



A Waters Company

Thekkekalathil Chandrasekhar
State of Florida DEP Biology Laboratory
2600 Blair Stone Rd
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WP-225



Final Report

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 10/18/13

Close Date: 12/02/13

Report Issued Date: 12/04/13



A Waters Company

December 4, 2013

Thekkekalathil Chandrasekhar
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Enclosed is your final report for ERA's WP-225 WatR™ Pollution Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's WP-225 WatR™ Pollution Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the current TNI Fields of Proficiency Testing (FoPT) tables, the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the current TNI FoPT tables. If the analyte is not included in the TNI FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (Quik™ Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have many years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be useful in helping you work through your technical issues.

Please note the following changes to our final reports:

- At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than "0." In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.
- Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

Thank you for your participation in ERA's WP-225 WatR™ Pollution Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Kristina Sanchez
Quality Officer

attachments



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Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
Florida	Steve Arms / 904-791-1502	All Analytes	2009 TNI



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WP-225 Definitions & Study Discussion

Study Dates: 10/18/13 - 12/02/13

Report Issued: 12/04/13

WP Study Definitions

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

The ERA Assigned Values are compliant with the most current TNI Fields of Proficiency Testing (FoPT) tables. A parameter not added to the standard is given an Assigned Value of "< PTRL" per the guidelines contained in the 2009 TNI Standards. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT 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.

WP Study Discussion

ERA's WP-225 WatR™Pollution Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's WP-225 WatR™Pollution 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 2009 TNI PT Standard and the criteria contained in the most current TNI FoPT tables.

The data submitted by participating laboratories was also examined for study anomalies. There was one anomaly observed during the statistical review of the data. If your laboratory received the WP-225 Waste Water Coliform MicrobE™ sample, catalog #576, this anomaly is addressed on the following page.

ERA's WP-225 WatR™Pollution study reports shall not be reproduced except in their entirety and not without the permission of the participating laboratories. The report must not be used by the participating laboratories to claim product endorsement by any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA's WatR™Pollution Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.





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WP-225 Study Anomalies

Study Dates: 10/18/13 - 12/02/13

Report Issued: 12/04/13

Study Discussion WasteWatR™ Coliform MicrobE™ - Total Coliforms (MPN)

During the statistical review of the WP-225 WasteWatR™ Coliform MicrobE™ data, ERA observed a bimodal distribution of data for Total Coliforms (MPN) when laboratories reported SM 9221. Based on ERA's criteria for testing for bimodal or multimodal distributions, and the 2003 NELAC Standards Chapter 2 Appendix C section C.4, the laboratories reporting SM 9221 were evaluated separately for this analyte.

- Total Coliforms (MPN) entire population study mean = 738 MPN/100mL, 62 data points
- Total Coliforms (MPN) SM 9221 study mean = 404 MPN/100mL, 20 data points
- Total Coliforms (MPN) remaining data study mean = 866 MPN/100mL, 42 data points





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WP-225 Laboratory Exception Report

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EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

FL01181
S744813
12/04/13
10/18/13 - 12/02/13

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.



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

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Final Report Results For Laboratory State of Florida DEP Biology Laboratory



2009 TNI Evaluation Report

Study: **WP-225**

ERA Customer Number: **S744813**

Laboratory Name: **State of Florida DEP
Biology Laboratory**

Inorganic Results



WP-225 2009 TNI Evaluation Final Complete Report

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EPA ID: FL01181
 ERA Customer Number: S744813
 Report Issued: 12/04/13
 Study Dates: 10/18/13 - 12/02/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
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WP Total Residual Chlorine (cat# 587)

1940	Total Residual Chlorine	mg/L	1.36	1.41	1.04 - 1.67	Acceptable	SM4500Cl G online	10/24/2013	-0.328	1.38	0.0743	PENNINGT_A
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2009 TNI Evaluation Report

Study: **WP-225**

ERA Customer Number: **S744813**

Laboratory Name: **State of Florida DEP
Biology Laboratory**

Microbiology Results





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WP-225 2009 TNI Evaluation Final Complete Report

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TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
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WP WasteWatR™ Coliform MicrobE™ (cat# 576)

2500	Total Coliforms (MF)	CFU/100mL	590	1060	230 - 1660	Acceptable	SM9222B M endo online	11/2/2013	-0.118	618	238	FALTER_R
2530	Fecal Coliforms (MF)	CFU/100mL	210	1060	17.0 - 2450	Acceptable	SM 9222D online	11/2/2013	0.0146	204	405	FALTER_R
2525	E.coli (MF)	CFU/100mL	260	1060	52.0 - 1810	Acceptable	SM9213D mTEC online	11/2/2013	-0.156	306	294	FALTER_R
2500	Total Coliforms (MPN)	MPN/100mL		1180	442 - 1700	Not Reported				866	209	
2530	Fecal Coliforms (MPN)	MPN/100mL	350	1180	68.9 - 2940	Acceptable	SM9221E online	11/8/2013	-0.209	450	479	TAMAYO_D
2525	E.coli (MPN)	MPN/100mL		1180	375 - 1940	Not Reported				853	261	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL	270	318	162 - 572	Acceptable	EPA 1600 2002	11/2/2013	-0.498	304	68.5	FALTER_R
2520	Enterococci (MPN)	MPN/100mL		475	86.5 - 1260	Not Reported				330	195	
2540	Fecal Streptococci (MF)	CFU/100mL		318	153 - 779	Not Reported				345	104	
2540	Fecal Streptococci (MPN)	MPN/100mL		475	64.4 - 2010	Not Reported				360	324	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.



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

