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DMR-QA 29 Final Report

DMR-QA Proficiency Testing

DMR-QA Study

Open Date: 05/04/09

Close Date: 08/31/09

Report Issued Date: 09/20/09

September 20, 2009

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Enclosed is your final report for ERA's DMR-QA 29 Proficiency Testing study. Your final report includes an evaluation of every result submitted by your facility to ERA. If you are an in-house laboratory supporting an NPDES permit, your report also includes the USEPA Checklists for your laboratory and for each of the contract laboratories that have released data to your NPDES permit number for submittal to your state or regional DMR-QA coordinator.

If you have any "Not Acceptable" evaluations for the DMR-QA 29 study a letter of corrective action and order form are attached for your convenience. If you have a "Not Acceptable" evaluation but no letter of corrective action or order form, ERA recommends that you contact your state or regional DMR-QA coordinator to establish the type of corrective action they may require.

Thank you for your participation in ERA's DMR-QA 29 Proficiency Testing study. If you have any questions, please contact myself or ERA's Proficiency Testing Group, at 1-800-372-0122.

Sincerely,

Shawn Kassner
Proficiency Testing Manager

Jay R. McBurney
Quality Program Manager

attachments
smk

Report Recipient	Contact/Phone Number	Reporting Type
North Carolina (WP)	Patrick Donnelly / 919-733-3908 x207	All Analytes
South Carolina	Carol Smith / 803-896-0992	All Analytes

DMRQA-29 Definitions & Study Discussion

Study Dates: 05/04/09 - 08/31/09 **Report Issued: 09/20/09**

DMRQA Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA Assigned Values are compliant with the most current USEPA/NELAC FoPT tables. A parameter not added to the standard is given an Assigned Value of "0" per the guidelines contained in the USEPA's Criteria Document and NELAC standards.

The Acceptance Limits are established per the criteria contained in the most current USEPA/NELAC FoPT tables, or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

Acceptable	= Reported Value falls within the Acceptance Limits.
Not Acceptable	= Reported Value falls outside the Acceptance Limits.
No Evaluation	= Reported Value cannot be evaluated.
Not Reported	= No Value reported.

The Method Description is the method the laboratory reported to ERA.

DMRQA Study Discussion

ERA's DMR-QA 29 Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the USEPA's National Standards for Water Proficiency Testing Studies Criteria Document (December 1998), and the criteria contained in the most current NELAC FoPT tables.

ERA's DMR-QA 29 study standards were examined for any anomalies. A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes met the acceptance criteria contained in the USEPA's National Criteria Document for Water Proficiency Testing Studies, December 1998, and the criteria contained in the most current NELAC FoPT tables.

The data submitted by participating laboratories was also examined for study anomalies. There were three anomalies observed during the statistical review of the data. If your laboratory received the Solids Concentrate sample, catalog #4030, the Inland Silverside (Test Code 44), catalog #WET018, or the Inland Silverside (Test Code 45) sample, catalog #WET013, these anomalies are addressed on the following page.

If you have any questions or concerns regarding your assessment in ERA's DMRQA Proficiency Testing program, please contact Shawn Kassner, Proficiency Testing Manager, or Curtis Wood, Director of Regulatory Affairs and Business Development, at 1-800-372-0122.

DMRQA-29 Study Anomalies

Study Dates: 05/04/09 - 08/31/09 **Report Issued: 09/20/09**

Study Discussion Inland silverside (Test Code 44) - LC50

In the review of the study data for the Inland silverside (Test Code 44) 48 hr., Acute, Non-renewal, 25ºC 40 FSW, ERA observed that 69.6% of the laboratory data being reported was 100% or >100%. This indicated that the toxicant or the concentration of the toxicant had no effect on the organism. ERA began an investigation of the manufacturing data, verification, homogeneity, and stability data and found no errors. ERA followed the recommendations of the TNI FoPT table for WETT. ERA also manufactured the sample with potassium chloride at the recommended concentration. This concentration of potassium chloride had no effect on the organism.

ERA will be offering a supplemental WETT proficiency testing study for the Inland silverside (Test Code 44) 48 hr., Acute, Non-renewal, 25ºC 40 FSW test. All of the participants who received this sample will receive information as to when the study will be held and be provided a supplemental proficiency testing sample at no cost. If you have any questions please feel free to call Tom Widera, Inorganic Product Line Manager or Shawn Kassner, Proficiency Testing Programs Manager at 1-800-372-0122.

Study: **DMR-QA 29**

ERA Customer Number: **E559701**

Laboratory Name: **Environmental Testing Solutions, Inc.**

Inorganic Results

DMR-QA 29 Final Complete Report

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EPA ID: **NC01230**
ERA Customer Number: **E559701**
Report Issued: **09/20/09**
Study Dates: **05/04/09 - 08/31/09**

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
DMRQA Minerals (cat# 581)							
0027	Alkalinity as CaCO3	mg/L	39.6	41.4	35.4 - 48.1	Acceptable	SM2320B
0028	Chloride	mg/L	64	66.3	56.6 - 76.4	Acceptable	SM4500Cl- C VIS
0020	Conductivity at 25°C	µmhos/cm	435	422	378 - 466	Acceptable	SM2510B
0029	Fluoride	mg/L		2.56	2.12 - 3.01	Not Reported	
0026	Potassium	mg/L		38.2	31.7 - 45.4	Not Reported	
0025	Sodium	mg/L		60.0	50.9 - 68.9	Not Reported	
0030	Sulfate	mg/L	38.1	40.4	32.8 - 47.0	Acceptable	HACH 8051
0021	Total Dissolved Solids at 180°C	mg/L	270	267	199 - 335	Acceptable	SM2540C
1950	Total Solids at 105°C	mg/L		277	238 - 313	Not Reported	
DMRQA Hardness (cat# 580)							
0072	Non-Filterable Residue (TSS)	mg/L	68	73.2	59.2 - 81.9	Acceptable	SM2540D
0023	Calcium	mg/L		31.7	28.1 - 36.1	Not Reported	
0024	Magnesium	mg/L		15.3	13.1 - 17.6	Not Reported	
1550	Calcium Hardness as CaCO3	mg/L		79.2	70.3 - 90.2	Not Reported	
0022	Total Hardness as CaCO3	mg/L	144	142	124 - 162	Acceptable	SM2340C
DMRQA pH (cat# 577)							
0019	pH	S.U.	8.32	8.53	8.33 - 8.73	Not Acceptable	SM4500H+ B
DMRQA Settleable Solids (cat# 883)							
1965	Settleable Solids	mL/L	30	25.6	20.0 - 32.9	Acceptable	SM2540F
DMRQA Simple Nutrients (cat# 584)							
0031	Ammonia as N	mg/L	9.2	10.5	7.78 - 13.1	Acceptable	SM4500NH3 D
1820	Nitrate + Nitrite as N	mg/L		3.08	2.50 - 3.60	Not Reported	
0032	Nitrate as N	mg/L		3.08	2.40 - 3.73	Not Reported	
0033	ortho-Phosphate as P	mg/L		4.70	3.88 - 5.56	Not Reported	
DMRQA Demand (cat# 578)							
0038	BOD	mg/L	45	42.3	21.1 - 63.4	Acceptable	SM5210B
0102	CBOD	mg/L	34	36.5	16.3 - 56.6	Acceptable	SM5210B
0036	COD	mg/L	65	68.2	48.4 - 82.4	Acceptable	HACH 8000
0037	TOC	mg/L		27.0	22.4 - 31.4	Not Reported	
DMRQA Turbidity (cat# 893)							
2055	Turbidity	NTU	2.5	2.95	2.33 - 3.58	Acceptable	SM2130B
DMRQA Total Residual Chlorine (cat# 587)							
0098	Total Residual Chlorine	mg/L	1.94	1.99	1.43 - 2.46	Acceptable	ORION 97-70

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Microbiology Results

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Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
DMRQA WasteWatR™ Coliform MicrobE™ (cat# 576)							
2500	Total Coliforms (MF)	CFU/100mL		360	73.0 - 1760	Not Reported	
2530	Fecal Coliforms (MF)	CFU/100mL	390	210	39.0 - 1130	Acceptable	SM9222D m FC
2525	E.coli (MF)	CFU/100mL		245	43.0 - 1400	Not Reported	
2500	Total Coliforms (MPN)	MPN/100mL		606	120 - 3060	Not Reported	
2530	Fecal Coliforms (MPN)	MPN/100mL	540	485	63.1 - 3730	Acceptable	SM9221E A1
2525	E.coli (MPN)	MPN/100mL		608	213 - 1730	Not Reported	

ACCREDITED Lab Code: 1539-01

All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Study: **DMR-QA 29**

ERA Customer Number: **E559701**

Laboratory Name: **Environmental Testing Solutions, Inc.**

WET Results

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Anal. No.	Test End Point	Reported Value %	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description
DMRQA Fathead minnow (Test Code 13) (cat# WET002)						
48Hr., Acute, Non-Renewal, 25° C, MHSF						
Potassium chloride						
0754	LC50	51.8	45.5	22.3 - 68.7	Acceptable	EPA 2000
DMRQA Fathead minnow (Test Code 15) (cat# WET004)						
7-day Short term Chronic, Daily Renewal, MHSF						
Ammonium phosphate dibasic						
0808	IC25 (ON) Growth	51.0	45.0	15.1 - 74.8	Acceptable	EPA 1000
0810	NOEC (ON) Growth	25	25.0	12.5 - 50.0	Acceptable	EPA 1000
0756	NOEC Survival	50	50.0	25.0 - 100	Acceptable	EPA 1000
DMRQA Ceriodaphnia dubia (Test Code 19) (cat# WET008)						
48Hr., Acute Renewal, 25° C, MHSF						
Potassium chloride						
0764	LC50	45.1	51.1	18.4 - 83.8	Acceptable	EPA 2002
DMRQA Ceriodaphnia dubia (Test Code 21) (cat# WET010)						
7-day Short term Chronic, Daily Renewal, MHSF						
Potassium chloride						
0767	IC25 Reproduction	31.4	30.2	12.4 - 48.1	Acceptable	EPA 1002
0768	NOEC Reproduction	25	25.0	12.5 - 50.0	Acceptable	EPA 1002
0766	NOEC Survival	25	25.0	12.5 - 50.0	Acceptable	EPA 1002
DMRQA Mysid (Test Code 42) (cat# WET016)						
48Hr., Acute, Non-Renewal, 25° C, 40 FSW						
Potassium chloride						
0798	LC50	35.4	43.2	20.3 - 66.1	Acceptable	EPA 2007
DMRQA Mysid (Test Code 43) (cat# WET017)						
7-day Short term Chronic, Daily Renewal, 40 FSW						
Potassium chloride						
0816	IC25 (ON) Growth	26.9	30.4	15.6 - 45.2	Acceptable	EPA 1007
0818	NOEC (ON) Growth	12.5	25.0	12.5 - 50.0	Acceptable	EPA 1007
0799	NOEC Survival	25	25.0	12.5 - 50.0	Acceptable	EPA 1007
DMRQA Inland silverside (Test Code 44) (cat# WET018)						
48Hr., Acute, Non-Renewal, 25° C, 40 FSW						
Potassium chloride						
0803	LC50	100	80.5	35.3 - 100	Acceptable	EPA 2006
DMRQA Sheepshead minnow (Test Code 46) (cat# WET019)						
48Hr., Acute, Non-Renewal, 25° C, 40 FSW						
Potassium chloride						
0804	LC50	17.7	28.1	13.2 - 43.0	Acceptable	EPA 2004

ACCREDITED Lab Code: 1539-01

All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

CERTIFICATE OF RECOGNITION

ERA congratulates
ENVIRONMENTAL TESTING SOLUTIONS, INC.
for your paticipation and successful evaluation in DMRQA-29. We recognize the performance of this laboratory for achieving acceptable evaluation for the following analytes.

Alkalinity as CaCO3	Conductivity at 25°C	Total Dissolved Solids at 180°C
Ammonia as N	Fecal Coliforms (MF)	Total Hardness as CaCO3
BOD	Fecal Coliforms (MPN)	Total Residual Chlorine
CBOD	Non-Filterable Residue (TSS)	Turbidity
Chloride	Settleable Solids	
COD	Sulfate	

Shawn Kassner
Manager, Proficiency Testing Programs

E559701