.5000	0.7500		

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.4635	1.0000	0.4635	0.0000	0.8333	47.911	48			
sediment	0.4219	0.9101	0.4219	0.0000	0.8333	59.246	48	0.863	1.661	0.0802

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	1.01972	1.035	-0.366	-0.8231
F-Test indicates equal variances (p = 0.42)	1.26662	2.14774		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.08017	0.17295	0.04167	0.0559	0.39013	1, 94
Treatments vs reference						

Dose-Response Plot



Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Western Shoreline + Adj Farfield								Sample Type: Sediment		
Start Date:		End Date:						Lab ID: ASI Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
ref 1 004	1	1	reference	12	3	2	0	1	0.25	0.08
ref 1 004	2	2	reference	12	10	0	0	10	0.83	0.83
ref 1 004	3	3	reference	12	9	2	1	6	0.75	0.50
ref 1 004	4	4	reference	12	8	0	0	8	0.67	0.67
ref 1 004	5	5	reference	12	5	0	0	5	0.42	0.42
ref 1 004	6	6	reference	12	10	0	1	9	0.83	0.75
ref 1 004	7	7	reference	12	10	0	1	9	0.83	0.75
ref 1 004	8	8	reference	12	7	0	0	7	0.58	0.58
ref 2 027	9	9	reference	12	3	0	0	3	0.25	0.25
ref 2 027	10	10	reference	12	10	0	0	10	0.83	0.83
ref 2 027	11	11	reference	12	8	0	0	8	0.67	0.67
ref 2 027	12	12	reference	12	6	0	0	6	0.50	0.50
ref 2 027	13	13	reference	12	7	0	1	6	0.58	0.50
ref 2 027	14	14	reference	12	6	0	0	6	0.50	0.50
ref 2 027	15	15	reference	12	5	0	0	5	0.42	0.42
ref 2 027	16	16	reference	12	8	0	0	8	0.67	0.67
ref 3 006	17	17	reference	12	5	0	1	4	0.42	0.33
ref 3 006	18	18	reference	12	8	0	0	8	0.67	0.67
ref 3 006	19	19	reference	12	5	0	0	5	0.42	0.42
ref 3 006	20	20	reference	12	8	0	1	7	0.67	0.58
ref 3 006	21	21	reference	12	8	0	0	8	0.67	0.67
ref 3 006	22	22	reference	12	4	0	0	4	0.33	0.33
ref 3 006	23	23	reference	12	7	0	0	7	0.58	0.58
ref 3 006	24	24	reference	12	2	0	0	2	0.17	0.17
ref 4 018	25	25	reference	12	7	0	0	7	0.58	0.58
ref 4 018	26	26	reference	12	6	0	0	6	0.50	0.50
ref 4 018	27	27	reference	12	6	0	0	6	0.50	0.50
ref 4 018	28	28	reference	12	9	0	0	9	0.75	0.75
ref 4 018	29	29	reference	12	8	0	0	8	0.67	0.67
ref 4 018	30	30	reference	12	10	3	2	5	0.83	0.42
ref 4 018	31	31	reference	12	4	0	0	4	0.33	0.33
ref 4 018	32	32	reference	12	6	0	0	6	0.50	0.50
ref 5 028	33	33	reference	12	6	0	0	6	0.50	0.50
ref 5 028	34	34	reference	12	8	0	1	7	0.67	0.58
ref 5 028	35	35	reference	12	10	1	0	9	0.83	0.75
ref 5 028	36	36	reference	12	8	2	0	6	0.67	0.50
ref 5 028	37	37	reference	12	7	0	0	7	0.58	0.58
ref 5 028	38	38	reference	12	5	0	0	5	0.42	0.42
ref 5 028	39	39	reference	12	7	0	0	7	0.58	0.58
ref 5 028	40	40	reference	12	6	0	1	5	0.50	0.42
ref 6 010	41	41	reference	12	0	0	0	0	0.00	0.00
ref 6 010	42	42	reference	12	1	0	0	1	0.08	0.08
ref 6 010	43	43	reference	12	1	0	0	1	0.08	0.08
ref 6 010	44	44	reference	12	1	0	0	1	0.08	0.08
ref 6 010	45	45	reference	12	6	3	1	2	0.50	0.17
ref 6 010	46	46	reference	12	2	2	0	0	0.17	0.00
ref 6 010	47	47	reference	12	4	1	0	3	0.33	0.25
ref 6 010	48	48	reference	12	4	0	0	4	0.33	0.33
sed 063	49	1	sediment	12	7	5	0	2	0.58	0.17
sed 063	50	2	sediment	12	8	6	1	1	0.67	0.08
sed 063	51	3	sediment	12	6	3	0	3	0.50	0.25
sed 063	52	4	sediment	12	7	6	1	0	0.58	0.00
sed 063	53	5	sediment	12	2	2	0	0	0.17	0.00

Test: CT-Chironomid Test									Test ID: 27-303	
Species: CT-Chironomous tentans									Protocol: EPA 600 MA	
Sample ID: Western Shoreline + Adj Farfield									Sample Type: Sediment	
Start Date:		End Date:							Lab ID: ASI Inc.	
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 063	54	6	sediment	12	11	8	0	3	0.92	0.25
sed 063	55	7	sediment	12	4	4	0	0	0.33	0.00
sed 063	56	8	sediment	12	9	8	0	1	0.75	0.08
sed 130	57	9	sediment	12	5	0	0	5	0.42	0.42
sed 130	58	10	sediment	12	10	0	0	10	0.83	0.83
sed 130	59	11	sediment	12	6	1	0	5	0.50	0.42
sed 130	60	12	sediment	12	6	0	0	6	0.50	0.50
sed 130	61	13	sediment	12	6	0	0	6	0.50	0.50
sed 130	62	14	sediment	12	6	0	0	6	0.50	0.50
sed 130	63	15	sediment	12	8	0	0	8	0.67	0.67
sed 130	64	16	sediment	12	9	0	0	9	0.75	0.75
sed 131	65	17	sediment	12	6	0	0	6	0.50	0.50
sed 131	66	18	sediment	12	10	0	0	10	0.83	0.83
sed 131	67	19	sediment	12	7	0	0	7	0.58	0.58
sed 131	68	20	sediment	12	5	0	0	5	0.42	0.42
sed 131	69	21	sediment	12	3	0	0	3	0.25	0.25
sed 131	70	22	sediment	12	4	0	0	4	0.33	0.33
sed 131	71	23	sediment	12	8	1	0	7	0.67	0.58
sed 131	72	24	sediment	12	9	1	0	8	0.75	0.67
sed 132	73	25	sediment	12	6	3	0	3	0.50	0.25
sed 132	74	26	sediment	12	8	7	0	1	0.67	0.08
sed 132	75	27	sediment	12	9	8	1	0	0.75	0.00
sed 132	76	28	sediment	12	6	5	0	1	0.50	0.08
sed 132	77	29	sediment	12	8	3	0	5	0.67	0.42
sed 132	78	30	sediment	12	10	7	1	2	0.83	0.17
sed 132	79	31	sediment	12	4	0	0	4	0.33	0.33
sed 132	80	32	sediment	12	6	4	2	0	0.50	0.00
sed 133	81	33	sediment	12	8	1	1	6	0.67	0.50
sed 133	82	34	sediment	12	7	3	0	4	0.58	0.33
sed 133	83	35	sediment	12	9	1	0	8	0.75	0.67
sed 133	84	36	sediment	12	10	2	3	5	0.83	0.42
sed 133	85	37	sediment	12	9	1	1	7	0.75	0.58
sed 133	86	38	sediment	12	8	0	0	8	0.67	0.67
sed 133	87	39	sediment	12	4	0	0	4	0.33	0.33
sed 133	88	40	sediment	12	9	1	0	8	0.75	0.67
sed 134	89	41	sediment	12	8	0	0	8	0.67	0.67
sed 134	90	42	sediment	12	9	0	0	9	0.75	0.75
sed 134	91	43	sediment	12	7	0	0	7	0.58	0.58
sed 134	92	44	sediment	12	9	1	0	8	0.75	0.67
sed 134	93	45	sediment	12	8	0	1	7	0.67	0.58
sed 134	94	46	sediment	12	8	0	0	8	0.67	0.67
sed 134	95	47	sediment	12	6	0	0	6	0.50	0.50
sed 134	96	48	sediment	12	10	0	1	9	0.83	0.75
sed 118	97	49	sediment	12	5	0	0	5	0.42	0.42
sed 118	98	50	sediment	12	11	0	0	11	0.92	0.92
sed 118	99	51	sediment	12	9	1	1	7	0.75	0.58
sed 118	100	52	sediment	12	5	0	0	5	0.42	0.42
sed 118	101	53	sediment	12	8	0	0	8	0.67	0.67
sed 118	102	54	sediment	12	9	0	1	8	0.75	0.67
sed 118	103	55	sediment	12	8	0	0	8	0.67	0.67
sed 118	104	56	sediment	12	8	1	0	7	0.67	0.58
sed 120	105	57	sediment	12	3	0	0	3	0.25	0.25
sed 120	106	58	sediment	12	1	0	0	1	0.08	0.08

Test: CT-Chironomid Test								Test ID: 27-303		
Species: CT-Chironomous tentans								Protocol: EPA 600 MA		
Sample ID: Western Shoreline + Adj Farfield								Sample Type: Sediment		
Start Date:		End Date:						Lab ID: ASI Inc.		
Pos	ID	Rep	Group	Initial Count	Live Count	Larvae	Pupae	Emerged	Survival	Emergence
sed 120	107	59	sediment	12	0	0	0	0	0.00	0.00
sed 120	108	60	sediment	12	0	0	0	0	0.00	0.00
sed 120	109	61	sediment	12	3	0	1	2	0.25	0.17
sed 120	110	62	sediment	12	4	0	0	4	0.33	0.33
sed 120	111	63	sediment	12	2	1	0	1	0.17	0.08
sed 120	112	64	sediment	12	2	0	0	2	0.17	0.17

Comments: 6 references

Chironomid Test-Emergence

Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments: 6 references			

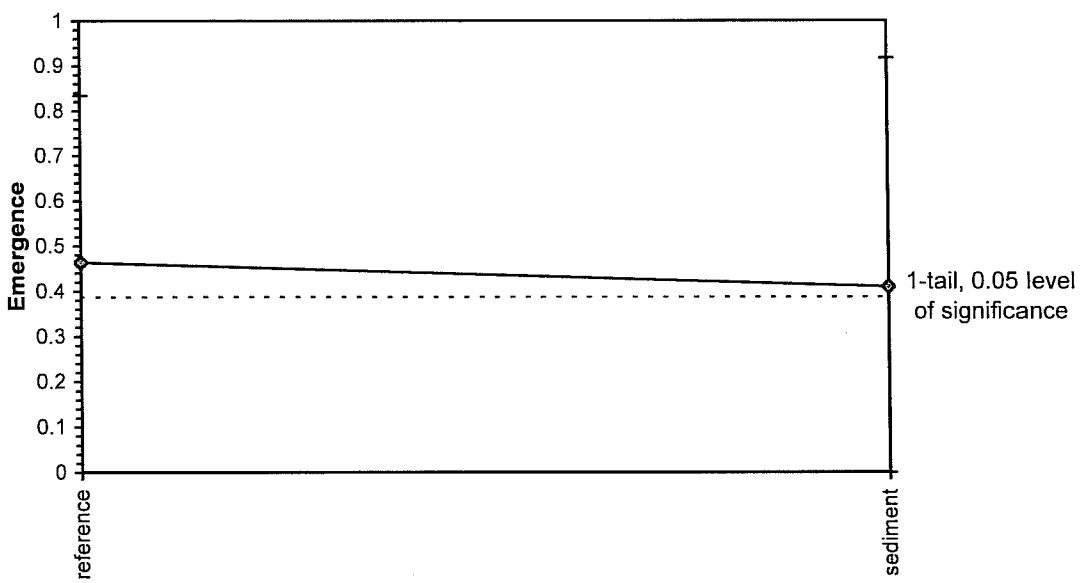
Conc-%	1	2	3	4	5	6	7	8	9	10
reference	0.0833	0.8333	0.5000	0.6667	0.4167	0.7500	0.7500	0.5833	0.2500	0.8333
reference	0.6667	0.5000	0.5000	0.5000	0.4167	0.6667	0.3333	0.6667	0.4167	0.5833
reference	0.6667	0.3333	0.5833	0.1667	0.5833	0.5000	0.5000	0.7500	0.6667	0.4167
reference	0.3333	0.5000	0.5000	0.5833	0.7500	0.5000	0.5833	0.4167	0.5833	0.4167
reference	0.0000	0.0833	0.0833	0.0833	0.1667	0.0000	0.2500	0.3333		
sediment	0.1667	0.0833	0.2500	0.0000	0.0000	0.2500	0.0000	0.0833	0.4167	0.8333
sediment	0.4167	0.5000	0.5000	0.5000	0.6667	0.7500	0.5000	0.8333	0.5833	0.4167
sediment	0.2500	0.3333	0.5833	0.6667	0.2500	0.0833	0.0000	0.0833	0.4167	0.1667
sediment	0.3333	0.0000	0.5000	0.3333	0.6667	0.4167	0.5833	0.6667	0.3333	0.6667
sediment	0.6667	0.7500	0.5833	0.6667	0.5833	0.6667	0.5000	0.7500	0.4167	0.9167
sediment	0.5833	0.4167	0.6667	0.6667	0.6667	0.5833	0.2500	0.0833	0.0000	0.0000
sediment	0.1667	0.3333	0.0833	0.1667						

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
reference	0.4635	1.0000	0.4635	0.0000	0.8333	47.911	48			
sediment	0.4102	0.8848	0.4102	0.0000	0.9167	62.628	64	1.152	1.659	0.0768

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.97062	1.035	-0.2538	-0.8999
F-Test indicates equal variances (p = 0.30)	1.33782	2.07249		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs reference	0.07685	0.16578	0.07817	0.05887	0.25166	1, 110

Dose-Response Plot



Appendix C

Chironomus tentans
Statistical Analyses

20 Day Results

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070930
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	4	4	0	0	0.33	908.21	918.30	10.09	2.52	911.85	6.45	1.61
	6	2	Sediment	12	4	4	0	0	0.33	903.47	913.89	10.42	2.61	907.18	6.71	1.68
	7	3	Sediment	12	6	6	0	0	0.50	909.06	918.98	9.92	1.65	912.16	6.82	1.14
	8	4	Sediment	12	5	5	0	0	0.42	904.21	911.89	7.68	1.54	906.63	5.26	1.05

Comments: STN-11V

Chironomid Test-Percent Survived

0930 RF 1/29/08

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070935
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-11V				

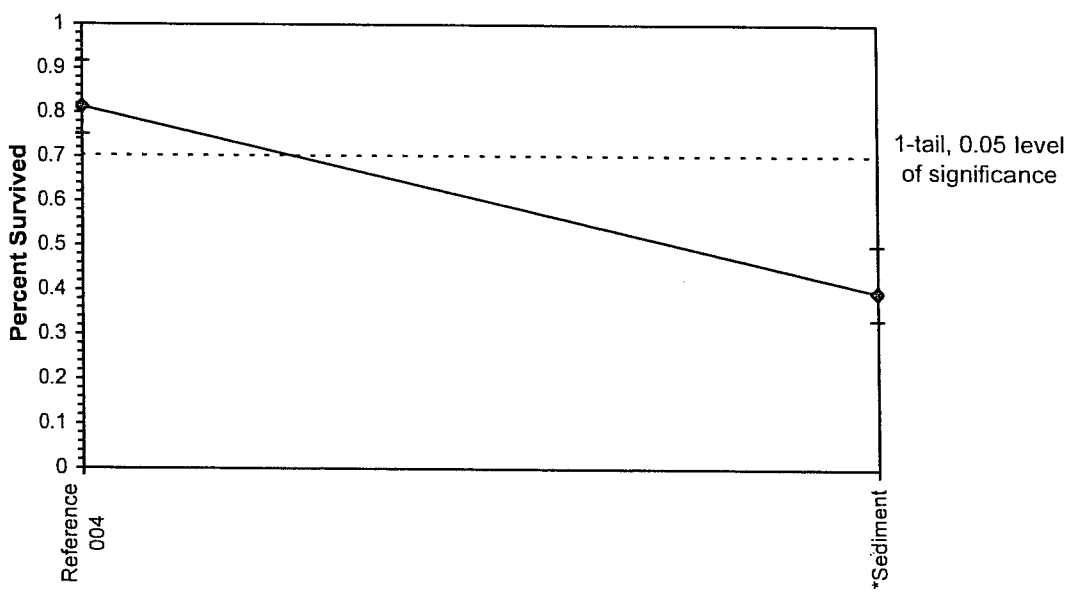
Conc-%	1	2	3	4
Reference 004	0.7500	0.8333	0.9167	0.7500
Sediment	0.3333	0.3333	0.5000	0.4167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	0.8125	1.0000	0.8125	0.7500	0.9167	9.820	4			
*Sediment	0.3958	0.4872	0.3958	0.3333	0.5000	20.156	4	7.385	1.943	0.1096

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.78178	0.749	0.61536	-1.481
F-Test indicates equal variances (p = 1.00)	1	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 004	0.10963	0.13493	0.34722	0.00637	3.2E-04	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Chironomid Test-Individual AFDW

0939 JH

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070939
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-11V				

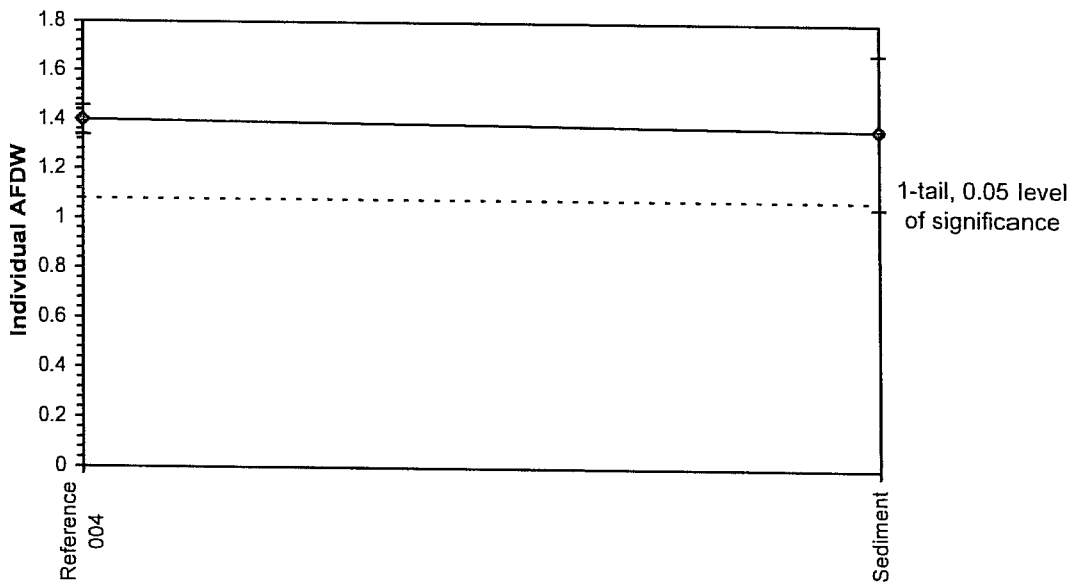
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.6125	1.6775	1.1367	1.0520

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.3697	0.9794	1.3697	1.0520	1.6775	23.429	4	0.177	1.943	0.3158

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96217	0.749	-0.025	-0.6167
F-Test indicates equal variances (p = 0.01)	38.5087	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.31581	0.22583	0.00166	0.05283	0.86531	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070929
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	10	10	0	0	0.83	927.05	942.63	15.58	1.56	931.50	11.13	1.11
	6	2	Sediment	12	10	8	1	1	0.83	924.69	937.38	12.69	1.59	928.23	9.15	1.14
	7	3	Sediment	12	6	6	0	0	0.50	927.20	939.47	12.27	2.05	930.15	9.32	1.55
	8	4	Sediment	12	10	9	1	0	0.83	925.00	937.65	12.65	1.41	928.36	9.29	1.03

Comments: STN-61

Reviewed by: 

Chironomid Test-Percent Survived

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070929
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-61				

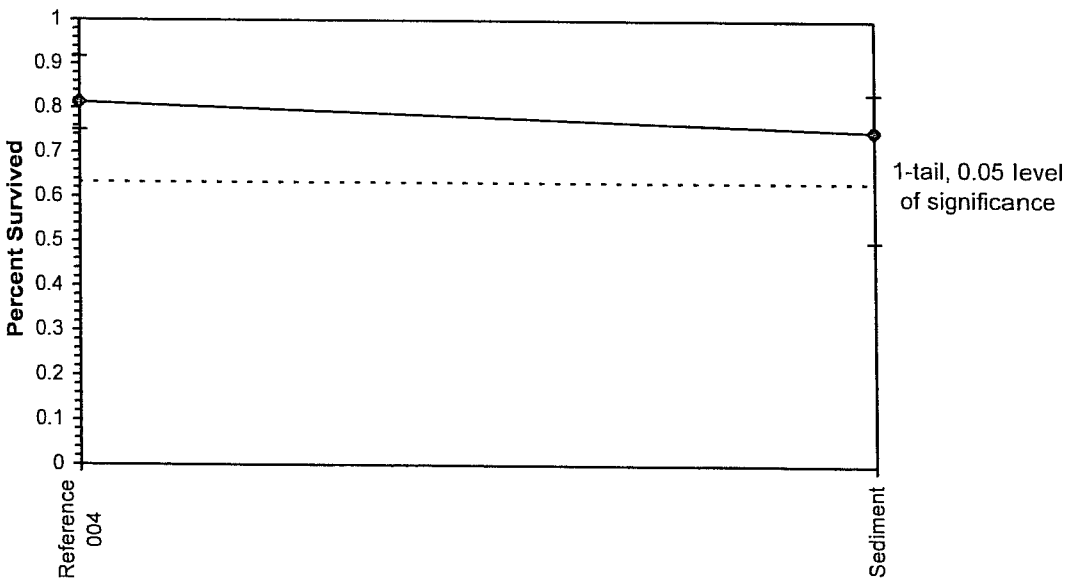
Conc-%	1	2	3	4
Reference 004	0.7500	0.8333	0.9167	0.7500
Sediment	0.8333	0.8333	0.5000	0.8333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	0.8125	1.0000	0.8125	0.7500	0.9167	9.820	4			
Sediment	0.7500	0.9231	0.7500	0.5000	0.8333	22.222	4	0.676	1.943	0.1795

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.8177	0.749	-1.4245	1.8241
F-Test indicates equal variances (p = 0.26)	4.36364	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.17953	0.22096	0.00781	0.01707	0.52394	1, 6

Dose-Response Plot



Chironomid Test-Individual AFDW

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070929
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-61				

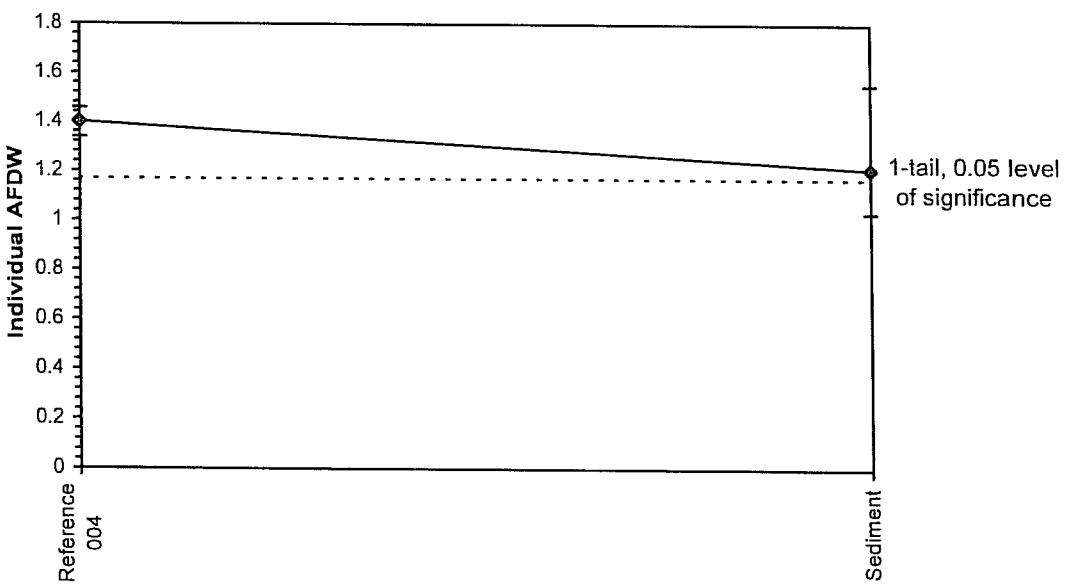
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.1130	1.1438	1.5533	1.0322

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.2106	0.8657	1.2106	1.0322	1.5533	19.271	4	1.572	1.943	0.2322

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.85406	0.749	1.65787	3.65902
F-Test indicates equal variances (p = 0.03)	20.3531	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.23217	0.16602	0.07058	0.02855	0.16693	1, 6

Dose-Response Plot



ToxCalc v5.0.23

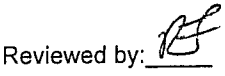
Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070931
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	11	11	0	0	0.92	932.56	951.39	18.83	1.71	939.12	12.27	1.12
	6	2	Sediment	12	7	4	0	3	0.58	931.55	942.77	11.22	2.81	935.03	7.74	1.94
	7	3	Sediment	12	12	12	0	0	1.00	931.88	951.75	19.87	1.66	938.50	13.25	1.10
	8	4	Sediment	12	12	12	0	0	1.00	927.79	946.79	19.00	1.58	935.06	11.73	0.98

Comments: STN-64

Reviewed by: 

Chironomid Test-Individual AFDW

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070931
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-64				

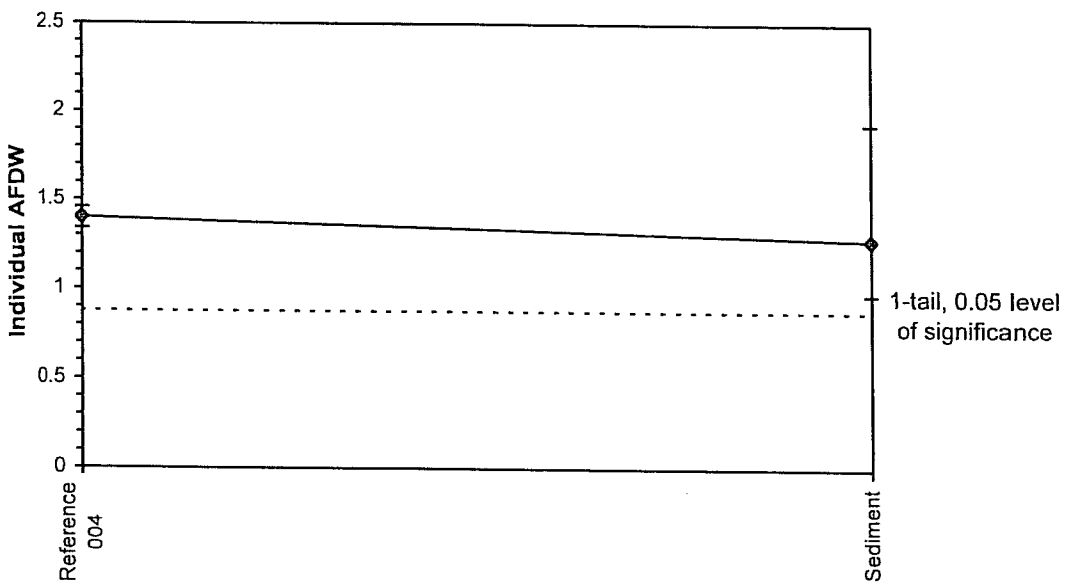
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.1155	1.9350	1.1042	0.9775

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.2830	0.9175	1.2830	0.9775	1.9350	34.225	4	0.522	2.353	0.5203

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.81146	0.749	1.87023	4.43938
F-Test indicates unequal variances (p = 5.41E-03)	72.1094	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Heteroscedastic t Test indicates no significant differences Treatments vs Reference 004	0.52028	0.37204	0.02664	0.09775	0.62036	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070937
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	12	11	1	0	1.00	929.17	947.44	18.27	1.66	937.21	10.23	0.93
	6	2	Sediment	12	8	8	0	0	0.67	930.79	950.45	19.66	2.46	938.92	11.53	1.44
	7	3	Sediment	12	9	7	2	0	0.75	928.06	942.89	14.83	2.12	933.33	9.56	1.37
	8	4	Sediment	12	10	10	0	0	0.83	932.64	952.55	19.91	1.99	939.77	12.78	1.28

Comments: STN-67

Reviewed by: RE

Chironomid Test-Percent Survived

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070937
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-67				

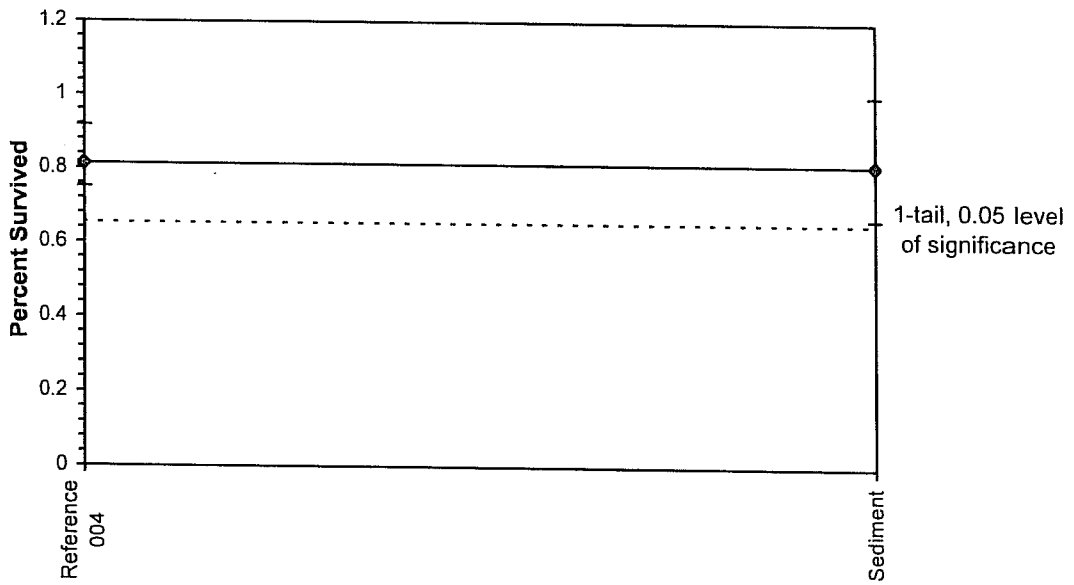
Conc-%	1	2	3	4
Reference 004	0.7500	0.8333	0.9167	0.7500
Sediment	1.0000	0.6667	0.7500	0.8333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	0.8125	1.0000	0.8125	0.7500	0.9167	9.820	4			
Sediment	0.8125	1.0000	0.8125	0.6667	1.0000	17.516	4	0.000	1.943	0.1585

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9378	0.749	0.61058	-0.0212
F-Test indicates equal variances (p = 0.37)	3.18182	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.15852	0.1951	0	0.01331	1	1, 6

Dose-Response Plot



Chironomid Test-Individual AFDW

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070937
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-67				

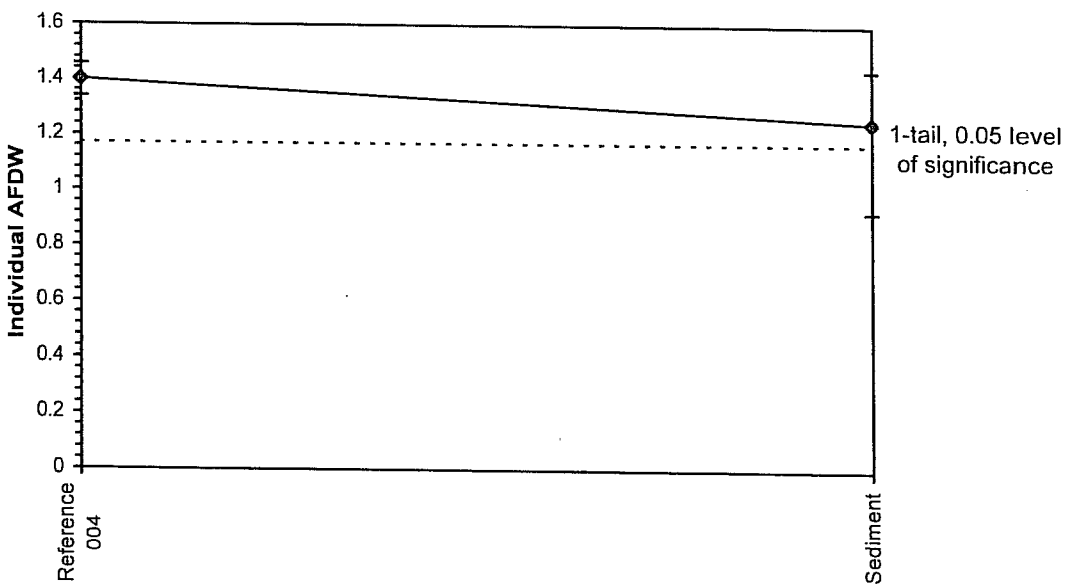
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	0.9300	1.4413	1.3657	1.2780

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.2537	0.8965	1.2537	0.9300	1.4413	18.018	4	1.249	1.943	0.2252

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88546	0.749	-1.4164	3.12758
F-Test indicates equal variances (p = 0.04)	19.0835	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.22516	0.16101	0.04187	0.02685	0.25827	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Test ID: 27-303 (1)
Species: CT-Chironomous tentans
Protocol: EPA 600 MA
Sample ID: 20070955
Sample Type: Sediment
Start Date: 12/1/2007 End Date: 12/20/2007
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	4	4	0	0	0.33	931.38	936.42	5.04	1.26	932.22	4.20	1.05
	6	2	Sediment	12	1	1	0	0	0.08	928.66	931.24	2.58	2.58	929.15	2.09	2.09
	7	3	Sediment	12	5	5	0	0	0.42	906.87	915.63	8.76	1.75	908.57	7.06	1.41
	8	4	Sediment	12	3	3	0	0	0.25	932.19	938.20	6.01	2.00	933.22	4.98	1.66

Comments: STN-69

Reviewed by: RF

Chironomid Test-Percent Survived

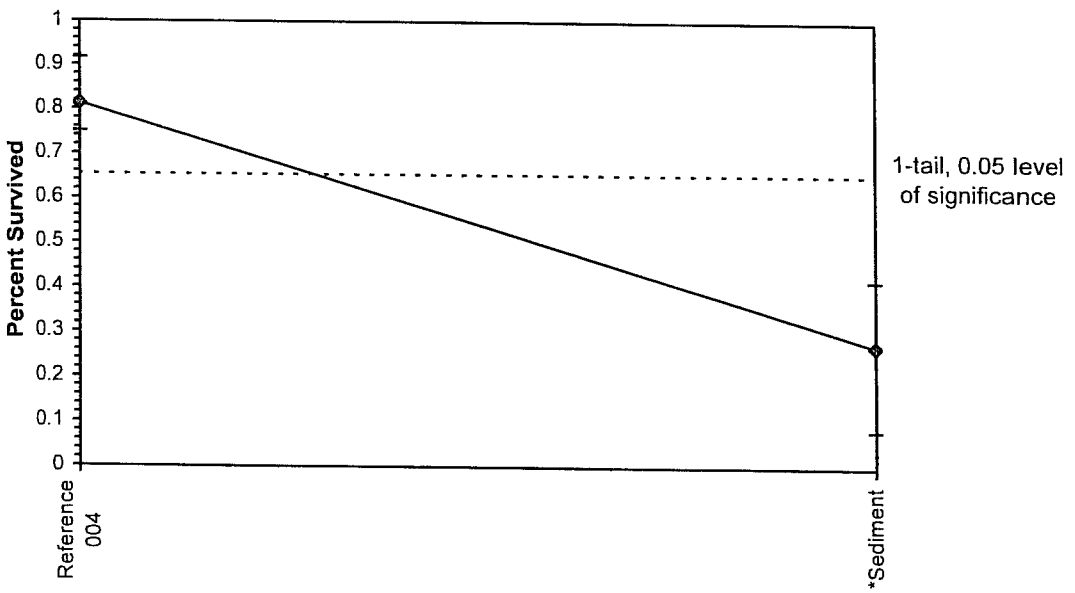
Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070955
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-69				

Conc-%	1	2	3	4
Reference 004	0.7500	0.8333	0.9167	0.7500
Sediment	0.3333	0.0833	0.4167	0.2500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	0.8125	1.0000	0.8125	0.7500	0.9167	9.820	4			
*Sediment	0.2708	0.3333	0.2708	0.0833	0.4167	52.548	4	6.640	1.943	0.1585

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97185		0.749		-0.4071	-0.0212
F-Test indicates equal variances (p = 0.37)	3.18182		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference 004	0.15852	0.1951	0.58681	0.01331	5.6E-04	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070934
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	11	11	0	0	0.92	924.27	945.75	21.48	1.95	930.95	14.80	1.35
	6	2	Sediment	12	11	11	0	0	0.92	928.47	951.70	23.23	2.11	936.43	15.27	1.39
	7	3	Sediment	12	9	6	3	0	0.75	921.14	933.38	12.24	2.04	924.38	9.00	1.50
	8	4	Sediment	12	12	12	0	0	1.00	929.38	947.09	17.71	1.48	935.08	12.01	1.00

Comments: STN-71

Reviewed by: RF

Chironomid Test-Individual AFDW

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070934
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-71				

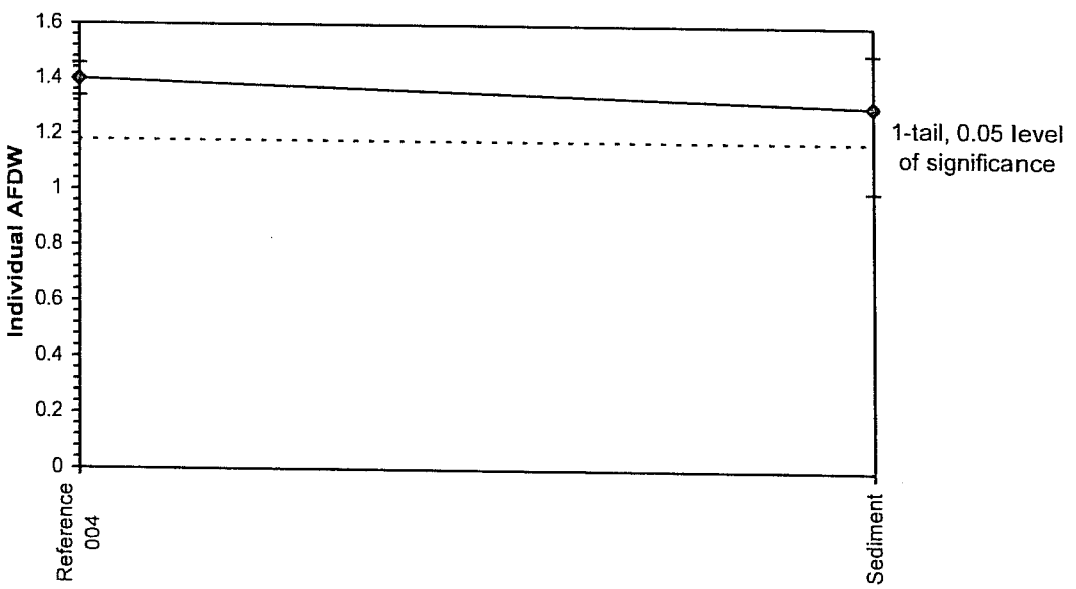
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.3455	1.3882	1.5000	1.0008

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.3086	0.9358	1.3086	1.0008	1.5000	16.452	4	0.811	1.943	0.2151

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88502	0.749	-1.3535	3.16465
F-Test indicates equal variances (p = 0.04)	17.3323	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.21512	0.15383	0.01614	0.02451	0.44815	1, 6

Dose-Response Plot



Test: CT-Chironomid Test									Test ID: 27-303 (1)							
Species: CT-Chironomous tentans									Protocol: EPA 600 MA							
Sample ID: 20070932									Sample Type: Sediment							
Start Date: 12/1/2007			End Date: 12/20/2007						Lab ID: ASI-Aqua Survey Inc.							
Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	control	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	control	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	control	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	control	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	sediment	12	13	9	0	4	1.08	910.56	929.56	19.00	2.11	917.41	12.15	1.35
	6	2	sediment	12	12	10	0	2	1.00	917.63	938.06	20.43	2.04	925.05	13.01	1.30
	7	3	sediment	12	10	8	2	0	0.83	911.67	925.98	14.31	1.79	917.20	8.78	1.10
	8	4	sediment	12	11	10	1	0	0.92	922.16	942.83	20.67	2.07	927.00	15.83	1.58

Comments: STN-124

Reviewed by: 

Chironomid Test-Individual AFDW

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070932
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-124				

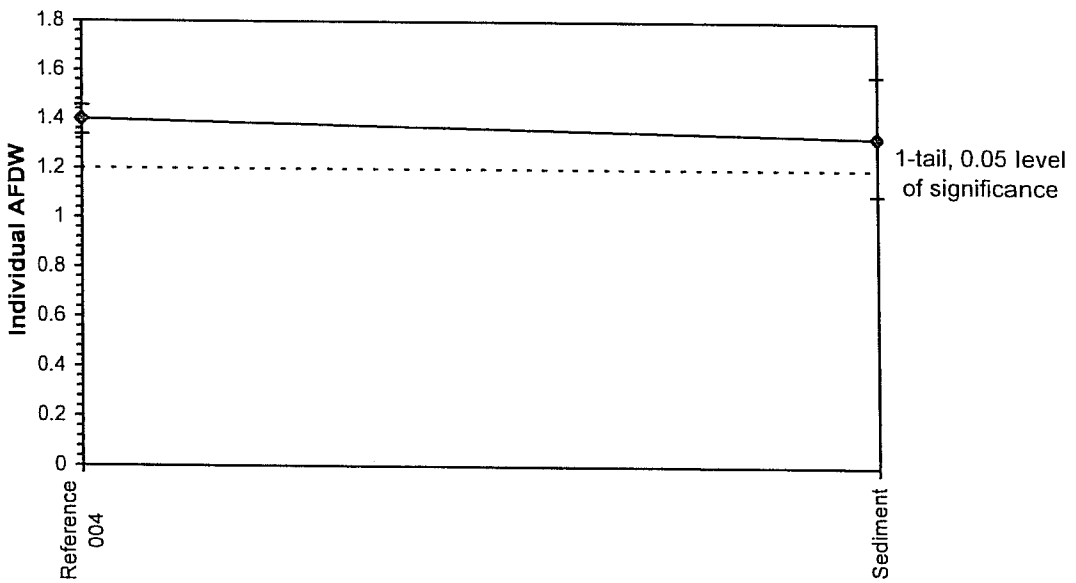
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.3500	1.3010	1.0975	1.5830

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.3329	0.9531	1.3329	1.0975	1.5830	14.960	4	0.637	1.943	0.2001

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92544	0.749	0.19683	2.36759
F-Test indicates equal variances (p = 0.05)	14.8676	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.20014	0.14312	0.0086	0.02122	0.54791	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070933
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	12	11	0	1	1.00	911.18	932.29	21.11	1.92	919.95	12.34	1.12
	6	2	Sediment	12	11	11	0	0	0.92	909.92	931.29	21.37	1.94	918.26	13.03	1.18
	7	3	Sediment	12	12	11	1	0	1.00	910.23	929.98	19.75	1.80	918.05	11.93	1.08
	8	4	Sediment	12	8	6	2	0	0.67	908.53	922.33	13.80	2.30	913.36	8.97	1.50

Comments: STN-125

Reviewed by: RF

Chironomid Test-Individual AFDW

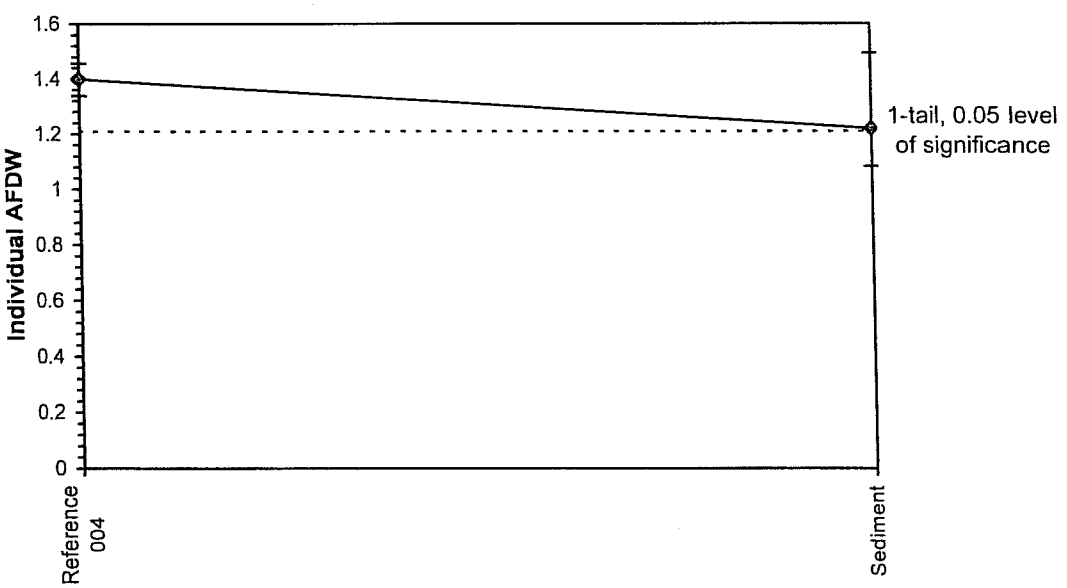
Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070933
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-125				

Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.1218	1.1845	1.0845	1.4950

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
Sediment	1.2215	0.8735	1.2215	1.0845	1.4950	15.306	4	1.825	1.943	0.1885

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.87293		0.749		1.56344	3.10887
F-Test indicates equal variances (p = 0.06)	13.0711		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 004	0.18847	0.13477	0.06263	0.01881	0.11788	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070935
Start Date: 12/1/2007 End Date: 12/20/2007

Test ID: 27-303 (1)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 004	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	2	2	Reference 004	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	3	3	Reference 004	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	4	4	Reference 004	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	5	1	Sediment	12	11	9	1	1	0.92	910.44	928.05	17.61	1.96	916.20	11.85	1.32
	6	2	Sediment	12	12	12	0	0	1.00	908.17	931.25	23.08	1.92	916.11	15.14	1.26
	7	3	Sediment	12	6	6	0	0	0.50	906.55	916.85	10.30	1.72	909.59	7.26	1.21
	8	4	Sediment	12	11	10	1	0	0.92	906.19	924.88	18.69	1.87	913.50	11.38	1.14

Comments: STN-126

Reviewed by: RF

Chironomid Test-Individual AFDW

Start Date:	12/1/2007	Test ID:	27-303 (1)	Sample ID:	20070935
End Date:	12/20/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-126				

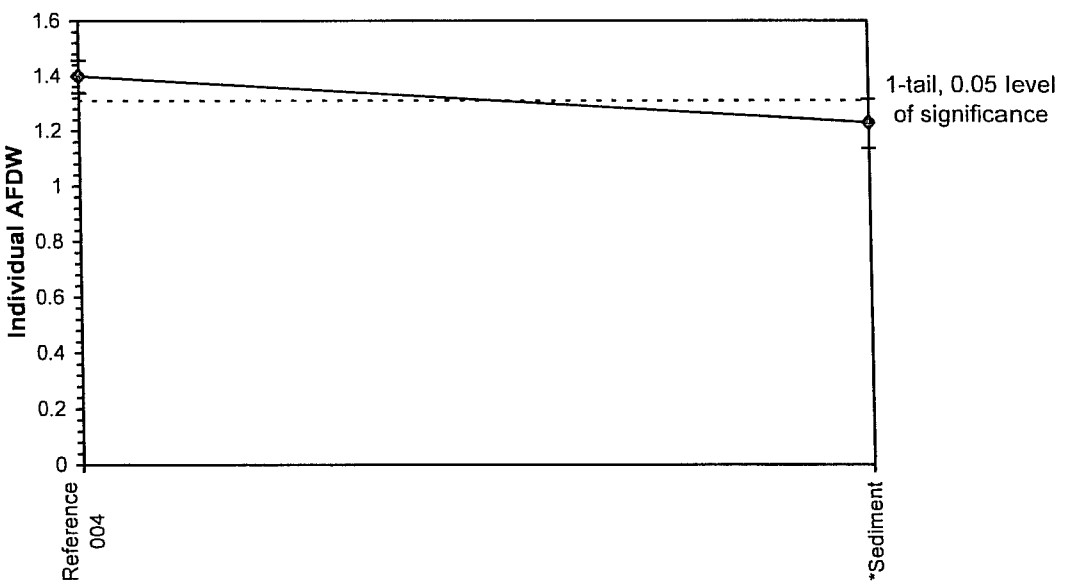
Conc-%	1	2	3	4
Reference 004	1.4233	1.3367	1.4550	1.3788
Sediment	1.3167	1.2617	1.2100	1.1380

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 004	1.3984	1.0000	1.3984	1.3367	1.4550	3.698	4			
*Sediment	1.2316	0.8807	1.2316	1.1380	1.3167	6.178	4	3.627	1.943	0.0894

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97175	0.749	-0.2035	-0.8484
F-Test indicates equal variances (p = 0.54)	2.16493	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 004	0.08938	0.06392	0.05568	0.00423	0.011	1, 6

Dose-Response Plot



REF-SD 010

Test: CT-Chironomid Test | Test ID: 27-303 (2)
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: 20070945 | Sample Type: Sediment
Start Date: 12/3/2007 End Date: 12/23/2007 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 010	12	5	5	0	0	0.42	955.60	957.74	2.14	0.43	956.02	1.72	0.34
	2	2	Reference 010	12	4	4	0	0	0.33	956.24	958.16	1.92	0.48	956.56	1.60	0.40
	3	3	Reference 010	12	2	2	0	0	0.17	958.29	959.32	1.03	0.52	958.51	0.81	0.41
	4	4	Reference 010	12	2	2	0	0	0.17	950.22	950.50	0.28	0.14	950.25	0.25	0.13
	5	1	Sediment	12	0	0	0	0	0.00	935.22	0.00	0.00		0.00	0.00	
	6	2	Sediment	12	3	3	0	0	0.25	934.40	941.25	6.85	2.28	936.62	4.63	1.54
	7	3	Sediment	12	1	1	0	0	0.08	904.17	908.30	4.13	4.13	905.55	2.75	2.75
	8	4	Sediment	12	4	4	0	0	0.33	903.97	912.55	8.58	2.14	905.88	6.67	1.67

Comments: STN-120

Chironomid Test-Percent Survived

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070945
End Date:	12/23/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-120				

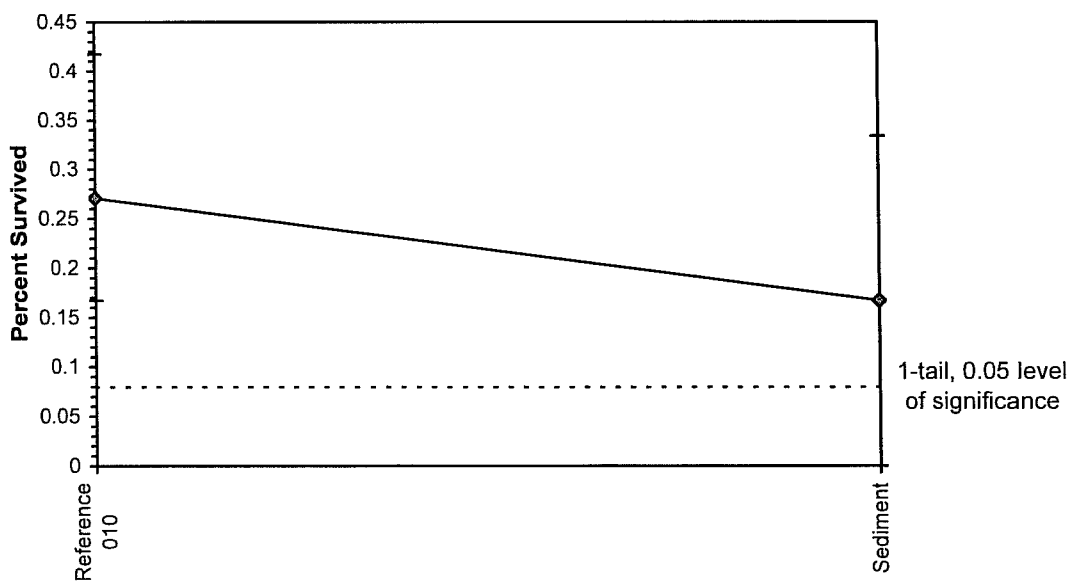
Conc-%	1	2	3	4
Reference 010	0.4167	0.3333	0.1667	0.1667
Sediment	0.0000	0.2500	0.0833	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 010	0.2708	1.0000	0.2708	0.1667	0.4167	46.154	4			
Sediment	0.1667	0.6154	0.1667	0.0000	0.3333	91.287	4	1.058	1.943	0.1913

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88969	0.749	0.09649	-1.9912
F-Test indicates equal variances (p = 0.75)	1.48148	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 010	0.19131	0.70639	0.0217	0.01939	0.33077	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

REF-SD027

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070939
Start Date: 12/3/2007 End Date: 12/23/2007

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	2	2	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	3	3	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	4	4	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	5	1	Sediment	12	5	5	0	0	0.42	935.82	939.21	3.39	0.68	936.76	2.45	0.49
	6	2	Sediment	12	10	10	0	0	0.83	945.28	953.64	8.36	0.84	947.65	5.99	0.60
	7	3	Sediment	12	12	12	0	0	1.00	946.31	950.01	3.70	0.31	947.20	2.81	0.23
	8	4	Sediment	12	4	4	0	0	0.33	942.45	945.79	3.34	0.83	943.12	2.67	0.67

Comments: STN-63

Ref- 50027

Chironomid Test-Percent Survived

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070939
End Date:	12/23/2007	Lab ID:	ASI	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-63				

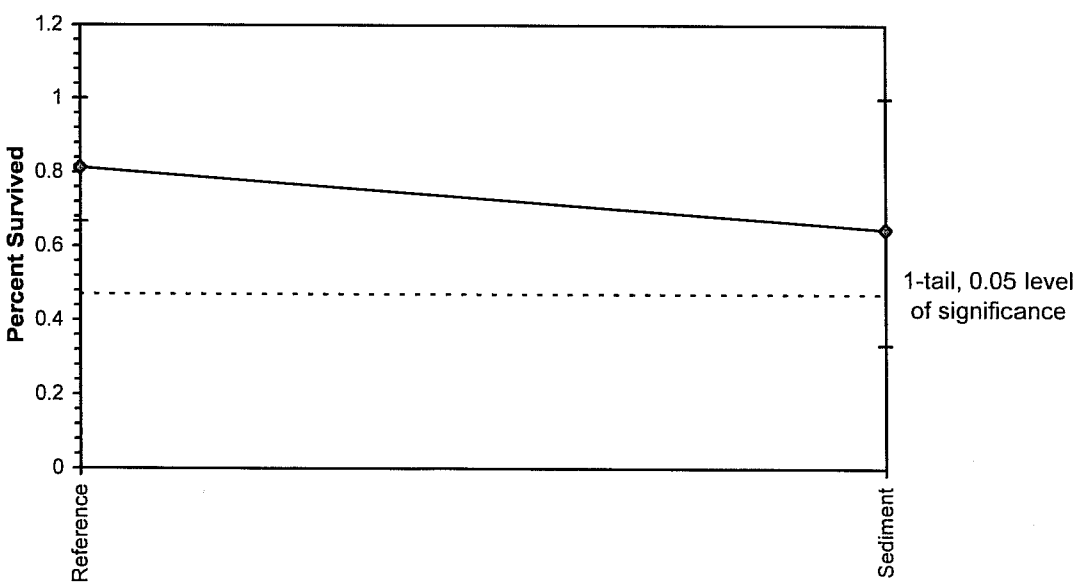
Conc-%	1	2	3	4
Reference	0.7500	0.6667	1.0000	0.8333
Sediment	0.4167	0.8333	1.0000	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	0.8125	1.0000	0.8125	0.6667	1.0000	17.516	4			
Sediment	0.6458	0.7949	0.6458	0.3333	1.0000	49.835	4	0.947	1.943	0.3419

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96276	0.749	0.18255	-1.1309
F-Test indicates equal variances (p = 0.21)	5.11429	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference	0.34191	0.42082	0.05556	0.06192	0.3801	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

REF-SD 027

Chironomid Test-Individual AFDW

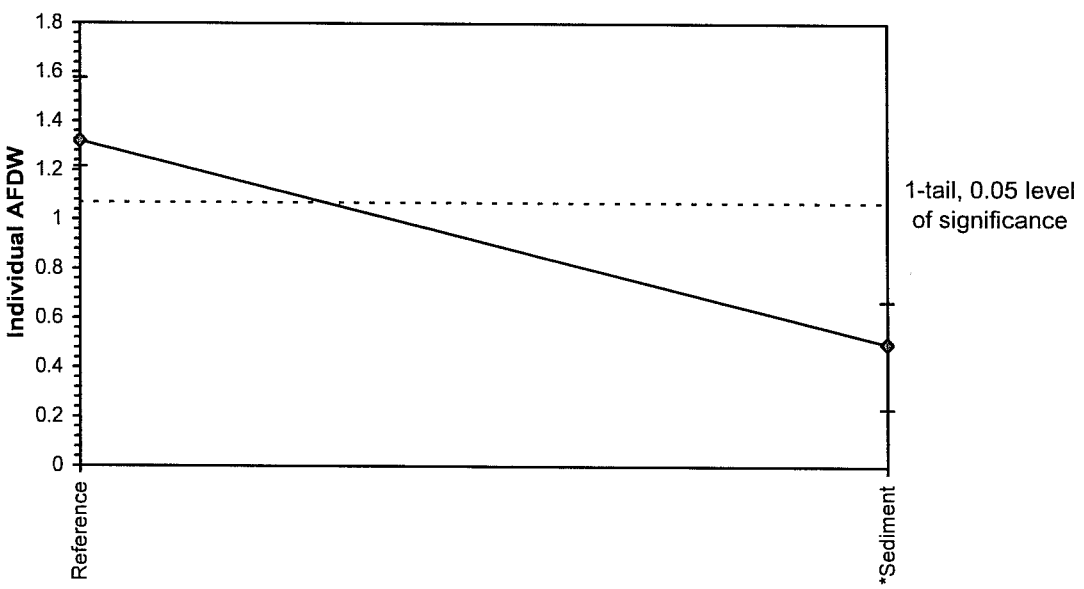
Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070939
End Date:	12/23/2007	Lab ID:	ASI	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-63				

Conc-%	1	2	3	4
Reference	1.2456	1.5750	1.2140	1.2389
Sediment	0.4900	0.5990	0.2342	0.6675

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	1.3184	1.0000	1.3184	1.2140	1.5750	13.018	4			
*Sediment	0.4977	0.3775	0.4977	0.2342	0.6675	38.232	4	6.406	1.943	0.2490

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96824		0.749		0.10177	-0.4475
F-Test indicates equal variances (p = 0.87)	1.22894		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference	0.24896	0.18884	1.34708	0.03283	6.8E-04	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Ref-SD027

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070943
Start Date: 12/3/2007 End Date: 12/23/2007

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	2	2	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	3	3	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	4	4	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	5	1	Sediment	12	10	10	0	0	0.83	943.43	964.29	20.86	2.09	950.81	13.48	1.35
	6	2	Sediment	12	6	6	0	0	0.50	939.82	956.27	16.45	2.74	944.39	11.88	1.98
	7	3	Sediment	12	11	10	1	0	0.92	935.36	951.64	16.28	1.63	940.11	11.53	1.15
	8	4	Sediment	12	11	10	1	0	0.92	929.29	944.98	15.69	1.57	934.50	10.48	1.05

Comments: STN-130

REF 027

Chironomid Test-Percent Survived

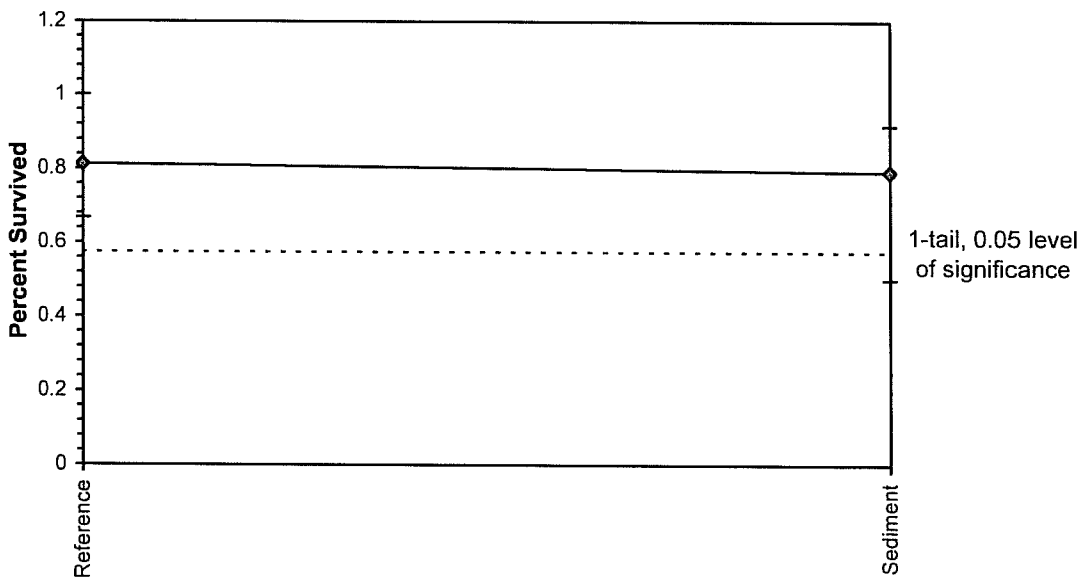
Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070943
End Date:	12/23/2007	Lab ID:	ASI	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-130				

Conc-%	1	2	3	4
Reference	0.7500	0.6667	1.0000	0.8333
Sediment	0.8333	0.5000	0.9167	0.9167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	0.8125	1.0000	0.8125	0.6667	1.0000	17.516	4			
Sediment	0.7917	0.9744	0.7917	0.5000	0.9167	25.058	4	0.171	1.943	0.2372

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93792		0.749		-0.82	0.05536
F-Test indicates equal variances (p = 0.60)	1.94286		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference	0.23721	0.29195	0.00087	0.0298	0.8701	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

REF-SD027

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070942
Start Date: 12/3/2007 End Date: 12/23/2007

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 027	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	2	2	Reference 027	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	3	3	Reference 027	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	4	4	Reference 027	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	5	1	Sediment	12	10	9	1	0	0.83	924.87	940.00	15.13	1.68	928.85	11.15	1.24
	6	2	Sediment	12	0	0	0	0	0.00	920.39	0.00	0.00		0.00	0.00	
	7	3	Sediment	12	9	5	4	0	0.75	922.21	930.43	8.22	1.64	924.26	6.17	1.23
	8	4	Sediment	12	8	7	1	0	0.67	921.29	933.00	11.71	1.67	924.84	8.16	1.17

Comments: STN-131

Reviewed by:

Ref- 2 SD 027

Chironomid Test-Percent Survived

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070942
End Date:	12/23/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-131				

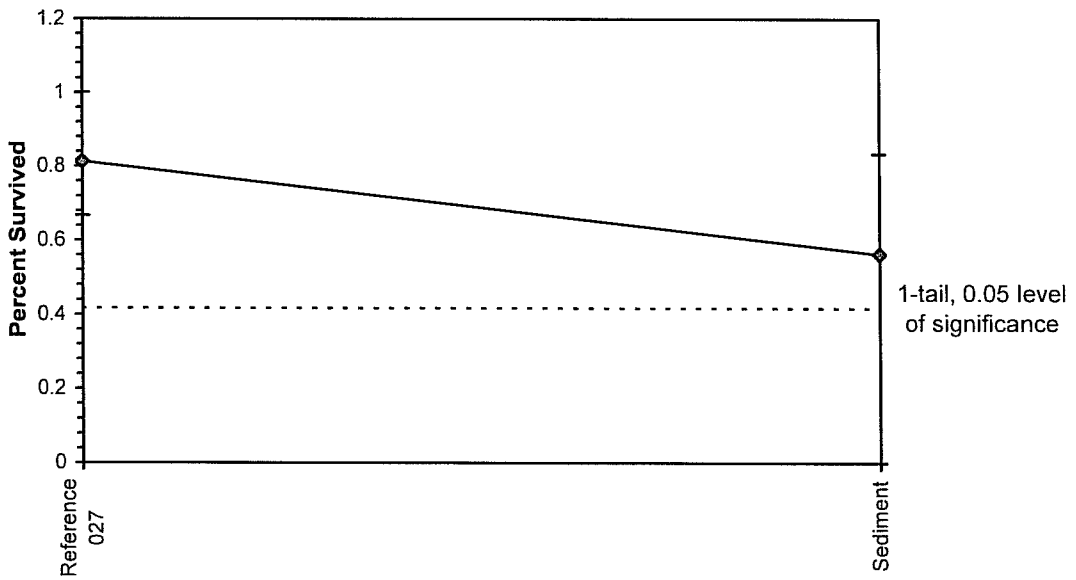
Conc-%	1	2	3	4
Reference 027	0.7500	0.6667	1.0000	0.8333
Sediment	0.8333	0.0000	0.7500	0.6667

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 027	0.8125	1.0000	0.8125	0.6667	1.0000	17.516	4			
Sediment	0.5625	0.6923	0.5625	0.0000	0.8333	67.755	4	1.229	1.943	0.3953

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.87212	0.749	-1.4835	2.49698
F-Test indicates equal variances (p = 0.14)	7.17143	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 027	0.39527	0.48649	0.125	0.08275	0.26507	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Ref- SD 027

Chironomid Test-Individual AFDW

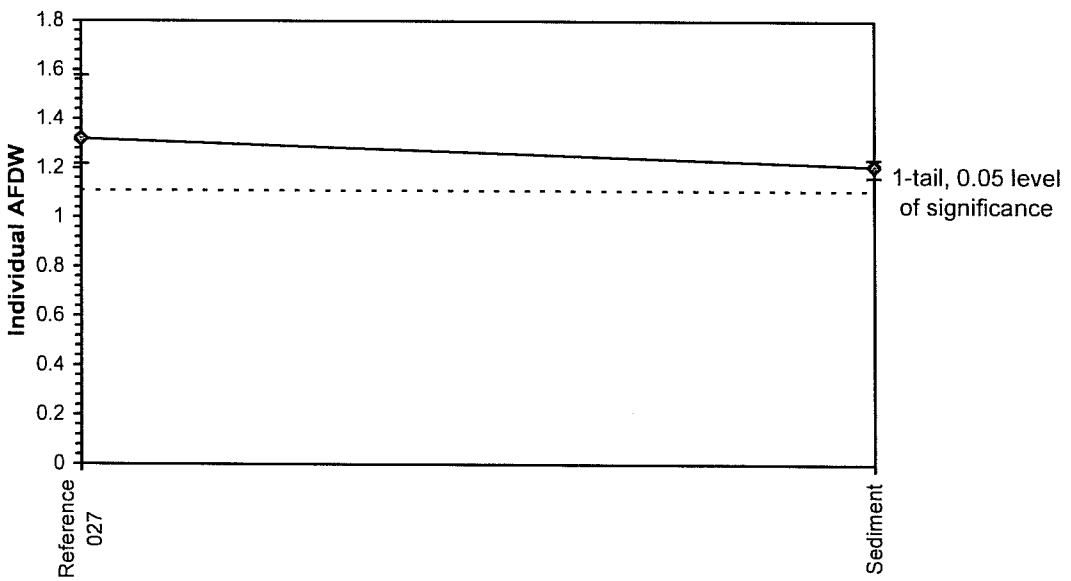
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End Date:	12/23/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-131				

Conc-%	1	2	3	4
Reference 027	1.2456	1.5750	1.2140	1.2389
Sediment	1.2389	1.2340	1.1657	

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 027	1.3184	1.0000	1.3184	1.2140	1.5750	13.018	4			
Sediment	1.2129	0.9200	1.2129	1.1657	1.2389	3.373	3	1.020	2.015	0.2084

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.79569		0.73		1.82729	3.64722
F-Test indicates equal variances (p = 0.11)	17.6014		199.166			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 027	0.20844	0.15811	0.01908	0.01834	0.3546	1, 5

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

REF-SD027

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070949
Start Date: 12/3/2007 End Date: 12/23/2007

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	2	2	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	3	3	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	4	4	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	5	1	Sediment	12	9	9	0	0	0.75	930.81	934.44	3.63	0.40	931.87	2.57	0.29
	6	2	Sediment	12	8	8	0	0	0.67	942.83	946.82	3.99	0.50	943.90	2.92	0.37
	7	3	Sediment	12	9	9	0	0	0.75	938.60	942.82	4.22	0.47	940.03	2.79	0.31
	8	4	Sediment	12	9	8	0	1	0.75	938.02	942.80	4.78	0.60	939.39	3.41	0.43

Comments: STN-132

Reviewed by:_____

REF 027

Chironomid Test-Percent Survived

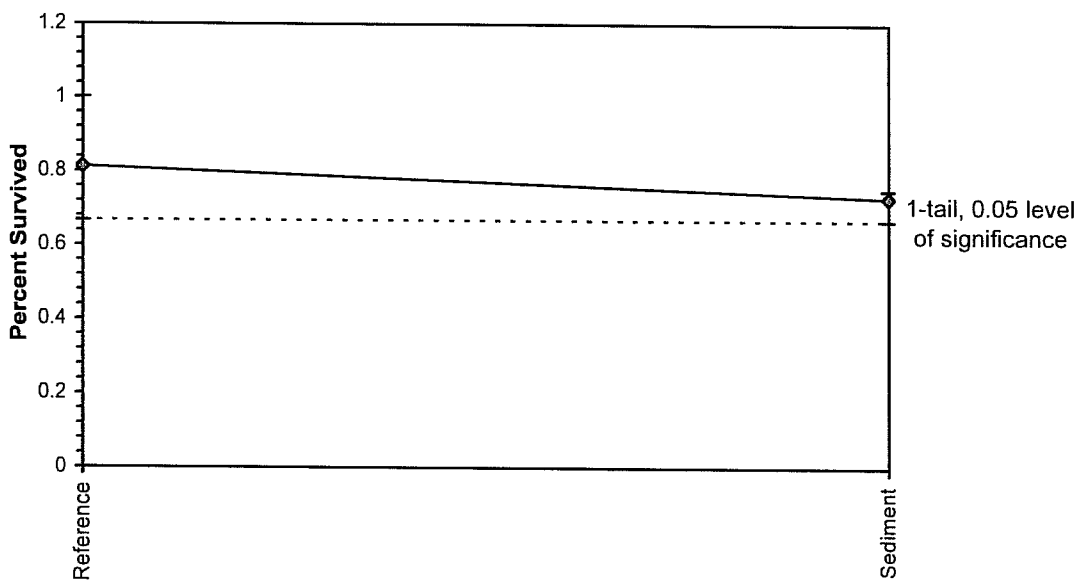
Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070949
End Date:	12/23/2007	Lab ID:	ASI	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-132				

Conc-%	1	2	3	4
Reference	0.7500	0.6667	1.0000	0.8333
Sediment	0.7500	0.6667	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	0.8125	1.0000	0.8125	0.6667	1.0000	17.516	4			
Sediment	0.7292	0.8974	0.7292	0.6667	0.7500	5.714	4	1.124	1.943	0.1441

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.8923		0.749		0.6325	1.7374
F-Test indicates equal variances (p = 0.07)	11.6667		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference	0.14408	0.17733	0.01389	0.011	0.304	1, 6

Dose-Response Plot



REF-SD027

Chironomid Test-Individual AFDW

Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070949
End Date:	12/23/2007	Lab ID:	ASI	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-132				

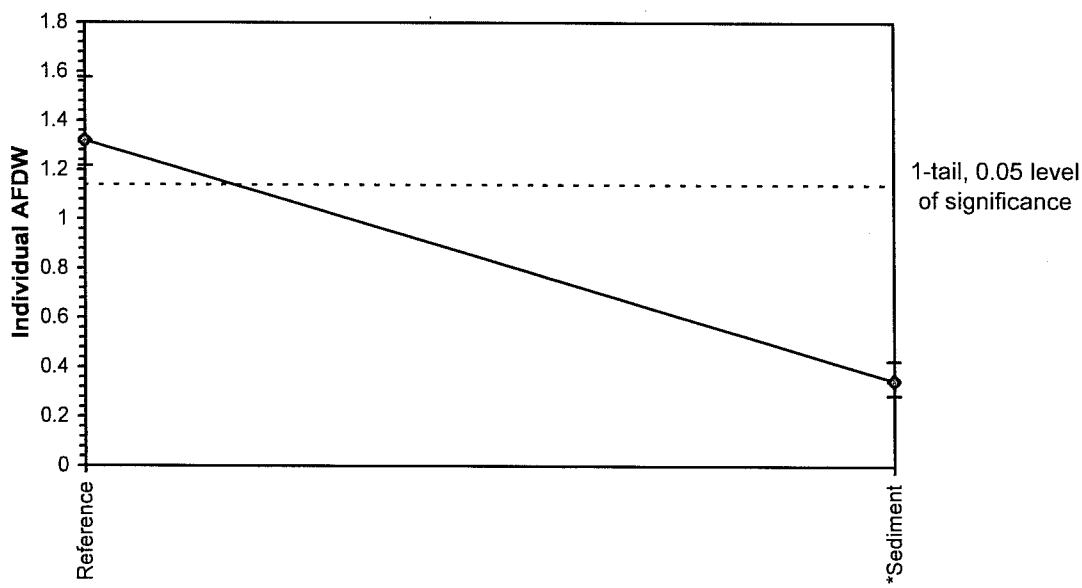
Conc-%	1	2	3	4
Reference	1.2456	1.5750	1.2140	1.2389
Sediment	0.2856	0.3650	0.3100	0.4262

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	1.3184	1.0000	1.3184	1.2140	1.5750	13.018	4			
*Sediment	0.3467	0.2630	0.3467	0.2856	0.4262	18.050	4	10.638	1.943	0.1775

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.81722	0.749	1.68258	2.77692
F-Test indicates equal variances (p = 0.13)	7.52184	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference	0.17749	0.13463	1.88825	0.01669	4.1E-05	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

REF- SD027

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070956
Start Date: 12/3/2007 End Date: 12/23/2007

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	2	2	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	3	3	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	4	4	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	5	1	Sediment	12	10	10	0	0	0.83	943.99	957.69	13.70	1.37	948.12	9.57	0.96
	6	2	Sediment	12	11	11	0	0	0.92	923.01	935.45	12.44	1.13	927.04	8.41	0.76
	7	3	Sediment	12	10	10	0	0	0.83	925.95	937.69	11.74	1.17	929.79	7.90	0.79
	8	4	Sediment	12	9	8	1	0	0.75	910.79	922.07	11.28	1.41	913.72	8.35	1.04

Comments: STN-133

Reviewed by:

REF-SD027

Chironomid Test-Individual AFDW

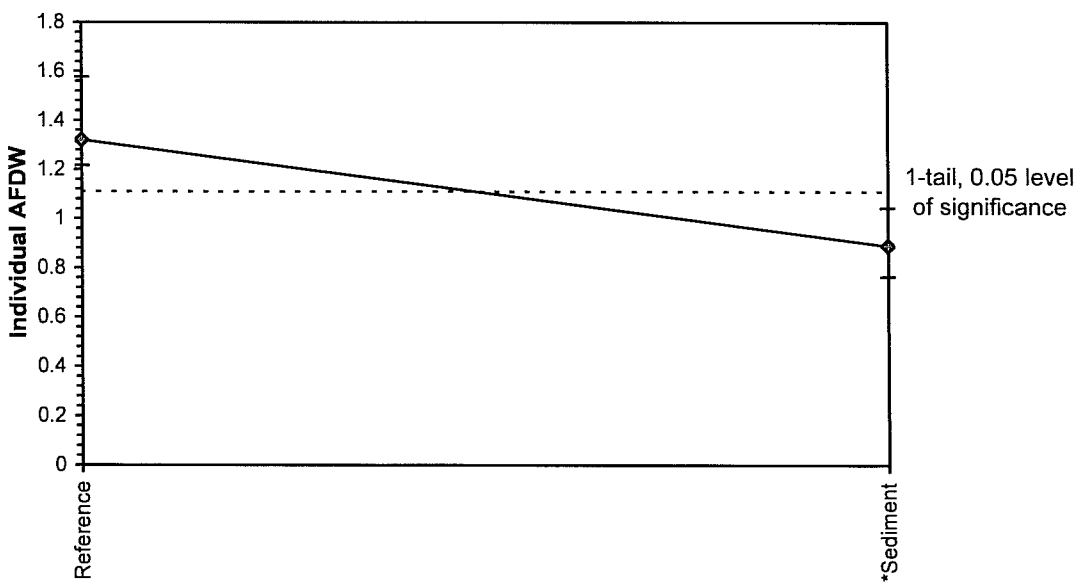
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End Date:	12/23/2007	Lab ID:	ASI	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-133				

Conc-%	1	2	3	4
Reference	1.2456	1.5750	1.2140	1.2389
Sediment	0.9567	0.7645	0.7900	1.0438

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	1.3184	1.0000	1.3184	1.2140	1.5750	13.018	4			
*Sediment	0.8887	0.6741	0.8887	0.7645	1.0438	15.071	4	3.947	1.943	0.2115

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.82247		0.749		1.05514	-0.3663
F-Test indicates equal variances (p = 0.69)	1.64196		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference	0.21152	0.16044	0.36913	0.0237	0.00757	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Ref. 25D 027

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070945
Start Date: 12/3/2007 End Date: 12/23/2007

Test ID: 27-303 (2)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 027	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	2	2	Reference 027	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	3	3	Reference 027	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	4	4	Reference 027	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	5	1	Sediment	12	0	0	0	0	0.00	935.22	0.00	0.00		0.00	0.00	
	6	2	Sediment	12	3	3	0	0	0.25	934.40	941.25	6.85	2.28	936.62	4.63	1.54
	7	3	Sediment	12	1	1	0	0	0.08	904.17	908.30	4.13	4.13	905.55	2.75	2.75
	8	4	Sediment	12	4	4	0	0	0.33	903.97	912.55	8.58	2.14	905.88	6.67	1.67

Comments: STN-120

Ref- SD 027

Chironomid Test-Percent Survived

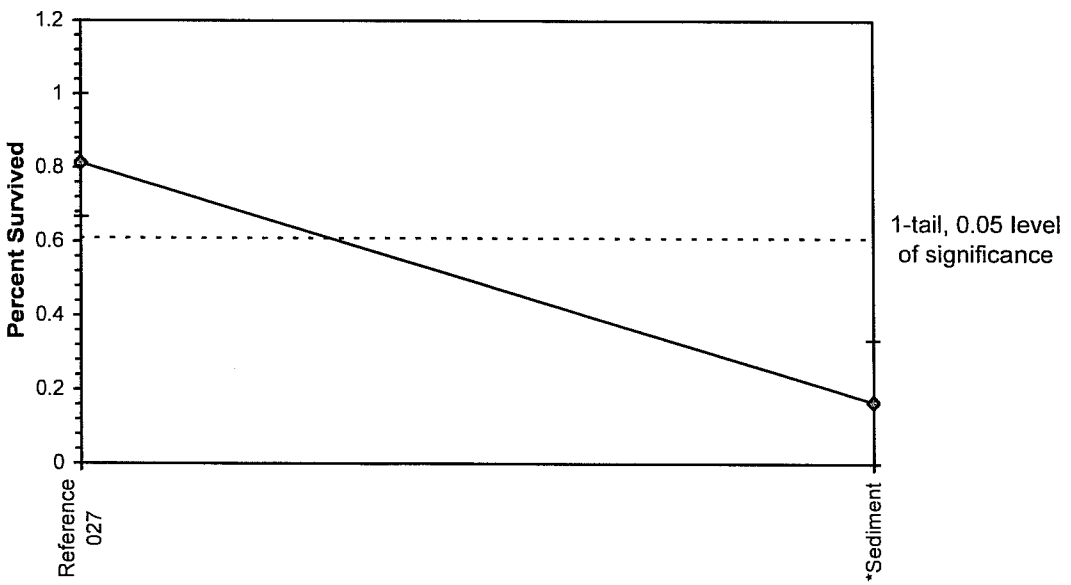
Start Date:	12/3/2007	Test ID:	27-303 (2)	Sample ID:	20070945
End Date:	12/23/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-120				

Conc-%	1	2	3	4
Reference 027	0.7500	0.6667	1.0000	0.8333
Sediment	0.0000	0.2500	0.0833	0.3333

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 027	0.8125	1.0000	0.8125	0.6667	1.0000	17.516	4			
*Sediment	0.1667	0.2051	0.1667	0.0000	0.3333	91.287	4	6.200	1.943	0.2024

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92443		0.749		0.2444	-1.587
F-Test indicates equal variances (p = 0.92)	1.14286		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference 027	0.20241	0.24913	0.8342	0.0217	8.1E-04	1, 6

Dose-Response Plot



ToxCalc v5.0.23

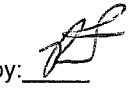
Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070959
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	9	7	1	1	0.75	937.64	947.81	10.17	1.45	939.58	8.23	1.18
	6	2	Sediment	12	11	11	0	0	0.92	939.99	956.81	16.82	1.53	944.46	12.35	1.12
	7	3	Sediment	12	9	9	0	0	0.75	926.22	940.11	13.89	1.54	930.08	10.03	1.11
	8	4	Sediment	12	11	11	0	0	0.92	920.56	934.50	13.94	1.27	923.97	10.53	0.96

Comments: STN-32

Reviewed by: 

Chironomid Test-Percent Survived

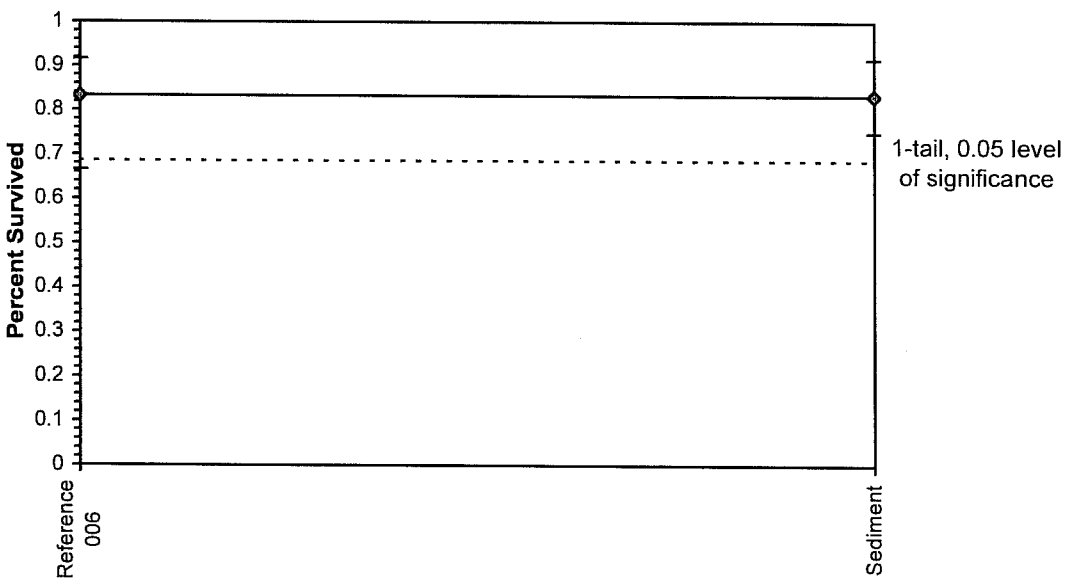
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-32				

Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.7500	0.9167	0.7500	0.9167

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
Sediment	0.8333	1.0000	0.8333	0.7500	0.9167	11.547	4	0.000	1.943	0.1478

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.81402		0.749		-0.6693	-1.204
F-Test indicates equal variances (p = 0.75)	1.5		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 006	0.14782	0.17739	8.9E-16	0.01157	1	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Chironomid Test-Individual AFDW

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-32				

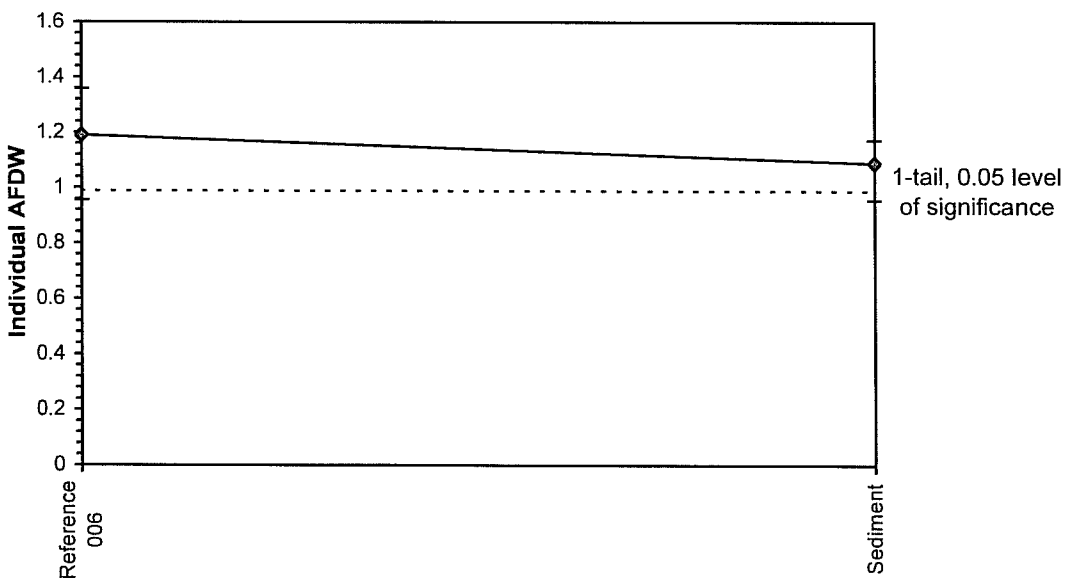
Conc-%	1	2	3	4
Reference 006	1.3009	0.9518	1.3550	1.1414
Sediment	1.1757	1.1227	1.1144	0.9573

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	1.1873	1.0000	1.1873	0.9518	1.3550	15.268	4			
Sediment	1.0925	0.9202	1.0925	0.9573	1.1757	8.620	4	0.928	1.943	0.1985

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95465	0.749	-0.7032	-0.162
F-Test indicates equal variances (p = 0.31)	3.70537	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 006	0.19848	0.16717	0.01795	0.02087	0.38939	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Test: CT-Chironomid Test
Test ID: 27-303 (3)
Species: CT-Chironomous tentans
Protocol: EPA 600 MA
Sample ID: 20070947
Sample Type: Sediment
Start Date: 12/7/2007 End Date: 12/27/2007
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	6	4	2	0	0.50	905.07	913.64	8.57	2.14	906.93	6.71	1.68
	6	2	Sediment	12	7	5	0	2	0.58	915.40	926.22	10.82	2.16	917.66	8.56	1.71
	7	3	Sediment	12	9	8	0	1	0.75	930.42	943.67	13.25	1.66	934.45	9.22	1.15
	8	4	Sediment	12	9	9	0	0	0.75	928.63	944.63	16.00	1.78	933.07	11.56	1.28

Comments: STN-56

Reviewed by: 

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070947
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-56				

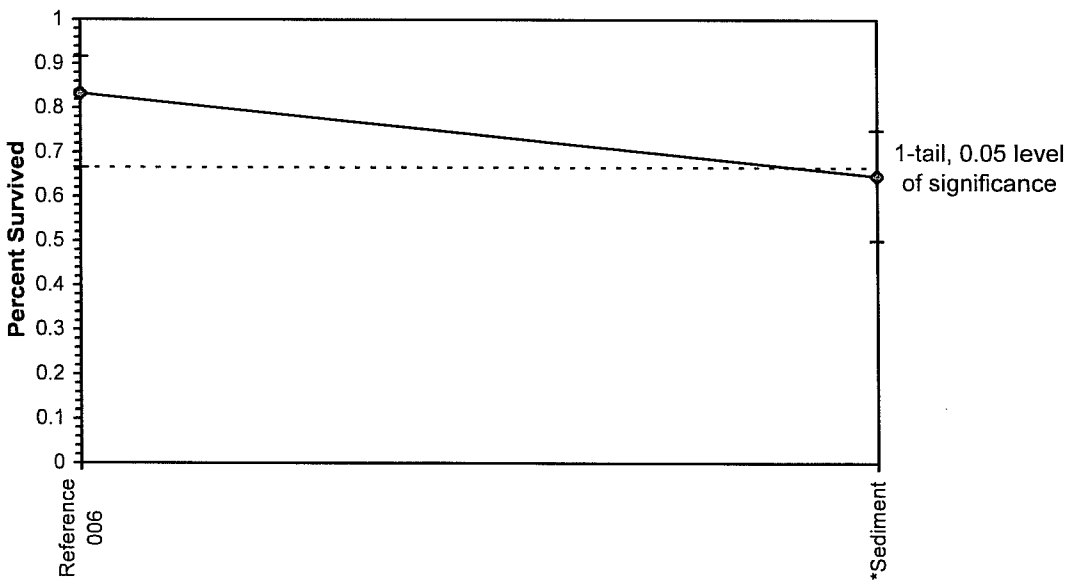
Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.5000	0.5833	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
*Sediment	0.6458	0.7750	0.6458	0.5000	0.7500	19.355	4	2.183	1.943	0.1669

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.84237	0.749	-0.6102	-1.5332
F-Test indicates equal variances (p = 0.93)	1.125	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 006	0.16692	0.2003	0.07031	0.01476	0.07178	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070936
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	10	10	0	0	0.83	915.10	928.20	13.10	1.31	918.10	10.10	1.01
	6	2	Sediment	12	9	9	0	0	0.75	924.08	936.34	12.26	1.36	926.75	9.59	1.07
	7	3	Sediment	12	11	11	0	0	0.92	939.93	955.61	15.68	1.43	944.00	11.61	1.06
	8	4	Sediment	12	12	12	0	0	1.00	941.60	955.82	14.22	1.19	945.50	10.32	0.86

Comments: STN-59

Reviewed by: 

Chironomid Test-Individual AFDW

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070936
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-59				

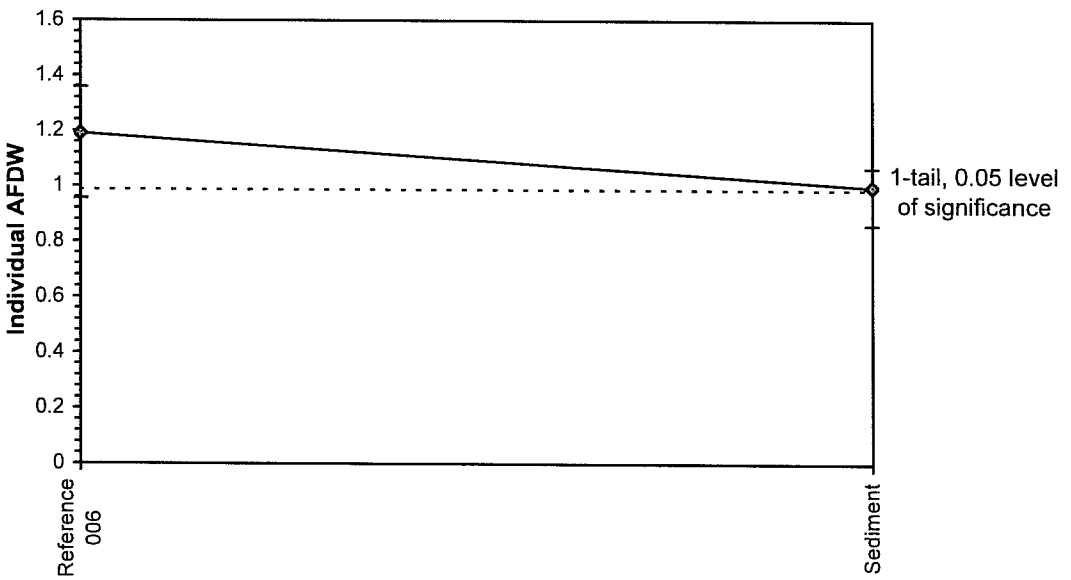
Conc-%	1	2	3	4
Reference 006	1.3009	0.9518	1.3550	1.1414
Sediment	1.0100	1.0656	1.0555	0.8600

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	1.1873	1.0000	1.1873	0.9518	1.3550	15.268	4			
Sediment	0.9978	0.8404	0.9978	0.8600	1.0656	9.517	4	1.852	1.943	0.1988

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95232	0.749	-0.719	-0.1864
F-Test indicates equal variances (p = 0.32)	3.64425	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 006	0.19883	0.16747	0.07185	0.02094	0.11342	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070944
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	4	3	1	0	0.33	929.29	936.30	7.01	2.34	930.28	6.02	2.01
	6	2	Sediment	12	3	1	2	0	0.25	928.99	930.66	1.67	1.67	929.35	1.31	1.31
	7	3	Sediment	12	4	4	0	0	0.33	933.81	943.19	9.38	2.35	935.14	8.05	2.01
	8	4	Sediment	12	6	6	0	0	0.50	937.26	946.81	9.55	1.59	939.20	7.61	1.27

Comments: STN-82

Reviewed by: 

Chironomid Test-Percent Survived

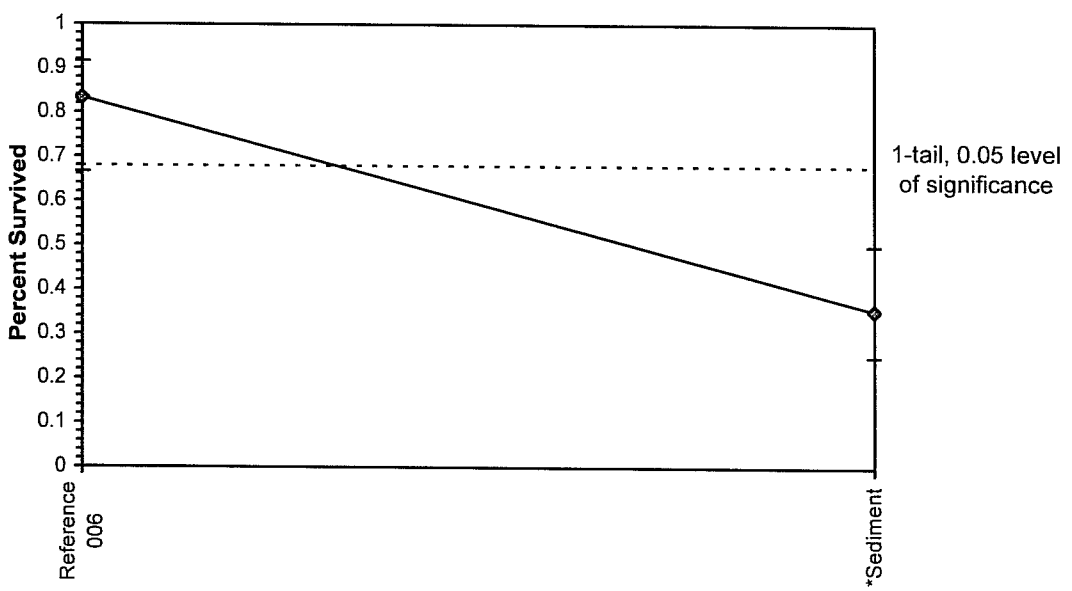
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-82				

Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.3333	0.2500	0.3333	0.5000

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
*Sediment	0.3542	0.4250	0.3542	0.2500	0.5000	29.607	4	6.075	1.943	0.1533

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96049		0.749		-0.2627	-0.5637
F-Test indicates equal variances (p = 0.85)	1.26316		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference 006	0.15327	0.18392	0.4592	0.01244	9.0E-04	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070958
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	2	2	0	0	0.17	914.04	918.06	4.02	2.01	914.46	3.60	1.80
	6	2	Sediment	12	3	3	0	0	0.25	909.79	916.38	6.59	2.20	910.55	5.83	1.94
	7	3	Sediment	12	3	3	0	0	0.25	918.92	924.96	6.04	2.01	919.86	5.10	1.70
	8	4	Sediment	12	1	1	0	0	0.08	916.56	917.36	0.80	0.80	916.74	0.62	0.62

Comments: STN-85

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-85				

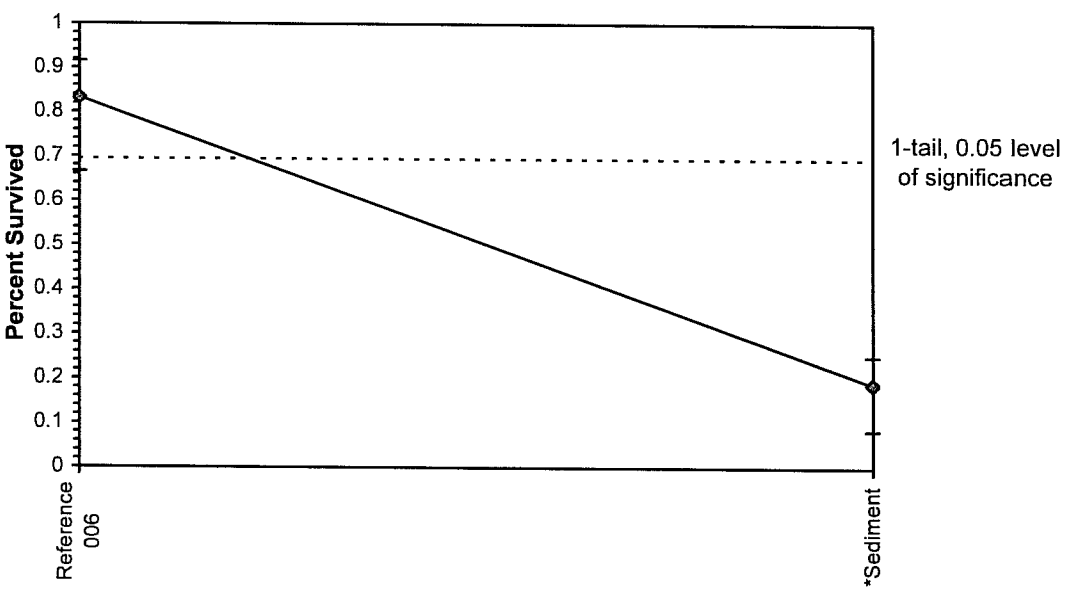
Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.1667	0.2500	0.2500	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
*Sediment	0.1875	0.2250	0.1875	0.0833	0.2500	42.552	4	9.076	1.943	0.1383

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.86044	0.749	-0.9711	-0.2749
F-Test indicates equal variances (p = 0.54)	2.18182	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 006	0.13828	0.16593	0.8342	0.01013	1.0E-04	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test								Test ID: 27-303 (3)								
Species: CT-Chironomous tentans								Protocol: EPA 600 MA								
Sample ID: 20070957								Sample Type: Sediment								
Start Date: 12/7/2007			End Date: 12/27/2007					Lab ID: ASI-Aqua Survey Inc.								
Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Ref 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Ref 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Ref 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Ref 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	8	4	4	0	0.67	934.20	940.90	6.70	1.67	936.10	4.80	1.20
	6	2	Sediment	12	9	8	1	0	0.75	920.05	932.12	12.07	1.51	922.89	9.23	1.15
	7	3	Sediment	12	12	12	0	0	1.00	913.77	929.87	16.10	1.34	918.58	11.29	0.94
	8	4	Sediment	12	9	9	0	0	0.75	911.11	925.27	14.16	1.57	915.61	9.66	1.07

Comments: STN-87

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	200700957
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-87				

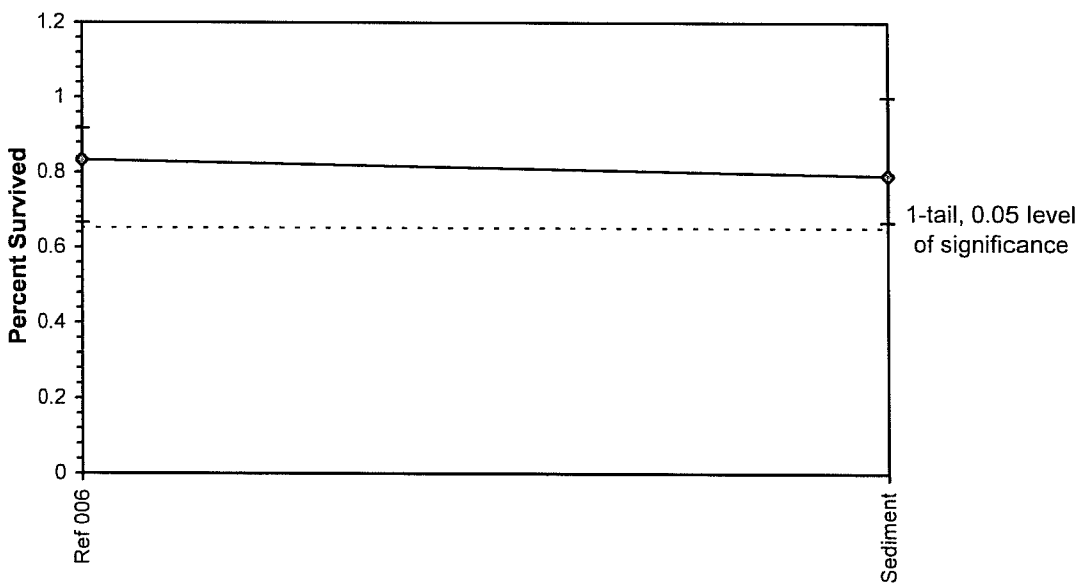
Conc-%	1	2	3	4
Ref 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.6667	0.7500	1.0000	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
Sediment	0.7917	0.9500	0.7917	0.6667	1.0000	18.232	4	0.447	1.943	0.1810

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96464	0.749	0.36434	-0.252
F-Test indicates equal variances (p = 0.75)	1.5	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref 006	0.18105	0.21725	0.00347	0.01736	0.67041	1, 6

Dose-Response Plot



Chironomid Test-Individual AFDW

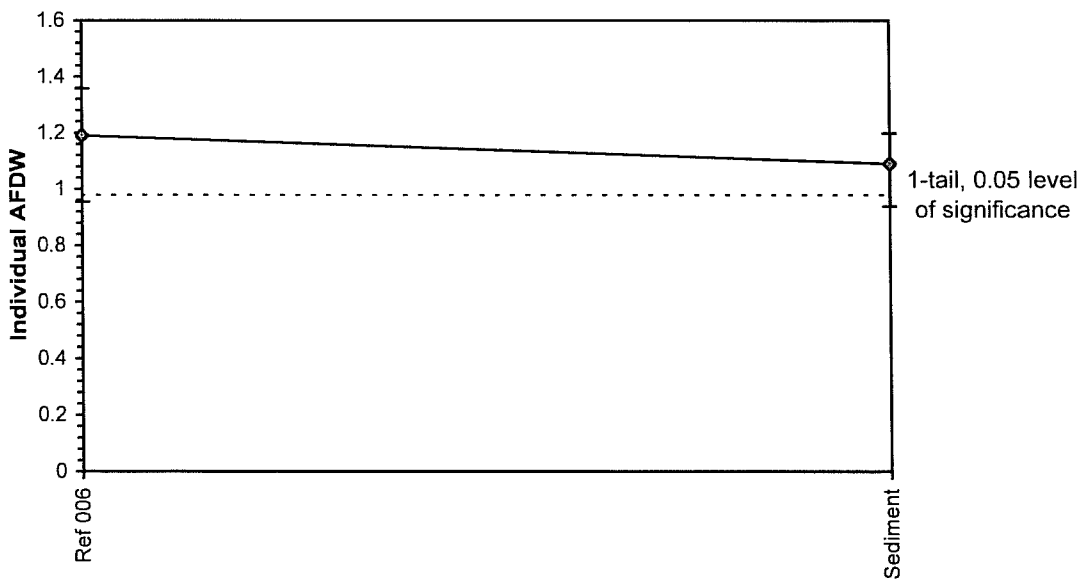
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	200700957
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-87				

Conc-%	1	2	3	4
Ref 006	1.3009	0.9518	1.3550	1.1414
Sediment	1.2000	1.1538	0.9408	1.0733

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 006	1.1873	1.0000	1.1873	0.9518	1.3550	15.268	4			
Sediment	1.0920	0.9197	1.0920	0.9408	1.2000	10.398	4	0.891	1.943	0.2078

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93951		0.749		-0.6196	-0.7009
F-Test indicates equal variances (p = 0.46)	2.54897		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Ref 006	0.20783	0.17504	0.01817	0.02288	0.40716	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070960
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	2	2	0	0	0.17	914.60	917.11	2.51	1.26	915.04	2.07	1.04
	6	2	Sediment	12	0	0	0	0	0.00	917.83	0.00	0.00		0.00	0.00	
	7	3	Sediment	12	1	1	0	0	0.08	924.77	925.66	0.89	0.89	925.11	0.55	0.55
	8	4	Sediment	12	1	1	0	0	0.08	921.75	924.17	2.42	2.42	922.08	2.09	2.09

Comments: STN-94

Reviewed by:____

Chironomid Test-Percent Survived

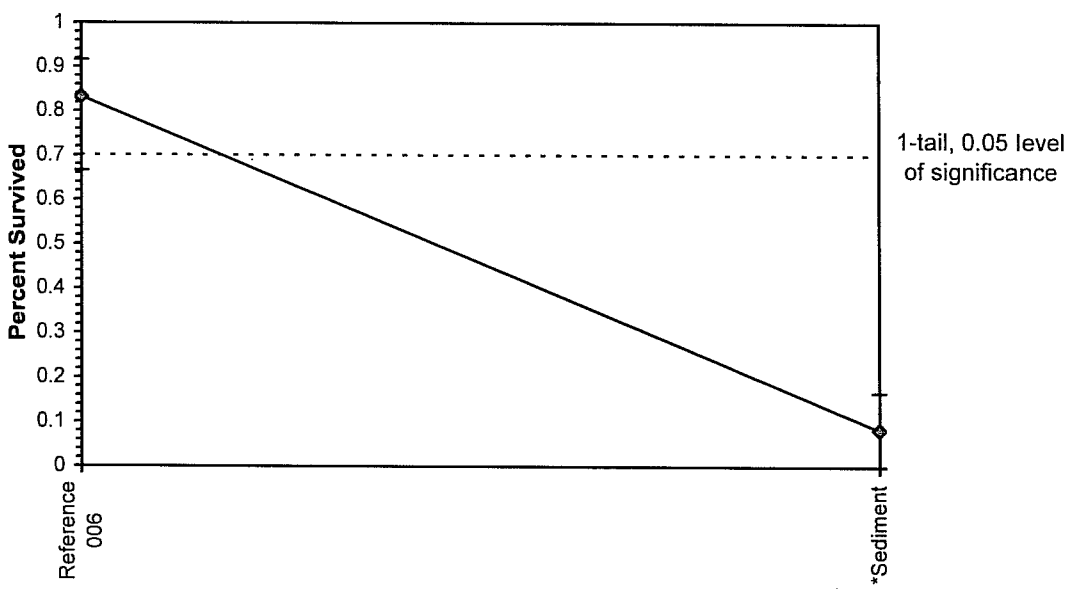
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-94				

Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.1667	0.0000	0.0833	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
*Sediment	0.0833	0.1000	0.0833	0.0000	0.1667	81.650	4	11.023	1.943	0.1322

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.85982		0.749		-0.9354	0.35
F-Test indicates equal variances (p = 0.39)	3		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference 006	0.13222	0.15866	1.125	0.00926	3.3E-05	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070954
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	5	4	1	0	0.42	907.75	915.24	7.49	1.87	909.55	5.69	1.42
	6	2	Sediment	12	8	7	1	0	0.67	907.85	919.62	11.77	1.68	909.86	9.76	1.39
	7	3	Sediment	12	9	9	0	0	0.75	908.42	919.73	11.31	1.26	911.23	8.50	0.94
	8	4	Sediment	12	7	6	1	0	0.58	912.25	922.96	10.71	1.79	915.26	7.70	1.28

Comments: STN-97

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-97				

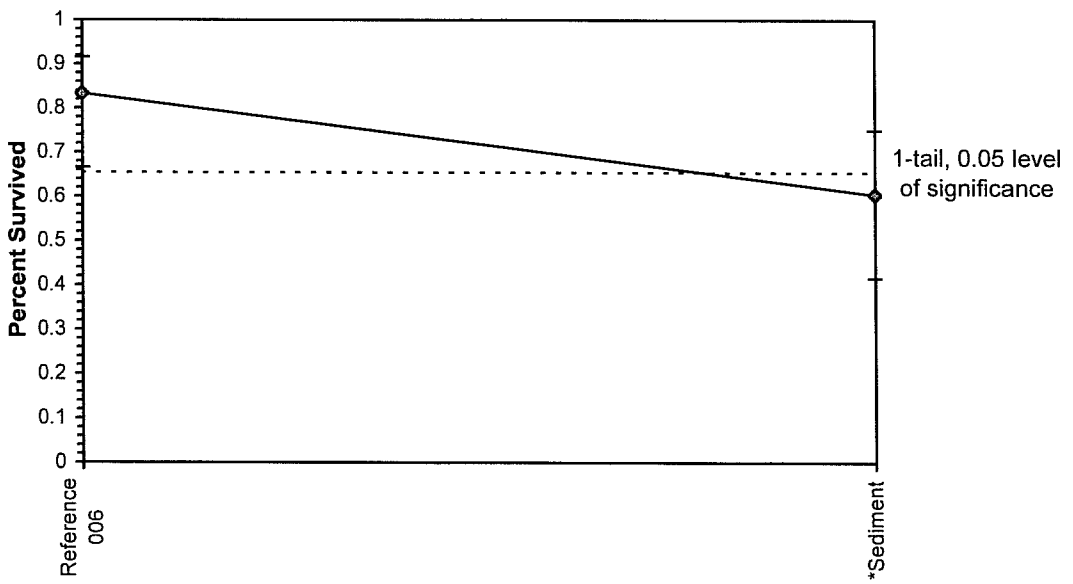
Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.4167	0.6667	0.7500	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
*Sediment	0.6042	0.7250	0.6042	0.4167	0.7500	23.556	4	2.480	1.943	0.1795

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89332	0.749	-0.7239	-0.782
F-Test indicates equal variances (p = 0.76)	1.45833	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 006	0.17953	0.21544	0.10503	0.01707	0.04778	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070938
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 006	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	2	2	Reference 006	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	3	3	Reference 006	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	4	4	Reference 006	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	5	1	Sediment	12	8	7	1	0	0.67	918.65	932.64	13.99	2.00	922.35	10.29	1.47
	6	2	Sediment	12	10	8	1	1	0.83	923.84	937.61	13.77	1.72	928.22	9.39	1.17
	7	3	Sediment	12	9	7	2	0	0.75	917.69	930.48	12.79	1.83	921.16	9.32	1.33
	8	4	Sediment	12	9	8	0	1	0.75	922.97	937.66	14.69	1.84	926.71	10.95	1.37

Comments: STN-100

Reviewed by:

Chironomid Test-Percent Survived

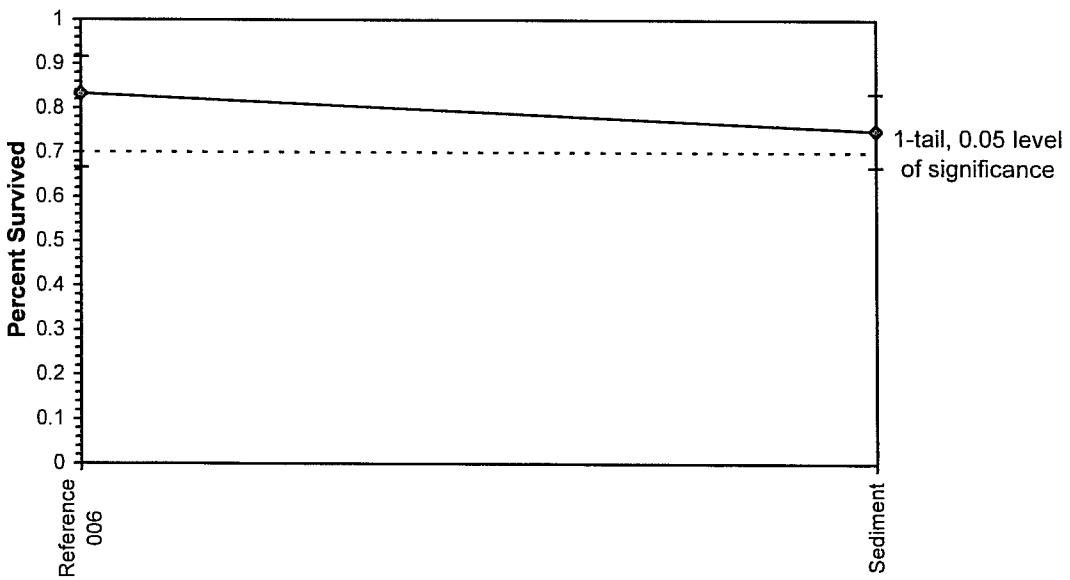
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-100				

Conc-%	1	2	3	4
Reference 006	0.9167	0.9167	0.6667	0.8333
Sediment	0.6667	0.8333	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 006	0.8333	1.0000	0.8333	0.6667	0.9167	14.142	4			
Sediment	0.7500	0.9000	0.7500	0.6667	0.8333	9.072	4	1.225	1.943	0.1322

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.85982		0.749		-0.9354	0.35
F-Test indicates equal variances (p = 0.39)	3		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	0.13222	0.15866	0.01389	0.00926	0.26657	1, 6
Treatments vs Reference 006						

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Test ID: 27-303 (3)
Species: CT-Chironomous tentans
Protocol: EPA 600 MA
Sample ID: 20070959
Sample Type: Sediment
Start Date: 12/7/2007 End Date: 12/27/2007
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	9	7	1	1	0.75	937.64	947.81	10.17	1.45	939.58	8.23	1.18
	6	2	Sediment	12	11	11	0	0	0.92	939.99	956.81	16.82	1.53	944.46	12.35	1.12
	7	3	Sediment	12	9	9	0	0	0.75	926.22	940.11	13.89	1.54	930.08	10.03	1.11
	8	4	Sediment	12	11	11	0	0	0.92	920.56	934.50	13.94	1.27	923.97	10.53	0.96

Comments: STN-32

Reviewed by:

Chironomid Test-Individual AFDW

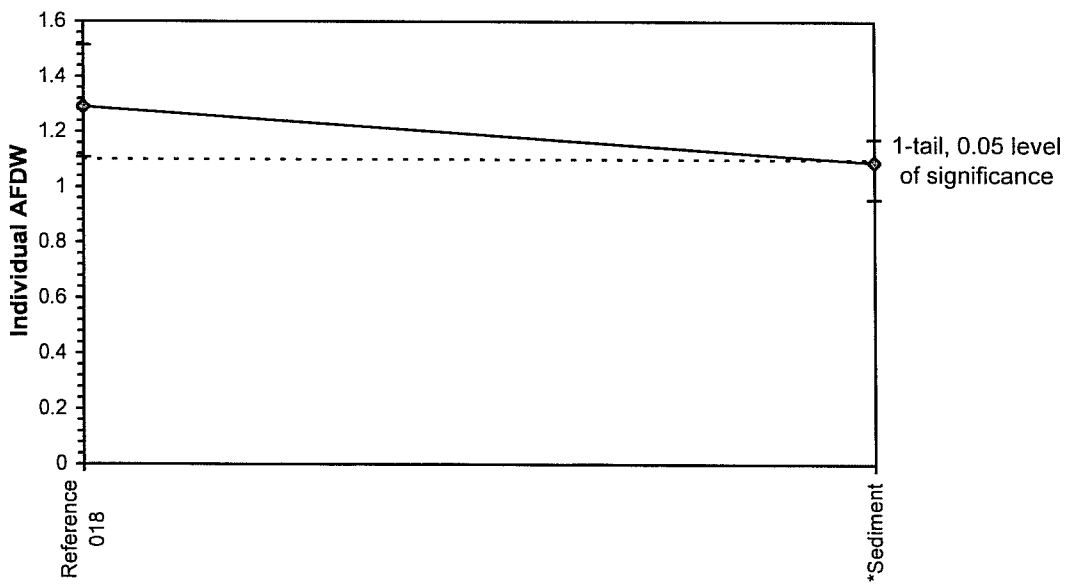
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-32				

Conc-%	1	2	3	4
Reference 018	1.5150	1.2610	1.2786	1.1078
Sediment	1.1757	1.1227	1.1144	0.9573

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	1.2906	1.0000	1.2906	1.1078	1.5150	13.027	4			
*Sediment	1.0925	0.8465	1.0925	0.9573	1.1757	8.620	4	2.055	1.943	0.1872

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96503		0.749		0.31336	0.56525
F-Test indicates equal variances (p = 0.37)	3.18722		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.18723	0.14507	0.07845	0.01857	0.08559	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 200700947
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Ref 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	2	2	Ref 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Ref 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Ref 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	6	4	2	0	0.50	905.07	913.64	8.57	2.14	906.93	6.71	1.68
	6	2	Sediment	12	7	5	0	2	0.58	915.40	926.22	10.82	2.16	917.66	8.56	1.71
	7	3	Sediment	12	9	8	0	1	0.75	930.42	943.67	13.25	1.66	934.45	9.22	1.15
	8	4	Sediment	12	9	9	0	0	0.75	928.63	944.63	16.00	1.78	933.07	11.56	1.28

Comments: STN-56

Chironomid Test-Percent Survived

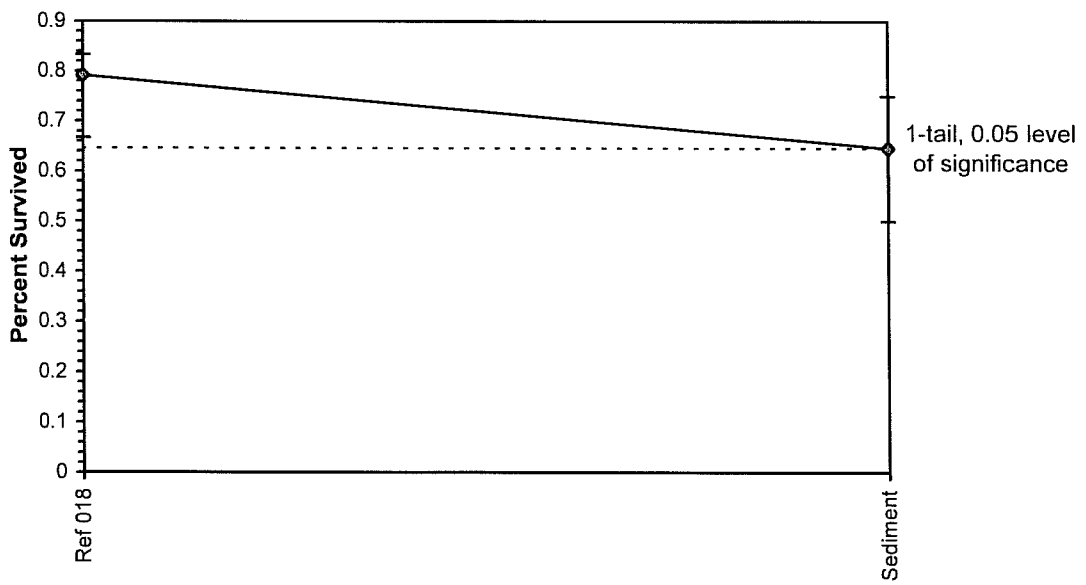
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	200700947
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-56				

Conc-%	1	2	3	4
Ref 018	0.6667	0.8333	0.8333	0.8333
Sediment	0.5000	0.5833	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 018	0.7917	1.0000	0.7917	0.6667	0.8333	10.526	4			
Sediment	0.6458	0.8158	0.6458	0.5000	0.7500	19.355	4	1.941	1.943	0.1460

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.86469		0.749		-0.5649	-1.3959
F-Test indicates equal variances (p = 0.52)	2.25		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	0.14596	0.18437	0.04253	0.01128	0.10024	1, 6
Treatments vs Ref 018						

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070936
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.69	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	10	10	0	0	0.83	915.10	928.20	13.10	1.31	918.10	10.10	1.01
	6	2	Sediment	12	9	9	0	0	0.75	924.08	936.34	12.26	1.36	926.75	9.59	1.07
	7	3	Sediment	12	11	11	0	0	0.92	939.93	955.61	15.68	1.43	944.00	11.61	1.06
	8	4	Sediment	12	12	12	0	0	1.00	941.60	955.82	14.22	1.19	945.50	10.32	0.86

Comments: STN-59

Reviewed by:

Chironomid Test-Individual AFDW

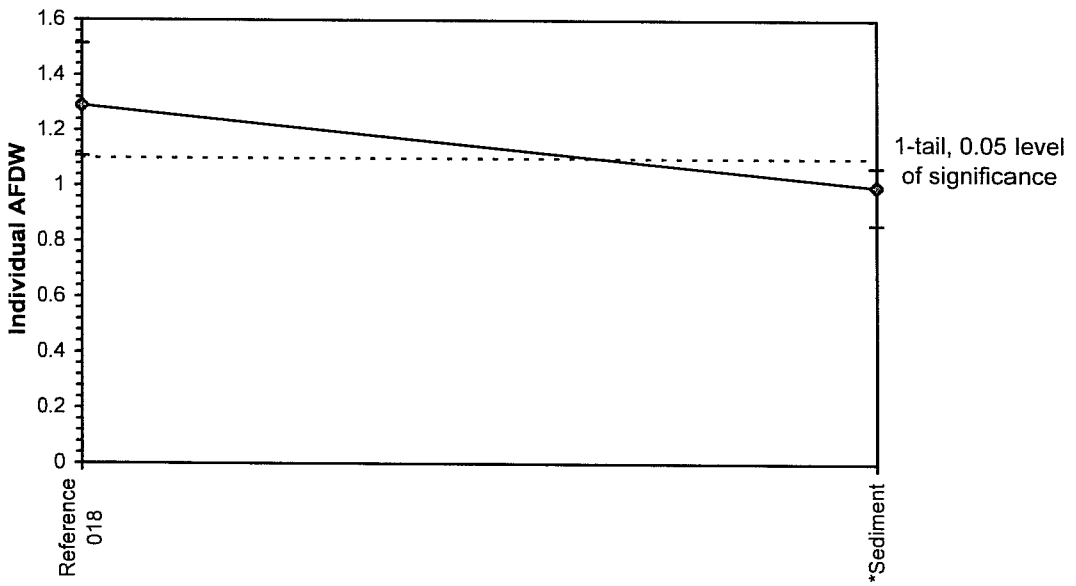
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070936
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-59				

Conc-%	1	2	3	4
Reference 018	1.5150	1.2610	1.2786	1.1078
Sediment	1.0100	1.0656	1.0555	0.8600

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	1.2906	1.0000	1.2906	1.1078	1.5150	13.027	4			
*Sediment	0.9978	0.7731	0.9978	0.8600	1.0656	9.517	4	3.033	1.943	0.1876

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96221		0.749		0.28822	0.5333
F-Test indicates equal variances (p = 0.37)	3.13465		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.18761	0.14536	0.1715	0.01864	0.02301	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070944
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	4	3	1	0	0.33	929.29	936.30	7.01	2.34	930.28	6.02	2.01
	6	2	Sediment	12	3	1	2	0	0.25	928.99	930.66	1.67	1.67	929.35	1.31	1.31
	7	3	Sediment	12	4	4	0	0	0.33	933.81	943.19	9.38	2.35	935.14	8.05	2.01
	8	4	Sediment	12	6	6	0	0	0.50	937.26	946.81	9.55	1.59	939.20	7.61	1.27

Comments: STN-82

C-96

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-82				

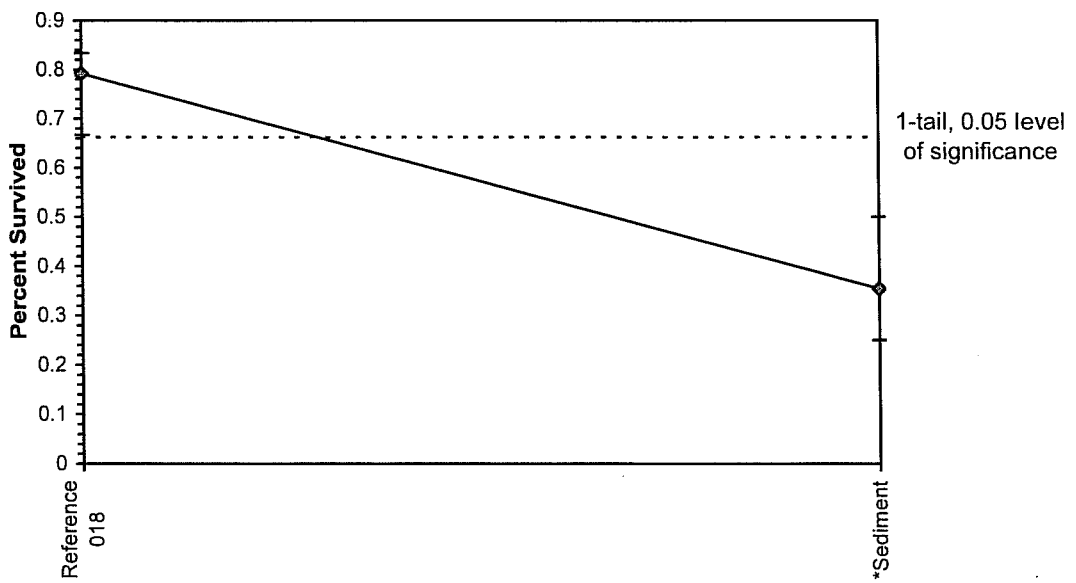
Conc-%	1	2	3	4
Reference 018	0.6667	0.8333	0.8333	0.8333
Sediment	0.3333	0.2500	0.3333	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	0.7917	1.0000	0.7917	0.6667	0.8333	10.526	4			
*Sediment	0.3542	0.4474	0.3542	0.2500	0.5000	29.607	4	6.533	1.943	0.1301

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93605	0.749	0.06131	-0.1231
F-Test indicates equal variances (p = 0.71)	1.58333	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.13013	0.16438	0.38281	0.00897	6.1E-04	1, 6

Dose-Response Plot

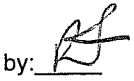


Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070958
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	2	2	0	0	0.17	914.04	918.06	4.02	2.01	914.46	3.60	1.80
	6	2	Sediment	12	3	3	0	0	0.25	909.79	916.38	6.59	2.20	910.55	5.83	1.94
	7	3	Sediment	12	3	3	0	0	0.25	918.92	924.96	6.04	2.01	919.86	5.10	1.70
	8	4	Sediment	12	1	1	0	0	0.08	916.56	917.36	0.80	0.80	916.74	0.62	0.62

Comments: STN-85

Reviewed by: 

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-85				

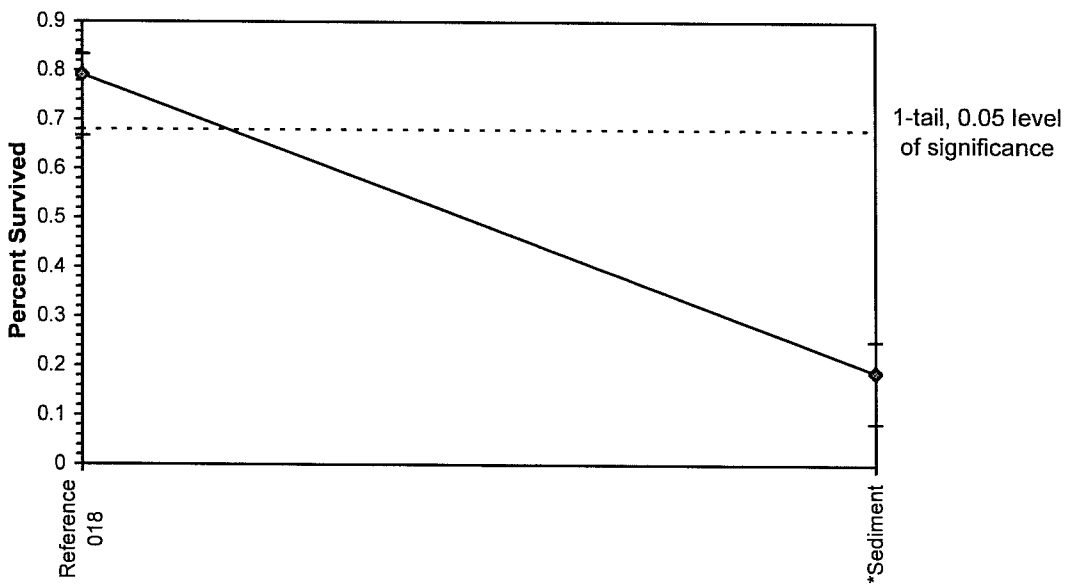
Conc-%	1	2	3	4
Reference 018	0.6667	0.8333	0.8333	0.8333
Sediment	0.1667	0.2500	0.2500	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	0.7917	1.0000	0.7917	0.6667	0.8333	10.526	4			
*Sediment	0.1875	0.2368	0.1875	0.0833	0.2500	42.552	4	10.474	1.943	0.1121

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.78549	0.749	-1.0554	-0.6682
F-Test indicates equal variances (p = 0.94)	1.09091	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.11209	0.14159	0.73003	0.00666	4.4E-05	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070957
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	8	4	4	0	0.67	934.20	940.90	6.70	1.67	936.10	4.80	1.20
	6	2	Sediment	12	9	8	1	0	0.75	920.05	932.12	12.07	1.51	922.89	9.23	1.15
	7	3	Sediment	12	12	12	0	0	1.00	913.77	929.87	16.10	1.34	918.58	11.29	0.94
	8	4	Sediment	12	9	9	0	0	0.75	911.11	925.27	14.16	1.57	915.61	9.66	1.07

Comments: STN-87

C-70

ToxCalc 5.0

Reviewed by:

Chironomid Test-Individual AFDW

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070957
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-87				

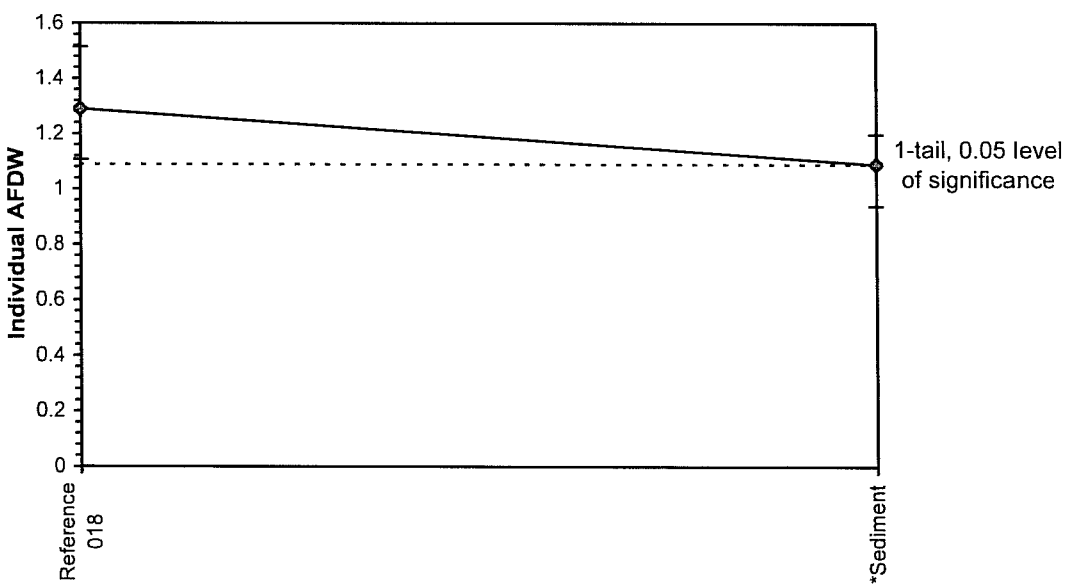
Conc-%	1	2	3	4
Reference 018	1.5150	1.2610	1.2786	1.1078
Sediment	1.2000	1.1538	0.9408	1.0733

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	1.2906	1.0000	1.2906	1.1078	1.5150	13.027	4			
*Sediment	1.0920	0.8461	1.0920	0.9408	1.2000	10.398	4	1.958	1.943	0.1971

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96253	0.749	0.26028	-0.1326
F-Test indicates equal variances (p = 0.54)	2.19253	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.19711	0.15273	0.07889	0.02058	0.09798	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070960
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.69	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	2	2	0	0	0.17	914.60	917.11	2.51	1.26	915.04	2.07	1.04
	6	2	Sediment	12	0	0	0	0	0.00	917.83	0.00	0.00		0.00	0.00	
	7	3	Sediment	12	1	1	0	0	0.08	924.77	925.66	0.89	0.89	925.11	0.55	0.55
	8	4	Sediment	12	1	1	0	0	0.08	921.75	924.17	2.42	2.42	922.08	2.09	2.09

Comments: STN-94

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-94				

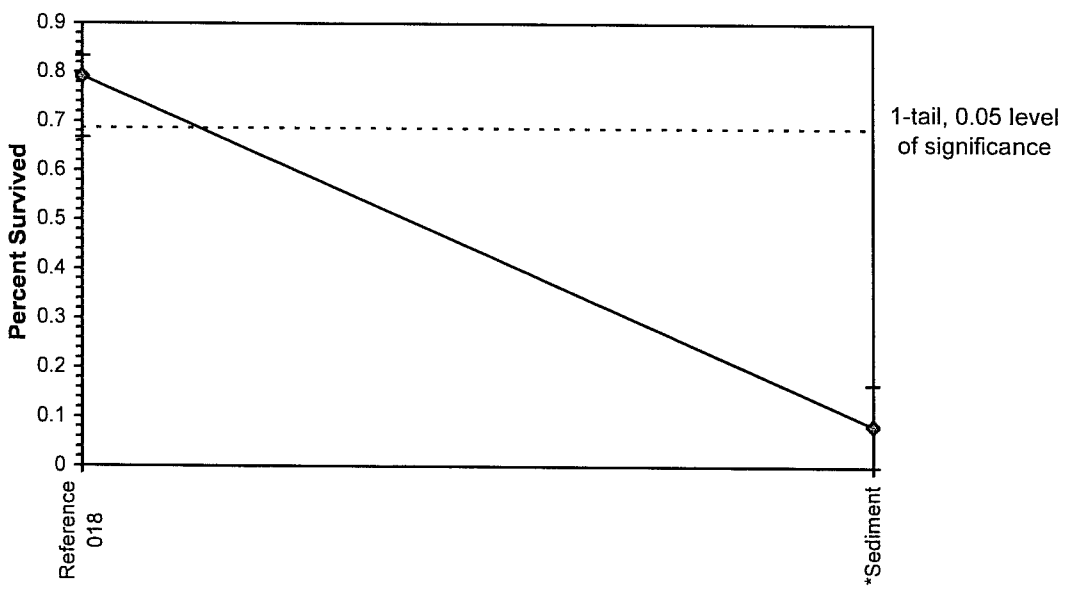
Conc-%	1	2	3	4
Reference 018	0.6667	0.8333	0.8333	0.8333
Sediment	0.1667	0.0000	0.0833	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	0.7917	1.0000	0.7917	0.6667	0.8333	10.526	4			
*Sediment	0.0833	0.1053	0.0833	0.0000	0.1667	81.650	4	13.168	1.943	0.1045

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88435	0.749	-0.9466	-0.028
F-Test indicates equal variances (p = 0.75)	1.5	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.10453	0.13203	1.00347	0.00579	1.2E-05	1, 6

Dose-Response Plot



Chironomid Test-Individual AFDW

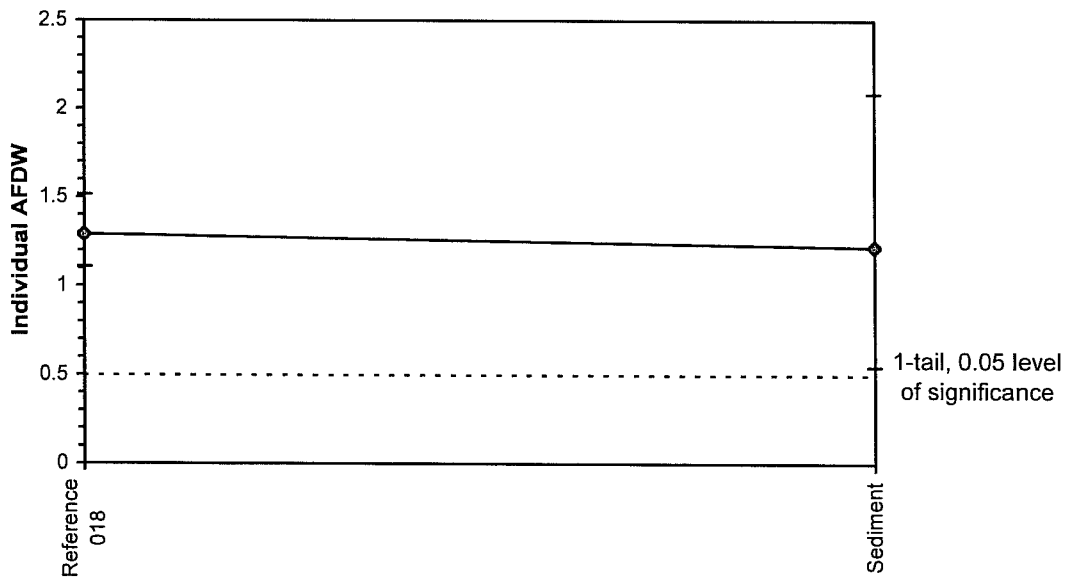
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-94				

Conc-%	1	2	3	4
Reference 018	1.5150	1.2610	1.2786	1.1078
Sediment	1.0350	0.5500	2.0900	

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	1.2906	1.0000	1.2906	1.1078	1.5150	13.027	4			
Sediment	1.2250	0.9492	1.2250	0.5500	2.0900	64.276	3	0.167	2.015	0.7922

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92909		0.73		0.76013	1.99399
F-Test indicates equal variances (p = 0.03)	21.933		49.7993			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 018	0.79218	0.61382	0.00737	0.26495	0.87404	1, 5

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070954
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.69	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	5	4	1	0	0.42	907.75	915.24	7.49	1.87	909.55	5.69	1.42
	6	2	Sediment	12	8	7	1	0	0.67	907.85	919.62	11.77	1.68	909.86	9.76	1.39
	7	3	Sediment	12	9	9	0	0	0.75	908.42	919.73	11.31	1.26	911.23	8.50	0.94
	8	4	Sediment	12	7	6	1	0	0.58	912.25	922.96	10.71	1.79	915.26	7.70	1.28

Comments: STN-97

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-97				

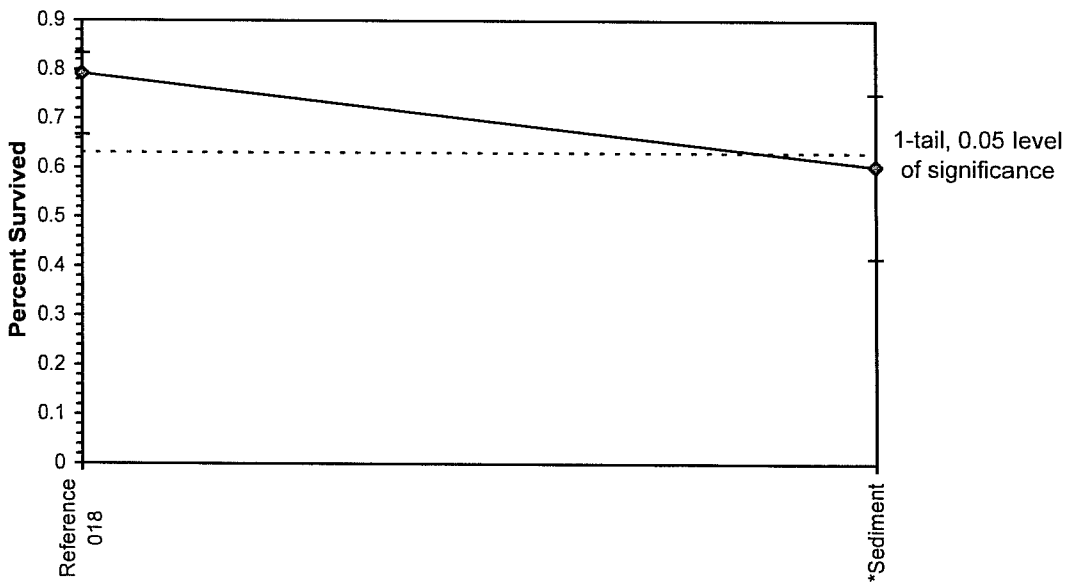
Conc-%	1	2	3	4
Reference 018	0.6667	0.8333	0.8333	0.8333
Sediment	0.4167	0.6667	0.7500	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	0.7917	1.0000	0.7917	0.6667	0.8333	10.526	4			
*Sediment	0.6042	0.7632	0.6042	0.4167	0.7500	23.556	4	2.274	1.943	0.1602

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.90638	0.749	-0.7554	0.03771
F-Test indicates equal variances (p = 0.40)	2.91667	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 018	0.16024	0.2024	0.07031	0.0136	0.06334	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Chironomid Test-Individual AFDW

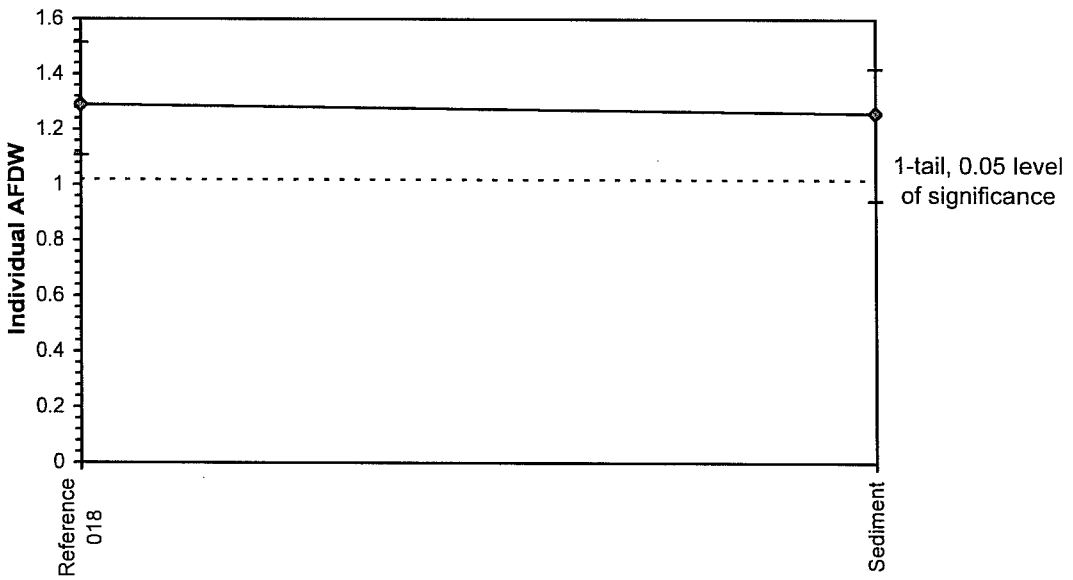
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070954
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-97				

Conc-%	1	2	3	4
Reference 018	1.5150	1.2610	1.2786	1.1078
Sediment	1.4225	1.3943	0.9444	1.2833

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	1.2906	1.0000	1.2906	1.1078	1.5150	13.027	4			
Sediment	1.2611	0.9772	1.2611	0.9444	1.4225	17.406	4	0.213	1.943	0.2686

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94949		0.749		-0.6432	-0.2034
F-Test indicates equal variances (p = 0.67)	1.70464		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 018	0.26864	0.20816	0.00173	0.03823	0.83838	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070938
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 018	12	8	6	1	1	0.67	928.07	944.24	16.17	2.69	935.15	9.09	1.52
	2	2	Reference 018	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	3	3	Reference 018	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	4	4	Reference 018	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	5	1	Sediment	12	8	7	1	0	0.67	918.65	932.64	13.99	2.00	922.35	10.29	1.47
	6	2	Sediment	12	10	8	1	1	0.83	923.84	937.61	13.77	1.72	928.22	9.39	1.17
	7	3	Sediment	12	9	7	2	0	0.75	917.69	930.48	12.79	1.83	921.16	9.32	1.33
	8	4	Sediment	12	9	8	0	1	0.75	922.97	937.66	14.69	1.84	926.71	10.95	1.37

Comments: STN-100

Reviewed by:

Chironomid Test-Percent Survived

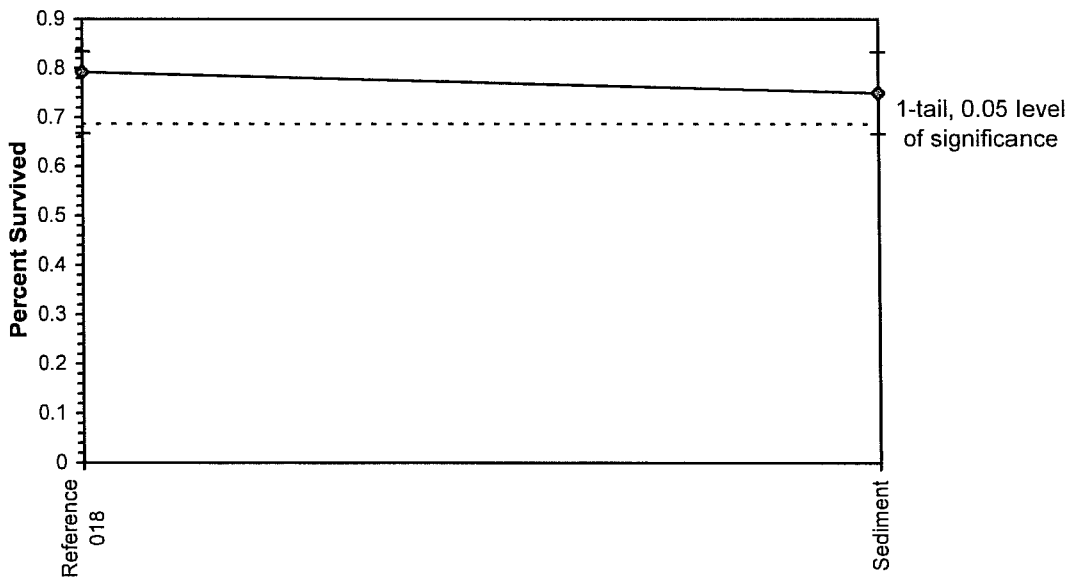
Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070938
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-100				

Conc-%	1	2	3	4
Reference 018	0.6667	0.8333	0.8333	0.8333
Sediment	0.6667	0.8333	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 018	0.7917	1.0000	0.7917	0.6667	0.8333	10.526	4			
Sediment	0.7500	0.9474	0.7500	0.6667	0.8333	9.072	4	0.775	1.943	0.1045

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88435		0.749		-0.9466	-0.028
F-Test indicates equal variances (p = 0.75)	1.5		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	0.10453	0.13203	0.00347	0.00579	0.46799	1, 6
Treatments vs Reference 018						

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070959
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	9	7	1	1	0.75	937.64	947.81	10.17	1.45	939.58	8.23	1.18
	6	2	Sediment	12	11	11	0	0	0.92	939.99	956.81	16.82	1.53	944.46	12.35	1.12
	7	3	Sediment	12	9	9	0	0	0.75	926.22	940.11	13.89	1.54	930.08	10.03	1.11
	8	4	Sediment	12	11	11	0	0	0.92	920.56	934.50	13.94	1.27	923.97	10.53	0.96

Comments: STN-32

Reviewed by:

Chironomid Test-Individual AFDW

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070959
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-32				

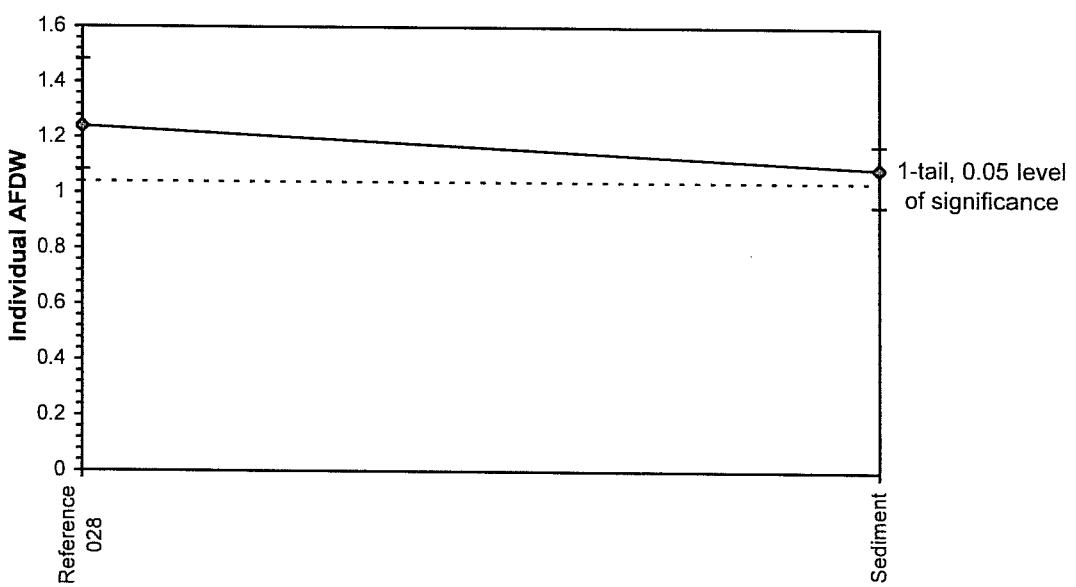
Conc-%	1	2	3	4
Reference 028	1.2644	1.1245	1.0827	1.4817
Sediment	1.1757	1.1227	1.1144	0.9573

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	1.2383	1.0000	1.2383	1.0827	1.4817	14.525	4			
Sediment	1.0925	0.8823	1.0925	0.9573	1.1757	8.620	4	1.436	1.943	0.1973

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91233	0.749	0.59378	0.20157
F-Test indicates equal variances (p = 0.32)	3.64778	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 028	0.19726	0.15929	0.04252	0.02061	0.20093	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 200700947
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Ref 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Ref 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Ref 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Ref 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	6	4	2	0	0.50	905.07	913.64	8.57	2.14	906.93	6.71	1.68
	6	2	Sediment	12	7	5	0	2	0.58	915.40	926.22	10.82	2.16	917.66	8.56	1.71
	7	3	Sediment	12	9	8	0	1	0.75	930.42	943.67	13.25	1.66	934.45	9.22	1.15
	8	4	Sediment	12	9	9	0	0	0.75	928.63	944.63	16.00	1.78	933.07	11.56	1.28

Comments: STN-56

Reviewed by: 

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	200700947
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-56				

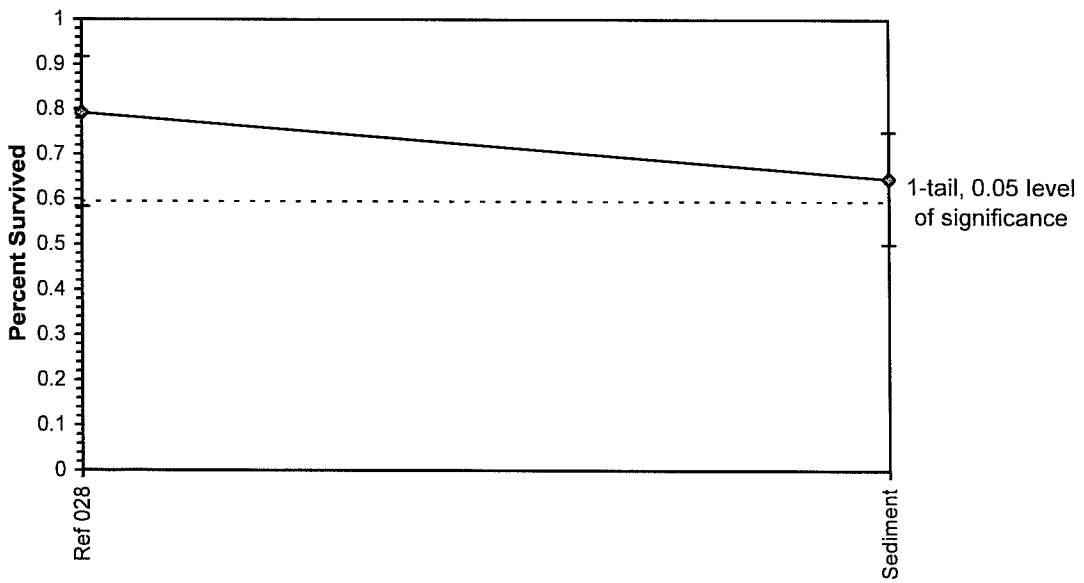
Conc-%	1	2	3	4
Ref 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.5000	0.5833	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Ref 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
Sediment	0.6458	0.8158	0.6458	0.5000	0.7500	19.355	4	1.439	1.943	0.1969

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.85509	0.749	-0.513	-1.4965
F-Test indicates equal variances (p = 0.70)	1.62963	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Ref 028	0.19694	0.24877	0.04253	0.02054	0.20023	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070936
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	10	10	0	0	0.83	915.10	928.20	13.10	1.31	918.10	10.10	1.01
	6	2	Sediment	12	9	9	0	0	0.75	924.08	936.34	12.26	1.36	926.75	9.59	1.07
	7	3	Sediment	12	11	11	0	0	0.92	939.93	955.61	15.68	1.43	944.00	11.61	1.06
	8	4	Sediment	12	12	12	0	0	1.00	941.60	955.82	14.22	1.19	945.50	10.32	0.86

Comments: STN-59

Reviewed by:

Chironomid Test-Individual AFDW

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070936
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-59				

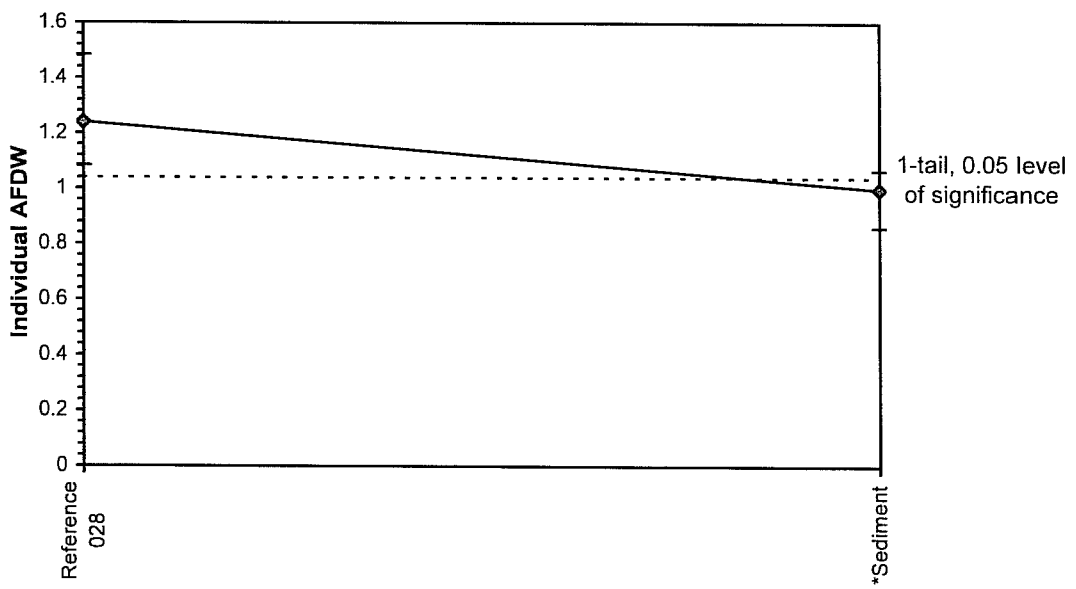
Conc-%	1	2	3	4
Reference 028	1.2644	1.1245	1.0827	1.4817
Sediment	1.0100	1.0656	1.0555	0.8600

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	1.2383	1.0000	1.2383	1.0827	1.4817	14.525	4			
*Sediment	0.9978	0.8057	0.9978	0.8600	1.0656	9.517	4	2.366	1.943	0.1976

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91589	0.749	0.57068	0.17434
F-Test indicates equal variances (p = 0.32)	3.58761	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 028	0.19761	0.15958	0.11577	0.02068	0.05584	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070944
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	4	3	1	0	0.33	929.29	936.30	7.01	2.34	930.28	6.02	2.01
	6	2	Sediment	12	3	1	2	0	0.25	928.99	930.66	1.67	1.67	929.35	1.31	1.31
	7	3	Sediment	12	4	4	0	0	0.33	933.81	943.19	9.38	2.35	935.14	8.05	2.01
	8	4	Sediment	12	6	6	0	0	0.50	937.26	946.81	9.55	1.59	939.20	7.61	1.27

Comments: STN-82

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070944
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-82				

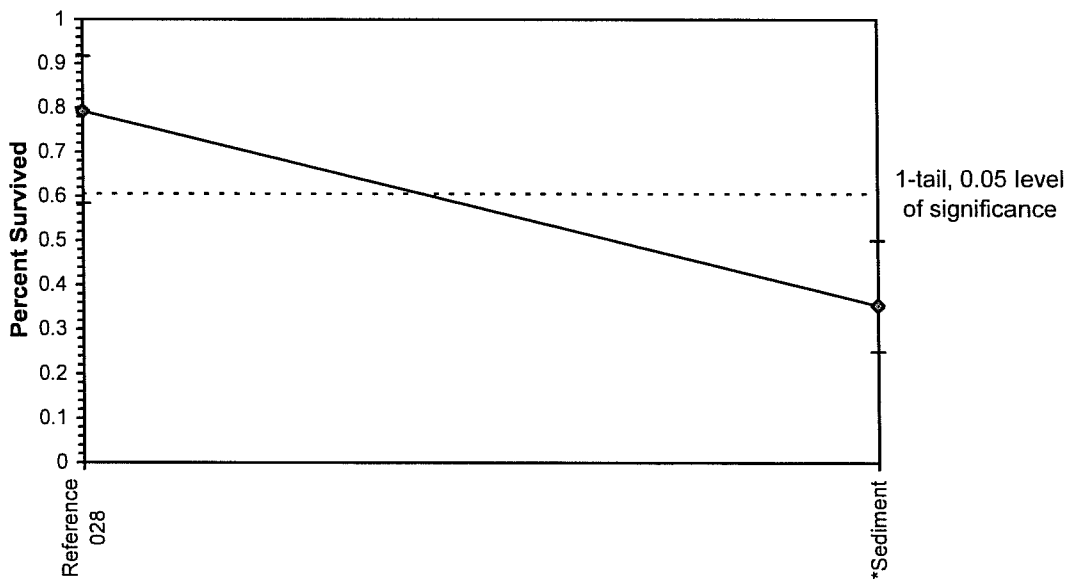
Conc-%	1	2	3	4
Reference 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.3333	0.2500	0.3333	0.5000

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
*Sediment	0.3542	0.4474	0.3542	0.2500	0.5000	29.607	4	4.583	1.943	0.1855

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91239	0.749	-0.3175	-0.7635
F-Test indicates equal variances (p = 0.51)	2.31579	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 028	0.18552	0.23434	0.38281	0.01823	0.00376	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070958
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	2	2	0	0	0.17	914.04	918.06	4.02	2.01	914.46	3.60	1.80
	6	2	Sediment	12	3	3	0	0	0.25	909.79	916.38	6.59	2.20	910.55	5.83	1.94
	7	3	Sediment	12	3	3	0	0	0.25	918.92	924.96	6.04	2.01	919.86	5.10	1.70
	8	4	Sediment	12	1	1	0	0	0.08	916.56	917.36	0.80	0.80	916.74	0.62	0.62

Comments: STN-85

Reviewed by: 

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070958
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-85				

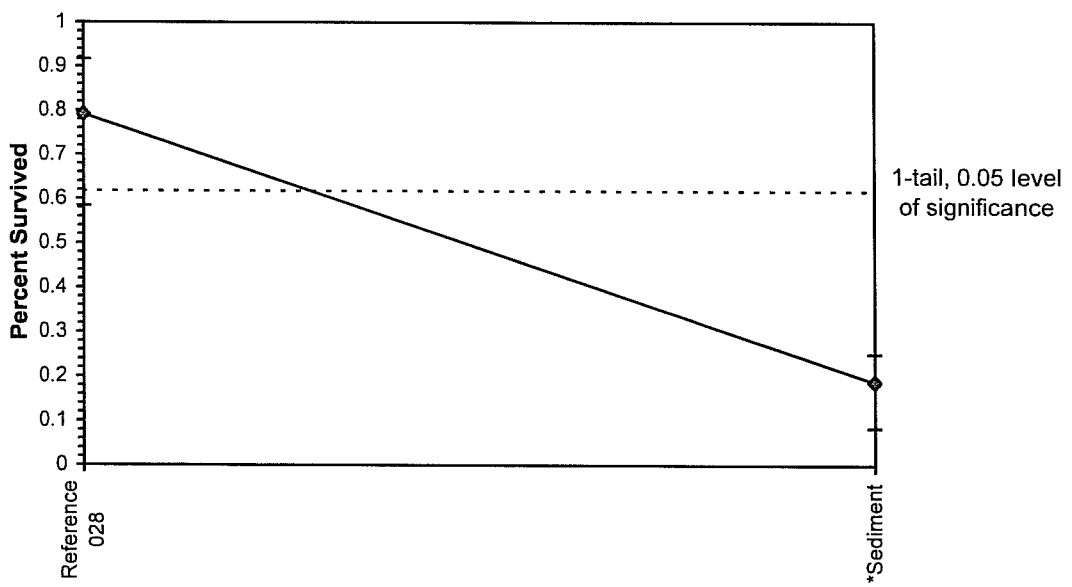
Conc-%	1	2	3	4
Reference 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.1667	0.2500	0.2500	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
*Sediment	0.1875	0.2368	0.1875	0.0833	0.2500	42.552	4	6.773	1.943	0.1733

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92424	0.749	-0.7005	-0.2501
F-Test indicates equal variances (p = 0.28)	4	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 028	0.17334	0.21895	0.73003	0.01591	5.1E-04	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070957
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	8	4	4	0	0.67	934.20	940.90	6.70	1.67	936.10	4.80	1.20
	6	2	Sediment	12	9	8	1	0	0.75	920.05	932.12	12.07	1.51	922.89	9.23	1.15
	7	3	Sediment	12	12	12	0	0	1.00	913.77	929.87	16.10	1.34	918.58	11.29	0.94
	8	4	Sediment	12	9	9	0	0	0.75	911.11	925.27	14.16	1.57	915.61	9.66	1.07

Comments: STN-87

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070957
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-87				

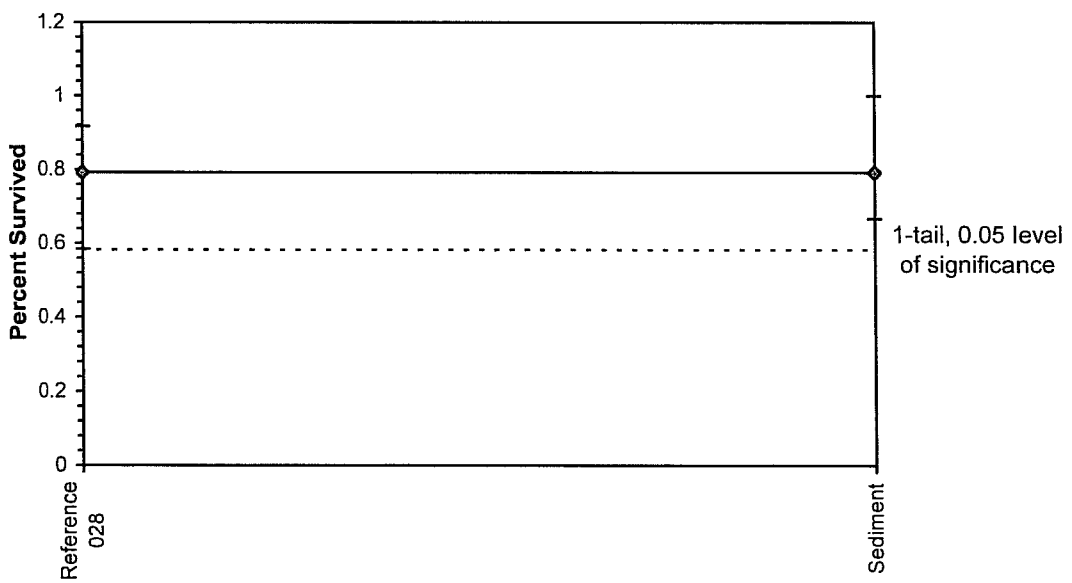
Conc-%	1	2	3	4
Reference 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.6667	0.7500	1.0000	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
Sediment	0.7917	1.0000	0.7917	0.6667	1.0000	18.232	4	0.000	1.943	0.2091

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93476	0.749	0.11832	-0.973
F-Test indicates equal variances (p = 0.87)	1.22222	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 028	0.20905	0.26407	0	0.02315	1	1, 6

Dose-Response Plot



Chironomid Test-Individual AFDW

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070957
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-87				

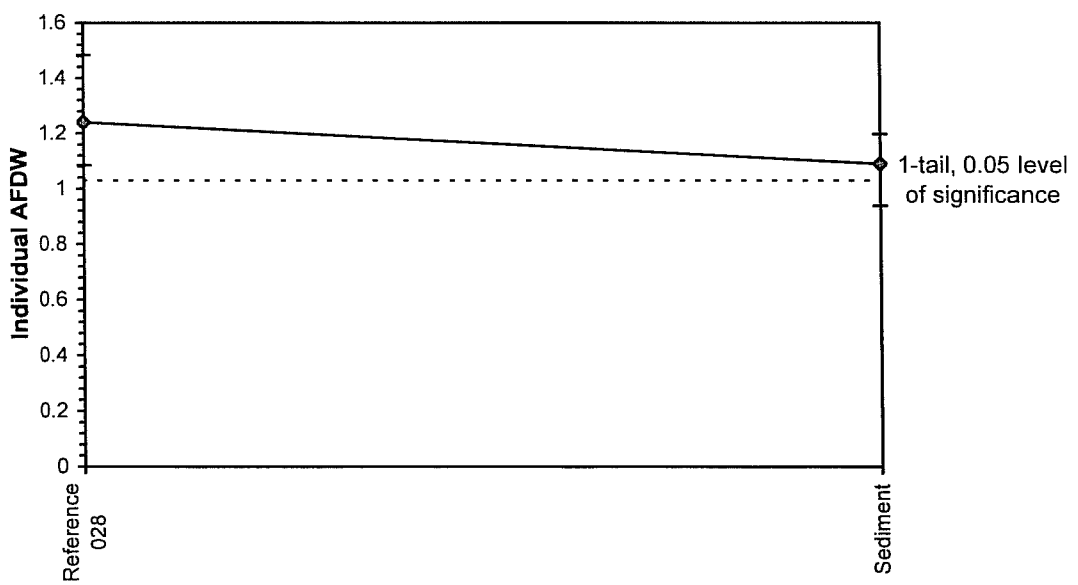
Conc-%	1	2	3	4
Reference 028	1.2644	1.1245	1.0827	1.4817
Sediment	1.2000	1.1538	0.9408	1.0733

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	1.2383	1.0000	1.2383	1.0827	1.4817	14.525	4			
Sediment	1.0920	0.8818	1.0920	0.9408	1.2000	10.398	4	1.376	1.943	0.2067

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93662	0.749	0.50919	-0.4019
F-Test indicates equal variances (p = 0.47)	2.50935	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs Reference 028	0.20666	0.16689	0.04285	0.02262	0.2179	1, 6

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070960
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	2	2	0	0	0.17	914.60	917.11	2.51	1.26	915.04	2.07	1.04
	6	2	Sediment	12	0	0	0	0	0.00	917.83	0.00	0.00		0.00	0.00	
	7	3	Sediment	12	1	1	0	0	0.08	924.77	925.66	0.89	0.89	925.11	0.55	0.55
	8	4	Sediment	12	1	1	0	0	0.08	921.75	924.17	2.42	2.42	922.08	2.09	2.09

Comments: STN-94

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	12/7/2007	Test ID:	27-303 (3)	Sample ID:	20070960
End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-94				

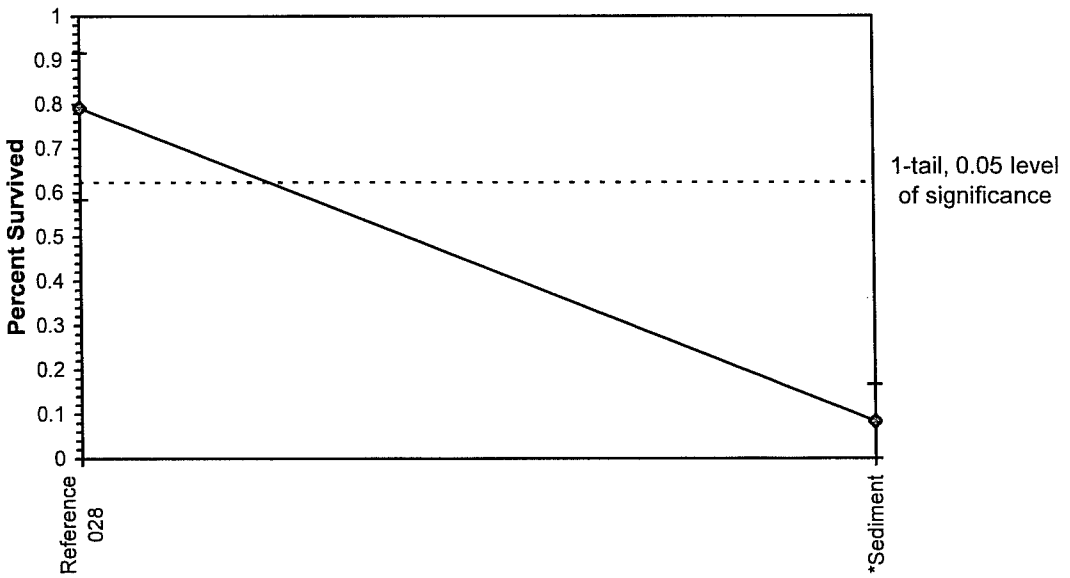
Conc-%	1	2	3	4
Reference 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.1667	0.0000	0.0833	0.0833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
*Sediment	0.0833	0.1053	0.0833	0.0000	0.1667	81.650	4	8.167	1.943	0.1685

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92796	0.749	-0.6774	0.19467
F-Test indicates equal variances (p = 0.20)	5.5	47.4672		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences Treatments vs Reference 028	0.16854	0.2129	1.00347	0.01505	1.8E-04	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: RF

Chironomid Test-Individual AFDW

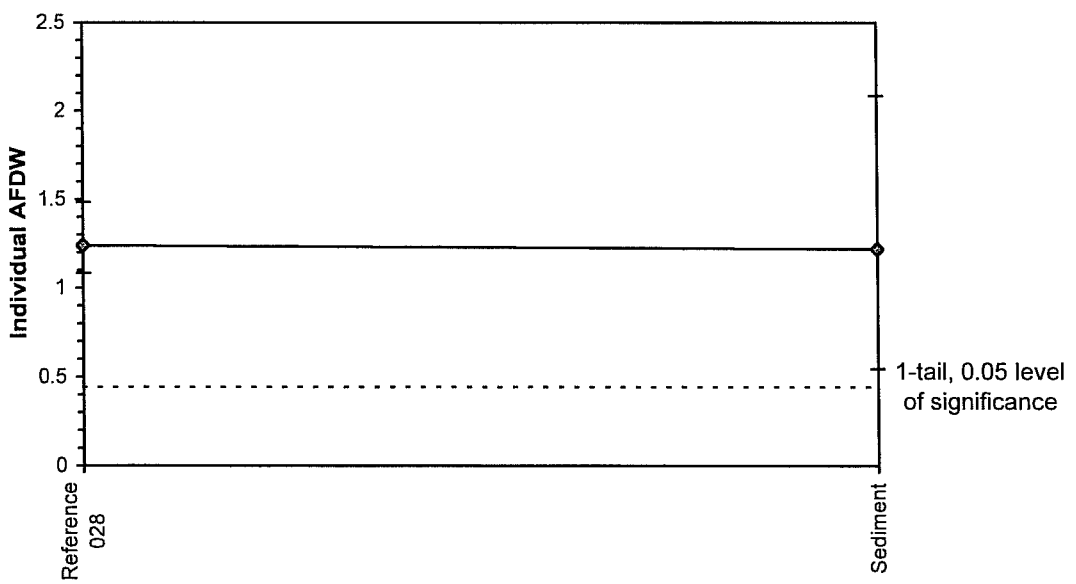
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-94				

Conc-%	1	2	3	4
Reference 028	1.2644	1.1245	1.0827	1.4817
Sediment	1.0350	0.5500	2.0900	

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	1.2383	1.0000	1.2383	1.0827	1.4817	14.525	4			
Sediment	1.2250	0.9892	1.2250	0.5500	2.0900	64.276	3	0.034	2.015	0.7958

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93266		0.73		0.75861	1.86478
F-Test indicates equal variances (p = 0.04)	19.1639		49.7993			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 028	0.79584	0.64266	0.00031	0.2674	0.97435	1, 5

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070954
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	5	4	1	0	0.42	907.75	915.24	7.49	1.87	909.55	5.69	1.42
	6	2	Sediment	12	8	7	1	0	0.67	907.85	919.62	11.77	1.68	909.86	9.76	1.39
	7	3	Sediment	12	9	9	0	0	0.75	908.42	919.73	11.31	1.26	911.23	8.50	0.94
	8	4	Sediment	12	7	6	1	0	0.58	912.25	922.96	10.71	1.79	915.26	7.70	1.28

Comments: STN-97

Reviewed by:

Chironomid Test-Percent Survived

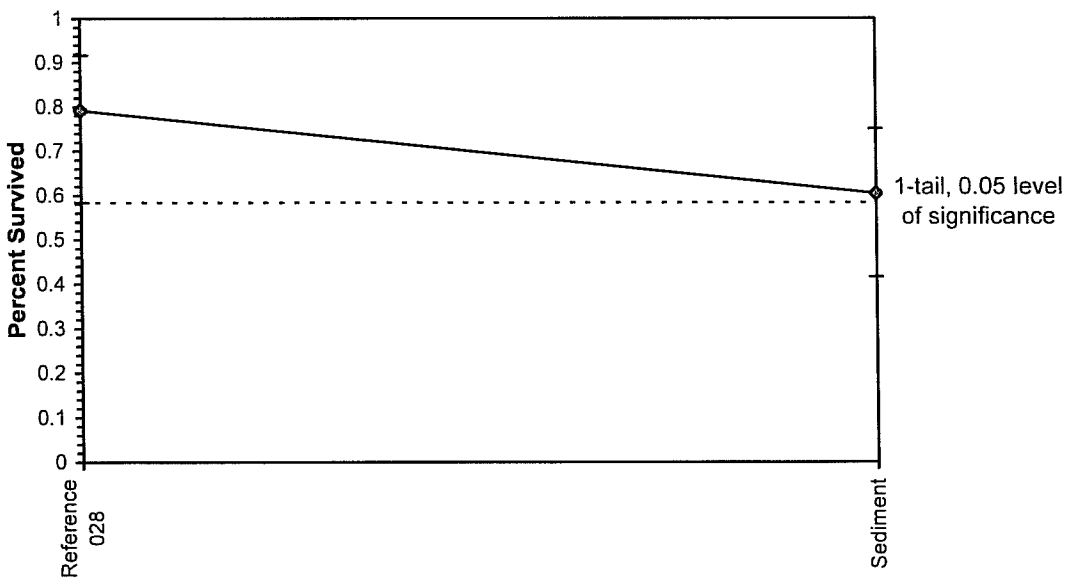
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-97				

Conc-%	1	2	3	4
Reference 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.4167	0.6667	0.7500	0.5833

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
Sediment	0.6042	0.7632	0.6042	0.4167	0.7500	23.556	4	1.754	1.943	0.2077

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.87762		0.749		-0.5878	-1.2572
F-Test indicates equal variances (p = 0.86)	1.25714		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences Treatments vs Reference 028	0.20774	0.26241	0.07031	0.02286	0.13	1, 6

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: 20070938
Start Date: 12/7/2007 End Date: 12/27/2007

Test ID: 27-303 (3)
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	1	1	Reference 028	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	2	2	Reference 028	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	3	3	Reference 028	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	4	4	Reference 028	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	5	1	Sediment	12	8	7	1	0	0.67	918.65	932.64	13.99	2.00	922.35	10.29	1.47
	6	2	Sediment	12	10	8	1	1	0.83	923.84	937.61	13.77	1.72	928.22	9.39	1.17
	7	3	Sediment	12	9	7	2	0	0.75	917.69	930.48	12.79	1.83	921.16	9.32	1.33
	8	4	Sediment	12	9	8	0	1	0.75	922.97	937.66	14.69	1.84	926.71	10.95	1.37

Comments: STN-100

Reviewed by: 

Chironomid Test-Percent Survived

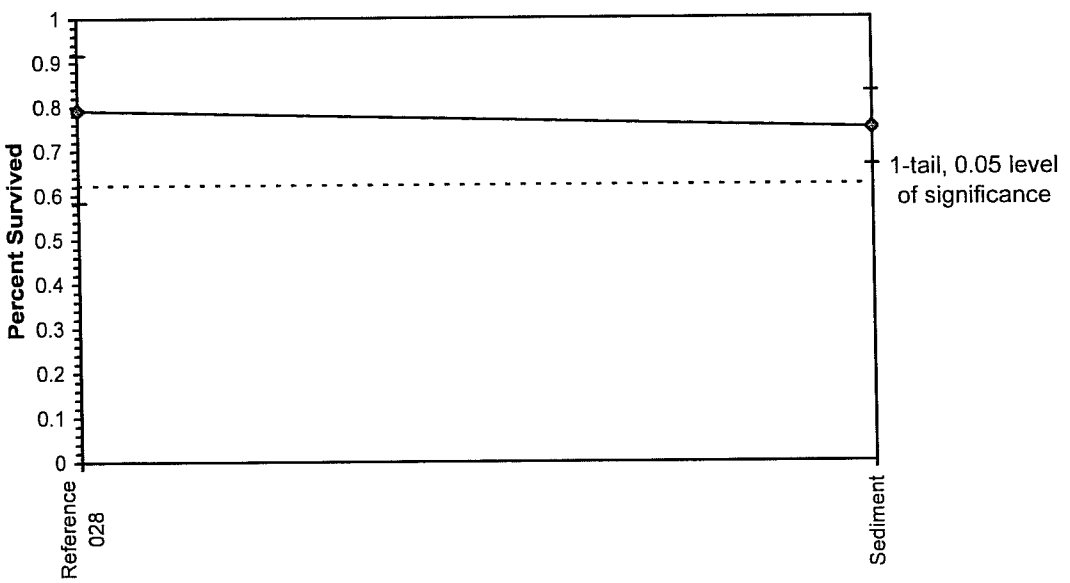
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End Date:	12/27/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:		Protocol:	EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	STN-100				

Conc-%	1	2	3	4
Reference 028	0.7500	0.9167	0.9167	0.5833
Sediment	0.6667	0.8333	0.7500	0.7500

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference 028	0.7917	1.0000	0.7917	0.5833	0.9167	20.156	4			
Sediment	0.7500	0.9474	0.7500	0.6667	0.8333	9.072	4	0.480	1.943	0.1685

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92796		0.749		-0.6774	0.19467
F-Test indicates equal variances (p = 0.20)	5.5		47.4672			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	0.16854	0.2129	0.00347	0.01505	0.64797	1, 6
Treatments vs Reference 028						

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	1	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	2	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	3	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	4	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	5	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	6	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	7	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	8	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 018	9	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	10	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	11	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	12	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 027	13	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	14	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	15	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	16	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 028	17	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	18	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	19	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	20	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	Sed 118	1	Sediment	12	11	11	0	0	0.92	921.36	939.41	18.05	1.64	927.49	11.92	1.08
	Sed 118	2	Sediment	12	10	7	2	1	0.83	925.03	939.67	14.64	2.09	930.32	9.35	1.34
	Sed 118	3	Sediment	12	9	4	3	2	0.75	931.23	940.73	9.50	2.38	934.78	5.95	1.49
	Sed 118	4	Sediment	12	9	7	0	2	0.75	927.68	943.20	15.52	2.22	933.33	9.87	1.41
	Sed 120	5	Sediment	12	0	0	0	0	0.00	935.22	0.00	0.00		0.00	0.00	
	Sed 120	6	Sediment	12	3	3	0	0	0.25	934.40	941.25	6.85	2.28	936.62	4.63	1.54
	Sed 120	7	Sediment	12	1	1	0	0	0.08	904.17	908.30	4.13	4.13	905.55	2.75	2.75
	Sed 120	8	Sediment	12	4	4	0	0	0.33	903.97	912.55	8.58	2.14	905.88	6.67	1.67

Comments: 5 references (excluding SED010)

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	Test ID: 27-303	Sample ID:	Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	5 references (excluding SED010)		

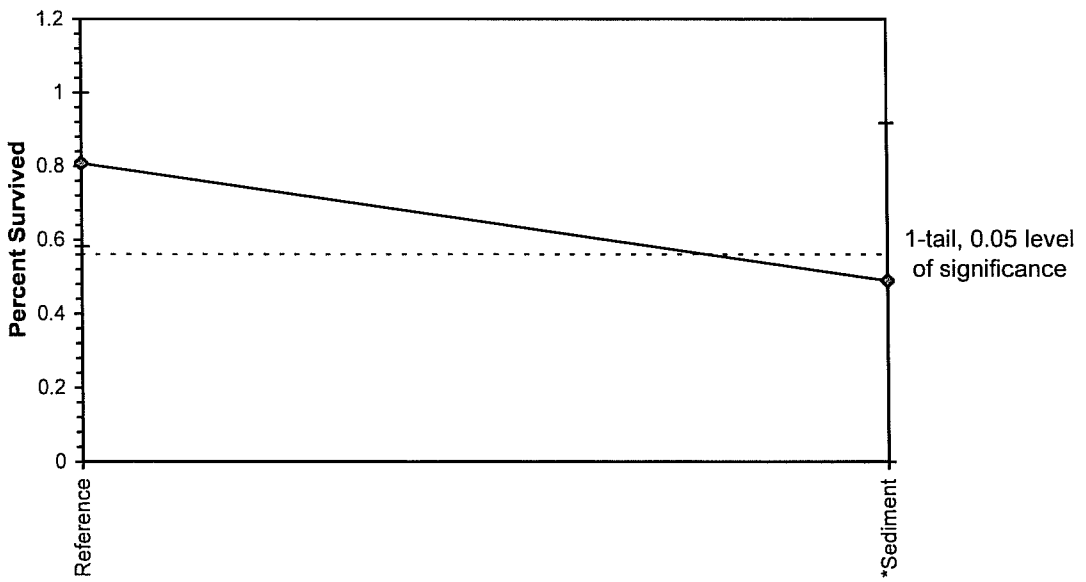
Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.9167	0.9167	0.6667	0.8333	0.6667	0.8333
Reference	0.8333	0.8333	0.7500	0.6667	1.0000	0.8333	0.7500	0.9167	0.9167	0.5833
Sediment	0.9167	0.8333	0.7500	0.7500	0.0000	0.2500	0.0833	0.3333		

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	0.8083	1.0000	0.8083	0.5833	1.0000	13.421	20			
*Sediment	0.4896	0.6057	0.4896	0.0000	0.9167	74.159	8	2.440	1.895	0.2475

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97387	0.896	-0.2523	0.5077
F-Test indicates unequal variances (p = 2.83E-05)	11.2006	4.34483		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Heteroscedastic t Test indicates significant differences Treatments vs Reference	0.2475	0.30619	0.58058	0.04409	0.00122	1, 26

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: Adj Nearshore | Sample Type: Sediment
Start Date: End Date: | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	1	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	2	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	3	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	4	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 027	5	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	6	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	7	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	8	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 006	9	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	10	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	11	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	12	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 018	13	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	14	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	15	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	16	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 028	17	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	18	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	19	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	20	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	Sed 032	1	Sediment	12	9	7	1	1	0.75	937.64	947.81	10.17	1.45	939.58	8.23	1.18
	Sed 032	2	Sediment	12	11	11	0	0	0.92	939.99	956.81	16.82	1.53	944.46	12.35	1.12
	Sed 032	3	Sediment	12	9	9	0	0	0.75	926.22	940.11	13.89	1.54	930.08	10.03	1.11
	Sed 032	4	Sediment	12	11	11	0	0	0.92	920.56	934.50	13.94	1.27	923.97	10.53	0.96
	Sed 056	5	Sediment	12	6	4	2	0	0.50	905.07	913.64	8.57	2.14	906.93	6.71	1.68
	Sed 056	6	Sediment	12	7	5	0	2	0.58	915.40	926.22	10.82	2.16	917.66	8.56	1.71
	Sed 056	7	Sediment	12	9	8	0	1	0.75	930.42	943.67	13.25	1.66	934.45	9.22	1.15
	Sed 056	8	Sediment	12	9	9	0	0	0.75	928.63	944.63	16.00	1.78	933.07	11.56	1.28
	Sed 059	9	Sediment	12	10	10	0	0	0.83	915.10	928.20	13.10	1.31	918.10	10.10	1.01
	Sed 059	10	Sediment	12	9	9	0	0	0.75	924.08	936.34	12.26	1.36	926.75	9.59	1.07
	Sed 059	11	Sediment	12	11	11	0	0	0.92	939.93	955.61	15.68	1.43	944.00	11.61	1.06
	Sed 059	12	Sediment	12	12	12	0	0	1.00	941.60	955.82	14.22	1.19	945.50	10.32	0.86
	Sed 082	13	Sediment	12	4	3	1	0	0.33	929.29	936.30	7.01	2.34	930.28	6.02	2.01
	Sed 082	14	Sediment	12	3	1	2	0	0.25	928.99	930.66	1.67	1.67	929.35	1.31	1.31
	Sed 082	15	Sediment	12	4	4	0	0	0.33	933.81	943.19	9.38	2.35	935.14	8.05	2.01
	Sed 082	16	Sediment	12	6	6	0	0	0.50	937.26	946.81	9.55	1.59	939.20	7.61	1.27
	Sed 085	17	Sediment	12	2	2	0	0	0.17	914.04	918.06	4.02	2.01	914.46	3.60	1.80
	Sed 085	18	Sediment	12	3	3	0	0	0.25	909.79	916.38	6.59	2.20	910.55	5.83	1.94

Reviewed by: 

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Adj Nearshore
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Sed 085	19	Sediment	12	3	3	0	0	0.25	918.92	924.96	6.04	2.01	919.86	5.10	1.70
	Sed 085	20	Sediment	12	1	1	0	0	0.08	916.56	917.36	0.80	0.80	916.74	0.62	0.62
	Sed 087	21	Sediment	12	8	4	4	0	0.67	934.20	940.90	6.70	1.67	936.10	4.80	1.20
	Sed 087	22	Sediment	12	9	8	1	0	0.75	920.05	932.12	12.07	1.51	922.89	9.23	1.15
	Sed 087	23	Sediment	12	12	12	0	0	1.00	913.77	929.87	16.10	1.34	918.58	11.29	0.94
	Sed 087	24	Sediment	12	9	9	0	0	0.75	911.11	925.27	14.16	1.57	915.61	9.66	1.07
	Sed 094	25	Sediment	12	2	2	0	0	0.17	914.60	917.11	2.51	1.26	915.04	2.07	1.04
	Sed 094	26	Sediment	12	0	0	0	0	0.00	917.83	0.00	0.00		0.00	0.00	
	Sed 094	27	Sediment	12	1	1	0	0	0.08	924.77	925.66	0.89	0.89	925.11	0.55	0.55
	Sed 094	28	Sediment	12	1	1	0	0	0.08	921.75	924.17	2.42	2.42	922.08	2.09	2.09
	Sed 097	29	Sediment	12	5	4	1	0	0.42	907.75	915.24	7.49	1.87	909.55	5.69	1.42
	Sed 097	30	Sediment	12	8	7	1	0	0.67	907.85	919.62	11.77	1.68	909.86	9.76	1.39
	Sed 097	31	Sediment	12	9	9	0	0	0.75	908.42	919.73	11.31	1.26	911.23	8.50	0.94
	Sed 097	32	Sediment	12	7	6	1	0	0.58	912.25	922.96	10.71	1.79	915.26	7.70	1.28
	Sed 100	33	Sediment	12	8	7	1	0	0.67	918.65	932.64	13.99	2.00	922.35	10.29	1.47
	Sed 100	34	Sediment	12	10	8	1	1	0.83	923.84	937.61	13.77	1.72	928.22	9.39	1.17
	Sed 100	35	Sediment	12	9	7	2	0	0.75	917.69	930.48	12.79	1.83	921.16	9.32	1.33
	Sed 100	36	Sediment	12	9	8	0	1	0.75	922.97	937.66	14.69	1.84	926.71	10.95	1.37

Comments: 5 references (excluding SED010)

Reviewed by:

Chironomid Test-Percent Survived

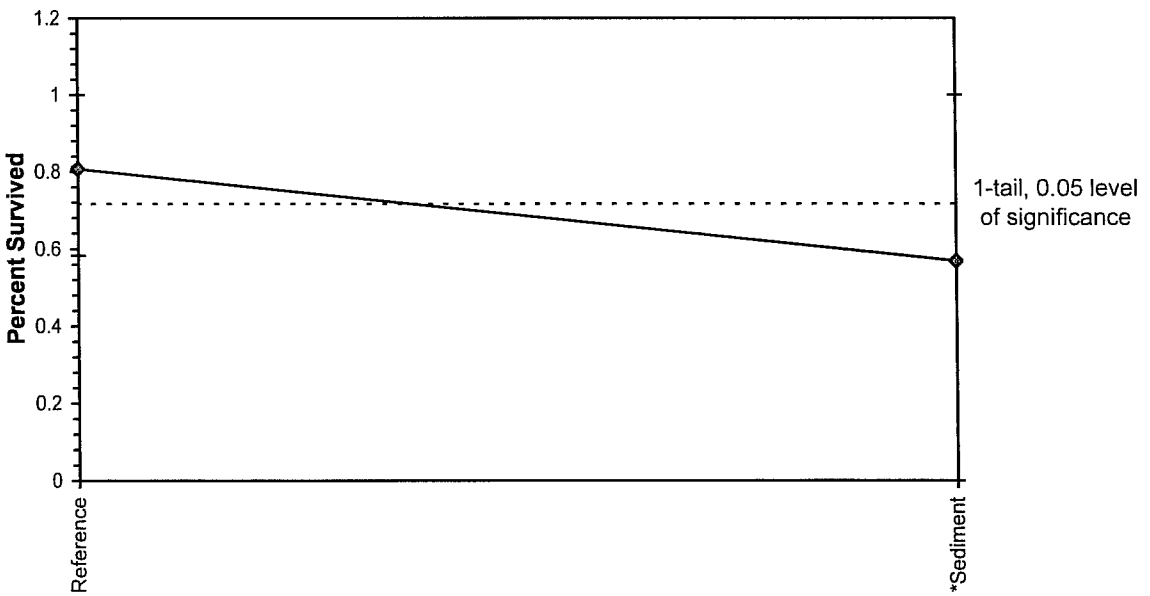
Start Date:	Test ID: 27-303	Sample ID:	adj nearshore
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPAM 02-EPA Marine	Test Species:	CT-Chironomous tentans
Comments:			

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.7500	0.6667	1.0000	0.8333	0.9167	0.9167
Reference	0.6667	0.8333	0.6667	0.8333	0.8333	0.8333	0.7500	0.9167	0.9167	0.5833
Sediment	0.7500	0.9167	0.7500	0.9167	0.5000	0.5833	0.7500	0.7500	0.8333	0.7500
Sediment	0.9167	1.0000	0.3333	0.2500	0.3333	0.5000	0.1667	0.2500	0.2500	0.0833
Sediment	0.6667	0.7500	1.0000	0.7500	0.1667	0.0000	0.0833	0.0833	0.4167	0.6667
Sediment	0.7500	0.5833	0.6667	0.8333	0.7500	0.7500				

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	0.8083	1.0000	0.8083	0.5833	1.0000	13.421	20			
*Sediment	0.5694	0.7045	0.5694	0.0000	1.0000	51.710	36	4.364	1.677	0.0918

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Kolmogorov D Test indicates normal distribution (p > 0.01)	0.985502		1.035		-0.53865	-0.26957
F-Test indicates unequal variances (p = 2.57E-05)	7.367347		3.149794			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Heteroscedastic t Test indicates significant differences Treatments vs Reference	0.091819	0.11359	0.73373	0.06034	9.8E-04	1, 54

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Upper Nav Channel
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	1	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	2	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	3	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	4	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	5	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 006	6	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 006	7	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 006	8	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 018	9	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 018	10	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 018	11	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 018	12	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 027	13	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 027	14	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 027	15	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 027	16	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 028	17	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	18	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	19	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	20	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	Sed 11INV	1	Sediment	12	4	4	0	0	0.33	908.21	918.30	10.09	2.52	911.85	6.45	1.61
	Sed 11INV	2	Sediment	12	4	4	0	0	0.33	903.47	913.89	10.42	2.61	907.18	6.71	1.68
	Sed 11INV	3	Sediment	12	6	6	0	0	0.50	909.06	918.98	9.92	1.65	912.16	6.82	1.14
	Sed 11INV	4	Sediment	12	5	5	0	0	0.42	904.21	911.89	7.68	1.54	906.63	5.26	1.05
	Sed 61	5	Sediment	12	10	10	0	0	0.83	927.05	942.63	15.58	1.56	931.50	11.13	1.11
	Sed 61	6	Sediment	12	10	8	1	1	0.83	924.69	937.38	12.69	1.59	928.23	9.15	1.14
	Sed 61	7	Sediment	12	6	6	0	0	0.50	927.20	939.47	12.27	2.05	930.15	9.32	1.55
	Sed 61	8	Sediment	12	10	9	1	0	0.83	925.00	937.65	12.65	1.41	928.36	9.29	1.03
	Sed 64	9	Sediment	12	11	11	0	0	0.92	932.56	951.39	18.83	1.71	939.12	12.27	1.12
	Sed 64	10	Sediment	12	7	4	0	3	0.58	931.55	942.77	11.22	2.81	935.03	7.74	1.94
	Sed 64	11	Sediment	12	12	12	0	0	1.00	931.88	951.75	19.87	1.66	938.50	13.25	1.10
	Sed 64	12	Sediment	12	12	12	0	0	1.00	927.79	946.79	19.00	1.58	935.06	11.73	0.98
	Sed 67	13	Sediment	12	12	11	1	0	1.00	929.17	947.44	18.27	1.66	937.21	10.23	0.93
	Sed 67	14	Sediment	12	8	8	0	0	0.67	930.79	950.45	19.66	2.46	938.92	11.53	1.44
	Sed 67	15	Sediment	12	9	7	2	0	0.75	928.06	942.89	14.83	2.12	933.33	9.56	1.37
	Sed 67	16	Sediment	12	10	10	0	0	0.83	932.64	952.55	19.91	1.99	939.77	12.78	1.28
	Sed 69	17	Sediment	12	4	4	0	0	0.33	931.38	936.42	5.04	1.26	932.22	4.20	1.05
	Sed 69	18	Sediment	12	1	1	0	0	0.08	928.66	931.24	2.58	2.58	929.15	2.09	2.09

Reviewed by: KF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Upper Nav Channel
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Sed 69	19	Sediment	12	5	5	0	0	0.42	906.87	915.63	8.76	1.75	908.57	7.06	1.41
	Sed 69	20	Sediment	12	3	3	0	0	0.25	932.19	938.20	6.01	2.00	933.22	4.98	1.66
	Sed 71	21	Sediment	12	11	11	0	0	0.92	924.27	945.75	21.48	1.95	930.95	14.80	1.35
	Sed 71	22	Sediment	12	11	11	0	0	0.92	928.47	951.70	23.23	2.11	936.43	15.27	1.39
	Sed 71	23	Sediment	12	9	6	3	0	0.75	921.14	933.38	12.24	2.04	924.38	9.00	1.50
	Sed 71	24	Sediment	12	12	12	0	0	1.00	929.38	947.09	17.71	1.48	935.08	12.01	1.00
	Sed 124	25	Sediment	12	13	9	0	4	1.08	910.56	929.56	19.00	2.11	917.41	12.15	1.35
	Sed 124	26	Sediment	12	12	10	0	2	1.00	917.63	938.06	20.43	2.04	925.05	13.01	1.30
	Sed 124	27	Sediment	12	10	8	2	0	0.83	911.67	925.98	14.31	1.79	917.20	8.78	1.10
	Sed 124	28	Sediment	12	11	10	1	0	0.92	922.16	942.83	20.67	2.07	927.00	15.83	1.58
	Sed 125	29	Sediment	12	12	11	0	1	1.00	911.18	932.29	21.11	1.92	919.95	12.34	1.12
	Sed 125	30	Sediment	12	11	11	0	0	0.92	909.92	931.29	21.37	1.94	918.26	13.03	1.18
	Sed 125	31	Sediment	12	12	11	1	0	1.00	910.23	929.98	19.75	1.80	918.05	11.93	1.08
	Sed 125	32	Sediment	12	8	6	2	0	0.67	908.53	922.33	13.80	2.30	913.36	8.97	1.50
	Sed 126	33	Sediment	12	11	9	1	1	0.92	910.44	928.05	17.61	1.96	916.20	11.85	1.32
	Sed 126	34	Sediment	12	12	12	0	0	1.00	908.17	931.25	23.08	1.92	916.11	15.14	1.26
	Sed 126	35	Sediment	12	6	6	0	0	0.50	906.55	916.85	10.30	1.72	909.59	7.26	1.21
	Sed 126	36	Sediment	12	11	10	1	0	0.92	906.19	924.88	18.69	1.87	913.50	11.38	1.14

Comments: 5 references (excluding SED010)

C-106

ToxCalc 5.0

Reviewed by:

Chironomid Test-Percent Survived

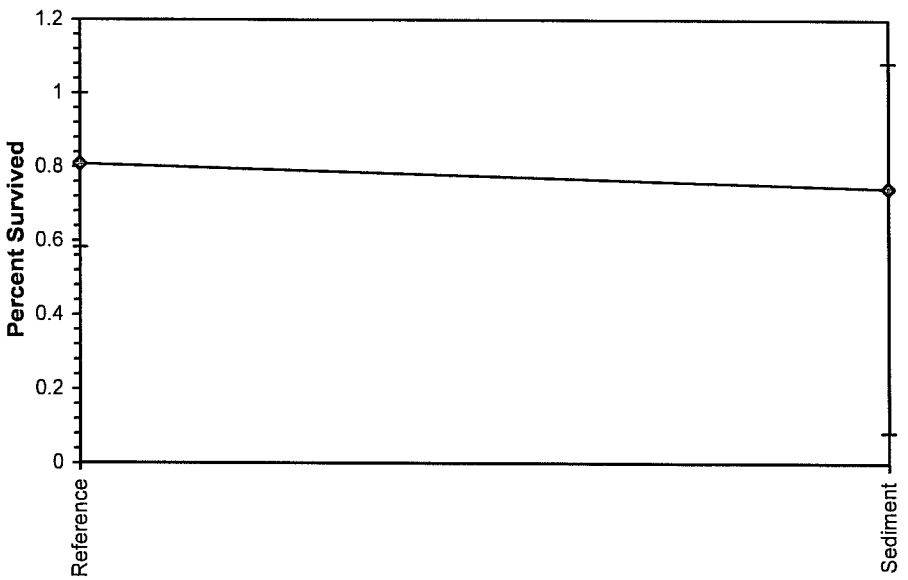
Start Date:	Test ID: 27-303	Sample ID:	Upper Nav Channel
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	5 references (excluding SED010)		

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.7500	0.6667	1.0000	0.8333	0.9167	0.9167
Reference	0.6667	0.8333	0.6667	0.8333	0.8333	0.8333	0.7500	0.9167	0.9167	0.5833
Sediment	0.3333	0.3333	0.5000	0.4167	0.8333	0.8333	0.5000	0.8333	0.9167	0.5833
Sediment	1.0000	1.0000	1.0000	0.6667	0.7500	0.8333	0.3333	0.0833	0.4167	0.2500
Sediment	0.9167	0.9167	0.7500	1.0000	1.0833	1.0000	0.8333	0.9167	1.0000	0.9167
Sediment	1.0000	0.6667	0.9167	1.0000	0.5000	0.9167				

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Reference	0.8083	1.0000	0.8083	0.5833	1.0000	13.421	20		
Sediment	0.7431	0.9192	0.7431	0.0833	1.0833	36.005	36	1030.00	474.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.05848	1.035	-0.8918	0.35309
F-Test indicates unequal variances (p = 1.12E-04)	6.08185	3.14979		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs Reference				

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by:

C-107

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	1	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	2	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	3	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	4	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	5	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 006	6	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 006	7	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 006	8	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 018	9	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 018	10	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 018	11	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 018	12	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 027	13	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 027	14	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 027	15	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 027	16	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 028	17	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	18	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	19	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	20	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	Sed 130	5	Sediment	12	10	10	0	0	0.83	943.43	964.29	20.86	2.09	950.81	13.48	1.35
	Sed 130	6	Sediment	12	6	6	0	0	0.50	939.82	956.27	16.45	2.74	944.39	11.88	1.98
	Sed 130	7	Sediment	12	11	10	1	0	0.92	935.36	951.64	16.28	1.63	940.11	11.53	1.15
	Sed 130	8	Sediment	12	11	10	1	0	0.92	929.29	944.98	15.69	1.57	934.50	10.48	1.05
	Sed 131	9	Sediment	12	10	9	1	0	0.83	924.87	940.00	15.13	1.68	928.85	11.15	1.24
	Sed 131	10	Sediment	12	0	0	0	0	0.00	920.39	0.00	0.00		0.00	0.00	
	Sed 131	11	Sediment	12	9	5	4	0	0.75	922.21	930.43	8.22	1.64	924.26	6.17	1.23
	Sed 131	12	Sediment	12	8	7	1	0	0.67	921.29	933.00	11.71	1.67	924.84	8.16	1.17
	Sed 132	13	Sediment	12	9	9	0	0	0.75	930.81	934.44	3.63	0.40	931.87	2.57	0.29
	Sed 132	14	Sediment	12	8	8	0	0	0.67	942.83	946.82	3.99	0.50	943.90	2.92	0.37
	Sed 132	15	Sediment	12	9	9	0	0	0.75	938.60	942.82	4.22	0.47	940.03	2.79	0.31
	Sed 132	16	Sediment	12	9	8	0	1	0.75	938.02	942.80	4.78	0.60	939.39	3.41	0.43
	Sed 133	17	Sediment	12	10	10	0	0	0.83	943.99	957.69	13.70	1.37	948.12	9.57	0.96
	Sed 133	18	Sediment	12	11	11	0	0	0.92	923.01	935.45	12.44	1.13	927.04	8.41	0.76
	Sed 133	19	Sediment	12	10	10	0	0	0.83	925.95	937.69	11.74	1.17	929.79	7.90	0.79
	Sed 133	20	Sediment	12	9	8	1	0	0.75	910.79	922.07	11.28	1.41	913.72	8.35	1.04
	Sed 134	21	Sediment	12	9	4	2	3	0.75	909.67	919.17	9.50	2.38	912.43	6.74	1.69
	Sed 134	22	Sediment	12	11	7	2	2	0.92	919.43	938.07	18.64	2.66	923.75	14.32	2.05

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Sed 134	23	Sediment	12	11	9	1	1	0.92	914.64	930.00	15.36	1.71	920.28	9.72	1.08
	Sed 134	24	Sediment	12	11	11	0	0	0.92	916.84	934.21	17.37	1.58	922.89	11.32	1.03
	Sed 63	1	Sediment	12	5	5	0	0	0.42	935.82	939.21	3.39	0.68	936.76	2.45	0.49
	Sed 63	2	Sediment	12	10	10	0	0	0.83	945.28	953.64	8.36	0.84	947.65	5.99	0.60
	Sed 63	3	Sediment	12	12	12	0	0	1.00	946.31	950.01	3.70	0.31	947.20	2.81	0.23
	Sed 63	4	Sediment	12	4	4	0	0	0.33	942.45	945.79	3.34	0.83	943.12	2.67	0.67

Comments: 5 references (excluding SED010)

Chironomid Test-Percent Survived

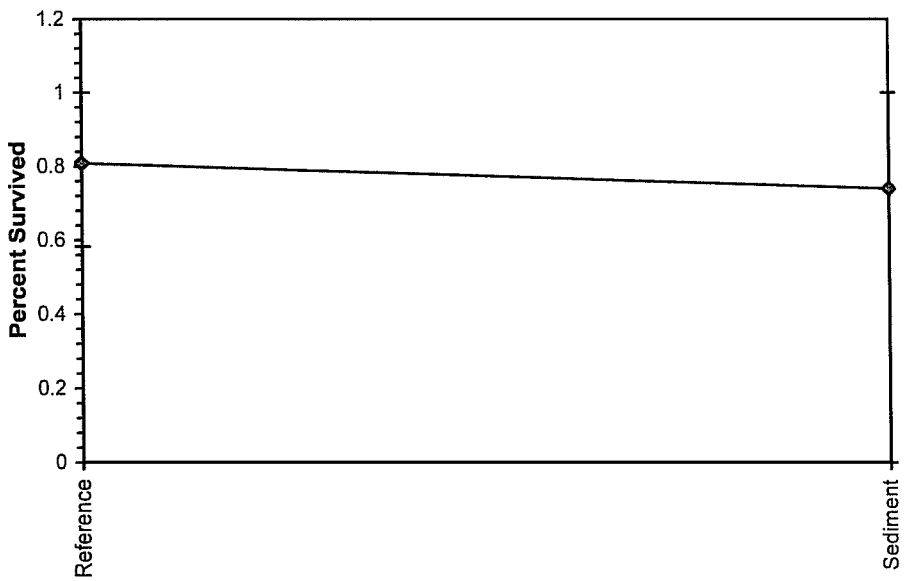
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	5 references (excluding SED010)		

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.7500	0.6667	1.0000	0.8333	0.9167	0.9167
Reference	0.6667	0.8333	0.6667	0.8333	0.8333	0.8333	0.7500	0.9167	0.9167	0.5833
Sediment	0.8333	0.5000	0.9167	0.9167	0.8333	0.0000	0.7500	0.6667	0.7500	0.6667
Sediment	0.7500	0.7500	0.8333	0.9167	0.8333	0.7500	0.7500	0.9167	0.9167	0.9167
Sediment	0.4167	0.8333	1.0000	0.3333						

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Reference	0.8083	1.0000	0.8083	0.5833	1.0000	13.421	20		
Sediment	0.7396	0.9149	0.7396	0.0000	1.0000	30.689	24	514.50	380.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.84804	0.924	-1.9393	5.68579
F-Test indicates unequal variances (p = 1.83E-03)	4.37736	3.32721		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs Reference				

Dose-Response Plot



Chironomid Test-Individual AFDW

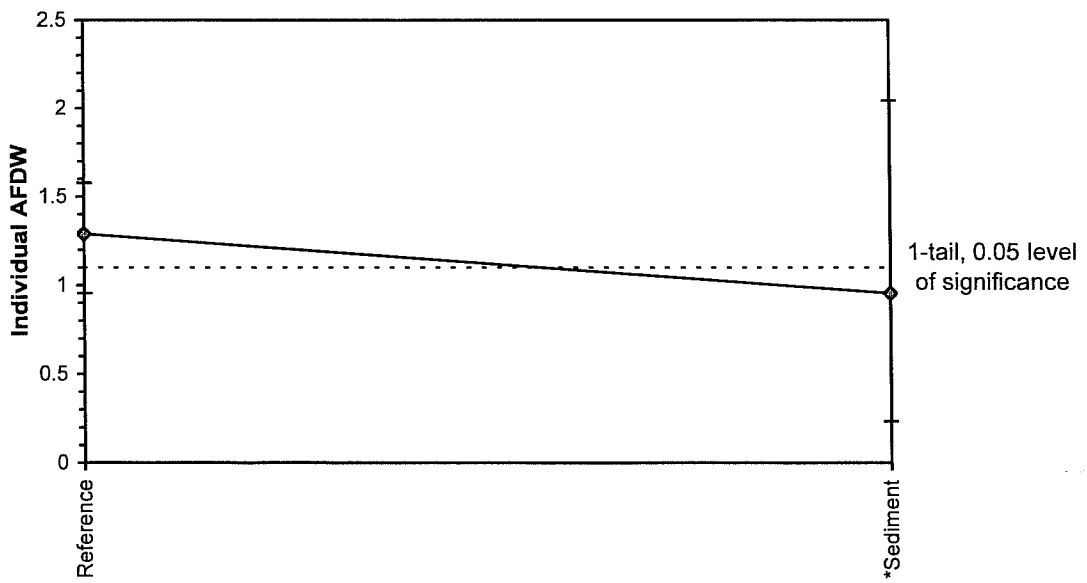
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	5 references (excluding SED010)		

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	1.4233	1.3367	1.4550	1.3788	1.2456	1.5750	1.2140	1.2389	1.3009	0.9518
Reference	1.3550	1.1414	1.5150	1.2610	1.2786	1.1078	1.2644	1.1245	1.0827	1.4817
Sediment	1.3480	1.9800	1.1530	1.0480	1.2389	1.2340	1.1657	0.2856	0.3650	0.3100
Sediment	0.4262	0.9567	0.7645	0.7900	1.0438	1.6850	2.0457	1.0800	1.0291	0.4900
Sediment	0.5990	0.2342	0.6675							

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	1.2866	1.0000	1.2866	0.9518	1.5750	12.350	20			
*Sediment	0.9539	0.7414	0.9539	0.2342	2.0457	53.397	23	2.971	1.706	0.1910

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93597		0.923		0.62875	1.57395
F-Test indicates unequal variances (p = 3.59E-06)	10.2757		3.35005			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Heteroscedastic t Test indicates significant differences Treatments vs Reference	0.19102	0.14847	1.18409	0.15092	0.00774	1, 41

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline + Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	1	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	2	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	3	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	4	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	9	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	10	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	11	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	12	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 018	13	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	14	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	15	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	16	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 027	5	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	6	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	7	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	8	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 028	17	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	18	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	19	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	20	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	SED 118	25	Sediment	12	11	11	0	0	0.92	921.36	939.41	18.05	1.64	927.49	11.92	1.08
	SED 118	26	Sediment	12	10	7	2	1	0.83	925.03	939.67	14.64	2.09	930.32	9.35	1.34
	SED 118	27	Sediment	12	9	4	3	2	0.75	931.23	940.73	9.50	2.38	934.78	5.95	1.49
	SED 118	28	Sediment	12	9	7	0	2	0.75	927.68	943.20	15.52	2.22	933.33	9.87	1.41
	SED 120	29	Sediment	12	0	0	0	0	0.00	935.22	0.00	0.00		0.00	0.00	
	SED 120	30	Sediment	12	3	3	0	0	0.25	934.40	941.25	6.85	2.28	936.62	4.63	1.54
	SED 120	31	Sediment	12	1	1	0	0	0.08	904.17	908.30	4.13	4.13	905.55	2.75	2.75
	SED 120	32	Sediment	12	4	4	0	0	0.33	903.97	912.55	8.58	2.14	905.88	6.67	1.67
	SED 130	5	Sediment	12	10	10	0	0	0.83	943.43	964.29	20.86	2.09	950.81	13.48	1.35
	SED 130	6	Sediment	12	6	6	0	0	0.50	939.82	956.27	16.45	2.74	944.39	11.88	1.98
	SED 130	7	Sediment	12	11	10	1	0	0.92	935.36	951.64	16.28	1.63	940.11	11.53	1.15
	SED 130	8	Sediment	12	11	10	1	0	0.92	929.29	944.98	15.69	1.57	934.50	10.48	1.05
	SED 131	9	Sediment	12	10	9	1	0	0.83	924.87	940.00	15.13	1.68	928.85	11.15	1.24
	SED 131	10	Sediment	12	0	0	0	0	0.00	920.39	0.00	0.00		0.00	0.00	
	SED 131	11	Sediment	12	9	5	4	0	0.75	922.21	930.43	8.22	1.64	924.26	6.17	1.23
	SED 131	12	Sediment	12	8	7	1	0	0.67	921.29	933.00	11.71	1.67	924.84	8.16	1.17
	SED 132	13	Sediment	12	9	9	0	0	0.75	930.81	934.44	3.63	0.40	931.87	2.57	0.29
	SED 132	14	Sediment	12	8	8	0	0	0.67	942.83	946.82	3.99	0.50	943.90	2.92	0.37

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline + Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	SED 132	15	Sediment	12	9	9	0	0	0.75	938.60	942.82	4.22	0.47	940.03	2.79	0.31
	SED 132	16	Sediment	12	9	8	0	1	0.75	938.02	942.80	4.78	0.60	939.39	3.41	0.43
	SED 133	17	Sediment	12	10	10	0	0	0.83	943.99	957.69	13.70	1.37	948.12	9.57	0.96
	SED 133	18	Sediment	12	11	11	0	0	0.92	923.01	935.45	12.44	1.13	927.04	8.41	0.76
	SED 133	19	Sediment	12	10	10	0	0	0.83	925.95	937.69	11.74	1.17	929.79	7.90	0.79
	SED 133	20	Sediment	12	9	8	1	0	0.75	910.79	922.07	11.28	1.41	913.72	8.35	1.04
	SED 134	21	Sediment	12	9	4	2	3	0.75	909.67	919.17	9.50	2.38	912.43	6.74	1.69
	SED 134	22	Sediment	12	11	7	2	2	0.92	919.43	938.07	18.64	2.66	923.75	14.32	2.05
	SED 134	23	Sediment	12	11	9	1	1	0.92	914.64	930.00	15.36	1.71	920.28	9.72	1.08
	SED 134	24	Sediment	12	11	11	0	0	0.92	916.84	934.21	17.37	1.58	922.89	11.32	1.03
	SED 63	1	Sediment	12	5	5	0	0	0.42	935.82	939.21	3.39	0.68	936.76	2.45	0.49
	SED 63	2	Sediment	12	10	10	0	0	0.83	945.28	953.64	8.36	0.84	947.65	5.99	0.60
	SED 63	3	Sediment	12	12	12	0	0	1.00	946.31	950.01	3.70	0.31	947.20	2.81	0.23
	SED 63	4	Sediment	12	4	4	0	0	0.33	942.45	945.79	3.34	0.83	943.12	2.67	0.67

Comments: 5 references (excluding SED010)

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	5 references (excluding SED010)		

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.9167	0.9167	0.6667	0.8333	0.6667	0.8333
Reference	0.8333	0.8333	0.7500	0.6667	1.0000	0.8333	0.7500	0.9167	0.9167	0.5833
Sediment	0.9167	0.8333	0.7500	0.7500	0.0000	0.2500	0.0833	0.3333	0.8333	0.5000
Sediment	0.9167	0.9167	0.8333	0.0000	0.7500	0.6667	0.7500	0.6667	0.7500	0.7500
Sediment	0.8333	0.9167	0.8333	0.7500	0.7500	0.9167	0.9167	0.9167	0.4167	0.8333
Sediment	1.0000	0.3333								

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Reference	0.8083	1.0000	0.8083	0.5833	1.0000	13.421	20		
Sediment	0.6771	0.8376	0.6771	0.0000	1.0000	41.796	32	782.00	443.00

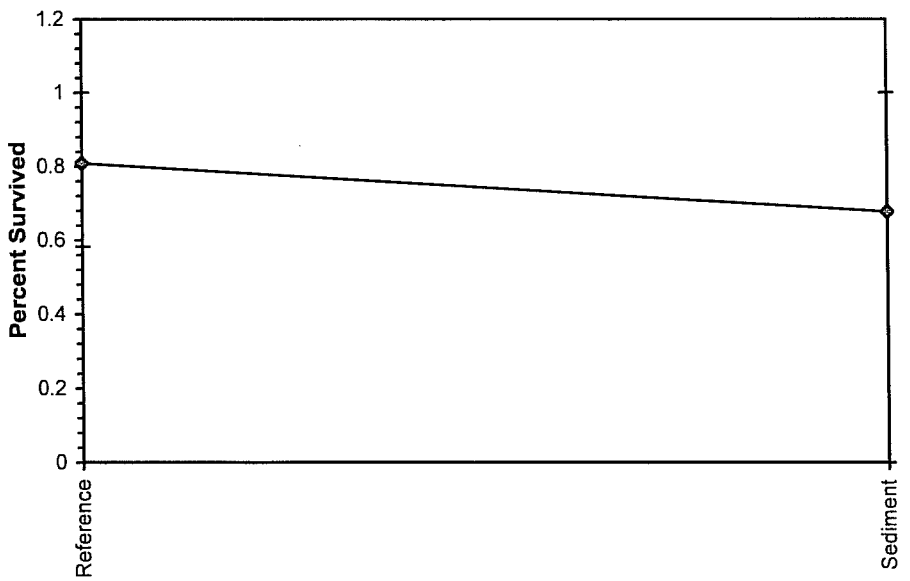
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.44226	1.035	-1.441	1.94592
F-Test indicates unequal variances (p = 5.50E-05)	6.80475	3.19459		

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs Reference

Dose-Response Plot



Chironomid Test-Individual AFDW

Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:	5 references (excluding SED010)		

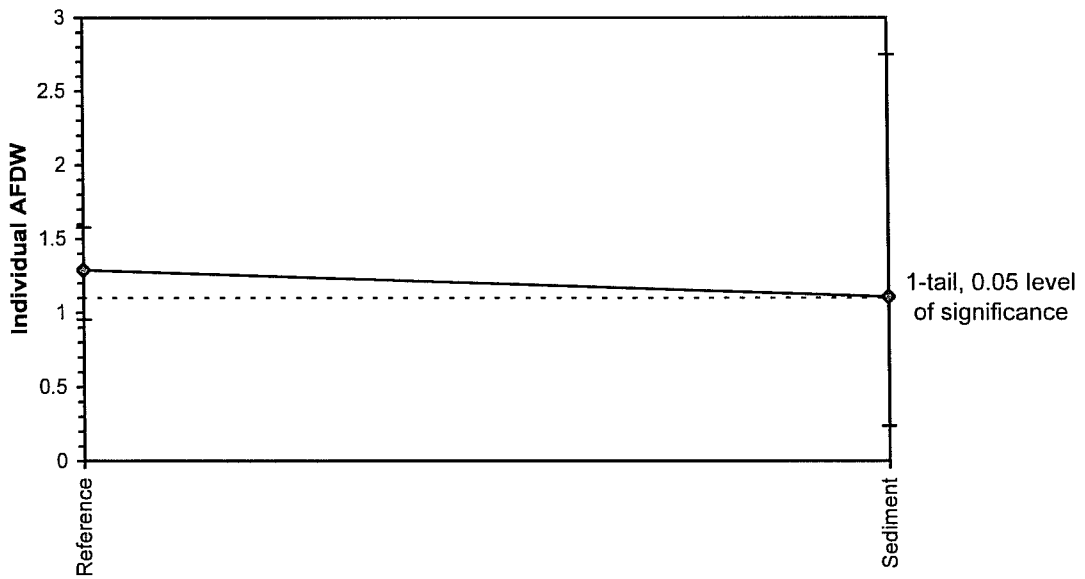
Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	1.4233	1.3367	1.4550	1.3788	1.3009	0.9518	1.3550	1.1414	1.5150	1.2610
Reference	1.2786	1.1078	1.2456	1.5750	1.2140	1.2389	1.2644	1.1245	1.0827	1.4817
Sediment	1.0836	1.3357	1.4875	1.4100	1.5433	2.7500	1.6675	1.3480	1.9800	1.1530
Sediment	1.0480	1.2389	1.2340	1.1657	0.2856	0.3650	0.3100	0.4262	0.9567	0.7645
Sediment	0.7900	1.0438	1.6850	2.0457	1.0800	1.0291	0.4900	0.5990	0.2342	0.6675

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	1.2866	1.0000	1.2866	0.9518	1.5750	12.350	20			
Sediment	1.1073	0.8606	1.1073	0.2342	2.7500	52.341	30	1.607	1.690	0.1886

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93628	0.93	0.78148	2.73687
F-Test indicates unequal variances (p = 2.64E-07)	13.3026	3.22131		

Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Heteroscedastic t Test indicates no significant differences	0.18858	0.14658	0.38601	0.21292	0.18448	1, 48
Treatments vs Reference						

Dose-Response Plot



Test: CT-Chironomid Test | Test ID: 27-303
Species: CT-Chironomous tentans | Protocol: EPA 600 MA
Sample ID: Adj Farfield | Sample Type: Sediment
Start Date: End Date: | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 010	Reference	12	5	5	0	0	0.42	955.60	957.74	2.14	0.43	956.02	1.72	0.34
	Ref 010	Reference	12	4	4	0	0	0.33	956.24	958.16	1.92	0.48	956.56	1.60	0.40
	Ref 010	Reference	12	2	2	0	0	0.17	958.29	959.32	1.03	0.52	958.51	0.81	0.41
	Ref 010	Reference	12	2	2	0	0	0.17	950.22	950.50	0.28	0.14	950.25	0.25	0.13
	Ref 018	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 027	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 028	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	SED 118	Sediment	12	11	11	0	0	0.92	921.36	939.41	18.05	1.64	927.49	11.92	1.08
	SED 118	Sediment	12	10	7	2	1	0.83	925.03	939.67	14.64	2.09	930.32	9.35	1.34
	SED 118	Sediment	12	9	4	3	2	0.75	931.23	940.73	9.50	2.38	934.78	5.95	1.49
	SED 118	Sediment	12	9	7	0	2	0.75	927.68	943.20	15.52	2.22	933.33	9.87	1.41
	SED 120	Sediment	12	0	0	0	0	0.00	935.22	0.00	0.00		0.00	0.00	
	SED 120	Sediment	12	3	3	0	0	0.25	934.40	941.25	6.85	2.28	936.62	4.63	1.54
	SED 120	Sediment	12	1	1	0	0	0.08	904.17	908.30	4.13	4.13	905.55	2.75	2.75
	SED 120	Sediment	12	4	4	0	0	0.33	903.97	912.55	8.58	2.14	905.88	6.67	1.67

Comments:

 Reviewed by:

Chironomid Test-Percent Survived

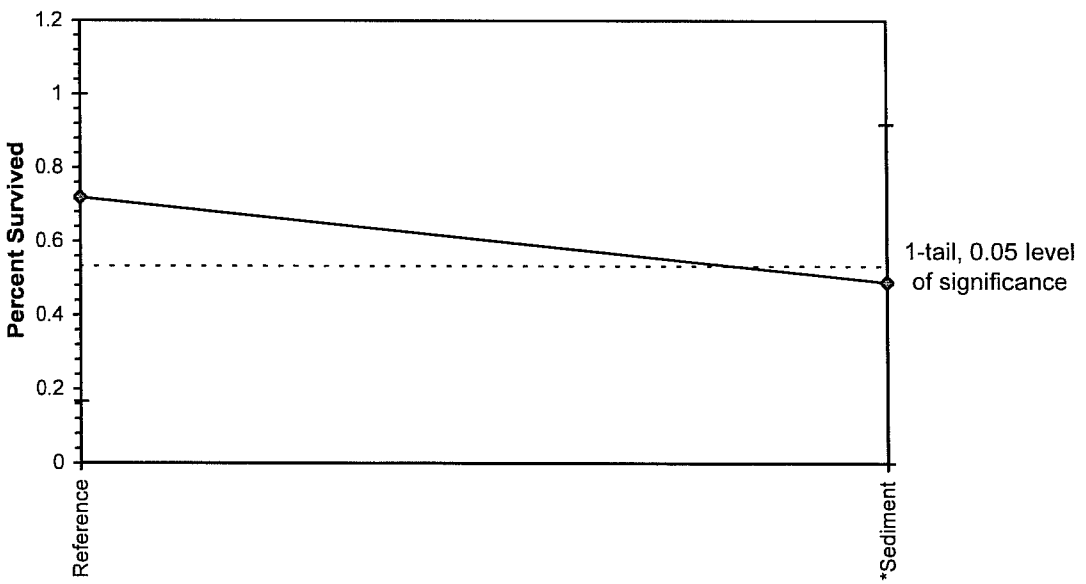
Start Date:	Test ID: 27-303	Sample ID:	Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:			

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.9167	0.9167	0.6667	0.8333	0.4167	0.3333
Reference	0.1667	0.1667	0.6667	0.8333	0.8333	0.8333	0.7500	0.6667	1.0000	0.8333
Reference	0.7500	0.9167	0.9167	0.5833						
Sediment	0.9167	0.8333	0.7500	0.7500	0.0000	0.2500	0.0833	0.3333		

			Transform: Untransformed					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	0.7188	1.0000	0.7188	0.1667	1.0000	32.220	24			
*Sediment	0.4896	0.6812	0.4896	0.0000	0.9167	74.159	8	2.094	1.697	0.1858

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91753		0.904		-0.7545	-0.2665
F-Test indicates equal variances (p = 0.10)	2.45793		4.0469			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates significant differences Treatments vs Reference	0.18576	0.25845	0.3151	0.07188	0.04483	1, 30

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Adj Nearshore
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 010	Reference	12	5	5	0	0	0.42	955.60	957.74	2.14	0.43	956.02	1.72	0.34
	Ref 010	Reference	12	4	4	0	0	0.33	956.24	958.16	1.92	0.48	956.56	1.60	0.40
	Ref 010	Reference	12	2	2	0	0	0.17	958.29	959.32	1.03	0.52	958.51	0.81	0.41
	Ref 010	Reference	12	2	2	0	0	0.17	950.22	950.50	0.28	0.14	950.25	0.25	0.13
	Ref 018	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 027	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 028	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	Sed 100	Sediment	12	8	7	1	0	0.67	918.65	932.64	13.99	2.00	922.35	10.29	1.47
	Sed 100	Sediment	12	10	8	1	1	0.83	923.84	937.61	13.77	1.72	928.22	9.39	1.17
	Sed 100	Sediment	12	9	7	2	0	0.75	917.69	930.48	12.79	1.83	921.16	9.32	1.33
	Sed 100	Sediment	12	9	8	0	1	0.75	922.97	937.66	14.69	1.84	926.71	10.95	1.37
	Sed 32	Sediment	12	9	7	1	1	0.75	937.64	947.81	10.17	1.45	939.58	8.23	1.18
	Sed 32	Sediment	12	11	11	0	0	0.92	939.99	956.81	16.82	1.53	944.46	12.35	1.12
	Sed 32	Sediment	12	9	9	0	0	0.75	926.22	940.11	13.89	1.54	930.08	10.03	1.11
	Sed 32	Sediment	12	11	11	0	0	0.92	920.56	934.50	13.94	1.27	923.97	10.53	0.96
	Sed 56	Sediment	12	6	4	2	0	0.50	905.07	913.64	8.57	2.14	906.93	6.71	1.68
	Sed 56	Sediment	12	7	5	0	2	0.58	915.40	926.22	10.82	2.16	917.66	8.56	1.71
	Sed 56	Sediment	12	9	8	0	1	0.75	930.42	943.67	13.25	1.66	934.45	9.22	1.15
	Sed 56	Sediment	12	9	9	0	0	0.75	928.63	944.63	16.00	1.78	933.07	11.56	1.28
	Sed 59	Sediment	12	10	10	0	0	0.83	915.10	928.20	13.10	1.31	918.10	10.10	1.01
	Sed 59	Sediment	12	9	9	0	0	0.75	924.08	936.34	12.26	1.36	926.75	9.59	1.07

Reviewed by: KF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Adj Nearshore
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Sed 59	Sediment	12	11	11	0	0	0.92	939.93	955.61	15.68	1.43	944.00	11.61	1.06
	Sed 59	Sediment	12	12	12	0	0	1.00	941.60	955.82	14.22	1.19	945.50	10.32	0.86
	Sed 82	Sediment	12	4	3	1	0	0.33	929.29	936.30	7.01	2.34	930.28	6.02	2.01
	Sed 82	Sediment	12	3	1	2	0	0.25	928.99	930.66	1.67	1.67	929.35	1.31	1.31
	Sed 82	Sediment	12	4	4	0	0	0.33	933.81	943.19	9.38	2.35	935.14	8.05	2.01
	Sed 82	Sediment	12	6	6	0	0	0.50	937.26	946.81	9.55	1.59	939.20	7.61	1.27
	Sed 85	Sediment	12	2	2	0	0	0.17	914.04	918.06	4.02	2.01	914.46	3.60	1.80
	Sed 85	Sediment	12	3	3	0	0	0.25	909.79	916.38	6.59	2.20	910.55	5.83	1.94
	Sed 85	Sediment	12	3	3	0	0	0.25	918.92	924.96	6.04	2.01	919.86	5.10	1.70
	Sed 85	Sediment	12	1	1	0	0	0.08	916.56	917.36	0.80	0.80	916.74	0.62	0.62
	Sed 87	Sediment	12	8	4	4	0	0.67	934.20	940.90	6.70	1.67	936.10	4.80	1.20
	Sed 87	Sediment	12	9	8	1	0	0.75	920.05	932.12	12.07	1.51	922.89	9.23	1.15
	Sed 87	Sediment	12	12	12	0	0	1.00	913.77	929.87	16.10	1.34	918.58	11.29	0.94
	Sed 87	Sediment	12	9	9	0	0	0.75	911.11	925.27	14.16	1.57	915.61	9.66	1.07
	Sed 94	Sediment	12	2	2	0	0	0.17	914.60	917.11	2.51	1.26	915.04	2.07	1.04
	Sed 94	Sediment	12	0	0	0	0	0.00	917.83	0.00	0.00		0.00	0.00	
	Sed 94	Sediment	12	1	1	0	0	0.08	924.77	925.66	0.89	0.89	925.11	0.55	0.55
	Sed 94	Sediment	12	1	1	0	0	0.08	921.75	924.17	2.42	2.42	922.08	2.09	2.09
	Sed 97	Sediment	12	5	4	1	0	0.42	907.75	915.24	7.49	1.87	909.55	5.69	1.42
	Sed 97	Sediment	12	8	7	1	0	0.67	907.85	919.62	11.77	1.68	909.86	9.76	1.39
	Sed 97	Sediment	12	9	9	0	0	0.75	908.42	919.73	11.31	1.26	911.23	8.50	0.94
	Sed 97	Sediment	12	7	6	1	0	0.58	912.25	922.96	10.71	1.79	915.26	7.70	1.28

Comments:

Reviewed by:

Chironomid Test-Percent Survived

Start Date:	Test ID: 27-303	Sample ID:	Adj Nearshore
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:			

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.9167	0.9167	0.6667	0.8333	0.4167	0.3333
Reference	0.1667	0.1667	0.6667	0.8333	0.8333	0.8333	0.7500	0.6667	1.0000	0.8333
Reference	0.7500	0.9167	0.9167	0.5833						
Sediment	0.6667	0.8333	0.7500	0.7500	0.7500	0.9167	0.7500	0.9167	0.5000	0.5833
Sediment	0.7500	0.7500	0.8333	0.7500	0.9167	1.0000	0.3333	0.2500	0.3333	0.5000
Sediment	0.1667	0.2500	0.2500	0.0833	0.6667	0.7500	1.0000	0.7500	0.1667	0.0000
Sediment	0.0833	0.0833	0.4167	0.6667	0.7500	0.5833				

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Reference	0.7188	1.0000	0.7188	0.1667	1.0000	32.220	24		
Sediment	0.5694	0.7923	0.5694	0.0000	1.0000	51.710	36	957.50	623.00

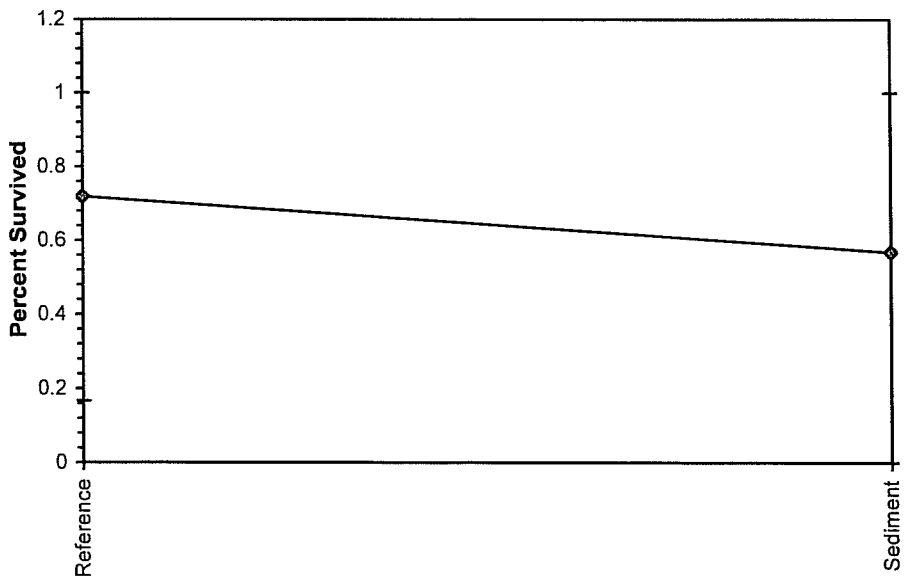
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.36874	1.035	-0.6838	-0.5494
F-Test indicates equal variances (p = 0.23)	1.61673	2.86409		

Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs Reference

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 010	Reference	12	5	5	0	0	0.42	955.60	957.74	2.14	0.43	956.02	1.72	0.34
	Ref 010	Reference	12	4	4	0	0	0.33	956.24	958.16	1.92	0.48	956.56	1.60	0.40
	Ref 010	Reference	12	2	2	0	0	0.17	958.29	959.32	1.03	0.52	958.51	0.81	0.41
	Ref 010	Reference	12	2	2	0	0	0.17	950.22	950.50	0.28	0.14	950.25	0.25	0.13
	Ref 018	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 027	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 028	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	SED 130	Sediment	12	10	10	0	0	0.83	943.43	964.29	20.86	2.09	950.81	13.48	1.35
	SED 130	Sediment	12	6	6	0	0	0.50	939.82	956.27	16.45	2.74	944.39	11.88	1.98
	SED 130	Sediment	12	11	10	1	0	0.92	935.36	951.64	16.28	1.63	940.11	11.53	1.15
	SED 130	Sediment	12	11	10	1	0	0.92	929.29	944.98	15.69	1.57	934.50	10.48	1.05
	SED 131	Sediment	12	10	9	1	0	0.83	924.87	940.00	15.13	1.68	928.85	11.15	1.24
	SED 131	Sediment	12	0	0	0	0	0.00	920.39	0.00	0.00		0.00	0.00	
	SED 131	Sediment	12	9	5	4	0	0.75	922.21	930.43	8.22	1.64	924.26	6.17	1.23
	SED 131	Sediment	12	8	7	1	0	0.67	921.29	933.00	11.71	1.67	924.84	8.16	1.17
	SED 132	Sediment	12	9	9	0	0	0.75	930.81	934.44	3.63	0.40	931.87	2.57	0.29
	SED 132	Sediment	12	8	8	0	0	0.67	942.83	946.82	3.99	0.50	943.90	2.92	0.37
	SED 132	Sediment	12	9	9	0	0	0.75	938.60	942.82	4.22	0.47	940.03	2.79	0.31
	SED 132	Sediment	12	9	8	0	1	0.75	938.02	942.80	4.78	0.60	939.39	3.41	0.43
	SED 133	Sediment	12	10	10	0	0	0.83	943.99	957.69	13.70	1.37	948.12	9.57	0.96
	SED 133	Sediment	12	11	11	0	0	0.92	923.01	935.45	12.44	1.13	927.04	8.41	0.76

Reviewed by:

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	SED 133	Sediment	12	10	10	0	0	0.83	925.95	937.69	11.74	1.17	929.79	7.90	0.79
	SED 133	Sediment	12	9	8	1	0	0.75	910.79	922.07	11.28	1.41	913.72	8.35	1.04
	SED 134	Sediment	12	9	4	2	3	0.75	909.67	919.17	9.50	2.38	912.43	6.74	1.69
	SED 134	Sediment	12	11	7	2	2	0.92	919.43	938.07	18.64	2.66	923.75	14.32	2.05
	SED 134	Sediment	12	11	9	1	1	0.92	914.64	930.00	15.36	1.71	920.28	9.72	1.08
	SED 134	Sediment	12	11	11	0	0	0.92	916.84	934.21	17.37	1.58	922.89	11.32	1.03
	SED 63	Sediment	12	5	5	0	0	0.42	935.82	939.21	3.39	0.68	936.76	2.45	0.49
	SED 63	Sediment	12	10	10	0	0	0.83	945.28	953.64	8.36	0.84	947.65	5.99	0.60
	SED 63	Sediment	12	12	12	0	0	1.00	946.31	950.01	3.70	0.31	947.20	2.81	0.23
	SED 63	Sediment	12	4	4	0	0	0.33	942.45	945.79	3.34	0.83	943.12	2.67	0.67

Comments:

Chironomid Test-Individual AFDW

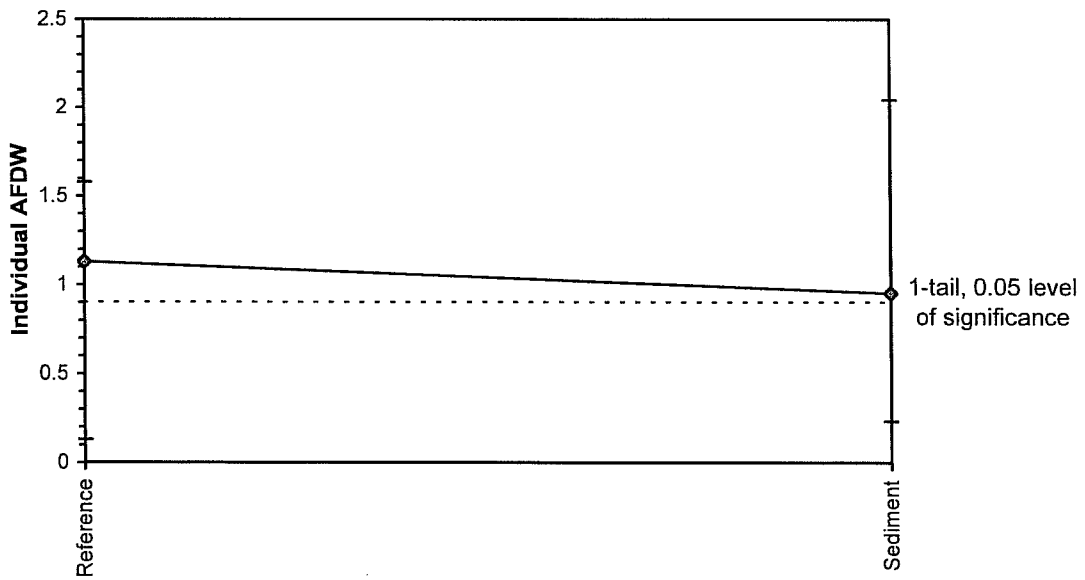
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:			

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	1.4233	1.3367	1.4550	1.3788	1.3009	0.9518	1.3550	1.1414	0.3440	0.4000
Reference	0.4050	0.1250	1.5150	1.2610	1.2786	1.1078	1.2456	1.5750	1.2140	1.2389
Reference	1.2644	1.1245	1.0827	1.4817						
Sediment	1.3480	1.9800	1.1530	1.0480	1.2389	1.2340	1.1657	0.2856	0.3650	0.3100
Sediment	0.4262	0.9567	0.7645	0.7900	1.0438	1.6850	2.0457	1.0800	1.0291	0.4900
Sediment	0.5990	0.2342	0.6675							

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Reference	1.1253	1.0000	1.1253	0.1250	1.5750	35.432	24			
Sediment	0.9539	0.8477	0.9539	0.2342	2.0457	53.397	23	1.287	1.679	0.2235

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9439		0.928		-0.1218	0.25863
F-Test indicates equal variances (p = 0.25)	1.63218		3.06468			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	0.22354	0.19866	0.34482	0.20809	0.20458	1, 45
Treatments vs Reference						

Dose-Response Plot



Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline + Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	Ref 004	Reference	12	9	9	0	0	0.75	920.39	943.21	22.82	2.54	930.40	12.81	1.42
	Ref 004	Reference	12	10	9	1	0	0.83	910.19	929.50	19.31	2.15	917.47	12.03	1.34
	Ref 004	Reference	12	11	10	1	0	0.92	920.49	944.54	24.05	2.41	929.99	14.55	1.46
	Ref 004	Reference	12	9	8	1	0	0.75	920.94	939.47	18.53	2.32	928.44	11.03	1.38
	Ref 006	Reference	12	11	11	0	0	0.92	925.82	946.73	20.91	1.90	932.42	14.31	1.30
	Ref 006	Reference	12	11	11	0	0	0.92	925.16	941.97	16.81	1.53	931.50	10.47	0.95
	Ref 006	Reference	12	8	8	0	0	0.67	925.29	942.38	17.09	2.14	931.54	10.84	1.36
	Ref 006	Reference	12	10	7	3	0	0.83	922.92	935.48	12.56	1.79	927.49	7.99	1.14
	Ref 010	Reference	12	5	5	0	0	0.42	955.60	957.74	2.14	0.43	956.02	1.72	0.34
	Ref 010	Reference	12	4	4	0	0	0.33	956.24	958.16	1.92	0.48	956.56	1.60	0.40
	Ref 010	Reference	12	2	2	0	0	0.17	958.29	959.32	1.03	0.52	958.51	0.81	0.41
	Ref 010	Reference	12	2	2	0	0	0.17	950.22	950.50	0.28	0.14	950.25	0.25	0.13
	Ref 018	Reference	12	8	6	1	1	0.67	928.07	944.24	16.17	2.70	935.15	9.09	1.52
	Ref 018	Reference	12	10	10	0	0	0.83	925.84	948.28	22.44	2.24	935.67	12.61	1.26
	Ref 018	Reference	12	10	7	3	0	0.83	925.74	940.38	14.64	2.09	931.43	8.95	1.28
	Ref 018	Reference	12	10	9	0	1	0.83	927.49	944.37	16.88	1.88	934.40	9.97	1.11
	Ref 027	Reference	12	9	9	0	0	0.75	948.40	963.36	14.96	1.66	952.15	11.21	1.25
	Ref 027	Reference	12	8	4	3	1	0.67	955.90	963.63	7.73	1.93	957.33	6.30	1.57
	Ref 027	Reference	12	12	10	1	1	1.00	954.14	972.64	18.50	1.85	960.50	12.14	1.21
	Ref 027	Reference	12	10	9	1	0	0.83	941.29	958.60	17.31	1.92	947.45	11.15	1.24
	Ref 028	Reference	12	9	9	0	0	0.75	930.21	947.31	17.10	1.90	935.93	11.38	1.26
	Ref 028	Reference	12	11	11	0	0	0.92	918.32	936.43	18.11	1.65	924.06	12.37	1.12
	Ref 028	Reference	12	11	11	0	0	0.92	930.83	949.44	18.61	1.69	937.53	11.91	1.08
	Ref 028	Reference	12	7	6	1	0	0.58	928.63	941.94	13.31	2.22	933.05	8.89	1.48
	SED 118	Sediment	12	11	11	0	0	0.92	921.36	939.41	18.05	1.64	927.49	11.92	1.08
	SED 118	Sediment	12	10	7	2	1	0.83	925.03	939.67	14.64	2.09	930.32	9.35	1.34
	SED 118	Sediment	12	9	4	3	2	0.75	931.23	940.73	9.50	2.38	934.78	5.95	1.49
	SED 118	Sediment	12	9	7	0	2	0.75	927.68	943.20	15.52	2.22	933.33	9.87	1.41
	SED 120	Sediment	12	0	0	0	0	0.00	935.22	0.00	0.00		0.00	0.00	
	SED 120	Sediment	12	3	3	0	0	0.25	934.40	941.25	6.85	2.28	936.62	4.63	1.54
	SED 120	Sediment	12	1	1	0	0	0.08	904.17	908.30	4.13	4.13	905.55	2.75	2.75
	SED 120	Sediment	12	4	4	0	0	0.33	903.97	912.55	8.58	2.14	905.88	6.67	1.67
	SED 130	Sediment	12	10	10	0	0	0.83	943.43	964.29	20.86	2.09	950.81	13.48	1.35
	SED 130	Sediment	12	6	6	0	0	0.50	939.82	956.27	16.45	2.74	944.39	11.88	1.98
	SED 130	Sediment	12	11	10	1	0	0.92	935.36	951.64	16.28	1.63	940.11	11.53	1.15
	SED 130	Sediment	12	11	10	1	0	0.92	929.29	944.98	15.69	1.57	934.50	10.48	1.05
	SED 131	Sediment	12	10	9	1	0	0.83	924.87	940.00	15.13	1.68	928.85	11.15	1.24
	SED 131	Sediment	12	0	0	0	0	0.00	920.39	0.00	0.00		0.00	0.00	

Reviewed by: RF

Test: CT-Chironomid Test
Species: CT-Chironomous tentans
Sample ID: Western Shoreline + Adj Farfield
Start Date: End Date:

Test ID: 27-303
Protocol: EPA 600 MA
Sample Type: Sediment
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Group	Inital Count	20 Day Survival	larvae	pupae	emerged	% Survival	Pan Tare	Pan + larvae	Dry Weight	Mean Wt.	Pan + Ash	Total AFDW	Individual AFDW
	SED 131	Sediment	12	9	5	4	0	0.75	922.21	930.43	8.22	1.64	924.26	6.17	1.23
	SED 131	Sediment	12	8	7	1	0	0.67	921.29	933.00	11.71	1.67	924.84	8.16	1.17
	SED 132	Sediment	12	9	9	0	0	0.75	930.81	934.44	3.63	0.40	931.87	2.57	0.29
	SED 132	Sediment	12	8	8	0	0	0.67	942.83	946.82	3.99	0.50	943.90	2.92	0.37
	SED 132	Sediment	12	9	9	0	0	0.75	938.60	942.82	4.22	0.47	940.03	2.79	0.31
	SED 132	Sediment	12	9	8	0	1	0.75	938.02	942.80	4.78	0.60	939.39	3.41	0.43
	SED 133	Sediment	12	10	10	0	0	0.83	943.99	957.69	13.70	1.37	948.12	9.57	0.96
	SED 133	Sediment	12	11	11	0	0	0.92	923.01	935.45	12.44	1.13	927.04	8.41	0.76
	SED 133	Sediment	12	10	10	0	0	0.83	925.95	937.69	11.74	1.17	929.79	7.90	0.79
	SED 133	Sediment	12	9	8	1	0	0.75	910.79	922.07	11.28	1.41	913.72	8.35	1.04
	SED 134	Sediment	12	9	4	2	3	0.75	909.67	919.17	9.50	2.38	912.43	6.74	1.69
	SED 134	Sediment	12	11	7	2	2	0.92	919.43	938.07	18.64	2.66	923.75	14.32	2.05
	SED 134	Sediment	12	11	9	1	1	0.92	914.64	930.00	15.36	1.71	920.28	9.72	1.08
	SED 134	Sediment	12	11	11	0	0	0.92	916.84	934.21	17.37	1.58	922.89	11.32	1.03
	SED 63	Sediment	12	5	5	0	0	0.42	935.82	939.21	3.39	0.68	936.76	2.45	0.49
	SED 63	Sediment	12	10	10	0	0	0.83	945.28	953.64	8.36	0.84	947.65	5.99	0.60
	SED 63	Sediment	12	12	12	0	0	1.00	946.31	950.01	3.70	0.31	947.20	2.81	0.23
	SED 63	Sediment	12	4	4	0	0	0.33	942.45	945.79	3.34	0.83	943.12	2.67	0.67

Comments:

Reviewed by:

Chironomid Test-Percent Survived

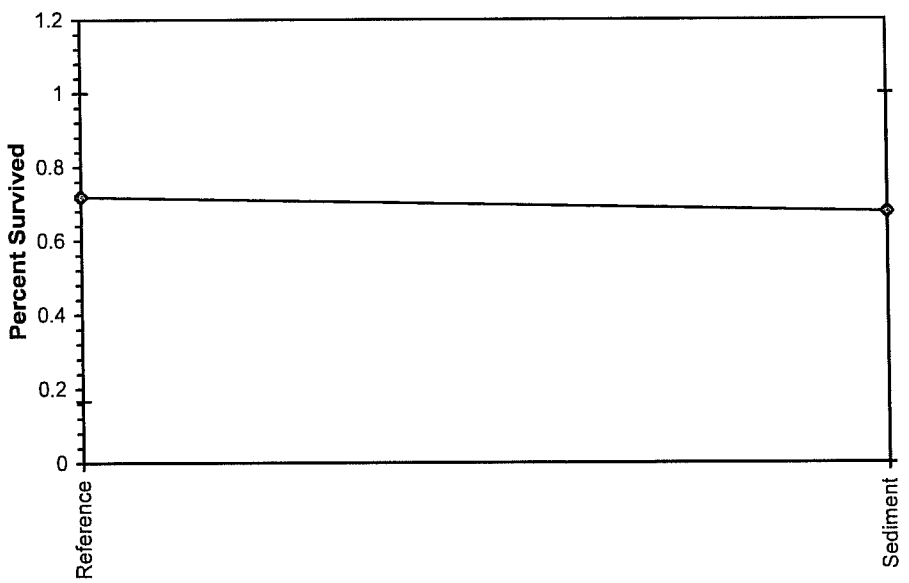
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:			

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	0.7500	0.8333	0.9167	0.7500	0.9167	0.9167	0.6667	0.8333	0.4167	0.3333
Reference	0.1667	0.1667	0.6667	0.8333	0.8333	0.8333	0.7500	0.6667	1.0000	0.8333
Reference	0.7500	0.9167	0.9167	0.5833						
Sediment	0.9167	0.8333	0.7500	0.7500	0.0000	0.2500	0.0833	0.3333	0.8333	0.5000
Sediment	0.9167	0.9167	0.8333	0.0000	0.7500	0.6667	0.7500	0.6667	0.7500	0.7500
Sediment	0.8333	0.9167	0.8333	0.7500	0.7500	0.9167	0.9167	0.9167	0.4167	0.8333
Sediment	1.0000	0.3333								

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Reference	0.7188	1.0000	0.7188	0.1667	1.0000	32.220	24		
Sediment	0.6771	0.9420	0.6771	0.0000	1.0000	41.796	32	892.50	585.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.71781	1.035	-1.2998	0.74095
F-Test indicates equal variances (p = 0.32)	1.49327	2.9091		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs Reference				

Dose-Response Plot



Chironomid Test-Individual AFDW

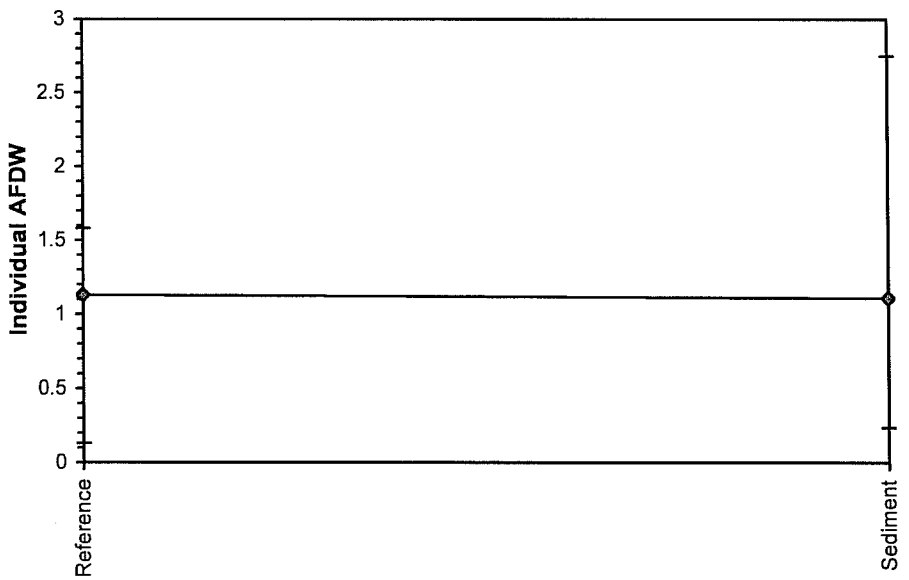
Start Date:	Test ID: 27-303	Sample ID:	Western Shoreline + Adj Farfield
End Date:	Lab ID: ASI-Aqua Survey Inc.	Sample Type:	Sediment
Sample Date:	Protocol: EPA 600 MA	Test Species:	CT-Chironomous tentans
Comments:			

Conc-%	1	2	3	4	5	6	7	8	9	10
Reference	1.4233	1.3367	1.4550	1.3788	1.3009	0.9518	1.3550	1.1414	0.3440	0.4000
Reference	0.4050	0.1250	1.5150	1.2610	1.2786	1.1078	1.2456	1.5750	1.2140	1.2389
Reference	1.2644	1.1245	1.0827	1.4817						
Sediment	1.0836	1.3357	1.4875	1.4100	1.5433	2.7500	1.6675	1.3480	1.9800	1.1530
Sediment	1.0480	1.2389	1.2340	1.1657	0.2856	0.3650	0.3100	0.4262	0.9567	0.7645
Sediment	0.7900	1.0438	1.6850	2.0457	1.0800	1.0291	0.4900	0.5990	0.2342	0.6675

			Transform: Untransformed					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Reference	1.1253	1.0000	1.1253	0.1250	1.5750	35.432	24		
Sediment	1.1073	0.9840	1.1073	0.2342	2.7500	52.341	30	780.50	566.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.05797	1.035	0.24441	1.18332
F-Test indicates equal variances (p = 0.07)	2.11298	2.93592		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs Reference				

Dose-Response Plot



Aqua Survey, Inc.

APPENDICES

Appendix D: Biological Raw Data

Technical Report
Toxicological Evaluation of Freshwater Sediment
Collected Adjacent to the BASF Facility
Rensselaer, New York

Long Term Exposure *Chironomus tentans* Study

ENSR Corporation
Westford, MA 01886

ASI Job No. 27-303

469 Point Breeze Road
Flemington, NJ 08822

Phone: 908-788-8700
Fax: 908-788-9165
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Aqua Survey, Inc.

Appendix D

Chironomus tentans
Biological Raw Data

27-303 ENSR C. tentans Round #1

Test Start Date: 12/1/07

Waterbath (s): _____

Chamber	Sample	Code
91	Control	1.1
21	#20070963	1.2
36		1.3
111		1.4
110		1.5
99		1.6
6		1.7
80		1.8
132		1.9
15		1.10
103		1.11
8		1.12
52	STN 61	2.1
87	#20070929	2.2
86		2.3
43		2.4
108		2.5
64		2.6
84		2.7
68		2.8
100		2.9
98		2.10
16		2.11
38		2.12
115	STN 64	3.1
70	#20070931	3.2
27		3.3
9		3.4
112		3.5
82		3.6
94		3.7
39		3.8
101		3.9
31		3.10
127		3.11
89		3.12
51	STN 67	4.1
117	#20070937	4.2
92		4.3
124		4.4
75		4.5
18		4.6
120		4.7
14		4.8
93		4.9
85		4.10
20		4.11
49		4.12
50	STN 69	5.1
79	#20070955	5.2
129		5.3
102		5.4
26		5.5
121		5.6
96		5.7
78		5.8
63		5.9
47		5.10
58		5.11
66		5.12

Test Start Date: _____

Waterbath (s): _____

118	STN 71	6.1
104	#20070934	6.2
12		6.3
109		6.4
13		6.5
7		6.6
1		6.7
22		6.8
119		6.9
61		6.10
74		6.11
106		6.12
131	STN 124	7.1
53	#20070932	7.2
54		7.3
17		7.4
11		7.5
5		7.6
29		7.7
105		7.8
55		7.9
46		7.10
45		7.11
83		7.12
116	STN 125	8.1
73	#20070933	8.2
77		8.3
122		8.4
19		8.5
41		8.6
69		8.7
59		8.8
32		8.9
3		8.10
67		8.11
95		8.12
4	STN 126	9.1
62	#20070935	9.2
37		9.3
113		9.4
25		9.5
72		9.6
10		9.7
107		9.8
35		9.9
71		9.10
28		9.11
76		9.12
24	STN 11V	10.1
126	#20070930	10.2
40		10.3
56		10.4
114		10.5
88		10.6
60		10.7
30		10.8
23		10.9
42		10.10
57		10.11
48		10.12
44	STN 4	11.1
33	#20070941	11.2
90		11.3
128		11.4
125		11.5
2		11.6
65		11.7
123		11.8
34		11.9
81		11.10
97		11.11
130		11.12

Aqua Survey, Inc.
Special Studies Department

Feeding and Exchanges

Job #: 27-303 **Organism:** *C. tentans*
Client: ENSR **Round #1** **Test Start Date:** 12/1/07

Day	Date	Exchanges Recon (200mL)		Feeding Tetramin Slurry (1.5mL/ Chamber)	Notes
		1st (Time/ Initials)	2nd (Time/ Initials)	(Time/ Initials)	
-1	11/30/07	1500 JM	—	1530 JM	
0	12/1/07	0830 JM	1430 JM	1445 JM	
1	12/2/07	0950 JM	1305 JM	1315 JM	
2	12/3/07	1000 JM	1620 JM	1630 JM	
3	12/4/07	1115 JM	1630 SM	1645 SM	
4	12/5/07	1145 JM	1545 SM	1615 SM	
5	12/6/07	1015 SM	1530 SM	1615 JM	
6	12/7/07	0945 SM	1630 JM	1645 JM	
7	12/8/07	0850 JM	1440 JM	1500 JM	* Test aeration initiated @
8	12/9/07	1040 JM	1420 JM	1515 JM	
9	12/10/07	1000 SM	1610 JM	1630 JM	
10	12/11/7	1000 SM	1620 SM	1640 JM	
11	12/12/7	1010 SM	1610 JM	1640 SM	
12	12/13/7	1100 SM	1515 SM	1555 JM	
13	12/14/7	1100 SM	1510 SM	1610 JM	
14	12/15/7	0900 SM	1400 SM	1450 SM	
15	12/16/7	0830 SM	1345 SM	1300 SM	
16	12/17/7	1035 SM	1620 JM	1700 SM	
17	12/18/7	0945 SM	1510 JM	1400 BB	
18	12/19/7	0930 SM	1610 JM	1700 SM	
19	12/20/7	0945 SM	1500 BB	1620 BB	
20	12/21/07	0915 BB	1655 JM	1710 JM	
21	12/22/07	1015 JM	1430 JM	1440 JM	
22	12/23/07	1015 BB	1500 JM	1515 JM	
23	12/24/07	0915 JM	1445 JM	1540 JM	
24	12/25/07	1045 JM	1355 JM	1435 JM	
25	12/26/07	0930 JM	1515 BB	1655 BB	
26	12/27/07	0912 BB	1700 BB	1732 BB	
27	12/28/07	1041 BB	1446 BB	1505 BB	
28	12/29/07	0815 JM	1200 JM	1360 JM	
29	12/30/07	1020 JM	1420 JM	1510 JM	
30	12/31/07	1000 JM	1350 JM	1410 JM	
31	1/1/08	0830 JM	1245 BB	1445 BB	
32	1/2/08	0950 SM	1600 JM	1639 BB	
33	1/3/08	0845 BB	1610 BB	1632 BB	
34	1/4/08	0950 SM	1600 BB	1624 BB	
35	1/5/08	—	—	—	

Aqua Survey, Inc.
Special Studies Department
Weight Data Form (Ash- Free)

Job #: 27-303	**Client:** ENSR- Round #1						**Test Dates:** 12/1-21/07		
Organism: *C. tentans*	**Age of Organism (at Test Start):** <24 hours						**Initial #/ Rep.:** 12		
Weigh Dates: 12/22-24/07	**Oven Used:** #2/#3		**Oven Temp. (°C):** 60°C/55°C				**Dry Time (hr):** 24/2		
Treatment	Chamber #	# of Surviving Organisms *	Pan Weight (mg)	Pan + Larvae (mg)	Dry Weight** Total	Dry Weight** Individual	Pan + Ash (mg)	Ash- Free Dry Weight Total	Ash- Free Dry Weight Individual
Control #20070963	21	9L, 1P	925.72	944.30			932.61		
	36	6L, 3E	927.55	940.10			931.67		
	91	7L, 1P, 1E	928.82	946.35			935.30		
	111	9L, 1P	924.80	942.15			931.45		
STN-61 #20070929	43	10L	927.05	942.63			931.50		
	52	8L, 1P, 1E	924.69	937.38			928.23		
	86	6L,	927.20	939.47			930.15		
	87	8L	925.00	937.65			928.36		
STN-64 #20070931	9	11L	932.56	951.39			939.12		
	27	4L, 3E	931.55	942.77			935.03		
	70	12L	931.88	951.75			938.50		
	115	12L	927.79	946.79			935.00		
STN-67 #20070937	51	11L, 1P	929.17	947.44			937.21		
	92	8L	930.79	950.45			938.92		
	117	7L, 2P	928.00	942.89			933.33		
	124	10L	932.64	952.55			939.77		
STN-69 #20070955	50	4L	931.38	936.42			932.22		
	79	1L	928.66	931.24			929.15		
	102	5L	906.87	915.63			908.57		
	129	3L	932.19	938.20			933.22		
STN-71 #20070934	12	11L	924.27	945.75			930.95		
	104	11L	928.47	951.70			936.43		
	109	6L, 3P	921.14	933.38			924.38		
	118	12L	929.38	947.09			935.08		
STN-124 #20070932	17	9L, 4E	910.56	929.56			917.41		
	53	10L, 2E	917.63	938.00			925.05		
	54	8L, 2P	911.67	925.98			917.20		
	131	10L, 1P	922.16	942.83			927.00		
Initials/ Date	[illegible] 12/20/07 → 12/21/08		[illegible] 12/21/07	[illegible] 12/22/07			[illegible] 12/24/07		

***L- Larvae/ P- Pupae/ E- Emerged**
****- Only larvae were used for dry weight**

Aqua Survey, Inc.
Special Studies Department
Weight Data Form (Ash- Free)

Job #: 27-303	**Client:** ENSR- Round #1				**Test Dates:** 12/1-21/07
Organism: *C. tentans*	**Age of Organism (at Test Start):** <24 hours				**Initial #/ Rep.:** 12
Weigh Dates: 12/20-24/07	**Oven Used:** #2/#3	**Oven Temp. (°C):** 60°C/55°C			**Dry Time (hr):** 24/2

Treatment	Chamber #	# of Surviving Organisms *	Pan Weight (mg)	Pan + Larvae (mg) ①	Dry Weight** Total	Dry Weight** Individual	Pan + Ash (mg)	Ash- Free Dry Weight Total	Ash- Free Dry Weight Individual
STN-l25 #20070933	73	11L 1E	911.18	~~932.29~~			919.95		
	77	11L	909.92	931.29			918.26		
	116	11L, 1P	910.23	929.98			918.05		
	122	6L, 2P	908.53	922.33			913.36		
STN-126 #20070935	4	9L, 1P 1E	910.44	928.05			916.20		
	37	12L	908.17	931.25			916.11		
	62	6L 3E	906.55	916.85			909.59		
	113	10L, 1P	906.19	924.88			913.50		
STN-11V #20070930	24	4L	908.21	918.30			911.85		
	40	4L	903.47	913.89			907.18		
	56	6L	909.06	918.98			912.16		
	126	5L	904.21	911.89			906.63		
STN-4 #20070941	33	9L	920.39	943.21			930.40		
	44	9L, 1P	910.19	929.50			917.47		
	90	10L, 1P	920.49	944.54			929.99		
	128	8L, 1P	920.94	939.47			928.44		
Initials/ Date	[illegible] 12/20/07	[illegible] 12/21/08	[illegible] 12/21/07	[illegible] 12/22/07			[illegible] 12/24/07		

① 932.29

***L- Larvae/ P- Pupae/ E- Emerged**
****- Only larvae were used for dry weight**

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #** 2/2 **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
Control #20070963	6	0
	8	0
	15	0
	80	0
	99	0
	103	1L/2P
	110	1L
	132	0
STN-61 #20070929	16	0
	38	1L
	64	3L
	68	4L
	84	0
	98	0
	100	0
	108	3L/1P
STN- 64 #20070931	31	1L
	39	1L/1P
	82	1L
	89	5L
	94	3L/2P
	101	3L
	112	4P
	127	4L/1P
STN-67 #20070937	14	0
	18	0
	20	0
	49	0
	75	2L/2P
	85	0
	93	2L
	120	5L/1P
STN-69 #20070955	26	0
	47	1L
	58	1P
	63	0
	66	1L
	78	0
	96	0
	121	1L

Recorded by (Initials/ Date): MJ 1/5/08

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #**~~2~~ 1 **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
STN-71 #20070934	1	1L
	7	1L
	13	2L
	22	1L
	61	2P
	~~24~~ 74rd	3L
	106	4L
	119	1L
STN-124 #20070932	5	1PE
	11	0
	29	0
	45	1P
	46	0
	55	1L
	83	1L
	105	1L/1P
STN- 125 #20070933	3	1D(P) /1PE
	19	1P
	32	2L
	41	1L/1P
	59	0
	67	2L/2P
	69	4L
	95	4L/1P
STN-126 #20070935	10	0
	25	1L/1P
	28	2P
	35	1L/1P
	71	1L
	72	3L
	76	0
	107	1L
STN-11V #20070930	23	0
	30	1P
	42	1L
	48	1L
	57	1L
	60	1P
	88	0
	114	1L
STN-4 #20070941	2	0
	34	0
	65	2L/1P
	81	1P
	97	1P
	123	0
	125	2L
	130	0

Recorded by (Initials/ Date): M 1/5/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
1	N	N	N	N	N	N	N	N	N	N	N
2	N	N	N	N	N	N	N	N	N	↓	↓
3	N	N	N	N	N	N	N	N	N	↓	↓
4	N	N	N	N	N	N	N	N	N	↓	↓
5	N	N	N	N	N	N	N	N	N	↓	↓
6	N	N	N	N	N	N	N	N	N	↓	↓
7	N	N	N	N	N	N	N	N	N	↓	↓
8	N	N	N	N	N	N	N	N	N	↓	↓
9	N	N	N	N	N	N	N	N	N	↓	↓
10	N	N	N	N	N	N	N	N	N	↓	↓
11	N	N	N	N	N	N	N	N	N	↓	↓
12	N	N	N	N	N	N	N	N	N	↓	↓
13	N	N	N	N	N	N	N	N	N	↓	↓
14	N	N	N	N	N	N	N	N	N	↓	↓
15	N	N	N	N	N	N	N	N	N	↓	↓
16	N	N	N	N	N	N	N	N	N	↓	↓
17	N	N	N	N	N	N	N	N	N	↓	↓
18	N	N	N	N	N	N	N	N	N	↓	↓
19	N	N	N	N	N	N	N	N	N	↓	↓
20	N	N	N	N	N	N	N	N	N	↓	↓
21	N	N	N	N	N	N	N	N	N	↓	↓
22	N	N	N	N	N	N	N	N	N	↓	↓
23	N	N	N	N	N	N	N	N	N	↓	↓
24	N	N	N	N	N	N	N	N	N	↓	↓
Initials/ Date	12/1/07	12/2/07	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
1	N	N	N	N	N	N	N	N	N	N
2		N				N	N	N		N
3		1S				N	N	N		1Em(M)
4		N		1S		1S	1S	N	1Em(M)	9L, 1P
5						N	N	N	1Em(M)	1Em(F)
6						N	N	N	3Em(M)	N
7						N	N	N	N	N
8				1S		1S	1S	3Em(M) 1Em(M)		N
9						N	N	N		1IL
10						N	N	N		1Em(M)
11						N	N	N		N
12						N	N	N		1IL
13						N	N	1S(L)	1Em M	N
14						N	N	N		N
15						N	N	N		1Em(M)
16						N	N	N		N
17						N	N	N	9Em(M)	9Em(M) 9L
18						N	N	1Em(M)	1Em(M)	N
19						N	N	N	N	N
20						N	N	N	1Em(M)	3Em(M)
21				1S		1S	1S	N	3Em(M)	N 9L 1P
22				N		N	N	N	N	N
23				N		N	N	N	N	N
24	N			N		N	N	N	N	4L
Initials/ Date	12/12/7	12/13/7	12/14/7	12/15/7	12/16/07	12/17/07	12/18/07	12/19/07	12/20/7	12/21/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
1	1Em(m)	N	N	N	N	N	N	N	2Em(m,F)	~~1Em(F)~~ N
2	1Em(m)	N	N	1Em(m)	1Em(m)	3Em(2M,1F)	N	N	2Em(F)	N
3	N	N	N	1prtEm(a) 1Em(m)	~~1Em(m)~~ N	N	1D(P)	N	N	1prtEm(a)
4	**	—	—	—	—	—	—	—	—	—
5	N	N	N	N	1Em(m)	N	N	N	N	1Em(m)
6	1Em(m)	1Em(m)	1Em(m)	2Em(m,F)	N	N	N	1Em(F)	N	N
7	N	1Em(m)	N	1Em(m)	1Em(F)	1Em(m)	N	N	N	N
8	N	1Em(F)	N	N	N	1Em(F)	N	~~1(P)~~ N 1S(P)	2Em(F) 1S(P)	N
9	**	—	—	—	—	—	—	—	—	—
10	1Em(m)	2Em(m)	N	N	N	1Em(F)	1Em(m)	N	1Em(F)	1Em(F)
11	1Em(m)	N	N	1Em(F)	N	N	2Em(m,F)	1Em(F)	N	~~1Em(m)~~ N
12	**	—	—	—	—	—	—	—	—	—
13	N	N	1Em(m)	2E.N	1Em(F)	1Em(F)	N	N	N	2Em(m,F)
14	N	2Em(m) 1D(E)	N	N	N	N	2Em(m,F)	2Em(F)	N	N
15	N	N	1Em(m)	1Em(F)	1Em(m)	N	N	2Em(F)	1Em(F)	N
16	1Em(m)	N	N	2Em(m)	1Em(m)	1Em(F)	N	1Em(F)	N	N
17	**	—	—	—	—	—	—	—	—	—
18	1Em(m)	~~1Em~~ N	1Em(m) 1prtEm(m)	1Em(m)	N	1Em(F)	2Em(m,F)	N	N	N
19	1Em(m)	N	1Em(F)	N	1Em(m)	1Em F	1Em(m)	1Em(m)	N	N
20	1Em(m)	2Em(m)	N	N	1Em(F)	N	N	1Em(m)	1Em(F)	N
21	**	—	—	—	—	—	—	—	—	—
22	N	N	N	1Em(F)	N	N	N	N	2Em(F)	1Em(m)
23	N	N	N	N	N	N	N	N	2Em(F)	N
24	**	—	—	—	—	—	—	—	—	—
Initials/ Date	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27/07	12/28/07	12/29/07	12/30/07	12/31/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
1	N	2em (F)	N	N	N
2	1em(F)	N	↓	1em(F)	N
3	N	N	↓	N	N
4	—	—	—	—	—
5	N	2em(F)	N	N	N
6	N	N	N	↓	N
7	N	1em(F)	2em(F)	↓	1em(F)
8	N	N	N	↓	N
9	—	—	—	—	—
10	N	N	N	N	N
11	1em(F)	N	N	N	N
12	—	—	—	—	—
13	N	N	N	N	N
14	N	1em(F)	↓	↓	N
15	N	2em(fm)	↓	↓	2em(m,F)
16	N	2em(F)	↓	↓	N
17	—	—	—	—	—
18	N	N	N	N	N
19	2em(F)	N	↓	1em(F)	N
20	N	N	↓	N	N
21	—	—	—	—	—
22	2em(F)	N	1em(F)	N	N
23	N	N	N	N	1em(F)
24	—	—	—	—	—
Initials/ Date	11/08	12/8	12/8	12/8	12/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
25	N	N	N	N	N	N	N	N	N	N	N
26	N	N	N	N	N	N	N	N	N	|	|
27	N	N	N	N	N	N	N	N	N	|	|
28	N	N	N	N	N	N	N	N	N	|	|
29	N	N	N	N	N	N	N	N	N	|	|
30	N	N	N	N	N	N	N	N	N	|	|
31	N	N	N	N	N	N	N	N	N	|	|
32	N	N	N	N	N	N	N	N	N	|	|
33	N	N	N	N	N	N	N	N	N	|	|
34	N	N	N	N	N	N	N	N	N	|	|
35	N	N	N	N	N	N	N	N	N	|	|
36	N	N	N	N	N	N	N	N	N	|	|
37	N	N	N	N	N	N	N	N	N	|	|
38	N	N	N	N	N	N	N	N	N	|	|
39	N	N	N	N	N	N	N	N	N	|	|
40	N	N	N	N	N	N	N	N	N	|	|
41	N	N	N	N	N	N	N	N	N	|	|
42	N	N	N	N	N	N	N	N	N	|	|
43	N	N	N	N	N	N	N	N	N	|	|
44	N	N	N	N	N	N	N	N	N	|	|
45	N	N	N	N	N	N	N	N	N	|	|
46	N	N	N	N	N	N	N	N	N	|	|
47	N	N	N	N	N	N	N	N	N	|	|
48	N	N	N	N	N	N	N	N	N	↓	↓
Initials/ Date	12/1/07	12/2/07	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
25	N	N	N	N	N	N	N	4S(L)	1Em(m)	N
26	↓	↓	↓	↓	↓	N	N	N	N	N
27	↓	↓	↓	↓	↓	N	N	N	N	3Em(m) 4L
28	↓	↓	↓	↓	↓	N	N	N	1S(P)	1Em(m)
29	↓	↓	↓	↓	↓	~~N~~ 1M	1Em(m)	N	N	1S(P)
30	↓	↓	↓	↓	↓	N	N	N	↓	N
31	↓	↓	↓	↓	↓	N	N	N	↓	N
32	↓	1S	↓	↓	↓	1S	1S	N	↓	1Em(m)
33	↓	N	↓	↓	↓	N	N	N	1S(P)	9L
34	↓	↓	↓	↓	↓	N	N	N	N	1Em(m)
35	↓	↓	↓	↓	↓	N	N	N	N	1Em(m)
36	↓	↓	↓	↓	↓	N	N	N	2Em(m)	1Em(m) 10L
37	↓	1S	↓	↓	↓	1S	1S	N	N	12L
38	↓	N	↓	↓	↓	N	N	N	↓	N
39	↓	N	↓	↓	↓	N	N	N	↓	N
40	↓	N	↓	↓	↓	N	N	1S(L)	↓	4L
41	↓	1S	↓	↓	↓	1S	1S	N	↓	N
42	↓	N	↓	↓	↓	N	N	N	↓	N
43	↓	↓	↓	↓	↓	N	N	N	↓	10L
44	↓	↓	↓	↓	↓	N	N	N	↓	9L, 1P
45	↓	↓	↓	↓	↓	N	N	N	↓	N
46	↓	↓	↓	↓	↓	N	N	N	↓	N
47	↓	↓	↓	↓	↓	N	N	N	↓	N
48	↓	↓	↓	↓	↓	N	N	N	↓	N
Initials/ Date	12/2/7	12/3/7	12/4/7	12/5/7	12/6/07	12/7/07	12/8/07	12/9/07	12/20/7	12/10/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
25	N	N	N	1Em(F)	N	1em(m)	N	1Em(M)	N	N
26	N	N	N	N	N	N	N	N	N	N
27	**	—	—	—	—	—	—	—	—	—
28	N	N	N	N	2Em(F)	1em(m)	N	1Em(F)	N	1Em(F)
29	N	N	1Em(F)	N	1Em(m)	N	1Em(m)	N	N	2Em(M,F)
30	N	N	N	1Em(m)	N	N	N	1Em(F)	N	N
31	N	N	N	1Em(m)	1Em(F)	N	N	N	1s(p)	2Em(F)
32	2Em(m)	1Em(F)	N	2Em(m)	N	1 [illegible]	N	1Em(M)	1Em(F)	N
33	**	—	—	—	—	—	—	—	—	—
34	N	1Em(F) 1D(P)	N	1Em(m)	N	1em(m)	1Em(F)	N	N	N
35	1Em(m)	N	N	1Em(m)	N	1em(F)	N	N	N	1Em(m)
36	**	—	—	—	—	—	—	—	—	—
37	**	—	—	—	—	—	—	—	—	—
38	N	1D(P)	N	1Em(m)	2Em(m)	N	N	N	1Em(F)	N
39	N	1Em(m)	1Em(m)	1Em(m)	1Em(m)	1em(m)	N	N	1Em(F)	1Em(M)
40	**	—	—	—	—	—	—	—	—	—
41	N	N	1pit em(m)	1Em(m)	N	2 part em	1em(F)	N	N	N
42	N	N	N	N	1Em(m)	N	N	1Em(M)	1Em(M)	N
43	**	—	—	—	—	—	—	—	—	—
44	**	—	—	—	—	—	—	—	—	—
45	1Em(m)	N	1Em(F)	N	1Em(F)	1em(m) 1Em(m)	N	1Em(F)	N	1Em(F)
46	N	2Em(m)	N	N	2Em(m)	1em(m)	N	1Em(M) 1pit Em(M)	1s(p)	1pit Em(m)
47	N	N	N	N	N	2em(m)	1Em(m)	N	N	N
48	N	N	N	N	N	N	1Em(m)	N	N	1Em(M)
Initials/ Date	dop 12/27/07	dop 12/28/07	M 12/29/07	dop 12/26/07	dop 12/30/07	[illegible]	dop 12/28/07	M 12/29/07	M 12/30/07	M 12/31/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
25	1em(F)	N	1em (F)	N	1em(F)
26	N	N	N	N	N
27	—	—	—	—	—
28	N	N	N	1em(F) 1em(m)	2em(F)
29	1em(F)	N	N	N	1em(F)
30	N	1em(m)	N	1em (F)	N
31	N	1em (F)	4em(3F 1M)	N	N
32	N	N	1em(F)	N	N
33	—	—	—	—	—
34	N	N	N	N	N
35	N	~~N~~ 1em(m)	1em (m)	N	1em(F)
36	—	—	—	—	—
37	—	—	—	—	—
38	1em(F)	N	1em (m)	N	N
39	1em(F)	N	N	N	N
40	—	—	—	—	—
41	1pr1em(m) 1em(m)	N	N	N	N
42	N	N	N	1em (m)	N
43	—	—	—	—	—
44	—	—	—	—	—
45	N	N	N	N	N
46	N	N	1em (m)	N	N
47	N	N	N	1em (F)	N
48	N	1em (F)	N	N	N
Initials/ Date	11/08	11/2/8	11/3/8	11/4/8	11/5/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
49	N	N	N	N	N	N	N	N	N	N	N
50	N	N	N	N	N	N	N	N	N		
51	N	N	N	N	N	N	N	N	N		
52	N	N	N	N	N	N	N	N	N		
53	N	N	N	N	N	N	N	N	N		
54	N	N	N	N	N	N	N	N	N		
55	N	N	N	N	N	N	N	N	N		
56	N	N	N	N	N	N	N	N	N		
57	N	N	N	N	N	N	N	N	N		
58	N	N	N	N	N	N	N	N	N		
59	N	N	N	N	N	N	N	N	N		
60	N	N	N	N	N	N	N	N	N		
61	N	N	N	N	N	N	N	N	N		
62	N	N	N	N	N	N	N	N	N		
63	N	N	N	N	N	N	N	N	N		
64	N	N	N	N	N	N	N	N	N		
65	N	N	N	N	N	N	N	N	N		
66	N	N	N	N	N	N	N	N	N		
67	N	N	N	N	N	N	N	N	N		
68	N	N	N	N	N	N	N	N	N		
69	N	N	N	N	N	N	N	N	N		
70	N	N	N	N	N	N	N	N	N		
71	N	N	N	N	N	N	N	N	N		
72	N	N	N	N	N	N	N	N	N	↓	↓
Initils/ Date	12/1/07	12/2/07	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
49	N	N	N	N	N	N	N	N	N	N
50								N	N	4L
51								N	N	11L, 1P
52								N	1S(P)	1Em(M) 8L, 1P
53								N	1S(P)	2Em(M) 10L
54								N	N	8L, 2P
55								N		2Em(M)
56								N		6L
57								N		N
58								N		N
59								N		N
60								N		N
61								N	N	N
62								N	1Em(M)	2Em(M) 6L
63								N	N	N
64								N		N
65								N		N
66		N				N	N	N		N
67		1S				1S	1S	N		N
68		N				N	N	N		1Em(M)
69		N				N	N	N		N
70		1S				1S	1S	N		12L
71		N				N	N	N		1Em(M)
72	N	N	N	N	N	N	N	N	N	N
Initials/ Date	12/2/7	12/3/7	12/4/7	12/5/7	12/6/07	12/7/07	12/8/07	12/9/07	12/10/07	12/11/07

Aqua Survey, Inc.
Special Studies Department

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Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
49	1Em(m)	1Em(m)	2Em(M F)	N	N	N	N	1Em(F)	1Em(F) 1S(P)	1Em(F)
50	* *	–	–	–	–	–	–	–	–	–
51	* *	–	–	–	–	–	–	–	–	–
52	* *	–	–	–	–	–	–	–	–	–
53	* *	–	–	–	–	–	–	–	–	–
54	* *	–	–	–	–	–	–	–	–	–
55	N	N	2Em(m)	1Em(F)	1Em(m)	2Em(m)	N	N	1Em(F)	N
56	* *	–	–	–	–	–	–	–	–	–
57	N	N	N	1Em(m)	N	1Em(m)	N	N	N	N
58	N	N	N	N	N	1Em(F)	N	1Em(M)	N	N
59	N	2Em(m)	1Em(m)	1Em(F)	1Em(m)	N	N	N	N	1Em(F)
60	N	N	N	N	1Em(M)	N	1Em(m)	N	N	N
61	N	N	1Em(F) 1Em(m)	N	2Em(m,F)	N	N	N	1Em(F)	N
62	* *	–	–	–	–	–	–	–	–	–
63	N	N	N	N	N	N	N	N	N	1Em(m)
64	N	N	1Em(M)	1Em(F)	1Em(m) 1prtEm(m)	N	N	1Em(F)	N	1Em(m)
65	N	N	N	N	1prtEm(m)	N	N	N	1S(P)	1prtEm(m)
66	N	N	N	N	N	N	N	N	N	N
67	N	N	N	N	N	N	N	N	1prtEm(m) 1S(P)	1prtEm(m)
68	N	2Em(m)	N	N	1Em(m)	N	N	1Em(F)	N	N
69	1Em(m)	N	N	N	N	N	N	1Em(F)	N	1Em(m)
70	* *	–	–	–	–	–	–	–	–	–
71	N	2Em(m)	N	N	N	N	N	N	2Em(m)	2Em(m)
72	N	N	N	D 1Em(F)	N	N	N	N	N	N
Initials/ Date	12/23/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27/07	12/28/07	12/29/07	12/30/07	12/31/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
49	N	1em (f)	N	2em(f)	N
50	—	—	—	—	—
51	—	—	—	—	—
52	—	—	—	—	—
53	—	—	—	—	—
54	—	—	—	—	—
55	N	N	1em(f)	N	N
56	—	—	—	—	—
57	N	1em(m)	1em(m)	1em(f)	N
58	N	N	N	N	N
59	N	1em(f)	N	|	N
60	1em(F)	N	N	|	N
61	N	N	1em(m)	↓	N
62	—	—	—	—	—
63	2em(F)	N	N	N	N
64	N	N	1em(m)	N	N
65	1em(F)	2em(mf)	1em(f)	1em(f)	1em(F)
66	N	N	N	N	1em(F)
67	N	1em(f)	|	|	1pt 1em(F) 1b(f)
68	1em(m)	N	|	|	1em(F)
69	1em(m)	1em(m)	↓	↓	1em(F)
70	—	—	—	—	—
71	1em(F)	N	N	N	N
72	N	N	N	2em(m)	1em(m)
Initials/ Date	11/08	11/2/8	11/3/8	11/4/8	11/6/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
73	N	N	N	N	N	N	N	N	N	N	N
74	N	N	N	N	N	N	N	N	N		
75	N	N	N	N	N	N	N	N	N		
76	N	N	N	N	N	N	N	N	N		
77	N	N	N	N	N	N	N	N	N		
78	N	N	N	N	N	N	N	N	N		
79	N	N	N	N	N	N	N	N	N		
80	N	N	N	N	N	N	N	N	N		
81	N	N	N	N	N	N	N	N	N		
82	N	N	N	N	N	N	N	N	N		
83	N	N	N	N	N	N	N	N	N		
84	N	N	N	N	N	N	N	N	N		
85	N	N	N	N	N	N	N	N	N		
86	N	N	N	N	N	N	N	N	N		
87	N	N	N	N	N	N	N	N	N		
88	N	N	N	N	N	N	N	N	N		
89	N	N	N	N	N	N	N	N	N		
90	N	N	N	N	N	N	N	N	N		
91	N	N	N	N	N	N	N	N	N		
92	N	N	N	N	N	N	N	N	N		
93	N	N	N	N	N	N	N	N	N		
94	N	N	N	N	N	N	N	N	N		
95	N	N	N	N	N	N	N	N	N		
96	N	N	N	N	N	N	N	N	N	↓	↓
Initials/ Date	MH 12/1/07	DOT 12/2/07	DOT 12/3/07	DOT 12/4/07	DOT 12/5/07	NH 12/6/07	MH 12/7/07	MH 12/8/07	MH 12/9/07	MH 12/10/07	MH 12/11/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
73	N	N	N	N	N	N	N	N	N	1Em(m) 1L
74								1Em(m)		N
75								N		N
76								N		N
77								N		1L
78								N		N
79								N		1L
80								1Em(m)		1Em(m)
81								N	1Em M	N
82								N	1 Em M	N
83								N	N	N
84								N		N
85		1S				1S	1S	N		1Em(m)
86		N				N	N	N		6L
87								N		8L
88								N		N
89								N		1Em(m)
90								N		10L, 1P
91		1S				1S	1S	1S(P)	1Em(m)	7L, 1P
92		N				N	N	N	N	8L
93		N				N	N	N		N
94		1S	1S	1S		1S	1S	N		N
95		N	N	N		N	N	N		N
96		N	N	N		N	N	N		N
Initials/ Date	SM 12/12/7	SM 12/13/7	SM 12/14	SM 12/15/7	MJ 12/16/07	KDP 12/17/07	SM 12/18/07	MJ 12/19/07	SM 12/20/7	MJ 12/21/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
73	✱✱	–	–	–	–	–	–	–	–	–
74	N	1Em(m)	N	N	N	N	1Em(m)	N	1Em(m)	N
75	N	N	1Em(m)	1Em(m)	N	1Em(m)	N	N	N	1Em(F)
76	N	N	N	2Em(m,F)	1Em(m)	N	N	1Em(F)	N	N
77	✱✱	–	–	–	–	–	–	–	–	–
78	N	N	N	N	N	1Em(F)	N	N	N	N
79	✱✱	–	–	–	–	–	–	–	–	–
80	1Em(m)	2Em(m,F)	N	N	N	N	1Em(m)	1Em(F)	N	N
81	N	1Em(m)	N	N	1Em(F)	N	1Em(m)	N	1Em(F)	1Em(F)
82	N	2Em(m)	N	1Em(F)	N	N	1Em(F)	N	N	2Em(F)
83	N	2Em(m,F)	1Em(F)	1Em(m)	N	1Em(F)	1Em(F)	N	N	1Em(M)
84	1Em(m)	N	N	2Em(m)	1Em(F)	N	N	N	N	1Em(F)
85	N	N	N	1Em(F)	N	1Em(F)	N	1Em(F)	N	N
86	✱✱	–	–	–	–	–	–	–	–	–
87	✱✱	–	–	–	–	–	–	–	–	–
88	N	N	N	N	1Em(F)	N	N	N	N	N
89	N	N	N	N	1Em(m)	N	1Em(F)	N	N	N
90	✱✱	–	–	–	–	–	–	–	–	–
91	✱✱	–	–	–	–	–	–	–	–	–
92	✱✱	–	–	–	–	–	–	–	–	–
93	1Em(m)	N	N	N	N	1Em(m)	1D(?)	N	1Em(m)	N
94	N	1Em(m)	N	N	1Em(m)	1Em(m)	N	1Em(m F)	N	N
95	N	N	N	N	1Em(m)	N	N	N	N	1Em(m)
96	N	N	N	N	N	N	N	N	N	N
Initials/ Date	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27	12/28/07	12/29/07	12/30/07	12/31/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
73	—	—	—	—	—
74	N	N	N	2em(mf)	1em(m)
75	N	N	↓	N	N
76	N	1em (f)	↓	1em(f)	N
77	—	—	—	—	—
78	N	N	N	N	N
79	—	—	—	—	—
80	N	N	N	N	1em(m)
81	2em(F)	N	N	N	1em(F)
82	N	N	1em (f)	1em (f)	N
83	N	N	N	N	N
84	N	N	N	1em(f)	N
85	N	2em (f)	1em(m)	N	1em(F)
86	—	—	—	—	—
87	—	—	—	—	—
88	N	1em (f)	1em(f)	N	N
89	N	N	1em f	N	N
90	—	—	—	—	—
91	—	—	—	—	—
92	—	—	—	—	—
93	1em(m)	N	1em (f)	N	N
94	N	N	N	1em(f)	N
95	1em(F)	1em (m)	↓	1em(m)	N
96	N	N	↓	N	N
Initials/ Date	11/08	11/2/18	11/3/18	11/4/18	11/5/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
97	N	N	N	N	N	N	N	N	N	N	N
98	N	N	N	N	N	N	N	N	N	|	|
99	N	N	N	N	N	N	N	N	N	|	|
100	N	N	N	N	N	N	N	N	N	|	|
101	N	N	N	N	N	N	N	N	N	|	|
102	N	N	N	N	N	N	N	N	N	|	|
103	N	N	N	N	N	N	N	N	N	|	|
104	N	N	N	N	N	N	N	N	N	|	|
105	N	N	N	N	N	N	N	N	N	|	|
106	N	N	N	N	N	N	N	N	N	|	|
107	N	N	N	N	N	N	N	N	N	|	|
108	N	N	N	N	N	N	N	N	N	|	|
109	N	N	N	N	N	N	N	N	N	|	|
110	N	N	N	N	N	N	N	N	N	|	|
111	N	N	N	N	N	N	N	N	N	|	|
112	N	N	N	N	N	N	N	N	N	|	|
113	N	N	N	N	N	N	N	N	N	|	|
114	N	N	N	N	N	N	N	N	N	|	|
115	N	N	N	N	N	N	N	N	N	|	|
116	N	N	N	N	N	N	N	N	N	|	|
117	N	N	N	N	N	N	N	N	N	|	|
118	N	N	N	N	N	N	N	N	N	|	|
119	N	N	N	N	N	N	N	N	N	|	|
120	N	N	N	N	N	N	N	N	N	↓	↓
Initials/ Date	12/1/07	12/2/07	12/3/07	12/4/07	12/5/07	12/6/07	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
97	N	N	N	N	N	N	1Em(m)	N	N	3Em(m)
98	↓	↓	↓	↓	↓	↓	↓	N	↓	N
99	↓	↓	↓	↓	↓	↓	↓	N	↓	1Em(m)
100	↓	↓	↓	↓	↓	↓	↓	N	↓	N
101	↓	↓	↓	~~D~~ 1S	↓	1S	1S	N ~~1Em(m)~~	1Em(m)	N
102	↓	↓	↓	N	↓	N	N	N	N	5L
103	↓	↓	↓	↓	↓	↓	↓	N	↓	N
104	↓	1S	↓	↓	↓	↓	↓	N	↓	11L
105	↓	N	↓	↓	↓	↓	↓	N	↓	6L, N
106	↓	↓	↓	↓	↓	↓	↓	N	↓	N
107	↓	↓	↓	↓	↓	↓	↓	1S(L)	↓	N
108	↓	↓	↓	↓	↓	↓	↓	N	↓	N
109	↓	109	↓	↓	↓	↓	↓	N	↓	6L, 3P
110	↓	N	↓	1S	↓	1S	1S	N	↓	1Em(m)
111	↓	↓	↓	N	↓	N	N	N	↓	9L, 1P
112	↓	↓	↓	↓	↓	↓	↓	N	↓	N
113	↓	↓	↓	↓	↓	↓	↓	N	↓	10L, 1P
114	↓	↓	↓	↓	↓	↓	↓	N	↓	N
115	↓	↓	↓	↓	↓	↓	↓	N	↓	12L
116	↓	1S	↓	↓	↓	↓	↓	N	↓	11L, 1P
117	↓	N	↓	↓	↓	↓	↓	N	↓	7L, 2P
118	↓	↓	↓	↓	↓	↓	↓	N	↓	12L
119	↓	↓	↓	↓	↓	↓	↓	N	↓	N
120	↓	↓	↓	↓	↓	↓	↓	N	↓	N
Initials/ Date	12/12/7	12/13/7	12/14/7	12/17	12/16/07	12/17/07	12/18/07	12/19/07	12/20/7	12/21/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
97	1Em(m)	1Em(m)	N	2Em(m,F)	1Em(F)	N 1Em(m)	N	1pt emF	N	N
98	N	N	N	1Em(m)	1Em(m)	1em(f)	N	1Em(m)	N	N
99	1Em(m)	N	N	N	2Em(F)	1em(f)	N	N	N	1Em(F)
100	N	N	N	1Em(m)	1Em(m)	1em(m)	N	1Em(m)	1Em(F)	N
101	N	N	1Em(F)	N	2Em(m)	N	1Em(F)	N	N	N
102	**	—	—	—	—	—	—	—	—	—
103	1Em(m)	N	1Em(F)	2Em(F)	N	N	N	N	N	N
104	**	—	—	—	—	—	—	—	—	—
105	N	N	N	N	1Em(m)	N	N	N	N	1Em(F)
106	N	2Em(m)	N	N	1D(P)	Em 2 (m)	N	1Em(F)	1Em(m) 1s(P)	1D(P)
107	N	1Em(m)	N	N	N	1em(m)	N	N	N	1Em(F)
108	N	1Em(m)	N	N	1Em(m)	N	N	N	N	N
109	**	—	—	—	—	—	—	—	—	—
110	N	N	N	1Em(F)	2Em(m)	1em(f)	N	N	N	1Em(F)
111	**	—	—	—	—	—	—	—	—	—
112	N	N	N	1Em(m)	1Em(m)	2em(m)	N	N	N	N
113	**	—	—	—	—	—	—	—	—	—
114	N	N	N	1Em(m)	1Em(m)	1em(f)	N	N	N	N
115	**	—	—	—	—	—	—	—	—	—
116	**	—	—	—	—	—	—	—	—	—
117	**	—	—	—	—	—	—	—	—	—
118	**	—	—	—	—	—	—	—	—	—
119	N	N	N	1Em(m)	N	2em(f)	1Em(F)	N	2Em(m,F)	N
120	N	N	2Em(m)	1Em(m)	1Em(m)	N	N	N	N	N
Initials/ Date	12/23/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27/07	12/28/07	12/29/07	12/30/07	12/31/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
97	N	N	N	N	N
98	1em(F)	N	↓	↓	N
99	N	N	↓	↓	N
100	N	2em (mf)	↓	↓	N
101	N	2em (mf)	↓	↓	N
102	—	—	—	—	—
103	N	N	N	N	N
104	—	—	—	—	—
105	N	1em(F)	1em(f)	N	N
106	N	N	N	N	N
107	N	2em (f)	1em(f)	N	N
108	N	N	1em(m)	1em(F)	N
109	—	—	—	—	—
110	N	N	N	N	1em(m)
111	—	—	—	—	—
112	N	2em (m)	1 em (F)	N	N
113	—	—	—	—	—
114	N	N	2em(m)	N	N
115	—	—	—	—	—
116	—	—	—	—	—
117	—	—	—	—	—
118	—	—	—	—	—
119	N	N	N	N	1em(F)
120	1em(F)	N	N	N	N
Initials/ Date	[illegible]	12/8	1/3/8	1/4/8	1/5/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
121	N	N	N	N	N	N	N	N	N	N	N
122	N	N	N	N	N	N	N	N	N	↓	↓
123	N	N	N	N	N	N	N	N	N	↓	↓
124	N	N	N	N	N	N	N	N	N	↓	↓
125	N	N	N	N	N	N	N	N	N	↓	↓
126	N	N	N	N	N	N	N	N	N	↓	↓
127	N	N	N	N	N	N	N	N	N	↓	↓
128	N	N	N	N	N	N	N	N	N	↓	↓
129	N	N	N	N	N	N	N	N	N	↓	↓
130	N	N	N	N	N	N	N	N	N	↓	↓
131	N	N	N	N	N	N	N	N	N	↓	↓
132	N	N	N	N	N	N	N	N	N	↓	↓
Initials/ Date	12/1/07	12/2/07	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
121	N	N	N	N	N	N	N	N	N	N
122	↓	↓	↓	↓	↓	↓	↓	N	↓	6L, 2P
123	↓	↓	↓	↓	↓	↓	↓	1Em(M)	↓	1Em(M)
124	↓	↓	↓	↓	↓	↓	↓	N	↓	10L
125	↓	↓	↓	↓	↓	↓	↓	N	↓	N
126	↓	↓	↓	↓	↓	↓	↓	N	↓	5L
127	↓	↓	↓	↓	↓	↓	↓	N	↓	N
128	↓	↓	↓	↓	↓	↓	↓	N	↓	8L, 1P
129	↓	↓	↓	↓	↓	↓	↓	N	↓	3L
130	↓	↓	↓	↓	↓	↓	↓	dS(L)	↓	1Em(M)
131	↓	↓	↓	↓	↓	↓	↓	N	↓	10L, 1P
132	↓	↓	↓	↓	↓	↓	↓	N	↓	1Em(M)
Initials/ Date	12/12/7	12/13/7	12/14/7	12/15/7	12/16/07	12/17/07	12/18/07	12/19/07	12/20/7	12/21/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
121	N	N	1Em(F)	N	N	N	N	N	N	N
122	* *	—	—	—	—	—	—	—	—	—
123	N	1Em(m)	N	1Em(m)	N	1Em(F)	N	1Em(F)	N	1Em(m)
124	* *	—	—	—	—	—	—	—	—	—
125	N	N	1pr1m(h)	N	N	1Em (F)	N	N	1s(p)	N
126	* *	—	—	—	—	—	—	—	—	—
127	N	N	N	N	N	2Em (m)	1Em(m)	N	N	1Em(F)
128	* *	—	—	—	—	—	—	—	—	—
129	* *	—	—	—	—	—	—	—	—	—
130	N	N	1Em(F)	N	1Em (F)	N	N	N	N	N
131	* *	—	—	—	—	—	—	—	—	—
132	1Em(m)	1Em(m)	1Em(m)	N	N	N	1Em (F)	N	N	N
Initials/ Date	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27/7	12/28/07	12/29/07	12/30/07	12/31/07

* escaped

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
121	N	N	N	N	N
122	—	—	—	—	—
123	N	1em(F)	N	N	N
124	—	—	—	—	—
125	N	N	N	N	1pt em
126	—	—	—	—	—
127	N	1em(F)	N	N	N
128	—	—	—	—	—
129	—	—	—	—	—
130	1Em(F)	2em(F)	N	N	N
131	—	—	—	—	—
132	2em(1m,1F)	1em(F)	N	N	N
Initials/ Date	1/1/08	1/2/8	1/3/8	1/4/8	1/5/08

Aqua Survey, Inc.
Special Studies Department

Water Quality

Job #: 27-303 **Organism:** *C. tentans*

Client: ENSR **Round #1** **Test Start Date:** 12/1/07

Sample	ASI #	Day 0				Day 20			
		Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L
Control	20070963	52	80	288	0.78	52	92	308	<0.50
STN 61	20070929	76	104	334	1.88	76	124	335	<0.50
STN 64	20070931	76	104	333	0.77	72	104 @	326	<0.50
STN 67	20070937	80	112	339	<0.50	64	108	321	<0.50
STN 69	20070955	80	112	342	2.03	104	140	385	<0.50
STN 71	20070934	80	104	328	1.12	104	124	358	<0.50
STN 124	20070932	88	108	339	2.96	88	124	362	<0.5
STN 125	20070933	76	112	333	0.53	72	112	326	<0.5
STN 126	20070935	76	108	335	1.81	82	128	345	<0.5
STN 11	20070930	80	116	347	2.63	98	112	339	<0.50
STN 4	20070941	84	120	364	0.75	90	168	406	<0.50
Initials/ Date		12/1/07	12/1/07	12/1/07	12/1/07	12/21/07	12/21/07	12/21/07	12/24/7

Sample	ASI #	Day 35				Day			
		Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L
Control	20070963	58	102	319	<0.5				
STN 61	20070929	72	108	338	<0.5				
STN 64	20070931	68	108	333	<0.5				
STN 67	20070937	66	100	320	<0.5				
STN 69	20070955	84	132	364	<0.5				
STN 71	20070934	82	120	350	<0.5				
STN 124	20070932	80	116	349	<0.5				
STN 125	20070933	68	106	328	<0.5				
STN 126	20070935	76	116	346	<0.5				
STN 11	20070930	80	120	351	<0.5				
STN 4	20070941	88	132	379	<0.5				
Initials/ Date		1/5/08							

Y:\LAB DATA Forms\forms\Sediment\C.tentans Life Cycle\alkalinity, hardness, ammonia, cond..doc

3031CT0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/01/00 00:28:30	23.03	288.0	0.14	7.12	7.71
1	01/01/00 00:29:09	23.32	334.0	0.16	6.94	7.57
2	01/01/00 00:29:42	23.30	333.0	0.16	7.27	7.57
3	01/01/00 00:30:11	23.39	339.0	0.16	7.04	7.55
4	01/01/00 00:30:53	23.41	342.0	0.16	6.78	7.48
5	01/01/00 00:31:25	23.44	328.0	0.16	6.78	7.48
6	01/01/00 00:31:51	23.43	339.0	0.16	6.96	7.46
7	01/01/00 00:32:18	23.48	333.0	0.16	7.11	7.50
8	01/01/00 00:32:47	23.46	335.0	0.16	7.21	7.48
9	01/01/00 00:33:12	23.47	347.0	0.17	7.10	7.46
10	01/01/00 00:33:43	23.44	364.0	0.17	7.06	7.48

* Time and date was 12/1/07 0845 to 0850 DH 12/1/07

Project #: 07-303 Round 1 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/1/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 0

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑		

Actions taken:

See deviation summary sheet ☐

Initials: DH

3031CT1.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/02/07 09:23:30	22.89	0.0	0.00	5.71	7.91
1	12/02/07 09:24:20	22.92	0.0	0.00	5.75	7.63
2	12/02/07 09:25:05	23.03	0.0	0.00	5.64	7.55
3	12/02/07 09:25:49	23.43	0.0	0.00	5.83	7.51
4	12/02/07 09:26:56	23.32	0.0	0.00	6.21	7.45
5	12/02/07 09:27:32	23.61	0.0	0.00	5.64	7.43
6	12/02/07 09:27:58	23.48	0.0	0.00	5.21	7.39
7	12/02/07 09:29:07	23.53	0.0	0.00	5.90	7.46
8	12/02/07 09:30:16	23.26	0.0	0.00	6.25	7.45
9	12/02/07 09:30:49	23.28	0.0	0.00	6.38	7.45
10	12/02/07 09:31:35	22.72	0.0	0.00	5.59	7.41

Project #: 07-303 Rowell Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/2/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 1

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑	☑	

Actions taken:

See deviation summary sheet ☐

Initials:

3031CT2.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/03/07 09:16:13	23.39	2.0	0.00	6.00	7.57
1	12/03/07 09:17:07	23.93	2.0	0.00	6.01	7.53
2	12/03/07 09:17:49	23.56	2.0	0.00	5.79	7.53
3	12/03/07 09:18:33	23.62	1.0	0.00	5.68	7.51
4	12/03/07 09:19:28	23.54	1.0	0.00	5.84	7.49
5	12/03/07 09:19:53	23.82	1.0	0.00	5.23	7.48
6	12/03/07 09:20:09	23.72	1.0	0.00	5.04	7.45
7	12/03/07 09:20:57	23.75	1.0	0.00	6.16	7.51
8	12/03/07 09:22:02	23.54	1.0	0.00	6.01	7.50
9	12/03/07 09:22:41	23.51	1.0	0.00	5.36	7.47
10	12/03/07 09:23:24	23.83	1.0	0.00	5.40	7.46

Round 1

Project #: 27-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/3/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 2

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐	6.0 to 9.0 ☑	

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

3031CT3.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/04/07 10:16:55	22.97	0.0	0.00	4.81	7.89
1	12/04/07 10:18:26	23.57	0.0	0.00	5.59	7.76
2	12/04/07 10:19:18	23.30	0.0	0.00	5.72	7.69
3	12/04/07 10:20:18	23.45	0.0	0.00	5.40	7.63
4	12/04/07 10:21:21	23.47	0.0	0.00	5.62	7.58
5	12/04/07 10:21:47	23.43	0.0	0.00	5.19	7.57
6	12/04/07 10:22:10	23.55	0.0	0.00	5.01	7.52
7	12/04/07 10:22:57	23.52	0.0	0.00	5.59	7.54
8	12/04/07 10:24:09	23.58	0.0	0.00	5.58	7.49
9	12/04/07 10:24:50	23.57	0.0	0.00	5.26	7.46
10	12/04/07 10:25:31	23.82	0.0	0.00	5.51	7.46

Round 1

Project #: 07-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/4/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 3

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐

Initials: SDW

3031CT4.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/05/07 11:17:32	23.83	2.0	0.00	4.50	8.01
1	12/05/07 11:18:41	23.84	2.0	0.00	4.62	7.77
2	12/05/07 11:19:13	23.86	3.0	0.00	4.48	7.70
3	12/05/07 11:20:15	23.90	2.0	0.00	5.18	7.62
4	12/05/07 11:20:49	23.81	2.0	0.00	4.82	7.56
5	12/05/07 11:21:08	23.66	2.0	0.00	4.78	7.55
6	12/05/07 11:21:33	23.83	2.0	0.00	4.56	7.52
7	12/05/07 11:21:58	23.95	2.0	0.00	4.59	7.54
8	12/05/07 11:23:20	23.94	2.0	0.00	4.58	7.49
9	12/05/07 11:23:46	23.83	2.0	0.00	4.79	7.46
10	12/05/07 11:24:39	23.93	2.0	0.00	4.60	7.46

Project #: 27-303 R1 Test type: ☐ ACUTE ☐ CHRONIC ☐ OTHER: _____ Date: 12/5/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☒ Other: CT Day of Study: 4

OPERATIONAL RANGE: Check if OK Meter Used:

Temperature: 22 to 24 ☑ Blue ☐

Salinity: ~~____ to ____~~ ☐ Red ☐

Dissolved Oxygen: >4 0 (7.2.5) ☑ Green ☒

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

3031CT5.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/06/07 09:15:48	23.08	4.41	8.14
1	12/06/07 09:17:21	23.18	4.12	7.90
2	12/06/07 09:17:55	23.06	4.59	7.84
3	12/06/07 09:19:34	22.80	3.50	7.71
4	12/06/07 09:20:21	22.78	4.03	7.66
5	12/06/07 09:20:41	22.78	3.95	7.66
6	12/06/07 09:21:07	22.70	4.08	7.61
7	12/06/07 09:21:49	22.78	3.83	7.62
8	12/06/07 09:23:47	22.68	4.01	7.56
9	12/06/07 09:24:31	22.64	4.36	7.52
10	12/06/07 09:25:37	23.04	4.47	7.54

Project #: 07-303 Rd#1 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: 35 day Study Date: 12/6/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 5

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ >2.5mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐

Initials: M

3031CT6.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/07/07 09:12:29	22.17	306.0	6.73	7.48
1	12/07/07 09:13:15	22.58	317.0	5.82	7.43
2	12/07/07 09:13:40	22.63	320.0	5.48	7.43
3	12/07/07 09:14:21	22.63	322.0	5.54	7.42
4	12/07/07 09:15:09	22.57	323.0	5.65	7.44
5	12/07/07 09:15:54	22.70	320.0	5.74	7.45
6	12/07/07 09:16:49	22.98	320.0	5.69	7.44
7	12/07/07 09:17:39	23.08	321.0	6.03	7.47
8	12/07/07 09:18:14	23.11	318.0	5.77	7.47
9	12/07/07 09:18:53	23.13	326.0	5.99	7.48
10	12/07/07 09:19:21	23.18	327.0	5.80	7.48

Project #: 27-303 R1 Test type: ☐ ACUTE ☐ CHRONIC ☐ OTHER: _____ Date: 12/7/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☒ Other: CT Day of Study: 6

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	___ to ___	☐	Red ☐
Dissolved Oxygen:	>4 0	7.5 ☑	Green ☒
pH:	7.3 to 8.3 ☐	6.0 to 9.0 ☑	

Actions taken:

See deviation summary sheet ☐ Initials: MO

3031CT7.DAT

	DateTime	Temp	DO Conc *	pH
	M/D/Y	C	mg/L	
0	12/08/07 08:28:26	23.05	2.82	7.21
1	12/08/07 08:30:07	23.02	2.74	7.18
2	12/08/07 08:32:04	23.25	2.02	7.19
3	12/08/07 08:33:43	22.80	2.52	7.21
4	12/08/07 08:34:43	22.93	2.63	7.20
5	12/08/07 08:35:23	22.99	2.33	7.19
6	12/08/07 08:35:50	22.96	2.32	7.19
7	12/08/07 08:37:26	22.80	2.71	7.20
8	12/08/07 08:39:10	22.80	2.54	7.22
9	12/08/07 08:40:30	22.86	3.10	7.27
10	12/08/07 08:41:50	22.86	2.62	7.22

Project #: 07-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/8/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: *C. tentans* Day of Study: 7

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5 mg/L	☐*	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑		

Actions taken:

*low D.O. test aeration initiated

See deviation summary sheet ☐

Initials:

3031CT8.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/09/07 10:06:28	22.89	7.74	8.02
1	12/09/07 10:08:37	23.41	7.43	7.93
2	12/09/07 10:10:12	22.98	7.70	7.94
3	12/09/07 10:11:59	22.79	7.86	8.00
4	12/09/07 10:13:28	22.96	7.80	8.02
5	12/09/07 10:17:20	22.95	7.80	8.00
6	12/09/07 10:18:08	23.00	7.71	7.95
7	12/09/07 10:18:54	23.13	7.83	7.97
8	12/09/07 10:22:06	22.42	7.80	7.99
9	12/09/07 10:23:43	23.08	7.57	7.98
10	12/09/07 10:24:24	22.84	7.73	7.95
① ~~11~~	~~12/09/07 10:27:20~~	~~23.95~~	~~7.02~~	~~7.83~~

① mistake; disregard mj 12/9/07

Project #: 07-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/9/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 8

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 3.5 mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐

Sun Dec 09 10:37:19 2007 Page 1 of 1 Initials: mj

3031CT9.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/10/07 08:48:37	23.15	7.43	7.08
1	12/10/07 08:50:03	23.23	7.35	7.26
2	12/10/07 08:50:45	23.16	7.56	7.34
3	12/10/07 08:51:26	22.77	7.84	7.44
4	12/10/07 08:51:51	22.82	7.07	7.44
5	12/10/07 08:52:29	22.86	6.26	7.51
6	12/10/07 08:53:42	22.82	6.09	7.51
7	12/10/07 08:54:54	22.72	7.78	7.55
8	12/10/07 08:56:04	22.82	7.54	7.53
9	12/10/07 08:56:30	22.81	7.44	7.57
10	12/10/07 08:57:15	23.09	7.48	7.62

Project #: 27-303 R&I Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/10/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: CT Day of Study: 9

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: MA

3031CT10.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/11/07 08:41:13	23.18	7.34	7.06
1	12/11/07 08:42:44	23.19	7.27	7.27
2	12/11/07 08:43:30	23.18	7.42	7.35
3	12/11/07 08:44:17	22.72	7.58	7.50
4	12/11/07 08:44:59	22.71	7.56	7.61
5	12/11/07 08:45:21	22.80	7.41	7.65
6	12/11/07 08:45:55	22.66	7.11	7.62
7	12/11/07 08:46:24	22.79	7.08	7.63
8	12/11/07 08:47:44	22.71	7.21	7.65
9	12/11/07 08:48:09	22.70	7.19	7.66
10	12/11/07 08:48:45	23.24	7.06	7.69

Project #: 27-303 Rd 1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/11/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: CT Day of Study: 11

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: MA

3031CT11.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y 12/12/07 0900	C	mg/L	
0	01/01/00 00:03:26	23.92	5.90	7.81
1	01/01/00 00:07:22	24.20	5.67	7.77
2	01/01/00 00:07:49	24.10	5.85	7.80
3	01/01/00 00:09:25	23.05	6.18	7.83
4	01/01/00 00:09:57	23.12	6.11	7.85
5	01/01/00 00:10:22	23.21	6.01	7.89
6	01/01/00 00:10:57	23.01	5.77	7.85
7	01/01/00 00:11:40	23.17	5.69	7.85
8	01/01/00 00:13:55	23.18	5.85	7.78
9	01/01/00 00:14:26	23.21	5.82	7.80
10	01/01/00 00:15:13	24.00	5.55	7.88

Project #: 27-303 Rd 1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/12/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: C T Day of Study: 11

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☐ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☐ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

Bath # temp. lowered

Power failure on logger caused date to reset

See deviation summary sheet ☐

Initials: JH

3031CT12.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/13/07 09:57:38	23.00	7.46	8.38
1	12/13/07 09:59:30	22.96	7.34	8.12
2	12/13/07 10:00:01	22.94	7.48	8.10
3	12/13/07 10:00:46	22.57	7.85	8.11
4	12/13/07 10:01:24	22.62	7.70	8.16
5	12/13/07 10:01:39	22.61	7.69	8.19
6	12/13/07 10:01:53	22.59	7.65	8.17
7	12/13/07 10:02:22	22.58	7.46	8.13
8	12/13/07 10:03:47	22.76	7.35	8.03
9	12/13/07 10:08:27	22.33	7.54	8.06
10	12/13/07 10:09:28	22.70	7.05	8.11

Project #: 27-303 RD1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/13/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: CT Day of Study: 12

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ~~_____ – _____ ppt~~

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☐ ~~6.0~~ to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: MB

3031CT13.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/14/07 09:17:32	22.35	306.0	7.75	8.08
1	12/14/07 09:18:49	22.86	321.0	7.79	7.98
2	12/14/07 09:19:10	23.00	319.0	7.81	7.98
3	12/14/07 09:19:36	23.05	319.0	7.69	7.97
4	12/14/07 09:19:57	23.09	367.0	7.73	7.98
5	12/14/07 09:20:16	23.12	330.0	7.75	8.06
6	12/14/07 09:20:34	23.09	388.0	7.72	8.05
7	12/14/07 09:20:53	23.14	337.0	7.69	8.10
8	12/14/07 09:21:10	23.18	322.0	7.74	8.07
9	12/14/07 09:21:31	23.14	321.0	7.74	8.05
10	12/14/07 09:21:51	23.19	329.0	7.73	8.01

Project #: 27-303 Rd 1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/14/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 13

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ~~_____ – _____~~ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: AM

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/15/07 **Day of Study:** 14 **Recorded by:** AM

Chamber #	Temperature °C	Test Aeration Check
6	22.7	✓
16	22.8	✓
31	22.7	✓
49	22.5	✓
58	22.7	✓
61	22.8	✓
55	22.7	✓
67	22.7	✓
76	22.8	✓
88	22.7	✓
130	22.8	✓

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/16/07 **Day of Study:** 15 **Recorded by:** [signature]

Chamber #	Temperature °C	Test Aeration Check
6	23.2	✓
16	23.2	✓
31	23.2	✓
49	23.1	✓
58	23.0	✓
61	23.0	✓
75	23.0	✓
67	23.0	✓
76	23.0	✓
88	23.1	✓
130	23.2	✓

NOTES/ ADJUSTMENTS:

3031CT16.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/17/07 10:23:15	22.63	7.21	7.95
1	12/17/07 10:24:11	22.74	7.30	7.91
2	12/17/07 10:24:52	22.78	7.39	7.92
3	12/17/07 10:25:42	22.72	7.47	7.97
4	12/17/07 10:26:15	22.57	7.52	8.00
5	12/17/07 10:26:55	22.69	7.35	8.07
6	12/17/07 10:27:28	22.72	7.11	8.02
7	12/17/07 10:27:51	22.78	7.09	8.04
8	12/17/07 10:28:53	22.72	7.29	8.01
9	12/17/07 10:29:20	22.56	7.18	7.99
10	12/17/07 10:30:02	22.70	7.05	8.03

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/17/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 1 1 e

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: JM

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/18/07 **Day of Study:** 17 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
6	22.6	✓
16	23.2	✓
31	23.1	✓
49	22.8	✓
58	22.7	✓
61	22.7	✓
55	22.7	✓
67	22.9	✓
76	22.6	✓
88	22.5	✓
130	23.0	✓

NOTES/ ADJUSTMENTS:

3031CT18.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/19/07 09:31:08	22.72	7.78	7.97
1	12/19/07 09:32:48	22.80	7.79	7.90
2	12/19/07 09:33:34	22.96	7.81	7.94
3	12/19/07 09:34:25	22.33	8.11	7.96
4	12/19/07 09:35:00	22.35	8.07	7.99
5	12/19/07 09:35:29	22.76	7.79	8.05
6	12/19/07 09:36:51	22.62	7.40	8.02
7	12/19/07 09:37:57	22.72	7.62	8.02
8	12/19/07 09:38:41	22.70	7.93	7.99
9	12/19/07 09:39:14	22.73	7.64	7.98
10	12/19/07 09:40:02	22.95	7.49	7.98

Project #: 27-303 Rd 1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/19/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 18

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: AM

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/20/07 **Day of Study:** 19 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
6	22.9	√
16	22.9	√
31	22.9	√
49	22.2	√
58	22.2	√
61	22.2	√
55	22.2	√
67	22.2	√
76	22.2	√
88	22.4	√
130	22.9	√

NOTES/ ADJUSTMENTS:

3031CT20.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/21/07 11:09:59	23.19	308.0	7.77	8.01
1	12/21/07 11:10:38	23.31	335.0	7.59	7.92
2	12/21/07 11:10:53	23.34	326.0	7.57	7.93
3	12/21/07 11:11:10	23.32	321.0	7.60	7.95
4	12/21/07 11:11:24	23.30	385.0	7.63	7.93
5	12/21/07 11:11:36	23.29	358.0	7.59	7.99
6	12/21/07 11:11:56	23.38	362.0	7.54	8.00
7	12/21/07 11:12:11	23.37	326.0	7.55	8.03
8	12/21/07 11:12:27	23.36	345.0	7.51	7.99
9	12/21/07 11:12:41	23.31	339.0	7.47	7.98
10	12/21/07 11:13:00	23.22	406.0	7.54	7.98

Project #: 27-303 Rd 1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/21/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 20

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: SK

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Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/22/07 **Day of Study:** 21 **Recorded by:** JA

Chamber #	Temperature °C	Test Aeration Check
6	22.17	✓
16	22.47	✓
31	22.35	✓
49	22.39	✓
58	22.30	✓
61	22.38	✓
55	22.42	✓
67	22.35	✓
76	22.37	✓
88	22.29	✓
130	22.35	✓

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/23/07 **Day of Study:** 22 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
6	22.56	✓
16	22.79	✓
31	22.52	✓
49	22.53	✓
58	22.79	✓
61	22.69	✓
55	22.58	✓
67	22.78	✓
76	22.81	✓
88	22.78	✓
130	23.18	✓

NOTES/ ADJUSTMENTS:

3031CT23.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/24/07 08:35:04	22.11	7.69	7.09
1	12/24/07 08:36:14	22.06	7.82	7.14
2	12/24/07 08:36:46	22.16	7.64	7.28
3	12/24/07 08:37:57	22.28	7.76	7.45
4	12/24/07 08:38:37	22.24	7.64	7.58
5	12/24/07 08:39:07	22.32	7.33	7.70
6	12/24/07 08:39:24	22.27	7.16	7.71
7	12/24/07 08:39:56	22.36	7.45	7.76
8	12/24/07 08:41:05	22.08	7.62	7.77
9	12/24/07 08:41:31	22.18	7.53	7.77
10	12/24/07 08:42:22	22.25	7.59	7.80

Project #: 27-30 Rd 1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/24/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 23

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: AM

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Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/25/07 **Day of Study:** 24 **Recorded by:** DPH

Chamber #	Temperature °C	Test Aeration Check
6	22.67	✓
16	22.75	✓
31	22.69	✓
49	22.37	✓
58	22.46	✓
61	22.50	✓
55	22.46	✓
67	22.34	✓
76	22.52	✓
88	22.36	✓
130	22.42	✓

NOTES/ ADJUSTMENTS:

3031CT25.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/26/07 09:07:30	22.91	7.53	7.64
1	12/26/07 09:08:57	23.07	7.18	7.64
2	12/26/07 09:09:48	23.18	7.51	7.71
3	12/26/07 09:11:04	22.32	7.81	7.80
4	12/26/07 09:11:54	22.48	7.53	7.82
5	12/26/07 09:12:16	22.60	7.52	7.90
6	12/26/07 09:12:45	22.38	7.37	7.90
7	12/26/07 09:14:16	22.28	7.48	7.89
8	12/26/07 09:15:45	22.55	7.59	7.95
9	12/26/07 09:16:45	22.50	7.46	7.97
10	12/26/07 09:17:47	22.53	6.31	7.85

Project #: 07-303 Rd #1 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: 35 day Study Date: 12/26/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: *C. tentans* Day of Study: 25

OPERATIONAL RANGE:		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5 mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐

Initials:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/7/07 **Day of Study:** 26 **Recorded by:** DMJ

Chamber #	Temperature °C	Test Aeration Check
6	23.03	✓
16	23.02	✓
31	22.98	✓
49	22.54	✓
58	22.47	✓
61	22.43	✓
55	22.45	✓
67	22.61	✓
76	22.60	✓
88	22.57	✓
130	22.98	✓

NOTES/ ADJUSTMENTS:

3031CT27.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/28/07 10:17:55	23.14	322.0	0.15	7.54	7.87
1	12/28/07 10:18:57	23.38	343.0	0.16	7.64	7.87
2	12/28/07 10:19:30	23.40	331.0	0.16	7.51	7.89
3	12/28/07 10:19:50	23.49	319.0	0.15	7.59	7.91
4	12/28/07 10:20:06	23.53	379.0	0.18	7.61	7.87
5	12/28/07 10:20:23	23.59	355.0	0.17	7.59	7.93
6	12/28/07 10:20:40	23.62	356.0	0.17	7.30	7.93
7	12/28/07 10:20:59	23.63	389.0	0.19	7.99	7.94
8	12/28/07 10:21:24	23.63	353.0	0.17	7.87	7.99
9	12/28/07 10:21:43	23.57	345.0	0.16	8.00	7.99
10	12/28/07 10:22:02	23.57	328.0	0.16	7.90	7.98

Round 1

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: _____ Date: 12/28/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 27

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/29/07 **Day of Study:** 28 **Recorded by:** [signature]

Chamber #	Temperature °C	Test Aeration Check
6	23.2	√
16	23.2	√
31	23.3	√
49	22.6	√
58	22.5	√
61	22.7	√
55	22.5	√
67	22.8	√
76	22.6	√
88	22.5	√
130	23.1	√

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 12/30/07 **Day of Study:** 29 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
6	23.2	√
16	23.2	√
31	23.3	√
49	22.6	√
58	22.6	√
61	22.7	√
55	22.6	√
67	22.7	√
76	22.5	√
88	22.5	√
130	23.2	√

NOTES/ ADJUSTMENTS:

3031CT30.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/31/07 09:31:20	23.39	7.66	8.06
1	12/31/07 09:33:01	23.57	7.55	8.02
2	12/31/07 09:34:43	23.65	7.50	8.03
3	12/31/07 09:35:50	22.92	7.80	8.03
4	12/31/07 09:36:38	22.85	7.48	8.00
5	12/31/07 09:37:56	22.90	7.74	8.12
6	12/31/07 09:39:09	22.85	7.77	8.19
7	12/31/07 09:40:35	22.94	7.51	8.06
8	12/31/07 09:41:51	22.70	7.62	8.06
9	12/31/07 09:43:55	22.74	7.42	8.06
10	12/31/07 09:45:00	23.78	7.49	8.15

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: _____ Date: 12/31/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: *C. tentans* Day of Study: 30

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

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Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 1/1/08 **Day of Study:** 31 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
6	23.3	√
16	23.4	√
31	23.4	√
49	22.8	√
58	22.8	√
61	22.8	√
55	22.8	√
67	22.8	√
76	22.6	√
88	22.6	√
130	23.3	√

NOTES/ ADJUSTMENTS:

3031CT32.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	01/02/08 08:50:55	22.74	7.91	6.85
1	01/02/08 08:51:44	22.80	7.86	6.91
2	01/02/08 08:52:22	22.85	6.69	7.07
3	01/02/08 08:53:34	22.22	7.63	7.23
4	01/02/08 08:54:27	22.21	7.75	7.32
5	01/02/08 08:54:53	22.39	7.63	7.44
6	01/02/08 08:55:07	22.43	7.59	7.51
7	01/02/08 08:55:56	22.39	7.68	7.55
8	01/02/08 08:57:43	22.25	7.68	7.59
9	01/02/08 08:58:27	22.25	7.65	7.63
10	01/02/08 08:59:28	22.77	7.68	7.74

Project #: 27-303 Round #1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35 day Study Date: 1/2/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: (Ventana) Day of Study: 32

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 1/3/08 **Day of Study:** 33 **Recorded by:** nl

Chamber #	Temperature °C	Test Aeration Check
6	22.6	√
16	23.1	√
31	23.1	√
49	22.4	√
58	22.4	√
61	22.3	√
55	22.4	√
67	22.5	√
76	22.3	√
88	22.3	√
130	23.1	√

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #1** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/1/07

Date: 1/4/08 **Day of Study:** 33 M 34 **Recorded by:** M

Chamber #	Temperature °C	Test Aeration Check
6	23.2	✓
16	23.5	✓
31	23.7	✓
49	23.2	✓
58	23.1	✓
61	23.1	✓
55	23.1	✓
67	23.2	✓
76	23.1	✓
88	23.0	✓
130	23.4	✓

NOTES/ ADJUSTMENTS:

3031CT35.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	01/05/08 11:39:20	22.89	319.0	7.03	7.82
1	01/05/08 11:40:14	22.90	338.0	7.14	7.82
2	01/05/08 11:40:28	22.93	333.0	7.23	7.84
3	01/05/08 11:40:44	22.91	320.0	7.16	7.88
4	01/05/08 11:40:59	22.88	364.0	7.46	7.87
5	01/05/08 11:41:13	22.88	350.0	7.47	7.91
6	01/05/08 11:41:30	22.90	349.0	7.38	7.93
7	01/05/08 11:41:44	22.98	328.0	7.23	7.94
8	01/05/08 11:41:57	23.00	346.0	7.20	7.92
9	01/05/08 11:42:09	22.96	351.0	7.23	7.92
10	01/05/08 11:43:35	22.97	379.0	7.38	8.03

Project #: 27303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: 35 Day Date: 1/5/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 35

OPERATIONAL RANGE: Check if OK — Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C — Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ ____ – ____ ppt — Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L — Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐ Initials: RW

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Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 12/1/07

TEST JOB #: 27-303(1) CLIENT: ENSR

TEST LOCATION: IN- LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 1600+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (5) Carolina Dishes
2. RECEIVING LOG #: N/A
3 CULTURE LOG #: 27-0055
4. AGE/SIZE INFORMATION <24 hours old; HD:12/1/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: MH Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 12/1/07
   TIME: 1000
   BY: m
2. LIVESTOCK RECEIVING: DATE: 12/1/07
   TIME: 1000
   BY: m
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: m

REMARKS:

DeviceNum 1070937 - ExportDate 01_07_08 15_59_40

Series: Temperature (*C)

Logger Info	Information specific to the logger	
Model	HOBO Water Temp Pro [H20-001]	
Serial Number	1070937	
Memory Size (Bytes)	32768	
Deployment	11	
Series Info	Information about the data in the series	
Points Used	937	
First Point	11/29/07 15:29:27.0	
Last Point	01/07/08 15:29:27.0	
Duration	39 Days 00:00:00.0	
Stats	Calculated from the series	
Wrap Count	0	
Max Value	24.90	
Min Value	21.37	
Avg Value	23.51	
Launch Parameters		
Load Time	11/29/2007 20:29:25 GMT	11/29/2007 15:29:25 Local
Launch Time	11/29/2007 20:29:27 GMT	11/29/2007 15:29:27 Local
Logging Time	11/29/2007 20:29:27 GMT	11/29/2007 15:29:27 Local
Sampling Interval	3600	
Wrap	0 = (FALSE/OFF/OPEN/TYPE 0)	
Stealth Enable	0 = (FALSE/OFF/OPEN/TYPE 0)	
End of Data	0x70B_04	
Wrap Count	0	
Description String	27-303 Round 1 Bath 1	
Time Zone	GMT-300 Minutes TZ set on Launch	

DeviceNum 1070937 - ExportDate 01_07_08 15_59_47

Date,Time,Temperature (*C)
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DeviceNum 1070937 - ExportDate 01_07_08 15_59_47

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DeviceNum 1041062 - ExportDate 01_07_08 16_00_41

Series: Temperature (*C)

Logger Info	Information specific to the logger	
Model	HOBO Water Temp Pro [H20-001]	
Serial Number	1041062	
Memory Size (Bytes)	32768	
Deployment	6	
Series Info	Information about the data in the series	
Points Used	937	
First Point	11/29/07 15:30:53.0	
Last Point	01/07/08 15:30:53.0	
Duration	39 Days 00:00:00.0	
Stats	Calculated from the series	
Wrap Count	0	
Max Value	24.77	
Min Value	19.46	
Avg Value	22.95	
Launch Parameters		
Load Time	11/29/2007 20:30:51 GMT	11/29/2007 15:30:51 Local
Launch Time	11/29/2007 20:30:53 GMT	11/29/2007 15:30:53 Local
Logging Time	11/29/2007 20:30:53 GMT	11/29/2007 15:30:53 Local
Sampling Interval	3600	
Wrap	0 = (FALSE/OFF/OPEN/TYPE 0)	
Stealth Enable	0 = (FALSE/OFF/OPEN/TYPE 0)	
End of Data	0x70B_04	
Wrap Count	0	
Description String	27-303 Round 1 Bath 2	
Time Zone	GMT-300 Minutes TZ set on Launch	

DeviceNum 1041062 - ExportDate 01_07_08 16_00_46

Date,Time,Temperature (*C)
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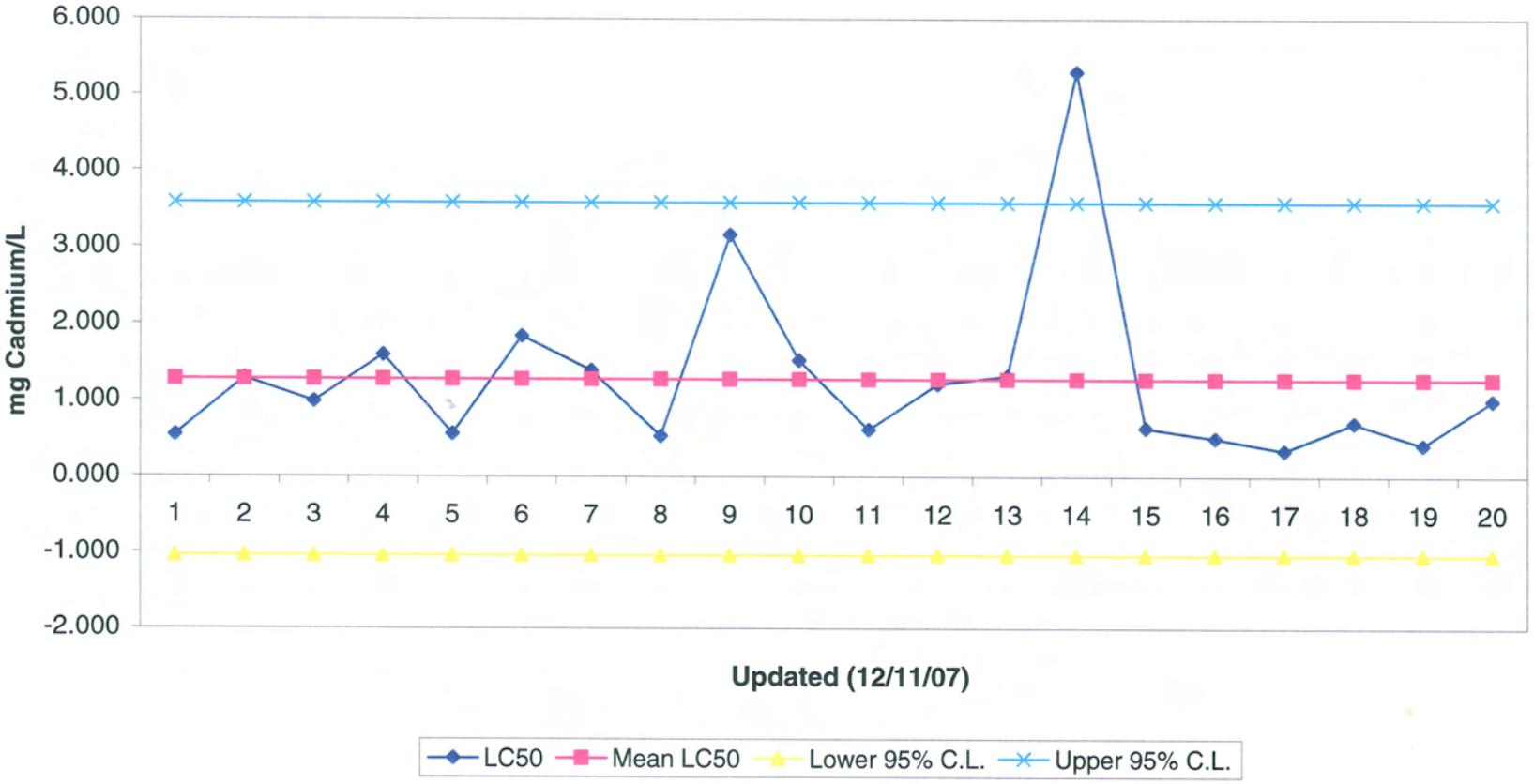
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Control Chart LC50 Values, Acute SRT With C. tentans



Test: AM-Acute Midge
Species: CT-Chironomous tentans
Sample ID: REF-Ref Toxicant
Start Date: 12/11/2007 End Date: 12/15/2007

Test ID: ct27303(1)
Protocol: EPAA 02-EPAA 02-EPA Acute
Sample Type: CDCL-Cadmium chloride
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	24 hrs	48 hrs	72 hrs	96 hrs	Notes
	1	1	Control	1				1	
	2	2	Control	1				1	
	3	3	Control	1				1	
	4	4	Control	1				1	
	5	5	Control	1				1	
	6	6	Control	1				1	
	7	7	Control	1				1	
	8	8	Control	1				1	
	9	9	Control	1				1	
	10	10	Control	1				1	
	11	1	0.2	1				0	
	12	2	0.2	1				1	
	13	3	0.2	1				1	
	14	4	0.2	1				1	
	15	5	0.2	1				0	
	16	6	0.2	1				1	
	17	7	0.2	1				0	
	18	8	0.2	1				1	
	19	9	0.2	1				1	
	20	10	0.2	1				1	
	21	1	0.6	1				1	
	22	2	0.6	1				1	
	23	3	0.6	1				1	
	24	4	0.6	1				1	
	25	5	0.6	1				0	
	26	6	0.6	1				1	
	27	7	0.6	1				1	
	28	8	0.6	1				1	
	29	9	0.6	1				0	
	30	10	0.6	1				0	
	31	1	1.6	1				0	
	32	2	1.6	1				1	
	33	3	1.6	1				1	
	34	4	1.6	1				1	
	35	5	1.6	1				0	
	36	6	1.6	1				1	
	37	7	1.6	1				0	
	38	8	1.6	1				1	
	39	9	1.6	1				1	
	40	10	1.6	1				1	
	41	1	5.0	1				0	
	42	2	5.0	1				0	
	43	3	5.0	1				0	
	44	4	5.0	1				0	
	45	5	5.0	1				0	
	46	6	5.0	1				0	
	47	7	5.0	1				0	
	48	8	5.0	1				0	
	49	9	5.0	1				0	
	50	10	5.0	1				0	
	51	1	15.0	1				0	
	52	2	15.0	1				0	
	53	3	15.0	1				0	

Test: AM-Acute Midge						Test ID: ct27303(1)			
Species: CT-Chironomous tentans						Protocol: EPAA 02-EPAA 02-EPA Acute			
Sample ID: REF-Ref Toxicant						Sample Type: CDCL-Cadmium chloride			
Start Date: 12/11/2007			End Date: 12/15/2007			Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Inital Count	24 hrs	48 hrs	72 hrs	96 hrs	Notes
	54	4	15.0	1				0	
	55	5	15.0	1				0	
	56	6	15.0	1				0	
	57	7	15.0	1				0	
	58	8	15.0	1				0	
	59	9	15.0	1				0	
	60	10	15.0	1				0	

Comments:

Acute Midge-96 Hr Survival

Start Date:	12/11/2007	Test ID:	ct27303(1)	Sample ID:	REF-Ref Toxicant
End Date:	12/15/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	CDCL-Cadmium chloride
Sample Date:		Protocol:	EPAA 02-EPAA 02-EPA Acut	Test Species:	CT-Chironomous tentans
Comments:					

Conc-mg/L	1	2	3	4	5	6	7	8	9	10
Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.00O0
0.2	0.0000	1.0000	1.0000	1.0000	0.0000	1.0000	0.0000	1.0000	1.0000	1.00O0
0.6	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	0.0000	0.00O0
1.6	0.0000	1.0000	1.0000	1.0000	0.0000	1.0000	0.0000	1.0000	1.0000	1.00O0
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00O0
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00O0

Conc-mg/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
Control	1.0000	1.0000	0	10	10	10			0	10
0.2	0.7000	0.7000	3	7	10	10	0.1053	0.0500	3	10
0.6	0.7000	0.7000	3	7	10	10	0.1053	0.0500	3	10
1.6	0.7000	0.7000	3	7	10	10	0.1053	0.0500	3	10
5	0.0000	0.0000	10	0	10	10			10	10
15	0.0000	0.0000	10	0	10	10			10	10

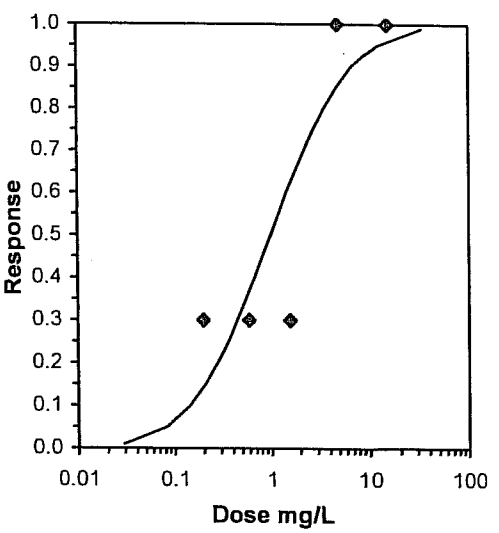
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	1.6	5	2.82843	
Treatments vs Control				

Maximum Likelihood-Probit

Parameter	Value	SE	95% Fiducial Limits		Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter
Slope	1.52138	0.64144	-0.52	3.56272	0	8.63381	7.81473	3.0E-02	-0.0014	0.6573	4
Intercept	5.0022	0.36279	3.84764	6.15676							
TSCR											

Point	Probits	mg/L	95% Fiducial Limits
EC01	2.674	0.02947	
EC05	3.355	0.08268	
EC10	3.718	0.14328	
EC15	3.964	0.20764	
EC20	4.158	0.27884	
EC25	4.326	0.3591	
EC40	4.747	0.67925	
EC50	5.000	0.99668	
EC60	5.253	1.46245	
EC75	5.674	2.76629	
EC80	5.842	3.56249	
EC85	6.036	4.78413	
EC90	6.282	6.93297	
EC95	6.645	12.0148	
EC99	7.326	33.7026	

Significant heterogeneity detected (p = 3.00E-02)



Standard Reference Toxicant
Live Counts

For Job #: 27-303 Round 1 Start Date: 12/11/07 End Date: 12/15/07

Organism: C. tentans / H. azteca Organism Log #: 27-0055 Starting Time: 1345

Dose	Initial	1	2	3	4	Dose	Initial	1	2	3	4
Con A	✓	✓	✓	✓	✓	1.6 A	✓	✓	✓	X	–
B	✓	✓	✓	✓	✓	B	✓	✓	✓	✓	✓
C	✓	✓	✓	✓	✓	C	✓	✓	✓	✓	✓
D	✓	✓	✓	✓	✓	D	✓	✓	✓	✓	✓
E	✓	✓	✓	✓	✓	E	✓	✓	✓	X	–
F	✓	✓	✓	✓	✓	F	✓	✓	✓	✓	✓
G	✓	✓	✓	✓	✓	G	✓	X	–	–	–
H	✓	✓	✓	✓	✓	H	✓	✓	✓	✓	✓
I	✓	✓	✓	✓	✓	I	✓	✓	✓	✓	✓
J	✓	✓	✓	✓	✓	J	✓	✓	✓	✓	✓
0.2 A	✓	✓	✓	X	–	5 A	✓	X	–	–	–
B	✓	✓	✓	✓	✓	B	✓	X	–	–	–
C	✓	✓	✓	✓	✓	C	✓	X	–	–	–
D	✓	✓	✓	✓	✓	D	✓	X	–	–	–
E	✓	✓	✓	X	–	E	✓	X	–	–	–
F	✓	✓	✓	✓	✓	F	✓	✓	✓	X	–
G	✓	X	–	–	–	G	✓	✓	X	–	–
H	✓	✓	✓	✓	✓	H	✓	✓	✓	X	–
I	✓	✓	✓	✓	✓	I	✓	X	–	–	–
J	✓	✓	✓	✓	✓	J	✓	X	–	–	–
0.6 A	✓	✓	✓	✓	✓	15 A	✓	✓	X	–	–
B	✓	✓	✓	✓	✓	B	✓	X	–	–	–
C	✓	✓	✓	✓	✓	C	✓	X	–	–	–
D	✓	✓	✓	✓	✓	D	✓	✓	X	–	–
E	✓	✓	X	–	–	E	✓	X	–	–	–
F	✓	✓	✓	✓	✓	F	✓	X	–	–	–
G	✓	✓	✓	✓	✓	G	✓	X	–	–	–
H	✓	✓	✓	✓	✓	H	✓	X	–	–	–
I	✓	✓	✓	✓	X	I	✓	✓	X	–	–
J	✓	✓	✓	X	–	J	✓	✓	X	–	–
Initial	KDH	KDH	KDH	KDH	MM		KDH	KDH	KDH	KDH	MM
Date	12/11/07	12/12/07	12/13/07	12/14/07	12/15/07		12/11/07	12/12/07	12/13/07	12/14/07	12/15/07

Prep Sheet for Freshwater SRTs

Chironomus tentansl Hyalella azteca

10 replicates per concentration
20 mL per replicate
1 organism per replicate

Working Stock Solution

Add 0.064 grams of Cadmium chloride to 100 mL **DI water.**
This will give you a 320 mg Cadmium/ L stock solution.

Hyalella azteca

Add **1 mL** of the working stock solution to 1L of **Well water.**
This will give you a 32 µg Cadmium/ L stock solution.

Concentration (µg/ L)	Stock (mL)	Total (mL)
0	0	250
4	3.125	250
8	6.25	250
16	12.5	250
32	25	250
64	50	250

Chironomus tentans

Add **100 mL** of the working stock solution to 1L of **Recon.**
This will give you a 32 mg Cadmium/ L stock solution.

Concentration (mg/ L)	Stock (mL)	Total (mL)
0	0	250
0.2	1.6	250
0.6	4.7	250
1.6	12.5	250
5	39	250
15	117	250

H. azteca requires a small piece of nitex screen in each cup; feed each cup2-3 drops YCT
C. tentans feed each cup 2-3 drops slurry

Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 12/11/07

TEST JOB #: SRT CLIENT: In House

TEST LOCATION: IN- LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 60+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (2) Carolina dishes
2. RECEIVING LOG #: N/A
3. CULTURE LOG #: ~~28~~ 07 0055
4. AGE/SIZE INFORMATION 10 days old; HD:12/1/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: Moderately Hard Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 12/11/07
   TIME: 1300
   BY: MJ
2. LIVESTOCK RECEIVING: DATE: 12/11/07
   TIME: 1300
   BY: dOH
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: MJ

REMARKS:

SRTCT0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/11/07 13:31:37	22.78	290.0	0.14	7.45	7.34
1	12/11/07 13:32:19	22.99	287.0	0.14	7.41	7.49
2	12/11/07 13:32:38	23.09	290.0	0.14	7.47	7.55
3	12/11/07 13:32:52	23.11	297.0	0.14	7.45	7.57
4	12/11/07 13:33:05	23.11	300.0	0.14	7.45	7.55
5	12/11/07 13:33:22	23.09	306.0	0.15	7.48	7.39

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: SRT Date: 12/11/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 0

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials:

SRTCT24.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/12/07 13:34:07	23.52	0.0	0.00	6.50	7.97
1	12/12/07 13:34:40	23.90	1.0	0.00	6.48	8.00
2	12/12/07 13:34:54	23.98	2.0	0.00	6.51	7.99
3	12/12/07 13:35:11	23.96	1.0	0.00	6.51	8.02
4	12/12/07 13:35:33	23.94	1.0	0.00	6.53	7.98
5	12/12/07 13:35:46	23.99	2.0	0.00	6.54	7.90

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/12/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 24hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: RDH

SRTCT48.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/13/07 14:38:26	23.19	7.79	8.36
1	12/13/07 14:39:23	23.57	7.72	8.29
2	12/13/07 14:39:45	23.57	7.69	8.27
3	12/13/07 14:40:06	23.62	7.73	8.23
4	12/13/07 14:40:30	23.56	7.76	8.20
5	12/13/07 14:40:55	23.63	7.81	8.14

Project #: 27-303 R1 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: SRT Date: 12/13/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 48 hr.

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: RA

SRTCT72.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/14/07 15:04:19	22.86	0.0	0.00	7.75	7.76
1	12/14/07 15:04:57	23.46	0.0	0.00	7.63	7.91
2	12/14/07 15:05:33	23.55	0.0	0.00	7.62	8.01
3	12/14/07 15:05:50	23.64	0.0	0.00	7.66	7.98
4	12/14/07 15:06:25	23.48	0.0	0.00	7.85	8.08

Round #1

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/14/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 72h(

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: DD

SRTCT96.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/15/07 13:06:47	22.55	7.87	8.51
1	12/15/07 13:07:36	23.02	7.81	8.44
2	12/15/07 13:08:06	23.15	7.87	8.41
3	12/15/07 13:08:33	23.03	7.96	8.37

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/15/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: _____ Day of Study: 96hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Sat Dec 15 14:45:47 2007

Initials: SH

27-303 ENSR C. tentans Round #2

Test Start Date: 12/3/07

Waterbath (s): _____

nber	Sample	code
32	Control	1.1
36	#20070963	1.2
4		1.3
45		1.4
121		1.5
126		1.6
22		1.7
62		1.8
16		1.9
129		1.10
86		1.11
113		1.12
118	STN 10	2.1
53	#20070951	2.2
112		2.3
54		2.4
87		2.5
43		2.6
92		2.7
15		2.8
9		2.9
41		2.10
125		2.11
25		2.12
24	STN 27	3.1
40	#20070953	3.2
3		3.3
132		3.4
38		3.5
83		3.6
29		3.7
110		3.8
46		3.9
75		3.10
96		3.11
57		3.12
50	STN 63	4.1
117	#20070939	4.2
95		4.3
52		4.4
67		4.5
48		4.6
31		4.7
131		4.8
61		4.9
122		4.10
97		4.11
76		4.12
28	STN 130	5.1
116	#20070943	5.2
130		5.3
127		5.4
60		5.5
109		5.6
101		5.7
59		5.8
34		5.9
80		5.10
27		5.11
39		5.12
114	STN 131	6.1
66	#20070942	6.2
68		6.3
47		6.4
64		6.5
82		6.6
12		6.7
124		6.8
119		6.9
81		6.10
100		6.11
5		6.12

Test Start Date: 12/3/07

Waterbath (s): _____

72	STN 132	7.1
91	#20070949	7.2
90		7.3
123		7.4
44		7.5
77		7.6
88		7.7
94		7.8
33		7.9
17		7.10
115		7.11
55		7.12
102	STN 133	8.1
65	#20070956	8.2
93		8.3
85		8.4
58		8.5
13		8.6
71		8.7
70		8.8
111		8.9
128		8.10
104		8.11
105		8.12
21	STN 134	9.1
89	#20070940	9.2
103		9.3
26		9.4
108		9.5
20		9.6
120		9.7
84		9.8
1		9.9
99		9.10
51		9.11
69		9.12
37	STN 118	10.1
42	#20070946	10.2
107		10.3
49		10.4
73		10.5
19		10.6
11		10.7
98		10.8
78		10.9
6		10.10
106		10.11
10		10.12
23	STN 120	11.1
56	#20070945	11.2
63		11.3
74		11.4
2		11.5
14		11.6
35		11.7
18		11.8
7		11.9
30		11.10
79		11.11
8		11.12

Aqua Survey, Inc.
Special Studies Department

Feeding and Exchanges

Job #: 27-303 **Organism:** *C. tentans*
Client: ENSR **Round #2** **Test Start Date:** 12/3/07

Day	Date	Exchanges Recon (200mL) 1st (Time/ Initials)	Exchanges Recon (200mL) 2nd (Time/ Initials)	Feeding Tetramin Slurry (1.5mL/ Chamber) (Time/ Initials)	Notes
-1	12/2/07	—	1305 M	1315 M	
0	12/3/07	0950 SD	1205 M	1715 M	
1	12/4/07	1115 SD	1615 MA	1648 MA	
2	12/5/07	1150 SD	1600 MA	1625 MA	
3	12/6/07	1000 MA	1540 MA	1615 SD	
4	12/7/07	1000 MA	1630 SD	1650 M	
5	12/8/07	0925 M	1435 M	1455 M	*Test aeration initiated M
6	12/9/07	1045 M	1425 M	1530 M	
7	12/10/07	1015 MA	1545 M	1700 M	
8	12/11/07	1010 MA	1630 MA	1645 SD	
9	12/12/07	1015 MA	1615 SD	1630 MA	
10	12/13/07	1120 MA	1530 MA	1540 SD	
11	12/14/7	1115 MA	1530 MA	1615 SD	
12	12/15/7	0845 MA	1350 MA	1430 MA	
13	12/16/7	0830 MA	1230 MA	1300 MA	
14	12/17/7	1015 SD	1640 SD	1700 MA	
15	12/18/07	0945 BB	1345 BB	1400 BB	
16	12/19/07	0945 MA	1645 SD	1650 MA	
17	12/20/07	1015 MA	1510 BB	1646 BB	
18	12/21/07	1020 BB	1650 SD	1705 M	
19	12/22/07	1000 SD	1400 SD	1450 SD	
20	12/23/07	1030 M	1435 SD	1525 SD	
21	12/24/07	0930 M	1515 SD	1545 SD	
22	12/25/07	1045 SD	1425 SD	1455 SD	
23	12/26/07	1030 M	1445 BB	1635 BB	
24	12/27/07	1041 BB	1629 BB	1715 BB	
25	12/28/07	0953 BB	1415 SD	1520 BB	
26	12/29/07	0900 M	1315 1250 M	1315 M	
27	12/30/07	1040 M	1440 M	1520 M	
28	12/31/07	1015 M	1410 M	1415 M	
29	1/1/08	0900 M	1310 M	1420 BB	
30	1/2/08	1065 MA	1515 BB	1626 BB	
31	1/3/08	0915 BB	1524 BB	1621 BB	
32	1/4/08	1025 MA	1521 BB	1612 BB	
33	1/5/08	1010 MA	1500 MA	1550 MA	
34	1/6/08	1000 MA	1400 MA	1415 MA	
35	1/7/08	—	—	—	

Aqua Survey, Inc.
Special Studies Department
Weight Data Form (Ash- Free)

Job #: 27-303	**Client:** ENSR- Round #2	**Test Dates:** 12/13-23/07
Organism: *C. tentans*	**Age of Organism (at Test Start):** <24 hours	**Initial #/ Rep.:** 12
Weigh Dates: 12/24-25/07	**Oven Used:** #2/#3 **Oven Temp. (°C):** 60 °C/550 °C	**Dry Time (hr):** 24/2

Treatment	Chamber #	# of Surviving Organisms *	Pan Weight (mg)	Pan + Larvae (mg)	Dry Weight** Total	Dry Weight** Individual	Pan + Ash (mg)	Ash- Free Dry Weight Total	Ash- Free Dry Weight Individual
Control #20070963	4	9L	951.16	968.13			956.05		
	32	7L, 2Em	944.91	958.51			948.38		
	36	5L, 1P, 2Em	947.52	960.56			950.55		
	45	7L, 4P	949.72	962.23			953.98		
STN-10 #20070951	53	5L	955.60	957.74			956.02		
	54	4L	956.24	958.16			956.56		
	112	2L	958.29	959.32			958.51		
	118	2L	950.22	950.50			950.25		
STN-27 #20070953	3	9L	948.40	963.36			952.15		
	24	4L, 3P, 1Em	955.90	963.63			957.33		
	40	10L, 1P, 1Em	954.14	972.64			960.50		
	132	9L, 1P	941.29	958.60			947.45		
STN-63 #20070939	50	5L,	935.82	939.21			936.76		
	52	10L	945.28	953.64			947.65		
	95	12L	946.31	950.01			947.20		
	117	4L	942.45	945.79			943.12		
STN-130 #20070943	28	10L	943.43	964.29			950.81		
	116	6L	939.82	956.27			944.39		
	127	10L, 1P	935.36	951.64			940.11		
	130	10L, 1P	929.29	944.98			934.50		
STN-131 #20070942	47	9L, 1P	924.87	940.00			928.85		
	66	0	920.39	—			—		
	68	5L, 4P	922.21	930.43			924.26		
	114	7L, 1P	921.29	933.00			924.84		
STN-132 #20070949	72	9L	930.81	934.44			931.87		
	90	8L	942.83	946.32			943.90		
	91	9L	938.60	942.82			940.03		
	123	8L, 1DL, 1Em	938.02	942.80			939.39		
Initials/ Date		12/23/07	12/23/07	12/24/07			12/25/07		

***L- Larvae/ P- Pupae/ E- Emerged**
****- Only larvae were used for dry weight**

Aqua Survey, Inc.
Special Studies Department
Weight Data Form (Ash- Free)

Job #: 27-303	**Client:** ENSR- Round #2	**Test Dates:** 12/3-23/07
Organism: *C. tentans*	**Age of Organism (at Test Start):** <24 hours	**Initial #/ Rep.:** 12
Weigh Dates: 12/24-25/07	**Oven Used:** #2/#3 **Oven Temp. (°C):** 60°C/55°C	**Dry Time (hr):** 24 /2

Treatment	Chamber #	# of Surviving Organisms *	Pan Weight (mg)	Pan + Larvae (mg)	Dry Weight** Total	Dry Weight** Individual	Pan + Ash (mg)	Ash- Free Dry Weight Total	Ash- Free Dry Weight Individual
STN-133 #20070956	65	10L	943.99	957.69			948.13		
	85	11L	923.01	935.45			927.04		
	93	10L	925.95	937.69			929.79		
	102	8L, 1P	910.79	922.07			913.72		
STN-134 #20070940	21	4L, 2P, 3Em	909.67	919.17			912.43		
	26	7L, 2P, 2Em	919.43	938.07			923.75		
	89	9L, 1P, 1Em	914.64	930.00			920.28		
	103	11L	916.84	931.21			922.89		
STN-118 #20070946	37	11L	921.36	939.41			927.49		
	42	7L, 2P, 1Em	925.03	939.67			930.32		
	49	4L, 3P, 2Em	931.23	940.73			934.78		
	107	7L, 2Em	927.68	943.20			933.33		
STN-120 #20070945	23	0	935.22	—			—		
	56	3L	934.40	941.25			936.62		
	63	1L	904.17	908.30			905.55		
	74	4L	903.97	912.55			905.88		
Initials/ Date		DN 12/23/07	SN 12/23/07	DN 12/24/07			DN 12/25/07		

***L- Larvae/ P- Pupae/ E- Emerged**
****- Only larvae were used for dry weight**

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
Control #20070963	16	0
	22	0
	62	0
	86	1P
	113	0
	121	0
	126	0
	129	0
STN-10 #20070951	9	3L / 1P
	15	0
	25	0
	41	2L
	43	0
	87	0
	92	0
	125	1L
STN-27 #20070953	29	0
	38	0
	46	1P
	57	0
	75	0
	83	0
	96	0
	110	0
STN- 63 #20070939	31	3L
	48	6L / 1P
	61	2L
	67	5L
	76	8L
	97	4L
	122	8L
	131	6L / 1P
STN-130 #20070943	27	0
	34	0
	39	0
	59	0
	60	0
	80	0
	101	1L
	109	0

Recorded by (Initials/ Date): MJ 1/7/08

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
STN-131 #20070942	5	1L
	12	0
	64	0
	81	0
	82	0
	100	1L
	119	0
	124	0
STN-132 #20070949	17	7L/1P
	33	3L
	44	3L
	55	4L/2P
	77	7L
	88	8L/1P
	94	5L
	115	0
STN-133 #20070956	13	3L
	58	1L/1P
	70	2L/3P
	71	1L
	104	0
	105	1L
	111	0
	128	1L/1P
STN- 134 #20070940	1	1P
	20	0
	51	0
	69	1P
	84	1L
	99	0
	108	0
	120	0
STN-118 #20070946	6	1P
	10	1L
	11	1L/1P
	19	0
	73	0
	78	0
	98	0
	106	0
STN-120 #20070930	2	0
	7	1P
	8	0
	14	0
	18	0
	30	0
	35	0
	79	1L

orded by (Initials/ Date): M 1/7/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
1	N	N	N	N	N	N	N	N	N	N	N
2	N	N	N	N							
3	N	N	N	N							
4	N	N	N	N							
5	N	N	N	N							
6	N	N	N	N							
7	N	N	N	N							
8	N	N	N	N							
9	N	N	N	N							
10	N	N	N	N							
11	N	N	N	N							
12	N	N	N	N							
13	N	N	N	N							
14	N	N	N	N							
15	N	N	N	N							↓
16	N	N	N	N							25
17	N	N	N	N							N
18	N	N	N	N							
19	N	N	N	N							
20	N	N	N	N							
21	N	N	N	N							
22	N	N	N	N							
23	N	N	N	N							
24	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7	12/12/7	12/13/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
1	N	N	N	N	N	N	N	N	1Em(m)	N
2									N	
3										9L
4										9L
5										
6										
7										
8										
9										
10	1S									
11	N									2Em (2m)
12										N
13										
14										
15										
16	3S	1S						1Em (m)	1Em(m)	
17	N	N						N	N	
18								N		
19								N		1Em (m)
20							1em (m)	~~2em(m)~~ N		3Em (3m)
21							1em(m)	2Em(m)		N
22							N	N		1Em (m)
23								N		N
24								N		4L, 3P 1Em (m)
Initials/ Date	MH 12/14/07	MH 12/15/7	MH 12/16/07	BDS 12/17/07	JDT 12/18/07	MH 12/19/07	SMH 12/20/07	MH 12/21/07	BDS 12/22/07	JC 12/23/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
1	1Em(F)	N	N	N	1Em(m)	2Em(M) 1Em(F)	N	1Em(F)	N	N
2	N	N	N	N	N	N	N	N	1Em(m)	1Em(m)
3	* *	–	–	–	–	–	–	–	–	–
4	* *	–	–	–	–	–	–	–	–	–
5	1Em(m) 1Em(m)	2Em(m,F)	N	1Em(m)	1Em(F)	N	N	N	N	1Em(F)
6	N	1Em(m)	N	N	N	2Em(m,F)	1Em(m)	N	N	1Em(F)
7	N	N	N	|	N	N	1Em(m)	N	N	N
8	N	N	N	|	1Em(m)	N	N	N	N	N
9	N	N	N	|	N	N	N	N	N	N
10	1Em(m)	N	2Em(m)	|	1Em(m)	N	N	1Em(F)	N	1Em(F)
11	1Em(m)	N	1Em(F)	|	2Em(m)	N	N	1Em(M)	N	N
12	1Em(m)	1Em(m)	1Em(m)	|	N	N	1Em(F)	2Em(F)	N	N
13	N	1Em(m)	N	|	1Em(m) 1part Em(F)	N	N	1Em(F) 1part Em(m)	N	1Em(m)
14	N	N	N	|	1Em(F) 1part Em(m)	N	N	N	N	N
15	N	N	N	↓	N	N	N	N	N	N
16	1Em(m) 1Em(m)	N	1Em(m)	2Em(m,F)	N	N	N	2S(P)	1Em(F)	N
17	N	N	N	N	N	N	1Em(m)	N	N	N
18	N	N	N	N	N	N	N	N	N	N
19	2Em(m) 1Em(m)	N	1Em(m) 1Em(F)	1Em(m)	1Em(F)	N	1S(P)	1Em(F)	N	N
20	N	1Em(m)	N	N	N	1Em(M)	N	N	1Em(m)	3rd 1Em(F)
21	* *	–	–	–	–	–	–	–	–	–
22	2Em(m)	N	N	1Em(F)	2Em(m,F)	1Em(F)	N	N	N	N
23	* *	–	–	–	–	–	–	–	–	–
24	* *	–	–	–	–	–	–	–	–	–
Initials/ Date	12/24/07	12/25/07	12/26/07	12/27	12/28/07	12/29/07	12/30/07	12/31/07	1/1/08	1/2/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
1	N	N	N	N	N
2	N	|	1em(m)	N	N
3	—	—	—	—	—
4	—	—	—	—	—
5	N	1em(m)	N	N	N
6	N	1em(F) 1em(F)	N	N	N
7	1em(F)	N	N	N	N
8	1em(F)	N	N	N	N
9	N	N	N	2em (m f)	N
10	1em(F)	N	N	N	N
11	N	N	N	N	N
12	N	N	1em(F)	N	N
13	N	N	N	N	N
14	N	N	N	N	N
15	N	N	1em(m)	N	N
16	N	1em (m)	N	N	N
17	1em(F)	N	N	N	N
18	N	N	N	N	N
19	N	1em (F)	N	N	1em(F)
20	N	N	N	N	N
21	—	—	—	—	—
22	1em(F)	1em(F)	N	N	N
23	—	—	—	—	—
24	—	—	—	—	—
Initials/ Date	11/8/08	11/9/8	11/8/08	11/8/8	11/7/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
25	N	N	N	N	N	N	N	N	N	N	N
26	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
27	N	N	N	N							
28	N	N	N	N							
29	N	N	N	N							
30	N	N	N	N							
31	N	N	N	N							
32	N	N	N	N							
33	N	N	N	N							
34	N	N	N	N							
35	N	N	N	N							
36	N	N	N	N							
37	N	N	N	N							
38	N	N	N	N							
39	N	N	N	N							
40	N	N	N	N							
41	N	N	N	N							
42	N	N	N	N							
43	N	N	N	N							
44	N	N	N	N							
45	N	N	N	N							
46	N	N	N	N							
47	N	N	N	N							
48	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/3/07	12/4/07	12/5/07	12/6/07	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7	12/12/7	12/13/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
25	N	N	N	N	N	N	N	N	N	N
26	N								N	2 Em (2m)
27	N								1Em(m)	N
28	N						↓		N	10L
29	N						1S(P)		1Em(m)	
30	N						N		N	
31	N									↓
32	N									7L 2Em(2m)
33	N									N
34	N									
35	N								↓	
36	1S								1Em(m)	5L 1P 1Em(m)
37	1S								N	
38	N									↓
39	N									1Em(m)
40	N									10L 1P 1Em(m)
41	N									N
42	N									1Em(m)
43	N									N
44	10(L)									
45	N									7L 1P
46	N									1Em(m)
47	N									
48	N	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/4/07	12/5/07	12/6/07	12/7/07	12/8/07	12/9/07	12/20/07		12/22/07	JC 12/23/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
25	N	N	N	N	N	N	1Em(m)	N	N	1Em(m)
26	**	—	—	—	—	—	—	—	—	—
27	2Em(m)	2Em(m,F)	N	N	1Em(m)	N	N	1Em(F)	N	N
28	**	—	—	—	—	—	—	—	—	—
29	1Em(m)	1Em(m)	1Em(F) 1Em(m)	N	1Em(m)	N	N	N	N	N
30	N	N	N	1Em(m)	N	2Em(m,F)	1Em(F)	N	N	N
31	N	N	N	N	N	N	N	N	1Em(m)	1Em(m)
32	**	—	—	—	—	—	—	—	—	—
33	N	N	1Em(m)	N	N	1Em(m) 1Em(m)	N	N	N	N
34	1Em(m)	1Em(m)	N	1Em(F)	N	N	2Em(F)	N	N	N
35	N	N	N	N	N	N	N	N	N	N
36	**	—	—	—	—	—	—	—	—	—
37	**	—	—	—	—	—	—	—	—	—
38	N	N	1Em(m)	1Em(F)	N	N	N	N	1Em(F)	N
39	N	2Em(m,F)	N	1Em(m)	N	2Em(m,F)	1Em(F)	1Em(m)	N	1Em(m)
40	**	—	—	—	—	—	—	—	—	—
41	***N	N	N	N	N	N	N	N	N	N
42	**	—	—	—	—	—	—	—	—	—
43	N	N	N	N	N	N	N	1Em(m)	N	N
44	N	N	N	N	N	N	1Em(m)	N	N	1Em(F)
45	**	—	—	—	—	—	—	—	—	—
46	N	N	1Em(m)	N	N	N	1Em(F)	N	N	1Em(m)
47	**	—	—	—	—	—	—	—	—	—
48	N	N	N	N	N	N	N	N	1Em(m)	N
Initials/ Date	12/24/07	12/25/07	12/26/07	12/27	12/28/07	12/29/07	12/30/07	12/31/07	1/1/08	1/2/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
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Day → Chamber ↓	31	32	33	34	35
25	N	2 em (f m)	N	N	N
26	—	—	—	—	—
27	N	N	N	1 em (F)	N
28	—	—	—	—	—
29	1 em (F)	1 em (m)	N	N	N
30	N	N	N	N	N
31	N	N	1 em (m)	N	N
32	—	—	—	—	—
33	1 em (m)	N	2 em (m, F)	N	N
34	N	N	N	N	1 em (F)
35	N	N	N	N	N
36	—	—	—	—	—
37	—	—	—	—	—
38	N	N	N	N	N
39	N	N	N	N	N
40	—	—	—	—	—
41	N	N	N	N	N
42	—	—	—	—	—
43	N	N	N	N	N
44	1 em (m)	N	N	N	N
45	—	—	—	—	—
46	N	N	1 em (F)	N	1 em (F)
47	—	—	—	—	—
48	N	N	N	N	N
Initials/ Date	11/5/08	11/4/8	11/5/08	11/6/8	11/7/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
49	N	N	N	N	N	N	N	N	N	N	N
50	N	N	N	N							
51	N	N	N	N							
52	N	N	N	N							
53	N	N	N	N							
54	N	N	N	N							
55	N	N	N	N							
56	N	N	N	N							
57	N	N	N	N							
58	N	N	N	N							
59	N	N	N	N							
60	N	N	N	N							
61	N	N	N	N							
62	N	N	N	N							
63	N	N	N	N							
64	N	N	N	N							
65	N	N	N	N							
66	N	N	N	N							
67	N	N	N	N							
68	N	N	N	N							
69	N	N	N	N							
70	N	N	N	N							
71	N	N	N	N							
72	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
Initils/ Date	12/3/07	12/4/07	12/5/07	12/6/07	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7	12/12/7	12/13/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
49	N	N	N	N	N	N	N	N	1Em(m)	1Em(m)
50	↓	↓	↓	↓	↓	↓	↓	↓	N	N 5L
51	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
52	↓	↓	↓	↓	↓	↓	↓	↓	↓	10L
53	↓	↓	↓	↓	↓	↓	↓	↓	↓	5L
54	↓	↓	↓	↓	↓	↓	↓	↓	↓	1L
55	1D(L)	↓	↓	↓	↓	↓	↓	↓	↓	↓
56	N	↓	↓	↓	↓	↓	↓	↓	↓	↓
57	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
58	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
59	↓	↓	↓	↓	↓	↓	↓	↓	~~1Em(m)~~ D	1Em(m)
60	↓	↓	↓	↓	↓	↓	↓	↓	~~1Em(m)~~ D	1Em(m)
61	↓	↓	↓	↓	↓	↓	↓	↓	N	N
62	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
63	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
64	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
65	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
66	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
67	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
68	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
69	1S	↓	↓	↓	↓	↓	↓	↓	1Em(M)	↓
70	N	↓	↓	↓	↓	↓	↓	↓	N	↓
71	N	↓	↓	↓	↓	↓	↓	1Em(m)	N	↓
72	N	↓	↓	↓	↓	↓	↓	N	N	↓
Initials/ Date	JM 12/14/7	JM 12/15/7	M 12/16/07	12/17/07	12/18/07	M 12/19/07	JM 12/20/7	M 12/21/07	12/22/07	JC 12/23/07

D mistake JC 12/23/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
49	**	—	—	—	—	—	—	—	—	—
50	**	—	—	—	—	—	—	—	—	—
51	2em(m) 1em(F)	N	1Em(m)	N	N	1em(F)	1em(F)	N	N	N
52	**	—	—	—	—	—	—	—	—	—
53	**	—	—	—	—	—	—	—	—	—
54	**	—	—	—	—	—	—	—	—	—
55	N	N	N	N	N	N	N	N	N	N
56	**	—	—	—	—	—	—	—	—	—
57	N	2Em(m,F)	1Em(m)	N	2Em(F)	N	N	1em(F)	1em(m)	1em(m)
58	1em(m)	N	N	1em(m)	N	N	N	1em(F)	N	N
59	N	N	1Em(F) 1partEm(F)	N	N	1em(F)	1em(F)	1em(F)	N	N
60	N	N	N	N	N	1em(F)	1em(F)	1Em(F)	1em(F)	N
61	N	N	N	N	N	N	N	N	N	N
62	2em(m)	N	3Em(m,F)	1em(m)	N	N	N	2em(m,F)	N	N
63	**	—	—	—	—	—	—	—	—	—
64	N	N	1Em(m)	2em(m-F)	N	1em(F)	2em(m,F)	N	N	N
65	**	—	—	—	—	—	—	—	—	—
66	**	—	—	—	—	—	—	—	—	—
67	N	N	N	N	N	N	N	N	N	N
68	**	—	—	—	—	—	—	—	—	—
69	1em(m)	1Em(F)	N	1em(F)	N	N	N	2Em(m)	N	2Em(F)
70	N	N	N	N	N	N	N	N	N	2 2Em(F)
71	N	N	10(P)	N	N	N	N	3em(m)	2em(m,F)	N
72	**	—	—	—	—	—	—	—	—	—
Initials/ Date	12/4/07	12/05/07	12/26/07	12/27	12/28/07	12/31/07	1/2/08	1/3/08	1/4/08	1/6/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
49	—	—	—	—	—
50	—	—	—	—	—
51	N	N	N	N	N
52	—	—	—	—	—
53	—	—	—	—	—
54	—	—	—	—	—
55	N	N	N	N	N
56	N	N	N	N	N
57	N	N	N	N	N
58	2em(F)	N	N	N	1em(M)
59	2em(F)	N	N	N	N
60	N	N	N	N	N
61	N	N	N	N	N
62	N	N	N	N	N
63	—	—	—	—	—
64	N	N	N	N	N
65	—	—	—	—	—
66	—	—	—	—	—
67	1em(M)	N	N	N	1em(F)
68	—	—	—	—	—
69	N	N	N	N	2em(F)
70	2em(M,F)	N	N	N	1em(M)
71	1em(F)	1em(M)	N	N	N
72	X —	—	—	—	—
Initials/ Date	MJ 11/8/07	11/9/07	MJ 11/5/07	11/6/07	MJ 11/7/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
73	N	N	N	N	N	N	N	N	N	N	N
74	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
75	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
76	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
77	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
78	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
79	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
80	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
81	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
82	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
83	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
84	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
85	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
86	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
87	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
88	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
89	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
90	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
91	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
92	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
93	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
94	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
95	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
96	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7	12/12/7	12/13/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
73	N	N	N	N	N	N	IS(P)	N	N	N
74							N			
75										
76										
77										
78										
79										
80										
81										
82										1Em(m)
83									1Em(m)	N
84									N	
85										
86										
87										
88										
89									1Em(m)	
90									N	
91										
92										
93										
94										
95										12L
96										
Initials/ Date	12/4/7	12/5/7	12/6/07	12/7/07	12/8/07	12/9/07	12/10/7	12/11/07	12/22/07	JC 12/23/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
73	N	N	N	1em(m)	N	3em(F)	N	1em(F)	1em(m)	N
74	✗✗	✗	—	—	—	—	—	—	—	—
75	N	N	1Em(m)	N	N	N	1em(m)	1em(m)	N	1em(F)
76	N	N	N	|	N	N	N	N	N	N
77	N	N	N	|	N	N	N	N	1em(m)	N
78	1em(m)	N	N	|	N	N	2em(m)	2em(F) 1em(m)	1em(m)	1em(F)
79	N	N	N	|	N	1em(m)	N	N	N	N
80	N	1Em(m)	1Em(m)	|	N	N	1em(F)	3em(2F,1m)	N	N
81	N	N	2Em(m)	|	N	N	1em(m)	N	N	N
82	N	N	N	|	1Em(m)	1em(F)	N	2em(F)	1em(F)	2em(m,F)
83	N	N	2Em(m)	↓	1Em(m)	3em(2m,1F)	2em(F)	1em(m)	N	N
84	1em(m)	N	N	2em(mf)	N	N	2em(F)	~~1em(F)~~ N	N	1em (+)
85	✗✗	—	—	—	—	—	—	—	—	—
86	1em(m)	N	N	3em(mmf)	N	N	1em(F)	1em(F)	1em(m)	1em(F)
87	N	N	N	N	N	N	N	N	N	N
88	N	N	N	N	N	N	N	N	N	N
89	✗✗	—	—	—	—	—	—	—	—	—
90	✗✗	—	—	—	—	—	—	—	—	—
91	✗✗	—	—	—	—	—	—	—	—	—
92	N	N	N	N	N	N	N	1prt em(m)	N	N
93	✗✗	—	—	—	—	—	—	—	—	—
94	N	N	N	N	N	N	N	N	N	N
95	✗✗	—	—	—	—	—	—	—	—	—
96	N	N	1Em(m)	N	N	2em(F)	N	N	1em(F)	N
Initials/ Date	12/24/07	12/28/07	12/26/07	12/27/07	12/28/07	12/29/07	12/30/07	12/31/07	1/1/08	1/2/08

1 ①+ 1prt em (F) 1/1/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
73	N	N	N	N	N
74	—	—	—	—	—
75	1em(F)	1em(F)	N	N	N
76	N	N	N	1em(M)	N
77	N	N	N	N	N
78	1em(M)	N	N	N	N
79	N	N	N	N	N
80	N	N	N	N	N
81	N	N	N	1em(F)	N
82	1em(F)	1em(M)	N	N	N
83	N	N	N	N	N
84	N	1em(F)	N	1em(F)	N
85	—	—	—	—	—
86	N	N	N	N	N
87	N	N	N	N	N
88	N	N	N	N	N
89	—	—	—	—	—
90	—	—	—	—	—
91	—	—	—	—	—
92	N	1em(F)	N	N	N
93	—	—	—	—	—
94	N	N	N	N	1em(M)
95	—	—	—	—	—
96	N	N	N	N	1em(F) 1pt em(F)
Initials/ Date	MJ 12/3/08	MA 12/4/8	MJ 12/5/08	MA 12/6/8	MJ 12/7/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
97	N	N	N	N	N	N	N	N	N	N	N
98	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
99	N	N	N	N							
100	N	N	N	N							
101	N	N	N	N							
102	N	N	N	N							
103	N	N	N	N							
104	N	N	N	N							
105	N	N	N	N							
106	N	N	N	N							
107	N	N	N	N							
108	N	N	N	N							
109	N	N	N	N							
110	N	N	N	N							
111	N	N	N	N							
112	N	N	N	N							
113	N	N	N	N							
114	N	N	N	N							
115	N	N	N	N							
116	N	N	N	N							
117	N	N	N	N							
118	N	N	N	N							
119	N	N	N	N							
120	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7	12/12/7	12/13/7

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Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
97	1S	N	N	N	N	N	N	N	N	N
98	N								1Em(m)	
99	2S								N	
100	N									
101										
102										
103										
104										
105										
106										
107									1Em(m)	1Em (m)
108									N	N
109										
110										
111										
112										2L
113										
114										
115										
116										6L
117										4L
118										2L
119										1Em (m)
120										1Em (m)
Initials/ Date	AM 12/4/7	AM 12/5/7	M 12/6/07	KPB 12/7/07	KPB 12/8/07	M 12/9/07	AM 12/10/07	M 12/10/07	KPB 12/22/07	SC 12/23/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
97	N	N	N	N	N	N	N	N	N	N
98	N	N	N	N	2Em (m,F)	1Em(F)	1Em(F)	N	N	N
99	2Em(m) 1pr1Em(m)	N	1Em(m)	1em (F)	N	N	N	1Em(m)	1Em(F)	N
100	N	N	N	N	1Em (m)	1Em(m)	N	1Em(F)	N	N
101	N	1Em(m)	2Em(F)	N	N	N	1Em(F)	N	N	1Em(F)
102	✱✱	—	—	—	—	—	—	—	—	—
103	✱✱	—	—	—	—	—	—	—	—	—
104	N	N	1pr1Em(m)	N	N	N	1Em(F)	1Em(M)	1Em(F) Dn	N
105	N	1Em(m)	N	N	1Em (F)	N	N	1Em(F)	1Em(F)	1Em(m)
106	1Em(m)	1Em (m)	N	N	1Em (F)	1Em(m)	1Em (F)	1Em(F)	N	N
107	✱✱	—	—	—	—	—	—	—	—	—
108	N	N	4Em/3m, 1F	2em (m)	N	N	N	1Em(F)	N	N
109	N	N	N	1em (f)	1Em(m)	1Em(m) 1Em(F)	1Em(m)	N	N	1Em(F)
110	N	2Em (m)	N	N	1Em (m)	3Em(1F 2m)	N	N	N	N
111	N	N	N	N	2Em(m,F)	N	N	1Em(F)	N	3 2Em(m)
112	✱✱	—	—	—	—	—	—	—	—	—
113	N	1Em(m)	1Em(m)	1em (f) NV	1Em(m)	N	2Em(m)	N	N	N
114	✱✱	—	—	—	—	—	—	—	—	—
115	N	N	N	N	N	N	1Em(m)	N	N	N
116	✱✱	—	—	—	—	—	—	—	—	—
117	✱✱	—	—	—	—	—	—	—	—	—
118	✱✱	—	—	—	—	—	—	—	—	—
119	1pr1Em(m)	N	1Em(m)	N	N	1Em(m)	N	N	N	N
120	N	1Em(m)	1Em(m)	N	1Em(m)	N	1Em(F)	1Em(F)	N	1Em(F)
Initials/ Date	12/04/07	12/05/07	12/6/07	12/7/07	12/8/07	12/9/07	12/10/07	12/11/07	12/12/07	12/13/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
97	N	N	N	N	N
98	N	N	N	N	N
99	1em(F)	N	1em(F)	N	N
100	2em(F)	N	1em(F)	N	1em(F)
101	N	N	N	N	N
102	—	—	—	—	—
103	—	—	—	—	—
104	N	N	N	N	1em(F)
105	1em(In)	1em(F)	1em(F)	N	N
106	N	1em(F)	N	N	1em(F)
107	—	—	—	—	—
108	N	1em(F)	N	N	N
109	1em(F)	1em(F)	1em(In) 1em(F)	N	N
110	N	N	N	N	N
111	N	N	1em(F)	N	N
112	—	—	—	—	—
113	2em(F)	N	N	N	N
114	—	—	—	—	—
115	1em(F)	N	1em(In)	1em (1)	N
116	—	—	—	—	—
117	—	—	—	—	—
118	—	—	—	—	—
119	N	N	N	N	N
120	N	N	N	N	N
Initials/ Date	11/3/08	11/4/8	11/4/08	11/6/08	11/7/08

(1) (F)

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
121	N	N	N	N	N	N	N	N	N	N	N
122	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
123	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
124	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
125	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
126	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
127	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
128	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
129	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
130	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
131	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
132	N	N	N	N	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/3/07	12/4/07	12/5/07	12/6/7	12/7/07	12/8/07	12/9/07	12/10/7	12/11/7	12/12/7	12/13/7

Aqua Survey, Inc.
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Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
121	N	1S	1S	1S	1S	N	N	N	N	N
122	↓	N	N	N	N	↓	↓	N	↓	↓
123	↓	↓	↓	↓	↓	↓	↓	1Em(m)	↓	↓
124	↓	↓	↓	↓	↓	↓	↓	N	↓	↓
125	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
126	↓	↓	↓	↓	↓	↓	↓	↓	↓	2Em(m)
127	↓	↓	↓	↓	↓	↓	↓	↓	↓	10♀1P
128	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
129	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
130	↓	↓	↓	↓	↓	↓	↓	↓	↓	10L,1P
131	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
132	↓	↓	↓	↓	↓	↓	↓	↓	↓	9L,1P
Initials/ Date	AM 12/4/07	AM 12/5/07	M 12/6/07	KP 12/7/07	KP 12/8/07	M 12/9/07	SM 12/10/07	M 12/11/07	KP 12/12/07	JC 12/13/07

Aqua Survey, Inc.
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Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
121	1Em(m)	2Em(m) 1Em(m)	1Em(m)	1Em(F)	1Em(m)	N	2Em(m,F)	N	1Em(m)	N
122	N	N	N	N	N	1Em(m)	N	1Em(F)	N	N
123	X	—	—	—	—	—	—	—	—	—
124	N	2Em(m)	3Em(m,2F)	N	N	N	2Em(m)	1Em(F)	1Em(F)	N
125	N	N	N	N	N	N	N	N	N	1Em(m)
126	N	N	1Em(m)	2Em(2F)	N	1Em(F)	1Em(F)	2Em(m,F)	N	N
127	X	—	—	—	—	—	—	—	—	—
128	N	1Em(m)	N	1Em(m)	2Em(m,F)	N	3Em(2m,1F)	1Em(F)	N	N
129	N	1Em(m)	N	1Em(m)	N	N	1Em(F)	1Em(F)	1Em(F)	2Em(F)
130	X	—	—	—	—	—	—	—	—	—
131	N	N	N	N	N	N	N	~~1Em(F)~~	N	N
132	X	—	—	—	—	—	—	—	—	—
Initials/ Date	12/8/07	12/25/07	12/26/07	12/27	12/28/07	12/29/07	12/30/07	12/31/07	1/1/07	1/2/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
121	N	1em(m)	N	N	N
122	1em(m)	N	N	N	N
123	—	—	—	—	—
124	N	N	N	N	N
125	1em(F)	N	N	1em(m)	N
126	N	N	N	N	N
127	—	—	—	—	—
128	N	N	N	N	N
129	N	1em(F)	N	N	N
130	—	—	—	—	—
131	N	N	N	N	N
132	—	—	—	—	—
Initials/ Date	12/4/08	12-4-8	12/5/08	12/6/8	12/7/08

Aqua Survey, Inc.
Special Studies Department

Water Quality

Job #: 27-303 **Organism:** *C. tentans*

Client: ENSR **Round #2** **Test Start Date:** 12/3/07

Sample	ASI #	Day 0 Alkalinity mg/L	Day 0 Hardness mg/L	Day 0 Conductivity us/cm	Day 0 NH_3 mg/L	Day 20 Alkalinity mg/L	Day 20 Hardness mg/L	Day 20 Conductivity us/cm	Day 20 NH_3 mg/L
Control 20070963	20070963	40	84①	274	<0.50	60	88	301	<0.50
STN 10	20070951	84	124	370	<0.50	84	112	337	<0.50
27	20070953	96	124	358	0.75	96	128	363	<0.50
63	20070939	80	124	352	<0.50	68	104	325	<0.50
130	20070943	92	124	362	0.63	~~96~~ 68	100	323	<0.50
131	20070942	80	120	345	<0.50	72	108	327	<0.50
132	20070949	84	112	342	<0.50	68	100	320	<0.50
133	20070956	80	116	339	<0.50	~~84~~ 68	104	320	<0.50
134	20070940	92	128	395	1.20	92	108	320	<0.50
118	20070946	88	120	351	<0.50	76	108	323	<0.50
120	20070945	88	120	351	1.16	80	128	345	<0.50
Initials/ Date		12/3/07	12/3/07	12/3/07	12/3/07	12/23/07	12/23/07	12/23/07	12/23/07

① 76 12/3/07

Sample	ASI #	Day 35 Alkalinity mg/L	Day 35 Hardness mg/L	Day 35 Conductivity us/cm	Day 35 NH_3 mg/L	Day Alkalinity mg/L	Day Hardness mg/L	Day Conductivity us/cm	Day NH_3 mg/L
Control	20070963	60	88	304	<0.50				
STN 10	20070951	80	116	342	<0.50				
STN 27	20070953	88	120	350	<0.50				
STN 63	20070939	68	128	327	<0.50				
STN 130	20070943	68	104	322	<0.50				
STN 131	20070942	76	104	320	<0.50				
STN 132	20070949	68	100	320	<0.50				
STN 133	20070956	68	100	321	<0.50				
STN 134	20070940	76	108	324	<0.50				
STN 118	20070946	80	108	334	<0.50				
STN 120	20070945	96	128	369	<0.50				
Initials/ Date		1/7/08	1/7/08	1/7/08	1/7/08				

3032CT0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/03/07 08:50:09	22.42	274.0	0.13	6.41	8.11
1	12/03/07 08:52:21	22.86	370.0	0.18	6.25	7.64
2	12/03/07 08:53:54	22.98	358.0	0.17	6.25	7.55
3	12/03/07 08:55:25	23.16	352.0	0.17	6.28	7.50
4	12/03/07 09:01:48	23.07	362.0	0.17	5.81	7.35
5	12/03/07 09:03:45	23.00	345.0	0.16	6.03	7.38
6	12/03/07 09:05:15	23.10	342.0	0.16	6.11	7.44
7	12/03/07 09:07:34	23.03	339.0	0.16	5.63	7.42
8	12/03/07 09:09:07	22.92	395.0	0.19	5.83	7.36
9	12/03/07 09:13:50	22.94	351.0	0.17	5.41	7.42
10	12/03/07 09:14:38	22.77	351.0	0.17	5.61	7.39

Round 2

Project #: 27-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/3/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 0

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐	6.0 to 9.0 ☑	

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

3032CT1.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/04/07 10:26:22	22.34	0.0	0.00	6.31	7.49
1	12/04/07 10:27:16	22.29	0.0	0.00	6.19	7.45
2	12/04/07 10:27:47	23.07	0.0	0.00	5.28	7.44
3	12/04/07 10:28:36	22.88	0.0	0.00	5.84	7.47
4	12/04/07 10:29:31	23.22	0.0	0.00	4.50	7.45
5	12/04/07 10:30:24	22.77	0.0	0.00	5.62	7.47
6	12/04/07 10:31:43	23.02	0.0	0.00	5.73	7.52
7	12/04/07 10:32:11	22.98	1.0	0.00	5.63	7.52
8	12/04/07 10:33:01	23.12	1.0	0.00	5.84	7.45
9	12/04/07 10:33:52	23.04	1.0	0.00	5.85	7.51
10	12/04/07 10:34:35	22.87	1.0	0.00	5.70	7.50

Round 2

Project #: 27-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/4/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☒ Other: C. tentans Day of Study: 1

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	— to —	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑	☑	

Actions taken:

See deviation summary sheet ☐ Initials:

3032CT2.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/05/07 11:28:55	22.86	2.0	0.00	4.65	7.49
1	12/05/07 11:29:48	22.94	2.0	0.00	4.71	7.40
2	12/05/07 11:31:14	23.56	2.0	0.00	3.72	7.38
3	12/05/07 11:31:46	23.33	2.0	0.00	4.12	7.37
4	12/05/07 11:32:49	23.50	1.0	0.00	4.05	7.35
5	12/05/07 11:33:31	23.38	1.0	0.00	4.25	7.38
6	12/05/07 11:34:51	23.48	1.0	0.00	4.77	7.40
7	12/05/07 11:34:51	23.48	1.0	0.00	4.77	7.40
8	12/05/07 11:36:53	23.39	1.0	0.00	4.70	7.37
9	12/05/07 11:38:09	23.36	1.0	0.00	5.21	7.42
10	12/05/07 11:40:32	23.30	1.0	0.00	4.61	7.40

Project #: 27-303 R2 Test type: ☐ ACUTE ☐ CHRONIC ☐ OTHER: _____ Date: 12/5/7

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☒ Other: CT Day of Study: 2

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	~~to~~	☐	Red ☐
Dissolved Oxygen:	>4 0 >2.5	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐ Initials: _____

3032CT3.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/06/07 09:30:22	22.61	4.07	7.48
1	12/06/07 09:31:49	22.68	4.09	7.44
2	12/06/07 09:32:29	22.87	4.22	7.45
3	12/06/07 09:32:58	22.59	4.48	7.44
4	12/06/07 09:33:40	22.86	4.40	7.42
5	12/06/07 09:34:10	22.61	4.67	7.44
6	12/06/07 09:36:07	22.78	4.33	7.45
7	12/06/07 09:36:33	22.65	4.57	7.47
8	12/06/07 09:38:04	22.81	4.22	7.42
9	12/06/07 09:39:36	22.55	4.62	7.45
10	12/06/07 09:40:50	22.53	4.23	7.43

Project #: 07-303 Round #2 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: 35day Study Date: 12/6/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 3

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ 2.5mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐

3032CT4.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/07/07 09:24:29	22.26	309.0	4.93	7.46
1	12/07/07 09:26:57	22.68	345.0	4.83	7.44
2	12/07/07 09:28:00	22.85	317.0	4.21	7.46
3	12/07/07 09:28:42	22.93	321.0	5.40	7.49
4	12/07/07 09:29:30	22.99	354.0	5.00	7.47
5	12/07/07 09:30:13	23.05	323.0	5.02	7.49
6	12/07/07 09:31:09	23.03	329.0	4.76	7.50
7	12/07/07 09:31:53	23.06	335.0	5.07	7.49
8	12/07/07 09:32:48	23.02	342.0	4.74	7.49
9	12/07/07 09:33:36	23.09	339.0	5.14	7.50
10	12/07/07 09:34:29	23.11	336.0	4.74	7.49

Project #: 27-303 Test type: ☐ ACUTE ☐ CHRONIC ☐ OTHER: _____ Date: 12/7/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: CT Day of Study: 4

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	____ to ____	☐	Red ☐
Dissolved Oxygen:	>4 0	7 2.5 ☑	Green ☑
pH:	7.3 to 8.3 ☐	6.0 to 9.0 ☑	

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

3032CT5.DAT

	DateTime	Temp	DO Conc*	pH
	M/D/Y	C	mg/L	
0	12/08/07 08:52:46	23.34	2.82	7.34
① 1	~~12/08/07 08:54:04~~	~~23.74~~	~~2.73~~	~~7.34~~
2	12/08/07 08:54:49	23.28	2.37	7.32
3	12/08/07 08:58:40	23.17	2.71	7.33
4	12/08/07 08:59:33	22.98	3.44	7.38
5	12/08/07 09:01:33	23.18	2.43	7.32
6	12/08/07 09:03:11	23.15	2.86	7.32
7	12/08/07 09:05:12	23.27	2.36	7.33
8	12/08/07 09:05:53	23.21	2.58	7.31
9	12/08/07 09:07:06	23.20	2.68	7.33
10	12/08/07 09:08:52	23.17	2.87	7.34
11	12/08/07 09:10:30	23.13	3.01	7.35

① Disregard; read wrong chamber ✓

Project #: 07-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/8/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: *C. tentans* Day of Study: 5

OPERATIONAL RANGE:		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	>4.0 2.5 mg/L	☐ *	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☐		

Actions taken:

* low DO; fast aeration initiated ✓

See deviation summary sheet ☐

Initials: _____

3032CT6.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/09/07 09:45:57	23.53	7.63	7.87
1	12/09/07 09:47:21	23.73	7.66	7.93
2	12/09/07 09:50:11	23.98	7.68	8.01
3	12/09/07 09:50:47	23.83	7.79	8.01
4	12/09/07 09:51:49	23.93	7.53	7.96
5	12/09/07 09:55:20	23.99	7.06	7.80
6	12/09/07 09:57:08	23.88	7.31	7.86
7	12/09/07 09:59:12	23.67	7.54	7.95
8	12/09/07 10:00:08	23.67	7.68	7.96
9	12/09/07 10:02:04	23.83	7.57	8.06
10	12/09/07 10:29:17	23.80	6.85	7.84

Project #: 27-313 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/9/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: *C. tentans* Day of Study: 6

OPERATIONAL RANGE: Check if OK Meter Used:

Temperature: 22 to 24 ☑ Blue ☐

Salinity: _____ to _____ ☐ Red ☐

Dissolved Oxygen: >4 ~~0~~ 2.5 mg/L ☑ Green ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken:

See deviation summary sheet ☐

Initials: _____

3032CT7.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/10/07 08:59:47	23.15	7.61	7.75
1	12/10/07 09:00:50	23.19	7.57	7.73
2	12/10/07 09:01:33	23.22	7.43	7.79
3	12/10/07 09:01:50	23.20	7.45	7.81
4	12/10/07 09:02:36	23.43	7.42	7.83
5	12/10/07 09:03:01	23.34	7.38	7.77
6	12/10/07 09:04:55	23.34	7.51	7.75
7	12/10/07 09:05:58	23.31	7.48	7.79
8	12/10/07 09:06:51	23.52	7.67	7.78
9	12/10/07 09:07:38	23.34	7.63	7.82
10	12/10/07 09:08:18	23.29	7.48	7.82

Project #: 27-303 Rd 2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/10/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: CT Day of Study: 7

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 – 14 °C ☐ 18 – 22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ ~~26 – 30~~ ppt ☐ 28 – 32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: SMA

3032CT8.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/11/07 08:51:15	23.16	7.20	7.82
1	12/11/07 08:52:21	23.21	7.26	7.80
2	12/11/07 08:53:01	23.51	7.03	7.87
3	12/11/07 08:53:44	23.37	6.93	7.88
4	12/11/07 08:55:06	23.51	7.07	7.83
5	12/11/07 08:55:45	23.45	6.93	7.82
6	12/11/07 08:57:42	23.29	7.21	7.87
7	12/11/07 08:58:20	23.35	7.17	7.86
8	12/11/07 08:59:00	23.82	7.19	7.91
9	12/11/07 08:59:47	23.46	7.39	7.94
10	12/11/07 09:00:39	23.32	7.17	7.91

Project #: 27-303 R12 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/11/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 8

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ ≥ 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: RW

3032CT9.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/12/07 08:39:33	23.62	6.57	6.99
1	12/12/07 08:40:57	23.54	6.33	7.29
2	12/12/07 08:41:24	23.66	6.34	7.39
3	12/12/07 08:42:09	23.62	5.99	7.48
4	12/12/07 08:43:23	23.74	6.02	7.50
5	12/12/07 08:43:46	23.60	6.07	7.52
6	12/12/07 08:45:27	23.87	5.91	7.59
7	12/12/07 08:46:06	23.76	5.93	7.63
8	12/12/07 08:48:12	23.99	6.01	7.69
9	12/12/07 08:48:51	23.62	6.08	7.74
10	~~01/01/00 00:01:40~~	23.38	5.93	7.87

Project #: 27-303 Rd 2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/12/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: CT Day of Study: 9

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C Bath temp. lowered Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ~~_____ _____ ppt~~ Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Wed Dec 12 09:35:13 2007 Page 1 of 1 Initials: AK

3032CT10.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/13/07 10:12:59	23.08	7.39	8.13
1	12/13/07 10:14:08	23.02	7.65	8.04
2	12/13/07 10:14:27	22.83	7.72	8.06
3	12/13/07 10:15:00	22.49	7.62	8.10
4	12/13/07 10:16:19	22.88	7.42	8.01
5	12/13/07 10:17:00	22.90	7.35	7.99
6	12/13/07 10:19:56	23.00	7.72	8.04
7	12/13/07 10:20:33	22.88	7.73	8.03
8	12/13/07 10:21:26	23.08	7.85	8.04
9	12/13/07 10:22:24	22.69	7.97	8.08
10	12/13/07 10:23:17	22.82	7.73	8.07

Project #: 27-303 R12 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/13/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 10

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: _____

3032CT11.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/14/07 09:45:51	23.04	303.0	7.95	7.96
1	12/14/07 09:46:35	23.06	337.0	7.91	7.87
2	12/14/07 09:46:52	23.08	362.0	7.89	7.90
3	12/14/07 09:47:06	23.10	331.0	7.90	7.95
4	12/14/07 09:47:22	23.14	332.0	7.92	7.95
5	12/14/07 09:47:50	23.23	332.0	8.02	7.94
6	12/14/07 09:48:10	22.97	333.0	8.08	7.96
7	12/14/07 09:48:26	23.03	323.0	8.07	7.96
8	12/14/07 09:48:40	23.13	326.0	8.00	7.96
9	12/14/07 09:48:57	23.20	332.0	8.00	7.97
10	12/14/07 09:49:16	23.35	341.0	7.93	7.96

Project #: 27303 Rd 2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/14/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 11

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/15/07 **Day of Study:** 12 **Recorded by:** MA

Chamber #	Temperature °C	Test Aeration Check
16	23.4	✓
25	23.2	✓
29	22.9	✓
31	23.0	✓
59	23.0	✓
64	22.9	✓
77	22.9	✓
71	22.8	✓
84	23.0	✓
106	23.0	✓
79	22.9	✓

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/16/07 **Day of Study:** 13 **Recorded by:** MA

Chamber #	Temperature °C	Test Aeration Check
16	23.3	✓
25	23.2	✓
29	22.9	✓
31	22.9	✓
59	22.8	✓
64	22.8	✓
77	22.9	✓
71	22.8	✓
84	22.9	✓
106	22.8	✓
79	22.9	✓

NOTES/ ADJUSTMENTS:

3032CT14.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/17/07 09:59:41	22.84	7.45	7.06
1	12/17/07 10:01:05	22.82	7.45	7.20
2	12/17/07 10:01:40	22.73	7.43	7.38
3	12/17/07 10:02:25	22.56	7.32	7.48
4	12/17/07 10:03:24	22.65	7.37	7.52
5	12/17/07 10:04:01	22.54	7.32	7.57
6	12/17/07 10:04:49	22.54	7.51	7.58
7	12/17/07 10:05:12	22.62	7.42	7.60
8	12/17/07 10:06:22	22.74	6.53	7.73
9	12/17/07 10:06:57	22.55	7.47	7.78
10	12/17/07 10:07:26	22.65	7.38	7.78

Project #: 27303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/17/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: CT Day of Study: IV

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☐ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: MR

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/18/07 **Day of Study:** 15 **Recorded by:** MA

Chamber #	Temperature °C	Test Aeration Check
16	23.5	✓
25	23.3	✓
29	23.0	✓
31	22.8	✓
59	22.8	✓
64	22.8	✓
77	23.0	✓
71	22.9	✓
84	23.1	✓
106	22.9	✓
79	23.0	✓

NOTES/ ADJUSTMENTS:

3032CT16.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/19/07 09:43:16	23.03	7.94	8.18
1	12/19/07 09:44:27	23.38	7.62	8.08
2	12/19/07 09:44:52	23.08	7.76	8.08
3	12/19/07 09:45:21	23.05	7.73	8.11
4	12/19/07 09:46:04	23.12	7.67	8.06
5	12/19/07 09:46:33	23.07	7.41	7.99
6	12/19/07 09:47:47	22.95	7.76	8.02
7	12/19/07 09:48:58	22.92	7.27	7.98
8	12/19/07 09:49:46	23.10	7.88	8.01
9	12/19/07 09:50:35	23.04	7.94	8.05
10	12/19/07 09:51:09	23.05	7.74	8.04

Project #: 27-303 RA2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/19/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 1b

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/20/07 **Day of Study:** 17 **Recorded by:** MC

Chamber #	Temperature °C	Test Aeration Check
16	23.1	↓
25	23.1	↓
29	22.9	↓
31	22.9	↓
59	23.0	↓
64	22.9	↓
77	22.9	↓
71	22.8	↓
84	22.4	↓
106	23.0	↓
79	22.4	↓

NOTES/ ADJUSTMENTS:

3032CT18.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/21/07 11:04:24	23.01	296.0	7.88	7.97
1	12/21/07 11:05:24	23.11	341.0	7.79	7.87
2	12/21/07 11:05:44	23.13	371.0	7.64	7.89
3	12/21/07 11:06:00	23.14	329.0	7.55	7.94
4	12/21/07 11:06:14	23.13	325.0	7.43	7.93
5	12/21/07 11:06:28	23.10	330.0	7.58	7.93
6	12/21/07 11:06:47	23.21	322.0	7.60	7.93
7	12/21/07 11:07:04	23.27	321.0	7.69	7.94
8	12/21/07 11:07:19	23.30	325.0	7.68	7.93
9	12/21/07 11:07:39	23.28	327.0	7.72	7.95
10	12/21/07 11:07:53	23.23	352.0	7.74	7.95

Project #: 27-303 R12 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/21/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 18

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ~~_____ – _____~~ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

Fri Dec 21 11:54:42 2007

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/22/07 **Day of Study:** 19 **Recorded by:** DM

Chamber #	Temperature °C	Test Aeration Check
16	22.43	✓
25	22.22	✓
29	22.77	✓
31	22.81	✓
59	22.63	✓
64	22.69	✓
77	22.77	✓
71	22.71	✓
84	22.73	✓
106	22.80	✓
79	22.68	✓

NOTES/ ADJUSTMENTS:

3032CT20.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/23/07 09:55:49	22.73	301.0	0.14	7.70	8.06
1	12/23/07 09:56:41	22.81	337.0	0.16	7.66	8.01
2	12/23/07 09:57:16	22.87	363.0	0.17	7.60	8.05
3	12/23/07 09:58:02	22.93	325.0	0.15	7.45	8.09
4	12/23/07 09:59:36	22.71	323.0	0.15	7.67	8.05
5	12/23/07 10:01:26	22.79	327.0	0.16	7.52	8.02
6	12/23/07 10:01:57	22.88	320.0	0.15	7.60	8.05
7	12/23/07 10:02:35	22.87	320.0	0.15	7.62	8.06
8	12/23/07 10:03:21	22.77	320.0	0.15	7.63	8.05
9	12/23/07 10:04:07	22.76	323.0	0.15	7.39	8.02
10	12/23/07 10:04:42	22.72	345.0	0.16	7.54	8.00

Project #: 27.30.3 Round #2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35 day Study Date: 1/23/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: *C. tentans* Day of Study: 20

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials:

3032CT21.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/24/07 08:58:00	22.06	7.87	8.15
1	12/24/07 08:59:15	22.14	7.86	8.09
2	12/24/07 08:59:59	22.51	7.73	8.13
3	12/24/07 09:00:32	22.70	7.23	8.08
4	12/24/07 09:01:51	23.08	7.63	8.10
5	12/24/07 09:02:41	22.68	7.68	8.05
6	12/24/07 09:03:48	22.80	7.67	8.06
7	12/24/07 09:04:19	23.00	7.52	8.07
8	12/24/07 09:05:06	23.07	7.82	8.11
9	12/24/07 09:06:04	23.10	7.72	8.15
10	12/24/07 09:06:42	22.90	7.58	8.11

Project #: 27-303 R12 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/24/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 21

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.3 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: AH

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Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/25/07 **Day of Study:** 22 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
16	22.15	✓
25	22.20	✓
29	23.07	✓
31	22.80	✓
59	22.85	✓
64	22.90	✓
77	22.82	✓
71	22.86	✓
84	22.92	✓
106	23.04	✓
79	22.97	✓

NOTES/ ADJUSTMENTS:

3032CT23.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/26/07 09:55:03	22.62	8.04	8.20
1	12/26/07 09:55:59	22.54	7.81	8.12
2	12/26/07 09:56:47	23.29	7.46	8.14
3	12/26/07 09:57:12	23.21	7.55	8.15
4	12/26/07 09:57:45	23.28	7.69	8.11
5	12/26/07 09:58:14	23.17	7.51	8.05
6	12/26/07 09:59:14	23.24	7.81	8.12
7	12/26/07 09:59:41	23.24	7.67	8.11
8	12/26/07 10:00:56	23.17	7.97	8.30
9	12/26/07 10:01:49	23.20	7.85	8.24
10	12/26/07 10:02:58	23.17	7.75	8.29

Project #: 07-303 Round #3 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: 35 day Study Date: 12/26/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 23

OPERATIONAL RANGE:		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	~~>4.0~~ >2.5 mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0	☑	

Actions taken:

See deviation summary sheet ☐

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Initials: m

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/27/07 **Day of Study:** 24 **Recorded by:** BJZ

Chamber #	Temperature °C	Test Aeration Check
16	22.49	
25	22.37	
29	22.75	
31	22.57	
59	23.05	
64	23.02	
77	23.25	
71	23.12	
84	23.22	
106	23.12	
79	23.11	

NOTES/ ADJUSTMENTS:

3032CT25.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/28/07 10:22:44	22.45	306.0	0.15	8.33	8.02
1	12/28/07 10:25:03	22.83	320.0	0.15	8.34	8.01
2	12/28/07 10:25:42	22.74	354.0	0.17	8.08	8.04
3	12/28/07 10:26:22	22.55	327.0	0.16	7.97	8.05
4	12/28/07 10:26:47	22.40	322.0	0.15	7.92	8.01
5	12/28/07 10:27:07	22.31	336.0	0.16	7.88	8.01
6	12/28/07 10:28:15	22.35	328.0	0.16	7.89	8.04
7	12/28/07 10:28:37	22.24	354.0	0.17	8.02	8.02
8	12/28/07 10:29:16	22.27	325.0	0.16	7.97	8.08
9	12/28/07 10:29:39	22.21	322.0	0.15	7.99	8.06
10	12/28/07 10:30:10	22.22	319.0	0.15	8.03	8.06

Project #: Round 2 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: _____ Date: 12/28/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 25

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: DH

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/09/07 **Day of Study:** 26 **Recorded by:** hf

Chamber #	Temperature °C	Test Aeration Check
16	22.5	√
25	22.4	√
29	23.2	√
31	23.2	√
59	23.3	√
64	23.2	√
77	23.2	√
71	23.1	√
84	23.1	√
106	22.5	√
79	23.1	√

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 12/30/07 **Day of Study:** 27 **Recorded by:** m

Chamber #	Temperature °C	Test Aeration Check
16	22.5	√
25	22.5	√
29	23.2	√
31	23.2	√
59	23.3	√
64	23.1	√
77	23.2	√
71	23.1	√
84	23.1	√
106	22.5	√
79	23.1	√

NOTES/ ADJUSTMENTS:

3032CT28.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/31/07 10:08:41	22.49	8.04	8.32
1	12/31/07 10:09:38	22.63	8.02	8.32
2	12/31/07 10:10:02	23.26	7.87	8.33
3	12/31/07 10:10:27	23.18	7.82	8.31
4	12/31/07 10:11:04	23.27	7.89	8.24
5	12/31/07 10:11:25	23.19	7.85	8.24
6	12/31/07 10:12:57	23.30	8.06	8.38
7	12/31/07 10:13:23	23.31	7.83	8.32
8	12/31/07 10:14:20	23.27	7.98	8.32
9	12/31/07 10:15:01	23.35	7.92	8.34
10	12/31/07 10:16:09	23.22	7.82	8.28

Project #: 07-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: _____ Date: 12/31/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: *C. tentans* Day of Study: 28

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 1/1/08 **Day of Study:** 29 **Recorded by:** M

Chamber #	Temperature °C	Test Aeration Check
16	22.5	√
25	22.7	√
29	23.2	√
31	23.2	√
59	23.3	√
64	23.3	√
77	23.2	√
71	23.1	√
84	23.0	√
106	23.3	√
79	23.2	√

NOTES/ ADJUSTMENTS:

3032CT30.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	01/02/08 09:01:00	22.88	7.82	7.89
1	01/02/08 09:02:09	23.41	7.71	7.88
2	01/02/08 09:02:57	23.19	7.67	7.92
3	01/02/08 09:03:23	23.09	7.69	7.95
4	01/02/08 09:04:30	23.11	7.58	7.88
5	01/02/08 09:05:06	23.17	7.59	7.92
6	01/02/08 09:06:24	23.08	7.95	8.01
7	01/02/08 09:07:07	23.16	7.64	7.99
8	01/02/08 09:08:06	23.20	7.84	8.03
9	01/02/08 09:09:22	23.19	7.83	8.08
10	01/02/08 09:10:03	23.15	7.89	8.11

Project #: 07-303 Round #2 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: 35 day Study Date: 1/2/08

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 30

OPERATIONAL RANGE:		Check if OK	Meter Used:
Temperature:	20 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	>~~4~~ 2.5 mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑	☑	

Actions taken:

See deviation summary sheet ☐ Initials: _____

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Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 1/3/08 **Day of Study:** 31 **Recorded by:**

Chamber #	Temperature °C	Test Aeration Check
16	22.7	√
25	23.2	√
29	22.9	√
31	23.0	√
59	23.0	√
64	22.9	√
77	23.2	√
71	23.2	√
84	23.2	√
106	23.2	√
79	23.2	√

NOTES/ ADJUSTMENTS:

3032CT32.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/04/08 12:06:32	22.10	303.8	0.14	8.41	8.16
1	01/04/08 12:06:51	22.28	333.3	0.16	8.22	8.10
2	01/04/08 12:07:05	22.30	343.7	0.16	8.08	8.09
3	01/04/08 12:07:21	22.32	322.5	0.15	8.04	8.10
4	01/04/08 12:07:33	22.29	320.6	0.15	7.92	8.08
5	01/04/08 12:07:49	22.30	326.9	0.16	7.89	8.07
6	01/04/08 12:08:05	22.38	319.0	0.15	7.98	8.08
7	01/04/08 12:08:20	22.38	321.1	0.15	8.00	8.09
8	01/04/08 12:08:36	22.41	320.9	0.15	7.95	8.08
9	01/04/08 12:08:51	22.28	324.9	0.15	8.08	8.08
10	01/04/08 12:09:03	22.26	359.8	0.17	7.90	8.04

Project #: 27-303 Round #2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35 day Study Date: 1/4/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 32

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: DP

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 1/5/08 **Day of Study:** 33 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
16	23.3	✓
25	23.0	✓
29	23.2	✓
31	23.2	✓
59	23.3	✓
64	23.2	✓
77	23.2	✓
71	23.2	✓
84	23.3	✓
106	23.4	✓
79	23.3	✓

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #2** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Date: 1/6/08 **Day of Study:** 34 **Recorded by:** MH

Chamber #	Temperature °C	Test Aeration Check
16	23.4	✓
25	23.5	✓
29	23.3	✓
31	23.3	✓
59	23.2	✓
64	23.2	✓
77	23.1	✓
71	23.2	✓
84	23.1	✓
106	23.4	✓
79	23.3	✓

NOTES/ ADJUSTMENTS:

3032CT35.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	01/07/08 10:43:31	23.05	304.0	8.17	8.07
1	01/07/08 10:44:22	23.23	342.0	7.94	8.03
2	01/07/08 10:44:45	23.27	350.0	7.93	8.05
3	01/07/08 10:45:00	23.27	327.0	7.96	8.08
4	01/07/08 10:45:15	23.32	322.0	7.83	8.08
5	01/07/08 10:45:29	23.33	330.0	7.84	8.07
6	01/07/08 10:45:48	23.31	320.0	7.95	8.17
7	01/07/08 10:46:20	23.36	321.0	7.93	8.15
8	01/07/08 10:46:46	23.36	324.0	7.86	8.15
9	01/07/08 10:47:24	23.35	334.0	7.80	8.13
10	01/07/08 10:47:47	23.40	369.0	7.74	8.14

Project #: 27-303 Rd2 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: 35 Day Date: 1/7/18

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 35

OPERATIONAL RANGE: Check if OK — Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C — Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt — Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L — Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐ Initials: AH

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Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 12/3/07

TEST JOB #: 27-303(2) CLIENT: ENSR

TEST LOCATION: IN- LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 1600+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (5) Carolina Dishes
2. RECEIVING LOG #: N/A
3. CULTURE LOG #: 27-0056
4. AGE/SIZE INFORMATION <24 hours old; HD:12/3/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: MH Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 12/3/07
   TIME: 1100
   BY: M
2. LIVESTOCK RECEIVING: DATE: 12/3/07
   TIME: 1100
   BY: M
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: M

REMARKS:

DeviceNum 1041051 - ExportDate 01_07_08 16_09_18

Series: Temperature (*C)

Logger Info	Information specific to the logger
Model	HOBO Water Temp Pro [H20-001]
Serial Number	1041051
Memory Size (Bytes)	32768
Deployment	10
Series Info	Information about the data in the series
Points Used	846
First Point	12/03/07 11:08:39.0
Last Point	01/07/08 16:08:39.0
Duration	35 Days 05:00:00.0
Stats	Calculated from the series
Wrap Count	0
Max Value	25.65
Min Value	21.01
Avg Value	23.69
Launch Parameters	
Load Time	12/03/2007 16:08:37 GMT 12/03/2007 11:08:37 Local
Launch Time	12/03/2007 16:08:39 GMT 12/03/2007 11:08:39 Local
Logging Time	12/03/2007 16:08:39 GMT 12/03/2007 11:08:39 Local
Sampling Interval	3600
Wrap	0 = (FALSE/OFF/OPEN/TYPE 0)
Stealth Enable	0 = (FALSE/OFF/OPEN/TYPE 0)
End of Data	0x683_00
Wrap Count	0
Description String	27-303 C. tentans Round 2 Bath 4
Time Zone	GMT-300 Minutes TZ set on Launch

DeviceNum 1041051 - ExportDate 01_07_08 16_09_15

Date,Time,Temperature (*C)
12/03/07,11:08:39.0,25.21
12/03/07,12:08:39.0,23.016
12/03/07,13:08:39.0,23.088
12/03/07,14:08:39.0,22.992
12/03/07,15:08:39.0,22.944
12/03/07,16:08:39.0,22.944
12/03/07,17:08:39.0,22.848
12/03/07,18:08:39.0,22.944
12/03/07,19:08:39.0,22.896
12/03/07,20:08:39.0,22.896
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12/03/07,22:08:39.0,22.8
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12/04/07,00:08:39.0,22.729
12/04/07,01:08:39.0,22.657
12/04/07,02:08:39.0,22.585
12/04/07,03:08:39.0,22.561
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12/04/07,11:08:39.0,22.489
12/04/07,12:08:39.0,22.537
12/04/07,13:08:39.0,22.537
12/04/07,14:08:39.0,22.561
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DeviceNum 1041051 - ExportDate 01_07_08 16_09_15

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DeviceNum 810766 - ExportDate 01_09_08 09_27_53

Series: Temperature (*C)

Logger Info	Information specific to the logger
Model	HOBO Water Temp Pro [H20-001]
Serial Number	810766
Memory Size (Bytes)	32768
Deployment	35
Series Info	Information about the data in the series
Points Used	846
First Point	12/03/07 11:09:40.0
Last Point	01/07/08 16:09:40.0
Duration	35 Days 05:00:00.0
Stats	Calculated from the series
Wrap Count	0
Max Value	25.55
Min Value	22.03
Avg Value	23.25
Launch Parameters	
Load Time	12/03/2007 16:09:38 GMT 12/03/2007 11:09:38 Local
Launch Time	12/03/2007 16:09:40 GMT 12/03/2007 11:09:40 Local
Logging Time	12/03/2007 16:09:40 GMT 12/03/2007 11:09:40 Local
Sampling Interval	3600
Wrap	0 = (FALSE/OFF/OPEN/TYPE 0)
Stealth Enable	0 = (FALSE/OFF/OPEN/TYPE 0)
End of Data	0x683_00
Wrap Count	0
Description String	27-303 C. tentans Round 2 Bath 5
Time Zone	GMT-300 Minutes TZ set on Launch

DeviceNum 810766 - ExportDate 01_09_08 09_27_59

Date,Time,Temperature (*C)
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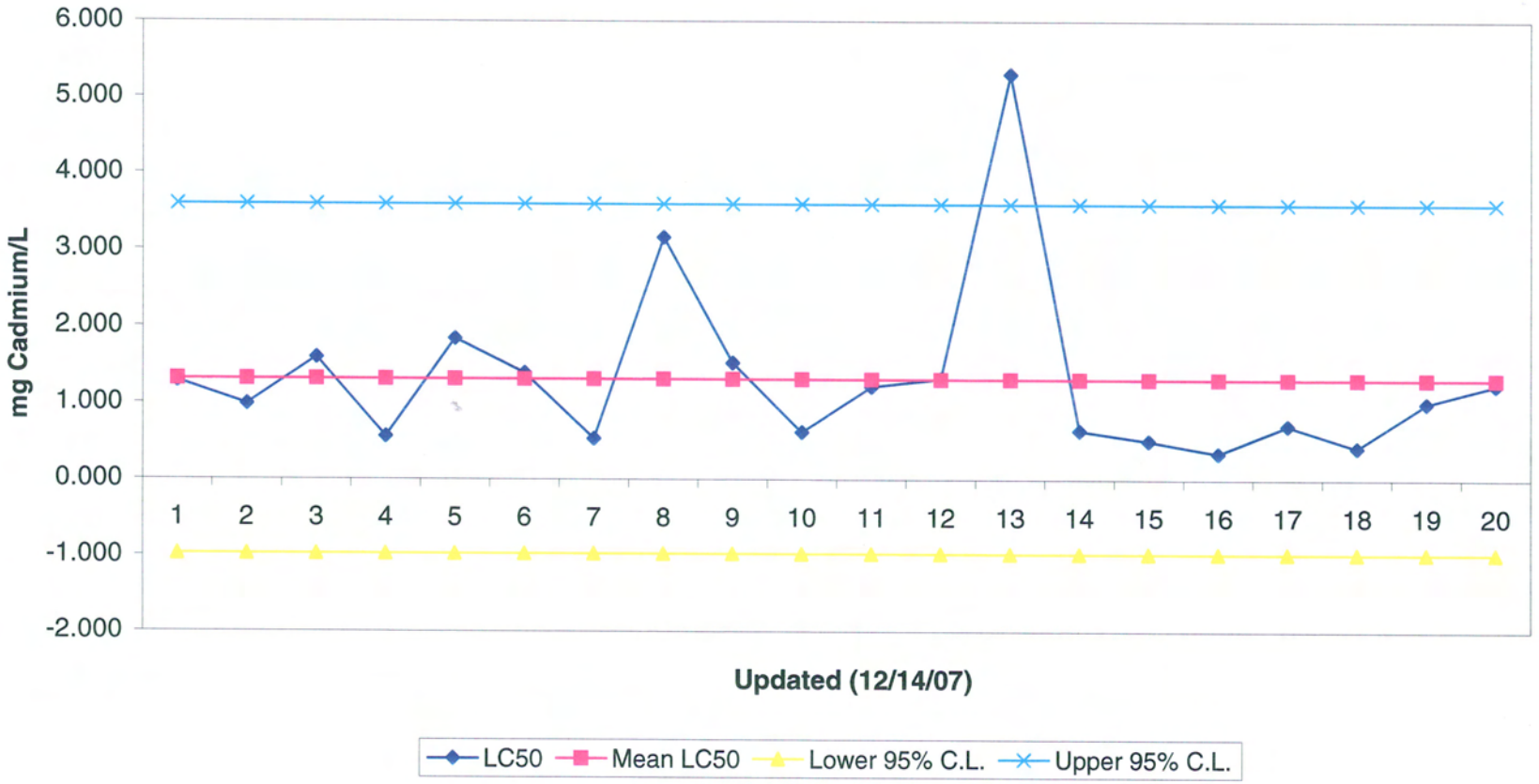
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Control Chart LC50 Values, Acute SRT With C. tentans



Test: AM-Acute Midge | Test ID: ct27303(2)
Species: CT-Chironomous tentans | Protocol: EPAA 02-EPAA 02-EPA Acute
Sample ID: REF-Ref Toxicant | Sample Type: CDCL-Cadmium chloride
Start Date: 12/14/2007 End Date: 12/18/2007 | Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	24 hrs	48 hrs	72 hrs	96 hrs	Notes
	1	1	Control	1				1	
	2	2	Control	1				1	
	3	3	Control	1				1	
	4	4	Control	1				1	
	5	5	Control	1				1	
	6	6	Control	1				1	
	7	7	Control	1				0	
	8	8	Control	1				1	
	9	9	Control	1				1	
	10	10	Control	1				1	
	11	1	0.2	1				0	
	12	2	0.2	1				1	
	13	3	0.2	1				1	
	14	4	0.2	1				1	
	15	5	0.2	1				1	
	16	6	0.2	1				1	
	17	7	0.2	1				1	
	18	8	0.2	1				1	
	19	9	0.2	1				1	
	20	10	0.2	1				1	
	21	1	0.6	1				0	
	22	2	0.6	1				1	
	23	3	0.6	1				1	
	24	4	0.6	1				1	
	25	5	0.6	1				1	
	26	6	0.6	1				1	
	27	7	0.6	1				0	
	28	8	0.6	1				0	
	29	9	0.6	1				1	
	30	10	0.6	1				1	
	31	1	1.6	1				0	
	32	2	1.6	1				0	
	33	3	1.6	1				0	
	34	4	1.6	1				1	
	35	5	1.6	1				1	
	36	6	1.6	1				0	
	37	7	1.6	1				1	
	38	8	1.6	1				0	
	39	9	1.6	1				0	
	40	10	1.6	1				1	
	41	1	5.0	1				0	
	42	2	5.0	1				0	
	43	3	5.0	1				0	
	44	4	5.0	1				0	
	45	5	5.0	1				0	
	46	6	5.0	1				0	
	47	7	5.0	1				0	
	48	8	5.0	1				0	
	49	9	5.0	1				0	
	50	10	5.0	1				0	
	51	1	15.0	1				0	
	52	2	15.0	1				0	
	53	3	15.0	1				0	

Test: AM-Acute Midge						Test ID: ct27303(2)			
Species: CT-Chironomous tentans						Protocol: EPAA 02-EPAA 02-EPA Acute			
Sample ID: REF-Ref Toxicant						Sample Type: CDCL-Cadmium chloride			
Start Date: 12/14/2007			End Date: 12/18/2007			Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Inital Count	24 hrs	48 hrs	72 hrs	96 hrs	Notes
	54	4	15.0	1				0	
	55	5	15.0	1				0	
	56	6	15.0	1				0	
	57	7	15.0	1				0	
	58	8	15.0	1				0	
	59	9	15.0	1				0	
	60	10	15.0	1				0	

Comments:

Acute Midge-96 Hr Survival

Start Date:	12/14/2007	Test ID:	ct27303(2)	Sample ID:	REF-Ref Toxicant
End Date:	12/18/2007	Lab ID:	ASI-Aqua Survey Inc.	Sample Type:	CDCL-Cadmium chloride
Sample Date:		Protocol:	EPAA 02-EPAA 02-EPA Acut	Test Species:	CT-Chironomous tentans
Comments:					

Conc-mg/L	1	2	3	4	5	6	7	8	9	10
Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.00O0
0.2	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.00O0
0.6	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.00O0
1.6	0.0000	0.0000	0.0000	1.0000	1.0000	0.0000	1.0000	0.0000	0.0000	1.00O0
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00O0
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00O0

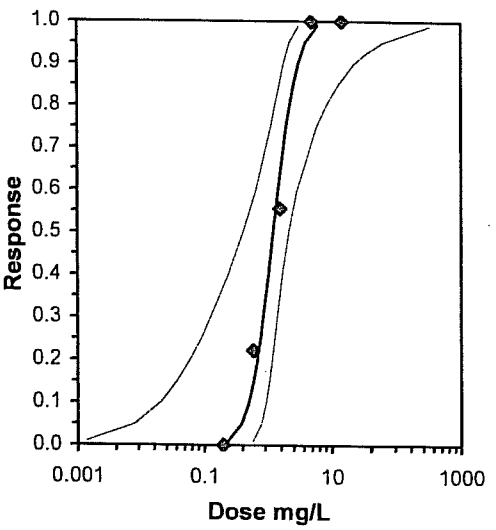
			Transform: Arcsin Square Root					Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
Control	0.9000	1.0000	0.9948	0.5236	1.0472	16.644	10	1	10
0.2	0.9000	1.0000	0.9948	0.5236	1.0472	16.644	10	1	10
0.6	0.7000	0.7778	0.8901	0.5236	1.0472	28.414	10	3	10
1.6	0.4000	0.4444	0.7330	0.5236	1.0472	36.886	10	6	10
5	0.0000	0.0000	0.5236	0.5236	0.5236	0.000	10	10	10
15	0.0000	0.0000	0.5236	0.5236	0.5236	0.000	10	10	10

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.86041	0.919	-0.7483	-0.0786
Bartlett's Test indicates equal variances (p = 0.32)	3.52962	11.3449		

Maximum Likelihood-Probit

Parameter	Value	SE	95% Fiducial Limits		Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter
Slope	3.2432	1.20498	0.88143	5.60496	0.1	0.69906	7.81473	0.87	0.09396	0.30834	5
Intercept	4.69528	0.41029	3.89112	5.49945							
TSCR	0.10564	0.07154	-0.0346	0.24586							

Point	Probits	mg/L	95% Fiducial Limits	
EC01	2.674	0.23804	0.00139	0.57685
EC05	3.355	0.38618	0.00799	0.78622
EC10	3.718	0.49981	0.02013	0.93601
EC15	3.964	0.59482	0.03729	1.05984
EC20	4.158	0.68305	0.06053	1.17671
EC25	4.326	0.7691	0.09116	1.29492
EC40	4.747	1.03714	0.24511	1.72045
EC50	5.000	1.24153	0.42047	2.15721
EC60	5.253	1.48618	0.66841	2.91879
EC75	5.674	2.00413	1.15798	6.01833
EC80	5.842	2.25662	1.35021	8.5548
EC85	6.036	2.59136	1.56904	13.2663
EC90	6.282	3.08394	1.84254	23.7023
EC95	6.645	3.99141	2.26215	57.8995
EC99	7.326	6.47525	3.16517	324.753



ToxCalc v5.0.23

Reviewed by:

D-216

Standard Reference Toxicant
Live Counts

For Job #: 27-303 Rand #2 Start Date: 12/14/07 End Date: 12/18/07

Organism C. tentans/H. azteca Organism Log #: 27-0056 Starting Time: 1530

Dose	Initial	1	2	3	4	Dose	Initial	1	2	3	4
0 A	✓	✓	✓	✓	✓	1.6 A	✓	X	—	—	—
B	✓	✓	✓	✓	✓	B	✓	✓	✓	X	—
C	✓	✓	✓	✓	✓	C	✓	✓	X	—	—
D	✓	✓	✓	✓	✓	D	✓	✓	✓	✓	✓
E	✓	✓	✓	✓	✓	E	✓	✓	✓	✓	✓
F	✓	✓	✓	✓	✓	F	✓	X	—	—	—
G	✓	✓	✓	X	—	G	✓	✓	✓	✓	✓
H	✓	✓	✓	✓	✓	H	✓	✓	✓	X	—
I	✓	✓	✓	✓	✓	I	✓	X	—	—	—
J	✓	✓	✓	✓	✓	J	✓	✓	✓	✓	✓
0.2 A	✓	X	—	—	—	5 A	✓	X	—	—	—
B	✓	✓	✓	✓	✓	B	✓	X	—	—	—
C	✓	✓	✓	✓	✓	C	✓	X	—	—	—
D	✓	✓	✓	✓	✓	D	✓	✓	✓	X	—
E	✓	✓	✓	✓	✓	E	✓	✓	✓	X	—
F	✓	✓	✓	✓	✓	F	✓	✓	✓	X	—
G	✓	✓	✓	✓	✓	G	✓	✓	✓	X	—
H	✓	✓	✓	✓	✓	H	✓	✓	X	—	—
I	✓	✓	✓	✓	✓	I	✓	✓	X	—	—
J	✓	✓	✓	✓	✓	J	✓	✓	X	—	—
0.6 A	✓	✓	✓	X	—	15 A	✓	✓	✓	X	—
B	✓	✓	✓	✓	✓	B	✓	X	—	—	—
C	✓	✓	✓	✓	✓	C	✓	X	—	—	—
D	✓	✓	✓	✓	✓	D	✓	X	—	—	—
E	✓	✓	✓	✓	✓	E	✓	X	—	—	—
F	✓	✓	✓	✓	✓	F	✓	✓	✓	X	—
G	✓	✓	✓	X	—	G	✓	X	—	—	—
H	✓	X	—	—	—	H	✓	✓	X	—	—
I	✓	✓	✓	✓	✓	I	✓	✓	X	—	—
J	✓	✓	X	✓	✓	J	✓	✓	✓	X	—
Initial	dm	MW	MW	dm	dm		dm	MW	MW	dm	dm
Date	12/14/07	12/15/07	12/16/07	12/17/07	12/18/07		12/14/07	12/15/07	12/16/07	12/17/07	12/18/07

Prep Sheet for Freshwater SRTs

Chironomus tentans/ Hyalella azteca

10 replicates per concentration
20 mL per replicate
1 organism per replicate

Working Stock Solution

Add 0.064 grams of Cadmium chloride to 100 mL **DI water**.
This will give you a 320 mg Cadmium/ L stock solution.

Hyalella azteca

Add **1 mL** of the working stock solution to 1L of **Well water**.
This will give you a 32 µg Cadmium/ L stock solution.

Concentration (µg/ L)	Stock (mL)	Total (mL)
0	0	250
4	3.125	250
8	6.25	250
16	12.5	250
32	25	250
64	50	250

Chironomus tentans

Add **100 mL** of the working stock solution to 1L of **Recon**.
This will give you a 32 mg Cadmium/ L stock solution.

Concentration (mg/ L)	Stock (mL)	Total (mL)
0	0	250
0.2	1.6	250
0.6	4.7	250
1.6	12.5	250
5	39	250
15	117	250

H. azteca requires a small piece of nitex screen in each cup; feed each cup2-3 drops YCT
C. tentans feed each cup 2-3 drops slurry

Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 12/14/07

TEST JOB #: SRT CLIENT: In House

TEST LOCATION: IN- LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 60+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (2) Carolina dishes
2. RECEIVING LOG #: N/A
3. CULTURE LOG #: ~~07-28~~ 0056
4. AGE/SIZE INFORMATION 10 days old; HD:12/3/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: Moderately Hard Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 12/14/07
   TIME: 1500
   BY: [signature]
2. LIVESTOCK RECEIVING: DATE: 12/14/07
   TIME: 1500
   BY: [signature]
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: [signature]

REMARKS:

SRT2CT0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/14/07 14:54:52	23.31	320.0	0.15	8.07	8.51
1	12/14/07 14:56:48	23.15	300.0	0.14	8.03	8.38
2	12/14/07 14:58:16	23.12	299.0	0.14	8.00	8.29
3	12/14/07 14:59:42	23.07	300.0	0.14	7.99	8.22
4	12/14/07 15:01:08	23.01	304.0	0.14	7.96	8.12
5	12/14/07 15:02:25	22.87	313.0	0.15	8.00	7.87

Round #2

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/14/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: Oh

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

SRT2CT24.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/15/07 13:25:39	22.91	7.64	8.41
1	12/15/07 13:26:46	23.42	7.75	8.35
2	12/15/07 13:27:09	23.42	7.75	8.32
3	12/15/07 13:27:33	23.46	7.78	8.29
4	12/15/07 13:27:49	23.43	7.80	8.24
5	12/15/07 13:28:07	23.47	7.83	8.18

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/15/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: Ct. Day of Study: 24hr

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Sat Dec 15 14:46:01 2007

Initials: M

SRT2CT48.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/16/07 11:34:09	23.15	7.39	8.75
1	12/16/07 11:34:53	23.36	7.31	8.66
2	12/16/07 11:35:10	23.43	7.33	8.60
3	12/16/07 11:35:27	23.49	7.36	8.53
4	12/16/07 11:35:45	23.47	7.38	8.46
5	12/16/07 11:35:58	23.46	7.40	8.44

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/16/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: Ct. Day of Study: 4 3hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >4.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Sun Dec 16 11:48:04 2007

Initials: _____

SRT2CT72.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/17/07 14:34:27	22.70	1.0	0.00	7.19	8.03
1	12/17/07 14:34:59	23.15	1.0	0.00	7.23	8.17
2	12/17/07 14:35:23	23.11	1.0	0.00	7.26	8.21
3	12/17/07 14:35:44	23.21	1.0	0.00	7.29	8.22
4	12/17/07 14:35:59	23.18	0.0	0.00	7.31	8.22
5	12/17/07 14:36:13	23.20	0.0	0.00	7.31	8.23

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/17/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C.t. Day of Study: 72hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials:

Mon Dec 17 14:45:00 2007

SRT2CT96.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/18/07 13:19:25	23.10	7.99	7.89
1	12/18/07 13:20:20	23.23	7.92	7.98
2	12/18/07 13:20:45	23.26	7.98	7.99
3	12/18/07 13:21:08	23.24	7.93	8.01
4	~~12/18/07 13:21:23~~	~~23.23~~	~~7.96~~	~~7.98~~ Read Twice

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: SRT Date: 12/18/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 96hr

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

27-303 ENSR C. tentans Round #3

Test Start Date: 12/7/07

Waterbath (s): _____

Chamber	Sample	code
124	Control	1.1
3	#20070963	1.2
14		1.3
77		1.4
92		1.5
25		1.6
2		1.7
83		1.8
47		1.9
68		1.10
26		1.11
76		1.12
119	STN 32	2.1
116	#20070959	2.2
12		2.3
46		2.4
130		2.5
97		2.6
28		2.7
7		2.8
81		2.9
80		2.10
33		2.11
23		2.12
9	STN 56	3.1
104	#20070947	3.2
79		3.3
36		3.4
38		3.5
67		3.6
56		3.7
123		3.8
114		3.9
141		3.10
150		3.11
87		3.12
40	STN 59	4.1
44	#20070936	4.2
54		4.3
52		4.4
118		4.5
127		4.6
125		4.7
89		4.8
64		4.9
99		4.10
55		4.11
35		4.12
131	STN 82	5.1
106	#20070944	5.2
32		5.3
49		5.4
43		5.5
101		5.6
58		5.7
144		5.8
146		5.9
152		5.10
134		5.11
91		5.12

27-303 ENSR C. tentans Round #3

Test Start Date: 12/7/07

Waterbath (s): _____

143	STN 85	6.1
126	#20070958	6.2
132		6.3
98		6.4
129		6.5
128		6.6
133		6.7
63		6.8
100		6.9
59		6.10
74		6.11
121		6.12
42	STN 87	7.1
120	#20070957	7.2
96		7.3
5		7.4
115		7.5
78		7.6
154		7.7
155		7.8
30		7.9
41		7.10
93		7.11
39		7.12
137	STN 94	8.1
109	#20070960	8.2
108		8.3
82		8.4
111		8.5
13		8.6
19		8.7
31		8.8
148		8.9
51		8.10
88		8.11
29		8.12
110	STN 97	9.1
22	#20070954	9.2
10		9.3
84		9.4
73		9.5
145		9.6
45		9.7
135		9.8
142		9.9
27		9.10
34		9.11
102		9.12
53	STN 100	10.1
103	#20070938	10.2
90		10.3
50		10.4
107		10.5
71		10.6
147		10.7
70		10.8
86		10.9
85		10.10
156		10.11
1		10.12

Test Start Date: _____

Waterbath (s): _____

60	STN 28	11.1
18	#20070948	11.2
112		11.3
94		11.4
136		11.5
24		11.6
113		11.7
75		11.8
16		11.9
69		11.10
21		11.11
37		11.12
65	STN 6	12.1
117	#20070952	12.2
140		12.3
139		12.4
11		12.5
122		12.6
8		12.7
153		12.8
105		12.9
149		12.10
72		12.11
4		12.12
6	STN 18	13.1
66	#20070950	13.2
62		13.3
138		13.4
20		13.5
95		13.6
57		13.7
61		13.8
17		13.9
48		13.10
151		13.11
15		13.12

Aqua Survey, Inc.
Special Studies Department

Feeding and Exchanges

Job #: 27-303 **Organism:** *C. tentans*
Client: ENSR **Round #3** **Test Start Date:** 12/7/07

Day	Date	Exchanges Recon (200mL)		Feeding Tetramin Slurry (1.5mL/ Chamber)	Notes
		1st (Time/ Initials)	2nd (Time/ Initials)	(Time/ Initials)	
-1	12/6/07				
0	12/7/07	0830 JM	1150 JM	1700 JM	
1	12/8/07	1050 JM	1450 JM	1505 JM	
2	12/9/07	1050 JM	1430 JM	1500 JM	
3	12/10/07	1030	1550 JM	1615 JM	
4	12/11/7	1020 MA	1630 MA	1650 DB	
5	12/12/7	1000 MA	1545 DB	1600 MA	
6	12/13/7	1115 MA	1530 MA	1600 DB	
7	12/14/7	1115 MA	1530 MA	1620 DB	
8	12/15/7	0850 MA	1410 MA	1430 MA	
9	12/16/7	0840 MA	1215 MA	1300 MA	
10	12/17/7	1025 DB	1630 DB		
11	12/18/07	0945 BB	1345 MB	1400 BB	
12	12/19/07	0900 MA	1510 DB	1630 MA	
13	12/20/07	0915 MA	1452 BB	1612 BB	
14	12/21/07	1015 MA	1645 DB	1700 JM	
15	12/22/07	1045 DB	1415 DB	1445 DB	
16	12/23/07	0952 BB	1445 DB	1520 DB	
17	12/24/07	0930 MA	1455 DB	1550 DB	
18	12/25/07	1025 DB	1400 DB	1445 DB	
19	12/26/07	1115 JM	1700 DB	1705 BB	
20	12/27/07	0940 BB	1642 BB	1719 BB	
21	12/28/07	1022 BB	1429 BB	1512 BB	
22	12/29/07	0930 JM	1245 JM	1320 JM	
23	12/30/07	1100 JM	1510 JM	1530 JM	
24	12/31/07	0950 MA	1330 JM	1425 JM	
25	1/1/08	0930 JM	1330 JM	1430 BB	
26	1/2/08	1000 MA	1545 BB	1601 BB	
27	1/3/08	0959 BB	1545 BB	1626 BB	
28	1/4/08	1100 MA	1550 BB	1617 BB	
29	1/5/08	1100 MA	1520 MA	1600 MA	
30	1/6/08	1030 MA	1430 MA	1450 MA	
31	1/7/08	1100 MA	1445 MA	1455 MA	
32	1/8/08	1100 MA	1615 MA	1630 MA	
33	1/9/08	1000 MA	1500 MA	1600 JM	
34	1/10/08	0950 DB	1615 MA	1630 MA	
35	1/11/08	—		—	

Aqua Survey, Inc.
Special Studies Department
Weight Data Form (Ash- Free)

Job #: 27-303	**Client:** ENSR- Round #3	**Test Dates:** 12/7-27/07
Organism: *C. tentans*	**Age of Organism (at Test Start):** <24 hours	**Initial #/ Rep.:** 12
Weigh Dates: 12/28-30/07	**Oven Used:** #2/#3 **Oven Temp. (°C):** 60 °C/550 °C	**Dry Time (hr):** 24/2

Treatment	Chamber #	# of Surviving Organisms *	Pan Weight (mg)	Pan + Larvae (mg)	Dry Weight** Total	Dry Weight** Individual	Pan + Ash (mg)	Ash- Free Dry Weight Total	Ash- Free Dry Weight Individual
Control #20070963	3	9L, 1P	914.72	929.46			918.94		
	14	8L, 1Em	908.21	922.56			912.20		
	77	8L	912.75 ①	927.11			920.72		
	124	5L, 1P	917.85 ②	928.41			917.74		
STN-32 #20070959	12	7L, 1P, 1Em	937.64	947.81			939.58		
	46	11L	939.99	956.81			944.40		
	116	9L	926.22	940.11			930.08		
	119	11L	920.56	934.50			923.97		
STN-56 #20070947	9	4L, 2P, 1partial	905.07	913.64			906.93		
	36	5L, 2Em	915.40	926.22			917.66		
	79	8L, 1Em	930.42	943.67			934.45		
	104	9L	928.63	944.63			933.07		
STN-59 #20070936	40	10L	915.10	928.20			918.10		
	44	9L	924.08	936.31			926.75		
	52	11L	939.93	955.61			944.00		
	54	12L	941.60	955.82			945.50		
STN-82 #20070944	32	3L, 1P	929.29	936.30			930.28		
	49	1L, 2P	928.99	930.66			929.35		
	106	4L	933.81	943.19			935.14		
	131	6L	937.26	946.81			939.20		
STN-85 #20070958	98	2L	914.04	918.06			914.46		
	126	3L	909.79	916.38			910.55		
	132	3L	918.92	924.96			919.86		
	143	1L	916.56	917.36			916.74		
STN-87 #20070957	5	4L, 4P	934.20	940.90			936.10		
	42	8L, 1P	920.05	932.12			922.89		
	96	12L	913.77	929.87			918.58		
	120	9L	911.11	925.27			915.61		
Initials/ Date		JDH 12/27/07	① 12/27/07	② 12/28/07			12/28/07		

***L- Larvae/ P- Pupae/ E- Emerged**
****- Only larvae were used for dry weight**

① 917.85
② 912.75

Aqua Survey, Inc.
Special Studies Department
Weight Data Form (Ash- Free)

Job #: 27-303	**Client:** ENSR- Round #3	**Test Dates:** 12/7-17/07
Organism: *C. tentans*	**Age of Organism (at Test Start):** <24 hours	**Initial #/ Rep.:** 12
Weigh Dates: 12/28-29/07	**Oven Used:** #3/#3 **Oven Temp. (°C):** 60 C/50 C	**Dry Time (hr):** 24/2

Treatment	Chamber #	# of Surviving Organisms *	Pan Weight (mg)	Pan + Larvae (mg)	Dry Weight** Total	Dry Weight** Individual	Pan + Ash (mg)	Ash- Free Dry Weight Total	Ash- Free Dry Weight Individual
STN-94 #20070960	82	2L	914.60	917.11			915.04		
	108	0	917.83	—			—		
	109	1L	924.77	925.66			925.11		
	137	1L	921.75	924.17			922.08		
STN-97 #20070954	10	4L, 1P	907.75	915.24			909.55		
	22	7L, 1P	907.85	919.62			909.86		
	84	9L	908.42	919.73			911.23		
	110	6L, 1P	912.25	922.96			915.26		
STN-100 #20070938	50	7L, 1P	918.65	932.64			922.35		
	53	8L, 1P, 1Em	923.84	937.61			928.22		
	90	7L, 2P	917.69	930.48			921.16		
	103	8L, 1Em	922.97	937.66			926.71		
STN-28 #20070948	18	9L	930.21	947.31			935.93		
	60	11L	918.32	936.43			924.06		
	94	11L	930.83	949.44			937.53		
	112	10L, 1P	928.63	941.94			933.05		
STN-6 #20070952	65	11L	925.82	946.73			932.42		
	117	11L	925.16	941.97			931.50		
	139	8L	925.29	942.38			931.54		
	140	7L, 3P	922.92	935.48			927.49		
STN-18 #20070950	6	6L, 1P, 1Em	928.07	944.24			935.15		
	62	10L	925.84	948.28			935.67		
	66	7L, 3P	925.74	940.38			931.43		
	138	9L, 1Em	927.49	944.31			934.40		
Initials/ Date		12/27/07	12/27/07	12/28/07			12/29/07		

***L- Larvae/ P- Pupae/ E- Emerged**
****- Only larvae were used for dry weight**

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07
Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
Control #20070963	2	1L
	25	0
	26	1P
	47	1L
	68	1P
	76	0
	83	0
	92	0
STN-32 #20070959	7	0
	23	0
	28	0
	33	3L, 1P
	80	1L
	81	0
	97	1L
	130	0
STN- 56 #20070947	38	1L
	56	0
	67	1P
	87	0
	114	0
	123	0
	141	0
	150	0
STN-59 #20070936	35	0
	55	0
	64	0
	89	1L
	99	4L, 1P
	118	1L
	125	4L
	127	5L
STN-82 #20070944	43	0
	58	0
	91	0
	101	0
	134	0
	144	1P
	146	0
	152	0

Recorded by (Initials/ Date): JDN 1/11/08

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
STN-85 #20070958	59	0
	63	0
	74	0
	100	0
	121	0
	128	0
	129	0
	133	0
STN-87 #20070957	30	0
	39	0
	41	0
	78	3L
	93	0
	115	2L
	154	3L
	155	0
STN- 94 #20070960	13	0
	19	0
	29	0
	31	0
	51	0
	88	0
	111	0
	148	0
STN-97 #20070954	27	0
	34	2L, 1P
	45	0
	73	1D(L)
	102	0
	135	1L
	142	1P
	145	1L
STN-100 #20070938	1	1P
	70	0
	71	0
	85	0
	86	0
	107	0
	147	0
	156	0

Recorded by (Initials/ Date): SW 1/11/08

Aqua Survey, Inc.
Special Studies Department
Teardown Recovery Data Sheet

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Key: D= Dead Em= Emerged F= Female M= Male L= Larvae PE= Partially Emerged P= Pupae

Treatment	Chamber #	Teardown Recovery
STN- 28 #20070948	16	0
	21	0
	24	1P
	37	1P
	69	0
	75	2L
	113	1L
	136	0
STN-6 #20070952	4	0
	8	0
	11	1L
	72	0
	105	0
	122	0
	149	0
	153	1L
STN-18 #20070950	15	0
	17	0
	20	0
	48	3L, 2P
	57	0
	61	0
	95	0
	151	0

Recorded by (Initials/ Date): JDH 1/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
1	N	N	N	N	N	N	N	N	N	N	N
2	N										
3	N										
4	N										
5	N										
6	N										
7	N										
8	N										
9	N										
10	N										
11	N										
12	N										
13	N										
14	N										
15	N										
16	N										
17	N										
18	N										
19	N										
20	N										
21	N										
22	N										
23	N										
24	N										
Initials/ Date	MJ 12/7/07	MJ 12/8/07	MJ 12/9/07	MJ 12/10/07	AH 12/11/7	AH 12/12/7	AH 12/13/7	AH 12/14/7	AH 12/15/7	AH 12/16/7	AH 12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
1	N	N	N	N	N	N	N	N	N	Af 1Em(m)
2									N	N
3									N	N
4									1pairEm(m)	N
5									N	N
6									N	1Em(m)
7									N	N
8									N	N
9									1pairEm(m)	N
10									N	N
11									N	N
12									1Em(m)	N
13									N	N
14									N	1Em(m)
15									N	N
16									N	N
17									1Em(m)	1Em(F)
18									N	N
19									N	N
20									1Em(m)	N
21									N	N
22									N	N
23									N	N
24									1pr Em(m)	1Em(m)
Initials/ Date	12/13/07	12/19/07	12/20/07	12/21/07	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
1	N	N	1Em(M)	1 em (F)	1Em(M)	N	N	N	N	N
2	1Em(F)	N	1Em(F)	N	N	N	N	1Em(F)	2Em(F)	N
3	**	—	—	—	—	—	—	—	—	—
4	N	N	N	N	N	N	N	N	1Em(F)	1 em (F)
5	**	—	—	—	—	—	—	—	—	—
6	**	—	—	—	—	—	—	—	—	—
7	N	2Em(M,F)	N	N	N	N	N	N	N	1 eart (F)
8	N	N	N	1 em (M)	N	2Em(F)	2 em (mf	N	N	N
9	**	—	—	—	—	—	—	—	—	—
10	**	—	—	—	—	—	—	—	—	—
11	N	N	N	1 em (F)	N	1Em(F)	N	N	N	1 em (F)
12	**	—	—	—	—	—	—	—	—	—
13	N	N	N	N	N	N	N	N	N	N
14	**	—	—	—	—	—	—	—	—	—
15	N	N	N	N	2Em(F)	N	N	1Em(F)	2Em(M,F)	N
16	N	N	N	1 em (F)	N	N	1 em (M)	1Em(F)	1Em(F)	1 em (M)
17	N	N	N	N	2Em(M,F)	2Em(F)	1 em (F	1Em(F)	N	N
18	**	—	—	—	—	—	—	—	—	—
19	N	N	N	N	N	N	N	N	N	N
20	1Em (M)	2Em(M,F)	N	1 em (M)	1Em(F)	N	1 em (M)	N	N	~~1 em (F~~
21	N	N	N	1 em (M)	N	2Em(M,F)	N	2Em(F)	N	1 em (F)
22	**	—	—	—	—	—	—	—	—	—
23	3Em (M)	N	1 pr 1 em (M)	1 em (F)	N	2Em(M,F)	N	N	N	N
24	1Em (M)	N	N	1 em (M)	3Em (2F, 1M)	N	N	N	N	N
Initials/ Date	12/3/07	12/4/07	12/3/07	12/31	1/1/08	1/2/08	1/3/08	1/4/08	1/5/08	1/6/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
1	N	N	N	N	1pa 1Em(F)
2	N	N	N	1Em(F)	N
3	—	—	—	—	—
4	N	N	N	N	N
5	—	—	—	—	—
6	—	—	—	—	—
7	N	N	N	N	N
8	N	N	N	N	N
9	—	—	—	—	—
10	—	—	—	—	—
11	N	1Em(F)	N	N	N
12	—	—	—	—	—
13	N	N	N	N	N
14	—	—	—	—	—
15	N	N	1em(F)	N	N
16	1em(F)	1em(M)	N	N	N
17	N	N	N	N	N
18	—	—	—	—	—
19	N	N	N	N	N
20	N	N	N	N	N
21	N	N	N	1Em(F)	N
22	—	—	—	—	—
23	N	N	N	N	N
24	1em(M)	N	N	N	N
Initials/ Date	1/7/8	1/8/8	1/9/8	1/10/08	1/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
25	N	N	N	N	N	N	N	N	N	N	N
26	N										
27	N										
28	N										
29	N										
30	N										
31	N										
32	N										
33	N										
34	N										
35	N										
36	N										
37	N										
38	N										
39	N										
40	N										
41	N										
42	N										
43	N										
44	N										
45	N										
46	N										
47	N										
48	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/7/07	12/8/07	12/9/07	12/10/07	12/11/7	12/12/7	12/13/7	12/14/7	12/15/7	12/16/7	12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
25	N	N	N	N	N	N	N	N	N	N
26										1 em (?)
27										N
28										N
29										N
30										1em (m)
31										N
32										N
33										N
34										N
35									↓	1em (m)
36									2Em(m,F)	N
37									N	N
38										N
39										N
40										N
41										N
42										N
43										N
44										N
45										N
46										N
47										~~1~~ 1Em/m
48	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
Initials/ Date	12/18/07	12/19/07	12/20/07	12/21/07	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
25	N	N	N	1 em(m)	N	1em(m)	N	N	2em(m)	2em(F)
26	N	N	N	N	N	1em(F)	N	N	1em(F)	1em(F)
27	N	N	N	N	N	N	1em (F)	2em(m)	1em(F)	1em (F)
28	N	N	1em(m)	N	1prtem(m)	1prtem(m)	N	N	1S(F) 1prtem(m)	N
29	N	N	N	N	N	N	N	N	N	N
30	N	N	1em(m)	1em (m)	N	N	1em (m)	N	1em(F)	N
31	N	N	N	N	N	N	N	N	N	N
32	**	—	—	—	—	—	—	—	—	—
33	1em(F)	N	N	N	N	1em(F)	N	N	N	N
34	N	N	N	N	N	N	2em (m)	N	N	N
35	N	1em(m)	N	N	N	1em(m)	2em (F)	N	N	2em (m F)
36	**	—	—	—	—	—	—	—	—	—
37	N	1em(m) 1prtem(m)	1prtem(F)	N	N	1em(m)	1 em (m	N	N	N
38	N	1em(F)	1em(F)	1em (F)	N	N	N	N	1prtem(m) 3em(F)	N
39	N	N	N	1em (m)	1em(m)	N	N	N	1em(F)	1em (F)
40	**	—	—	—	—	—	—	—	—	—
41	N	N	N	1em(F)	1em(m)	N	1em(F)	N	N	2em (m F)
42	**	—	—	—	—	—	—	—	—	—
43	N	N	N	N	N	1em(F)	N	N	1prtem(F)	N
44	**	—	—	—	—	—	—	—	—	—
45	N	N	N	N	2em(m,F)	N	N	N	N	1em (F)
46	**	—	—	—	—	—	—	—	—	—
47	N	N	1em(m)	N	2em(F)	N	1em (m)	N	1em(F)	N
48	N	1em(m)	N	N	1em(m)	1em(F)	N	N	N	N
Initials/ Date	12/28/07	12/30/07	12/30/07	12/31	1/1/08	1/2/08	1/3/8	1/4/08	1/5/08	1/6/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
25	N	1em(f)	N	1Em(M)	4Em(F)
26	N	1em(M)	1em (f)	N	N
27	N	1em (f)	N	N	N
28	N	N	N	N	1Em (F)
29	N	N	N	N	N
30	1em(f)	N	N	N	N
31	N	N	N	N	N
32	—	—	—	—	—
33	N	2em(f)	N	N	N
34	N	N	N	1Em(F)	1Em(F)
35	N	1em(f)	N	N	N
36	—	—	—	—	—
37	1em(f)	1em (f)	N	N	N
38	N	N	N	1Em(m)	N
39	N	N	N	N	1Em(m)
40	—	—	—	—	—
41	N	N	1em (f)	N	1Em(F)
42	—	—	—	—	—
43	1em(f)	N	N	N	N
44	—	—	—	—	—
45	1em(f)	N	N	N	N
46	~~1em(f)~~	—	—	—	—
47	1em(f)	N	N	N	N
48	N	N	1em(m)	1Em(F)	N
Initials/ Date	11/7/18	11/8/18	11/9/18	1/10/08	1/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
49	N	N	N	N	N	N	N	N	N	N	N
50	N										
51	N										
52	N										
53	N										
54	N										
55	N										
56	N										
57	N										
58	N										
59	N										
60	N										
61	N										
62	N										
63	N										
64	N										
65	N										
66	N										
67	N										
68	N										
69	N										
70	N										
71	N										
72	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/7/07	12/8/07	12/9/07	12/10/07	12/11/7	12/12/7	12/13/7	12/14/7	12/15/7	12/16/7	12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
49	N	N	N	N	N	P	N	N	N	N
50										N
51										N
52										N
53										1 em (♂)
54										N
55										N
56										N
57										N
58										N
59										N
60										N
61										N
62										N
63										N
64										N
65										N
66										N
67										N
68										N
69										N
70										N
71									1Em (m)	1 em (m)
72									N	1 em (m
Initials/ Date	12/8/07	12/9/07	12/20/07	12/21/07	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
49	✱✱	–	–	–	–	–	–	–	–	–
50	✱✱	–	–	–	–	–	–	–	–	–
51	N	N	N	N	N	N	N	N	N	N
52	✱✱	–	–	–	–	–	–	–	–	–
53	✱✱	–	–	–	–	–	–	–	–	–
54	✱✱	–	–	–	–	–	–	–	–	–
55	N	N	2em(m)	1em (m)	2em(m)	1em(m)	N	1em(F)	N	1em (m)
56	2Em(m)	1Em(m)	N	1Em(m)	N	1em(m)	N	1Em(F)	1em(m)	2em (m,f)
57	N	N	N	N	1em(m) pr1em(m)	1Em(F)	N	N	2em(m,F)	N
58	N	1em(m)	1Em(F)	1em (f)	N	N	N	N	N	N
59	N	N	1Em(m)	1em(f)	N	N	N	N	N	N
60	✱✱	–	–	–	–	–	–	–	–	–
61	1Em(m)	N	N	N	1Em(m)	4em(3m 1F)	2em (m,f)	N	N	N
62	✱✱	–	–	–	–	–	–	–	–	–
63	N	1Em(F)	N	N	N	N	N	N	N	N
64	N	1Em(m)	N	N	N	1Em(m)	1em (f)	N	2em(m,F)	N
65	✱✱	–	–	–	–	–	–	–	–	–
66	✱✱	–	–	–	–	–	–	–	–	–
67	N	N	N	N	N	1Em(F)	N	3em(2m 1F)	2Em(m)	1em (f)
68	N	N	N	N	N	N	1em (m)	N	N	N
69	N	N	N	1em (m)	1Em(m)	1Em(m)	N	N	N	1em (m)
70	N	N	N	1em (m)	N	3Em(m)	2em(f)	N	2em(m,F)	N
71	1Em(m)	1Em(m)	N	N	2em(m,F)	N	N	N	N	N
72	N	N	1Em(m)	N	2Em(m)	N	N	1Em(F)	N	1em(m)
Initials/ Date	12/28/07	12/29/07	12/30/07	12/31	1/1/08	1/2/08	1/3/08	1/4/08	1/5/08	1/6/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
49	–	–	–	–	–
50	–	–	–	–	–
51	N	N	N	N	N
52	–	–	–	–	–
53	–	–	–	–	–
54	–	–	–	–	–
55	1em(m)	N	N	2Em(F)	N
56	N	2em (Em)	N	N	N
57	N	2em (Em)	N	N	N
58	N	N	N	N	N
59	N	N	N	N	N
60	–	–	–	–	–
61	N	1em (f)	N	N	N
62	–	–	–	–	–
63	N	N	N	N	N
64	N	1em (f)	N	N	1Em(F)
65	–	–	–	–	–
66	–	–	–	–	–
67	1em(m)	N	N	N	N
68	2em (mf)	1em(f)	1em(f)	1Em(F)	N
69	1em(f)	N	N	N	N
70	N	1em(f)	N	N	N
71	1em(f)	N	N	N	N
72	N	N	N	1Em(F)	N
Initials/ Date	1/7/8	1/8/8	1/9/8	1/10/08	1/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
73	N	N	N	N	N	N	N	N	N	N	N
74	N										
75	N										
76	N										
77	N										
78	N										
79	N										
80	N										
81	N										
82	N										
83	N										
84	N										
85	N										
86	N										
87	N										
88	N										
89	N										
90	N										
91	N										
92	N										
93	N										
94	N										
95	N										
96	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/7/07	12/8/07	12/9/07	12/10/07	12/11/7	12/12/7	12/13/7	12/14/7	12/15/7	12/16/7	12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
73	N	N	N	N	N	N	N	N	N	N
74										
75										
76										
77										
78										
79									1Em (m)	
80									N	N
81										2em (m)
82										N
83										N
84										N
85										1em (m)
86										N
87										1em (m)
88										N
89										~~1~~ 1Em (m)
90										N
91										N
92										2em (m)
93										N
94										
95										
96										
Initials/ Date	12/8/07	12/9/07	12/10/07	12/11/07	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
73	1Em(m)	N	N	N	N	N	N	N	N	N
74	N	N	N	N	N	N	N	1Em(F)	1Em(F)	N
75	N	1Em(m)	1Em(m)	N	1Em(m)	N	2Em (F)	1Em(F)	N	N
76	N	1Em(F)	N	N	1Em(F)	N	3Em (2F 1m)	N	N	N
77	**	—	—	—	—	—	—	—	—	—
78	1Em (m)	N	1Em(m)	N	1Em(m)	1Em(m)	N	N	N	N
79	**	—	—	—	—	—	—	—	—	—
80	1Em (m)	N	N	N	1Em(m,F)	1pr1Em(F)	N	N	1Em(F)	N
81	N	N	N	1 Em(m)	N	N	1Em(F)	1Em(F)	N	N
82	**	—	—	—	—	—	—	—	—	—
83	N	1Em(m)	1Em(m,F)	1Em (m)	1Em(m)	N	1Em(F)	1Em(F)	N	N
84	**	—	—	—	—	—	—	—	—	—
85	N	1Em(m)	1Em(F)	N	N	N	N	1Em(F)	1Em(F)	N
86	N	1Em(m)	N	N	N	N	N	N	N	N
87	N	N	1Em(F)	N	1Em(m)	N	N	N	N	N
88	N	N	N	N	N	1Em(F)	N	N	N	N
89	N	N	1 1Em(F)	3Em (m)	N	N	1Em(F)	N	N	N
90	**	—	—	—	—	—	—	—	—	—
91	1Em (m)	N	N	N	N	1Em(F)	~~1Em(F)~~	N	N	N
92	2Em (m)	1Em(m)	1Em(m)	N	N	N	1Em F	N	N	N
93	N	N	1Em(m)	2Em (m F) 1 Part em	N	1Em(m)	1Em F	1Em(m)	N	1Em (m)
94	**	—	—	—	—	—	—	—	—	—
95	1Em(m)	1Em(m)	1S(P)	2Em (m)	N	1Em(F)	N	1Em(F)	N	N
96	**	—	—	—	—	—	—	—	—	—
Initials/ Date	12/8/07	12/21/07	12/20/07	12/3,	1/1/08	1/2/08	1/3/8	1/4/08	1/5/08	1/6/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
73	N	N	N	N	N
74	N	N	N	N	N
75	N	N	N	N	N
76	N	N	N	N	1Em(m)
77	—	—	—	—	—
78	1em(f)	N	N	N	1Em(F)
79	—	—	—	—	—
80	N	N	N	1Em(F)	N
81	1em(f)	N	N	1Em(F)	N
82	—	—	—	—	—
83	N	N	N	N	1Em(F)
84	—	—	—	—	—
85	N	N	N	N	N
86	N	N	1Em	N	N
87	N	N	N	N	N
88	N	1em (m)	N	N	N
89	N	N	N	N	1Em(m)
90	—	—	—	—	—
91	N	N	N	N	N
92	N	N	N	N	N
93	N	N	N	N	N
94	—	—	—	—	—
95	N	N	N	N	N
96	—	—	—	—	—
Initials/ Date	1/8/8	1/8/8	1/9/8	1/10/08	1/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
97	N	N	N	N	N	N	N	N	N	N	N
98	N										
99	N										
100	N										
101	N										
102	N										
103	N										
104	N										
105	N										
106	N										
107	N										
108	N										
109	N										
110	N										
111	N										
112	N										
113	N										
114	N										
115	N										
116	N										
117	N										
118	N										
119	N										
120	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/7/07	12/8/07	12/9/07	12/10/07	12/11/7	12/12/7	12/13/7	12/14/7	12/15/7	12/16/7	12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
97	N	N	N	N	N	N	N	N	N	N
98	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
99										
100										
101										
102										↓
103										1em (f)
104										N
105										N
106										N
107										1em (m)
108										N
109										↓
110										
111										
112										
113									↓	↓
114									1Em (m)	1em (m)
115									N	N
116									↓	↓
117										
118										
119										
120	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	dop 12/18/07	M 12/19/07	M 12/20/07	M 12/21/07	dop 12/22/07	DP 12/23/07	dop 12/24/07	dop 12/25/07	dop 12/26/07	MP 12/27

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
97	N	N	N	N	N	N	N	1Em(F)	N	N
98	**	—	—	—	—	—	—	—	—	—
99	N	N	N	N	N	N	N	N	N	1em (F)
100	N	N	N	N	N	1Em(F)	N	N	N	N
101	N	N	N	N	N	1Em(F)	N	N	N	N
102	N	N	N	N	1Em(F)	1Em(M)	1em(m)	2Em(M,F)	N	1em (F)
103	**	—	—	—	—	—	—	—	—	—
104	**	—	—	—	—	—	—	—	—	—
105	N	N	1Em(M)	1em(m)	1Em(M) 1Em(F)	~~N 1Em(M)~~	N	2Em(M)	N	N
106	**	—	—	—	—	—	—	—	—	—
107	N	1Em(M) 1pr 1Em(M)	1Em(M)	N	1Em(F)	N	N	N	N	N
108	**	—	—	—	—	—	—	—	—	—
109	**	—	—	—	—	—	—	—	—	—
110	**	—	—	—	—	—	—	—	—	—
111	N	N	N	N	1Em(M)	N	N	N	N	N
112	**	—	—	—	—	—	—	—	—	—
113	N	N	N	N	N	N	1em(m)	3Em(2M 1F)	N	1em(F)
114	1Em(m)	1Em(M)	N	N	1Em(F)	N	N	1Em(F)	N	N
115	N	N	N	N	N	3Em(2F 1M)	N	2Em(M)	N	1em(F)
116	**	—	—	—	—	—	—	—	—	—
117	**	—	—	—	—	—	—	—	—	—
118	N	1Em(M)	1Em(M)	1em(m)	N	N	2em(M+F)	1Em(M)	N	N
119	**	—	—	—	—	—	—	—	—	—
120	**	—	—	—	—	—	—	—	—	—
Initials/ Date	DD 12/28/07	MJ 12/29/07	MJ 12/30/07	12/31	MJ 1/1/08	MJ 1/2/08	1/3/8	MJ 1/4/08	MJ 1/5/08	1/6/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
97	N	N	1em(f)	1Em(P)	N
98	—	—	—	—	—
99	1em(m)	1Em(m)	N	N	N
100	2em(fm) 1Em(P)	N	1em(f)	N	N
101	N	N	N	N	N
102	N	N	N	N	1Em(P) 1partEm(F)
103	—	—	—	—	—
104	—	—	—	—	—
105	1em(f)	1em(f)	N	N	N
106	—	—	—	—	—
107	1em(f)	N	N	N	1Em(P)
108	—	—	—	—	—
109	—	—	—	—	—
110	—	—	—	—	—
111	N	N	N	N	N
112	—	—	—	—	—
113	1Em(m)	1em(m)	1em(f)	N	1Em(P)
114	N	N	N	N	N
115	N	N	N	N	N
116	—	—	—	—	—
117	—	—	—	—	—
118	N	N	N	N	N
119	—	—	—	—	—
120	—	—	—	—	—
Initials/ Date	1/7/18	1/8/18	1/9/18	1/10/08	1/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
121	N	N	N	N	N	N	N	N	N	N	N
122	N										
123	N										
124	N										
125	N										
126	N										
127	N										
128	N										
129	N										
130	N										
131	N										
132	N										
133	N										
134	N										
135	N										
136	N										
137	N										
138	N										
139	N										
140	N										
141	N										
142	N										
143	N										
144	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	MM 12-7-07	MM 12/8/07	MM 12/9/07	MM 12/10/07	SM 12/11/7	SM 12/12/7	SM 12/13/7	SM 12/14/7	SM 12/15/7	SM 12/16/7	SM 12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
121	N	N	N	N	N	N	N	N	N	N
122	↓	↓	↓	↓	↓	↓	↑	1Em(m)	↓	↓
123	↓	↓	↓	↓	↓	↓	↓	N	↓	↓
124	↓	↓	↓	↓	↓	↓	↓	↓	1Em(m)	↓
125	↓	↓	↓	↓	↓	↓	↓	↓	N	↓
126	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
127	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
128	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
129	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
130	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
131	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
132	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
133	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
134	↓	↓	↓	↓	↓	↓	↓	↓	↓	1em (m)
135	↓	↓	↓	↓	↓	↓	↓	↓	↓	1em (m)
136	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
137	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
138	↓	↓	↓	↓	↓	↓	↓	↓	↓	1 em (m)
139	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
140	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
141	↓	↓	↓	↓	↓	↓	↓	↓	↓	~~N~~ 1Em(m)
142	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
143	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
144	↓	↓	↓	↓	↓	↓	↓	↓	↓	N
Initials/ Date	12/8/07	12/19/07	12/20/07	12/21/07	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
121	N	N	N	N	1em(F)	N	N	N	N	N
122	N	1prtem(m)	1prtem(m)	N	N	2em(m,F)	1em (m)	1em(F)	N	2em (mF)
123	1Em (F)	N	N	N	1em(m)	N	2em (m	1em(F)	1em(F)	N
124	* *	—	—	—	—	—	—	—	—	—
125	N	N	1em(m)	1 em (m)	1em(m)	N	1em (m) 1Em(m)	1em(m)	N	N
126	* *	—	—	—	—	—	—	—	—	—
127	1Em(m)	N	N	N	N	1em(m)	N	N	1em(F)	N
128	N	1em(m)	2em(m,F)	N	N	N	N	N	N	N
129	N	N	1em(F)	N	N	1em(F)	1 em (m)	N	N	1 em(F)
130	N	1em(m)	1em(F)	N	N	N	N	N	3em(2F 1m)	N
131	* *	—	—	—	—	—	—	—	—	—
132	* *	—	—	—	—	—	—	—	—	—
133	1Em (F)	N	N	N	1em(m)	N	N	N	N	1em(F)
134	N	1em(F)	N	N	N	N	1 em (m)	N	N	N
135	N	N	N	N	2em(m,F)	N	N	N	N	1em (m)
136	N	N	2s(p)	2em (m)	1em(m)	N	N	N	N	1em (F)
137	* *	—	—	—	—	—	—	—	—	—
138	* *	—	—	—	—	—	—	—	—	—
139	* *	—	—	—	—	—	—	—	—	—
140	* *	—	—	—	—	—	—	—	—	—
141	1Em(F)	N	N	1 em(F)	N	N	1 em (F)	N	N	3em(2m 1F)
142	N	N	N	N	1em(F)	2em(m,F)	1 em(m)	N	1em(m)	N
143	* *	—	—	—	—	—	—	—	—	—
144	N	N	1em(F)	N	1em(F)	1prtem(m)	2em (mF)	N	N	N
Initials/ Date	12/8/07	12/9/07	12/30/07	12/31	1/1/08	1/5/08	1/3/8	1/4/08	1/5/08	1/6/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
121	N	N	N	N	N
122	N	N	1em(m)	N	N
123	1em(f)	N	N	N	N
124	—	—	—	—	—
125	N	1em(f)	N	N	N
126	—	—	—	—	—
127	2em(m)	1em(m)	N	N	N
128	N	N	N	N	N
129	N	N	N	N	N
130	N	N	N	N	1Em(m)
131	—	—	—	—	—
132	—	—	—	—	—
133	N	N	N	N	N
134	N	N	N	1Em(f)	N
135	N	1em(m)	1em(f)	N	1Em(f)
136	1em(f)	2em(f)	N	N	N
137	—	—	—	—	—
138	—	—	—	—	—
139	—	—	—	—	—
140	—	—	—	—	—
141	N	N	N	N	N
142	N	1em(f)	N	N	N
143	—	—	—	—	—
144	N	1em(m)	1em(f)	N	N
Initials/ Date	11/7/8	11/8/8	11/9/8	11/10/08	11/11/08

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	0	1	2	3	4	5	6	7	8	9	10
145	N	N	N	N	N	N	N	N	N	N	N
146	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
147	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
148	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
149	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
150	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
151	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
152	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
153	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
154	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
155	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
156	N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Initials/ Date	12/7/07	12/8/07	12/9/07	12/10/07	12/11/7	12/12/7	12/13/7	12/14/7	12/15/7	12/16/7	12/17/07

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	11	12	13	14	15	16	17	18	19	20
145	N	N	N	N	N	N	N	N	N	N
146	↓	↓	↓	↓	↓	↓	↓	↓	N	N
147	↓	↓	↓	↓	↓	↓	↓	↓	1Em(m)	N
148	↓	↓	↓	↓	↓	↓	↓	↓	N	N
149	↓	↓	↓	↓	↓	↓	↓	↓	↓	1em(m)
150	↓	↓	↓	↓	↓	↓	↓	2Em(m,F)	↓	N
151	↓	↓	↓	1L(L)	↓	↓	↓	N	↓	1em(f)
152	↓	↓	↓	N	↓	↓	↓	↓	↓	N
153	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
154	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
155	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
156	↓	↓	↓	↓	↓	↓	↓	1Em(m)	1Em(m)	↓
Initials/ Date	12/18/07	12/19/07	12/20/07	12/21/07	12/22/07	12/23/07	12/24/07	12/25/07	12/26/07	12/27/7

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/3/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	21	22	23	24	25	26	27	28	29	30
145	N	N	N	N	N	N	N ~~1em(F)~~	1em(F)	1Em(F)	N
146	N	N	N	1em(F)	N	N	N	N	1Em(F)	N
147	N	N	N	1em(m)	N	3Em(m)	1em(m)	N	1Em(F)	N
148	N	N	N	N	N	N	N	N	N	N
149	1Em(m)	N	N	1em(F)	N	N	N	N	N	N
150	N	N	N	N	N	1em(F)	N	N	N	N
151	1Em(m)	N	N	N	N	1em(~~F~~)	N	N	N	N
152	N	N	1Em(F)	N ~~1em(m)~~	1em(m)	1em(m)	N	N	N	N
153	N	1em(m)	1Em(F)	N ~~1em(m)~~	1Em(m	N	N ~~2em~~	2Em(m,F)	N	1em(F)
154	N	N	N	N	1Em(m)	2Em(m)	N	1Em(F)	N	1em (m)
155	1Em(m)	1Em(m)	N	2em (F)	1Em(m)	1em(F)	2em (m)	N	N	U
156	N	N	1pr1Em(F)	N	N	N	N	N	N	N
Initials/ Date	12/8/07	12/29/07	12/30/07	12/31	1/1/08	1/2/08	1/3/08	1/4/08	1/5/08	1/6/8

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Obeservations Key: D= Dead Em= Emerged Es= Escaped S=Surface/ Swimming N= Nothing Unusual
F= Female L= Larvae M= Male P= Pupae

Day → Chamber ↓	31	32	33	34	35
145	N	N	1em(m)	N	1Em(m)
146	N	N	N	N	N
147	1em(f)	1em(f)	1em(m)	N	N
148	N	N	N	N	N
149	1em(f)	N	N	N	N
150	N	N	N	N	N
151	N	1em(f)	N	N	N
152	N	N	N	N	N
153	1em(f)	N	N	N	N
154	N	1em(f)	1em(f)	N	N
155	N	1em(f)	N	N	N
156	N	N	1em(f)	N	N
Initials/ Date	1/7/8	1/8/8	1/9/8	1/10/08	1/11/08

Aqua Survey, Inc.
Special Studies Department

Water Quality

Job #: 27-303 **Organism:** *C. tentans*

Client: ENSR **Round #3** **Test Start Date:** 12/7/07

Sample	ASI #	Day 0				Day 20			
		Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L
Control	20070963	78	76	288	<0.50	56	92	310	<0.50
STN 32	20070959	84	116	330	0.67	96	136	378	<0.50
STN 56	20070947	84	104	339	2.74	74	108	339	<0.50
STN 59	20070936	80	120	334	<0.50	62	102	324	<0.50
STN 82	20070944	84	104	344	5.31	88	128	364	<0.50
STN 85	20070958	76	100	348	5.66	80	116	349	<0.50
STN 87	20070957	68	104	332	3.44	76	118	352	<0.50
STN 94	20070960	72	100	335	3.37	78	118	345	<0.50
STN 97	20070954	96	104	362	6.88	90	132	374	<0.50
STN 100	20070938	92	112	346	1.85	84	124	360	<0.50
STN 28	20070948	88	116	336	<0.50	78	114	345	<0.50
STN 6	20070952	72	120	341	<0.50	108	148	394	<0.50
STN 18	20070950	88	116	343	2.95	80	112	340	<0.50
Initials/ Date		12/7/07	12/7/07	12/7/07	12/7/07	12/27/7	12/27		12/27/7

Sample	ASI #	Day 35				Day			
		Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity us/cm	NH_3 mg/L
Control	20070963	50	96	299	<0.50				
STN 32	20070959	88	124	356	<0.50				
STN 56	20070947	80	120	345	<0.50				
STN 59	20070936	60	100	316	<0.50				
STN 82	20070944	80	120	352	<0.50				
STN 85	20070958	80	118	349	<0.50				
STN 87	20070957	72	116	344	<0.50				
STN 94	20070960	86	116	344	<0.50				
STN 97	20070954	72	112	335	<0.50				
STN 100	20070938	76	112	336	<0.50				
STN 28	20070948	76	118	340	<0.50				
STN 6	20070952	84	132	371	<0.50				
STN 18	20070950	88	124	354	<0.50				
Initials/ Date		1/11/08	1/11/08	1/11/08	1/11/08				

3033CT0.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/07/07 08:42:16	22.80	288.0	6.58	7.83
1	12/07/07 08:43:27	22.93	330.0	6.65	7.60
2	12/07/07 08:44:39	22.91	339.0	6.36	7.60
3	12/07/07 08:45:01	22.98	334.0	6.56	7.61
4	12/07/07 08:45:19	22.95	344.0	6.39	7.60
5	12/07/07 08:45:38	23.00	348.0	6.59	7.57
6	12/07/07 08:46:06	22.96	332.0	6.50	7.54
7	12/07/07 08:46:47	23.00	335.0	6.31	7.47
8	12/07/07 08:47:12	23.02	362.0	6.35	7.46
9	12/07/07 08:48:41	23.04	346.0	5.62	7.49
10	12/07/07 08:49:47	23.08	336.0	5.48	7.50
11	12/07/07 08:50:04	23.09	341.0	5.81	7.50
12	12/07/07 08:50:24	23.14	343.0	6.23	7.50

Project #: 27-303 R3 Test type: ☐ ACUTE ☐ CHRONIC ☐ OTHER: _____ Date: 12/7/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: CT Day of Study: 0

OPERATIONAL RANGE:		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	____ to ____	☐	Red ☐
Dissolved Oxygen:	>4 0	7.2-5 ☑	Green ☑
pH:	7.3 to 8.3 ☐	6.0 to 9.0 ☑	

Actions taken:

See deviation summary sheet ☐

Initials: MA

3033CT1.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/08/07 09:31:53	22.33	4.98	7.24
1	12/08/07 09:33:37	22.35	5.23	7.36
2	12/08/07 09:35:46	22.49	4.81	7.41
3	12/08/07 09:36:20	22.39	5.82	7.47
4	12/08/07 09:37:24	22.25	4.82	7.37
5	12/08/07 09:38:15	22.53	5.07	7.35
6	12/08/07 09:39:13	22.57	4.80	7.31
7	12/08/07 09:40:32	22.61	4.04	7.21
8	12/08/07 09:41:56	22.60	4.89	7.39
9	12/08/07 09:42:53	22.75	4.48	7.38
10	12/08/07 09:43:47	22.84	4.55	7.35
11	12/08/07 09:45:07	22.71	4.55	7.38
12	12/08/07 09:45:54	22.67	4.16	7.32

Project #: 27303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/8/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 1

OPERATIONAL RANGE: Check if OK Meter Used:

Temperature: 22 to 24 ☑ Blue ☐

Salinity: _____ to _____ ☐ Red ☐

Dissolved Oxygen: ~~>4.0~~ >0.5mg/L ☑ Green ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken:

See deviation summary sheet ☐ Initials: _____

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3033CT2.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/09/07 09:23:15	22.52	4.16	7.17
1	12/09/07 09:25:19	22.49	4.22	7.26
2	12/09/07 09:27:56	22.63	4.07	7.34
3	12/09/07 09:29:00	22.72	4.41	7.39
4	12/09/07 09:31:23	22.45	4.02	7.33
5	12/09/07 09:33:02	22.74	4.23	7.33
6	12/09/07 09:34:35	22.67	4.37	7.32
7	12/09/07 09:36:37	23.02	4.02	7.32
8	12/09/07 09:37:51	23.19	4.45	7.39
9	12/09/07 09:39:18	23.27	4.44	7.38
10	12/09/07 09:40:54	23.17	4.46	7.45
11	12/09/07 09:42:04	23.11	4.10	7.39
12	12/09/07 10:35:16	23.14	4.08	7.73

Project #: 27-303 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: _____ Date: 12/9/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: C. tentans Day of Study: 2

OPERATIONAL RANGE:

		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	>4 ~~0~~ 2.5 mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑	☑	

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: _____

3033CT3.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/10/07 09:13:23	22.45	4.38	7.43
1	12/10/07 09:14:58	22.48	4.11	7.39
2	12/10/07 09:15:46	22.60	4.51	7.40
3	12/10/07 09:16:16	22.66	4.33	7.41
4	12/10/07 09:18:32	22.28	4.15	7.35
5	12/10/07 09:19:24	22.58	4.37	7.33
6	12/10/07 09:20:27	22.53	4.33	7.33
7	12/10/07 09:22:19	23.26	4.41	7.26
8	12/10/07 09:23:44	23.47	4.45	7.37
9	12/10/07 09:24:40	23.49	4.24	7.41
10	12/10/07 09:25:37	23.55	4.32	7.40
11	12/10/07 09:28:00	23.52	4.42	7.43
12	12/10/07 09:28:59	23.46	3.88	7.36

Project #: 27-303 R13 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/10/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 3

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: ML

3033CT4.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/11/07 09:04:18	22.72	3.23	7.42
1	12/11/07 09:05:54	22.72	3.59	7.44
2	12/11/07 09:07:02	22.61	3.79	7.44
3	12/11/07 09:08:10	22.91	3.45	7.44
4	12/11/07 09:10:37	22.50	3.72	7.42
5	12/11/07 09:11:57	22.57	4.12	7.39
6	12/11/07 09:13:21	22.28	4.13	7.40
7	12/11/07 09:15:06	23.39	3.79	7.34
8	12/11/07 09:16:26	23.64	4.28	7.43
9	12/11/07 09:17:29	23.88	3.67	7.40
10	12/11/07 09:18:01	23.82	3.77	7.38
11	12/11/07 09:19:47	23.46	4.57	7.49
12	12/11/07 09:21:05	23.61	3.74	7.39

Project #: 27-303 Rd 3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/11/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: CT Day of Study: 4

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☑ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: MH

3033CT5.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/12/07 0930 ~~01/01/00 00:18:06~~	22.99	2.87	7.41
1	01/01/00 00:19:25	23.22	2.44	7.40
2	01/01/00 00:20:49	23.27	2.73	7.39
3	01/01/00 00:22:21	23.31	2.53	7.38
4	01/01/00 00:25:32	22.94	2.71	7.33
5	01/01/00 00:26:57	23.08	2.85	7.33
6	01/01/00 00:28:28	23.23	3.26	7.32
7	01/01/00 00:31:22	23.80	2.66	7.29
8	01/01/00 00:32:25	23.92	3.32	7.38
9	01/01/00 00:34:05	24.09	2.12	7.34
10	01/01/00 00:35:05	24.09	2.65	7.33
11	01/01/00 00:37:37	23.89	2.97	7.40
12	01/01/00 00:38:49	24.04	2.40	7.32

Project #: 27-303 Rd 3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/12/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 5

OPERATIONAL RANGE: Check if OK Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☐ 22 – 24 °C Bath Temp lowered Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☐ > 2.5 mg/L Aeration Started Green ☒

pH: ☐ 7.3 to 8.3 ☐ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

Power failure to logger caused date/time to reset

See deviation summary sheet ☐ Initials: _____

Wed Dec 12 09:35:27 2007 Page 1 of 1

3033CT6.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/13/07 10:25:07	22.60	7.94	8.09
1	12/13/07 10:26:16	22.55	7.98	8.04
2	12/13/07 10:27:13	22.80	7.75	8.06
3	12/13/07 10:28:29	22.58	7.82	8.03
4	12/13/07 10:29:13	22.69	7.96	8.05
5	12/13/07 10:30:22	22.55	8.07	8.05
6	12/13/07 10:31:31	22.64	7.83	7.97
7	12/13/07 10:32:00	22.82	7.80	8.00
8	12/13/07 10:32:50	22.96	7.49	7.95
9	12/13/07 10:33:43	22.86	7.95	7.98
10	12/13/07 10:34:42	22.80	7.93	8.01
11	12/13/07 10:35:05	22.85	7.88	7.99
12	12/13/07 10:39:23	22.63	7.75	7.78

Project #: 27-303 Rd 3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/13/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: CT Day of Study: 6

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials:

3033CT7.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/14/07 10:26:19	22.60	309.0	7.85	8.04
1	12/14/07 10:27:20	22.93	352.0	8.04	8.00
2	12/14/07 10:27:39	22.98	343.0	7.90	8.02
3	12/14/07 10:27:54	23.00	321.0	7.86	8.02
4	12/14/07 10:28:11	23.04	326.0	7.82	8.01
5	12/14/07 10:28:29	23.08	333.0	7.83	8.01
6	12/14/07 10:28:49	23.12	325.0	7.88	7.98
7	12/14/07 10:29:10	22.79	328.0	7.91	7.98
8	12/14/07 10:29:28	22.87	322.0	7.88	7.95
9	12/14/07 10:29:48	22.90	326.0	7.86	7.93
10	12/14/07 10:30:12	23.02	326.0	7.84	7.93
11	12/14/07 10:30:32	23.05	336.0	7.85	7.92
12	12/14/07 10:30:55	23.12	321.0	7.88	7.92

Project #: 27-303 R07 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/14/7

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 7

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 1.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: MM

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/15/07 **Day of Study:** 8 **Recorded by:** AH

Chamber #	Temperature °C	Test Aeration Check
2	22.9	✓
7	23.0	✓
38	23.0	✓
35	23.1	✓
43	22.6	✓
59	22.9	✓
78	22.8	✓
88	22.7	✓
102	22.8	✓
107	22.9	✓
113	22.9	✓
149	22.8	✓
151	22.8	✓

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/16/07 **Day of Study:** 9 **Recorded by:** JP

Chamber #	Temperature °C	Test Aeration Check
2	22.6	✓
7	22.7	✓
38	22.7	✓
35	22.7	✓
43	22.7	✓
54	22.7	✓
78	22.6	✓
88	22.7	✓
102	22.7	✓
107	22.7	✓
113	22.7	✓
149	22.8	✓
151	22.8	✓

NOTES/ ADJUSTMENTS:

3033CT10.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/17/07 10:10:08	22.63	7.39	7.87
1	12/17/07 10:10:57	22.66	7.46	7.81
2	12/17/07 10:11:41	22.63	7.37	7.84
3	12/17/07 10:12:05	22.82	7.26	7.86
4	12/17/07 10:13:07	22.39	7.48	7.86
5	12/17/07 10:13:45	22.70	7.51	7.88
6	12/17/07 10:14:33	22.61	7.57	7.89
7	12/17/07 10:15:53	22.49	7.45	7.96
8	12/17/07 10:16:54	22.68	7.24	7.95
9	12/17/07 10:17:58	22.68	7.28	7.98
10	12/17/07 10:18:44	22.58	7.52	7.98
11	12/17/07 10:19:47	22.33	7.55	7.99
12	12/17/07 10:20:12	22.47	7.50	8.04
~~13~~	~~12/17/07 10:23:03~~	~~22.60~~	~~7.27~~	~~7.96~~

wrong file sys

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/17/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 10

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/18/07 **Day of Study:** 11 **Recorded by:** [signature]

Chamber #	Temperature °C	Test Aeration Check
2	22.8	✓
7	23.0	✓
38	22.9	✓
35	23.0	✓
43	22.8	✓
59	23.1	✓
78	22.7	✓
88	22.8	✓
102	22.9	✓
107	22.9	✓
113	23.0	✓
149	22.9	✓
151	22.9	✓

NOTES/ ADJUSTMENTS:

3033CT12.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/19/07 08:44:48	22.64	7.98	7.11
1	12/19/07 08:46:01	22.60	7.82	7.26
2	12/19/07 08:47:10	22.73	7.75	7.45
3	12/19/07 08:48:33	22.94	7.65	7.56
4	12/19/07 08:49:52	22.56	7.94	7.58
5	12/19/07 08:50:25	22.85	8.02	7.63
6	12/19/07 08:51:20	22.92	8.05	7.70
7	12/19/07 08:52:47	22.52	8.01	7.76
8	12/19/07 08:53:21	22.63	7.89	7.80
9	12/19/07 08:53:46	22.80	7.85	7.86
10	12/19/07 08:54:51	22.65	8.10	7.71
11	12/19/07 08:56:16	22.45	8.05	7.88
12	12/19/07 08:56:35	22.44	8.06	7.92

Project #: 27-303 RD3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/19/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 12

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: DK

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/20/07 **Day of Study:** 13 **Recorded by:** MA

Chamber #	Temperature °C	Test Aeration Check
2	22.9	✓
7	22.9	✓
38	23.2	✓
35	23.2	✓
43	23.0	✓
59	23.2	✓
78	23.1	✓
88	22.7	✓
102	22.8	✓
107	22.8	✓
113	22.8	✓
149	22.8	✓
151	22.8	✓

NOTES/ ADJUSTMENTS:

3033CT14.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	12/21/07 11:22:15	22.12	306.0	7.85	8.07
1	12/21/07 11:23:28	22.27	364.0	7.93	7.95
2	12/21/07 11:23:43	22.30	336.0	7.88	7.98
3	12/21/07 11:23:58	22.36	322.0	7.81	7.99
4	12/21/07 11:24:12	22.40	333.0	7.77	7.98
5	12/21/07 11:24:25	22.39	336.0	7.76	7.98
6	12/21/07 11:24:40	22.38	332.0	7.83	7.98
7	12/21/07 11:24:56	22.36	333.0	7.76	7.97
8	12/21/07 11:25:10	22.34	362.0	7.67	7.94
9	12/21/07 11:25:26	22.34	350.0	7.69	7.98
10	12/21/07 11:25:38	22.31	334.0	7.66	8.00
11	12/21/07 11:25:53	22.29	363.0	7.76	8.00
12	12/21/07 11:26:08	22.24	329.0	7.72	8.02

Project #: 27-303 Rd 3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/21/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 14

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.7 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

Fri Dec 21 11:54:59 2007

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/22/07 **Day of Study:** 15 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
2	22.71	✓
7	22.95	✓
38	22.72	✓
35	22.70	✓
43	22.57	✓
59	22.84	✓
78	22.80	✓
88	22.73	✓
102	22.60	✓
107	22.75	✓
113	22.72	✓
149	22.80	✓
~~155~~ 151	22.78	✓

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/23/07 **Day of Study:** 16 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
2	22.87	✓
7	22.85	✓
38	22.99	✓
35	22.95	✓
43	22.59	✓
59	22.98	✓
78	23.07	✓
88	22.69	✓
102	22.79	✓
107	22.96	✓
113	22.84	✓
149	22.85	✓
151	22.89	✓

NOTES/ ADJUSTMENTS:

3033CT17.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/24/07 08:45:15	22.62	7.62	7.92
1	12/24/07 08:46:16	22.81	7.75	7.86
2	12/24/07 08:47:04	22.86	7.52	7.90
3	12/24/07 08:47:52	23.03	7.48	7.89
4	12/24/07 08:48:54	22.55	7.65	7.91
5	12/24/07 08:49:25	22.79	7.69	7.97
6	12/24/07 08:50:09	22.76	7.73	8.02
7	12/24/07 08:51:14	22.30	7.72	8.03
8	12/24/07 08:51:45	22.35	7.67	8.05
9	12/24/07 08:52:38	22.54	7.57	8.00
10	12/24/07 08:53:18	22.61	7.74	8.06
11	12/24/07 08:54:17	22.51	7.71	8.13
12	12/24/07 08:54:45	22.50	7.69	8.22

Project #: 27-303 R13 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☐ OTHER: _____ Date: 12/24/7

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 17

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/25/07 **Day of Study:** 18 **Recorded by:** DH

Chamber #	Temperature °C	Test Aeration Check
2	23.12	↓
7	23.08	↓
38	23.10	↓
35	23.09	↓
43	23.16	↓
59	23.11	↓
78	23.09	↓
88	22.56	↓
102	22.50	↓
107	22.47	↓
113	22.60	↓
149	22.60	↓
151	22.65	↓

NOTES/ ADJUSTMENTS:

3033CT19.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/26/07 10:10:28	23.15	7.38	8.14
1	12/26/07 10:11:31	22.97	7.28	8.05
2	12/26/07 10:12:03	23.09	7.30	8.08
3	12/26/07 10:12:49	23.33	7.36	8.02
4	12/26/07 10:13:46	23.05	7.46	8.07
5	12/26/07 10:14:23	23.10	7.72	8.14
6	12/26/07 10:15:27	23.19	7.70	8.17
7	12/26/07 10:16:28	22.80	7.76	8.19
8	12/26/07 10:17:19	22.25	7.90	8.08
9	12/26/07 10:17:49	22.95	7.30	8.06
10	12/26/07 10:18:44	22.92	7.64	8.26
11	12/26/07 10:19:09	22.88	7.60	8.27
12	12/26/07 10:20:50	23.00	7.44	8.17

Project #: 07-303 Round # 3 Test type: ☐ ACUTE ☐ CHRONIC ☑ OTHER: 35 day Study Date: 12/26/07

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☑ Other: *C tentans* Day of Study: 19

OPERATIONAL RANGE:		Check if OK	Meter Used:
Temperature:	22 to 24	☑	Blue ☐
Salinity:	_____ to _____	☐	Red ☐
Dissolved Oxygen:	>4.0 2.5 mg/L	☑	Green ☑
pH:	7.3 to 8.3 ☐ 6.0 to 9.0 ☑		

Actions taken:

See deviation summary sheet ☐

Initials: MJ

3033CT20.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/27/07 09:26:13	22.79	310.0	0.15	7.20	7.87
1	12/27/07 09:30:14	22.70	378.0	0.18	6.81	8.00
2	12/27/07 09:34:13	22.63	339.0	0.16	7.11	7.98
3	12/27/07 09:36:04	22.65	324.0	0.15	7.28	7.97
4	12/27/07 09:46:34	22.55	364.0	0.17	7.00	8.08
5	12/27/07 09:48:48	22.34	349.0	0.17	7.26	8.06
6	12/27/07 09:50:25	22.53	352.0	0.17	7.29	8.07
7	12/27/07 09:50:49	22.77	345.0	0.16	7.23	8.02
8	12/27/07 09:51:06	22.78	374.0	0.18	7.23	8.00
9	12/27/07 09:51:32	22.82	360.0	0.17	7.32	8.06
10	12/27/07 09:52:03	22.92	345.0	0.16	7.46	8.10
11	12/27/07 09:52:28	22.84	394.0	0.19	7.54	8.13
12	12/27/07 09:52:48	22.81	340.0	0.16	7.46	8.17

Round 3

Project #: 07-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: _____ Date: 12/27/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 20

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >3.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: BDH

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/28/07 **Day of Study:** 21 **Recorded by:** DDT

Chamber #	Temperature °C	Test Aeration Check
2	22.53	√
7	22.59	√
38	22.64	√
35	22.79	√
43	22.41	√
59	22.68	√
78	22.51	√
88	22.56	√
102	22.57	√
107	22.57	√
113	22.66	√
149	22.52	√
151	22.51	√

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/29/07 **Day of Study:** 22 **Recorded by:** M

Chamber #	Temperature °C	Test Aeration Check
2	22.6	√
7	22.7	√
38	22.8	√
35	22.6	√
43	22.6	√
59	22.8	√
78	22.7	√
88	22.4	√
102	22.6	√
107	22.5	√
113	22.5	√
149	22.4	√
151	22.3	√

NOTES/ ADJUSTMENTS:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 12/30/07 **Day of Study:** 23 **Recorded by:** JM

Chamber #	Temperature °C	Test Aeration Check
2	22.6	√
7	22.7	√
38	22.8	√
35	22.8	√
43	22.6	√
59	22.8	√
78	22.7	√
88	22.3	√
102	22.5	√
107	22.5	√
113	22.5	√
149	22.3	√
151	22.3	√

NOTES/ ADJUSTMENTS:

* Increased temp of water bath heaters slightly JM

3033CT24.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/31/07 09:06:53	22.65	7.72	6.99
1	12/31/07 09:07:46	22.77	7.74	6.98
2	12/31/07 09:08:44	22.60	7.69	7.22
3	12/31/07 09:09:06	22.83	7.61	7.31
4	12/31/07 09:10:09	22.55	7.72	7.41
5	12/31/07 09:10:59	22.72	7.90	7.62
6	12/31/07 09:11:52	22.77	7.80	7.76
7	12/31/07 09:13:30	23.20	7.04	7.81
8	12/31/07 09:14:43	23.55	7.66	7.80
9	12/31/07 09:15:52	23.28	7.52	7.88
10	12/31/07 09:16:27	23.44	7.68	7.96
11	12/31/07 09:17:15	23.39	7.73	7.96
12	12/31/07 09:17:32	23.28	7.69	8.10

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: _____ Date: 12/31/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 24

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 1/1/08 **Day of Study:** 25 **Recorded by:** M

Chamber #	Temperature °C	Test Aeration Check
2	22.9	√
7	22.9	√
38	23.0	√
35	23.0	√
43	22.8	√
59	22.8	√
78	22.9	√
88	23.2	√
102	23.3	√
107	23.3	√
113	23.6	√
149	23.5	√
151	23.6	√

NOTES/ ADJUSTMENTS:

3033CT26.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	01/02/08 09:19:53	22.89	7.67	8.05
1	01/02/08 09:20:53	22.95	7.50	8.00
2	01/02/08 09:21:51	22.97	7.61	8.10
3	01/02/08 09:22:26	23.06	7.59	8.02
4	01/02/08 09:23:26	22.82	7.21	7.94
5	01/02/08 09:24:05	23.00	7.73	8.04
6	01/02/08 09:24:50	22.95	7.66	8.05
7	01/02/08 09:26:05	23.34	7.58	8.09
8	01/02/08 09:26:43	23.65	7.55	8.10
9	01/02/08 09:27:25	23.51	7.48	8.18
10	01/02/08 09:28:01	23.54	7.56	8.10
11	01/02/08 09:28:58	23.47	7.58	8.18
12	01/02/08 09:29:26	23.35	7.60	8.26

Project #: 27-303 Round #3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35day Study Date: 1/2/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 26

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ > 2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: _____

3033CT28.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/04/08 12:11:38	22.10	309.1	0.15	8.04	8.09
1	01/04/08 12:12:25	22.36	368.6	0.18	7.97	8.00
2	01/04/08 12:12:45	22.44	356.4	0.17	8.00	8.06
3	01/04/08 12:13:02	22.47	322.6	0.15	8.09	8.11
4	01/04/08 12:13:16	22.50	374.9	0.18	7.99	8.06
5	01/04/08 12:13:37	22.55	359.8	0.17	8.07	8.11
6	01/04/08 12:13:52	22.57	356.5	0.17	8.02	8.10
7	01/04/08 12:14:21	22.55	346.2	0.17	7.97	8.09
8	01/04/08 12:14:52	22.56	364.0	0.17	7.92	8.06
9	01/04/08 12:15:08	22.56	349.3	0.17	7.91	8.05
10	01/04/08 12:15:32	22.63	347.7	0.17	8.01	8.08
11	01/04/08 12:15:48	22.68	397.6	0.19	8.00	8.07
12	01/04/08 12:16:03	22.68	375.6	0.18	7.75	8.15

Project #: 27-303 Rand#3 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35 day Study Date: 1/4/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: _____ Day of Study: 28

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑ 1

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 1/5/08 **Day of Study:** 29 **Recorded by:** nf

Chamber #	Temperature °C	Test Aeration Check
2	22.9	√
7	22.9	√
38	22.8	√
35	22.9	√
43	22.5	√
59	22.9	√
78	22.9	√
88	23.4	√
102	23.5	√
107	23.6	√
113	23.6	√
149	23.5	√
151	23.4	√

NOTES/ ADJUSTMENTS:

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Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 1/6/08 **Day of Study:** 30 **Recorded by:** NA

Chamber #	Temperature °C	Test Aeration Check
2	22.5	✓
7	22.6	✓
38	22.8	✓
35	22.9	✓
43	22.7	✓
59	22.8	✓
78	22.8	✓
88	23.5	✓
102	23.5	✓
107	23.5	✓
113	23.6	✓
149	23.6	✓
151	23.5	✓

NOTES/ ADJUSTMENTS:

3033CT31.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	01/07/08 10:30:57	22.97	7.71	6.49
1	01/07/08 10:32:49	23.02	7.40	7.25
2	01/07/08 10:33:29	22.96	8.04	7.39
3	01/07/08 10:33:56	23.16	7.84	7.51
4	01/07/08 10:34:54	22.97	7.94	7.49
5	01/07/08 10:35:50	22.86	8.20	7.73
6	01/07/08 10:36:48	23.09	7.86	7.72
7	01/07/08 10:37:46	23.55	7.82	7.70
8	01/07/08 10:38:28	23.58	7.66	7.74
9	01/07/08 10:39:12	23.80	7.66	7.83
10	01/07/08 10:39:54	23.90	7.79	7.94
11	01/07/08 10:40:43	23.84	7.83	7.89
12	01/07/08 10:41:06	23.91	7.69	7.86

Project #: 27-303 R13 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: 35 Day Date: 1/7/8

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: CT Day of Study: 31

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒-> 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials:

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 1/8/08 **Day of Study:** 32 **Recorded by:** MA

Chamber #	Temperature °C	Test Aeration Check
2	23.3	✓
7	23.3	✓
38	23.2	✓
35	23.3	✓
43	23.1	✓
59	23.3	✓
78	23.3	✓
88	23.4	✓
102	23.5	✓
107	23.5	✓
113	23.6	✓
149	23.6	✓
151	23.6	✓

NOTES/ ADJUSTMENTS:

3033CT33.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	01/09/08 09:23:41	22.91	7.71	6.63
1	01/09/08 09:24:43	23.28	7.59	6.84
2	01/09/08 09:25:24	23.28	7.61	7.03
3	01/09/08 09:25:48	23.47	7.53	7.16
4	01/09/08 09:26:37	23.34	7.48	7.21
5	01/09/08 09:27:09	23.49	7.79	7.44
6	01/09/08 09:27:49	23.42	7.83	7.58
7	01/09/08 09:28:55	23.38	7.74	7.55
8	01/09/08 09:29:26	23.45	7.66	7.60
9	01/09/08 09:29:49	23.58	7.66	7.65
10	01/09/08 09:30:20	23.54	7.82	7.76
11	01/09/08 09:31:29	23.46	7.78	7.80
12	01/09/08 09:31:54	23.58	7.69	7.82

Project #: 27303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35 Day Date: 1/9/8

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: _____ Day of Study: 33

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

See deviation summary sheet ☐

Initials: _____

Aqua Survey, Inc.
Special Studies Department

Observations

Job #: 27-303 **Round #3** **Organism:** *C. tentans*

Client: ENSR **Initial # of Organisms:** 12 **Test Start Date:** 12/7/07

Date: 1/10/08 **Day of Study:** 34 **Recorded by:** [illegible]

Chamber #	Temperature °C	Test Aeration Check
2	22.67	√
7	22.67	√
38	22.64	√
35	22.68	√
43	22.48	√
59	22.70	√
78	22.40	√
88	23.11	√
102	23.16	√
107	23.05	√
113	22.95	√
149	23.04	√
151	23.05	√

NOTES/ ADJUSTMENTS:

3033CT35.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/11/08 10:55:22	23.13	299.0	0.14	7.32	6.92
1	01/11/08 10:57:28	23.07	356.0	0.17	7.36	7.33
2	01/11/08 10:59:11	23.29	345.0	0.16	7.36	7.55
3	01/11/08 11:01:26	23.36	316.0	0.15	7.17	7.56
4	01/11/08 11:03:12	23.41	352.0	0.17	7.33	7.71
5	01/11/08 11:06:48	23.52	349.0	0.17	7.40	7.82
6	01/11/08 11:07:03	23.56	344.0	0.16	7.45	7.86
7	01/11/08 11:11:11	23.14	344.0	0.16	6.89	7.85
8	01/11/08 11:12:25	23.30	335.0	0.16	7.26	7.85
9	01/11/08 11:13:40	23.35	336.0	0.16	7.26	7.87
10	01/11/08 11:14:57	23.25	340.0	0.16	7.39	7.94
11	01/11/08 11:16:22	23.25	371.0	0.18	7.08	7.90
12	01/11/08 11:16:46	23.24	354.0	0.17	7.47	8.01

Round #3

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: 35 day Date: 1/11/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 35

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]

Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 12/7/07

TEST JOB #: 27-303(3) CLIENT: ENSR

TEST LOCATION: IN- LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 2000+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (5) Carolina Dishes
2. RECEIVING LOG #: N/A
3 CULTURE LOG #: 27-0057
4. AGE/SIZE INFORMATION <24 hours old; HD:12/7/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: MH Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 12/7/07
   TIME: 1100
   BY: M
2. LIVESTOCK RECEIVING: DATE: 12/7/07
   TIME: 1100
   BY: M
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: M

REMARKS:

DeviceNum 1041055 - ExportDate 01_11_08 16_25_32

Series: Temperature (*C)

Logger Info	Information specific to the logger	
Model	HOBO Water Temp Pro [H20-001]	
Serial Number	1041055	
Memory Size (Bytes)	32768	
Deployment	11	
Series Info	Information about the data in the series	
Points Used	848	
First Point	12/07/07 08:41:58.0	
Last Point	01/11/08 15:41:58.0	
Duration	35 Days 07:00:00.0	
Stats	Calculated from the series	
Wrap Count	0	
Max Value	24.48	
Min Value	22.37	
Avg Value	23.30	
Launch Parameters		
Load Time	12/07/2007 13:41:57 GMT	12/07/2007 08:41:57 Local
Launch Time	12/07/2007 13:41:58 GMT	12/07/2007 08:41:58 Local
Logging Time	12/07/2007 13:41:58 GMT	12/07/2007 08:41:58 Local
Sampling Interval	3600	
Wrap	0 = (FALSE/OFF/OPEN/TYPE 0)	
Stealth Enable	0 = (FALSE/OFF/OPEN/TYPE 0)	
End of Data	0x686_00	
Wrap Count	0	
Description String	27-303 C.tentans round 3 bath 3	
Time Zone	GMT-300 Minutes TZ set on Launch	

DeviceNum 1041055 - ExportDate 01_11_08 16_25_37

Date,Time,Temperature (*C)
12/07/07,08:41:58.0,22.92
12/07/07,09:41:58.0,24.484
12/07/07,10:41:58.0,24.219
12/07/07,11:41:58.0,23.809
12/07/07,12:41:58.0,23.569
12/07/07,13:41:58.0,23.4
12/07/07,14:41:58.0,23.208
12/07/07,15:41:58.0,23.016
12/07/07,16:41:58.0,22.968
12/07/07,17:41:58.0,23.016
12/07/07,18:41:58.0,23.088
12/07/07,19:41:58.0,23.136
12/07/07,20:41:58.0,23.16
12/07/07,21:41:58.0,23.208
12/07/07,22:41:58.0,23.112
12/07/07,23:41:58.0,22.992
12/08/07,00:41:58.0,22.92
12/08/07,01:41:58.0,22.824
12/08/07,02:41:58.0,22.8
12/08/07,03:41:58.0,22.753
12/08/07,04:41:58.0,22.681
12/08/07,05:41:58.0,22.633
12/08/07,06:41:58.0,22.705
12/08/07,07:41:58.0,22.848
12/08/07,08:41:58.0,22.968
12/08/07,09:41:58.0,23.088
12/08/07,10:41:58.0,23.112
12/08/07,11:41:58.0,23.184
12/08/07,12:41:58.0,23.232
12/08/07,13:41:58.0,23.352
12/08/07,14:41:58.0,23.424
12/08/07,15:41:58.0,23.545
12/08/07,16:41:58.0,23.689
12/08/07,17:41:58.0,23.809
12/08/07,18:41:58.0,23.881
12/08/07,19:41:58.0,23.954
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12/09/07,04:41:58.0,22.92
12/09/07,05:41:58.0,22.848
12/09/07,06:41:58.0,22.896
12/09/07,07:41:58.0,23.016
12/09/07,08:41:58.0,23.112
12/09/07,09:41:58.0,23.136
12/09/07,10:41:58.0,23.256
12/09/07,11:41:58.0,23.016
12/09/07,12:41:58.0,23.016
12/09/07,13:41:58.0,23.016
12/09/07,14:41:58.0,23.088
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12/10/07,05:41:58.0,22.369
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12/10/07,08:41:58.0,22.824
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12/10/07,10:41:58.0,23.448
12/10/07,11:41:58.0,23.4
12/10/07,12:41:58.0,23.424
12/10/07,13:41:58.0,23.424
12/10/07,14:41:58.0,23.424
12/10/07,15:41:58.0,23.448
12/10/07,16:41:58.0,23.424
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12/10/07,19:41:58.0,23.472
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12/11/07,12:41:58.0,23.352
12/11/07,13:41:58.0,23.376
12/11/07,14:41:58.0,23.4
12/11/07,15:41:58.0,23.448
12/11/07,16:41:58.0,23.521
12/11/07,17:41:58.0,23.617
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12/11/07,20:41:58.0,23.713
12/11/07,21:41:58.0,23.713
12/11/07,22:41:58.0,23.497
12/11/07,23:41:58.0,23.376
12/12/07,00:41:58.0,23.304
12/12/07,01:41:58.0,23.232
12/12/07,02:41:58.0,23.184
12/12/07,03:41:58.0,23.208
12/12/07,04:41:58.0,23.136
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12/13/07,02:41:58.0,23.064
12/13/07,03:41:58.0,23.064
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12/14/07,13:41:58.0,23.593
12/14/07,14:41:58.0,23.617
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12/15/07,11:41:58.0,23.4
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12/15/07,17:41:58.0,23.641
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12/16/07,01:41:58.0,23.088
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12/17/07,00:41:58.0,22.992
12/17/07,01:41:58.0,22.896
12/17/07,02:41:58.0,22.776
12/17/07,03:41:58.0,22.681
12/17/07,04:41:58.0,22.609
12/17/07,05:41:58.0,22.753
12/17/07,06:41:58.0,22.896
12/17/07,07:41:58.0,22.968
12/17/07,08:41:58.0,23.016
12/17/07,09:41:58.0,23.088
12/17/07,10:41:58.0,23.16
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12/17/07,12:41:58.0,23.136
12/17/07,13:41:58.0,23.16
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12/17/07,15:41:58.0,23.28
12/17/07,16:41:58.0,23.328
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DeviceNum 1041055 - ExportDate 01_11_08 16_25_37

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```

DeviceNum 1041050 - ExportDate 01_11_08 16_24_26

Series: Temperature (*C)

Logger Info	Information specific to the logger
Model	HOBO Water Temp Pro [H20-001]
Serial Number	1041050
Memory Size (Bytes)	32768
Deployment	11
Series Info	Information about the data in the series
Points Used	848
First Point	12/07/07 08:43:48.0
Last Point	01/11/08 15:43:48.0
Duration	35 Days 07:00:00.0
Stats	Calculated from the series
Wrap Count	0
Max Value	24.63
Min Value	22.23
Avg Value	23.43
Launch Parameters	
Load Time	12/07/2007 13:43:46 GMT 12/07/2007 08:43:46 Local
Launch Time	12/07/2007 13:43:48 GMT 12/07/2007 08:43:48 Local
Logging Time	12/07/2007 13:43:48 GMT 12/07/2007 08:43:48 Local
Sampling Interval	3600
Wrap	0 = (FALSE/OFF/OPEN/TYPE 0)
Stealth Enable	0 = (FALSE/OFF/OPEN/TYPE 0)
End of Data	0x686_00
Wrap Count	0
Description String	27-303 C.tentans Round 3 Bath 6
Time Zone	GMT-300 Minutes TZ set on Launch

DeviceNum 1041050 - ExportDate 01_11_08 16_24_23

Date,Time,Temperature (*C)
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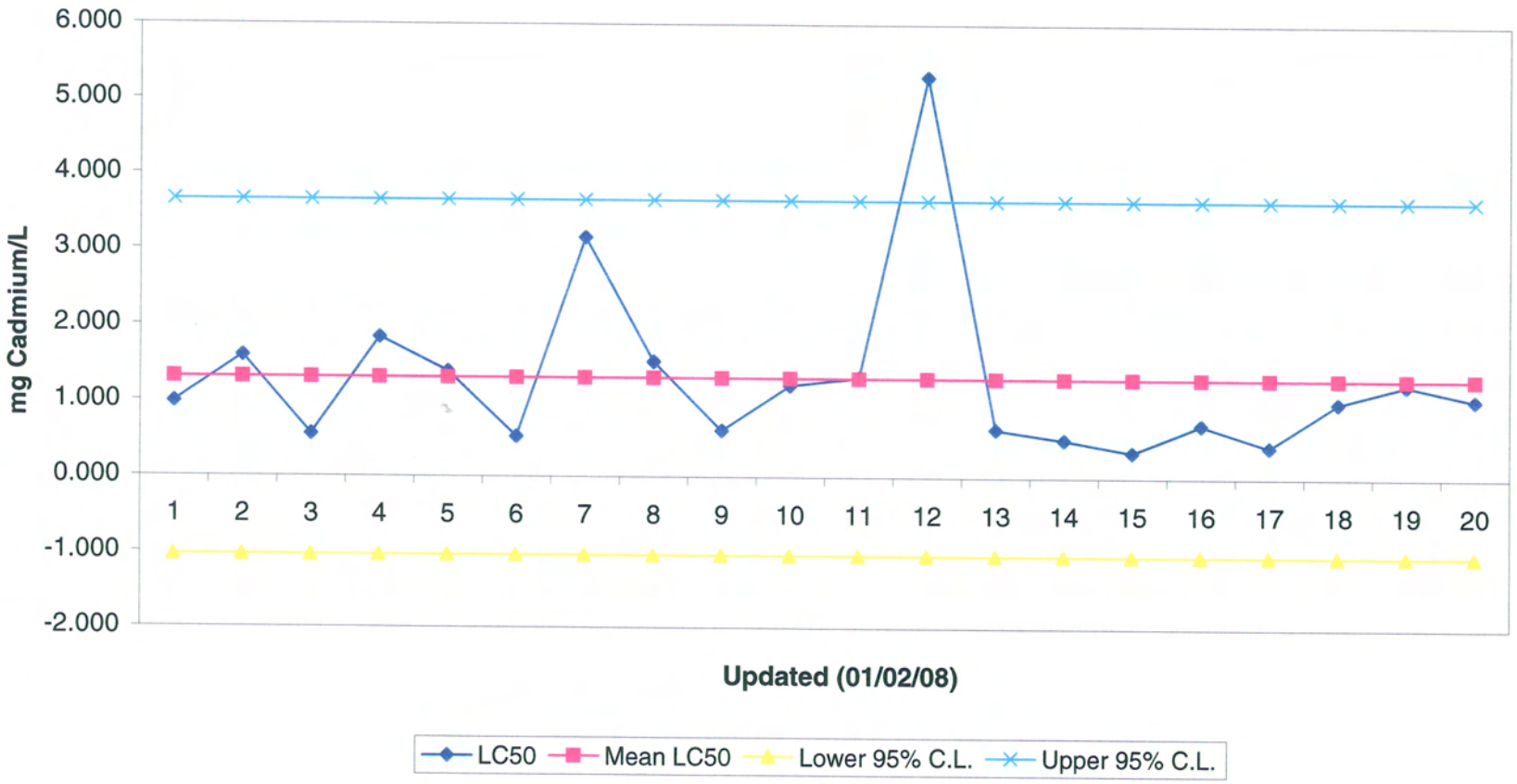
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Control Chart LC50 Values, Acute SRT With C. tentans



Test: AM-Acute Midge
Species: CT-Chironomous tentans
Sample ID: REF-Ref Toxicant
Start Date: 1/2/2008 End Date: 1/6/2008

Test ID: SRTct0108
Protocol: EPAA 02-EPA Acute
Sample Type: CDCL-Cadmium chloride
Lab ID: ASI-Aqua Survey Inc.

Pos	ID	Rep	Group	Inital Count	24 hrs	48 hrs	72 hrs	96 hrs	Notes
	1	1	Control	1				1	
	2	2	Control	1				0	
	3	3	Control	1				1	
	4	4	Control	1				1	
	5	5	Control	1				0	
	6	6	Control	1				1	
	7	7	Control	1				1	
	8	8	Control	1				1	
	9	9	Control	1				1	
	10	10	Control	1				1	
	11	1	0.2	1				1	
	12	2	0.2	1				1	
	13	3	0.2	1				0	
	14	4	0.2	1				1	
	15	5	0.2	1				1	
	16	6	0.2	1				1	
	17	7	0.2	1				1	
	18	8	0.2	1				0	
	19	9	0.2	1				1	
	20	10	0.2	1				1	
	21	1	0.6	1				1	
	22	2	0.6	1				0	
	23	3	0.6	1				1	
	24	4	0.6	1				1	
	25	5	0.6	1				0	
	26	6	0.6	1				1	
	27	7	0.6	1				1	
	28	8	0.6	1				0	
	29	9	0.6	1				0	
	30	10	0.6	1				1	
	31	1	1.6	1				1	
	32	2	1.6	1				0	
	33	3	1.6	1				0	
	34	4	1.6	1				0	
	35	5	1.6	1				0	
	36	6	1.6	1				0	
	37	7	1.6	1				1	
	38	8	1.6	1				0	
	39	9	1.6	1				0	
	40	10	1.6	1				1	
	41	1	5.0	1				0	
	42	2	5.0	1				0	
	43	3	5.0	1				0	
	44	4	5.0	1				0	
	45	5	5.0	1				0	
	46	6	5.0	1				1	
	47	7	5.0	1				0	
	48	8	5.0	1				0	
	49	9	5.0	1				0	
	50	10	5.0	1				0	
	51	1	15.0	1				0	
	52	2	15.0	1				0	
	53	3	15.0	1				0	

Test: AM-Acute Midge						Test ID: SRTct0108			
Species: CT-Chironomous tentans						Protocol: EPAA 02-EPA Acute			
Sample ID: REF-Ref Toxicant						Sample Type: CDCL-Cadmium chloride			
Start Date: 1/2/2008			End Date: 1/6/2008			Lab ID: ASI-Aqua Survey Inc.			
Pos	ID	Rep	Group	Inital Count	24 hrs	48 hrs	72 hrs	96 hrs	Notes
	54	4	15.0	1				0	
	55	5	15.0	1				0	
	56	6	15.0	1				0	
	57	7	15.0	1				0	
	58	8	15.0	1				0	
	59	9	15.0	1				0	
	60	10	15.0	1				0	

Comments:

Acute Midge-96 Hr Survival

Start Date:	1/2/2008	Test ID: SRTct0108	Sample ID: REF-Ref Toxicant
End Date:	1/6/2008	Lab ID: ASI-Aqua Survey Inc.	Sample Type: CDCL-Cadmium chloride
Sample Date:		Protocol: EPAA 02-EPA Acute	Test Species: CT-Chironomous tentans
Comments:			

Conc-mg/L	1	2	3	4	5	6	7	8	9	10
Control	1.0000	0.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.2	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
0.6	0.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000
1.6	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	1.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

			Transform: Arcsin Square Root					Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
Control	0.8000	1.0000	0.9425	0.5236	1.0472	23.424	10	2	10
0.2	0.8000	1.0000	0.9425	0.5236	1.0472	23.424	10	2	10
0.6	0.6000	0.7500	0.8378	0.5236	1.0472	32.275	10	4	10
1.6	0.2000	0.2500	0.6283	0.5236	1.0472	35.136	10	8	10
5	0.1000	0.1250	0.5760	0.5236	1.0472	28.748	10	9	10
15	0.0000	0.0000	0.5236	0.5236	0.5236	0.000	10	10	10

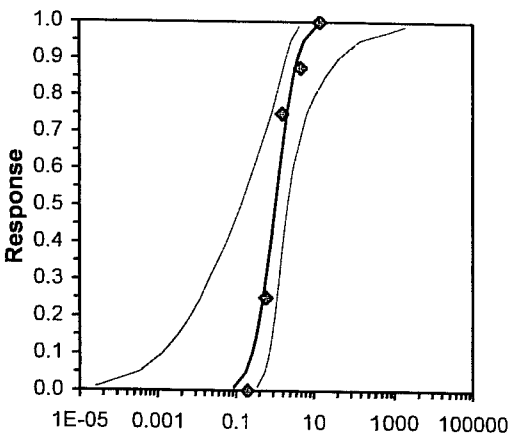
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.9233	0.93	-0.2277	0.03611
Bartlett's Test indicates equal variances (p = 0.74)	1.99925	13.2767		

Maximum Likelihood-Probit

Parameter	Value	SE	95% Fiducial Limits	
Slope	2.15939	0.79585	0.59952	3.71926
Intercept	4.96527	0.38208	4.21638	5.71415
TSCR	0.17867	0.10781	-0.0326	0.38997

Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter
0.2	0.78627	7.81473	0.85	0.01608	0.46309	3

Point	Probits	mg/L	95% Fiducial Limits	
EC01	2.674	0.08685	2.6E-05	0.35523
EC05	3.355	0.17962	0.00034	0.56093
EC10	3.718	0.26461	0.00133	0.72265
EC15	3.964	0.34365	0.00332	0.86304
EC20	4.158	0.423	0.00684	0.99944
EC25	4.326	0.50551	0.01264	1.13985
EC40	4.747	0.79207	0.05717	1.64918
EC50	5.000	1.03773	0.13506	2.16071
EC60	5.253	1.35959	0.29731	3.03826
EC75	5.674	2.13028	0.8364	7.06516
EC80	5.842	2.54586	1.12385	11.0801
EC85	6.036	3.13365	1.48419	20.0029
EC90	6.282	4.06971	1.96619	45.0525
EC95	6.645	5.99524	2.75729	162.382
EC99	7.326	12.3995	4.66514	2005.08



Reviewed by:

D-333

Standard Reference Toxicant
Live Counts

For Job #: 27-303 Start Date: 1/2/08 End Date: 1/6/08

Organism: C. tentans/H. azteca Organism Log #: 07-0062 Starting Time: 1430

Dose	Initial	1	2	3	4	Dose	Initial	1	2	3	4
Con A	✓	✓	✓	✓	✓	1.6 A	✓	X	–	–	–
B	✓	X	–	–	–	B	✓	✓	✓	✓	X
C	✓	✓	✓	✓	✓	C	✓	✓	✓	X	–
D	✓	✓	✓	✓	✓	D	✓	X	–	–	–
E	✓	✓	X	–	–	E	✓	X	–	–	–
F	✓	✓	✓	✓	✓	F	✓	✓	✓	✓	✓
G	✓	✓	✓	✓	✓	G	✓	✓	X	–	–
H	✓	✓	✓	✓	✓	H	✓	X	–	–	–
I	✓	✓	✓	✓	✓	I	✓	✓	✓	✓	✓
J	✓	✓	✓	✓	✓	J	✓	✓	✓	✓	X
0.2 A	✓	✓	✓	✓	✓	5 A	✓	X	–	–	–
B	✓	X	–	–	–	B	✓	X	–	–	–
C	✓	✓	✓	✓	✓	C	✓	✓	✓	X	–
D	✓	✓	✓	✓	✓	D	✓	X	–	–	–
E	✓	✓	✓	✓	✓	E	✓	✓	✓	✓	✓
F	✓	✓	✓	✓	✓	F	✓	X	–	–	–
G	✓	✓	X	–	–	G	✓	✓	✓	✓	X
H	✓	✓	✓	✓	✓	H	✓	✓	✓	X	–
I	✓	✓	✓	✓	✓	I	✓	X	–	–	–
J	✓	✓	✓	✓	✓	J	✓	✓	X	–	–
0.6 A	✓	X	–	–	–	15 A	✓	✓	X	–	–
B	✓	✓	✓	✓	✓	B	✓	✓	X	–	–
C	✓	✓	✓	✓	✓	C	✓	✓	✓	X	–
D	✓	✓	X	–	–	D	✓	X	–	–	–
E	✓	✓	✓	✓	✓	E	✓	X	–	–	–
F	✓	✓	✓	✓	✓	F	✓	X	–	–	–
G	✓	✓	X	–	–	G	✓	X	–	–	–
H	✓	✓	✓	X	–	H	✓	X	–	–	–
I	✓	✓	✓	✓	✓	I	✓	X	–	–	–
J	✓	✓	✓	✓	✓	J	✓	X	–	–	–
Initial	KDB	KDB	KDB	MJ	SM		KDB	KDB	KDB	MJ	SM
Date	1/2/08	1/3/08	1/4/08	1/6/08	1/6/08		1/2/08	1/3/08	1/4/08	1/6/08	1/6/08

Prep Sheet for Freshwater SRTs

Chironomus tentans/ Hyalella azteca

10 replicates per concentration
20 mL per replicate
1 organism per replicate

Working Stock Solution

Add 0.064 grams of Cadmium chloride to 100 mL **DI water.**
This will give you a 320 mg Cadmium/ L stock solution.

Hyalella azteca

Add **1 mL** of the working stock solution to 1L of **Well water.**
This will give you a 32 µg Cadmium/ L stock solution.

Concentration (µg/ L)	Stock (mL)	Total (mL)
0	0	250
4	3.125	250
8	6.25	250
16	12.5	250
32	25	250
64	50	250

Chironomus tentans

Add **100 mL** of the working stock solution to 1L of **Recon.**
This will give you a 32 mg Cadmium/ L stock solution.

Concentration (mg/ L)	Stock (mL)	Total (mL)
0	0	250
0.2	1.6	250
0.6	4.7	250
1.6	12.5	250
5	39	250
15	117	250

H. azteca requires a small piece of nitex screen in each cup; feed each cup2-3 drops YCT
C. tentans feed each cup 2-3 drops slurry

Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 1/2/08

TEST JOB #: SRT CLIENT: In House

TEST LOCATION: IN-LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 60+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (2) Carolina dishes
2. RECEIVING LOG #: N/A
3. CULTURE LOG #: ~~28~~ 27 0062
4. AGE/SIZE INFORMATION 10 days old; HD:12/23/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: Moderately Hard Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 1/2/08
   TIME: 1400
   BY: MA
2. LIVESTOCK RECEIVING: DATE: 1/2/08
   TIME: 1400
   BY: [illegible]
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: MA

REMARKS:

SRT4CT0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/02/08 13:53:01	23.01	297.0	0.14	8.04	7.53
1	01/02/08 13:54:31	23.16	300.0	0.14	8.11	7.71
2	01/02/08 13:55:42	23.27	300.0	0.14	8.16	7.75
3	01/02/08 13:57:15	23.26	302.0	0.14	8.05	7.76
4	01/02/08 13:58:26	23.33	308.0	0.15	8.16	7.75
5	01/02/08 13:59:40	23.26	326.0	0.16	7.75	7.59

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 1/2/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C tentans Day of Study: 0 hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: RDZ

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SRT4CT24.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/03/08 15:03:25	23.73	0.0	0.00	8.01	8.03
1	01/03/08 15:04:45	23.94	0.0	0.00	7.62	7.91
2	01/03/08 15:05:00	24.00	0.0	0.00	7.66	7.94
3	01/03/08 15:05:35	23.94	0.0	0.00	7.74	7.98
4	01/03/08 15:06:04	23.93	0.0	0.00	7.71	7.93
5	01/03/08 15:06:33	23.95	0.0	0.00	7.68	7.87

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 1/3/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 24hr

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

_____

_____

☐ See deviation summary sheet

Initials: [illegible]

SRT4CT48.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	01/04/08 14:56:26	23.74	0.0	0.00	8.37	8.04
1	01/04/08 14:57:36	23.79	0.0	0.00	8.74	8.09
2	01/04/08 14:57:50	23.83	0.0	0.00	8.54	8.07
3	01/04/08 14:58:09	23.86	0.0	0.00	8.52	8.10
4	01/04/08 14:58:28	23.88	0.0	0.00	8.53	8.06
5	01/04/08 14:58:50	23.90	0.0	0.00	8.66	8.03

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 1/4/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C tentans Day of Study: 48 hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☑

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Initials: PPP

SRT4CT72.DAT

	DateTime	Temp	SpCond	DO Conc	pH
	M/D/Y	C	uS/cm	mg/L	
0	01/05/08 13:39:58	23.78	0.0	7.64	8.06
1	01/05/08 13:41:03	23.88	0.0	7.85	8.11
2	01/05/08 13:41:44	23.86	0.0	7.78	8.09
3	01/05/08 13:41:53	23.92	0.0	7.69	8.09
4	01/05/08 13:42:03	23.98	0.0	7.72	8.10
5	01/05/08 13:42:17	23.96	0.0	7.72	8.11

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 1/5/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: C. tentans Day of Study: 72 hrs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☑

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☐

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

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D-340

SRT4CT96.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	01/06/08 13:47:51	22.77	7.94	8.10
1	01/06/08 13:48:40	23.12	7.82	8.10
2	01/06/08 13:48:57	23.07	7.86	8.08
3	01/06/08 13:49:13	23.14	7.94	8.08
4	01/06/08 13:49:29	22.97	7.92	8.10

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: Acute Date: 1/6/08

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☒ OTHER: C tentans Day of Study: 96hr

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☒

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☐

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ ____ to ____

Actions taken:

See deviation summary sheet ☐

Mon Mar 03 09:49:27 2008

Initials

* This srt failed due to control mortality. NO explanation could be determined. KF 2/29/08

Prep Sheet for Freshwater SRTs

Chironomus tentans/ Hyalella azteca

10 replicates per concentration
20 mL per replicate
1 organism per replicate

Working Stock Solution

Add 0.064 grams of Cadmium chloride to 100 mL **DI water**.
This will give you a 320 mg Cadmium/ L stock solution.

Hyalella azteca

Add **1 mL** of the working stock solution to 1L of **Well water**.
This will give you a 32 µg Cadmium/ L stock solution.

Concentration (µg/ L)	Stock (mL)	Total (mL)
0	0	250
4	3.125	250
8	6.25	250
16	12.5	250
32	25	250
64	50	250

Chironomus tentans

Add **100 mL** of the working stock solution to 1L of **Recon**.
This will give you a 32 mg Cadmium/ L stock solution.

Concentration (mg/ L)	Stock (mL)	Total (mL)
0	0	250
0.2	1.6	250
0.6	4.7	250
1.6	12.5	250
5	39	250
15	117	250

H. azteca requires a small piece of nitex screen in each cup; feed each cup2-3 drops YCT
C. tentans feed each cup 2-3 drops slurry

Standard Reference Toxicant
Live Counts

For Job #: 27-303 Round #3 Start Date: 12/17/07 End Date: _____

Organism C. tentans/H. azteca Organism Log #: 27-0057 Starting Time: 1500

Dose	Initial	1	2	3	4	Dose	Initial	1	2	3	4
0 A	√	√				1.6 A	√	X	–	–	–
B	√	X	–	–	–	B	√	X	–	–	–
C	√	√				C	√	X	–	–	–
D	√	X	–	–	–	D	√	X	–	–	–
E	√	√				E	√	X	–	–	–
F	√	√				F	√	X	–	–	–
G	√	√				G	√	X	–	–	–
H	√	√				H	√	X	–	–	–
I	√	√				I	√	X	–	–	–
J	√	X	–	–	–	J	√	X	–	–	–
0.2 A	√	√				5 A	√	X	–	–	–
B	√	X	–	–	–	B	√	√			
C	√	√				C	√	X	–	–	–
D	√	√				D	√	X	–	–	–
E	√	X	–	–	–	E	√	X	–	–	–
F	√	X	–	–	–	F	√	X	–	–	–
G	√	X	–	–	–	G	√	X	–	–	–
H	√	X	–	–	–	H	√	X	–	–	–
I	√	X	–	–	–	I	√	X	–	–	–
J	√	√				J	√	X	–	–	–
0.6 A	√	X	–	–	–	15 A	√	X	–	–	–
B	√	X	–	–	–	B	√	X	–	–	–
C	√	X	–	–	–	C	√	X	–	–	–
D	√	X	–	–	–	D	√	X	–	–	–
E	√	X	–	–	–	E	√	X	–	–	–
F	√	√				F	√	X	–	–	–
G	√	X	–	–	–	G	√	X	–	–	–
H	√	√				H	√	X	–	–	–
I	√	√				I	√	X	–	–	–
J	√	√				J	√	X	–	–	–
Initial	KDJ	KDJ					KDJ	KDJ			
Date	12/17/07	12/18/07					12/17/07	12/18/07			

Aqua Survey, Inc.

CULTURE ORGANISM DISTRIBUTION FORM

DATE: 12/17/07

TEST JOB #: SRT CLIENT: In House

TEST LOCATION: IN- LAB [X] FIELD [ ]

TEST SPECIES: *C. tentans*

TOTAL NUMBER OF ORGANISMS TRANSFERRED: 60+

AQUA SURVEY, INC. CULUTRE LAB INVESTIGATORS: MAT

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: (2) Carolina dishes
2. RECEIVING LOG #: N/A
3 CULTURE LOG #: 27-0057
4. AGE/SIZE INFORMATION 10 days old; HD:12/27/07

B. WATER PARAMETERS: HOLDING [X] CULTURE [ ]

1. TEMPERATURE: 23.0°C
2. SALINITY: N/A
3. WATER SOURCE: Moderately Hard Recon

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT: DATE: 12/17/07
   TIME: 1400
   BY:
2. LIVESTOCK RECEIVING: DATE: 12/17/07
   TIME: 1400
   BY:
3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS:

REMARKS:

SRT3CT0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	12/17/07 14:39:57	22.21	298.0	0.14	7.24	8.17
1	12/17/07 14:40:32	22.37	275.0	0.13	7.33	8.20
2	12/17/07 14:40:57	22.57	293.0	0.14	7.18	8.17
3	12/17/07 14:41:20	22.60	295.0	0.14	7.26	8.18
4	12/17/07 14:41:49	22.69	300.0	0.14	7.34	8.13
5	12/17/07 14:42:13	22.57	305.0	0.15	7.54	7.95

Project #: SRT Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☑ OTHER: Acute Date: 12/17/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☑ OTHER: Cfentans Day of Study: Ohs

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☑ 22 – 24 °C

Blue ☑

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☐ _____ – _____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☑ >2.5 mg/L

Green ☐

pH: ☐ 7.3 to 8.3 ☑ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials:

SRT3CT24.DAT

	DateTime	Temp	DO Conc	pH
	M/D/Y	C	mg/L	
0	12/18/07 13:21:57	23.52	8.03	8.02
1	12/18/07 13:22:37	23.56	7.93	8.02
2	12/18/07 13:23:00	23.56	8.00	8.02
3	12/18/07 13:23:15	23.57	8.01	8.01
4	12/18/07 13:23:29	23.52	8.02	7.96
5	12/18/07 13:23:42	23.51	8.06	7.91

Project #: 27-303 Test type: ☐ Bioaccumulation ☐ Solid Phase ☐ SPP ☒ OTHER: SRT Date: 12/18/07

Species: ☐ *A. abdita* ☐ *M. bahia* ☐ *M. beryllina* ☐ *M. nasuta* ☐ *N. virens* ☐ OTHER: _____ Day of Study: 24h

OPERATIONAL RANGE: Check if OK

Meter Used:

Temperature: ☐ 12 –14 °C ☐ 18 –22 °C ☒ 22 – 24 °C

Blue ☐

Salinity: ☐ 26 –30 ppt ☐ 28 –32 ppt ☒ ____ – ____ ppt

Red ☐

Dissolved Oxygen: ☐ >4.0 mg/L ☒ > 2.5 mg/L

Green ☒

pH: ☐ 7.3 to 8.3 ☒ 6.0 to 9.0 ☐ _____ to _____

Actions taken:

See deviation summary sheet ☐

Initials: [illegible]