ERA
A Waters Company

Keith Richard
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
USA

DMR-QA 43 Final Report

DMR-QA Proficiency Testing

NPDES Permit: IL0028321

DMR-QA Study

Open Date: 05/19/2023

Close Date: 08/04/2023

Report Issued Date: 09/01/2023

A Waters Company

September 1, 2023

Keith Richard
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842

Enclosed is your final report for ERA's DMR-QA 43 Proficiency Testing study. Please note that reports were sent on your behalf to your state or regional DMR-QA coordinator. As the permit holder, you are required to review and sign the attached EPA forms and checklists and forward them to your DMR-QA coordinator by September 29, 2023. Your coordinator's contact information is provided below.

All analytes in ERA's DMR-QA 43 Proficiency Testing study have been evaluated by comparing the reported result to the acceptance limits generated using the criteria contained in the most current TNI Non-Potable Water and Whole Effluent Toxicity Testing-Non Potable Water Fields of Proficiency Testing (FoPT) tables.

If you have any "Not Acceptable" evaluations for the DMR-QA 43 study, a letter of corrective action and an order form for the required remedial samples are attached for your convenience. If you have a "Not Acceptable" evaluation, but there is not an order form or a list of standards for your in-house or outside laboratories, ERA recommends that you contact your DMR-QA coordinator for their corrective action requirements, if any.

Thank you for your participation in ERA's DMR-QA 43 Proficiency Testing study. If you have any questions, please contact the Proficiency Testing Department at 1-800-372-0122, option 2.

Your DMR-QA coordinator is:

Illinois EPA
Michelle Rousey
Bureau of Water
1021 North Grand Avenue East
PO Box 19276 (Mail Code 15)
Springfield, IL 62794-9276
Phone: 217-785-3944
michelle.rousey@illinois.gov

Sincerely,

Craig Huff
Senior Technical Manager

attachments

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DMR-QA 43 Definitions & Study Discussion

Study Dates: 05/19/2023 - 08/04/2023 **Report Issued: 09/01/2023**

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 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.

DMRQA Study Discussion

ERA's DMR-QA 43 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 DMR-QA 43 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 2016 TNI Standard and the criteria contained in the most current TNI FoPT table.

All analytes are included in ERA's A2LA accreditation, certification number 1539.01.

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 DMR-QA 43 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 DMRQA Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122, option 2.

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Study: **DMR-QA 43**

NPDES Permit #: **IL0028321**

Laboratory Name: **Decatur Sanitary District**

Inorganic Results

ERA
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DMR-QA 43 Final Report

NPDES Permit #: IL0028321
Permit Holder: Keith Richard
Laboratory Supervisor
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
(217) 422-6931

ERA Customer Number: D233401
Report Issued: 09/01/2023
Study Dates: 05/19/2023 - 08/04/2023

TNI Analyte Code	Analyte	Units	Performance Evaluation	Reported Value	Assigned Value	Acceptance Limits	Method Description	Study Mean	Study Standard Deviation	USEPA Lab Code	Study
WP Minerals (cat# 581, lot# P336-506)											
1730	Fluoride	mg/L	Acceptable	3	3.10	2.50 - 3.57	EPA 9214 1996	3.07	0.196	IL00054	WP336
WP Minerals (cat# 581, lot# P336-506)											
1730	Fluoride	mg/L	Acceptable	3	3.10	2.50 - 3.57	SM 4500-F C-1997 1997	3.07	0.196	IL00054	WP336
WP Minerals (cat# 581, lot# P336-506)											
1730	Fluoride	mg/L	Acceptable	3	3.10	2.50 - 3.57	SM 4500-F C-2011 2011	3.07	0.196	IL00054	WP336
DMRQA Minerals (cat# 581, lot# Q043-506)											
1575	Chloride	mg/L	Acceptable	54.3	52.9	45.9 - 60.1	EPA 300.1 1 1997	53.9	1.91	IL00998	DMRQA43
2000	Sulfate	mg/L	Acceptable	6.17	6.19	4.03 - 7.77	EPA 300.1 1 1997	6.02	0.676	IL00998	DMRQA43
DMRQA Hardness (cat# 580, lot# Q043-507)											
1960	Total Suspended Solids	mg/L	Acceptable	50.3	49.9	38.7 - 57.1	SM 2540 D-1997 1997	49.1	2.53	IL00998	DMRQA43
DMRQA pH (cat# 577, lot# Q043-977)											
1900	pH	S.U.	Acceptable	8.80	8.91	8.71 - 9.11	SM 4500-H+ B-1996 1996	8.91	0.115	IL00998	DMRQA43
DMRQA Simple Nutrients (cat# 584, lot# Q043-505)											
1515	Ammonia as N	mg/L	Acceptable	4.28	4.39	3.37 - 5.45	SM 4500-NH3 G-1997 1997	4.44	0.335	IL00998	DMRQA43
1820	Nitrate + Nitrite as N	mg/L	Acceptable	5.96	6.17	5.08 - 7.20	EPA 300.1 1 1997	6.22	0.290	IL00998	DMRQA43
DMRQA Complex Nutrients (cat# 579, lot# Q043-525)											
1795	Total Kjeldahl Nitrogen	mg/L	Acceptable	5.17	5.06	3.53 - 6.74	SM 4500-NH3 G-1997 1997	5.20	0.478	IL00998	DMRQA43
1910	Total phosphorus as P	mg/L	Acceptable	3.93	3.93	3.24 - 4.58	EPA 365.1 2 1993	3.96	0.200	IL00998	DMRQA43

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Laboratory Supervisor
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ERA Customer Number: D233401
Report Issued: 09/01/2023
Study Dates: 05/19/2023 - 08/04/2023

TNI Analyte Code	Analyte	Units	Performance Evaluation	Reported Value	Assigned Value	Acceptance Limits	Method Description	Study Mean	Study Standard Deviation	USEPA Lab Code	Study
DMRQA Demand (cat# 578, lot# Q043-516)											
1530	BOD	mg/L	Acceptable	125	127	68.5 - 185	SM 5210 B-2001 2001	126	23.9	IL00998	DMRQA43
1555	CBOD	mg/L	Acceptable	104	115	53.8 - 176	SM 5210 B-2001 2001	120	26.2	IL00998	DMRQA43
DMRQA Oil & Grease (cat# 582, lot# Q043-518)											
1803	n-Hexane Extractable Material(O&G)(Grav)	mg/L	Not Acceptable	133	110	78.8 - 127	EPA 1664B (HEM) 2010	104	16.1	IL00998	DMRQA43
DMRQA Trace Metals (cat# 586, lot# Q043-500)											
1005	Antimony	µg/L	Acceptable	186	176	129 - 216	EPA 200.7 4.4 1994	175	9.90	IL00998	DMRQA43
1010	Arsenic	µg/L	Acceptable	592	595	500 - 682	EPA 200.7 4.4 1994	587	24.1	IL00998	DMRQA43
1015	Barium	µg/L	Acceptable	1657	1630	1390 - 1870	EPA 200.7 4.4 1994	1620	64.4	IL00998	DMRQA43
1020	Beryllium	µg/L	Acceptable	416	410	348 - 472	EPA 200.7 4.4 1994	408	17.9	IL00998	DMRQA43
1030	Cadmium	µg/L	Acceptable	174	176	150 - 202	EPA 200.7 4.4 1994	172	6.43	IL00998	DMRQA43
1040	Chromium	µg/L	Acceptable	846	833	708 - 958	EPA 200.7 4.4 1994	834	36.5	IL00998	DMRQA43
1055	Copper	µg/L	Acceptable	744	756	643 - 869	EPA 200.7 4.4 1994	757	36.5	IL00998	DMRQA43
1070	Iron	µg/L	Acceptable	802	787	669 - 905	EPA 200.7 4.4 1994	796	35.3	IL00998	DMRQA43
1075	Lead	µg/L	Acceptable	1020	1010	858 - 1160	EPA 200.7 4.4 1994	1010	49.8	IL00998	DMRQA43
1090	Manganese	µg/L	Acceptable	1795	1770	1500 - 2040	EPA 200.7 4.4 1994	1770	48.1	IL00998	DMRQA43
1105	Nickel	µg/L	Acceptable	626	623	545 - 706	EPA 200.7 4.4 1994	631	25.7	IL00998	DMRQA43
1140	Selenium	µg/L	Acceptable	457	453	385 - 521	EPA 200.7 4.4 1994	447	24.7	IL00998	DMRQA43
1150	Silver	µg/L	Acceptable	247	250	212 - 288	EPA 200.7 4.4 1994	247	12.4	IL00998	DMRQA43
1165	Thallium	µg/L	Not Acceptable	74	107	77.2 - 133	EPA 200.7 4.4 1994	106	5.36	IL00998	DMRQA43
1190	Zinc	µg/L	Acceptable	696	694	590 - 798	EPA 200.7 4.4 1994	703	32.7	IL00998	DMRQA43

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TNI Analyte Code	Analyte	Units	Performance Evaluation	Reported Value	Assigned Value	Acceptance Limits	Method Description	Study Mean	Study Standard Deviation	USEPA Lab Code	Study
WP Mercury (cat# 574, lot# P336-514)											
1095	Mercury	µg/L	Acceptable	5.94	5.91	4.14 - 7.68	EPA 7470A 1 1994	5.80	0.608	IL00054	WP336
WP Mercury (cat# 574, lot# P336-514)											
1095	Mercury	µg/L	Acceptable	5.94	5.91	4.14 - 7.68	EPA 245.1 3 1994	5.80	0.608	IL00054	WP336
WP Low-Level Mercury (cat# 896, lot# P336-931)											
1095	Low Level Mercury	ng/L	Acceptable	99.3	95.2	74.5 - 115	EPA 1631E 2002	88.0	7.41	IL00054	WP336
WP Hexavalent Chromium (cat# 898, lot# P336-984)											
1045	Hexavalent Chromium	µg/L	Acceptable	97	103	81.9 - 124	EPA 7196A 1 1992	102	5.15	IL00054	WP336
WP Hexavalent Chromium (cat# 898, lot# P336-984)											
1045	Hexavalent Chromium	µg/L	Acceptable	97	103	81.9 - 124	SM 3500-Cr B-2009 2009	102	5.15	IL00054	WP336
WP Hexavalent Chromium (cat# 898, lot# P336-984)											
1045	Hexavalent Chromium	µg/L	Acceptable	97	103	81.9 - 124	SM 3500-Cr B-2011 2011	102	5.15	IL00054	WP336
WP Total Cyanide (cat# 588, lot# P336-502)											
1645	Cyanide, total	mg/L	Acceptable	0.81	0.726	0.472 - 0.980	EPA 335.4 1993	0.708	0.0643	IL00054	WP336
WP Total Cyanide (cat# 588, lot# P336-502)											
1645	Cyanide, total	mg/L	Acceptable	0.81	0.726	0.472 - 0.980	EPA 9012A Update III 1996	0.708	0.0643	IL00054	WP336
DMRQA Total Phenolics (4-AAP) (cat# 589, lot# Q043-515)											
1905	Phenolics, total	mg/L	Acceptable	0.965	0.890	0.445 - 1.34	EPA 420.1 1978	0.910	0.111	IL00998	DMRQA43
DMRQA Low-Level Total Residual Chlorine (cat# 881, lot# Q043-917)											
1940	Low Level Total Residual Chlorine	µg/L	Acceptable	210	205	145 - 265	SM 4500-Cl E-2000 2000	198	24.1	IL00998	DMRQA43

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Study: **DMR-QA 43**

NPDES Permit #: **IL0028321**

Laboratory Name: **Decatur Sanitary District**

Microbiology Results

ERA
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Study Dates: 05/19/2023 - 08/04/2023

TNI Analyte Code	Analyte	Units	Performance Evaluation	Reported Value	Assigned Value	Acceptance Limits	Method Description	Study Mean	Study Standard Deviation	USEPA Lab Code	Study
DMRQA WasteWatR™ Coliform MicrobE™ (cat# 576, lot# Q043-083)											
2530	Fecal Coliforms (MF)	CFU/100mL	Acceptable	160	116	36.0 - 370	SM 9222 D (m-FC)-1997 1997	116	55.6	IL00998	DMRQA43

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USEPA
DMR-QA 43

NPDES PERMITTEE DATA REPORT FORM

ERA
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Due September 29, 2023

USEPA NPDES Permit #: IL0028321 **Permit Ext:**

Permittee Name: Decatur Sanitary District

Facility Address: 501 Dipper Lane

City: Decatur **State:** IL **Postal Code:** 62522-1842

Phone Number: (217) 422-6931 **Fax Number:** (217) 423-8171

E-mail address: keithr@sddcleanwater.org

Optional: If WP study was used, list PT provider name:
Environmental Resource Associates

Optional: WP study number(s):
WP-336

For DMRQA-43, conducted in 2023, the Permittee ensured that their laboratory(s) performing the required analyses:

Received PT Samples	Submitted Complete and Accurate Data by August 4, 2023	Received a Graded Report by September 1, 2023
Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐

Each reported value was produced from a single analytical run using the analytical system that routinely performs these analyses to produce compliance monitoring data under our NPDES permit.	Neither I nor any of my subordinates compared our results with results from independent analyses conducted by us or any other laboratory before we reported our results to U.S. EPA.
Yes ☐ No ☐	Yes ☐ No ☐

Certification by Permit Holder or Authorized Representative

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Certifying Official: Keith Richard **Title:** Laboratory Supervisor

Signature: _____ **Date Signed:** / /

Mailing Address: 501 Dipper Lane
(enter only if different from address above)

City: Decatur **State:** IL **Postal Code:** 62522-1842

Phone Number: (217) 422-6931 **E-mail address:** keithr@sddcleanwater.org

Please make corrections in boxes above

United States

ENVIRONMENTAL PROTECTION AGENCY

Laboratory Performance Evaluation

Laboratory DMR-QA Evaluation Study 43

USEPA NPDES Permit #: IL0028321 **Permit Ext:**

Identification of all CHEM, MICRO and TOX laboratories who did analyses for this permit							
Name of Laboratory	**Address of Laboratory**	**U.S. EPA Lab Code**	**Lab Analysis** Check box(es) that apply			**Lab Type***	**State-certified Lab****
			CHEM	**MICRO**	**TOX**		
Decatur Sanitary District	501 Dipper Lane Decatur,IL 62522-1842	IL00998	☐	☐	☐		☐
Teklab	5445 Horseshoe Lake Road Collinsville,IL 62234	IL00054	☐	☐	☐		☐

* Lab Types: C = Commercial F = Federal G = Local Government I = Industrial O = Other S = State

** See Footnote 2 on DMRQA-43, Frequently Asked Questions page

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00054

Chemistry/Microbiology Analyte Checklist

WP Study 336

Analyte Test / Method	Test Required	Laboratory's Graded Result		Analyte determined by state-certified lab
		Acceptable	Not Acceptable (Corrective Action Required)	
Minerals				
Alkalinity as CaCO3 **Chloride** **Conductivity at 25°C** **Fluoride**				
EPA 9214	☐	☒	☐	☐
SM 4500-F C-1997	☐	☒	☐	☐
SM 4500-F C-2011	☐	☒	☐	☐
Potassium **Sodium** **Sulfate** **Total Dissolved Solids at 180°C** **Total Solids at 105°C**				
Hardness				
Total Suspended Solids **Calcium** **Magnesium** **Calcium Hardness as CaCO3** **Total Hardness as CaCO3**				
pH				
pH				
Settleable Solids				
Settleable Solids				
Solids Concentrate				
Total Suspended Solids **Total Dissolved Solids at 180°C** **Total Solids at 105°C**				
Solids				
Total Suspended Solids **Total Dissolved Solids at 180°C** **Total Solids at 105°C**				
Simple Nutrients				
Ammonia as N **Nitrate + Nitrite as N** **Nitrate as N** **ortho-Phosphate as P** **Total Nitrogen**				
Complex Nutrients				
Total Kjeldahl Nitrogen **Total phosphorus as P**				
Nitrite				
Nitrite as N				

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00054

Chemistry/Microbiology Analyte Checklist

WP Study 336

Analyte Test / Method	Test Required	Laboratory's Graded Result		Analyte determined by state-certified lab
		Acceptable	Not Acceptable (Corrective Action Required)	
Demand				
BOD				
CBOD				
COD				
TOC				
Oil & Grease Concentrate				
n-Hexane Extractable Material(O&G) (Grav)				
Oil & Grease				
n-Hexane Extractable Material(O&G) (Grav)				
n-Hexane Extractable Material(O&G) (IR)				
Trace Metals				
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Manganese				
Molybdenum				
Nickel				
Selenium				
Silver				
Strontium				
Thallium				
Vanadium				
Zinc				
Mercury				
Mercury				
EPA 245.1	☐	☒	☐	☐
EPA 7470A	☐	☒	☐	☐
Low-Level Mercury				
Low Level Mercury				
EPA 1631E	☐	☒	☐	☐
Hexavalent Chromium				
Hexavalent Chromium				

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00054

Chemistry/Microbiology Analyte Checklist

WP Study 336

Analyte Test / Method	Test Required	Laboratory's Graded Result: Acceptable	Laboratory's Graded Result: Not Acceptable (Corrective Action Required)	Analyte determined by state-certified lab
EPA 7196A	☐	☒	☐	☐
SM 3500-Cr B-2009	☐	☒	☐	☐
SM 3500-Cr B-2011	☐	☒	☐	☐
Turbidity				
Turbidity				
Total Cyanide				
Cyanide, total				
EPA 335.4	☐	☒	☐	☐
EPA 9012A	☐	☒	☐	☐
Amenable Cyanide				
Available Cyanide				
Total Phenolics (4-AAP)				
Phenolics, total				
Total Residual Chlorine				
Free Residual Chlorine				
Total Residual Chlorine				
Low-Level Total Residual Chlorine				
Low Level Total Residual Chlorine				
WasteWatR™ Coliform MicrobE™				
Total Coliforms (MF)				
Fecal Coliforms (MF)				
E.coli (MF)				
Total Coliform (MPN-Multiple Well)				
Fecal Coliform (MPN-Multiple Well)				
E.coli (MPN-Multiple Well)				
WasteWatR™ Coliform MicrobE™ - SM 9221				
Total Coliform (MPN-Multiple Tube)				
Fecal Coliform (MPN-Multiple Tube)				
E.coli (MPN-Multiple Tube)				

Print Name

Date

Signature/Title

Use a separate checklist for EACH lab used

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00998

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

Analyte Test / Method	Test Required	Laboratory's Graded Result		Analyte determined by state-certified lab
		Acceptable	Not Acceptable (Corrective Action Required)	
Minerals				
Alkalinity as CaCO3 **Chloride**				
EPA 300.1	☐	☒	☐	☐
Conductivity at 25°C **Fluoride** **Potassium** **Sodium** **Sulfate**				
EPA 300.1	☐	☒	☐	☐
Total Dissolved Solids at 180°C **Total Solids at 105°C**				
Hardness				
Total Suspended Solids				
SM 2540 D-1997	☐	☒	☐	☐
Calcium **Magnesium** **Calcium Hardness as CaCO3** **Total Hardness as CaCO3**				
pH				
pH				
SM 4500-H+ B-1996	☐	☒	☐	☐
Settleable Solids				
Settleable Solids				
Solids Concentrate				
Total Suspended Solids **Total Dissolved Solids at 180°C** **Total Solids at 105°C**				
Solids				
Total Suspended Solids **Total Dissolved Solids at 180°C** **Total Solids at 105°C**				
Simple Nutrients				
Ammonia as N				
SM 4500-NH3 G-1997	☐	☒	☐	☐
Nitrate + Nitrite as N				
EPA 300.1	☐	☒	☐	☐
Nitrate as N **ortho-Phosphate as P** **Total Nitrogen**				
Complex Nutrients				
Total Kjeldahl Nitrogen				
SM 4500-NH3 G-1997	☐	☒	☐	☐

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00998

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

Analyte Test / Method	Test Required	Laboratory's Graded Result		Analyte determined by state-certified lab
		Acceptable	Not Acceptable (Corrective Action Required)	
Total phosphorus as P				
EPA 365.1	☐	☒	☐	☐
Nitrite				
Nitrite as N				
Demand				
BOD				
SM 5210 B-2001	☐	☒	☐	☐
CBOD				
SM 5210 B-2001	☐	☒	☐	☐
COD				
TOC				
Oil & Grease Concentrate				
n-Hexane Extractable Material(O&G) (Grav)				
Oil & Grease				
n-Hexane Extractable Material(O&G) (Grav)				
EPA 1664B (HEM)	☐	☐	☒	☐
n-Hexane Extractable Material(O&G) (IR)				
Trace Metals				
Aluminum				
Antimony				
EPA 200.7	☐	☒	☐	☐
Arsenic				
EPA 200.7	☐	☒	☐	☐
Barium				
EPA 200.7	☐	☒	☐	☐
Beryllium				
EPA 200.7	☐	☒	☐	☐
Boron				
Cadmium				
EPA 200.7	☐	☒	☐	☐
Chromium				
EPA 200.7	☐	☒	☐	☐
Cobalt				
Copper				
EPA 200.7	☐	☒	☐	☐
Iron				
EPA 200.7	☐	☒	☐	☐
Lead				
EPA 200.7	☐	☒	☐	☐
Manganese				

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00998

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

Analyte Test / Method	Test Required	Laboratory's Graded Result		Analyte determined by state-certified lab
		Acceptable	Not Acceptable (Corrective Action Required)	
EPA 200.7	☐	☒	☐	☐
Molybdenum **Nickel**				
EPA 200.7	☐	☒	☐	☐
Selenium				
EPA 200.7	☐	☒	☐	☐
Silver				
EPA 200.7	☐	☒	☐	☐
Strontium **Thallium**				
EPA 200.7	☐	☐	☒	☐
Vanadium **Zinc**				
EPA 200.7	☐	☒	☐	☐
Mercury				
Mercury				
Low-Level Mercury				
Low Level Mercury				
Hexavalent Chromium				
Hexavalent Chromium				
Turbidity				
Turbidity				
Total Cyanide				
Cyanide, total **Amenable Cyanide** **Available Cyanide**				
Total Phenolics (4-AAP)				
Phenolics, total				
EPA 420.1	☐	☒	☐	☐
Total Residual Chlorine				
Free Residual Chlorine **Total Residual Chlorine**				
Low-Level Total Residual Chlorine				
Low Level Total Residual Chlorine				
SM 4500-Cl E-2000	☐	☒	☐	☐
WasteWatR™ Coliform MicrobE™				
Total Coliforms (MF) **Fecal Coliforms (MF)**				
SM 9222 D (m-FC)-1997	☐	☒	☐	☐
E.coli (MF) **Total Coliform (MPN-Multiple Well)** **Fecal Coliform (MPN-Multiple Well)**				

Permittee Name: Decatur Sanitary District **Permit Number:** IL0028321 **EPA Lab Code:** IL00998

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

Analyte Test / Method	Test Required	Laboratory's Graded Result		Analyte determined by state-certified lab
		Acceptable	Not Acceptable (Corrective Action Required)	
E.coli (MPN-Multiple Well)				
WasteWatR™ Coliform MicrobE™ - SM 9221 **Total Coliform (MPN-Multiple Tube)** **Fecal Coliform (MPN-Multiple Tube)** **E.coli (MPN-Multiple Tube)**				

Print Name

Date

Signature/Title

Use a separate checklist for EACH lab used

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DMR-QA 43 Corrective Action Guidelines

Permit Holders

Upon reviewing your enclosed DMR-QA 43 final report, you may notice that some results have been evaluated as 'Not Acceptable'. For these analytes, the USEPA's DMR-QA 43 announcement letter directs permit holders to "follow up with the laboratory to determine the cause of the deficiency and ensure corrective action is taken to prevent future occurrences". Permittees must identify and report to the state DMR-QA coordinator causes and system changes to correct the discrepancies. The corrective action report must be sent to the coordinator by November 9, 2023. This means that for all 'Not Acceptable' evaluations, the laboratory must conduct an investigation, identify the problem and implement adequate corrective actions. Your state may also require the laboratory to analyze a remedial QC or PT sample as a demonstration that the corrective action implemented was successful. ERA has contacted all state and regional coordinators and determined the type of remedial samples that they recommend or require.

If any of your 'Not Acceptable' results originated from your in-house laboratory, an order form is enclosed listing the standards that you should order and analyze. Your in-house laboratory will need to conduct its' investigation and then analyze the listed standards to ensure that the identified problem has been corrected. The corrective action report and, if applicable, the results of the analysis will then need to be forwarded to your DMR-QA coordinator by November 9, 2023.

You may receive an order form for both your in-house standards that have analytes evaluated as 'Not Acceptable', as well as a list of standards that your outside or contract laboratory(ies) have with 'Not Acceptable' evaluations. Some agencies require corrective action on a case by case basis. If you have a "Not Acceptable" evaluation, but there is not an order form or a list of standards for your in-house or outside laboratories, ERA recommends that you contact your DMR-QA coordinator for their corrective action requirements, if any.

If you have a "Not Acceptable" evaluation and require corrective action, you have the option of participating in ERA PT study WP-343 (Aug 14-Sept 28) or WP-344 (Sept 11-Oct 26). If allowed by your state, Quick Response PTs are also available. Please contact your state or regional coordinator directly to confirm Quick Response acceptability. Also, ERA offers QC samples to help you confirm the effectiveness of your corrective actions. Please contact ERA's Customer Service Group to have those samples added to your order.

The standards listed in the attachments are based on general guidance given to us by the state or regional coordinators. If you have any questions about your specific corrective action requirements, please contact your state or regional coordinator directly.

If you have any questions or to place an order,visit www.eraqc.com or please contact ERA's Customer Service Group at era_info@waters.com or 1-800-372-0122, option 1.

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DMR-QA 43 Corrective Action Order Form

Customer Number: D233401 **DATE: 08/29/2023**

1. Make any necessary changes to Bill To and Ship To addresses.

BILL TO:	Decatur Sanitary District 501 Dipper Lane Decatur, IL 62522-1842 ATTENTION: Keith Richard
SHIP TO:	Decatur Sanitary District 501 Dipper Lane Decatur, IL 62522-1842 ATTENTION: Keith Richard

2. Make any necessary changes to your corrective action standards below.

QUANTITY	CATALOG NUMBER	DESCRIPTION
1	586	WP-343 - Trace Metals (Study Closes 9/28)
1	582	WP-343 - Oil & Grease (Study Closes 9/28)

□ ***Please include the corresponding QC Samples with my order.***

Practice makes perfect! QC samples are available to help you confirm the effectiveness of your corrective actions. QC sample pricing will be shown on your order confirmation.

□ ***I would like Quick Response (QR) PTs instead of a WP study.***

Some states allow for QR PTs for corrective action. Validate acceptability of QR PTs with your DMR-QA coordinator before ordering. QR pricing will be shown on your order confirmation.

□ ***Please update my quote and resend before placing my order.***

3. Complete this form and the information below. Our customer service team will respond with a quotation for your review. You will be billed only when your standards ship.

Ordered By:

Ordered By Signature:

Phone:

Email:

4. Fax this form to ERA at 303-421-0159 or scan and email to era_info@waters.com.
Questions? Call 1-800-372-0122

CERTIFICATE OF RECOGNITION

ERA congratulates

DECATUR SANITARY DISTRICT

for your participation and successful evaluation in DMR-QA 43. We recognize the performance of this laboratory for achieving acceptable evaluations for the following analytes.

Ammonia as N	Chromium	pH
Antimony	Copper	Phenolics, total
Arsenic	Fecal Coliforms (MF)	Selenium
Barium	Iron	Silver
Beryllium	Lead	Sulfate
BOD	Low Level Total Residual Chlorine	Total Kjeldahl Nitrogen
Cadmium	Manganese	Total phosphorus as P
CBOD	Nickel	Total Suspended Solids
Chloride	Nitrate + Nitrite as N	Zinc

Craig Huff
Senior Technical Manager

D233401

ERA
A Waters Company

Keith Richard
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
USA

WP-343 Final Report

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 08/14/2023

Close Date: 09/28/2023

Report Issued Date: 10/02/2023

ERA
A Waters Company

October 2, 2023

Keith Richard
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842

Enclosed is your final report for ERA's WP-343 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-343 WatR™Pollution Proficiency Testing 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 WP-343 WatR™Pollution Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Craig Huff
Senior Technical Manager

attachments

A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type
No Recipients Selected		

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WP-343 Definitions & Study Discussion

Study Dates: 08/14/2023 - 09/28/2023 **Report Issued: 10/02/2023**

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) 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.

WP Study Discussion

ERA's WP-343 WatR™Pollution 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 WP-343 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 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 WP-343 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.

WP-343 Laboratory Exception Report

Keith Richard
Laboratory Supervisor
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
(217) 422-6931

EPA ID:	**IL00998**
ERA Customer Number:	**D233401**
Report Issued:	**10/02/2023**
Study Dates:	**08/14/2023 - 09/28/2023**

Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.

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Final Report Results For Laboratory
Decatur Sanitary District

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Final Evaluation Report

Study: **WP-343**

ERA Customer Number: **D233401**

Laboratory Name: **Decatur Sanitary District**

Inorganic Results

WP-343 Final Evaluation Report

A Waters Company

Keith Richard
Laboratory Supervisor
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
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EPA ID: **IL00998**
ERA Customer Number: **D233401**
Report Issued: **10/02/2023**
Study Dates: **08/14/2023 - 09/28/2023**

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
WP Oil & Grease (cat# 582, lot# P343-518)												
1803	n-Hexane Extractable Material(O&G)(Grav)	mg/L	30.8	31.3	17.7 - 40.4	Acceptable	EPA 1664B (HEM) 2010	9/21/2023	0.201	29.6	6.00	
1803	n-Hexane Extractable Material(O&G)(IR)	mg/L		38.5	23.2 - 48.3	Not Reported				47.6	35.9	

WP-343 Final Evaluation Report

A Waters Company

Keith Richard
Laboratory Supervisor
Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
(217) 422-6931

EPA ID: **IL00998**
ERA Customer Number: **D233401**
Report Issued: **10/02/2023**
Study Dates: **08/14/2023 - 09/28/2023**

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
WP Trace Metals (cat# 586, lot# P343-500)												
1000	Aluminum	µg/L		1930	1600 - 2210	Not Reported				1940	190	
1005	Antimony	µg/L		339	267 - 400	Not Reported				328	24.8	
1010	Arsenic	µg/L		418	347 - 484	Not Reported				413	22.4	
1015	Barium	µg/L		1850	1570 - 2130	Not Reported				1820	70.1	
1020	Beryllium	µg/L		169	144 - 194	Not Reported				166	12.3	
1025	Boron	µg/L		1640	1390 - 1890	Not Reported				1600	102	
1030	Cadmium	µg/L		491	417 - 565	Not Reported				481	17.0	
1040	Chromium	µg/L		461	392 - 530	Not Reported				459	22.8	
1050	Cobalt	µg/L		406	345 - 467	Not Reported				412	15.8	
1055	Copper	µg/L		600	510 - 690	Not Reported				602	26.8	
1070	Iron	µg/L		488	415 - 561	Not Reported				494	49.0	
1075	Lead	µg/L		503	428 - 578	Not Reported				509	20.5	
1090	Manganese	µg/L		1710	1450 - 1970	Not Reported				1720	83.6	
1100	Molybdenum	µg/L		126	104 - 147	Not Reported				125	5.66	
1105	Nickel	µg/L		1630	1440 - 1820	Not Reported				1650	75.3	
1140	Selenium	µg/L		936	796 - 1080	Not Reported				909	55.9	
1150	Silver	µg/L		840	714 - 966	Not Reported				821	68.9	
1160	Strontium	µg/L		283	241 - 325	Not Reported				279	19.9	
1165	Thallium	µg/L	284	285	228 - 336	Acceptable	EPA 200.7 4.4 1994	9/15/2023	-0.411	288	8.63	
1185	Vanadium	µg/L		67.7	57.5 - 77.9	Not Reported				63.6	5.27	

ISO/IEC 17043:2010 ACCREDITED PROFICIENCY TESTING PROVIDER CERTIFICATE NO. 1539.01

All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

WP-343 Final Evaluation Report

A Waters Company

Keith Richard
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Decatur Sanitary District
501 Dipper Lane
Decatur, IL 62522-1842
(217) 422-6931

EPA ID: **IL00998**
ERA Customer Number: **D233401**
Report Issued: **10/02/2023**
Study Dates: **08/14/2023 - 09/28/2023**

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
WP Trace Metals (cat# 586, lot# P343-500) (Continued)												
1190	Zinc	µg/L		1270	1080 - 1460	Not Reported				1270	52.1	

CERTIFICATE OF EXCELLENCE

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

WP-343

Decatur Sanitary District

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

Oil & Grease

Trace Metals

Craig Huff
Senior Technical Manager

D233401