

Julie Weisz
Energy Laboratories
400 West Boxelder Road
Gillette, WY 82718
USA

WS-314  **Final Report**

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 09/06/2022

Close Date: 10/21/2022

Report Issued Date: 10/25/2022



A Waters Company

October 25, 2022

Julie Weisz
Energy Laboratories
400 West Boxelder Road
Gillette, WY 82718

Enclosed is your final report for ERA's WS-314 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-314 WatR™ Supply Proficiency Testing (PT) study have been evaluated using the following tiered approach. If the analyte is listed in the most current TNI Fields of Proficiency Testing (FoPT) table the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the table and the evaluation criteria contained in the 2016 TNI Standard, Volume 3. If the analyte is not included in the TNI FoPT table, 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.

Thank you for your participation in ERA's WS-314 WatR™ Supply Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig Huff", with a horizontal line drawn through it.

Craig Huff
Senior Technical Manager

attachments





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Report Recipient	Contact/Phone Number	Reporting Type
EPA Region 8	Marcie Tidd / (303) 462-9476	All Analytes



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WS-314 Definitions & Study Discussion

Study Dates: 09/06/2022 - 10/21/2022

Report Issued: 10/25/2022

WS 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) table. A parameter not added to the standard is given an Assigned Value of "< PTRL" per the guidelines contained in the 2016 TNI Standard. 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 table 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-314 WatR™Supply Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2016 TNI Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) table.

ERA's WS-314 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 2016 TNI Standard and the criteria contained in the most current TNI FoPT table.

All activities associated with this proficiency testing study were performed by Waters/ERA with the exception of those noted below. The following physical samples/products were manufactured for Waters/ERA by a subcontractor:

Microbiology products with the following catalog numbers:
880, 935, 079, 077, 080, 595, 595A, 576, 576A

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-314 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.





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WS-314 Laboratory Exception Report

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QA Officer
Energy Laboratories
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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





Final Report Results For Laboratory Energy Laboratories



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

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Study # : WS-314





Final Evaluation Report

Study: **WS-314**

ERA Customer Number: **E351102**

Laboratory Name: **Energy Laboratories**

Microbiology Results



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

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Study # : WS-314





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WS-314 Final Evaluation Report

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Energy Laboratories
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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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WS MicrobE™ (Coliforms) (cat# 080A, lot# S314-085A)

2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 3, 4 and 10
 Total Coliform Organism - Enterobacter cloacae (NCTC 10005), Samples 2, 5 and 6
 Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 9
 Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 1
 Blank - Blank Pellet (Qualitative), Samples 7 and 8

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





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WS MicrobE™ (Coliforms) (cat# 080A, lot# S314-085A) (Continued)

2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 3, 4 and 10
 Total Coliform Organism - Enterobacter cloacae (NCTC 10005), Samples 2, 5 and 6
 Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 9
 Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 1
 Blank - Blank Pellet (Qualitative), Samples 7 and 8

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





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WS MicrobE™ (Coliforms) (cat# 080A, lot# S314-085A) (Continued)

2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	9/10/2022				Brandon Bowe

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 3, 4 and 10
 Total Coliform Organism - Enterobacter cloacae (NCTC 10005), Samples 2, 5 and 6
 Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 9
 Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 1
 Blank - Blank Pellet (Qualitative), Samples 7 and 8



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





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WS MicrobE™ (Coliforms) (cat# 080B, lot# S314-085B)

2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 1, 3 and 8
 Total Coliform Organism - Enterobacter cloacae (NCTC 10005), Samples 4, 5 and 6
 Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 7
 Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 9
 Blank - Blank Pellet (Qualitative), Samples 2 and 10

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





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WS MicrobE™ (Coliforms) (cat# 080B, lot# S314-085B) (Continued)

2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

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





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WS MicrobE™ (Coliforms) (cat# 080B, lot# S314-085B) (Continued)

2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 23rd ED 2016	9/16/2022				Julie Weisz

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 1, 3 and 8
 Total Coliform Organism - Enterobacter cloacae (NCTC 10005), Samples 4, 5 and 6
 Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 7
 Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 9
 Blank - Blank Pellet (Qualitative), Samples 2 and 10

WS Heterotrophic Plate Count (cat# 079, lot# S314-084)

2555	Heterotrophic Plate Count (MF, PP)	CFU/mL		225	174 - 290	Not Reported				225	29.0	
2555	Heterotrophic Plate Count (MPN)	MPN/mL	156	165	73.2 - 371	Acceptable	Simplate 2000	9/16/2022	-0.0128	165	74.5	Julie Weisz

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



CERTIFICATE OF EXCELLENCE

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

WS-314

Energy Laboratories

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 238 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Heterotrophic Plate Count

MicrobE™ (Coliforms)



Craig Huff
Senior Technical Manager