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A Waters Company

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USA

WS-246 Final Report

WatR™ Supply Proficiency Testing

WatR Supply Study

Open Date: 01/09/17

Close Date: 02/23/17

Report Issued Date: 02/27/17

Study # : WS-246

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February 27, 2017

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Enclosed is your final report for ERA's WS-246 WatR Supply 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 WS-246 WatR Supply Proficiency Testing (PT) 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 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 730002268).

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.

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 WS-246 WatR Supply Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Pat Larson

Patrick Larson
Quality Officer

attachments

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Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
Perry Johnson Laboratory Accreditation, Inc.	Tamara Norris / (248) 519-2603	All Analytes	2009 TNI

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WS-246 Definitions & Study Discussion

Study Dates: 01/09/17 - 02/23/17 **Report Issued: 02/27/17**

WS Study Definitions

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

The ERA Assigned Values are compliant with the 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 TNI 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.

WS Study Discussion

ERA's WS-246 WatR Supply Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standards and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's WS-246 WatR Supply 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 in the standards 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 were no anomalies observed during the statistical review of the data.

ERA's WS-246 WatR Supply 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 Supply Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.

WS-246 Laboratory Exception Report

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EPA ID:	**Not Reported**
ERA Customer Number:	**C932194**
Report Issued:	**02/27/17**
Study Dates:	**01/09/17 - 02/23/17**

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.

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Final Report Results For Laboratory Cascade Technical Services

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2009 TNI Evaluation Report

Study: **WS-246**

ERA Customer Number: **C932194**

Laboratory Name: **Cascade Technical Services**

Organic Results

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WS-246 2009 TNI Evaluation Final Complete Report

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EPA ID: Not Reported
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Report Issued: 02/27/17
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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
WS Per- & Polyfluoroalkyl Substances (PFAS) GW & SW (cat# 929, lot# S246-731)												
4846	N-ethyl perfluorooctanesulfonamidoacetic acid	ng/L		< 60.0	0.00 - 60.0	Not Reported						
6461	Fluorotelomer sulfonate 8:2 (FtS 8:2)	ng/L		186	112 - 260	Not Reported				185	30.4	
9437	Fluorotelomer sulfonate 4:2 (FtS 4:2)	ng/L		< 60.0	0.00 - 60.0	Not Reported						
6457	Fluorotelomer sulfonate 6:2 (FtS 6:2)	ng/L	246	255	153 - 357	Acceptable	EPA 537 1.1 2009	2/22/2017	-0.145	253	46.5	Helmer Korb
4847	N-methyl perfluorooctanesulfonamidoacetic acid	ng/L		< 60.0	0.00 - 60.0	Not Reported						
6911	Perfluorobutanesulfonic acid (PFBS)	ng/L	378	332	199 - 465	Acceptable	EPA 537 1.1 2009	2/22/2017	1.08	333	42.2	Helmer Korb
6915	Perfluorobutyric acid (PFBA)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb
9562	Perfluorodecanesulfonate (PFDS)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb
6905	Perfluorodecanoic acid (PFDA)	ng/L		< 60.0	0.00 - 60.0	Not Reported						
6903	Perfluorododecanoic acid (PFDoA)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb
9470	Perfluoroheptanesulfonate (PFHpS)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb
6908	Perfluoroheptanoic acid (PFHpA)	ng/L	299	291	175 - 407	Acceptable	EPA 537 1.1 2009	2/22/2017	0.658	267	49.1	Helmer Korb
6910	Perfluorohexanesulfonic acid (PFHxS)	ng/L	421	409	245 - 573	Acceptable	EPA 537 1.1 2009	2/22/2017	0.642	382	60.4	Helmer Korb
6913	Perfluorohexanoic acid (PFHxA)	ng/L	206	200	120 - 280	Acceptable	EPA 537 1.1 2009	2/22/2017	0.355	196	29.0	Helmer Korb
9464	Perfluorononanesulfonate (PFNS)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb
6906	Perfluorononanoic acid (PFNA)	ng/L	421	403	242 - 564	Acceptable	EPA 537 1.1 2009	2/22/2017	0.598	372	82.1	Helmer Korb
6917	Perfluorooctanesulfonamide (PFOSA)	ng/L		345	207 - 483	Not Reported				340	57.5	
6909	Perfluorooctanesulfonic acid (PFOS)	ng/L	194	190	114 - 266	Acceptable	EPA 537 1.1 2009	2/22/2017	0.397	179	37.8	Helmer Korb
6912	Perfluorooctanoic acid (PFOA)	ng/L	333	329	197 - 461	Acceptable	EPA 537 1.1 2009	2/22/2017	0.356	310	64.7	Helmer Korb
6914	Perfluoropentanoic acid (PFPeA)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb

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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
WS Per- & Polyfluoroalkyl Substances (PFAS) GW & SW (cat# 929, lot# S246-731) (Continued)												
9467	Perfluoropentansulfonate (PFPeS)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb
6902	Perfluorotetradecanoic acid (PFTA)	ng/L		< 60.0	0.00 - 60.0	Not Reported						
9563	Perfluorotridecanoic acid (PFTrDA)	ng/L		< 60.0	0.00 - 60.0	Not Reported						
6904	Perfluoroundecanoic acid (PFUnA)	ng/L	< 25	< 60.0	0.00 - 60.0	Acceptable	EPA 537 1.1 2009	2/22/2017				Helmer Korb

CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

WS-246

Cascade Technical Services

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 687 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Per- & Polyfluoroalkyl
Substances (PFAS) GW &
SW

Patrick Larson
Quality Officer

C932194