

Donny Juarez
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601
USA

WS-330  **Final Report**

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 01/08/2024

Close Date: 02/22/2024

Report Issued Date: 02/26/2024



A Waters Company

February 26, 2024

Donny Juarez
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601

Enclosed is your final report for ERA's WS-330 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-330 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-330 WatR™ Supply Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122 or interlabgroup@eraqc.com.

Sincerely,

A handwritten signature in black ink, appearing to read "C. 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
California ELAP	Christine Sotelo / 916-341-5175	All Analytes
Colorado	Thomas Lill / 303-692-3045	All Analytes
EPA Region 8	Marcie Tidd / (303) 462-9476	All Analytes
Florida	Vanessa Soto / 904-791-1599	All Analytes
Idaho	Ernie Bader / 208-334-2235 x 290	All Analytes
Montana	Russell Leu / 406-444-5259	All Analytes
Nebraska	Tara Wulfekoetter / 402-471-8439	All Analytes
Nevada	Paige Menicucci / 775-687-9311	All Analytes
North Dakota	Cynthia Auen / 701-328-6172	All Analytes
South Dakota	Rea Riggle / 605-773-3368	All Analytes
Texas	Frank Jamison / (512) 239-3754	All Analytes



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WS-330 Definitions & Study Discussion

Study Dates: 01/08/2024 - 02/22/2024

Report Issued: 02/26/2024

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-330 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-330 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-330 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 or interlabgroup@eraqc.com.





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WS-330 Laboratory Exception Report

Donny Juarez
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307-235-0515 x3244

EPA ID: WY00002
ERA Customer Number: E772828
Report Issued: 02/26/2024
Study Dates: 01/08/2024 - 02/22/2024

Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WS Inorganic Disinfection #2 (cat# 5260, lot# S330-5262)							
1540	Bromide	µg/L	0.085	86.8	73.8 - 99.8	Not Acceptable	EPA 300.0 2.1 1993
WS Turbidity (cat# 592, lot# S330-699)							
2055	Turbidity	NTU	5.84	5.08	4.31 - 5.72	Not Acceptable	SM2130B 22nd ED 2011



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

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Study # : WS-330





Final Evaluation Report

Study: **WS-330**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

Inorganic Results



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

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Study # : WS-330





WS-330 Final Evaluation Report

A Waters Company

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307-235-0515 x3244

EPA ID:
ERA Customer Number:
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Study Dates:

WY00002
E772828
02/26/2024
01/08/2024 - 02/22/2024

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 Inorganics (cat# 591, lot# S330-698)

1505	Alkalinity as CaCO3	mg/L	134	135	122 - 148	Acceptable	SM2320B 22nd ED 2011	1/23/2024	-0.0975	134	4.52	dmb
1575	Chloride	mg/L	156	151	128 - 174	Acceptable	EPA 300.0 2.1 1993	1/25/2024	0.408	154	4.95	jls1
1610	Conductivity at 25°C	µmhos/cm	865	871	784 - 958	Acceptable	SM2510B 22nd ED 2011	1/24/2024	-0.103	867	21.2	jno
1730	Fluoride	mg/L	3.51	3.68	3.31 - 4.05	Acceptable	EPA 300.0 2.1 1993	1/25/2024	-1.41	3.75	0.174	jls1
1820	Nitrate + Nitrite as N	mg/L	3.41	3.41	2.90 - 3.92	Acceptable	EPA 353.2 2 1993	1/29/2024	-0.205	3.45	0.185	slf
1810	Nitrate as N	mg/L	3.41	3.41	3.07 - 3.75	Acceptable	EPA 353.2 (calc)	2/6/2024	-0.105	3.43	0.175	dmb
1125	Potassium	mg/L		17.1	14.5 - 19.7	Not Reported				17.4	0.798	
2000	Sulfate	mg/L	35.3	34.9	29.7 - 40.1	Acceptable	EPA 300.0 2.1 1993	1/25/2024	0.0414	35.2	1.49	jls1
1955	Total Dissolved Solids at 180°C	mg/L	644	644	515 - 773	Acceptable	SM2540C 23rd ED 2015	1/24/2024	0.878	619	28.3	jno

WS Inorganics (cat# 591, lot# S330-698)

1505	Alkalinity as CaCO3	mg/L		135	122 - 148	Not Reported				134	4.52	
1575	Chloride	mg/L		151	128 - 174	Not Reported				154	4.95	
1610	Conductivity at 25°C	µmhos/cm		871	784 - 958	Not Reported				867	21.2	
1730	Fluoride	mg/L	3.9	3.68	3.31 - 4.05	Acceptable	SM4500F- C 22nd ED 2011	1/22/2024	0.839	3.75	0.174	dmb
1820	Nitrate + Nitrite as N	mg/L		3.41	2.90 - 3.92	Not Reported				3.45	0.185	
1810	Nitrate as N	mg/L		3.41	3.07 - 3.75	Not Reported				3.43	0.175	
1125	Potassium	mg/L		17.1	14.5 - 19.7	Not Reported				17.4	0.798	
2000	Sulfate	mg/L		34.9	29.7 - 40.1	Not Reported				35.2	1.49	
1955	Total Dissolved Solids at 180°C	mg/L		644	515 - 773	Not Reported				619	28.3	

WS pH (cat# 552, lot# S330-779)

1900	pH	S.U.	8.98	8.93	8.73 - 9.13	Acceptable	SM4500H+ B 22nd ED 2011	1/24/2024	0.730	8.92	0.0879	jno
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All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01





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01/08/2024 - 02/22/2024

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WS Inorganic Disinfection #2 (cat# 5260, lot# S330-5262)

1535	Bromate	µg/L		40.6	28.4 - 52.8	Not Reported				39.8	2.18	
1540	Bromide	µg/L	0.085	86.8	73.8 - 99.8	Not Acceptable	EPA 300.0 2.1 1993	1/26/2024	-13.6	88.5	6.51	jls1

WS Nitrite (cat# 594, lot# S330-695)

1840	Nitrite as N	mg/L	0.782	0.783	0.666 - 0.900	Acceptable	SM4500NO2- B 22nd ED 2011	1/24/2024	-0.0544	0.784	0.0358	jno
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WS o-Phosphate Nutrients (cat# 558, lot# S330-667)

1870	ortho-Phosphate as P	mg/L	1.96	1.98	1.68 - 2.28	Acceptable	EPA 365.1 2 1993	2/2/2024	-0.240	1.99	0.111	slf
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WS Residual Chlorine (cat# 593, lot# S330-696)

1945	Free Residual Chlorine	mg/L		1.32	1.07 - 1.57	Not Reported				1.28	0.0813	
1940	Total Residual Chlorine	mg/L	1.26	1.38	1.16 - 1.59	Acceptable	SM4500Cl G 22nd ED 2011	2/8/2024	-0.875	1.32	0.0683	dmb

WS Organic Carbon (cat# 557, lot# S330-669)

1710	Dissolved Organic Carbon (DOC)	mg/L	5.79	5.49	4.86 - 6.04	Acceptable	SM 5310 C-2014 2014	2/2/2024	0.846	5.56	0.276	dmb
2040	Total Organic Carbon (TOC)	mg/L	5.84	5.49	4.39 - 6.59	Acceptable	SM 5310 C-2014 2014	2/1/2024	1.13	5.54	0.267	dmb

WS Turbidity (cat# 592, lot# S330-699)

2055	Turbidity	NTU	5.84	5.08	4.31 - 5.72	Not Acceptable	SM2130B 22nd ED 2011	1/29/2024	1.87	5.29	0.293	slf
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All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01





Final Evaluation Report

Study: **WS-330**

ERA Customer Number: **E772828**

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-330





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WS-330 Final Evaluation Report

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EPA ID:
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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# S330-085A)

2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1

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

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 6, 7 and 9
 Total Coliform Organism - Enterobacter cloacae (ATCC 35030), Samples 1, 4 and 5
 Negative (1) Coliform Organism - Pseudomonas putida (ATCC 31483), Sample 10
 Negative (2) Coliform Organism - Staphylococcus capitis (ATCC 35661), Sample 8
 Blank - Blank Pellet (Qualitative), Samples 2 and 3

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





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WS MicrobE™ (Coliforms) (cat# 080A, lot# S330-085A) (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		Absence	Absence	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		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	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

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 6, 7 and 9
 Total Coliform Organism - Enterobacter cloacae (ATCC 35030), Samples 1, 4 and 5
 Negative (1) Coliform Organism - Pseudomonas putida (ATCC 31483), Sample 10
 Negative (2) Coliform Organism - Staphylococcus capitis (ATCC 35661), Sample 8
 Blank - Blank Pellet (Qualitative), Samples 2 and 3



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





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WS-330 Final Evaluation 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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WS MicrobE™ (Coliforms) (cat# 080A, lot# S330-085A) (Continued)

2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 23rd ED 2016	1/16/2024				jls1

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

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 6, 7 and 9
 Total Coliform Organism - Enterobacter cloacae (ATCC 35030), Samples 1, 4 and 5
 Negative (1) Coliform Organism - Pseudomonas putida (ATCC 31483), Sample 10
 Negative (2) Coliform Organism - Staphylococcus capitis (ATCC 35661), Sample 8
 Blank - Blank Pellet (Qualitative), Samples 2 and 3

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





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WS MicrobE™ (Coliforms) (cat# 080B, lot# S330-085B)

2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1

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

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 5, 6 and 7
 Total Coliform Organism - Enterobacter cloacae (ATCC 35030), Samples 3, 4 and 10
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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# S330-085B) (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		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	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		Absence	Absence	Not Reported						

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

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 5, 6 and 7
 Total Coliform Organism - Enterobacter cloacae (ATCC 35030), Samples 3, 4 and 10
 Negative (1) Coliform Organism - Pseudomonas putida (ATCC 31483), Sample 9
 Negative (2) Coliform Organism - Staphylococcus capitis (ATCC 35661), Sample 8
 Blank - Blank Pellet (Qualitative), Samples 1 and 2

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





A Waters Company

WS-330 Final Evaluation Report

Donny Juarez
Quality Assurance Manager
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601
307-235-0515 x3244

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

WY00002
E772828
02/26/2024
01/08/2024 - 02/22/2024

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# 080B, lot# S330-085B) (Continued)

2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024				jls1

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

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 5, 6 and 7
 Total Coliform Organism - Enterobacter cloacae (ATCC 35030), Samples 3, 4 and 10
 Negative (1) Coliform Organism - Pseudomonas putida (ATCC 31483), Sample 9
 Negative (2) Coliform Organism - Staphylococcus capitis (ATCC 35661), Sample 8
 Blank - Blank Pellet (Qualitative), Samples 1 and 2

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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 WS SourceWatR™ MicrobE™ (cat# 595, lot# S330-078)

2500	Total Coliforms (MF)	CFU/100mL		54.0	32.0 - 91.0	Not Reported				53.9	14.7	
2530	Fecal Coliforms (MF)	CFU/100mL		26.0	8.00 - 86.0	Not Reported				25.7	19.6	
2525	E.coli (MF)	CFU/100mL		47.0	30.0 - 73.0	Not Reported				47.2	10.7	
2500	Total Coliform (MPN-Multiple Well)	MPN/100mL	74.3	62.2	38.9 - 99.3	Acceptable	SM9223 COLertQT 23rd ED 2016	1/16/2024	0.760	62.2	15.1	
2530	Fecal Coliform (MPN-Multiple Well)	MPN/100mL		49.7	33.3 - 74.2	Not Reported				49.7	10.2	
2525	E.coli (MPN-Multiple Well)	MPN/100mL	74.3	62.4	39.1 - 99.7	Acceptable	SM9223 COLertQT 23rd ED 2016	1/16/2024	0.746	62.4	15.2	

WS WS SourceWatR™ MicrobE™ (cat# 595, lot# S330-078)

2500	Total Coliforms (MF)	CFU/100mL		54.0	32.0 - 91.0	Not Reported				53.9	14.7	
2530	Fecal Coliforms (MF)	CFU/100mL		26.0	8.00 - 86.0	Not Reported				25.7	19.6	
2525	E.coli (MF)	CFU/100mL		47.0	30.0 - 73.0	Not Reported				47.2	10.7	
2500	Total Coliform (MPN-Multiple Well)	MPN/100mL	56.5	62.2	38.9 - 99.3	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024	-0.410	62.2	15.1	
2530	Fecal Coliform (MPN-Multiple Well)	MPN/100mL		49.7	33.3 - 74.2	Not Reported				49.7	10.2	
2525	E.coli (MPN-Multiple Well)	MPN/100mL	56.5	62.4	39.1 - 99.7	Acceptable	SM9223 COLert18 23rd ED 2016	1/16/2024	-0.424	62.4	15.2	

WS Heterotrophic Plate Count (cat# 079, lot# S330-084)

2555	Heterotrophic Plate Count (MF, PP)	CFU/mL		249	192 - 324	Not Reported				249	33.0	
2555	Heterotrophic Plate Count (MPN)	MPN/mL	280	249	138 - 447	Acceptable	Simplate 2000	1/16/2024	0.405	249	77.4	



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





Final Evaluation Report

Study: **WS-330**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

Organic Results



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

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Study # : WS-330





A Waters Company

WS-330 Final Evaluation Report

Donny Juarez
Quality Assurance Manager
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601
307-235-0515 x3244

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

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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 Carbamate/Carbamoyloxime Pesticides (cat# 846, lot# S330-707)

7010	Aldicarb	µg/L	58.7	52.8	39.6 - 66.0	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.741	55.0	5.05	ljl
7015	Aldicarb sulfone	µg/L	86.3	85.0	63.8 - 106	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.394	84.3	5.04	ljl
7020	Aldicarb sulfoxide	µg/L	48.4	45.8	34.4 - 57.2	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.489	45.7	5.53	ljl
8080	Baygon	µg/L	131	119	97.6 - 140	Acceptable	EPA 531.1 3.1 1995	1/23/2024	1.09	118	11.7	ljl
7195	Carbaryl	µg/L	40.6	39.6	29.7 - 49.5	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.511	38.7	3.64	ljl
7205	Carbofuran	µg/L	108	99.2	54.6 - 144	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.830	100	9.13	ljl
7710	3-Hydroxycarbofuran	µg/L	32.5	31.3	25.0 - 37.6	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.770	30.6	2.42	ljl
7800	Methiocarb	µg/L	112	110	85.3 - 129	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.582	106	10.6	ljl
7805	Methomyl	µg/L	98.5	91.8	73.4 - 110	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.760	91.3	9.52	ljl
7940	Oxamyl (vydate)	µg/L	99.9	93.2	69.9 - 116	Acceptable	EPA 531.1 3.1 1995	1/23/2024	0.872	93.4	7.42	ljl

WS Regulated Semivolatiles #2 Herbicides (cat# 849, lot# S330-691)

9390	Diquat	µg/L	26.2	36.9	18.4 - 55.4	Acceptable	EPA 549.2 1 1997	1/19/2024	-0.513	28.7	4.89	ljl
7525	Endothall	µg/L		354	177 - 531	Not Reported				352	91.4	
9411	Glyphosate	µg/L	489	499	399 - 599	Acceptable	EPA 547 1990	1/24/2024	-0.626	520	48.7	ljl
9528	Paraquat	µg/L		15.7	7.46 - 17.5	Not Reported				10.2	2.31	



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



CERTIFICATE OF RECOGNITION

ERA congratulates
Energy Laboratories
WS-330

For your participation and successful evaluation, we recognize the performance of this laboratory for achieving acceptable evaluation in the following standards.

Carbamate/Carbamoxyl oxime Pesticides	Heterotrophic Plate Count	Inorganics
MicrobE™ (Coliforms)	Nitrite	o-Phosphate Nutrients
Organic Carbon	pH	Regulated Semivolatiles #2 Herbicides
Residual Chlorine	WS SourceWatR™ MicrobE™	



Craig Huff
Senior Technical Manager