

PERFORMANCE EVALUATION

First Choice for Quality |



Quarterly Study

WETT 29

WETT / DMRQA 29

15-May-2009 through 31-Aug-2009

RT2179

RTC Labcode

VA01116

US EPA Labcode

Coastal Bioanalysts, Inc
Pete DeLisle
6400 Enterprise Court
Gloucester VA 23061

Thank you for participating in study WETT 29. Additional information about this study may be found online at www.rt-corp.com. If you have any questions or comments about this study please contact me.

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This report may contain data that are not covered by the A2LA accreditation.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Rucinski", is written over a light blue horizontal line.

Christopher Rucinski
Quality Director

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Dataset

DMR29 WET Complete**Include in DMRQA Study**

Evaluations from this dataset will be included in DMRQA 29.

Accreditors

Evaluations of this dataset will be sent to the accreditor(s) listed below using your laboratory's labcode listed above each accrediting agency. If any of the information listed below is incorrect, please contact RTC immediately.

Accrediting Labcode VA01116

Virginia SDWP

Consolidated Lab Services Division

276 Cathy Westerman

600 North 5th St.

Richmond VA 23219-3691

UNITED STATES

Test Code 13 / EPA Method 2000

Test Code 13 / EPA Method 2000 (DMRQA WET)

Analysis

EPA 2000.0

Method Number 9945647

	Result Units	Assigned Value	Accept.	Z	Evaluation
Fathead Minnow Acute MHSF 25° - LC50 1, 2, 3, 4 754 / WET-013 - Lot 014873 /Analysis Date: 5/26/09	15.8 %	30.70	11.4 to 50.1	-1.54	Acceptable

Group Analysis Summary

Acceptable 1 / 1

Score 100.0% - **(Acceptable)****Test Code 15 / EPA Method 1000**

Test Code 15 / EPA Method 1000 (DMRQA WET)

Analysis

EPA 1000

Method Number 10114600

	Result Units	Assigned Value	Accept.	Z	Evaluation
Fathead Minnow Chronic MHSF - Survival NOEC 1, 258,4/WET-015 - Lot 014886 /Analysis Date: 6/8/09	25.0 %	25.00	12.5 to 50	0.00	Acceptable
Fathead Minnow Chronic MHSF - Growth IC25 (ON) 1, 2, 3, 4 808 / WET-015 - Lot 014886	21.3 %	23.00	7.16 to 38.9	-0.21	Acceptable
Fathead Minnow Chronic MHSF - Growth NOEC (ON) 1, 2, 3, 4 810 / WET-015 - Lot 014886	6.25 %	12.50	6.25 to 50.0	-1.00	Acceptable

Group Analysis Summary

Acceptable 3 / 3

Score 100.0% - **(Acceptable)****Test Code 19 / EPA Method 2002**

Test Code 19 / EPA Method 2002 (DMRQA WET)

Analysis

EPA 2002.0

Method Number 9954654

**Test Code 19 / EPA Method 2002 (continued)**

Test Code 19 / EPA Method 2002 (DMRQA WET)

Analysis

EPA 2002.0

(continued)

Method Number 9954654

	Result Units	Assigned Value	Accept.	Z	Evaluation
Ceriodaphnia Acute MHSF 25° - LC50 1, 2, 3, 4 764 / WET-019 - Lot 014873 /Analysis Date: 5/26/09	25.0 %	32.00	4.97 to 59.1	-0.52	Acceptable

Group Analysis Summary

Acceptable 1 / 1

Score 100.0% - **(Acceptable)****Test Code 21 / EPA Method 1002**

Test Code 21 / EPA Method 1002 (DMRQA WET)

Analysis

EPA 1002

Method Number 10115001

	Result Units	Assigned Value	Accept.	Z	Evaluation
Ceriodaphnia Chronic MHSF - Survival NOEC 1, 2, 3, #66 / WET-021 - Lot 014873 /Analysis Date: 6/4/09	25.0 %	25.00	<6.25 to 50.0	0.00	Acceptable
Ceriodaphnia Chronic MHSF - Reproduction 1025 ⁴ 767 / WET-021 - Lot 014873	3.73 %	12.20	0.00 to 26.0	-1.23	Acceptable
Ceriodaphnia Chronic MHSF - Reproduction NOEC 1, 2, 3, 4 768 / WET-021 - Lot 014873	<6.25 %	12.50	6.25 to 25		Acceptable

Group Analysis Summary

Acceptable 3 / 3

Score 100.0% - **(Acceptable)****Test Code 32 / EPA Method 2021**

Test Code 32 / EPA Method 2021 (DMRQA WET)

Analysis

EPA 2021.0

Method Number 9954621

	Result Units	Assigned Value	Accept.	Z	Evaluation
Daphnia Magna Acute MHSF 25° - LC50 1, 2, 3, 4 788 / WET-032 - Lot 014873 /Analysis Date: 7/10/09	47.6 %	49.50	3.35 to 95.6	-0.08	Acceptable

Group Analysis Summary

Acceptable 1 / 1

Score 100.0% - **(Acceptable)****Test Code 42 / EPA Method 2007**

Test Code 42 / EPA Method 2007 (DMRQA WET)

Analysis

EPA 2007.0

Method Number 9954621

	Result Units	Assigned Value	Accept.	Z	Evaluation
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**Test Code 42 / EPA Method 2007 (continued)**

Test Code 42 / EPA Method 2007 (DMRQA WET)

Analysis

EPA 2007.0

(continued)

Method Number 9954621

	Result Units	Assigned Value	Accept.	Z	Evaluation
Mysid Acute 40 F 25° - LC50 1, 2, 3, 4 798 / WET-042 - Lot 014928 /Analysis Date: 6/18/09	28.7 %	18.60	10.1 to 27.1	2.38	Not Acceptable

Group Analysis Summary

Acceptable 0 / 1

Score 0.0% - **(Acceptable)****Test Code 43 / EPA Method 1007**

Test Code 43 / EPA Method 1007 (DMRQA WET)

Analysis

EPA 1007

Method Number 10116004

	Result Units	Assigned Value	Accept.	Z	Evaluation
Mysid Chronic 40 F Survival NOEC 1, 2, 3, 4 799 / WET-043 - Lot 014888 /Analysis Date: 6/16/09	50.0 %	25.00	12.5 to 50	2.00	Acceptable
Mysid Chronic 40 F Growth IC25 (ON) 1, 2, 3, 4 816 / WET-043 - Lot 014888	54.9 %	42.60	14.2 to 71.0	0.87	Acceptable
Mysid Chronic 40 F Growth NOEC (ON) 1, 2, 3, 4 818 / WET-043 - Lot 014888	50.0 %	25.00	12.5 to 50.0	2.00	Acceptable

Group Analysis Summary

Acceptable 3 / 3

Score 100.0% - **(Acceptable)****Test Code 44 / EPA Method 2006**

Test Code 44 / EPA Method 2006 (DMRQA WET)

Analysis

EPA 2004.0

Method Number 9954621

	Result Units	Assigned Value	Accept.	Z	Evaluation
Sheepshead Minnow Acute 40 F 25° - LC50 1, 2, 3, 4 804 / WET-046 - Lot 014881 /Analysis Date: 6/18/09	17.1 %	13.60	4.23 to 22.9	0.75	Acceptable

Group Analysis Summary

Acceptable 1 / 1

Score 100.0% - **(Acceptable)****Test Code 47 / EPA Method 1004**

Test Code 47 / EPA Method 1004 (DMRQA WET)

Analysis

EPA 1004

Method Number 10115409

	Result Units	Assigned Value	Accept.	Z	Evaluation
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Test Code 47 / EPA Method 1004 (continued)

Test Code 47 / EPA Method 1004 (DMRQA WET)

Analysis EPA 1004 (continued)
Method Number 10115409

	Result Units	Assigned Value	Accept.	Z	Evaluation
Sheepshead Minnow Chronic 40 F - Survival NOEC 1, 2, 3, 4 805 / WET-047 - Lot 014882 /Analysis Date: 6/16/09	25.0 %	12.50	6.25 to 25	2.00	Acceptable
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON) ₄ 820 / WET-047 - Lot 014882	19.4 %	18.70	0.00 to 38.2	0.07	Acceptable
Sheepshead Minnow Chronic 40 F - Growth NOEC (ON) 1, 2, 3, 4 822 / WET-047 - Lot 014882	6.25 %	12.50	6.25 to 25	-1.00	Acceptable

Group Analysis Summary

Acceptable 3 / 3
Score 100.0% - (Acceptable)

End of DMR29 WET Complete



Sample Information

Fathead Minnow Acute MHSF 25°C

WET-013 / Lot 014873

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Fathead Minnow Acute MHSF 25° - LC50 754 Test Code 13 / EPA Method 2000	%	30.70	30.70	9.69	31.3

Fathead Minnow, 7Day, MHSF

WET-015 / Lot 014886

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Fathead Minnow Chronic MHSF - Survival NOEC 756 Test Code 15 / EPA Method 1000	%	25.00			25.0
Fathead Minnow Chronic MHSF - Growth IC25 (ON) 808 Test Code 15 / EPA Method 1000	%	23.00	23.00	7.94	23.0
Fathead Minnow Chronic MHSF - Growth IC25 (SN) 809 Test Code 15 / EPA Method 1000	%	21.90	21.90	11.20	21.9
Fathead Minnow Chronic MHSF - Growth NOEC (ON) 810 Test Code 15 / EPA Method 1000	%	12.50	18.60	9.96	12.5
Fathead Minnow Chronic MHSF - Growth NOEC (SN) 811 Test Code 15 / EPA Method 1000	%	12.50	17.10	11.10	12.5

Ceriodaphnia Acute MHSF 25°C

WET-019 / Lot 014873

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Ceriodaphnia Acute MHSF 25° - LC50 764 Test Code 19 / EPA Method 2002	%	32.00	32.00	13.50	32.0 ± 0.17

Ceriodaphnia Chronic MHSF

WET-021 / Lot 014873

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Ceriodaphnia Chronic MHSF - Survival NOEC 766 Test Code 21 / EPA Method 1002	%	25.00			25.0
Ceriodaphnia Chronic MHSF - Reproduction IC25 767 Test Code 21 / EPA Method 1002	%	12.20	12.20	6.89	12.0
Ceriodaphnia Chronic MHSF - Reproduction NOEC 768 Test Code 21 / EPA Method 1002	%	12.50			12.5

Daphnia Magna Acute MHSF 25°C

WET-032 / Lot 014873

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Daphnia Magna Acute MHSF 25° - LC50 788 Test Code 32 / EPA Method 2021	%	49.50	49.50	23.10	49.5

Mysid Acute 40 Fathoms Seawater 25°C

WET-042 / Lot 014928

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Mysid Acute 40 F 25° - LC50 798 Test Code 42 / EPA Method 2007	%	18.60	17.30	2.33	18.6

Mysid Chronic 40 Fathoms Seawater

WET-043 / Lot 014888

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Mysid Chronic 40 F Survival NOEC 799 Test Code 43 / EPA Method 1007	%	25.00			25.0
Mysid Chronic 40 F Growth IC25 (ON) 816 Test Code 43 / EPA Method 1007	%	42.60	42.60	14.20	42.6
Mysid Chronic 40 F Growth IC25 (SN) 817 Test Code 43 / EPA Method 1007	%	60.90	60.90	3.95	60.9
Mysid Chronic 40 F Growth NOEC (ON) 818 Test Code 43 / EPA Method 1007	%	25.00			25.0

**Mysid Chronic 40 Fathoms Seawater**

WET-043 / Lot 014888

(continued)

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Mysid Chronic 40 F Growth NOEC (SN) 819 Test Code 43 / EPA Method 1007	%	50.00			50.0

Sheepshead Minnow Acute 40 Fathoms Seawater 25°C

WET-046 / Lot 014881

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Sheepshead Minnow Acute 40 F 25° - LC50 804 Test Code 44 / EPA Method 2006	%	13.60	13.60	4.67	13.6

Sheepshead Minnow Chronic 40 Fathoms Seawater

WET-047 / Lot 014882

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Sheepshead Minnow Chronic 40 F - Survival NOEC 805 Test Code 47 / EPA Method 1004	%	12.50			12.5
Sheepshead Minnow Chronic 40 F - Growth IC25 (ON) 820 Test Code 47 / EPA Method 1004	%	18.70	16.80	8.50	18.7
Sheepshead Minnow Chronic 40 F - Growth IC25 (SN) 821 Test Code 47 / EPA Method 1004	%	32.00			32.0
Sheepshead Minnow Chronic 40 F - Growth NOEC (ON) 822 Test Code 47 / EPA Method 1004	%	12.50	11.60	10.40	12.5
Sheepshead Minnow Chronic 40 F - Growth NOEC (SN) 823 Test Code 47 / EPA Method 1004	%	12.50			12.5

Definitions:

Assigned Value: Value attributed to a particular quantity and accepted, sometimes by convention, as having an uncertainty appropriate for a give purpose. See ISO Guide 43 for additional information.

Accept. Window: The range of values that constitute acceptable performance for a laboratory participation in this PT study.

Z: A Z-Score tells how a single data point compares to normal data. A Z-Score says not only whether a point was above or below average, but how unusual the measurement is. Generally, a method result with a Z-Score less than |2| is considered to be in control, a Z-Score between |2| and |3| is considered 'Questionable', but still within control and a Z greater than |3| is considered not acceptable and the method is out of control.

Study Mean: Statistical study mean calculated using a robust statistical model (RTC employs the 'Biweight Program'). Robust statistical techniques to minimize the influence that extreme results can have on estimates of the mean and standard deviation NOTE - These techniques assign less weight to extreme results, rather than eliminate them from a data set.

Study Std. Dev.: Standard deviation calculated from study data using robust statisticals (Biweight).

Gravimetric Value: The prepared to value, determined by gravimetric means. The uncertainty associated to this value is standard uncertainty and based on RTC's gravimetric tolerances.

Program analyte accrediting footnotes

1 NELAC

3 Other

5 NELAC Experimental

2 EPA

4 A2LA