AR TARGET SHEET

The following document was too large to scan as one unit, therefore, it has been broken down into sections.

EDMC#: 0069511
SECTION: 2 OF 2

DOCUMENT #: F1239

TITLE: Data Package

CETIS Test Summary

Report Date: 03 Apr-06 11:49 AM
Test Link: 05-8367-4848/B153809hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	14-6106-2643	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	06-1149-3769	**Code:**	B1538-09	**Client:**	
Sample Date:	12 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	14 Feb-06	**Source:**	Hanford		
Sample Age:	19d 0h	**Station:**			

Comments: J116M4

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
12-1261-1481	28d Mean Dry Weight	< 100	100	N/A	19.51%	Equal Variance t Two-Sample
10-1107-2830	28d Proportion Survived	< 100	100	N/A	23.53%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
10-1107-2830	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		4	0.10119	0.08143	0.12667	0.00960	0.01920	18.97%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.38000	0.00000	0.70000	0.12410	0.27749	73.02%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.08143	0.10333	0.12667	0.09333	

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.70000	0.60000	0.30000	0.00000	0.30000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	05-8367-4848	05-8367-4848	03 Apr-06 11:49 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	23.53%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	4.13561	1.85955	0.0016	0.29083	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	1.045862	1.045862	1	17.10	0.00327	Significant Effect
Error	0.4891987	0.06115	8			
Total	1.53506076	1.1070119	9			

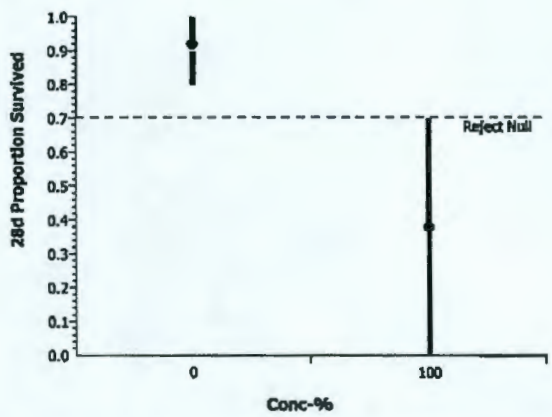
ANOVA Assumptions

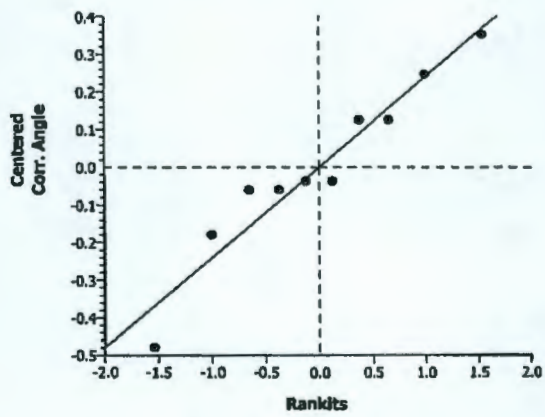
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	6.35869	23.15450	0.10076	Equal Variances
Distribution	Shapiro-Wilk W	0.94567		0.61769	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.38000	0.00000	0.70000	0.27749	0.63906	0.15878	0.99116	0.32508

Graphics





CETIS Analysis Detail

Hyaltela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	05-8367-4848	05-8367-4848	03 Apr-06 11:49 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	19.51%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	3.36899	1.89458	0.0060	0.03022	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0064171	0.006417	1	11.35	0.01194	Significant Effect
Error	0.0039576	0.000565	7			
Total	0.01037476	0.0069825	8			

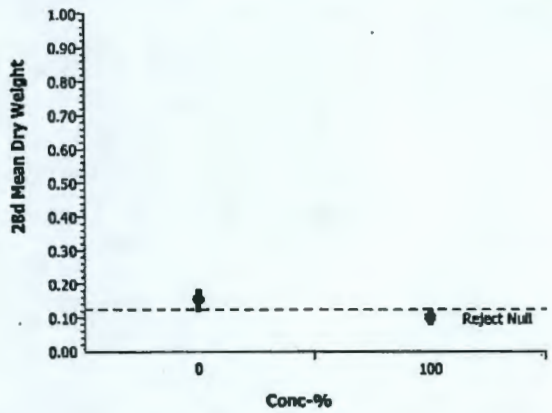
ANOVA Assumptions

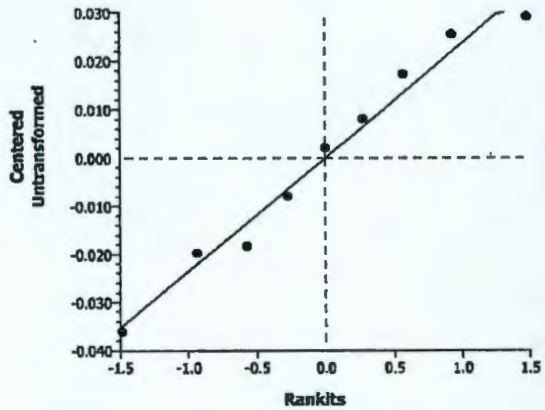
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.93401	46.19462	0.61473	Equal Variances
Distribution	Shapiro-Wilk W	0.96007		0.79906	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		4	0.10119	0.08143	0.12667	0.01920				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 11:50 AM
Test Link: 05-7535-5514/B153810hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	16-7955-2605	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	14-8361-9179	**Code:**	B1538-10	**Client:**	
Sample Date:	09 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	14 Feb-06	**Source:**	Hanford		
Sample Age:	22d 0h	**Station:**			

Comments: J116N0

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
00-9983-6726	28d Mean Dry Weight	100	> 100	N/A	16.45%	Equal Variance t Two-Sample
12-5209-7390	28d Proportion Survived	100	> 100	N/A	23.12%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
12-5209-7390	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.19945	0.18000	0.22000	0.00673	0.01505	7.55%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.84000	0.40000	1.00000	0.11662	0.26077	31.04%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.19100	0.22000	0.18000	0.20500	0.20125

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		1.00000	1.00000	0.40000	1.00000	0.80000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	05-7535-5514	05-7535-5514	03 Apr-06 11:50 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	23.12%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.5207	1.85955	0.3083	0.28667	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0161087	0.016109	1	0.27	0.61668	Non-Significant Effect
Error	0.4753113	0.059414	8			
Total	0.49141999	0.0755226	9			

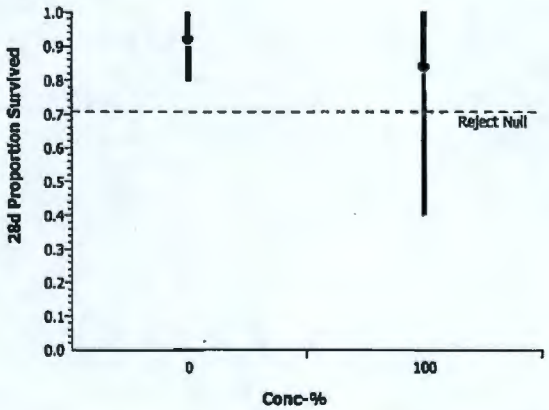
ANOVA Assumptions

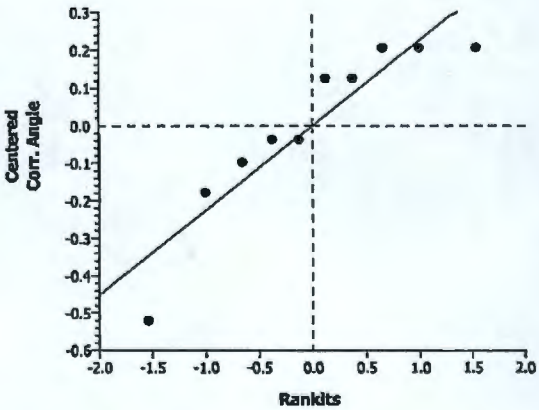
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	6.14979	23.15450	0.10643	Equal Variances
Distribution	Shapiro-Wilk W	0.85062		0.05908	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.84000	0.40000	1.00000	0.26077	1.20558	0.68472	1.41202	0.31970

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	05-7535-5514	05-7535-5514	03 Apr-06 11:50 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	16.45%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-3.2481	1.85955	0.9941	0.02549	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0049556	0.004956	1	10.55	0.01174	Significant Effect
Error	0.0037578	0.00047	8			
Total	0.00871337	0.0054253	9			

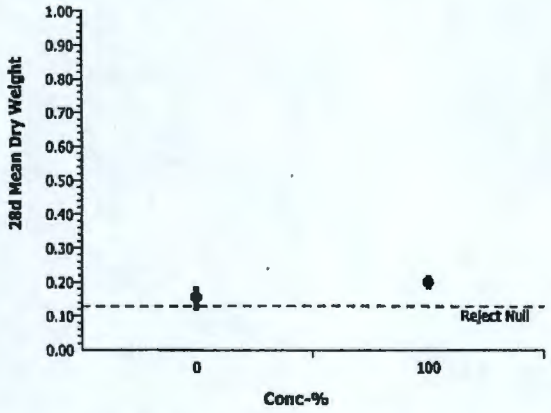
ANOVA Assumptions

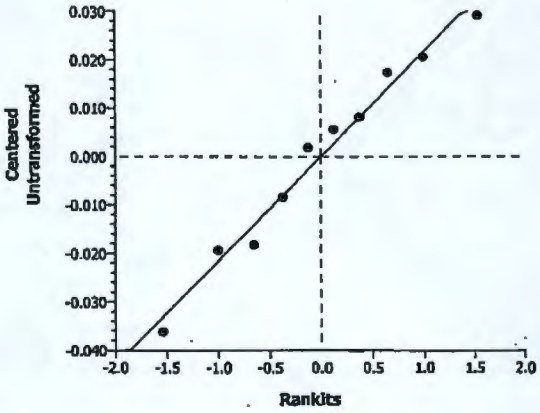
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.14745	23.15450	0.29274	Equal Variances
Distribution	Shapiro-Wilk W	0.97063		0.89665	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.19945	0.18000	0.22000	0.01505				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 11:51 AM
Test Link: 18-0960-7012/B153811hac

Hyalella 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	10-9096-9911	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	05-7554-7110	**Code:**	B1538-11	**Client:**	
Sample Date:	09 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	14 Feb-06	**Source:**	Hanford		
Sample Age:	22d 0h	**Station:**			

Comments: J11731

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
13-5229-7724	28d Mean Dry Weight	100	> 100	N/A	24.75%	Equal Variance t Two-Sample
05-1177-2137	28d Proportion Survived	100	> 100	N/A	11.96%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
05-1177-2137	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.20325	0.14800	0.25200	0.01681	0.03758	18.49%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.90000	0.80000	1.00000	0.04472	0.10000	11.11%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.21250	0.21000	0.19375	0.25200	0.14800

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.80000	0.90000	0.80000	1.00000	1.00000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	18-0960-7012	18-0960-7012	03 Apr-06 11:51 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	11.96%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.31778	1.85955	0.3794	0.16607	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0020135	0.002013	1	0.10	0.75879	Non-Significant Effect
Error	0.159512	0.019939	8			
Total	0.16152545	0.0219525	9			

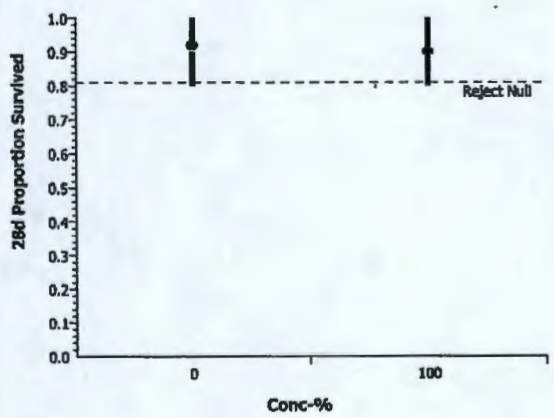
ANOVA Assumptions

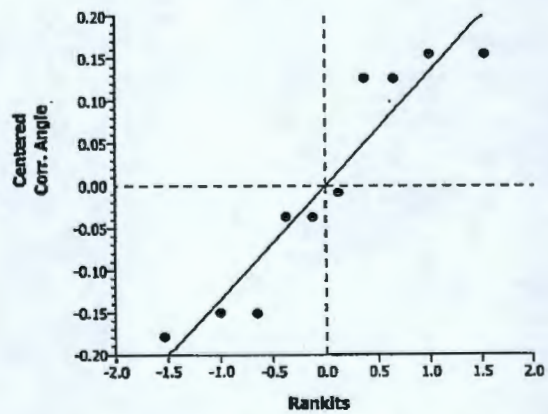
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.39943	23.15450	0.75260	Equal Variances
Distribution	Shapiro-Wilk W	0.86706		0.09235	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.90000	0.80000	1.00000	0.10000	1.25748	1.10715	1.41202	0.15251

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	18-0960-7012	18-0960-7012	03 Apr-06 11:51 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	24.75%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-2.3437	1.85955	0.9764	0.03834	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0058376	0.005838	1	5.49	0.04715	Significant Effect
Error	0.0085023	0.001063	8			
Total	0.01433985	0.0069004	9			

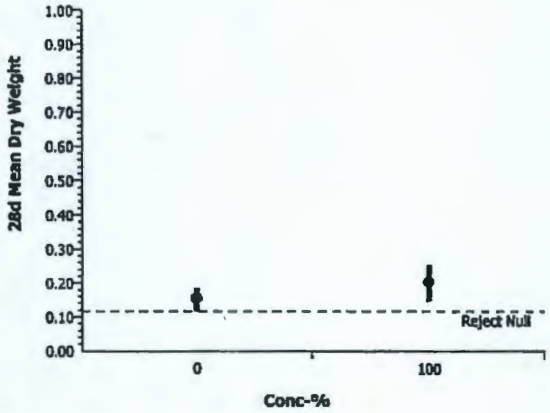
ANOVA Assumptions

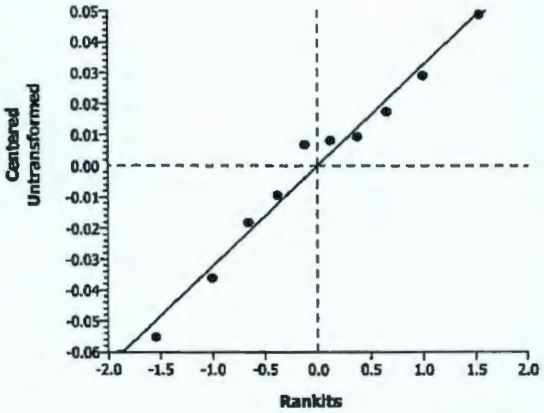
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.98142	23.15450	0.52407	Equal Variances
Distribution	Shapiro-Wilk W	0.97630		0.94232	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.20325	0.14800	0.25200	0.03758				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 11:53 AM
Test Link: 07-3986-6152/B153812hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	05-8853-3368	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	07-8236-0691	**Code:**	B1538-12	**Client:**	
Sample Date:	12 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	14 Feb-06	**Source:**	Hanford		
Sample Age:	19d 0h	**Station:**			

Comments: J116M5

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
04-4298-5108	28d Mean Dry Weight	100	> 100	N/A	24.32%	Equal Variance t Two-Sample
10-7357-0662	28d Proportion Survived	100	> 100	N/A	31.03%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
10-7357-0662	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.14524	0.09778	0.20000	0.01637	0.03659	25.20%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.66000	0.10000	1.00000	0.15684	0.35071	53.14%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.14143	0.13700	0.15000	0.09778	0.20000

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.70000	1.00000	0.60000	0.90000	0.10000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	07-3986-6152	07-3986-6152	03 Apr-06 11:53 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1 .	N/A	31.03%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	1.60219	1.85955	0.0739	0.36426	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.2462471	0.246247	1	2.57	0.14778	Non-Significant Effect
Error	0.7674216	0.095928	8			
Total	1.01366873	0.3421748	9			

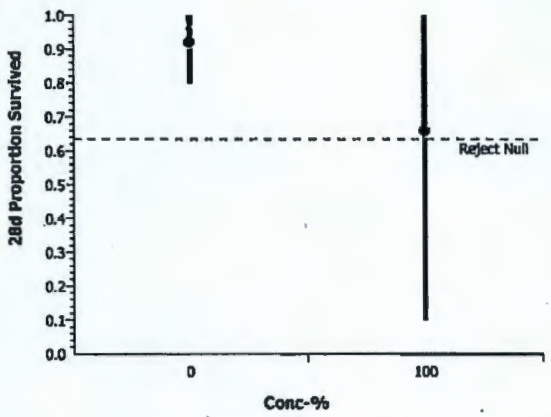
ANOVA Assumptions

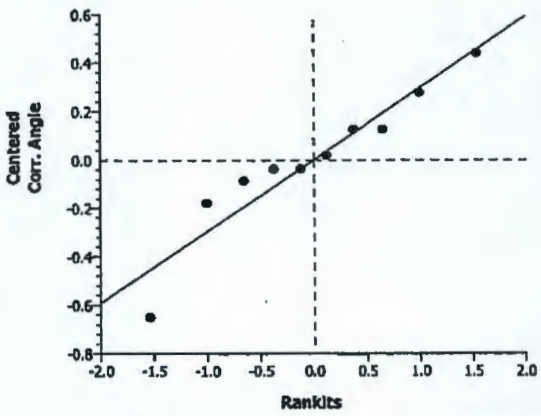
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	10.54382	23.15450	0.04242	Equal Variances
Distribution	Shapiro-Wilk W	0.92634		0.41284	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.66000	0.10000	1.00000	0.35071	0.97201	0.32175	1.41202	0.41861

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	07-3986-6152	07-3986-6152	03 Apr-06 11:53 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	24.32%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.47814	1.85955	0.3227	0.03767	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0002346	0.000235	1	0.23	0.64534	Non-Significant Effect
Error	0.0082082	0.001026	8			
Total	0.00844275	0.0012606	9			

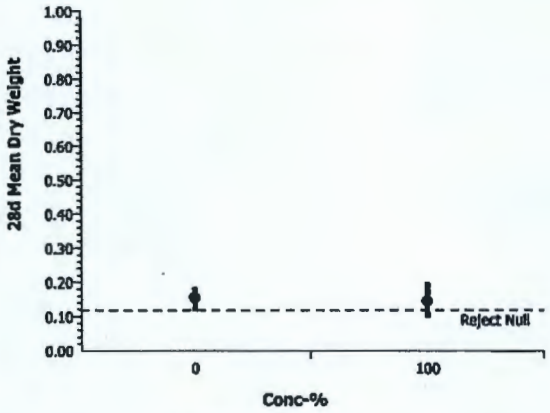
ANOVA Assumptions

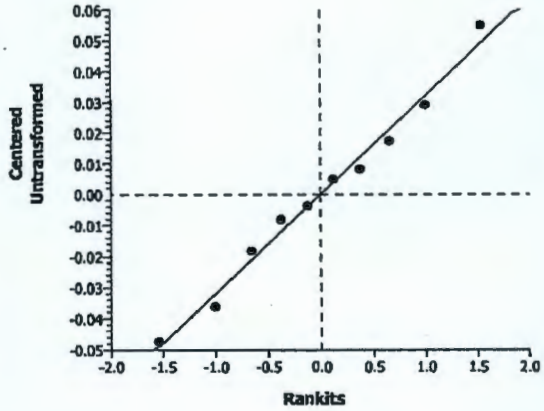
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.87830	23.15450	0.55649	Equal Variances
Distribution	Shapiro-Wilk W	0.98857		0.99476	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.14524	0.09778	0.20000	0.03659				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 11:54 AM
Test Link: 10-9051-1643/B153813hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	04-7058-7436	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	07-7208-3847	**Code:**	B1538-13	**Client:**	
Sample Date:	12 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	14 Feb-06	**Source:**	Hanford		
Sample Age:	19d 0h	**Station:**			

Comments: J116M8

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
15-0716-5698	28d Mean Dry Weight	< 100	100	N/A	14.78%	Equal Variance t Two-Sample
07-1605-4415	28d Proportion Survived	< 100	100	N/A	19.71%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
07-1605-4415	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.09185	0.08333	0.10000	0.00300	0.00671	7.30%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.48000	0.20000	0.80000	0.11576	0.25884	53.93%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.08333	0.09714	0.08875	0.09000	0.10000

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.30000	0.70000	0.80000	0.20000	0.40000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	10-9051-1643	10-9051-1643	03 Apr-06 11:54 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	19.71%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	3.84671	1.85955	0.0025	0.25166	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.6775404	0.677540	1	14.80	0.00490	Significant Effect
Error	0.3663079	0.045788	8			
Total	1.04384834	0.7233289	9			

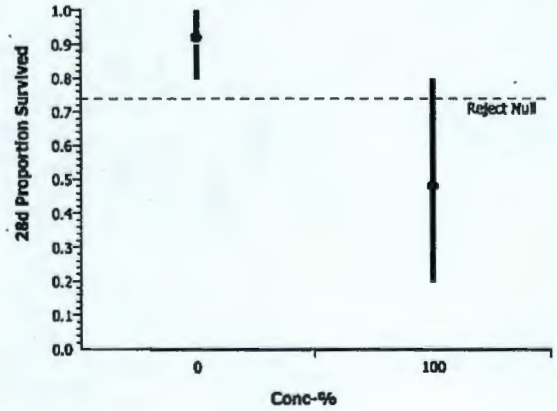
ANOVA Assumptions

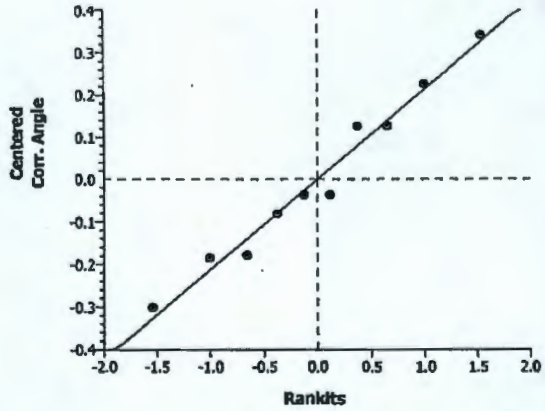
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	4.51013	23.15450	0.17371	Equal Variances
Distribution	Shapiro-Wilk W	0.96742		0.86593	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.48000	0.20000	0.80000	0.25884	0.76526	0.46365	1.10715	0.27378

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	10-9051-1643	10-9051-1643	03 Apr-06 11:54 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	14.78%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	5.12363	1.85955	0.0005	0.02289	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0099485	0.009949	1	26.25	0.00090	Significant Effect
Error	0.0030318	0.000379	8			
Total	0.01298027	0.0103275	9			

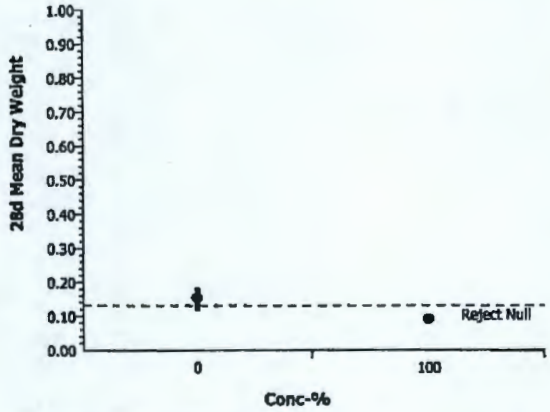
ANOVA Assumptions

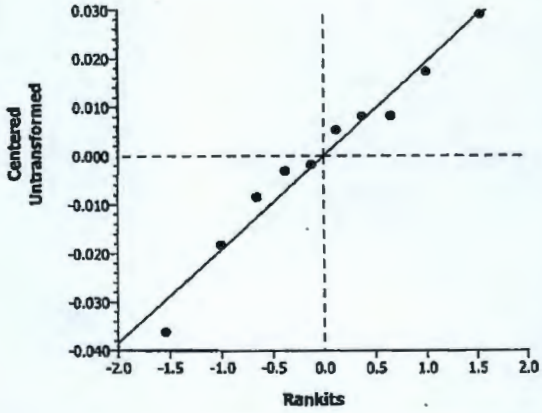
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	15.84299	23.15450	0.02031	Equal Variances
Distribution	Shapiro-Wilk W	0.97475		0.93103	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.09185	0.08333	0.10000	0.00671				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:11 PM
Test Link: 03-9071-6824/B153814hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	05-4024-8518	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	17-7674-4055	**Code:**	B1538-14	**Client:**	
Sample Date:	13 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	15 Feb-06	**Source:**	Hanford		
Sample Age:	18d 0h	**Station:**			

Comments: J11752

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
09-6950-3056	28d Mean Dry Weight	100	> 100	N/A	34.53%	Equal Variance t Two-Sample
06-9264-3537	28d Proportion Survived	100	> 100	N/A	16.20%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
06-9264-3537	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.24225	0.17625	0.29333	0.02617	0.05852	24.16%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.86000	0.60000	1.00000	0.07483	0.16733	19.46%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.29333	0.17625	0.28667	0.18100	0.27400

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.60000	0.80000	0.90000	1.00000	1.00000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	03-9071-6824	03-9071-6824	03 Apr-06 1:11 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	16.20%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.63056	1.85955	0.2730	0.21408	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0131746	0.013175	1	0.40	0.54591	Non-Significant Effect
Error	0.2650759	0.033134	8			
Total	0.27825049	0.0463091	9			

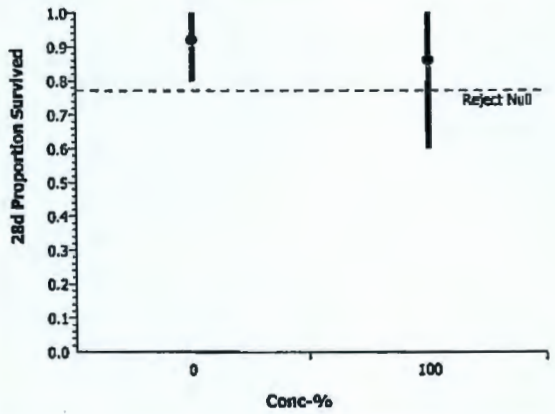
ANOVA Assumptions

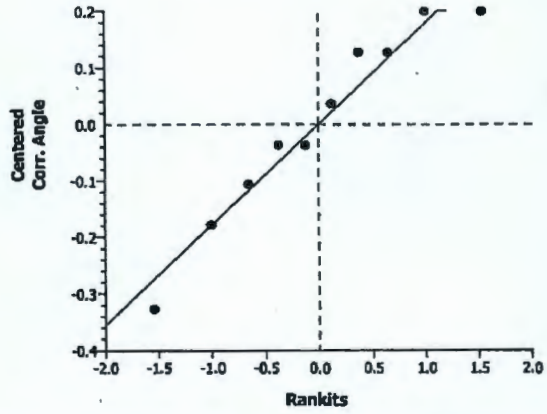
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.98736	23.15450	0.31428	Equal Variances
Distribution	Shapiro-Wilk W	0.93793		0.53025	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.86000	0.60000	1.00000	0.16733	1.21326	0.88608	1.41202	0.22282

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	03-9071-6824	03-9071-6824	03 Apr-06 1:11 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	34.53%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-3.0356	1.85955	0.9919	0.05349	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0190629	0.019063	1	9.21	0.01617	Significant Effect
Error	0.0165497	0.002069	8			
Total	0.03561266	0.0211316	9			

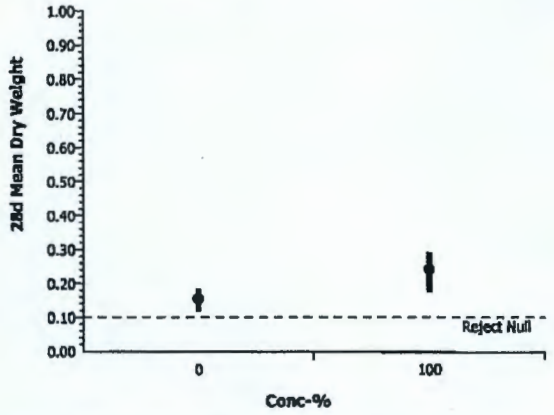
ANOVA Assumptions

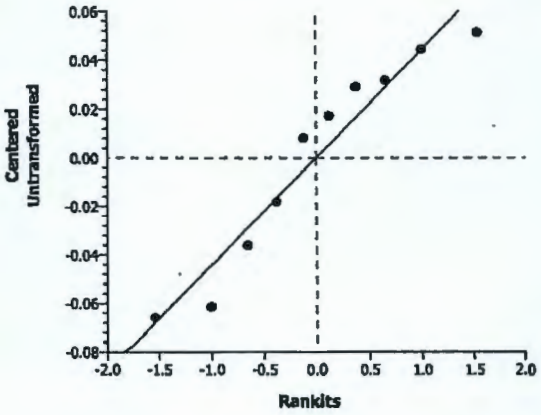
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	4.80336	23.15450	0.15769	Equal Variances
Distribution	Shapiro-Wilk W	0.90934		0.27648	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.24225	0.17625	0.29333	0.05852				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:13 PM
Test Link: 18-9187-0962/B153815hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	04-0661-8839	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	15-5914-3374	**Code:**	B1538-15	**Client:**	
Sample Date:	13 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	16 Feb-06	**Source:**	Hanford		
Sample Age:	18d 0h	**Station:**			

Comments: J11745

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
15-7631-5703	28d Mean Dry Weight	100	> 100	N/A	36.04%	Equal Variance t Two-Sample
02-4818-1490	28d Proportion Survived	100	> 100	N/A	10.74%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
02-4818-1490	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.20196	0.11000	0.27100	0.02755	0.06160	30.50%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.17556	0.27100	0.22200	0.11000	0.23125

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.90000	1.00000	1.00000	0.90000	0.80000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	18-9187-0962	18-9187-0962	03 Apr-06 1:12 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	10.74%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0	1.85955	0.5000	0.15162	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0	0	1	0.00	1.00000	Non-Significant Effect
Error	0.1329581	0.01662	8			
Total	0.13295805	0.0166198	9			

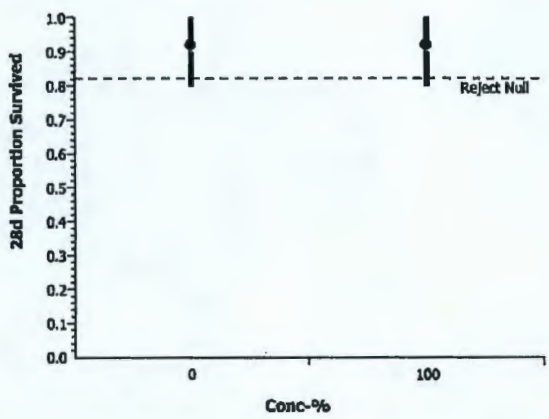
ANOVA Assumptions

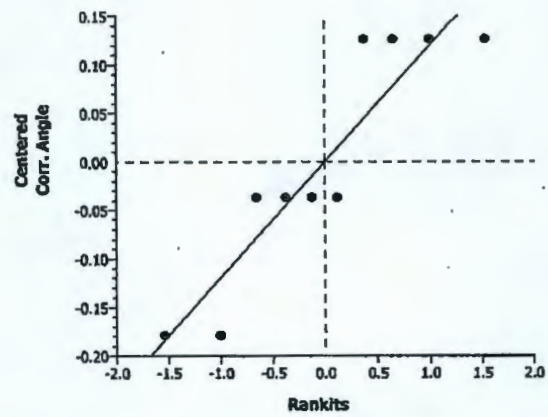
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.00000	23.15450	1.00000	Equal Variances
Distribution	Shapiro-Wilk W	0.81976		0.02518	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892

Graphics





CETIS Analysis Detail

Hyalella 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	18-9187-0962	18-9187-0962	03 Apr-06 1:13 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	36.04%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-1.5664	1.85955	0.9221	0.05584	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0055303	0.005530	1	2.45	0.15589	Non-Significant Effect
Error	0.0180316	0.002254	8			
Total	0.02356195	0.0077843	9			

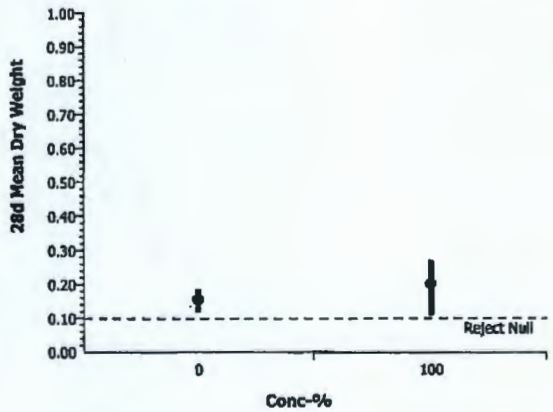
ANOVA Assumptions

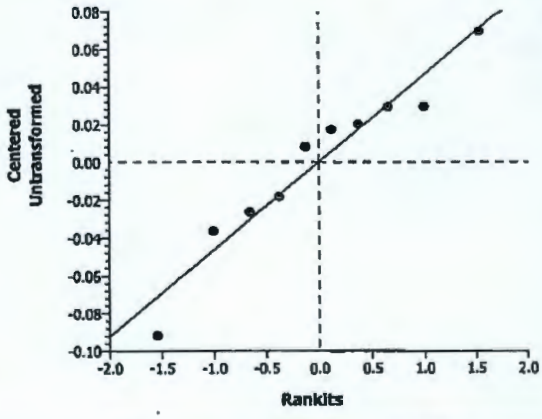
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	5.32300	23.15450	0.13425	Equal Variances
Distribution	Shapiro-Wilk W	0.94981		0.66628	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.20196	0.11000	0.27100	0.06160				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:21 PM
Test Link: 07-9636-6499/B153816hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	06-7076-9416	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	08-4620-2188	**Code:**	B1538-16	**Client:**	
Sample Date:	13 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	16 Feb-06	**Source:**	Hanford		
Sample Age:	18d 0h	**Station:**			

Comments: J11750

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
06-0854-1968	28d Mean Dry Weight	100	> 100	N/A	16.48%	Equal Variance t Two-Sample
19-4920-7982	28d Proportion Survived	100	> 100	N/A	9.00%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
19-4920-7982	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.26629	0.24900	0.28333	0.00678	0.01516	5.69%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.96000	0.90000	1.00000	0.02449	0.05477	5.71%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.26111	0.28333	0.24900	0.28100	0.25700

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.90000	0.90000	1.00000	1.00000	1.00000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	07-9636-6499	07-9636-6499	03 Apr-06 1:21 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	9.00%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-0.8695	1.85955	0.7950	0.13040	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0092944	0.009294	1	0.76	0.40990	Non-Significant Effect
Error	0.0983502	0.012294	8			
Total	0.10764464	0.0215882	9			

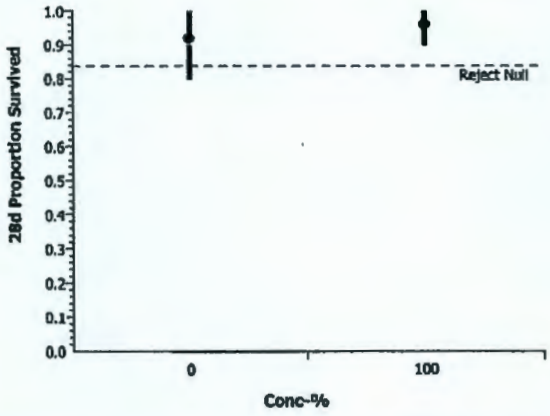
ANOVA Assumptions

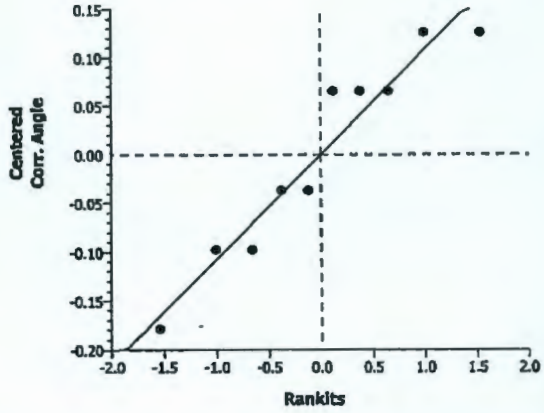
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.08587	23.15450	0.49396	Equal Variances
Distribution	Shapiro-Wilk W	0.91585		0.32364	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.96000	0.90000	1.00000	0.05477	1.34683	1.24905	1.41202	0.08926

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	07-9636-6499	07-9636-6499	03 Apr-06 1:21 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	16.48%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-8.1103	1.85955	1.0000	0.02553	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0310032	0.031003	1	65.78	0.00004	Significant Effect
Error	0.0037707	0.000471	8			
Total	0.03477391	0.0314746	9			

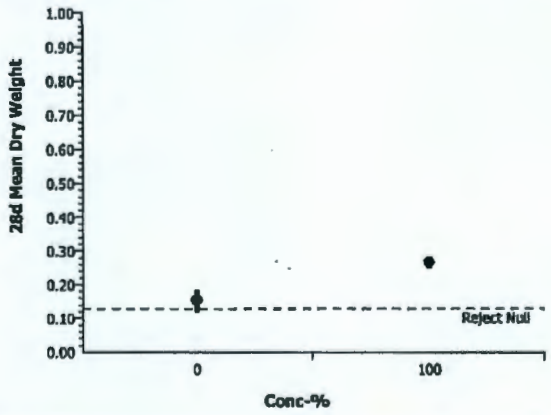
ANOVA Assumptions

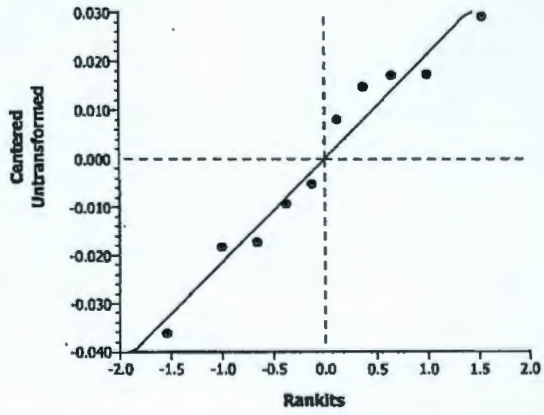
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.10335	23.15450	0.29845	Equal Variances
Distribution	Shapiro-Wilk W	0.95375		0.71294	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.26629	0.24900	0.28333	0.01516				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:23 PM
Test Link: 15-5218-8115/B153817hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	07-9913-7686	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	04-9993-8635	**Code:**	B1538-17	**Client:**	
Sample Date:	13 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	16 Feb-06	**Source:**	Hanford		
Sample Age:	18d 0h	**Station:**			

Comments: J11751

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
03-9229-7789	28d Mean Dry Weight	100	> 100	N/A	24.68%	Equal Variance t Two-Sample
12-1201-2816	28d Proportion Survived	100	> 100	N/A	16.20%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
12-1201-2816	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.27166	0.23700	0.32500	0.01674	0.03742	13.78%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.86000	0.60000	1.00000	0.07483	0.16733	19.46%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.29100	0.32500	0.26778	0.23700	0.23750

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		1.00000	0.60000	0.90000	1.00000	0.80000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	15-5218-8115	15-5218-8115	03 Apr-06 1:23 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	16.20%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.63056	1.85955	0.2730	0.21408	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0131746	0.013175	1	0.40	0.54591	Non-Significant Effect
Error	0.2650759	0.033134	8			
Total	0.27825049	0.0463091	9			

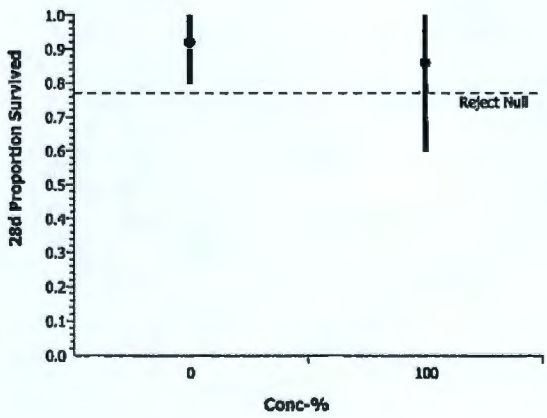
ANOVA Assumptions

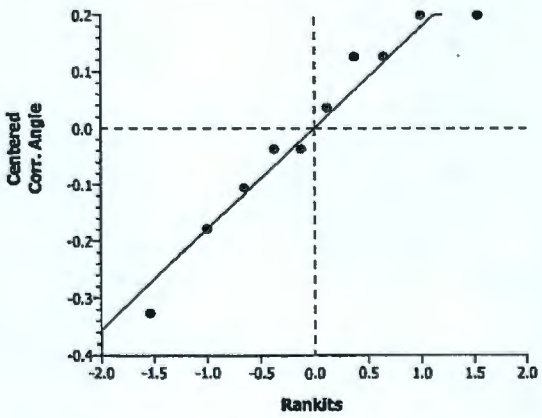
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.98736	23.15450	0.31428	Equal Variances
Distribution	Shapiro-Wilk W	0.93793		0.53025	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.86000	0.60000	1.00000	0.16733	1.21326	0.88608	1.41202	0.22282

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	15-5218-8115	15-5218-8115	03 Apr-06 1:23 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	24.68%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-5.6774	1.85955	0.9998	0.03823	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0340634	0.034063	1	32.23	0.00047	Significant Effect
Error	0.0084542	0.001057	8			
Total	0.04251765	0.0351202	9			

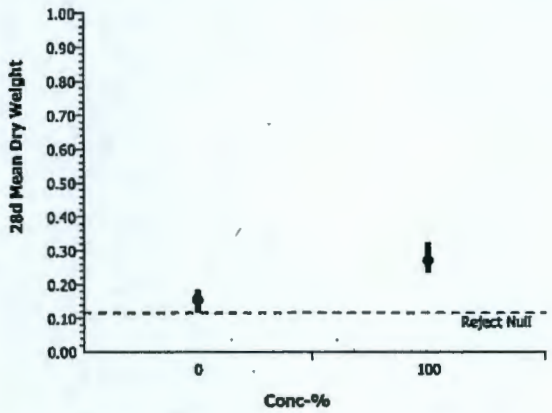
ANOVA Assumptions

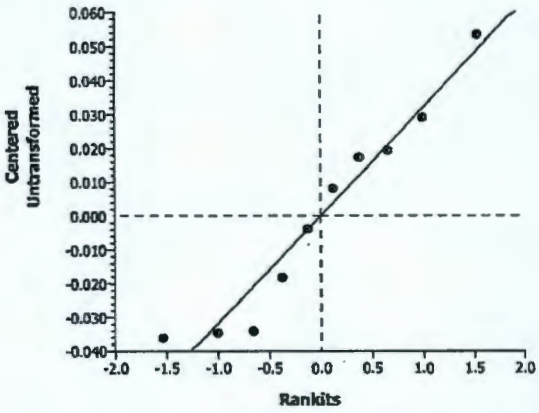
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.96457	23.15450	0.52917	Equal Variances
Distribution	Shapiro-Wilk W	0.92931		0.44111	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.27166	0.23700	0.32500	0.03742				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:24 PM
Test Link: 16-4806-3689/B153818hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	00-8319-1240	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	10-7892-3159	**Code:**	B1538-18	**Client:**	
Sample Date:	13 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	16 Feb-06	**Source:**	Hanford		
Sample Age:	18d 0h	**Station:**			

Comments: J11753

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
08-1993-6975	28d Mean Dry Weight	100	> 100	N/A	30.32%	Equal Variance t Two-Sample
13-8643-8444	28d Proportion Survived	100	> 100	N/A	21.63%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
13-8643-8444	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.19787	0.14600	0.27000	0.02226	0.04979	25.16%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.76000	0.40000	1.00000	0.11225	0.25100	33.03%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.22000	0.27000	0.14600	0.15889	0.19444

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.60000	0.40000	1.00000	0.90000	0.90000

CETIS Analysis Detail

Hyalleta 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	16-4806-3689	16-4806-3689	03 Apr-06 1:24 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	21.63%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	1.299	1.85955	0.1151	0.27152	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0899403	0.089940	1	1.69	0.23013	Non-Significant Effect
Error	0.4264106	0.053301	8			
Total	0.51635087	0.1432416	9			

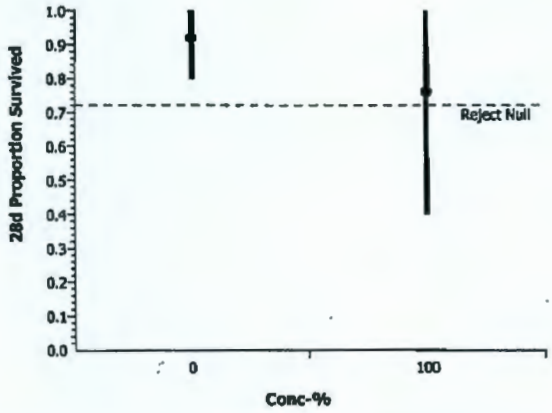
ANOVA Assumptions

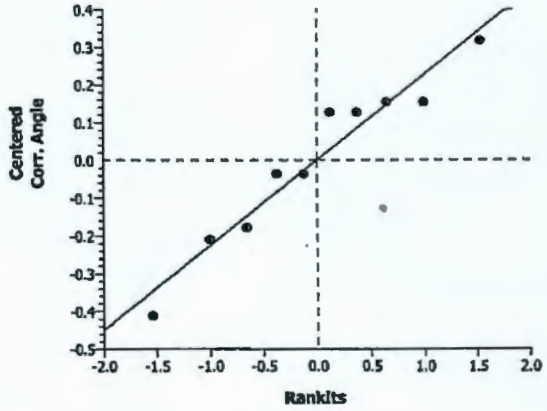
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	5.41421	23.15450	0.13068	Equal Variances
Distribution	Shapiro-Wilk W	0.94349		0.59249	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.76000	0.40000	1.00000	0.25100	1.09618	0.68472	1.41202	0.29997

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	16-4806-3689	16-4806-3689	03 Apr-06 1:24 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	30.32%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-1.6996	1.85955	0.9362	0.04698	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0046094	0.004609	1	2.89	0.12764	Non-Significant Effect
Error	0.0127660	0.001596	8			
Total	0.01737537	0.0062051	9			

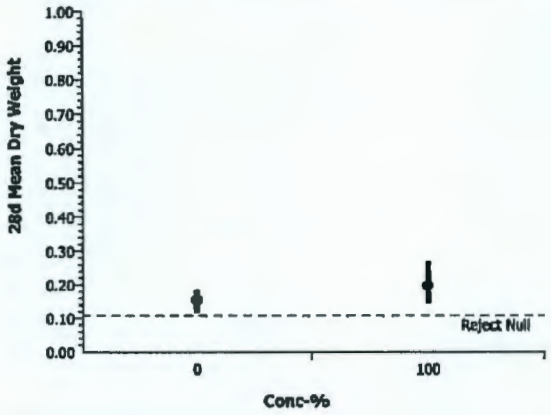
ANOVA Assumptions

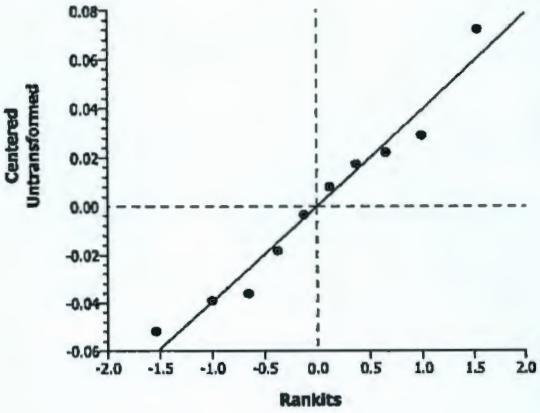
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.47655	23.15450	0.25482	Equal Variances
Distribution	Shapiro-Wilk W	0.96258		0.81487	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.19787	0.14600	0.27000	0.04979				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:26 PM
Test Link: 04-6974-1088/B153819hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	11-0180-6207	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	09-0498-8214	**Code:**	B1538-19	**Client:**	
Sample Date:	19 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	22 Feb-06	**Source:**	Hanford		
Sample Age:	12d 0h	**Station:**			

Comments: J11746

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
05-9913-7511	28d Mean Dry Weight	100	> 100	N/A	24.10%	Equal Variance t Two-Sample
14-7521-2699	28d Proportion Survived	100	> 100	N/A	17.47%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
14-7521-2699	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.24888	0.20667	0.28900	0.01614	0.03609	14.50%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.84000	0.60000	1.00000	0.08124	0.18166	21.63%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.23000	0.28429	0.20667	0.28900	0.23444

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		1.00000	0.70000	0.60000	1.00000	0.90000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	04-6974-1088	04-6974-1088	03 Apr-06 1:26 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	17.47%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.78155	1.85955	0.2285	0.22792	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0229403	0.022940	1	0.61	0.45699	Non-Significant Effect
Error	0.3004555	0.037557	8			
Total	0.32339588	0.0604973	9			

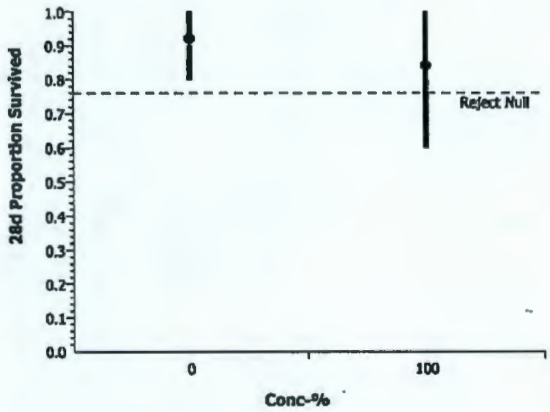
ANOVA Assumptions

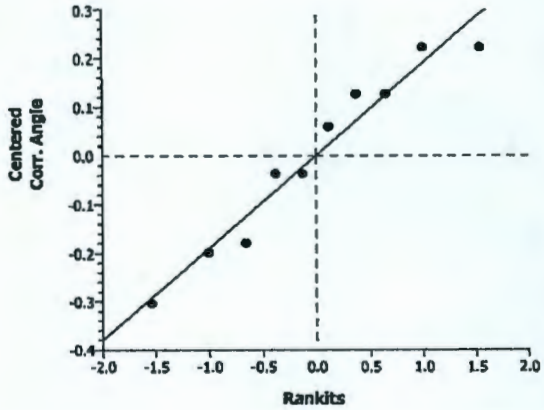
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.51955	23.15450	0.25041	Equal Variances
Distribution	Shapiro-Wilk W	0.93276		0.47556	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.84000	0.60000	1.00000	0.18166	1.19006	0.88608	1.41202	0.24186

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M HILL**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	04-6974-1088	04-6974-1088	03 Apr-06 1:26 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	24.10%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-4.6796	1.85955	0.9992	0.03733	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0220673	0.022067	1	21.90	0.00158	Significant Effect
Error	0.0080617	0.001008	8			
Total	0.03012899	0.023075	9			

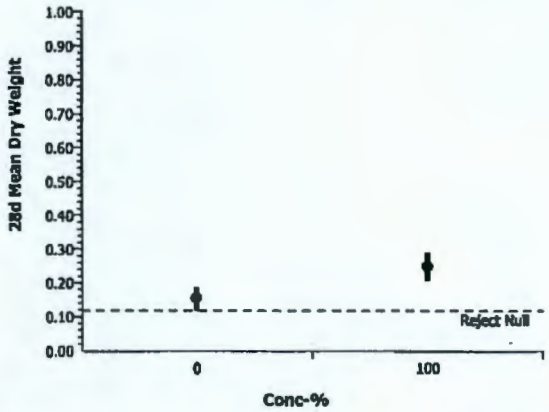
ANOVA Assumptions

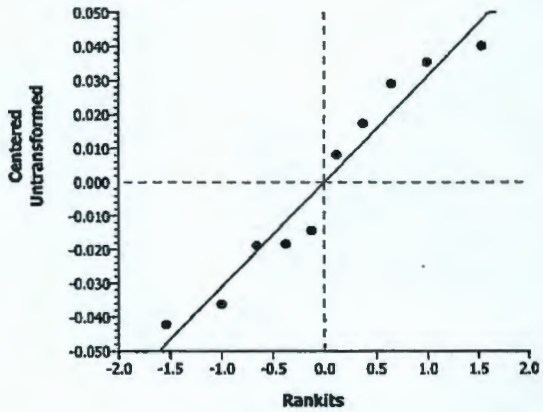
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.82694	23.15450	0.57373	Equal Variances
Distribution	Shapiro-Wilk W	0.92450		0.39606	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.24888	0.20667	0.28900	0.03609				

Graphics





CETIS Test Summary

Report Date: 03 Apr-06 1:27 PM
Test Link: 12-5478-1561/B153820hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	08-0778-1926	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	03 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	31 Mar-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	03 Mar-06 12:00 AM	**Brine:**			

Sample No:	09-6338-6368	**Code:**	B1538-20	**Client:**	
Sample Date:	19 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:	22 Feb-06	**Source:**	Hanford		
Sample Age:	12d 0h	**Station:**			

Comments: J11747

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
11-4178-9063	28d Mean Dry Weight	100	> 100	N/A	29.36%	Equal Variance t Two-Sample
17-8598-7966	28d Proportion Survived	100	> 100	N/A	16.55%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
17-8598-7966	28d Proportion Survived	Control Response	0.92	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.15493	0.11875	0.18400	0.01194	0.02670	17.23%
100		5	0.23736	0.19700	0.31333	0.02135	0.04773	20.11%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.92000	0.80000	1.00000	0.03742	0.08367	9.09%
100		5	0.90000	0.60000	1.00000	0.07746	0.17321	19.25%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.16300	0.17222	0.13667	0.18400	0.11875
100		0.31333	0.25444	0.20700	0.21500	0.19700

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	1.00000	0.90000	0.90000	1.00000	0.80000
100		0.60000	0.90000	1.00000	1.00000	1.00000

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	12-5478-1561	12-5478-1561	03 Apr-06 1:27 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	16.55%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	0.09915	1.85955	0.4617	0.21794	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0003376	0.000338	1	0.01	0.92346	Non-Significant Effect
Error	0.274731	0.034341	8			
Total	0.27506853	0.0346789	9			

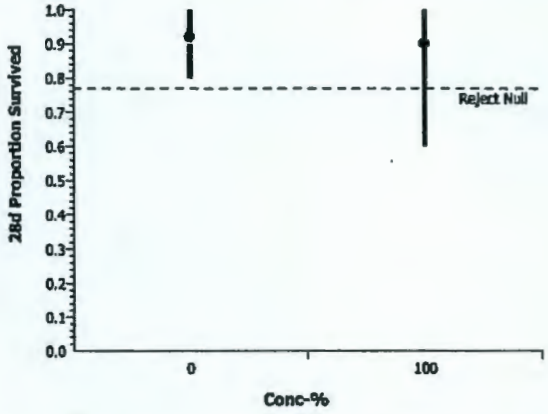
ANOVA Assumptions

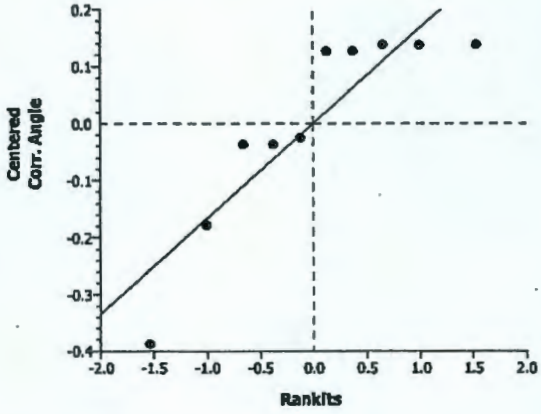
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.13260	23.15450	0.29465	Equal Variances
Distribution	Shapiro-Wilk W	0.80186		0.01527	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.92000	0.80000	1.00000	0.08367	1.28585	1.10715	1.41202	0.12892
100		5	0.90000	0.60000	1.00000	0.17321	1.27423	0.88608	1.41202	0.22817

Graphics





CETIS Analysis Detail

Hyalella 42-d Survival, Growth, and Reproduction Sediment Test — CH2M Hill

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	12-5478-1561	12-5478-1561	03 Apr-06 1:27 PM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	29.36%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Control Sed		100	-3.3699	1.85955	0.9951	0.04549	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0169859	0.016986	1	11.36	0.00979	Significant Effect
Error	0.0119662	0.001496	8			
Total	0.02895204	0.0184816	9			

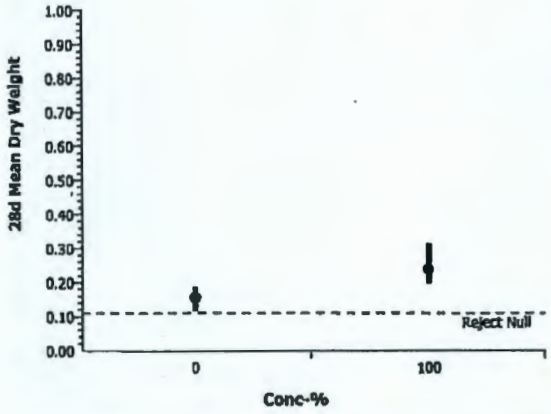
ANOVA Assumptions

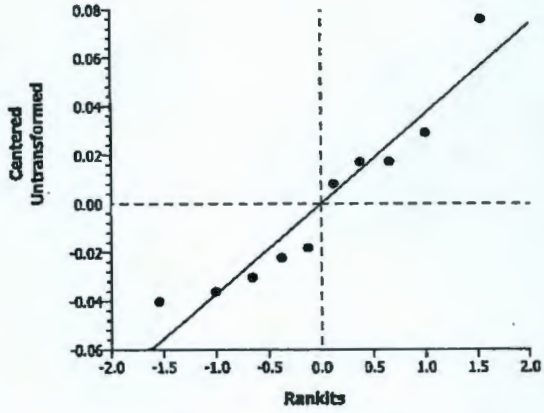
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.19609	23.15450	0.28663	Equal Variances
Distribution	Shapiro-Wilk W	0.90945		0.27726	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.15493	0.11875	0.18400	0.02670				
100		5	0.23736	0.19700	0.31333	0.04773				

Graphics





RANDOMIZATION SHEET

Client: W C Hanford **Test Start Date:** 3/~~7~~10/2006

Laboratory ID:	Field ID:	Alternate ID:	Replicate ID:	Random Number	Test Chamber Number:
B1538-21	J11748	0	A	0.77722	120
B1538-21	J11748	0	B	0.80534	115
B1538-21	J11748	0	C	0.41510	153
B1538-21	J11748	0	D	0.66210	130
B1538-21	J11748	0	E	0.33968	162
B1538-22	J11749	0	A	0.11991	187
B1538-22	J11749	0	B	0.36409	159
B1538-22	J11749	0	C	0.14229	184
B1538-22	J11749	0	D	0.15949	178
B1538-22	J11749	0	E	0.67897	128
B1538-23	J112B3	0	A	0.67932	127
B1538-23	J112B3	0	B	0.14433	183
B1538-23	J112B3	0	C	0.77698	119
B1538-23	J112B3	0	D	0.26711	168
B1538-23	J112B3	0	E	0.38976	156
B1538-24	J112B4	0	A	0.15170	180
B1538-24	J112B4	0	B	0.21992	170
B1538-24	J112B4	0	C	0.04799	192
B1538-24	J112B4	0	D	0.29347	165
B1538-24	J112B4	0	E	0.18419	176
B1538-25	J112B5	0	A	0.44745	150
B1538-25	J112B5	0	B	0.60233	135
B1538-25	J112B5	0	C	0.68737	126
B1538-25	J112B5	0	D	0.86170	112
B1538-25	J112B5	0	E	0.60213	136
B1538-26	J112B6	0	A	0.03887	193
B1538-26	J112B6	0	B	0.53073	144
B1538-26	J112B6	0	C	0.18627	174
B1538-26	J112B6	0	D	0.26793	167
B1538-26	J112B6	0	E	0.57665	139
B1538-27	J116M6	0	A	0.14200	185
B1538-27	J116M6	0	B	0.18534	175
B1538-27	J116M6	0	C	0.21883	171
B1538-27	J116M6	0	D	0.65459	131
B1538-27	J116M6	0	E	0.15121	181
B1538-28	J116M7	0	A	0.02412	194
B1538-28	J116M7	0	B	0.29740	164
B1538-28	J116M7	0	C	0.15401	179
B1538-28	J116M7	0	D	0.37924	157
B1538-28	J116M7	0	E	0.78017	118
B1538-29	J11734	0	A	0.52356	145
B1538-29	J11734	0	B	0.20426	173
B1538-29	J11734	0	C	0.12353	186
B1538-29	J11734	0	D	0.16117	177
B1538-29	J11734	0	E	0.72065	123
B1538-30	J116X2	0	A	0.43347	151
B1538-30	J116X2	0	B	0.21529	172
B1538-30	J116X2	0	C	0.34574	161
B1538-30	J116X2	0	D	0.36633	158
B1538-30	J116X2	0	E	0.78884	117

RANDOMIZATION SHEET

Client: W C Hanford **Test Start Date:** 10 ~~3~~/7/2006

Laboratory ID:	Field ID:	Alternate ID:	Replicate ID:	Random Number	Test Chamber Number:
B1538-31	J116W9	0	A	0.28754	166
B1538-31	J116W9	0	B	0.63973	132
B1538-31	J116W9	0	C	0.99013	107
B1538-31	J116W9	0	D	0.81927	113
B1538-31	J116W9	0	E	0.40286	154
B1538-32	J116X0	0	A	0.91056	111
B1538-32	J116X0	0	B	0.91093	110
B1538-32	J116X0	0	C	0.01986	195
B1538-32	J116X0	0	D	0.56546	141
B1538-32	J116X0	0	E	0.48624	148
B1538-33	J116X1	0	A	0.71173	124
B1538-33	J116X1	0	B	0.22590	169
B1538-33	J116X1	0	C	0.56171	142
B1538-33	J116X1	0	D	0.48425	149
B1538-33	J116X1	0	E	0.99508	106
B1538-34	J116X3	0	A	0.62470	133
B1538-34	J116X3	0	B	0.51133	146
B1538-34	J116X3	0	C	0.76548	121
B1538-34	J116X3	0	D	0.54237	143
B1538-34	J116X3	0	E	0.58468	138
B1538-35	J116X6	0	A	0.80880	114
B1538-35	J116X6	0	B	0.80234	116
B1538-35	J116X6	0	C	0.66472	129
B1538-35	J116X6	0	D	0.31860	163
B1538-35	J116X6	0	E	0.07865	189
B1538-36	J116W7	0	A	0.75143	122
B1538-36	J116W7	0	B	0.14785	182
B1538-36	J116W7	0	C	0.05140	191
B1538-36	J116W7	0	D	0.50906	147
B1538-36	J116W7	0	E	0.61211	134
B1538-37	J116W8	0	A	0.07126	190
B1538-37	J116W8	0	B	0.94188	108
B1538-37	J116W8	0	C	0.41682	152
B1538-37	J116W8	0	D	0.08615	188
B1538-37	J116W8	0	E	0.39196	155
Sediment Control	Beaver Creek	Control	A	0.36170	160
Sediment Control	Beaver Creek	Control	B	0.57601	140
Sediment Control	Beaver Creek	Control	C	0.59855	137
Sediment Control	Beaver Creek	Control	D	0.92017	109
Sediment Control	Beaver Creek	Control	E	0.68871	125

TITRATION AND AMMONIA DATA

Client: Washington Closure Hanford

Species ID#: AMP 57

Sample Description: See Randomization Sheet.

Start Date: March 10, 2006

Laboratory ID	Hardness (mg/L as $CaCO_3$)		Alkalinity (mg/L as $CaCO_3$)		Ammonia (mg/L as NH_3-N)	
	Initial	Final	Initial	Final	Initial	Final
Sediment Control	86	110	68	76	0.21	0.22
B1538-21	92	106	68	74	0.29	0.07
B1538-22	104	114	78	82	0.10	0.04
B1538-23	98	112	70	74	0.11	0.12
B1538-24	98	116	72	74	0.10	0.09
B1538-25	104	110	78	78	0.10	0.12
B1538-26	108	104	84	80	0.10	0.08
B1538-27	98	108	76	86	0.16	0.14
B1538-28	114	118	80	84	0.10	0.09
B1538-29	104	104	84	78	0.10	0.13
B1538-30	110	110	80	80	0.14	0.28
B1538-31	106	108	76	80	0.21	0.09
B1538-32	108	102	80	82	0.13	0.16
B1538-33	106	104	82	78	~~0.11~~ 0.13	0.18
B1538-34	102	116	74	76	0.12	0.09
B1538-35	134	112	110	~~78~~ 80 MS	0.29	0.63
B1538-36	104	108	80	78	0.13	0.09
B1538-37	104	104	80	78	0.11	0.16

CH2M HILL

FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client: Washington Closure Hanford

Sample Description: See Cross Reference Sheet batch Number B

Test Species: Hyallela azteca

ID#: Amp 57

Beginning, Date: 3-10-06 Time: 1110

Ending, Date: 4-7-06 Time: 1200

	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
AM change: Tech.	Br	(illegible)	(illegible)	MS	MS	DW	DW	DW	(TP)	(TP)
Time	0300	0700	0705	0740	0700	0645	0710	0700	0700	0650
PM change: Tech.	Br	(TP)	(TP)	NT	Br	Br	Br	Br	MN	MN
Time	1745	1730	1652	1650	1750	1745	1710	1730	1840	1745
Feeding: ✓ when done	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Beaker Number	Dissolved Oxygen (mg/l) 0	1	2	3	4	5	6	7	8	9	Temperature (°C) 0	1	2	3	4	5	6	7	8	9	pH 0	3	6	9	Conductivity (µmohs/cm) 0	7
111	7.7			7.6			7.7			7.8	23.6	22.6	21.9	23.6	23.6	22.7	23.6	22.6	22.6	22.9	7.2	7.2	7.2	6.9	293	294
114	6.5			6.3			6.8			6.9	23.2	22.4	21.9	23.7	23.6	22.4	23.5	22.9	22.9	22.9	7.1	7.3	7.1	6.8	325	316
120	8.1			7.4			7.4			7.5	23.5	22.5	22.0	23.7	23.9	22.3	23.8	22.5	23.0	23.3	7.4	7.4	7.3	7.1	289	284
122	7.7			7.6			7.4			7.2	23.3	22.1	22.1	24.9	23.9	22.4	24.1	22.6	23.4	22.8	7.4	7.4	7.3	7.1	298	292
124	7.7			7.3			7.4			7.2	23.5	22.0	21.9	23.9	24.0	22.4	23.6	22.8	23.2	23.3	7.2	7.3	7.2	7.0	297	299
127	7.9			7.6			7.4			7.2	23.2	22.4	21.8	23.8	23.9	22.5	23.7	23.0	23.4	23.3	7.3	7.3	7.3	7.1	291	284
133	7.9			7.5			7.4			7.2	23.5	21.9	22.0	23.7	23.9	22.3	23.5	22.6	23.4	23.2	7.6	7.4	7.3	7.2	296	286
145	8.0			7.5			7.3			7.2	23.5	21.9	22.4	23.6	24.0	22.5	23.8	22.7	23.5	23.7	7.7	7.4	7.3	7.1	280	299
150	7.9			7.6			7.5			7.3	23.5	21.8	22.1	23.9	24.1	22.4	24.0	22.6	23.4	23.7	7.8	7.5	7.5	7.3	279	303
151	7.6			7.2			7.2			7.3	23.7	22.0	21.7	23.4	24.0	22.4	24.1	22.9	23.4	23.4	7.2	7.4	7.2	7.1	295	295
160	7.6			7.2			7.1			7.2	23.4	21.6	21.4	23.6	24.2	22.5	23.8	23.0	23.5	23.8	7.5	7.4	7.4	7.3	366	324
166	8.0			7.5			7.4			7.5	23.9	22.4	21.5	23.7	24.1	22.6	24.1	23.3	23.6	23.5	7.7	7.4	7.4	7.3	299	287
180	7.9			7.5			7.3			7.5	23.7	22.0	21.6	24.0	24.1	22.5	24.1	22.9	23.5	23.8	7.4	7.3	7.3	7.2	288	281
185	7.8			7.3			7.1			7.2	23.7	21.7	21.6	24.1	24.0	22.7	24.0	23.2	23.5	23.7	7.2	7.2	7.3	7.1	307	297
187	7.7			7.0			7.2			7.3	23.9	21.9	22.0	24.0	24.3	22.4	23.9	23.4	23.5	23.6	7.5	7.3	7.3	7.2	316	298
190	7.8			6.9			7.1			7.1	23.8	22.0	22.1	24.0	24.1	22.6	24.1	23.2	23.4	23.4	7.5	7.3	7.3	7.2	297	291
193	7.6			7.4			7.1			7.1	23.9	22.1	22.1	24.2	24.1	22.6	24.0	23.5	23.3	23.4	7.6	7.4	7.4	7.3	307	302
194	7.8			7.3			7.2			7.3	23.8	22.1	21.7	24.1	24.2	22.6	23.7	23.0	23.3	23.5	7.7	7.3	7.5	7.3	296	300

-90-

FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client _____ Beginning, Date 3-10-06 Time 1110

Sample Description See Cross Reference Sheet batch Number B Ending, Date 4-7-06 Time 1200

Test Species: Hyallela azteca

ID#: Amp 57

	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15	Day 16	Day 17	Day 18	Day 19
AM change: Tech.	MS	DW	DW	MS	MS/DW	[illegible]	[illegible]	MS	MS/[illegible]	[illegible]
AM change: Time	0640	0700	0700	0700	0700	0710	0700	0700	0700	0700
PM change: Tech.	Bm	Bm	Bm	[illegible]	Bm	[illegible]	[illegible]	NJ	Bm	NJ
PM change: Time	1715	1700	1650	1655	1725	1725	1720	1640	1700	1640
Feeding: ✓ when done	✓	✓	✓	✓	✓	✓	TJ	✓	✓	✓

Beaker Number	Dissolved Oxygen (mg/l) 10	11	12	13	14	15	16	17	18	19	Temperature (°C) 10	11	12	13	14	15	16	17	18	19	pH 12	15	18	~~19~~	Conductivity (µmohs/cm) 14
111			7.4			6.8			5.9		22.8	22.6	23.2	23.4	22.8	23.0	22.9	23.2	23.5	23.6	7.2	7.3	7.0		320
114			7.4			5.3			6.2		23.0	22.5	23.0	23.3	23.2	23.1	23.0	23.3	23.7	23.8	7.0	7.0	7.0		340
120			7.5			6.0			6.5		22.8	22.4	23.0	23.4	23.6	22.9	23.0	23.2	23.5	24.0	7.1	7.1	7.2		318
122			7.4			6.1			6.0		23.0	22.7	23.3	23.4	23.6	22.7	22.7	23.4	23.8	23.8	7.1	7.2	7.0		334
124			7.3			6.3			6.2		22.8	22.7	23.2	23.5	23.5	23.7	22.9	23.6	23.7	24.0	7.1	7.1	7.1		335
127			7.5			5.9			6.2		23.0	22.7	23.5	23.6	23.7	23.2	23.2	23.7	23.8	23.9	7.2	7.2	7.1		320
133			7.5			6.2			7.0		23.0	23.1	23.4	23.7	23.8	23.0	23.1	23.8	24.0	24.0	7.3	7.3	7.2		319
145			7.4			6.7			7.1		23.1	22.9	23.5	23.2	23.6	22.7	22.8	23.9	24.0	24.0	7.2	7.2	7.2		331
150			7.4			6.0			7.1		22.6	22.8	23.2	23.4	23.8	22.9	22.6	24.0	23.8	24.0	7.5	7.5	7.3		348
151			7.3			6.3			4.9		22.7	22.6	23.4	23.5	23.6	22.6	23.4	23.8	24.0	23.9	6.9	6.9	7.0		333
160			7.4			5.0			6.3		22.8	22.7	23.4	23.6	23.8	23.0	23.1	23.9	23.9	24.0	7.6	7.5	7.5		352
166			7.5			5.6			6.7		23.0	23.0	23.7	23.4	23.5	23.4	23.3	23.4	24.0	24.0	7.3	7.3	7.3		323
180			7.4			6.2			6.7		22.9	22.5	23.8	23.2	23.7	23.4	23.1	23.8	24.0	24.0	7.2	7.2	7.2		328
185			7.4			6.4			5.8		23.2	23.1	24.0	23.9	23.8	23.1	23.4	23.7	23.9	23.9	7.1	7.0	7.0		333
187			7.5			6.0			6.2		23.4	22.9	24.1	24.0	23.6	23.6	22.9	24.1	24.0	24.0	7.2	7.2	7.2		344
190			7.2			6.2			6.4		23.3	22.8	23.6	23.8	23.5	23.9	22.9	24.2	23.9	24.0	7.5	7.4	7.3		331
193			7.4			6.0			6.2		22.9	23.0	24.0	23.9	23.8	23.6	23.0	24.3	24.0	24.0	7.4	7.3	7.2		336
194			7.4			6.0			6.0		22.9	23.4	24.3	23.9	23.9	23.1	23.0	24.0	24.1	24.0	7.4	7.3	7.3		337

CH2M HILL

FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client _____ Beginning, Date 3-10-06 Time 1120

Sample Description See Cross Reference Sheet batch Number B Ending, Date 4-7-06 Time 1200

Test Species: Hyallela azteca

	Day 20	Day 21	Day 22	Day 23	Day 24	Day 25	Day 26	Day 27	Day 28
AM change: Tech.	MS	[illegible]	[illegible]	[illegible]	MS	MS	DW	DW	DW
Time	0730	0700	0700	0745	0620	0630	0700	0700	0700
PM change: Tech.	[illegible]	[illegible]	NJ	NJ	[illegible]	NJ	NJ	NJ	NJ
Time	1715	1710	1655	1645	1645	1615	1620	1625	
Feeding: ✓ when done	✓	✓	✓	✓	✓	✓	✓	✓	

ID#: 57

Amp

Beaker Number	Dissolved Oxygen (mg/l) 20	21	22	23	24	25	26	27	28		Temperature (°C) 20	21	22	23	24	25	26	27	28		pH 21	24	26	28	Conductivity (µmohs/cm) 21	28
111		5.9			6.3		6.8		6.9		23.8	23.8	22.7	22.9	23.2	23.1	23.3	22.7	23.3		7.0	7.0	6.8	7.0	329	328
114		6.1			6.7		6.0		5.2		23.7	23.6	22.5	22.6	23.1	23.2	23.1	22.6	23.1		7.1	7.0	6.6	6.6	334	344
120		6.0			7.0		7.2		7.1		23.8	23.6	22.6	22.8	22.9	23.0	23.4	22.7	23.1		7.1	7.2	7.0	7.0	332	326
122		6.1			6.4		6.9		7.0		23.6	23.7	22.6	22.9	23.2	23.2	23.1	22.5	23.2		7.4	7.3	7.0	7.0	339	331
124		6.0			7.0		6.1		5.3		24.0	23.8	22.7	22.8	23.1	23.3	23.2	22.6	23.1		6.9	7.0	6.8	6.9	330	325
127		5.7			6.8		7.0		6.8		23.8	23.7	22.7	22.9	23.2	23.4	23.2	22.8	23.0		6.5	7.1	6.9	7.0	325	325
133		5.6			6.8		7.2		7.0		23.6	23.9	22.9	23.1	23.4	23.1	23.0	22.7	22.9		7.0	7.3	7.1	7.1	340	326
145		6.5			7.0		7.2		7.0		23.7	23.9	23.1	23.2	23.3	23.2	23.2	23.1	23.2		7.0	7.3	7.1	7.2	323	334
150		6.4			7.2		7.1		7.0		23.8	23.8	23.1	23.2	23.4	23.2	23.3	23.0	23.4		7.2	7.4	7.2	7.3	338	337
151		6.4			5.3		5.2		5.1		23.6	23.7	22.7	22.9	23.6	23.1	23.2	22.8	23.2		7.1	6.9	6.7	6.7	332	328
160		6.2			6.5		6.7		6.6		23.9	23.8	23.1	23.2	23.7	23.5	23.0	23.0	23.1		7.2	7.2	7.2	7.2	332	337
166		6.0			6.7		7.0		7.0		23.8	23.8	23.2	23.1	23.5	23.2	23.0	23.1	23.2		7.2	7.2	7.1	7.2	324	326
180		6.4			7.2		7.1		7.0		23.9	23.6	23.2	23.3	23.4	23.1	23.3	23.0	23.4		6.8	7.1	7.0	7.1	324	325
185		4.9			6.0		6.3		6.1		24.0	23.9	23.2	23.3	23.5	23.6	23.1	23.0	23.4		6.7	7.1	6.9	6.9	327	330
187		5.3			6.7		6.7		6.6		24.1	24.0	23.2	23.3	23.4	23.4	23.0	23.1	23.4		6.9	7.3	7.1	7.0	334	339
190		6.3			6.9		6.9		7.0		24.0	24.0	23.2	23.3	23.5	23.6	23.3	22.9	23.2		6.9	7.4	7.0	7.1	324	330
193		5.6			7.0		6.6		6.4		24.0	23.8	23.3	23.4	23.7	23.4	23.1	23.0	23.2		7.1	7.3	7.0	7.1	341	338
194		6.0			7.0		6.5		6.6		24.1	24.0	23.3	23.4	23.6	23.1	23.1	23.2	23.4		7.0	7.4	7.1	7.1	335	333

CH2M HILL

FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client

Sample Description see randomization sheet. Batch number: B

Test Species: Hyallela azteca ID#: AMP 57

Beginning, Date 3-10-06 Time 1110

Ending, Date 4-7-06 Time 0730

Test Initiation: Tech: Tech: Bm Time: 1110

Test Termination: Tech: Tech: DW Time: 0730

Beaker Number	Start Count 0	# alive found 10	# dead found 10	Comments:
106	10	10	0	
107	10	0	0	
108	10	10	0	
109	10	10	0	
110	10	10	0	
111	10	10	0	
112	10	0	0	
113	10	0	0	
114	10	7	2	
115	10	0	0	
116	10	9	0	
117	10	9	0	
118	10	0	0	
119	10	7	0	
120	10	0	0	

Beaker Number	Start Count 0	# alive found 10	# dead found 10	Comments:
121	10	10	0	
122	10	10	0	
123	10	3	0	
124	10	10	0	
125	10	10	0	
126	10	0	0	
127	10	3	0	
128	10	9	0	
129	10	9	0	
130	10	0	0	
131	10	0	0	
132	10	1	0	
133	10	7	1	
134	10	9	0	
135	10	0	0	

DAY Ø TARE WT: 1.15305 g (3-10-06 [illegible])

wt. w/20 organisms: 1.15491 g (3-13-06 [illegible]) = 0.093 mg/organism @ initiation

CH2M HILL

FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client _____ Beginning, Date 3-10-06 Time 1110

Sample Description see randomization sheet. Batch number: B Ending, Date 4-7-06 Time 0730

Test Species: Hyallela azteca ID#: AMP 57

Test Initiation: Tech: Tech: BW Time: 1110 Test Termination: Tech: Tech: MS Time: 0730

Beaker Number	Start Count 0	# alive found 10	# dead found 10	Comments:
136	10	0	1	
137	10	10	0	
138	10	10	0	
139	10	1	0	
140	10	10	0	
141	10	10	0	
142	10	9	0	
143	10	5	0	
144	10	0	0	
145	10	3	2	look poor bodyshape
146	10	10	0	
147	10	9	0	
148	10	10	0	
149	10	9	0	
150	10	0	0	

Beaker Number	Start Count 0	# alive found 10	# dead found 10	Comments:
151	10	~~8~~ 9 BW	0	
152	10	10	0	
153	10	0	0	
154	10	2	0	
155	10	10	0	
156	10	5	~~0~~ 1 BW	
157	10	0	0	
158	10	9	0	
159	10	4	2	
160	10	8	0	
161	10	10	0	
162	10	1	0	
163	10	6	0	
164	10	1	0	
165	10	6	0	

CH2M HILL

FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Client _____ Beginning, Date 3-10-06 Time 1110

Sample Description see randomization sheet. Batch number: B Ending, Date 4-7-06 Time 1200

Test Species: Hyallcla aztcca ID#: AMP 57

Test Initiation: Tech: Tech: Time: 1110 Test Termination: Tech: Tech: Time: 0820-1200

Beaker Number	Start Count 0	# alive found 10	# dead found 10	Comments:
166	10	5	0	
167	10	1	1	
168	10	10	0	
169	10	9	0	
170	10	4	0	
171	10	2	1	LOTS of ORGANIC MATTER
172	10	8	0	
173	10	1	0	
174	10	2	0	
175	10	0	0	
176	10	0	0	
177	10	0	0	
178	10	7	0	
179	10	0	0	
180	10	7	0	

Beaker Number	Start Count 0	# alive found 10	# dead found 10	Comments:
181	10	0	0	
182	10	10	0	
183	10	8	0	
184	10	6	0	
185	10	0	0	
186	10	0	0	
187	10	5	0	
188	10	9	0	
189	10	7	0	
190	10	10	0	
191	10	9	0	
192	10	9	0	
193	10	2	0	
194	10	1	1	
195	10	10	0	

Hyallela GROWTH DATA

Client: Hanford Species ID#: AMP 57

Lab ID: see randomization sheet batch number: B Start Date: 3/7/2006

Sample Description:

Technician: BM dw

Date: 4/10/2006 1/18/2006

Tin ID Number	Total Weight (mg) (after 60°C for 24 hr)	Tare Weight (mg) (after 60°C for 24 hr)	No. of Amphipods Surviving	No. of Amphipods in Tin
106	9.28	6.88	10	10
107		6.93	0	0
108	8.84	6.98	10	10
109	8.77	6.87	10	10
110	9.97	6.91	10	10
111	9.06	6.93	10	10
112		6.97	0	0
113		6.89	0	0
114	8.23	6.90	7	7
115		6.99	0	0
116	8.16	6.76	9	9
117	8.41	6.69	9	9
118		6.83	0	0
119	8.01	6.88	7	7
120		6.92	0	0
121	7.83	6.92	10	10
122	9.26	6.87	10	10
123	14.15	13.84	3	3
124	8.59	6.99	10	10
125	8.73	6.85	10	10
126		6.93	0	0
127	7.07	6.80	3	3
128	8.20	6.88	9	9
129	8.52	6.88	9	9
130		6.77	0	0
131	6.75	6.76	0	0
132	6.98	6.88	1	1
133	7.95	6.87	7	7
134	9.18	6.95	9	9
135		6.75	0	0

weigh to 0.01 mg

Hyallela GROWTH DATA

Client Hanford Species ID# AMP 57

Lab ID: see randomization sheet batch number: B Start Date 3/7/2006

Sample Description:

Technician: BM dw
Date: 4/10/2006 1/18/2006

Tin ID Number	Total Weight (mg) (after 60°C for 24 hr)	Tare Weight (mg) (after 60°C for 24 hr)	No. of Amphipods Surviving	No. of Amphipods in Tin
136	6.80	6.79	0	0
137	8.64	6.84	10	10
138	7.97	6.90	10	10
139	6.93	6.84	1	1
140	8.28	6.85	10	10
141	8.78	6.77	10	10
142	8.60	6.97	9	9
143	7.52	6.87	5	5
144	6.82	6.83	0	0
145	7.08	6.88	3	3
146	8.44	6.77	10	10
147	9.36	6.82	9	9
148	8.97	6.93	10	10
149	8.71	6.80	9	9
150	6.83	6.83	0	0
151	8.46	6.91	8	8
152	9.51	6.76	10	10
153		6.89	0	0
154	7.15	6.97	2	2
155	9.61	6.91	10	10
156	7.36	6.87	5	5
157		6.84	0	0
158	8.85	6.66	9	9
159	7.07	6.79	4	4
160	8.51	6.83	8	8
161	9.31	6.90	10	10
162	6.95	6.79	1	1
163	8.18	6.93	6	6
164	6.80	6.72	1	1
165	7.53	6.71	6	6

weigh to 0.01 mg

Hyallela GROWTH DATA

Client Hanford Species ID# AMP 57

Lab ID: see randomization sheet batch number: B Start Date 3/7/2006

Sample Description:

Technician: BM dw

Date: 4/10/2006 1/18/2006

Tin ID Number	Total Weight (mg) (after 60°C for 24 hr)	Tare Weight (mg) (after 60°C for 24 hr)	No. of Amphipods Surviving	No. of Amphipods in Tin
166	7.30	6.89	5	5
167	6.96	6.87	1	1
168	7.88	6.86	10	10
169	8.49	6.74	9	9
170	7.19	6.85	4	4
171	7.10	6.93	2	2
172	8.07	6.73	8	8
173	6.96	6.84	1	1
174	7.01	6.81	2	2
175	6.91	6.91	0	0
176	6.81	6.81	0	0
177	6.89	6.90	0	0
178	7.75	6.83	7	7
179	6.80	6.80	0	0
180	7.78	6.81	7	7
181	6.75	6.75	0	0
182	9.06	6.91	10	10
183	7.66	6.74	8	8
184	7.91	6.81	6	6
185	6.94	6.95	0	0
186	6.76	6.77	0	0
187	7.20	6.82	5	5
188	8.34	6.72	9	9
189	8.60	6.90	7	7
190	9.18	6.85	10	10
191	9.20	6.79	9	9
192	7.65	6.86	9	9
193	7.01	6.84	2	2
194	6.87	6.81	1	1
195	9.97	6.66	10	10

weigh to 0.01 mg

CETIS Test Summary

Report Date: 10 Apr-06 10:53 AM
Test Link: 08-9139-0844/B153821hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — CH2M Hill

Test No:	04-4725-7754	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	10-1661-4162	**Code:**	B1538-21	**Client:**	
Sample Date:	19 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	19d 0h	**Station:**			

Comments: J11748

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
10-8334-3390	28d Mean Dry Weight	100	> 100	N/A	31.45%	Equal Variance t Two-Sample
16-4454-8254	28d Proportion Survived	< 100	100	N/A	7.97%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
16-4454-8254	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		1	0.16000	0.16000	0.16000			

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.02000	0.00000	0.10000	0.02000	0.04472	223.61

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000 ✓	0.14300 ✓	0.18000 ✓	0.19000 ✓	0.18800 ✓
100		0.16000 ✓				

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000 ✓	1.00000 ✓	1.00000 ✓	1.00000 ✓	1.00000 ✓
100		0.00000 ✓	0.00000 ✓	0.00000 ✓	0.00000 ✓	0.10000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	08-9139-0844	08-9139-0844	10 Apr-06 10:51 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	7.97%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	16.7731	1.85955	0.0000	0.12857	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	3.362077	3.362077	1	281.34	0.00000	Significant Effect
Error	0.0956028	0.011950	8			
Total	3.45767953	3.3740271	9			

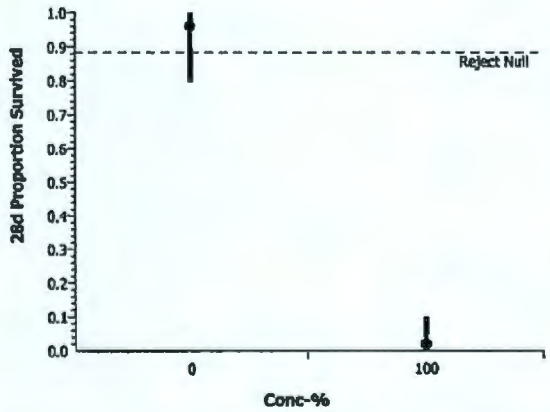
ANOVA Assumptions

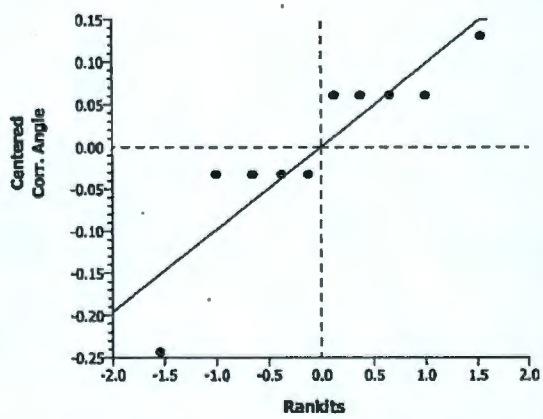
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.49949	23.15450	0.25245	Equal Variances
Distribution	Shapiro-Wilk W	0.82476		0.02893	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.02000	0.00000	0.10000	0.04472	0.19137	0.15878	0.32175	0.07288

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	08-9139-0844	08-9139-0844	10 Apr-06 10:53 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	31.45%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	0.82584	2.13185	0.2277	0.05731	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0004107	0.000411	1	0.68	0.45530	Non-Significant Effect
Error	0.0024088	0.000602	4			
Total	0.00281951	0.0010129	5			

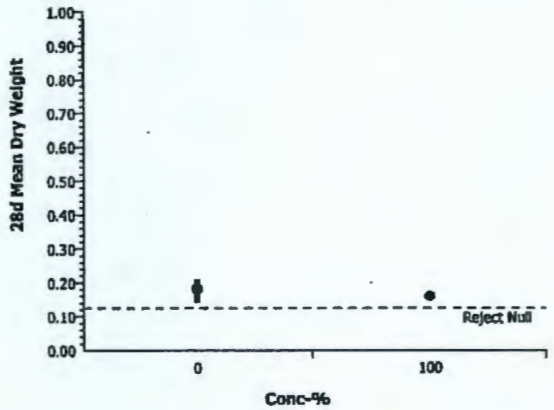
ANOVA Assumptions

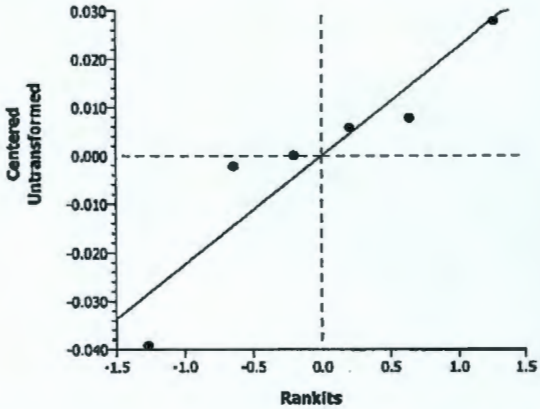
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Distribution	Shapiro-Wilk W	0.89371		0.33811	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		1	0.16000	0.16000	0.16000					

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 10:54 AM
Test Link: 17-7989-8220/B153822hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — CH2M Hill

Test No:	08-3505-0742	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	02-7753-8486	**Code:**	B1538-22	**Client:**	
Sample Date:	19 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	19d 0h	**Station:**			

Comments: J11749

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
02-5049-1522	28d Mean Dry Weight	< 100	100	N/A	24.67%	Equal Variance t Two-Sample
08-8871-0335	28d Proportion Survived	< 100	100	N/A	14.15%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
08-8871-0335	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.12149	0.07000	0.18333	0.02154	0.04816	39.64%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.62000	0.40000	0.90000	0.08602	0.19235	31.02%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.07600	0.07000	0.18333	0.13143	0.14667

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.50000✓	0.40000✓	0.60000✓	0.70000✓	0.90000✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	17-7989-8220	17-7989-8220	10 Apr-06 10:54 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	14.15%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	3.77009	1.85955	0.0027	0.21296	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.4660488	0.466049	1	14.21	0.00546	Significant Effect
Error	0.2623126	0.032789	8			
Total	0.72836134	0.4988378	9			

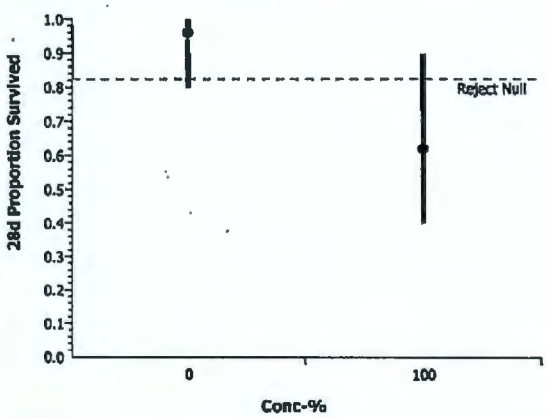
ANOVA Assumptions

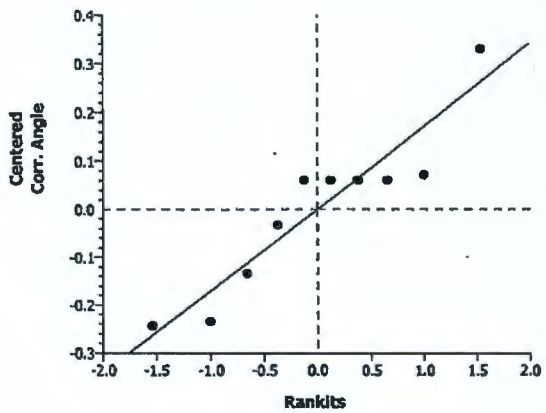
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.52783	23.15450	0.39100	Equal Variances
Distribution	Shapiro-Wilk W	0.89030		0.17091	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.62000	0.40000	0.90000	0.19235	0.91928	0.68472	1.24905	0.21677

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	17-7989-8220	17-7989-8220	10 Apr-06 10:54 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	24.67%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	2.51167	1.85955	0.0181	0.04495	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0092156	0.009216	1	6.31	0.03628	Significant Effect
Error	0.0116866	0.001461	8			
Total	0.02090217	0.0106764	9			

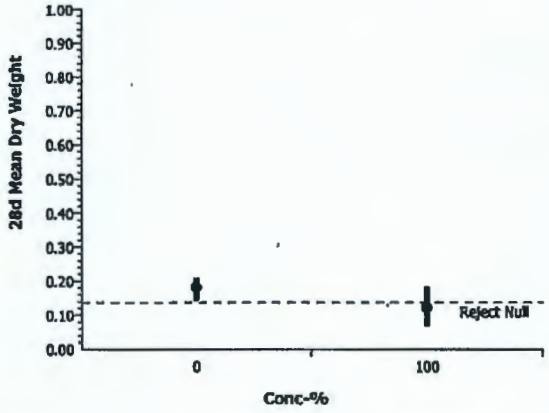
ANOVA Assumptions

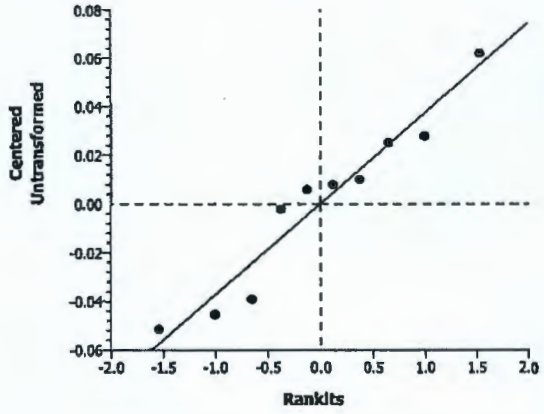
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.85162	23.15450	0.21988	Equal Variances
Distribution	Shapiro-Wilk W	0.93444		0.49298	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.12149	0.07000	0.18333	0.04816				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:00 AM
Test Link: 13-5362-0937/B153823hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	05-7988-0151	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	04-3752-9454	**Code:**	B1538-23	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J112B3

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
06-5035-5858	28d Mean Dry Weight	< 100	100	N/A	17.13%	Equal Variance t Two-Sample
03-3975-4503	28d Proportion Survived	< 100	100	N/A	20.34%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
03-3975-4503	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.11329	0.09000	0.16143	0.01270	0.02839	25.06%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.66000	0.30000	1.00000	0.12083	0.27019	40.94%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.09000	0.11500	0.16143	0.10200	0.09800

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.30000✓	0.80000✓	0.70000✓	1.00000✓	0.50000✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	13-5362-0937	13-5362-0937	10 Apr-06 11:00 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	20.34%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	2.4388	1.85955	0.0203	0.28667	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.3533851	0.353385	1	5.95	0.04064	Significant Effect
Error	0.4753213	0.059415	8			
Total	0.82870632	0.4128002	9			

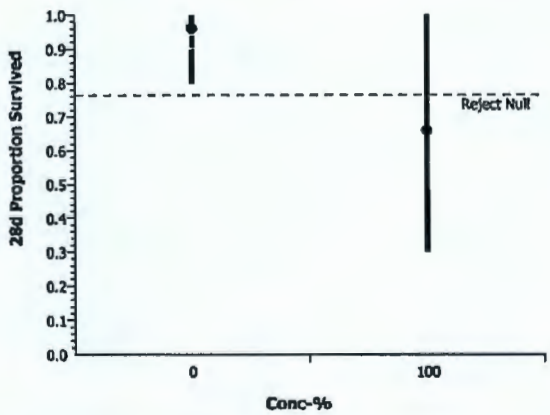
ANOVA Assumptions

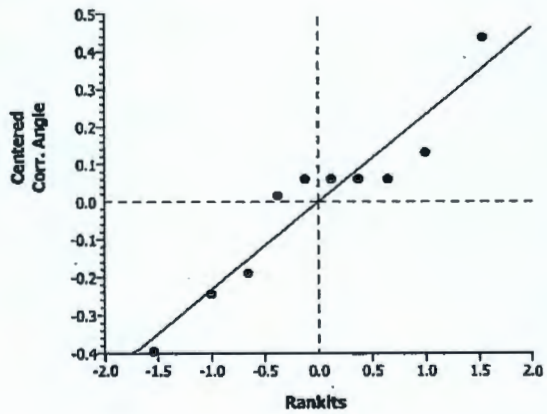
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	5.39257	23.15450	0.13151	Equal Variances
Distribution	Shapiro-Wilk W	0.91773		0.33842	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.66000	0.30000	1.00000	0.27019	0.97507	0.57964	1.41202	0.31661

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	13-5362-0937	13-5362-0937	10 Apr-06 11:00 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	17.13%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	4.10644	1.85955	0.0017	0.03121	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.011873	0.011873	1	16.86	0.00341	Significant Effect
Error	0.0056327	0.000704	8			
Total	0.01750567	0.0125770	9			

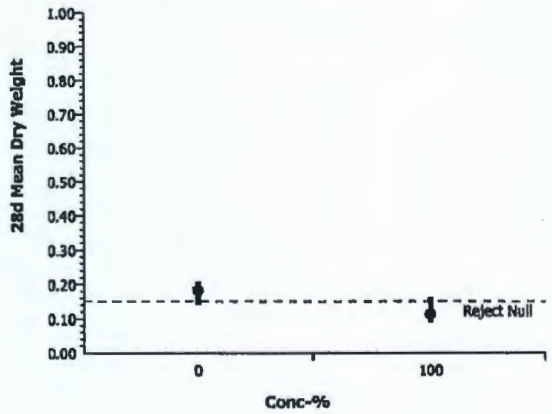
ANOVA Assumptions

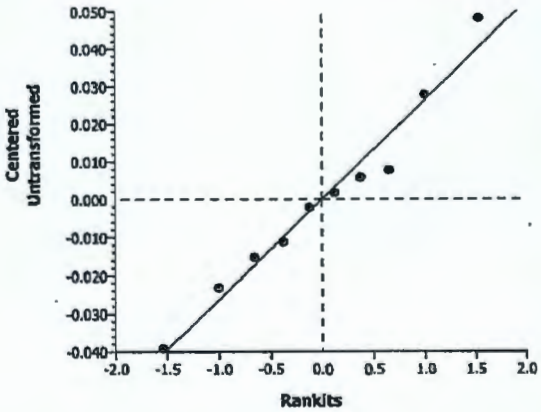
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.33839	23.15450	0.78445	Equal Variances
Distribution	Shapiro-Wilk W	0.97530		0.93519	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.11329	0.09000	0.16143	0.02839				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:02 AM
Test Link: 10-6234-7069/B153824hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	07-5026-1667	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	02-2128-7235	**Code:**	B1538-24	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J112B4

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
08-8041-3145	28d Mean Dry Weight	< 100	100	N/A	18.72%	Equal Variance t Two-Sample
12-8422-4010	28d Proportion Survived	< 100	100	N/A	26.97%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
12-8422-4010	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		4	0.11200	0.08500	0.13857	0.01480	0.02961	26.44%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.52000	0.00000	0.90000	0.15297	0.34205	65.78%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.13857	0.08500	0.08778	0.13667	

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.70000✓	0.40000✓	0.90000 ✓	0.60000✓	0.00000✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	10-6234-7069	10-6234-7069	10 Apr-06 11:02 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	26.97%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	2.88794	1.85955	0.0101	0.35871	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.7758644	0.775864	1	8.34	0.02026	Significant Effect
Error	0.7442173	0.093027	8			
Total	1.52008176	0.8688916	9			

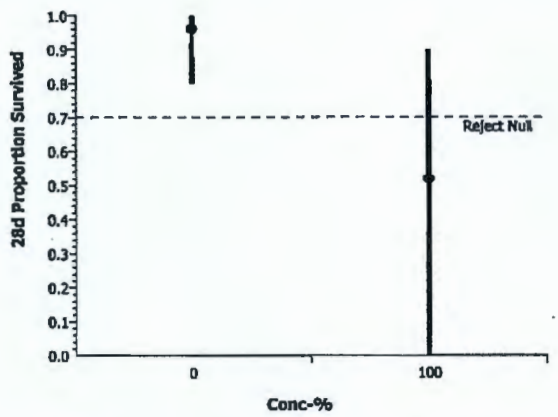
ANOVA Assumptions

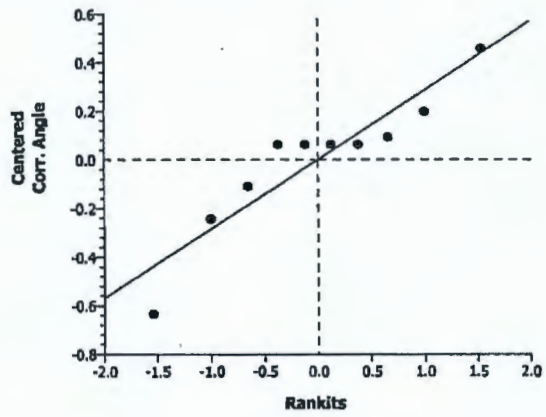
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	9.00893	23.15450	0.05590	Equal Variances
Distribution	Shapiro-Wilk W	0.88982		0.16879	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.52000	0.00000	0.90000	0.34205	0.79396	0.15878	1.24905	0.40923

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	10-6234-7069	10-6234-7069	10 Apr-06 11:02 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	18.72%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	3.90016	1.89458	0.0029	0.0341	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.01095	0.01095	1	15.21	0.00590	Significant Effect
Error	0.0050390	0.00072	7			
Total	0.01598897	0.0116698	8			

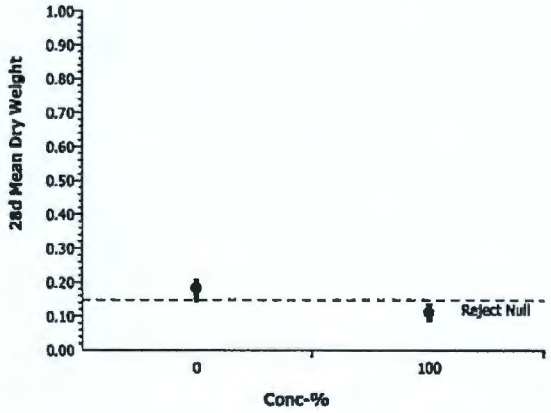
ANOVA Assumptions

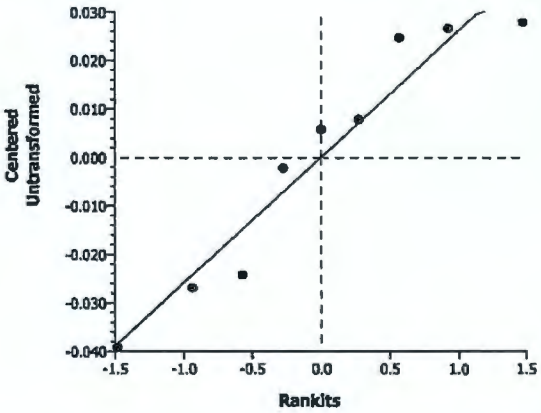
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.45588	24.25912	0.70497	Equal Variances
Distribution	Shapiro-Wilk W	0.90290		0.26932	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		4	0.11200	0.08500	0.13857	0.02961				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:05 AM
Test Link: 15-8101-9572/B153825hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M HILL**

Test No:	11-3184-5949	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	06-0275-8962	**Code:**	B1538-25	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J112B5

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
16-2217-9453	28d Proportion Survived	< 100	100	N/A	6.97%	Wilcoxon Rank Sum Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
16-2217-9453	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.00000	0.00000	0.00000	0.00000	0.00000	0.00%

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.00000✓	0.00000✓	0.00000✓	0.00000✓	0.00000✓

CETIS Analysis Detail

Hyalleia 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	15-8101-9572	15-8101-9572	10 Apr-06 11:05 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Wilcoxon Rank Sum Two-Sample	C > T	Rank		<100	100		N/A	6.97%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	Ties	Decision(0.05)
Dilution Sediment		100	15		0.0040	0	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	3.553724	3.553724	1	382.35	0.00000	Significant Effect
Error	0.0743553	0.009294	8			
Total	3.62807959	3.5630187	9			

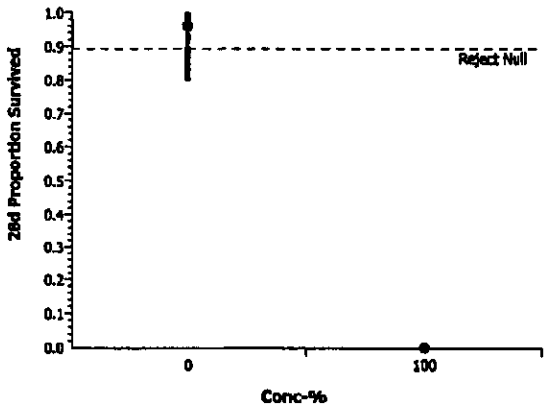
ANOVA Assumptions

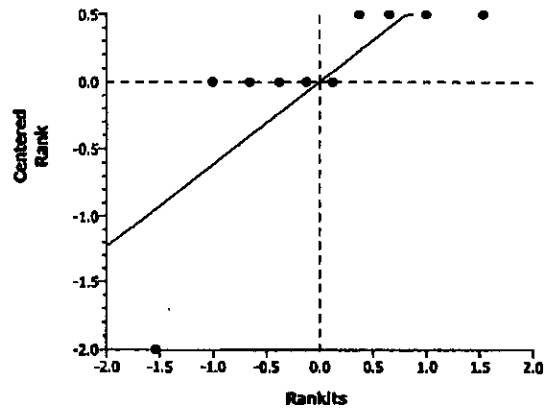
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Modified Levene	1.60000	11.25862	0.24150	Equal Variances
Distribution	Shapiro-Wilk W	0.62470		0.00011	Non-normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	8.00000	6.00000	8.50000	1.11803
100		5	0.00000	0.00000	0.00000	0.00000	3.00000	3.00000	3.00000	0.00000

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:06 AM
Test Link: 12-2006-0725/B153826hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	09-2390-8146	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	08-5209-4296	**Code:**	B1538-26	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J112B6

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
15-1862-7993	28d Mean Dry Weight	< 100	100	N/A	13.25%	Equal Variance t Two-Sample
15-0282-0531	28d Proportion Survived	< 100	100	N/A	9.76%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
15-0282-0531	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		4	0.09125	0.08500	0.10000	0.00315	0.00629	6.89%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.12000	0.00000	0.20000	0.03742	0.08367	69.72%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.08500	0.10000	0.09000	0.09000	

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.20000 ✓	0.00000 ✓	0.20000 ✓	0.10000 ✓	0.10000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	12-2006-0725	12-2006-0725	10 Apr-06 11:06 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	9.76%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	12.0887	1.85955	0.0000	0.15461	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	2.525702	2.525702	1	146.14	0.00000	Significant Effect
Error	0.1382645	0.017283	8			
Total	2.66396675	2.5429853	9			

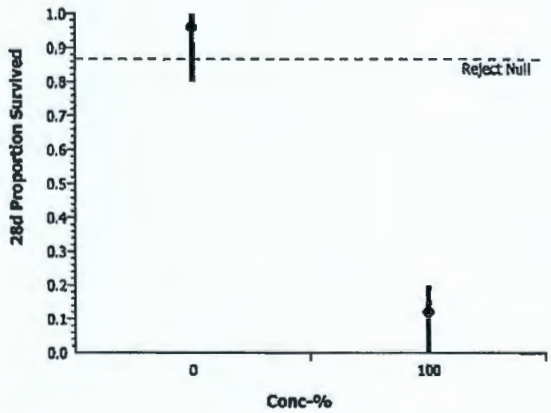
ANOVA Assumptions

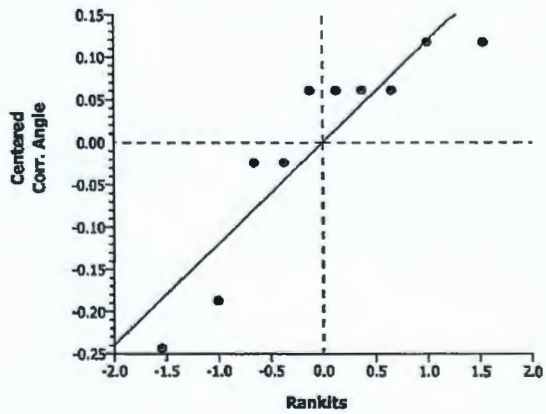
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.16345	23.15450	0.88689	Equal Variances
Distribution	Shapiro-Wilk W	0.81879		0.02450	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.12000	0.00000	0.20000	0.08367	0.34592	0.15878	0.46365	0.12640

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	12-2006-0725	12-2006-0725	10 Apr-06 11:06 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	13.25%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	7.13502	1.89458	0.0001	0.02415	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0183820	0.018382	1	50.91	0.00019	Significant Effect
Error	0.0025276	0.000361	7			
Total	0.02090957	0.0187431	8			

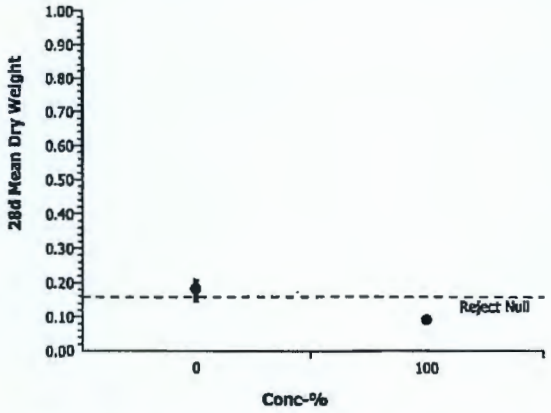
ANOVA Assumptions

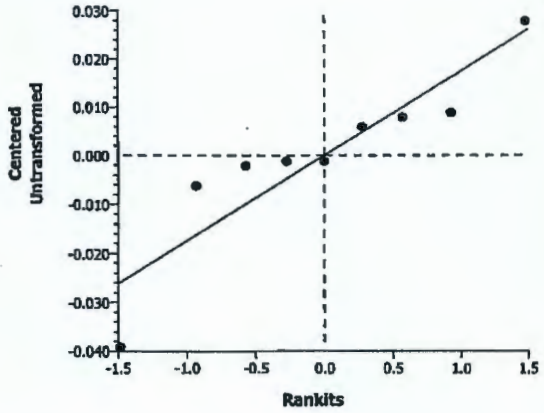
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	15.21319	46.19462	0.04948	Equal Variances
Distribution	Shapiro-Wilk W	0.87237		0.13034	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		4	0.09125	0.08500	0.10000	0.00629				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:08 AM
Test Link: 03-3032-0079/B153827hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	08-3754-8212	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	14-9751-8021	**Code:**	B1538-27	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J116M6

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
10-7037-4920	28d Mean Dry Weight	< 100	100	N/A	31.45%	Equal Variance t Two-Sample
05-6601-0929	28d Proportion Survived	< 100	100	N/A	10.17%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
05-6601-0929	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		1	0.08500	0.08500	0.08500			

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.04000	0.00000	0.20000	0.04000	0.08944	223.61

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.08500				

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.00000 ✓	0.00000 ✓	0.20000 ✓	0.00000 ✓	0.00000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	03-3032-0079	03-3032-0079	10 Apr-06 11:08 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	10.17%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	13.1195	1.85955	0.0000	0.16035	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	3.199537	3.199537	1	172.12	0.00000	Significant Effect
Error	0.1487106	0.018589	8			
Total	3.34824717	3.2181254	9			

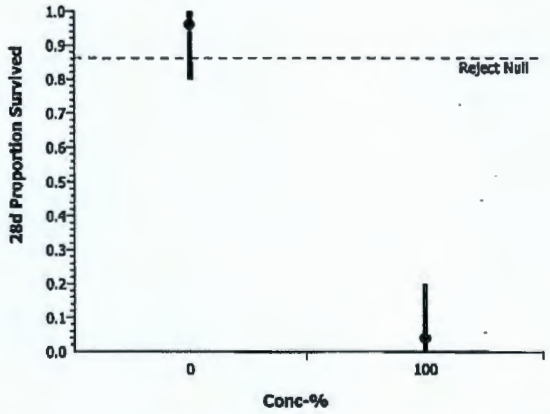
ANOVA Assumptions

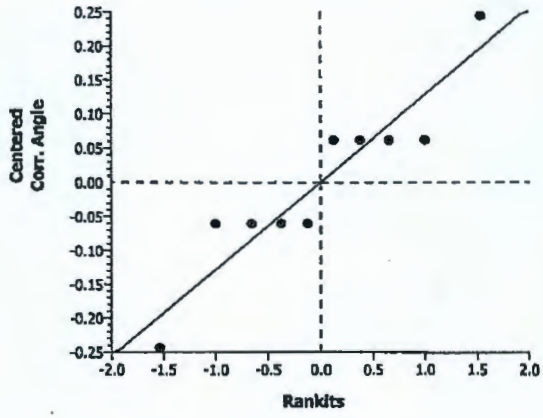
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.00000	23.15450	1.00000	Equal Variances
Distribution	Shapiro-Wilk W	0.90063		0.22264	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.04000	0.00000	0.20000	0.08944	0.21975	0.15878	0.46365	0.13634

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	03-3032-0079	03-3032-0079	10 Apr-06 11:08 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	31.45%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	3.61580	2.13185	0.0112	0.05731	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0078732	0.007873	1	13.07	0.02244	Significant Effect
Error	0.0024088	0.000602	4			
Total	0.01028200	0.0084754	5			

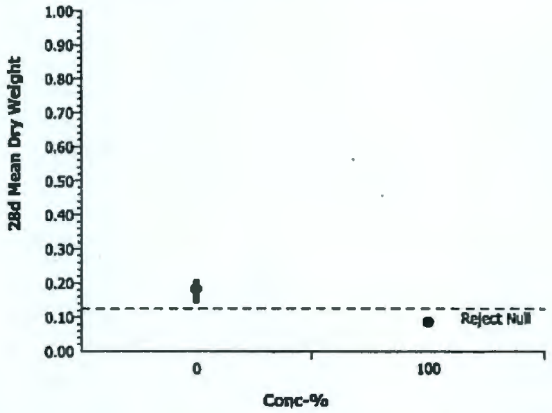
ANOVA Assumptions

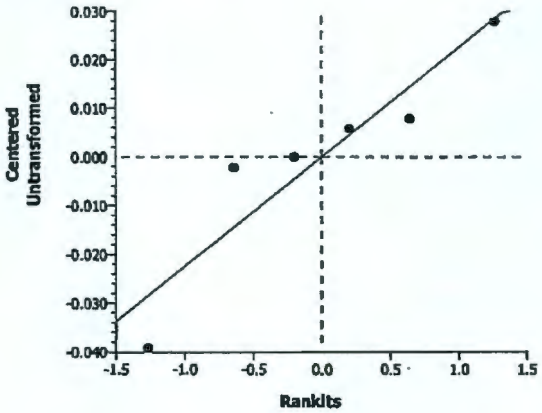
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Distribution	Shapiro-Wilk W	0.89371		0.33811	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		1	0.08500	0.08500	0.08500					

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:15 AM
Test Link: 04-1911-1052/B153828hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	14-7601-1535	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	16-5947-6775	**Code:**	B1538-28	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J116M7

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
11-0365-7894	28d Mean Dry Weight	< 100	100	N/A	21.14%	Equal Variance t Two-Sample
06-8965-4096	28d Proportion Survived	< 100	100	N/A	8.44%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
06-8965-4096	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		2	0.07000	0.06000	0.08000	0.01000	0.01414	20.20%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.04000	0.00000	0.10000	0.02449	0.05477	136.93

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.06000	0.08000			

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.10000 ✓	0.10000 ✓	0.00000 ✓	0.00000 ✓	0.00000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	04-1911-1052	04-1911-1052	10 Apr-06 11:15 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	8.44%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	15.4650	1.85955	0.0000	0.13552	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	3.175741	3.175741	1	239.17	0.00000	Significant Effect
Error	0.1062265	0.013278	8			
Total	3.2819677	3.1890195	9			

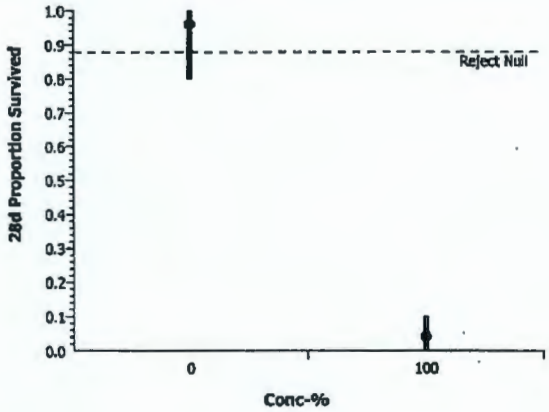
ANOVA Assumptions

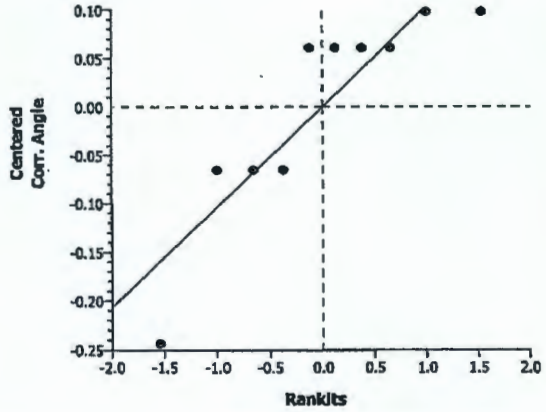
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.33299	23.15450	0.43208	Equal Variances
Distribution	Shapiro-Wilk W	0.80360		0.01604	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.04000	0.00000	0.10000	0.05477	0.22397	0.15878	0.32175	0.08926

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	04-1911-1052	04-1911-1052	10 Apr-06 11:15 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	21.14%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	5.87093	2.01505	0.0010	0.03851	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0179840	0.017984	1	34.47	0.00203	Significant Effect
Error	0.0026088	0.000522	5			
Total	0.02059282	0.0185058	6			

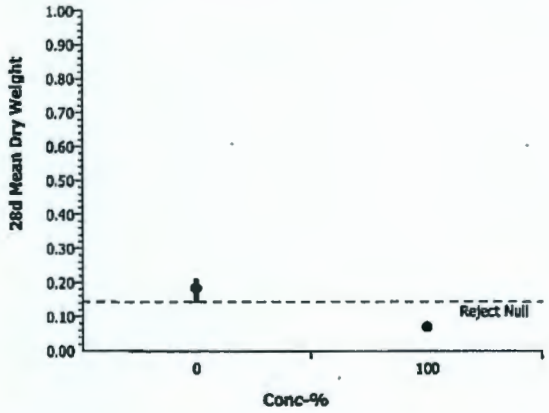
ANOVA Assumptions

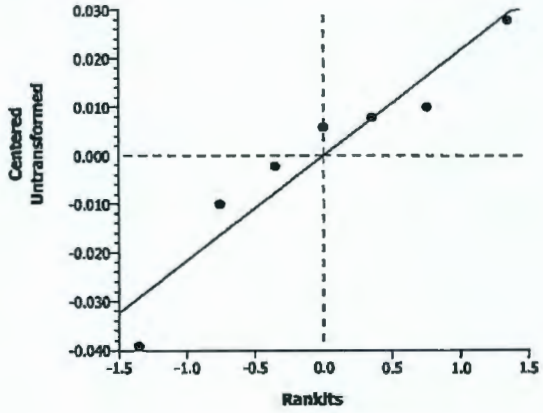
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.01087	22499.58000	0.80943	Equal Variances
Distribution	Shapiro-Wilk W	0.92862		0.53926	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		2	0.07000	0.06000	0.08000	0.01414				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:17 AM
Test Link: 02-3392-2622/B153829hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	11-2051-2293	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	07-8377-5462	**Code:**	B1538-29	**Client:**	
Sample Date:	21 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	17d 0h	**Station:**			

Comments: J11734

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
04-3426-0089	28d Mean Dry Weight	< 100	100	N/A	19.85%	Equal Variance t Two-Sample
14-0762-2720	28d Proportion Survived	< 100	100	N/A	13.86%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
14-0762-2720	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		3	0.09667	0.06667	0.12000	0.01575	0.02728	28.23%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.14000	0.00000	0.30000	0.06782	0.15166	108.33

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.06667	0.12000	0.10333		

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.30000 ✓	0.10000 ✓	0.00000 ✓	0.00000 ✓	0.30000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	02-3392-2622	02-3392-2622	10 Apr-06 11:17 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	13.86%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	8.80908	1.85955	0.0000	0.20926	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	2.456811	2.456811	1	77.60	0.00002	Significant Effect
Error	0.25328	0.03166	8			
Total	2.71009091	2.4884709	9			

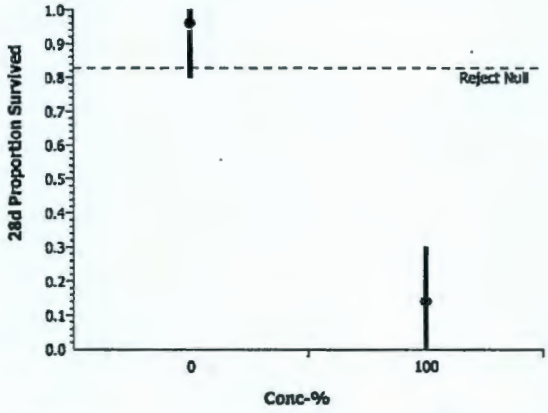
ANOVA Assumptions

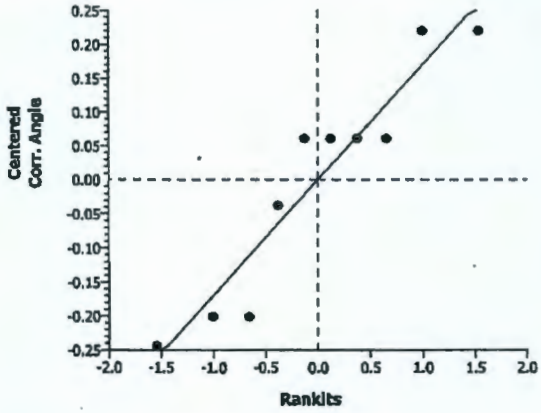
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.40635	23.15450	0.41590	Equal Variances
Distribution	Shapiro-Wilk W	0.88272		0.14020	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.14000	0.00000	0.30000	0.15166	0.35972	0.15878	0.57964	0.21150

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	02-3392-2622	02-3392-2622	10 Apr-06 11:17 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	19.85%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	4.59525	1.94318	0.0019	0.03617	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0137175	0.013717	1	21.12	0.00371	Significant Effect
Error	0.0038977	0.00065	6			
Total	0.01761514	0.0143671	7			

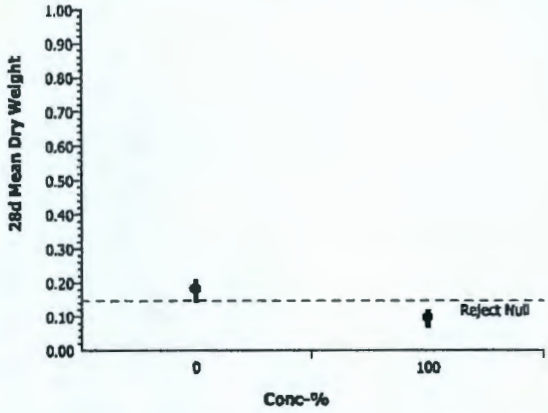
ANOVA Assumptions

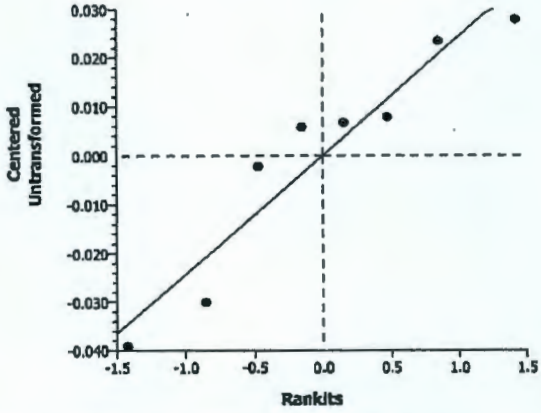
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.23620	26.28427	0.76387	Equal Variances
Distribution	Shapiro-Wilk W	0.89942		0.28551	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		3	0.09667	0.06667	0.12000	0.02728				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:18 AM
Test Link: 01-7602-9725/B153830hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	12-6135-1799	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	02-3574-7842	**Code:**	B1538-30	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116X2

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
11-0194-0748	28d Mean Dry Weight	100	> 100	N/A	18.92%	Equal Variance t Two-Sample
18-9167-9932	28d Proportion Survived	100	> 100	N/A	9.76%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
18-9167-9932	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.20734	0.16750	0.24333	0.01494	0.03341	16.11%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.88000	0.80000	1.00000	0.03742	0.08367	9.51%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.19375	0.16750	0.24100	0.24333	0.19111

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.80000 ✓	0.80000 ✓	1.00000 ✓	0.90000 ✓	0.90000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	01-7602-9725	01-7602-9725	10 Apr-06 11:18 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	9.76%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	1.51735	1.85955	0.0838	0.15461	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0397919	0.039792	1	2.30	0.16765	Non-Significant Effect
Error	0.1382645	0.017283	8			
Total	0.17805639	0.0570749	9			

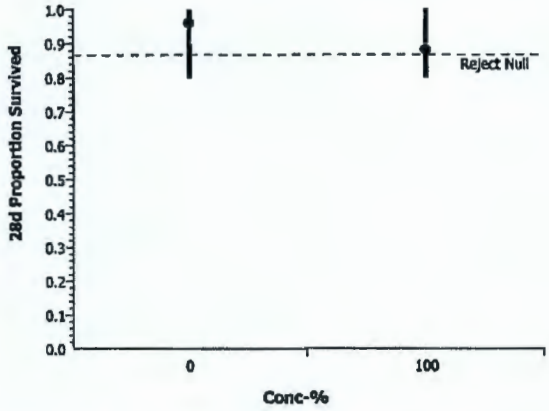
ANOVA Assumptions

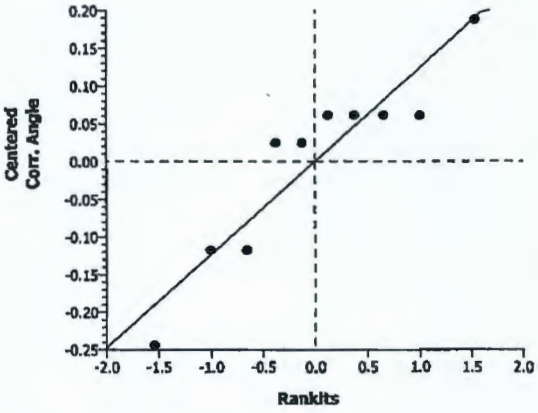
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.16345	23.15450	0.88689	Equal Variances
Distribution	Shapiro-Wilk W	0.88789		0.16054	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.88000	0.80000	1.00000	0.08367	1.22488	1.10715	1.41202	0.12640

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	01-7602-9725	01-7602-9725	10 Apr-06 11:18 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	18.92%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	-1.3561	1.85955	0.8940	0.03447	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0015799	0.00158	1	1.84	0.21209	Non-Significant Effect
Error	0.0068726	0.000859	8			
Total	0.00845253	0.002439	9			

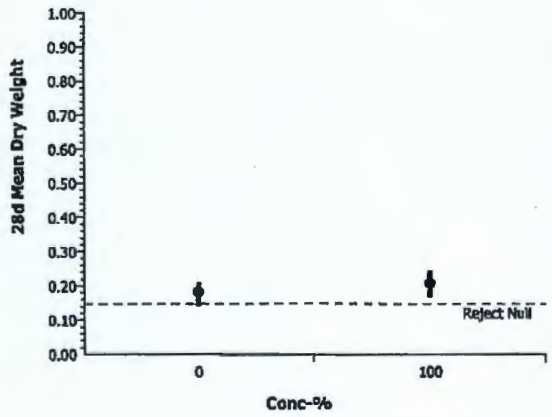
ANOVA Assumptions

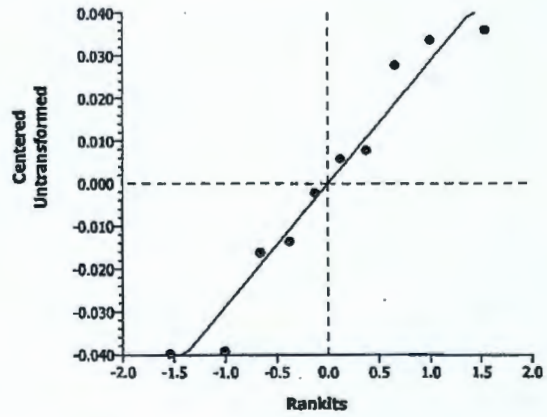
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.85313	23.15450	0.56485	Equal Variances
Distribution	Shapiro-Wilk W	0.92798		0.42834	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.20734	0.16750	0.24333	0.03341				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:22 AM
Test Link: 05-3200-4993/B153831hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	16-1303-6858	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	06-5599-6068	**Code:**	B1538-31	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116W9

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
09-5439-4519	28d Mean Dry Weight	< 100	100	N/A	16.12%	Equal Variance t Two-Sample
06-6574-6851	28d Proportion Survived	< 100	100	N/A	16.75%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
06-6574-6851	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		3	0.09067	0.08200	0.10000	0.00521	0.00902	9.95%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.16000	0.00000	0.50000	0.09274	0.20736	129.60

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.08200	0.10000	0.09000		

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.50000 ✓	0.10000 ✓	0.00000 ✓	0.00000 ✓	0.20000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	05-3200-4993	05-3200-4993	10 Apr-06 11:22 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	16.75%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	7.39035	1.85955	0.0000	0.24492	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	2.368629	2.368629	1	54.62	0.00008	Significant Effect
Error	0.3469422	0.043368	8			
Total	2.71557137	2.411997	9			

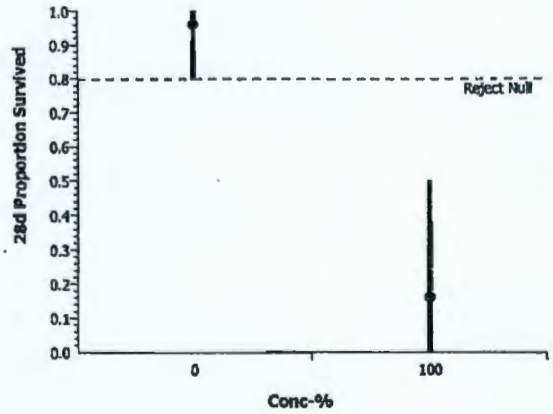
ANOVA Assumptions

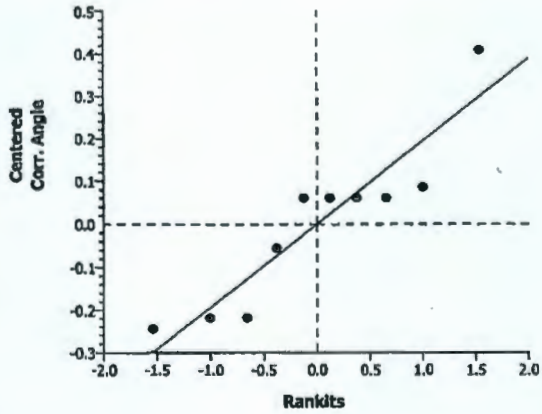
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.66600	23.15450	0.23621	Equal Variances
Distribution	Shapiro-Wilk W	0.86709		0.09243	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.16000	0.00000	0.50000	0.20736	0.37767	0.15878	0.78540	0.26105

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	05-3200-4993	05-3200-4993	10 Apr-06 11:22 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	16.12%

Group Comparisons

Control vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment	100	6.05431	1.94318	0.0005	0.02938	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0157094	0.015709	1	36.65	0.00092	Significant Effect
Error	0.0025715	0.000429	6			
Total	0.01828087	0.016138	7			

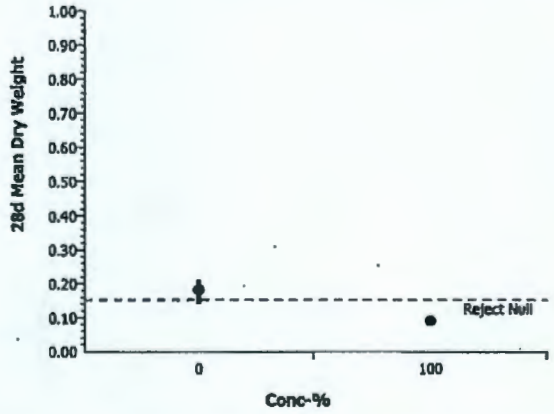
ANOVA Assumptions

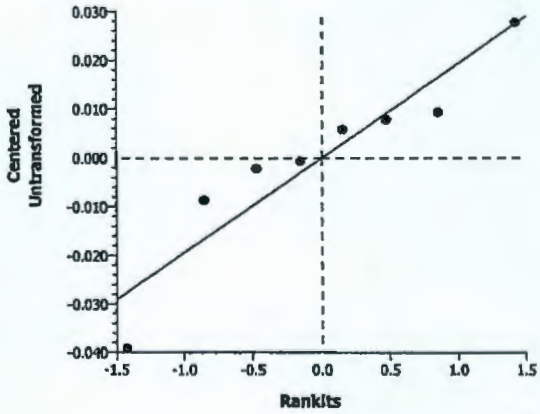
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	7.40425	199.24970	0.24503	Equal Variances
Distribution	Shapiro-Wilk W	0.90906		0.34748	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		3	0.09067	0.08200	0.10000	0.00902				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:23 AM
Test Link: 09-7284-1143/B153832hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	06-5231-4106	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	10-2090-3158	**Code:**	B1538-32	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116X0

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
07-0218-0612	28d Mean Dry Weight	100	> 100	N/A	30.61%	Equal Variance t Two-Sample
10-8400-2966	28d Proportion Survived	100	> 100	N/A	6.97%	Wilcoxon Rank Sum Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
10-8400-2966	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.25100	0.20100	0.33100	0.02791	0.06241	24.86%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	1.00000	1.00000	1.00000	0.00000	0.00000	0.00%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.21300	0.30600	0.33100	0.20100	0.20400

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		1.00000 ✓	1.00000 ✓	1.00000 ✓	1.00000 ✓	1.00000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	09-7284-1143	09-7284-1143	10 Apr-06 11:23 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Wilcoxon Rank Sum Two-Sample	C > T	Rank		100	>100	1	N/A	6.97%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	Ties	Decision(0.05)
Dilution Sediment		100	30		0.6548	4	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0092944	0.009294	1	1.00	0.34659	Non-Significant Effect
Error	0.0743553	0.009294	8			
Total	0.08364972	0.0185888	9			

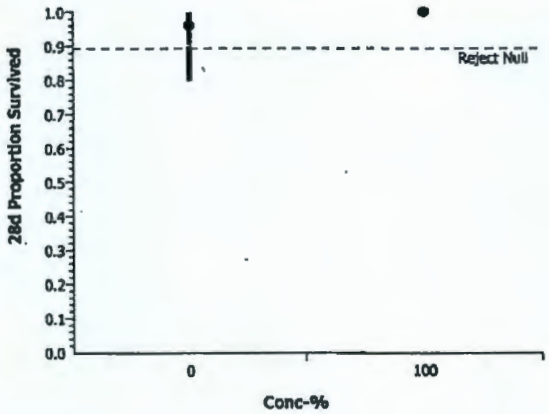
ANOVA Assumptions

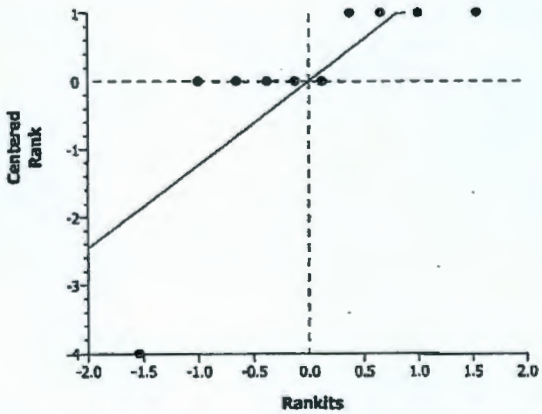
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Modified Levene	1.60000	11.25862	0.24150	Equal Variances
Distribution	Shapiro-Wilk W	0.62470		0.00011	Non-normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	5.00000	1.00000	6.00000	2.23607
100		5	1.00000	1.00000	1.00000	0.00000	6.00000	6.00000	6.00000	0.00000

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	09-7284-1143	09-7284-1143	10 Apr-06 11:23 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	30.61%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	-2.2942	1.85955	0.9745	0.05577	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0118336	0.011834	1	5.26	0.05093	Non-Significant Effect
Error	0.0179868	0.002248	8			
Total	0.02982042	0.014082	9			

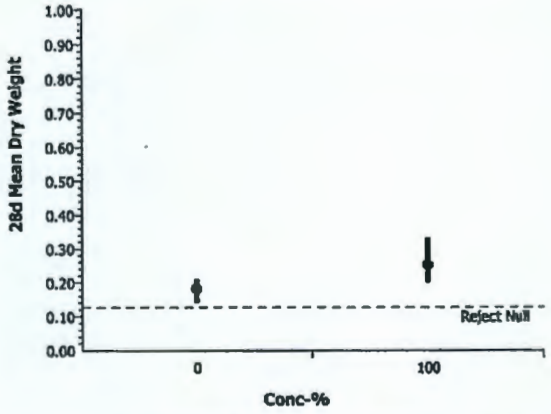
ANOVA Assumptions

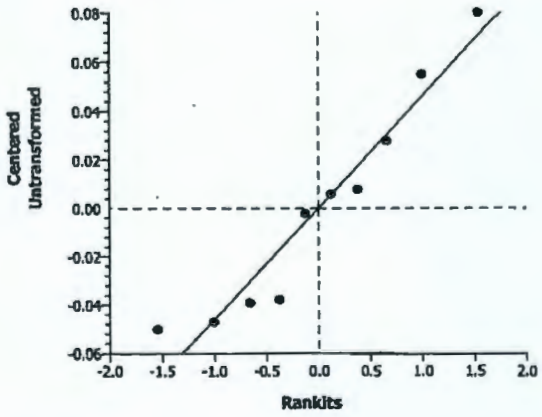
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	6.46711	23.15450	0.09800	Equal Variances
Distribution	Shapiro-Wilk W	0.91722		0.33433	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.25100	0.20100	0.33100	0.06241				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:25 AM
Test Link: 07-6908-9009/B153833hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	03-2484-1176	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	07-2556-8640	**Code:**	B1538-33	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116X1

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
11-9944-6587	28d Mean Dry Weight	100	> 100	N/A	17.85%	Equal Variance t Two-Sample
03-6243-7501	28d Proportion Survived	100	> 100	N/A	8.44%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
03-6243-7501	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.19756	0.16000	0.24000	0.01361	0.03044	15.41%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.94000	0.90000	1.00000	0.02449	0.05477	5.83%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.16000	0.19444	0.18111	0.21222	0.24000

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		1.00000 ✓	0.90000 ✓	0.90000 ✓	0.90000 ✓	1.00000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	07-6908-9009	07-6908-9009	10 Apr-06 11:25 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	8.44%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	0.50507	1.85955	0.3136	0.13552	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0033872	0.003387	1	0.26	0.62713	Non-Significant Effect
Error	0.1062265	0.013278	8			
Total	0.10961371	0.0166655	9			

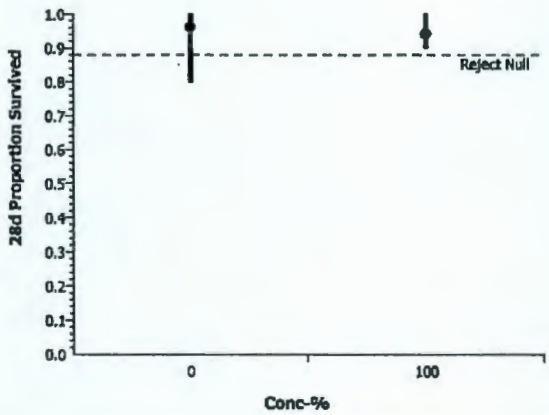
ANOVA Assumptions

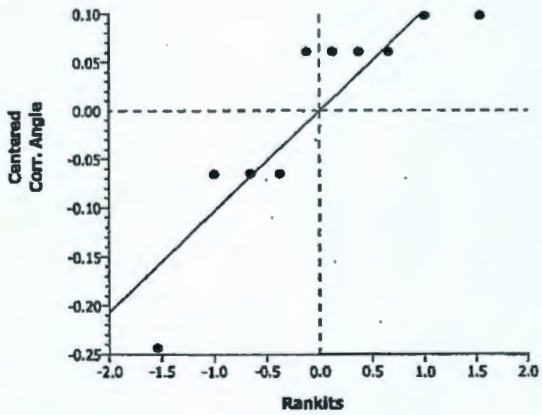
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.33299	23.15450	0.43208	Equal Variances
Distribution	Shapiro-Wilk W	0.80360		0.01604	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.94000	0.90000	1.00000	0.05477	1.31423	1.24905	1.41202	0.08926

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	07-6908-9009	07-6908-9009	10 Apr-06 11:25 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	17.85%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	-0.8781	1.85955	0.7973	0.03252	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0005895	0.000589	1	0.77	0.40548	Non-Significant Effect
Error	0.006116	0.000764	8			
Total	0.00670544	0.001354	9			

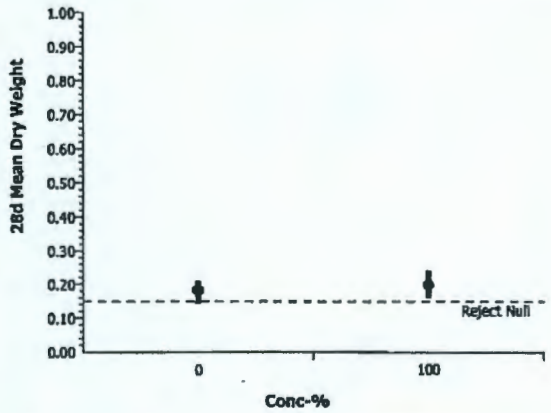
ANOVA Assumptions

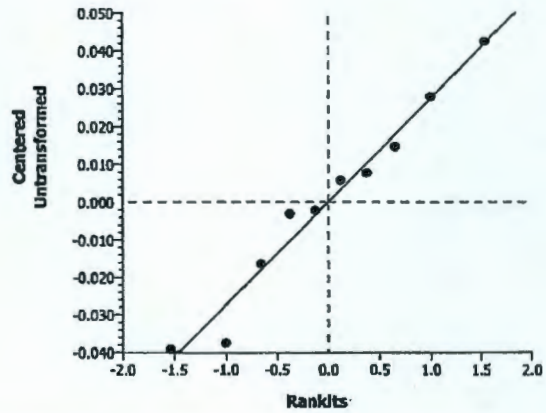
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.53900	23.15450	0.68635	Equal Variances
Distribution	Shapiro-Wilk W	0.96113		0.79872	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.19756	0.16000	0.24000	0.03044				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:29 AM
Test Link: 05-1276-0371/B153834hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	03-6512-6552	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	06-8119-3467	**Code:**	B1538-34	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116X3

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
16-0552-1638	28d Mean Dry Weight	< 100	100	N/A	18.28%	Equal Variance t Two-Sample
10-6618-9985	28d Proportion Survived	100	> 100	N/A	18.97%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
10-6618-9985	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.12986	0.09100	0.16700	0.01416	0.03166	24.38%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.84000	0.50000	1.00000	0.10296	0.23022	27.41%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.15429 ✓	0.16700 ✓	0.09100 ✓	0.13000 ✓	0.10700 ✓

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.70000 ✓	1.00000 ✓	1.00000 ✓	0.50000 ✓	1.00000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	05-1276-0371	05-1276-0371	10 Apr-06 11:29 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	18.97%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	1.01923	1.85955	0.1690	0.27097	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.055147	0.055147	1	1.04	0.33792	Non-Significant Effect
Error	0.4246863	0.053086	8			
Total	0.47983326	0.1082328	9			

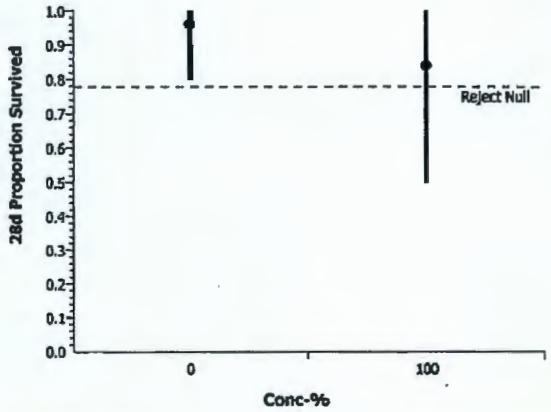
ANOVA Assumptions

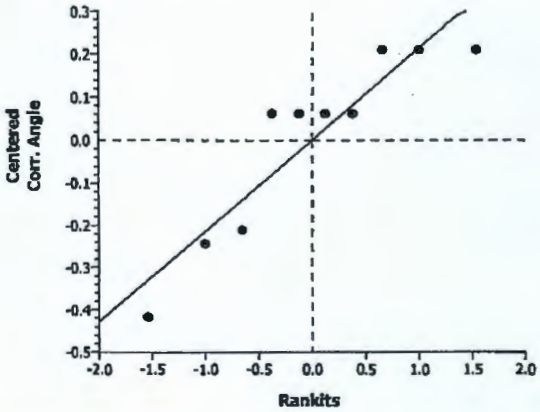
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	4.71158	23.15450	0.16246	Equal Variances
Distribution	Shapiro-Wilk W	0.84447		0.04991	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.84000	0.50000	1.00000	0.23022	1.20252	0.78540	1.41202	0.29594

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	05-1276-0371	05-1276-0371	10 Apr-06 11:29 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		<100	100		N/A	18.28%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	2.92206	1.85955	0.0096	0.03331	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0068494	0.006849	1	8.54	0.01923	Significant Effect
Error	0.0064175	0.000802	8			
Total	0.01326694	0.0076516	9			

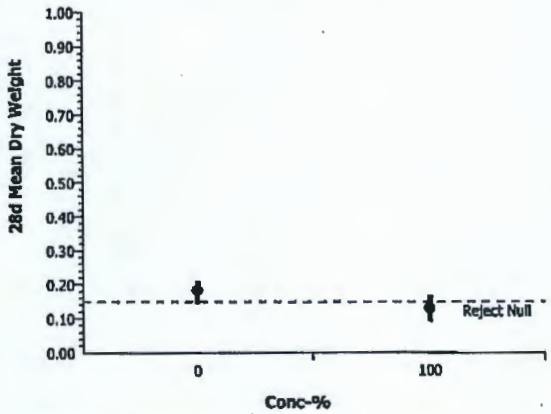
ANOVA Assumptions

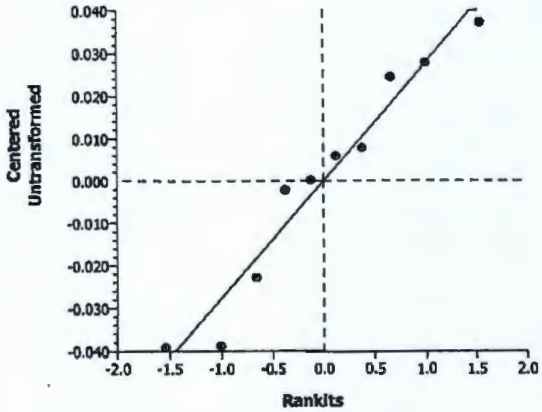
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.66418	23.15450	0.63380	Equal Variances
Distribution	Shapiro-Wilk W	0.93152		0.46298	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.12986	0.09100	0.16700	0.03166				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:30 AM
Test Link: 12-4877-4799/B153835hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	13-5874-1738	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	19-6365-0974	**Code:**	B1538-35	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116X6

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
09-5055-5237	28d Mean Dry Weight	100	> 100	N/A	18.57%	Equal Variance t Two-Sample
08-8451-1189	28d Proportion Survived	< 100	100	N/A	11.51%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
08-8451-1189	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.19579	0.15556	0.24286	0.01451	0.03244	16.57%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.76000	0.60000	0.90000	0.06000	0.13416	17.65%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.19000	0.15556	0.18222	0.20833	0.24286

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		0.70000 ✓	0.90000 ✓	0.90000 ✓	0.60000 ✓	0.70000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	12-4877-4799	12-4877-4799	10 Apr-06 11:30 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		<100	100		N/A	11.51%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	2.89040	1.85955	0.0101	0.17869	Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.1928575	0.192858	1	8.35	0.02019	Significant Effect
Error	0.1846759	0.023084	8			
Total	0.37753342	0.215942	9			

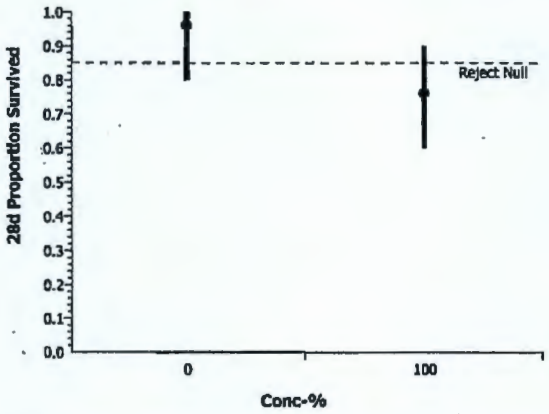
ANOVA Assumptions

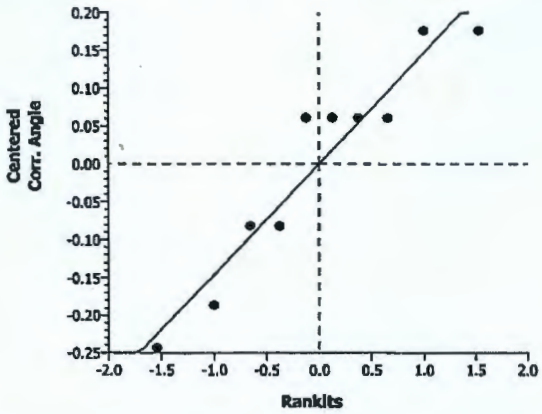
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.48370	23.15450	0.71157	Equal Variances
Distribution	Shapiro-Wilk W	0.90320		0.23746	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.76000	0.60000	0.90000	0.13416	1.07330	0.88608	1.24905	0.16607

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	12-4877-4799	12-4877-4799	10 Apr-06 11:30 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	18.57%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	-0.7473	1.85955	0.7619	0.03383	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.000462	0.000462	1	0.56	0.47627	Non-Significant Effect
Error	0.0066179	0.000827	8			
Total	0.00707985	0.0012892	9			

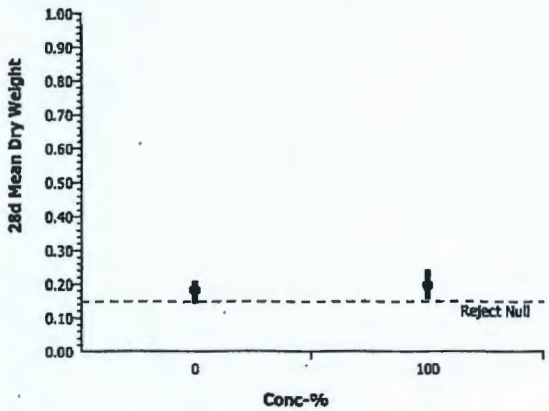
ANOVA Assumptions

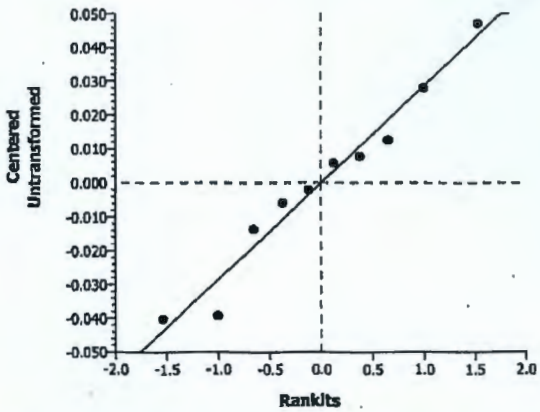
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.74737	23.15450	0.60202	Equal Variances
Distribution	Shapiro-Wilk W	0.96018		0.78788	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.19579	0.15556	0.24286	0.03244				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:31 AM
Test Link: 19-2440-1348/B153836hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	19-9159-0585	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	18-1334-9133	**Code:**	B1538-36	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116W7

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
13-3182-1239	28d Mean Dry Weight	100	> 100	N/A	16.32%	Equal Variance t Two-Sample
12-3402-9408	28d Proportion Survived	100	> 100	N/A	8.44%	Equal Variance t Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
12-3402-9408	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.25036	0.21500	0.28222	0.01163	0.02600	10.39%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.94000	0.90000	1.00000	0.02449	0.05477	5.83%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.23900	0.21500	0.26778	0.28222	0.24778

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		1.00000 ✓	1.00000 ✓	0.90000 ✓	0.90000 ✓	0.90000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	19-2440-1348	19-2440-1348	10 Apr-06 11:31 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Angular (Corrected)		100	>100	1	N/A	8.44%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	0.50507	1.85955	0.3136	0.13552	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0033872	0.003387	1	0.26	0.62713	Non-Significant Effect
Error	0.1062265	0.013278	8			
Total	0.10961371	0.0166655	9			

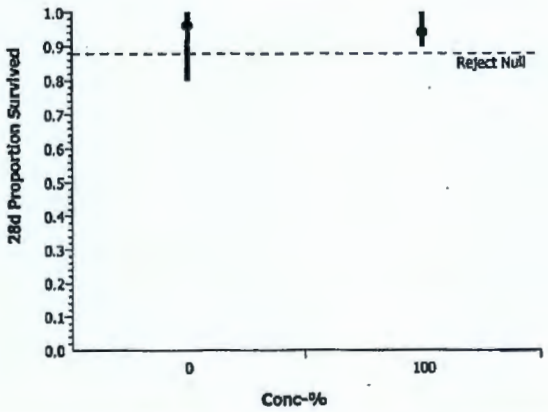
ANOVA Assumptions

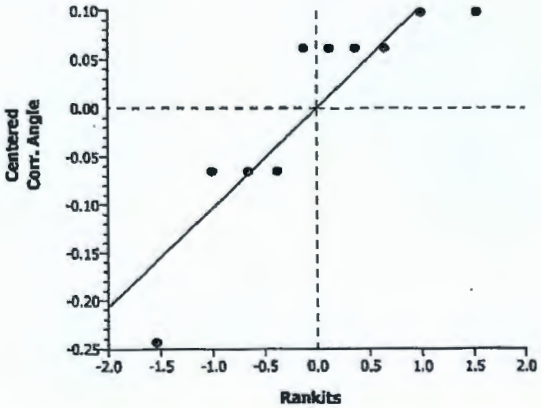
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	2.33299	23.15450	0.43208	Equal Variances
Distribution	Shapiro-Wilk W	0.80360		0.01604	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	1.35104	1.10715	1.41202	0.13634
100		5	0.94000	0.90000	1.00000	0.05477	1.31423	1.24905	1.41202	0.08926

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	19-2440-1348	19-2440-1348	10 Apr-06 11:31 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	16.32%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	-4.2625	1.85955	0.9986	0.02973	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.011613	0.011613	1	18.17	0.00275	Significant Effect
Error	0.0051134	0.000639	8			
Total	0.01672637	0.0122521	9			

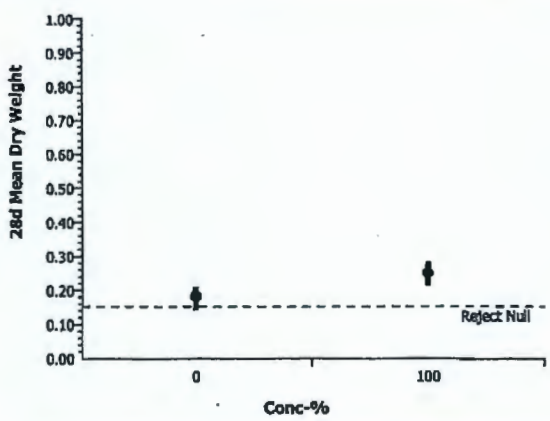
ANOVA Assumptions

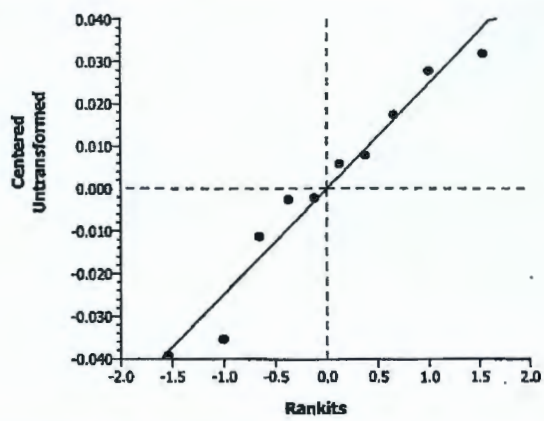
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	1.12280	23.15450	0.91332	Equal Variances
Distribution	Shapiro-Wilk W	0.93951		0.54758	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.25036	0.21500	0.28222	0.02600				

Graphics





CETIS Test Summary

Report Date: 10 Apr-06 11:33 AM
Test Link: 17-9952-9504/B153837hac

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Test No:	07-3152-6851	**Test Type:**	Hyalella (42d)	**Duration:**	28d 0h
Start Date:	10 Mar-06	**Protocol:**	EPA/600/R-99/064 (2000)	**Species:**	Hyalella azteca
Ending Date:	07 Apr-06	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	10 Mar-06 12:00 AM	**Brine:**			

Sample No:	14-6448-6091	**Code:**	B1538-37	**Client:**	
Sample Date:	27 Feb-06	**Material:**	Sediment	**Project:**	
Receive Date:		**Source:**	Hanford		
Sample Age:	11d 0h	**Station:**			

Comments: J116W8

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	PMSD	Method
02-4594-7010	28d Mean Dry Weight	100	> 100	N/A	23.35%	Equal Variance t Two-Sample
07-8432-1576	28d Proportion Survived	100	> 100	N/A	7.97%	Wilcoxon Rank Sum Two-Sample

Test Acceptability

Analysis	Endpoint	Attribute	Statistic	TAC Range	Overlap	Decision
07-8432-1576	28d Proportion Survived	Control Response	0.96000	0.8 - NL	Yes	Passes acceptability criteria

28d Mean Dry Weight Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.01097	0.02454	13.47%
100		5	0.22880	0.18000	0.27500	0.02008	0.04490	19.62%

28d Proportion Survived Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.04000	0.08944	9.32%
100		5	0.98000	0.90000	1.00000	0.02000	0.04472	4.56%

28d Mean Dry Weight Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.21000	0.14300	0.18000	0.19000	0.18800
100		0.23300	0.18600	0.27500	0.18000	0.27000

28d Proportion Survived Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Dilution Sedim	0.80000	1.00000	1.00000	1.00000	1.00000
100		1.00000 ✓	1.00000 ✓	1.00000 ✓	0.90000 ✓	1.00000 ✓

CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Proportion Survived	Comparison	17-9952-9504	17-9952-9504	10 Apr-06 11:32 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Wilcoxon Rank Sum Two-Sample	C > T	Rank		100	>100	1	N/A	7.97%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	Ties	Decision(0.05)
Dilution Sediment		100	28		0.5000	4	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0020135	0.002013	1	0.17	0.69223	Non-Significant Effect
Error	0.0956028	0.011950	8			
Total	0.09761624	0.0139638	9			

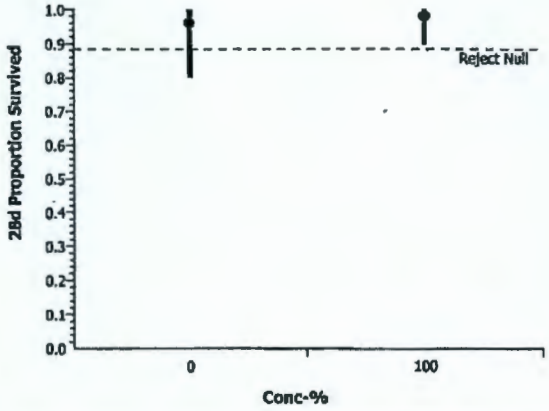
ANOVA Assumptions

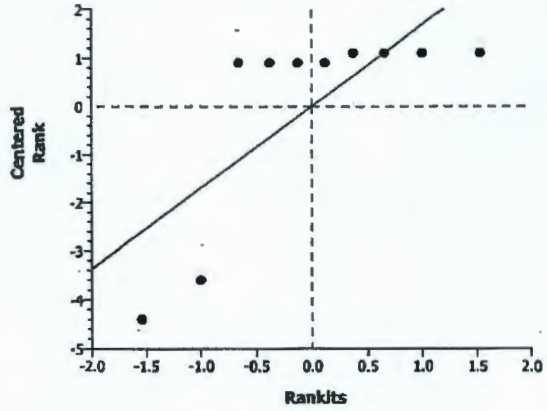
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.49949	23.15450	0.25245	Equal Variances
Distribution	Shapiro-Wilk W	0.64034		0.00017	Non-normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.96000	0.80000	1.00000	0.08944	5.40000	1.00000	6.50000	2.45967
100		5	0.98000	0.90000	1.00000	0.04472	5.60000	2.00000	6.50000	2.01246

Graphics





CETIS Analysis Detail

Hyallela 42-d Survival, Growth, and Reproduction Sediment Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
28d Mean Dry Weight	Comparison	17-9952-9504	17-9952-9504	10 Apr-06 11:33 AM	CETISv1.1.2

Method	Alt H	Data Transform	Zeta	NOEL	LOEL	Toxic Units	ChV	PMSD
Equal Variance t Two-Sample	C > T	Untransformed		100	>100	1	N/A	23.35%

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P-Value	MSD	Decision(0.05)
Dilution Sediment		100	-2.0365	1.85955	0.9620	0.04255	Non-Significant Effect

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P-Value	Decision(0.05)
Between	0.0054289	0.005429	1	4.15	0.07608	Non-Significant Effect
Error	0.0104716	0.001309	8			
Total	0.0159005	0.0067379	9			

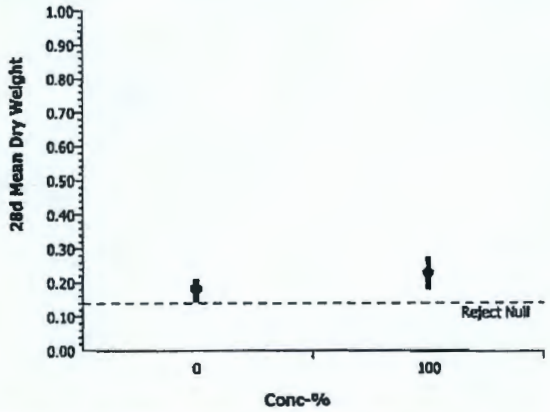
ANOVA Assumptions

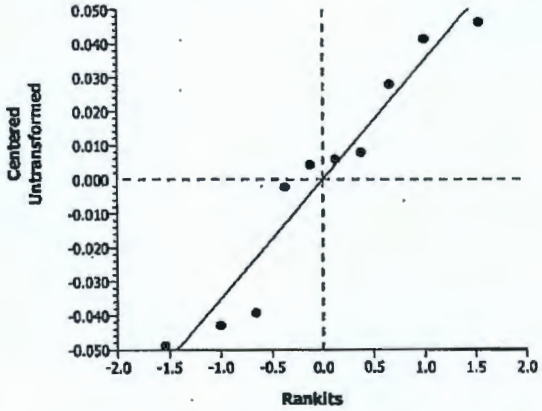
Attribute	Test	Statistic	Critical	P-Value	Decision(0.01)
Variances	Variance Ratio F	3.34722	23.15450	0.26880	Equal Variances
Distribution	Shapiro-Wilk W	0.91322		0.30383	Normal Distribution

Data Summary

			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Dilution Sedim	5	0.18220	0.14300	0.21000	0.02454				
100		5	0.22880	0.18000	0.27500	0.04490				

Graphics





APPENDIX B
REFERENCE TOXICANT DATA SHEETS

REFERENCE TOXICANT DATA SHEET

Client: QA/QC
Test Organism: Hyallela azteca
Source: Chesapeak Cultures
ID#: Amp. 56
Age: 7 days
Size: -
Loading: -

Reference Toxicant: Cd as $CdCl_2 \cdot 2.5\ H_2O$
Solvent: distilled H_2O Stock Solution: 1ppm Cd
Reagent Log ID #: 1B031-01
*Dilution Water: Recon MH (FHM) ID#: 2605
Total Hardness as CaCO3: 88 Total Alkalinity as CaCO3: 64
Conductivity (µmhos/cm) / Salinity (ppt): 261 Temperature: 20 ± 1°C

Test Begin: Date 3-2-06 Time 1040
Test End: Date 3-4-06 Time 1600

	0 hr	24 hr	48 hr	72 hr	96 hr
Technician	[illegible]	[illegible]	TP		
Time	1040	1100	1600		

Toxicant Concen. µg/L Cd	Test Chamber Number	Number Surviving 0	24	48	72	96	Dissolved Oxygen mg/l 0	24	48	72	96	pH 0	24	48	72	96	Temperature °C 0	24	48	72	96	Cond. 0
Control		10	10	10			8.3	8.4	8.4			7.8	-	7.8			19.8	20.1				248
2		10	10	8			8.3	-	8.5			7.8	-	7.8			19.7	20.1				254
4		10	9	4			8.2	-	8.6			7.8	-	7.8			19.7	20.2				255
8		10	5	2			8.0	-	8.6			7.8	-	7.8			19.7	20.3				256
16		10	5	0			8.1	-	8.6			7.8	-	7.8			19.5	20.3				256
32		10	6	0			8.1	-	8.7			7.6	-	7.8			19.6	20.3				256

Test Acceptability Limits:	Survival in Controls: > or = 90%	For RBT (12°C): >6.0 and <10.8 All Others (at 20°C): > 4.0 and < 9.1	pH: > 6.0 and < 9.0	Temperature ± 1 °C

*Dilution Water Code
Recon. - reconstituted water
S - soft
MH - moderately hard
H - hard
Art Sea - Artificial Sea Water

48 h LC50 3.62
Cusum Chart Limits 3.58 to 8.52
Statistical Method Prob.

We verify this data is true and correct.
Task Manager: Doug Winn
Project Manager: [illegible]
QA Officer: Ginger Collins

CETIS Test Summary

Report Date: 06 Mar-06 9:39 AM
Test Link: 01-7581-7320/rhaa056

Hyallela azteca 48-h Acute Survival Test — **CH2M Hill**

Test No:	07-5700-7546	**Test Type:**	Survival (48h)	**Duration:**	53h
Start Date:	02 Mar-06 10:40 AM	**Protocol:**		**Species:**	Hyalella azteca
Ending Date:	04 Mar-06 04:00 PM	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	02 Mar-06 10:40 AM	**Brine:**			

Sample No:	01-1207-1087	**Code:**	1B031-01	**Client:**	QA/QC
Sample Date:	20 Sep-05	**Material:**	Cadmium	**Project:**	
Receive Date:	20 Sep-05	**Source:**	Reference Toxicant		
Sample Age:	163d 10h	**Station:**	1g/L		

Point Estimate Summary

Analysis	Endpoint	% Effect	Conc-mg/L	95% LCL	95% UCL	Method
04-2914-8908	48h Proportion Survived	50	3.626116	2.203475	5.195412	Linear Regression

48h Proportion Survived Summary

Conc-mg/L	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Water	1	1.00000	1.00000	1.00000			
2		1	0.80000	0.80000	0.80000			
4		1	0.40000	0.40000	0.40000			
8		1	0.20000	0.20000	0.20000			
16		1	0.00000	0.00000	0.00000			0.00%
32		1	0.00000	0.00000	0.00000			0.00%

48h Proportion Survived Detail

Conc-mg/L	Control Type	Rep 1
0	Dilution Water	1.00000
2		0.80000
4		0.40000
8		0.20000
16		0.00000
32		0.00000

CETIS Analysis Detail

Hyallela azteca 48-h Acute Survival Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
48h Proportion Survived	Linear Regression	01-7581-7320	01-7581-7320	06 Mar-06 9:35 AM	CETISv1.1.2

Linear Regression Options

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

Regression Summary

Iters	Log Likelihood	Mu	Sigma	G	Chi-Sq	Critical	P-Value	Decision(0.05)
4	-17.14837	1.00630	0.31315	0.28132	0.64620	7.81473	0.88578	Non-Significant Heterogeneity

Point Estimates

% Effect	Conc-mg/L	95% LCL	95% UCL
50	3.626116	2.203475	5.195412

Regression Parameters

Parameter	Estimate	Std Error	95% LCL	95% UCL	t Statistic	P-Value	Decision(0.05)
Slope	3.193375	0.8641639	1.499614	4.887136	3.695	0.03439	Significant
Intercept	3.213493	0.6019818	2.033609	4.393377	5.338	0.01285	Significant

Residual Analysis

Attribute	Method	Statistic	Critical	P-Value	Decision(0.05)
Distribution	Shapiro-Wilk W	0.9284734		0.58600	Normal Distribution

Data Summary

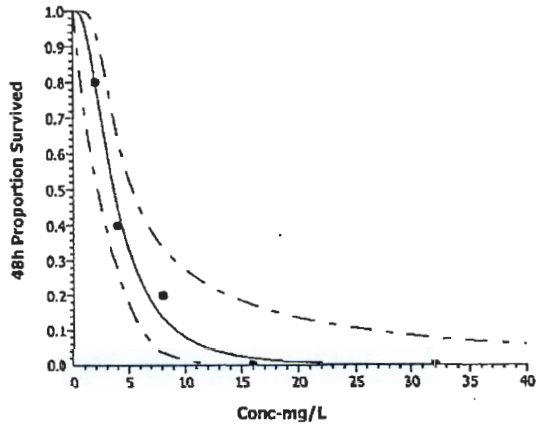
			Calculated Variate(A/B)						
Conc-mg/	Control Type	Count	Mean	Minimum	Maximum	SE	SD	A	B
0	Dilution Water	1	1.00000	1.00000	1.00000			10	10
2		1	0.80000	0.80000	0.80000			8	10
4		1	0.40000	0.40000	0.40000			4	10
8		1	0.20000	0.20000	0.20000			2	10
16		1	0.00000	0.00000	0.00000			0	10
32		1	0.00000	0.00000	0.00000			0	10

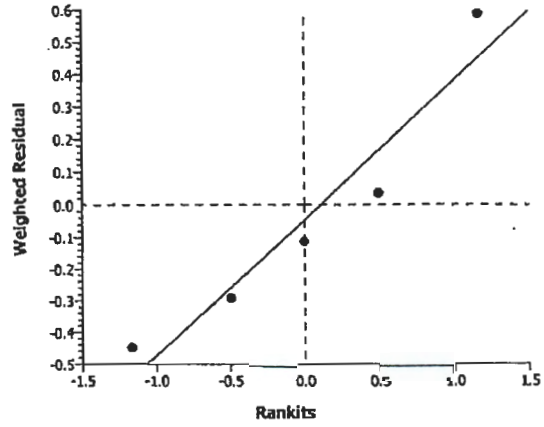
Data Detail

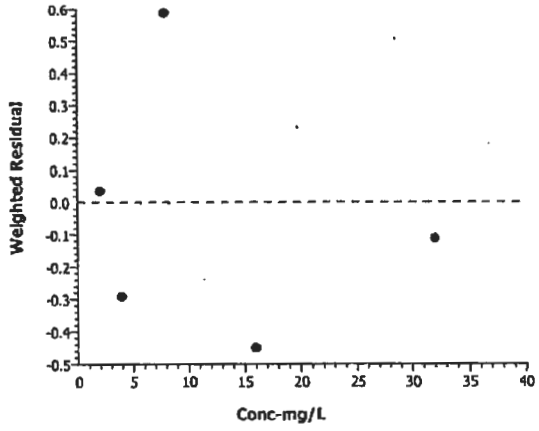
Conc-mg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1.00000									
2		0.80000									
4		0.40000									
8		0.20000									
16		0.00000									
32		0.00000									

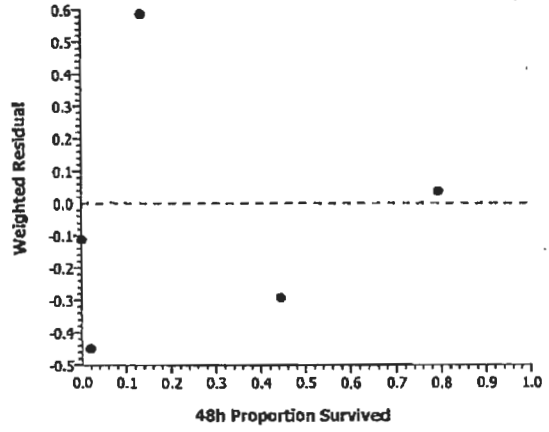
CETIS Analysis Detail

Graphics









REFERENCE TOXICANT DATA SHEET

Client: QA/QC
Test Organism: Hyalella azteca
Source: Chesapeake Cultures
ID#: Amp 57
Age: 4 days
Size: -
Loading: -

Reference Toxicant: Cd as $CdCl_2 \times 2.5H_2O$
Solvent: distilled
Stock Solution: 13038-04
~~Reagent Log ID~~ #: 1 ppm Cd
*Dilution Water: Recon. MH (Ftm) ID#: 2609
Total Hardness as CaCO3: 96
Total Alkalinity as CaCO3: 66
Conductivity (µmhos/cm) / Salinity (ppt): 275
Temperature: 20±1°C

Test Begin: Date 3-7-06 Time 1350
Test End: Date 3-9-06 Time 1440

	0 hr	24 hr	48 hr	72 hr	96 hr
Technician	Bm	[illegible]	[illegible]		
Time	1350	0850	1440		

Toxicant Concen. (µg/L Cd)	Test Chamber Number	Number Surviving 0	24	48	72	96	Dissolved Oxygen mg/l 0	24	48	72	96	pH 0	24	48	72	96	Temperature °C 0	24	48	72	96	Cond. 0
CONTROL		8	8	8			8.2	8.4	8.2			8.3	8.4	8.1			21.0	20.2	20.1			283
2		10	10	9			8.4	8.4	8.3			8.3	8.4	8.1			21.0	20.2	20.1			278
4		10	9	7			8.5	8.4	8.4			8.2	8.4	8.1			21.0	20.3	20.0			278
8		10	10	2			8.5	8.5	8.5			8.1	8.4	8.0			21.0	20.3	20.0			276
16		10	6	0			8.5	8.6	8.5			8.0	8.4	7.9			21.0	20.1	20.1			274
32		10	3	0			8.5	8.5	8.5			8.0	8.3	7.9			21.0	20.2	20.1			269

Test Acceptability Limits:	Survival in Controls: > or = 90%	For RBT (12°C): >6.0 and <10.8 All Others (at 20°C): > 4.0 and < 9.1	pH: > 6.0 and < 9.0	Temperature ±1 °C

*Dilution Water Code
Recon. - reconstituted water
S - soft
MH - moderately hard
H - hard
ASW - Artificial Sea Water

42 h LC50 4.0

Cusum Chart Limits 3.5 to 8.3

Statistical Method Probit

We verify this data is true and correct.

Task Manager [signature]

Project Manager [signature]

QA Officer [signature] for Jeff Schult

CETIS Test Summary

Report Date: 10 Mar-06 8:26 AM
Test Link: 04-1225-5904/rhaa057

Hyallela azteca 48-h Acute Survival Test — **CH2M Hill**

Test No:	15-2044-2609	**Test Type:**	Survival (48h)	**Duration:**	49h
Start Date:	07 Mar-06 01:50 PM	**Protocol:**		**Species:**	Hyalella azteca
Ending Date:	09 Mar-06 02:40 PM	**Dil Water:**		**Source:**	Chesapeak Cultures, Nayes, Virginia
Setup Date:	07 Mar-06 01:50 PM	**Brine:**			

Sample No:	09-8569-0274	**Code:**	1B038-04	**Client:**	
Sample Date:	07 Mar-06	**Material:**	Cadmium	**Project:**	
Receive Date:		**Source:**	Reference Toxicant		
Sample Age:	14h	**Station:**			

Comments: Cd as CdCl2 x 2.5 H20

Point Estimate Summary

Analysis	Endpoint	% Effect	Conc-µg/L	95% LCL	95% UCL	Method
11-1794-6219	48h Proportion Survived	50	4.842365	3.422664	6.719178	Linear Regression

48h Proportion Survived Summary

Conc-µg/L	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Dilution Water	1	1.00000	1.00000	1.00000			
2		1	0.90000	0.90000	0.90000			
4		1	0.70000	0.70000	0.70000			
8		1	0.20000	0.20000	0.20000			
16		1	0.00000	0.00000	0.00000			0.00%
32		1	0.00000	0.00000	0.00000			0.00%

48h Proportion Survived Detail

Conc-µg/L	Control Type	Rep 1
0	Dilution Water	1.00000
2		0.90000
4		0.70000
8		0.20000
16		0.00000
32		0.00000

CETIS Analysis Detail

Hyallela azteca 48-h Acute Survival Test — **CH2M Hill**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
48h Proportion Survived	Linear Regression	04-1225-5904	04-1225-5904	10 Mar-06 8:26 AM	CETISv1.1.2

Linear Regression Options

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

Regression Summary

Iters	Log Likelihood	Mu	Sigma	G	Chi-Sq	Critical	P-Value	Decision(0.05)
4	-14.77436	0.55966	0.24894	0.24019	0.66379	7.81473	0.88169	Non-Significant Heterogeneity

Point Estimates

% Effect	Conc-µg/L	95% LCL	95% UCL
50	4.842365	3.422664	6.719178

Regression Parameters

Parameter	Estimate	Std Error	95% LCL	95% UCL	t Statistic	P-Value	Decision(0.05)
Slope	4.016983	1.004429	2.048303	5.985663	3.999	0.02802	Significant
Intercept	2.248136	0.7485508	0.780976	3.715295	3.003	0.05752	Not Significant

Residual Analysis

Attribute	Method	Statistic	Critical	P-Value	Decision(0.05)
Distribution	Shapiro-Wilk W	0.9421834		0.68141	Normal Distribution

Data Summary

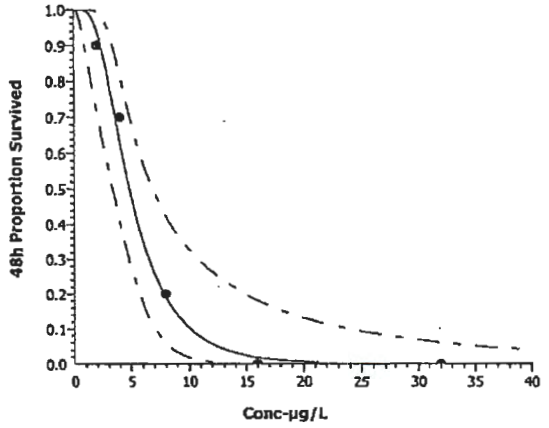
			Calculated Variate(A/B)						
Conc-µg/L	Control Type	Count	Mean	Minimum	Maximum	SE	SD	A	B
0	Dilution Water	1	1.00000	1.00000	1.00000			8	8
2		1	0.90000	0.90000	0.90000			9	10
4		1	0.70000	0.70000	0.70000			7	10
8		1	0.20000	0.20000	0.20000			2	10
16		1	0.00000	0.00000	0.00000			0	10
32		1	0.00000	0.00000	0.00000			0	10

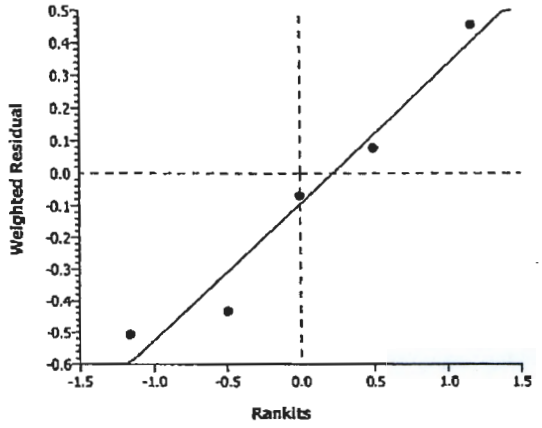
Data Detail

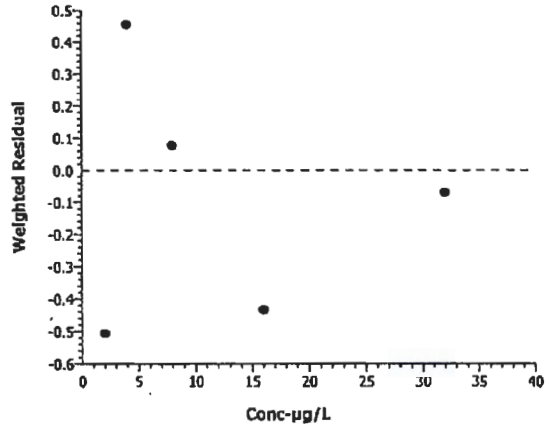
Conc-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1.00000									
2		0.90000									
4		0.70000									
8		0.20000									
16		0.00000									
32		0.00000									

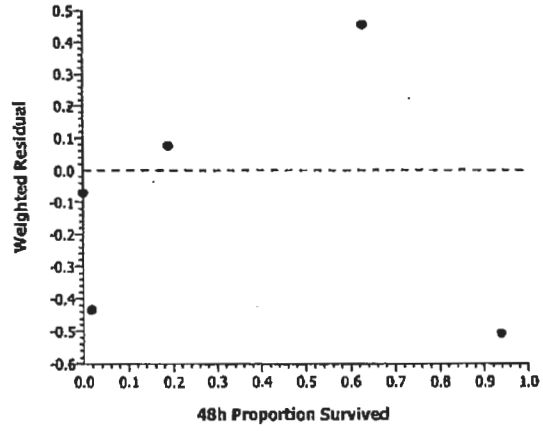
CETIS Analysis Detail

Graphics









APPENDIX C
CHAIN OF CUSTODY

F1162

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-6	Page 1 of 1

Collector: JE Bernhard	Company Contact: JOAN KESSNER Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: 9N Data Turnaround: 21 Days
Project Designation: 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location: ~~300~~ REF #16 SEB 2-5-06	SAF No.: RC-047 Air Quality: ☐	
Ice Chest No.: SAWS-336	Field Logbook No.: EL-1596 7 SEB 2-5-06 COA: BESRAS6520	Method of Shipment: GROUND TRANSPORT	
Shipped To: CH2MHILL	Offsite Property No.: A060151	Bill of Lading/Air Bill No.: SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	1	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11143	OTHER SOLID	02-05-06	1130	X	X	X							-1

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1400 02-05-06	EAS LOCKED STORAGE	1400 02-05-06
EAS LOCKED STORAGE	0745 02-06-06	R2 Steffler R.J. Steffl	0745 2-6-06
R2 Steffler R.J. Steffl	1500 2-6-06	Fed Ex	
FED EX		KMCKinley	2/7/06 1020

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1533-01 for Hydrolab

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By: KMCKinley	Title	Date/Time: 2/7/06 1020
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-9	Page 1 of 1
Collector: JAMES BERNHARD	Company Contact: JOAN KESSNER; Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: 9N; Data Turnaround: 21 Days
Project Designation: 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location: U-2	SAF No.: RC-047	Air Quality: [ ]
Ice Chest No.: AFS-04-050	Field Logbook No.: EL-15987 JEB 2-8-06; COA: BESRAS6520	Method of Shipment: GROUND TRANSPORT	
Shipped To: CH2MHILL	Offsite Property No.: A060151	Bill of Lading/Air Bill No.: SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	1 JEB 2-8-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11146	OTHER SOLID	2-8-06	1245	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names
Relinquished By/Removed From: JAMES BERNHARD, Date/Time: 2-8-06 1700	Received By/Stored In: EAS LOCKED STORAGE, Date/Time: 2-8-06 1700
Relinquished By/Removed From: JAMES BERNHARD, Date/Time: 2-9-06 0715	Received By/Stored In: R2 Stettler R.J. Stettler, Date/Time: 2-9-06 0715
Relinquished By/Removed From: R2 Stettler R.J. Stettler, Date/Time: in H 2-9-06 1500	Received By/Stored In: Fed Ex, Date/Time:
Relinquished By/Removed From: Fed Ex, Date/Time:	Received By/Stored In: Brett Mudge, Date/Time: 2-10-06 1400
Relinquished By/Removed From, Date/Time:	Received By/Stored In, Date/Time:
Relinquished By/Removed From, Date/Time:	Received By/Stored In, Date/Time:

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1539-02 for Hyallela
B1539-02 for outsedge / pac choi
COC seals intact

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-7	Page 1 of 1
Collector: JAMES BERNHARD	Company Contact: JOAN KESSNER; Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: 9N; Data Turnaround: 21 Days
Project Designation: 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location: 300-2	SAF No.: RC-047	Air Quality ☐
Ice Chest No.: AFS-04-050	Field Logbook No.: EL-15987 JEB 2-8-06; COA: BESRAS6520	Method of Shipment: GROUND TRANSPORT	
Shipped To: CH2MHILL	Offsite Property No.: A060151	Bill of Lading/Air Bill No.: SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	2 JEB 2-8-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11144	OTHER SOLID	2-8-06	1430	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1700 2-8-06	EAS LOCKED STORAGE	1700 2-8-06
JAMES BERNHARD	0715 2-9-06	RZ Stiffler	0715 2-9-06
RZ Stiffler	1500 2-9-06	Fed Ex	
Fed Ex		Brett Mulkey	1400 2-10-06

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-03 for Hyacinth
B1539-03 for Watercress / Pak Choi
COC seals intact on arrival

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-8	Page 1 of 1

Collector: JEB JAMES BERNHARD	Company Contact: JOAN KESSNER	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 9N	Data Turnaround: 21 Days	Air Quality ☐	
Project Designation: 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location: U-I		SAF No.: RC-047
Ice Chest No.: AFS-04-050	Field Logbook No.: EL-1598 7 JEB 2-8-06	COA: BESRAS6520	Method of Shipment: GROUND TRANSPORT
Shipped To: CH2MHILL	Offsite Property No.: A060151		Bill of Lading/Air Bill No.: SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	P/G	P/G									
No. of Container(s)	#2 JEB 2-8-06	1	1									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									

Sample No.	Matrix *	Sample Date	Sample Time										
J11145	OTHER SOLID	2-8-06	1130	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1700 2-8-06	EAS LOCKED STORAGE	2-8-06
JAMES BERNHARD	0715 2-9-06	RZ Stettler R.Z. Stettler	0715 2-9-06
RZ Stettler R.Z. Stettler	1500 2-9-06	Fed. Ex	
Fed. Ex		BRETT Mulkey	1400 2-10-06

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

31538-04 for Hyatt/Ale
31539-04 for nitrate/pulchai

COC seals intact on arrival

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 09FEB06
ActWgt: 38 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

FRI
Deliver By:
10FEB06

TRK# 7918 5661 0690 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

CLS# 12206/16/18

Ship Date: 09FEB06
ActWgt: 78 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

FRI
Deliver By:
10FEB06

TRK# 7918 5661 0680 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

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From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

Ship Date: 09FEB06
ActWgt: 55 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

FRI
Deliver By:
10FEB06

TRK# 7918 5661 0705 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-50	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location REF/2 SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-99-065	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	P/G	P/G									
No. of Container(s)	~~1~~ 2 JEB 1-9-06	1	1									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									

Sample No.	Matrix *	Sample Date	Sample Time										
J116N1	OTHER SOLID	2-9-06	1530	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1830 2-9-06	EAS LOCKED STORAGE	1830 2-9-06
EAS LOCKED STORAGE	0745 02-13-06	RZ Steffler R.Z. Steffler	0745 2-13-06
RZ Steffler R.Z. Steffler	1500 WCH 2-13-06	Fed Ex	
FED-X	145 2-14	Mike Stanaway	2-14-06 1100

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-05 = Hyalella
B1539-05 = Nutsedge/Pakchoi
F1192-01
CoC intact.

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BH-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-52	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location REF/3SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-99-065	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 2-9-06 KJH	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116N3	OTHER SOLID	2-9-06	1400	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	2-9-06 1400	EAS LOCKED STORAGE	2-9-06 1400
EAS LOCKED STORAGE	02-13-06 0745	RZ Stoffler R.J. Stoffler	2-13-06 0745
RZ Stoffler R.J. Stoffler with	2-13-06 1500	Fed Ex	
Fed-X		Julie Sanway	2-14-06 1100

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-06 Hyakkla
B1539-06 Nutsedge/Pakchoi
Custody seals intact

F1192-02

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-27	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 5, SEDIMENT		SAF No. RC-047	Air Quality [ ]	
Ice Chest No. ERC-96-012	Field Logbook No. EL-1598 7 & 1310 6	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	Poly Bag	Poly Bag								
No. of Container(s)	2 2-12-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J112B7	OTHER SOLID	2-12-06	1200	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From JAMES BERNHARD	JC	1900 2-12-06	EAS LOCKED STORAGE	JC 1900 2-12-06
Relinquished By/Removed From EAS LOCKED STORAGE		0745 02-13-06	RZ Steffler	RZ Steffler 0745 2-13-06
Relinquished By/Removed From RZ Steffler	RZ Steffler	1500 2-13-06	Fed Ex	
Relinquished By/Removed From Fed-X			Received By/Stored In	2-14-06
Relinquished By/Removed From			Received By/Stored In	
Relinquished By/Removed From			Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Cooler temp for chemical analysis = 1.4°C

B1538-07 Hydrilla

B1539-07 Nutsedge/Pakchoi

Custody seals intact

F1192-03

Matrix *

S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-51	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Price Code 9N	Data Turnaround 21 Days	Air Quality ☐	
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location REF/2SEDIMENT		SAF No. RC-047
Ice Chest No. ERC-96-012	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	P/G	P/G									
No. of Container(s)	2 DEB 7-9-06	1	1									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									

Sample No.	Matrix *	Sample Date	Sample Time										
J116N2	OTHER SOLID	2-9-06	1445	X	X	X							

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From JAMES BERNHARD	Date/Time 1830 2-9-06	Received By/Stored In EAS LOCKED STORAGE	Date/Time 1530 2-9-06
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0745 02-13-06	Received By/Stored In RC Stiffler R.J. Stiffler	Date/Time 0745 2-13-06
Relinquished By/Removed From RC Stiffler R.J. Stiffler	Date/Time 1500 2-13-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed-X	Date/Time	Received By/Stored In Mike Stanaway	Date/Time 2-14-06 1100
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-08 Hyalella
B1539-08 Nutsedge/Pokeweed
custody seals intact
F1192-04

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
Ti=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-43	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr9 SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. AFS-04-034	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

~~COOL 4C~~ RZS 2-13-06
Cool 4°C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	SEE R 2 2-12-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116M4	OTHER SOLID	2-12-06	1400	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	2-12-06 1900	EAS LOCKED STORAGE	2-12-06 1900
EAS LOCKED STORAGE	02-13-06 0745	RZ Steffler R.Z. Steffler	2-13-06 0745
RZ Steffler R.Z. Steffler	2-13-06 1500	Fed Ex	
Fed-X		Mike Samanway	2-14-06 1100

SPECIAL INSTRUCTIONS

Cooler Temp = 1.4°C

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-09 ms Hydrilla
B1539-09 Nutsedge/Pickerel
Custody seals intact

F1192-05

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-49	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location REF/H, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-058	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 SEG 2-9-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116N0	OTHER SOLID	2-9-06	1230	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	2-9-06 1830	EAS LOCKED STORAGE	2-9-06 1830
EAS LOCKED STORAGE	02-13-06 0745	RZ Stoller R.J. Stoller	2-13-06 0745
RZ Stoller R.J. Stoller	2-13-06 1500	Fed Ex	
Fed Ex		BRETT Mulkey	2-14-06 1300

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-10

B1539-10

COC seals intact

F1192-06

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-97	Page 1 of 1

Collector TIELER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location REF//, SEDIMENT FULL QC		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-058	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	x2 SEE 2-9-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11731	OTHER SOLID	2-9-06	1600	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From JAMES BERNHARD	Date/Time 1830 2-9-06	Received By/Stored In EAS LOCKED STORAGE	Date/Time 1830 2-9-06
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0745 02-13-06	Received By/Stored In RZ Stoffler R.Z. Stoffler	Date/Time 0745 2-13-06
Relinquished By/Removed From RZ Stoffler R.Z. Stoffler	Date/Time 1500 2-13-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time	Received By/Stored In Brett Mukey BRETT Mukey	Date/Time 2-14-06
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

31538-11

31539-11

COC seals intact

F1192-07

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W= Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-44	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr/OSEDIMENT		SAF No. RC-047
Ice Chest No. ERC-02-501	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC

Price Code 9N

Air Quality ☐

Data Turnaround 21 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 2-12-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116M5	OTHER SOLID	2-12-06	1530	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From JAMES BERNHARD	Date/Time 1500 2-12-06	Received By/Stored In EAS LOCKED STORAGE	Date/Time 1600 2-12-06
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 02-13-06 0745	Received By/Stored In RZ Stoffler	Date/Time 0745 2-13-06
Relinquished By/Removed From RZ Stoffler	Date/Time 1500 2-13-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time	Received By/Stored In Brett Mulkey	Date/Time 1500 2-14-06
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-12

B1539-12

COC seals intact

F1192-08

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-47	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 6 SEDIMENT · FULL QC	SAF No. RC-047	Air Quality ☐
Ice Chest No. ERC-02-501	Field Logbook No. EL-1597 / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None
Type of Container	G/P	P/G	P/G
No. of Container(s)	2 JEB 2-12-06	1	1
Volume	1000g	3000g	19000g
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11

Sample No.	Matrix *	Sample Date	Sample Time			
J116M8	OTHER SOLID	2-12-06	1315	X	X	X

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From JAMES BERNHARD	Date/Time 1900 2-12-06	Received By/Stored In EAS LOCKED STORAGE	Date/Time 1900 2-12-06
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0745 02-13-06	Received By/Stored In RZ Steffler R.J. Steffler	Date/Time 0745 2-13-06
Relinquished By/Removed From RZ Steffler R.J. Steffler	Date/Time 1500 2-13-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time	Received By/Stored In Bret Munkey	Date/Time 1300 2-14-06
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

31538 - 13
31539 - 13

COC seals intact

F1192-09

Matrix *

SoSoil
SEnSediment
SOnSolid
SlnSludge
W = Water
OnOil
AnAir
DSnDrum Solids
DLnDrum Liquids
TnTissue
WnWipe
LnLiquid
VnVegetation
XnOther

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

CLS# 12296/14/18

Ship Date: 13FEB06
ActWgt: 72 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

TUE
Deliver By:
14FEB06

TRK# 7913 7159 9081 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

B1538-05-13 & B1539-05-13

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

CLS# 122808/14/15

Ship Date: 13FEB06
ActWgt: 76 LB
System#: 5851966/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

TUE
Deliver By:
14FEB06

TRK# 7903 2014 0379 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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B1539 & B1558-05-13

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 13FEB06
ActWgt: 26 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

TUE
Deliver By:
14FEB06

TRK# 7913 7159 9059 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

B1538 & B1539 - 05-13

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

CLS8 12286/14/16

Ship Date: 13FEB06
ActWgt: 95 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

*Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

TUE
Deliver By:
14FEB06

TRK# 7903 2014 0368 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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B1538 & B1539 - 05 - 13

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 13FEB06
ActWgt: 78 LB
System#: 5851966/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

TUE
Deliver By:
14FEB06

TRK# 7913 7159 9070 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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B1538 & B1539 - 05 - 13

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 13FEB06
ActWgt: 88 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

TUE
Deliver By:
14FEB06

TRK# 7903 2014 0390 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

B 1538 & B 1539 - 05 - 13

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-128	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N Air Quality ☐	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U5, SEDIMENT		SAF No. RC-047		
Ice Chest No. ERC-99-027	Field Logbook No. BL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	JEB 1 2 2-13-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11752	OTHER SOLID	2-13-06	1345	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From JAMES BERNHARD Date/Time 1730 2-13-06	Received By/Stored In EAS LOCKED STORAGE Date/Time 1730 2-13-06	
Relinquished By/Removed From EAS LOCKED STORAGE Date/Time 0700 02-14-06	Received By/Stored In R2 Steffler Date/Time 0700 2-14-06	
Relinquished By/Removed From R2 Steffler Date/Time 1600 2-14-06	Received By/Stored In Fed Ex Date/Time	
Relinquished By/Removed From Fed Ex Date/Time	Received By/Stored In Date/Time 11:00 2-16-06	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

3000g logged in as B1539-14 received 2-15-06
19000g logged in as ~~B1539-14~~ B1539-14 received 2-15-06

COC received 2-16-06, COC seals intact @ 3.0°C
1000g containers (2) arrived w/COC on 2-16-06
F1207-01 for chemistry

Matrix *

S=Soil
SE=Sediment
SO=Solid
St=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-121	Page 1 of 1
Collector: TILLER JAMES BERNHARD	Company Contact: JOAN KESSNER; Telephone No.: 375-4688	Project Coordinator: KESSNER, JH	Price Code: 9N; Data Turnaround: 21 Days
Project Designation: 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location: U 6, SEDIMENT	SAF No.: RC-047	Air Quality ☐
Ice Chest No.: ERC-99-027	Field Logbook No.: EL-1597; COA: BESRAS6520	Method of Shipment: GROUND TRANSPORT	
Shipped To: CH2MHILL	Offsite Property No.: A060151	Bill of Lading/Air Bill No.: SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	DEB AZ 2-13-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11745	OTHER SOLID	2-13-06	1145	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From: JAMES BERNHARD; Date/Time: 1730 2-13-06	Received By/Stored In: EAS LOCKED STORAGE; Date/Time: 1730 2-13-06	(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422
Relinquished By/Removed From: EAS LOCKED STORAGE; Date/Time: 0700 2-14-06	Received By/Stored In: RZ Steffler; Date/Time: 2-14-06 / 0700	COC seals intact
Relinquished By/Removed From: RZ Steffler; Date/Time: 1600 WCH 2-14-06	Received By/Stored In: Fed Ex; Date/Time:	B1532-15 for Hydride (3000g)
Relinquished By/Removed From: Fed Ex; Date/Time:	Received By/Stored In: Brett Mudway; Date/Time: 1100 2-16-06	B1539-15 for Metals / Pickled (1000g)
Relinquished By/Removed From:	Received By/Stored In:	F1207.02 for Chem lab (2x1000g) @ 3.0°C
Relinquished By/Removed From:	Received By/Stored In:	

Matrix *: S=Soil; SB=Sediment; SO=Solid; Sl=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; T=Tissue; Wi=Wipe; L=Liquid; Ve=Vegetation; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-126	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N Air Quality ☐	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U 8, SEDIMENT		SAF No. RC-047		
Ice Chest No. AFS-04-049	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None
Type of Container	G/P	P/G	P/G
No. of Container(s)	JEB RZ 2-13-06	1	1
Volume	1000g	3000g	19000g
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11

Sample No.	Matrix *	Sample Date	Sample Time			
J11750	OTHER SOLID	2-13-06	1545	X	X	X

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1730 2-13-06	EAS LOCKED STORAGE	1730 2-13-06
EAS LOCKED STORAGE	0700 02-14-06	RZ Steffler	0700 2-14-06
RZ Steffler	1600 2-14-06	Fed Ex	
Fed Ex		Brett Mukey	2-16-06

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

COC seals intact
21538-16 for Hydride (3000g)
31539-16 for Nutrients / Pick chem (1500g)
F1207-03 for Chemistry (2x 1000g) @ 3.0°C

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
Tu=Tissue
Wi=Wipe
Li=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-127	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U3, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. AFS-04-049	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	JBB # 2 2-13-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11751	OTHER SOLID	2-13-06	1445	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names
Relinquished By/Removed From JAMES BERNHARD Date/Time 1730 2-13-06	Received By/Stored In EAS LOCKED STORAGE Date/Time 1730 2-13-06
Relinquished By/Removed From EAS LOCKED STORAGE Date/Time 0700 02-14-06	Received By/Stored In RL Steffler Date/Time 0700 2-14-06
Relinquished By/Removed From RL Steffler Date/Time 1600 WLH 2-14-06	Received By/Stored In Fed Ex Date/Time
Relinquished By/Removed From Fed Ex Date/Time	Received By/Stored In BRETT Mulkey Date/Time 1100 2-16-06
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

COC seals intact
B1538-17 for Hydilcla (3000g)
B1539-17 for Nutsedge / Pickerel (1500g)
F1207-04 for Chemistry @ 3.0°C

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-129	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N Air Quality ☐	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U 7, SEDIMENT		SAF No. RC-047		
Ice Chest No. ERC-02-007	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	OEC 1.2 2-13-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11753	OTHER SOLID	2-13-06	1245	X	X	X							

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From JAMES BERNHARD	1730 2-13-06	Received By/Stored In EAS LOCKED STORAGE	1730 2-13-06
Relinquished By/Removed From EAS LOCKED STORAGE	0700 02-14-06	Received By/Stored In RZ Stoffler	0700 2-14-06
Relinquished By/Removed From RZ Stoffler	1600 2-14-06	Received By/Stored In Fed Ex	
Relinquished By/Removed From Fed Ex		Received By/Stored In Brett Markey	1100 2-16-06
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

COC seals intact
B1538-18 for Hydrolic (3000g)
B1539-18 for Nitrobenzene / Pink Chal (1500g)
F1207-05 for Chemistry @ 3.0°C

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

Ship Date: 14FEB06
ActWgt: 116 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

WED
Deliver By:
15FEB06

TRK# 7913 7327 4586 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Color received 2-10-06

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

CLS61226/14/18

Ship Date: 14FEB06
ActWgt: 64 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

WED
Deliver By:
15FEB06

TRK# 7913 7327 4612 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

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Cooler received 2-16-06

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 14FEB06
ActWgt: 91 LB
System#: 5851986/INET2400
Account#: S *********

REF: A060151

Delivery Address Bar Code

SHIP TO: (541)768-3127 BILL THIRD PARTY

LIZ TEPPER
CH2M HILL
APPLIED SCIENCE LABORATORY
2300 NW WALNUT BLVD.
CORVALLIS, OR 97339

PRIORITY OVERNIGHT

WED
Deliver By:
15FEB06

TRK# 7913 7327 4575 FORM 0201

PDX AA

97339 -OR-US

86 CVOA

Shipping Label

View all labels

Place label in shipping label pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

cooler received 2-16-06

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-122	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U4, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-096	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	P/G	P/G									
No. of Container(s)	42 JEB 2-19-06	1	20 JEB 2-19-06									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									

Sample No.	Matrix *	Sample Date	Sample Time											
J11746	OTHER SOLID	2-19-06	1500	X	X	X JEB 2-19-06								
				F1239-1	B1538-19									

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From JAMES BERNHARD	Date/Time 1800 2-19-06	Received By/Stored In EAS LOCKED STORAGE	Date/Time 1800 2-19-06
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0900 2-21-06	Received By/Stored In RZ Steffler R.J. Steffler	Date/Time 0900 2-21-06
Relinquished By/Removed From RZ Steffler R.J. Steffler	Date/Time 1600 2-21-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In Doug Winn	Date/Time 2-22-06 / 1350
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-19

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-123	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U 9, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-096	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	X2 JEB 2-19-06	1	X0 JEB 2-19-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11747	OTHER SOLID	2-19-06	1600	X	X	X 2-19-06 JEB							
				F1239-2	B1538-20								

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1800 2-19-06	EAS LOCKED STORAGE	1800 2-19-06
EAS LOCKED STORAGE	0900 2-21-06	RZ Stoffler R.J. Stoffler	0900 2-21-06
RZ Stoffler R.J. Stoffler	1600 WCH 2-21-06	Fed Ex	
		Doug Nunn	2-22-06 / 1350

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-20

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-124	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U/o, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-096	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	x2 2-19-06 JHB	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11748	OTHER SOLID	2-19-06	1640	X	X	X							
				F1235-3	B1538-21								

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix *
Relinquished By/Removed From JC Date/Time 1800 JAMES BERNHARD 2-19-06	Received By/Stored In JC Date/Time 1800 EAS LOCKED STORAGE 2-19-06	(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422	S=Soil SE=Sediment SO=Solid Sl=Sludge W = Water O=Oil A=Air OS=Drum Solids DL=Drum Liquids Ts=Tissue Wi=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From Date/Time 0900 EAS LOCKED STORAGE 2-21-06	Received By/Stored In RZ Stoffler Date/Time 0900 2-21-06		
Relinquished By/Removed From RZ Stoffler Date/Time 1600 WCH 2-21-06	Received By/Stored In Fed Ex Date/Time	31538-21	
Relinquished By/Removed From Date/Time	Received By/Stored In Doug Winn 2-22-06/1350 Date/Time		
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time		
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time		

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-125	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location U , SEDIMENT 300-1		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-096	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS
POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage
COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 JFB 2-19-06	1	~~1~~ 0 JFB 2-19-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J11749	OTHER SOLID	2-19-06	1400	X	X	JFB 2-19-06							
				F1239-4	B1538-22								

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From JAMES BERNHARD	1800 2-19-06	Received By/Stored In EAS LOCKED STORAGE	1800 2-19-06
Relinquished By/Removed From EAS LOCKED STORAGE	0900 2-21-06	Received By/Stored In RZ Steffler R.Z. Steffler	0900 2-21-06
Relinquished By/Removed From RZ Steffler R.Z. Steffler	1600 2-21-06	Received By/Stored In Fed. Ex	
Relinquished By/Removed From		Received By/Stored In Doug Nunn	2-22-06 / 1350
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1539-22

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
Ti=Tissue
Wi=Wipe
Li=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

Ship Date: 21FEB06
ActWgt: 61 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

WED
Deliver By:
22FEB06

TRK# 7913 8094 0144 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

Shipping Label

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From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

Ship Date: 21FEB06
ActWgt: 52 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

WED
Deliver By:
22FEB06

TRK# 7913 8094 0155 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

Shipping Label

View all labels

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Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-23	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER; Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N; Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 1, SEDIMENT	SAF No. RC-047	Air Quality [ ]
Ice Chest No. AFS-04-008	Field Logbook No. EL-1596 7 AJD 13106; COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS
POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage
COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	Poly Bag	Poly Bag								
No. of Container(s)	2 JEB 2-21-06	1	10 JEB 2-21-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J112B3	OTHER SOLID	2-21-06	1100	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From [signature] Date/Time 1900 JAMES BERNHARD 2-21-06	Received By/Stored In [signature] Date/Time 1900 EAS LOCKED STORAGE 2-21-06	(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422
Relinquished By/Removed From [signature] Date/Time 0830 EAS LOCKED STORAGE 2-22-06	Received By/Stored In R2 Steffler [signature] Date/Time 0830 2-22-06	B1538-23 for Ayllela; F1242-01 for chem; COC seals intact
Relinquished By/Removed From R2 Steffler [signature] Date/Time 1600 2-22-06	Received By/Stored In Fed Ex Date/Time	6.1°C on arrival
Relinquished By/Removed From Fed Ex Date/Time	Received By/Stored In [signature] BRETT Markey Date/Time 1050 2-23-06	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-24	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 2, SEDIMENT	SAF No. RC-047	Air Quality ☐
Ice Chest No. AFS-04-008	Field Logbook No. EL-1596-7 / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS
POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage
COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	Poly Bag	Poly Bag									
No. of Container(s)	12 JEB 2-21-06	1	10 JEB 2-21-06									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									

Sample No.	Matrix *	Sample Date	Sample Time											
J112B4	OTHER SOLID	2-21-06	1200	X	X	X								

CHAIN OF POSSESSION	Sign/Print Names	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	JAMES BERNHARD	2-21-06 1900	EAS LOCKED STORAGE	2-21-06 1900
Relinquished By/Removed From	EAS LOCKED STORAGE	2-22-06 0830	RZ Stoffer R.J. Stoffer	2-22-06 0830
Relinquished By/Removed From	RZ Stoffer R.J. Stoffer	2-22-06 1600	Fed Ex	
Relinquished By/Removed From	Fed Ex		Robert Mahony	2-23-06 1250
Relinquished By/Removed From				
Relinquished By/Removed From				

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-24 for Hyalella Cow seals intact
F1242-02 for chem

6.1°C on arrival 2-23

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-25	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 3, SEDIMENT	SAF No. RC-047	Air Quality ☐
Ice Chest No. AFS-04-008	Field Logbook No. EL-1596 7 AH 1210 6 / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS
POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage
COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	Poly Bag	Poly Bag								
No. of Container(s)	2 2-21-06	1	2 JEB 2-21-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J112B5	OTHER SOLID	2-21-06	1300	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names
Relinquished By/Removed From JAMES BERNHARD Date/Time 1900 2-21-06	Received By/Stored In EAS LOCKED STORAGE Date/Time 1900 2-21-06
Relinquished By/Removed From EAS LOCKED STORAGE Date/Time 0830 2-22-06	Received By/Stored In RZ Steffler R.J. Steffler Date/Time 0830 2-22-06
Relinquished By/Removed From RZ Steffler R.J. Steffler Date/Time 1600 2-22-06	Received By/Stored In Fed Ex Date/Time
Relinquished By/Removed From Fed Ex Date/Time	Received By/Stored In Brett Murray Date/Time 1050 2-23-06
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1539-25 for Analysis cx seals intact
F1242-03 for chem

6.1°C on arrival 2-23

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-26	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 4, SEDIMENT	SAF No. RC-047	Air Quality []
Ice Chest No. AFS-04-008	Field Logbook No. EL-1596-7 A/B 1310 C / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS
POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage
COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	Poly Bag	Poly Bag								
No. of Container(s)	+2 SED 2-21-06	1	+0 SED 2-21-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J112B6	OTHER SOLID	2-21-06	1400	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From JAMES BERNHARD Date/Time 1900 2-21-06	Received By/Stored In EAS LOCKED STORAGE Date/Time 1900 2-21-06	
Relinquished By/Removed From EAS LOCKED STORAGE Date/Time 0830 2-22-06	Received By/Stored In RZ Steffler Date/Time 0830 2-22-06	
Relinquished By/Removed From RZ Steffler Date/Time 1600 2-22-06	Received By/Stored In Fed Ex Date/Time	
Relinquished By/Removed From Fed Ex Date/Time	Received By/Stored In Brett Mulley Date/Time 1450 2-23-06	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-26 for Hydrella coc seals intact

F1242-04 for Chem

6.1 °C on arrival

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHFF-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-45	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr 7-SEDIMENT	SAF No. RC-047	Air Quality ☐
Ice Chest No. AFS-04-008	Field Logbook No. EL-1597 / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 TEG 2-21-06	1	~~1~~ 0 TEG 2-21-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116M6	OTHER SOLID	2-21-06	1445	X	X	X							

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From JAMES BERNHARD	1900 2-21-06	Received By/Stored In EAS LOCKED STORAGE	1900 2-21-06
Relinquished By/Removed From EAS LOCKED STORAGE	0830 2-22-06	Received By/Stored In RZ Stoffler RJ Stoffler	0830 2-22-06
Relinquished By/Removed From RZ Stoffler RJ Stoffler	0830 2-22-06/1600	Received By/Stored In Fed Ex	
Relinquished By/Removed From Fed Ex		Received By/Stored In Brett Mulkey	1050 2-23-06
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-27 for Hydrolic air seals intact

F1242-05 for Chem

6.1°C in cooler 223

Matrix *

S=Soil
SE=Sediment
SQ=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-46	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Cr & SEDIMENT	SAF No. RC-047	Air Quality ☐
Ice Chest No. HFS-04-008	Field Logbook No. EL-1597 / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	2 JEB 2-21-06	1	10 JEB 2-21-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116M7	OTHER SOLID	2-21-06	1530	X	X	X							

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From JAMES BERNHARD	1900 2-21-06	Received By/Stored In EAS LOCKED STORAGE	1900 2-21-06
Relinquished By/Removed From EAS LOCKED STORAGE	0830 2-22-06	Received By/Stored In R2 Steffler R.2. Steffler	0830 2-22-06
Relinquished By/Removed From R2 Steffler R.2. Steffler	1600 WCH 2-22-06	Received By/Stored In Fed EX	
Relinquished By/Removed From Fed Ex		Received By/Stored In D.J. Mulroy DJT Mulroy	1050 2-23-06
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-28 for Hydrolab COC seals intact

F1242-06 for Chem

6.1°C on arrival 2-23-06

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-100	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location ~~REF~~, SEDIMENT JEB 2-21-06 Cr #8		SAF No. RC-047	Air Quality ☐	
Ice Chest No. AFS-04-008	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	P/G	P/G									
No. of Container(s)	~~1~~ 2 JEB 2-21-06	1	~~1~~ 2 JEB 2-21-06									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									

Sample No.	Matrix *	Sample Date	Sample Time										
J11734	OTHER SOLID	2-21-06	1630	X	X	X							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	1900 2-21-06	EAS LOCKED STORAGE	1900 2-21-06
EAS LOCKED STORAGE	0830 2-22-06	RZ Steffler	0830 2-22-06
RZ Steffler	1600 WCH 2-22-06	Fed Ex	
Fed Ex		Brett Mulay	1050 2-23-06

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

B1538-29 for Hydride COC seals intact.

F1242-07 for Chem

6.1°C on arrival

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

CLS#1298/14/11

Ship Date: 22FEB06
ActWgt: 71 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

THU
Deliver By:
23FEB06

TRK# 7903 3116 3116 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

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received 2-23-06 3633 23 6-29

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 22FEB06
ActWgt: 69 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

THU
Deliver By:
23FEB06

TRK# 7903 3116 3127 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

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rcvd 2-23-06 8534-23 to 24

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

Ship Date: 22FEB06
ActWgt: 48 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

THU
Deliver By:
23FEB06

TRK# 7903 3116 3105 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

Shipping Label

View all labels

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

recived 2-23-06

B-578-23 & 29

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-80	Page 1 of 1
Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER / Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N / Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr 3 , SEDIMENT	SAF No. RC-047	Air Quality ☐
Ice Chest No. ERC-96-014	Field Logbook No. EL-1597 / COA BESRAS6520	Method of Shipment GROUND TRANSPORT	
Shipped To CH2MHILL	Offsite Property No. A060151	Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	12	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116X2	OTHER SOLID	2-27-06	1130	X	X	X							
				F1280-01	31538-30	3039-30							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JC 31 JAMES BERNHARD	1700 2-27-06	JC 2 EAS LOCKED STORAGE	1700 2-27-06
RJ EAS LOCKED STORAGE	0715 03/01/06	RZ Steffler RZ Steffler	0715 3-1-06
RZ Steffler RZ Steffler	1600 3-1-06	Fed Ex	
Fed Ex		Doug Winn	3-2-06/1230

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.7 °C

31538-30

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BH-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-77	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr 1, SEDIMENT 2-27-06 FULL QC		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-96-014	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	X2 2-27-06	1	1								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116W9	OTHER SOLID	2-27-06	1000	X	X	X							
				F12J2-02	81538-31	81539-31							

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From JAMES BERNHARD	Date/Time 1700 2-27-06	Received By/Stored In EAS LOCKED STORAGE	Date/Time 1700 2-27-06
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0715 03/01/06	Received By/Stored In RZ Steffler R.J. Steffler	Date/Time 0715 3-1-06
Relinquished By/Removed From RZ Steffler R.J. Steffler	Date/Time 1600 3-1-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time	Received By/Stored In Doug Winn	Date/Time 3-2-06/1230
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.6°C

81538-31

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-78	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr 5, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-02-002	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	12 JEH 2-27-06	1	20 JEH 2-27-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116X0	OTHER SOLID	2-27-06	1230	X	X	~~X~~							
				F1280-03	B1538-32	N/A							

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From JAMES BERNHARD	Date/Time 2-27-06 1700	Received By/Stored In EAS LOCKED STORAGE	Date/Time 2-27-06 1700
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 03/01/06 0715	Received By/Stored In RZ Steffler R.Z. Steffler	Date/Time 3-1-06 0715
Relinquished By/Removed From RZ Steffler R.Z. Steffler	Date/Time 3-1-06 1600 WCH	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time	Received By/Stored In Doug Winn	Date/Time 3-2-06 1230
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.7°C

B1538-32

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-79	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Price Code 9N	Data Turnaround 21 Days	Air Quality ☐	
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr 4, SEDIMENT		SAF No. RC-047
Ice Chest No. ERC-02-002	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None									
Type of Container	G/P	P/G	P/G									
No. of Container(s)	x2 OTB 2-27-06	1	x0 OTB 2-27-06									
Volume	1000g	3000g	19000g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11									
Sample No. / Matrix * / Sample Date / Sample Time												
J116X1 / OTHER SOLID / 2-27-06 / 1200	X	X	X									
	F12B0-01	B5S32-33	N/A									

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	2-27-06 1700	EAS LOCKED STORAGE	2-27-06 1700
EAS LOCKED STORAGE	03/01/06 0715	RZ Stoffler RZ Stoffler	3-1-06 0715
RZ Stoffler RZ Stoffler	3-1-06 1600	Fed Ex	
Fed Ex		Doug Winn	3-2-06 / 1230

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.7°C

B5S32-33

Matrix *

S=Soil
SE=Sediment
SO=Solid
SJ=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-81	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr 2, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-02-002	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	x2 JEB 2-27-06	1	x0 JEB 2-27-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116X3	OTHER SOLID	2-27-06	1100	X	X	X							
				F1280-05	3038-34	N/A							

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	2-27-06 1700	EAS LOCKED STORAGE	2-27-06 1700
EAS LOCKED STORAGE	03/01/06 0715	R2 Steffler R.J. Steffler	3-1-06 0715
R2 Steffler R.J. Steffler	3-1-06 1600	Fed Ex	
Fed Ex		Doug Winn	3-2-06 1230

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.7°C

3038-34

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-84	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr 6, SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-02-002	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 OGK 2-27-06	1	~~1~~ 0 SEB 2-27-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116X6	OTHER SOLID	2-27-06	1300	X	X	~~X~~							
				F1250-06	81538-35	N/A							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
JAMES BERNHARD	2-27-06 1700	EAS LOCKED STORAGE	2-27-06 1700
EAS LOCKED STORAGE	03/01/06 0715	RZ Steffler R.Z. Steffler	3-1-06 0715
RZ Steffler R.Z. Steffler	3-1-06 1600 WCH	Fed Ex	
Fed Ex		Doug Winn	3-2-06/1230

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.6 °C

81538-35

Matrix *

S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
Ve=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-75	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 21 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr9 , SEDIMENT		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-02-002	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT		
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	x2 JEB 2-27-06	1	+0 JEB 2-27-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116W7	OTHER SOLID	2-27-06	1430	X	X	X							
				A220-07	B538-36	NA							

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From JAMES BERNHARD	1700 2-27-06	Received By/Stored In EAS LOCKED STORAGE	1700 2-27-06
Relinquished By/Removed From EAS LOCKED STORAGE	0715 03/01/06	Received By/Stored In RZ Steffler R.Z. Steffler	0715 3-1-06
Relinquished By/Removed From RZ Steffler R.Z. Steffler	1600 3-1-06	Received By/Stored In Fed Ex	
Relinquished By/Removed From Fed Ex		Received By/Stored In Doug Winn	3-2-06 / 1230
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.7°C

B538-36

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-76	Page 1 of 1

Collector TILLER JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Price Code 9N	Data Turnaround 21 Days	Air Quality ☐	
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location Sr /0, SEDIMENT		SAF No. RC-047
Ice Chest No. ERC-02-002	Field Logbook No. EL-1597	COA BESRAS6520	Method of Shipment GROUND TRANSPORT
Shipped To CH2MHILL	Offsite Property No. A060151		Bill of Lading/Air Bill No. SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C

Preservation	Cool 4C	None	None								
Type of Container	G/P	P/G	P/G								
No. of Container(s)	~~1~~ 2 JEB 2-27-06	1	~~1~~ 0 JEB 2-27-06								
Volume	1000g	3000g	19000g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Sediment Invertebrate Toxicity ASTM E1706	Sediment Phytotoxicity EEDP-04-11								

Sample No.	Matrix *	Sample Date	Sample Time										
J116W8	OTHER SOLID	2-27-06	1500	X	X	~~X~~							
				F280-08	B538-37	NA							

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From JAMES BERNHARD	1700 2-27-06	Received By/Stored In EAS LOCKED STORAGE	1700 2-27-06
Relinquished By/Removed From EAS LOCKED STORAGE	0715 03/01/06	Received By/Stored In RZ Steffler	0715 3-1-06
Relinquished By/Removed From RZ Steffler	1600 3-1-06	Received By/Stored In Fed Ex	
Relinquished By/Removed From Fed Ex		Received By/Stored In Doug Winn	3-2-06/1230
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) IC Anions - 300.0; Ammonia - 350.3; pH (Soil) - 9045; TOC - 9060; Moisture Content - D2216; Nitrogen by Kjeldahl - 351.2; Particle Size (Dry Sieve) - D422

Temp. upon arrival @ lab = 2.7°C

B538-37

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (08/29/2005)

From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

CLS01229M/14/18

Ship Date: 01MAR06
ActWgt: 60 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

THU
Deliver By:
02MAR06

TRK# 7920 3029 4837 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

Shipping Label

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From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx Express

Ship Date: 01MAR06
ActWgt: 73 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

THU
Deliver By:
02MAR06

TRK# 7920 3029 4848 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

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From: Origin ID: (509)376-7768
SHIPPING DEPT
FLUOR HANFORD
2355 STEVENS DR BLDG 1162

RICHLAND, WA 99352

FedEx. Express

Ship Date: 01MAR06
ActWgt: 71 LB
System#: 5851986/INET2400
Account#: S *********

REF: BESRAS6520

Delivery Address Bar Code

SHIP TO: (541)752-4271 BILL THIRD PARTY

SAMPLE RECEIVING
APPLIED SCIENCE LABORATORY
2300 NORTHWEST WALNUT BLVD.
CH2M HILL A060151
CORVALLIS, OR 97330

PRIORITY OVERNIGHT

THU
Deliver By:
02MAR06

TRK# 7920 3029 4826 FORM 0201

PDX AA

97330 -OR-US

86 CVOA

Shipping Label

View all labels

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