



EPA DMR-QA Study Program Requirements & Laboratory Procedures



Training Seminar for Wastewater Managers & Laboratory Analysts



DMRQA THE EASY WAY

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Arvada, CO 80002

www.eraqc.com 800-372-0122

- What is DMRQA
- New for 2011
- DMRQA31 Schedule
- 308A Packet and Letter
- DMRQA Process
- Acceptance Limits
- Technical Overview
- Reporting

- What is DMRQA and why do I have to Participate?
 - Quality Assurance program for your water testing
 - You discharge previously contaminated water back into the environment
 - Ensures your data is accurate
- Why were these analytes chosen?
 - Pollutants of interest
- Aren't my DMRs good enough?
 - How does EPA know your data is accurate?

- Schedule has not changed.
- Address verification response to state coordinator.
- State Certification Exemptions.
- Remember these analytes are now part of the DMR-QA.
- Low Level Mercury. Concentration Range is 20-100 ng/L.
- Low Level Total Residual Chlorine. Concentration Range is 75-250 µg/L.
- Check with your state coordinator whether to run regular level or low level.
- Contract labs report their own data and forward copy of graded report to permittee (changed in 2009)

- 308A Letter Released mid February to early March
- March 14, 2011 – Address Verification Form Response and Order Samples
- Study Open From March 14 to July 1, 2011
- Report Results by Midnight July 1, 2011
- PT Provider Issues Reports by July 22, 2011
- Contract Lab Issue Graded Reports to Permittee by August 5, 2011
- Permittee Forwards Graded Reports and Checklists to State Coordinator by August 19, 2011
- Corrective Action Due by September 30, 2011

- Early February to March USEPA will announce the opening and closing dates for the DMRQA study.
- Major dischargers are required to participate. Minor dischargers may be required to participate.
- Check with your coordinator, Becky Ruark, if you do not receive a letter by April.

- You are required to send your updated permittee information via mail or email to your DMRQA Coordinator
- The DMRQA coordinators are listed on pages 12 and 13 of the EPA 308 Announcement letter.
- Can also be accessed on ERA's eDATA web site (<https://secure.eraqc.com/>)
 - Login
 - Click on Agency Lookup to find your DMRQA Coordinator

- Reply to the Address Verification Form
- What Analytes to Report
- Schedule
- Study Fact Sheet
- Permittee Instructions
- Accredited PT Providers
- State Coordinators
- EPA Reporting Forms
- Checklist

- Respond to the 308A letter.
- Order samples early and check sample packet as soon as received.
- Talk to your contract labs. They need to submit their own data.
- Conduct analyses early. Allow time for things to go wrong.
- Send in ungraded report to the PT provider from whom you purchased samples.
- Receive graded report from PT provider
- Receive graded reports from all contract labs.

- Fill out checklists and send copy of final graded report to state coordinator.
- Conduct corrective action if necessary.

- Corrective action is required for all “Not Acceptable” results.
- Identify potential causes and correct.
- Remedial sample not required for math or transcription errors.
- If remedial sample is required. This can be a QC, QuikResponse™ or WP study sample.
- Analyze sample to prove problem was corrected.
- Compile a report to send to your coordinator.
- Complete by September 30, 2011.

- Based upon EPA regression equations
- Find regression equations at <http://www.nelac-institute.org/fopt.php>
- 3 standard deviations/99% CI around an expected recovery
- Concentration dependent
- Expected recovery =
 assigned value * a + b
- Expected standard deviation =
 assigned value * c + d

- O&G a - 0.9400; b - (-0.4116); c - 0.0545; d - 2.0789
at 20 mg/L limits = 44.4 – 140%
at 100 mg/L limits = 71 – 116%
- BOD a - 0.6312; b - 0.1919; c - 0.1032; d - 0.167
at 15 mg/L limits = 30.0 – 98.7%
at 250 mg/L limits = 32.0 – 94.4%
- CBOD a - 0.5423; b - 0.2956; c - 0.0996; d - 0.0697
at 15 mg/L limits = 24.9 – 87.3%
at 250 mg/L limits = 24.9 – 84.4%
- NH₃-N a - 0.9866; b - 0.0806; c - 0.0775; d - 0.0738
at 0.65 mg/L limits = 53.7 – 168%
at 19 mg/L limits = 74.7 – 124%

EPA Regression Equations

- TSS a - 0.9728; b - (-0.6338); c - 0.0300; d - 1.5793
at 23 mg/L limits = 64.8 - 124%
at 100 mg/L limits = 82.9 - 110%
- TRC a - 0.9643; b - 0.0186; c - 0.0848; d - 0.0027
at 0.5 mg/L limits = 73.0 - 127%
at 3.0 mg/L limits = 71.3 - 123%
- pH \pm 0.2 s.u.

Example Calculation Minimum - TSS

- Made at 23 mg/L
- Expected Recovery = Value * a + b
- $23 * 0.9728 + (-0.6338) = 21.74$
- 1 Expected Standard Deviation (SD) = Value * c + d
- $23 * 0.0300 + 1.5793 = 2.269$
- $3SD = 3 * 2.269 = 6.81$
- Limits = Expected Recovery \pm 3SD = $21.74 - 6.81 = 14.9$

Example Calculation Maximum - TSS

- Made at 100 mg/L
- Expected Recovery = Value * a + b
- $100 * 0.9728 + (-0.6338) = 96.65$
- 1 Expected Standard Deviation (SD) = Value * c + d
- $100 * 0.0300 + 1.5793 = 4.579$
- $3SD = 3 * 4.579 = 13.7$
- Limits = Expected Recovery \pm 3SD = $96.65 + 13.7 = 110$

- TSS
- pH
- Total Residual Chlorine
- BOD/CBOD
- Ammonia
- WET
- Micro
- Additional analytes

- Typical equipment used
- Avoid moisture
- Use QC samples
- Use enough sample/measure amount
- Shake well
- Dry thoroughly
- Example Calculation

Typical TSS Equipment



Drying Oven

Waters
THE SCIENCE OF WHAT'S POSSIBLE.™



- Typical equipment used
- Use QC samples
- Room temperature samples
- Calibrate the meter
- Use appropriate buffers
- Temperature compensate
- Let readings equilibrate

Typical pH Equipment

Waters
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- Typical equipment used
- Use QC samples
- Run IMMEDIATELY
- Follow equipment instructions
- Use fresh reagents

Typical TRC Equipment

Waters
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- Typical equipment used
- Use QC samples
- Clean...Clean...Clean
- Winkler titration vs. electrode
- Nutrient Water
- Seed/Inhibitor
- Incubation
- Analysis/Calculations

BOD pH Adjustment

Waters
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- Typical equipment used
- Use QC samples
- Ammonia...N vs. NH_3
- Setting up the meter
- Calibrating...mV vs. conc.
- Ionic Strength Adjustor (ISA)
- Temperature
- Example Calculations

Typical Ammonia Equipment

Waters
THE SCIENCE OF WHAT'S POSSIBLE.™



- Trace Metals
- Mercury
- Cyanide
- Total Phenolics
- Whole Effluent Toxicity
- Settleable Solids
- Turbidity
- Hexavalent Chromium



A Waters Company

DMR-QA 30 Data Reporting Cover Sheet

Lab Name: ERA

Customer Number: E667501

A) LABORATORY INFORMATION

Below is the information we currently have on file for your laboratory. Please note that the address shown below is where your final report will be sent. If there are any corrections, please fill in the boxes below the appropriate heading.

Lab Name: ERA

[Empty text box]

Mailing Address: 6000 W. 54th Ave.

[Empty text box]

[Empty text box]

City: Arvada

ST: CO

[Empty text box]

Email Address: acornell@eraqc.com

[Empty text box]

USEPA ID: CO00000

[Empty text box]

Phone: 303-431-8454

[Empty text box]

Fax: 303-421-0159

[Empty text box]

Zip: 80002

[Empty text box]

B) Where would you like ERA to send your Final report?

By participating in ERA's Proficiency Testing Study, you will automatically receive a Final Report approximately 21 days after the study closes. To authorize ERA to send a report to your accrediting authority, please fill in the oval to the left of the accrediting authority(ies) to whom you wish ERA to send your Final Report:

	State ID		State ID		State ID		State ID
<input type="radio"/> Iowa ✓		<input type="radio"/> North Carolina (WP) ✓		<input type="radio"/> South Carolina ✓		<input type="radio"/> Washington ✓	
<input type="radio"/> Kansas ✓		<input type="radio"/> North Dakota ✓		<input type="radio"/> Virginia (WP) ✓			

The agencies listed here will accept DMR-QA for state waste water or WP accreditation. Only select one of these states if you wish to report data for state WP accreditation.





A Waters Company

DMR-QA 30 Data Reporting Cover Sheet

Lab Name: ERA

Customer Number: E667501

C) Enter OTHER ENTITIES

In addition to sending your report to your accrediting authority, you may authorize ERA to send copies of your report to other entities (e.g. customers, corporate QA officers, etc.) by simply filling in the information below. If you need ERA to submit your final report to more than two third parties, please photocopy this form.

Company:

Attention:

Mailing Address:

City:

ST:

Zip:

Company:

Attention:

Mailing Address:

City:

ST:

Zip:

D) Read and sign the ATTESTATION STATEMENT

Per the requirements of the USEPA's National Standards Criteria Document, please read this attestation statement. By affixing your signature below, you attest that the results have met the following criteria. 1) No results, or any other aspect of the study, have been revealed to or discussed with any unauthorized person or other laboratory prior to the close of the study. 2) The standards for which you are submitting results were not analyzed by any other laboratory. 3) Your laboratory has not knowingly received standards from any other laboratories. 4) No information was solicited from ERA or any other laboratories concerning the assigned values or acceptance ranges for the standards until the close of the study. 5) All analyses met the criteria for the regulatory agencies to which the results are being sent.

Official Laboratory Signature:

Date:

Official Laboratory Title:

Phone:

Printed Name of Signator:

- Return the Data Reporting Cover Sheets (2) plus your "DMR-QA 30 DATA REPORTING FORM(S)" to ERA by Fax or Mail.
- ERA's fax number is 1-720-898-6382
- Total pages: _____
- Questions? See the DMR-QA 30 Data Reporting Instructions or call ERA at 1-800-372-0122.





A Waters Company

DMR-QA 30 Data Reporting Form

NPDES Permit #:

Permitted Name:

Lab Name: ERA

ERA Customer Number: E667501

USEPA Lab Code: CO00000

INSTRUCTIONS:

Please fill in the results, methods references and analysis dates for the analyte(s) you wish to report for the DMR-QA 30 study. Questions? See the Data Reporting Instructions section of your Data Package or call ERA at 1-800-372-0722. Please photocopy this form if you are reporting multiple methods

DMR-QA Minerals (cat# 581)

Anal No.	Analyte	Units	Reported Value	Method Description	Analysis Date (mm-dd)	Rpt* For DMR
0027	Alkalinity as CaCO3	mg/L	.		-	<input type="checkbox"/>
0028	Chloride	mg/L	.		-	<input type="checkbox"/>
0020	Conductivity at 25°C	µmhos/cm	.		-	<input type="checkbox"/>
0029	Fluoride	mg/L	.		-	<input type="checkbox"/>
0026	Potassium	mg/L	.		-	<input type="checkbox"/>
0025	Sodium	mg/L	.		-	<input type="checkbox"/>
0030	Sulfate	mg/L	.		-	<input type="checkbox"/>
0021	Total Dissolved Solids at 180°C	mg/L	.		-	<input type="checkbox"/>
0950	Total Solids at 105°C	mg/L	.		-	<input type="checkbox"/>

*For Permittee use only:

Place an "X" in the box to the right of each analyte that is required in routine NPDES monitoring and should be included on the Final Permittee DMR-QA 30 report.

Optional section. Please use to specify Analyst and Work Group.

Anal No.	Analyte	PTRL	Concentration Range	Analyst	Work Group
0027	Alkalinity as CaCO3	6.80	10.0 to 120		
0028	Chloride	29.0	35.0 to 275		
0020	Conductivity at 25°C	170	200 to 930		
0029	Fluoride	0.130	0.300 to 4.00		
0026	Potassium	3.00	4.00 to 40.0		
0025	Sodium	5.10	6.00 to 100		
0030	Sulfate	2.80	5.00 to 125		
0021	Total Dissolved Solids at 180°C	98.0	140 to 650		
0950	Total Solids at 105°C	108	140 to 675		





**United States
ENVIRONMENTAL PROTECTION AGENCY**

Washington, DC 20460

Laboratory DMR-QA Evaluation Study 31

Laboratory Performance Evaluation

Office of Enforcement and Compliance Assurance

(These data are collected under the authority of the Federal Water Pollution Control Act.)

NPDES Permittee Data Report Form

**Due August
19, 2011**

Attention: Follow the instructions on the previous page to complete this form and submit data for evaluation.

State

NPDES Permit
Number

Permit Extension

Permittee name

Current Permittee mailing address

City

State

Zip Code

Phone Number

FAX Number

e-Mail

For DMR-QA Study 31, conducted in 2011, the Permittee ensured that their laboratory(s) performing the required analyses:

Received PT Samples

Yes No

Submitted Complete and Accurate Data
by July 1, 2011

Yes No

Received a Graded Report by
July 22, 2011

Yes No

Certification by Permit Holder or Authorized Representative

(as per 40 C.F.R. Section 122.22 - see instructions.)

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. Each reported value was produced from a single analytical run using the analytical system that routinely performs these analyses to produce compliance monitoring data required under our National Pollutant Discharge Elimination System (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 the U.S.EPA. 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

Title

Signature

Date

Address, phone number and e-mail of certifying official are required if different from above.

Address

Phone No.

City

State

Zip Code

E-mail



**United States
ENVIRONMENTAL PROTECTION AGENCY**

**Washington, DC 20460
Laboratory DMR-QA Evaluation Study 31
Laboratory Performance Evaluation**

Office of Enforcement and Compliance Assurance
(These data are collected under the authority of the Federal Water Pollution Control Act.)

Permittee name State NPDES Permit No. Permit Extension

Identification of all CHEM, MICRO and WET 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 Laboratory**
			Chem	Micro	WET		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

* Lab Types: C = Commercial F = Federal G = Local Government I = Industrial O = Other S = State
** See Footnote 2 on DMR-QA Study 31 Fact Sheet

If you need additional space, please make a copy of this page for additional laboratories.

Chemistry/Microbiology Analyte Checklist
DMR-QA Study 31

Analyte Test	Test Required	Laboratory's Graded Result		Analyte determined by state-certified laboratory*
		Acceptable	Not Acceptable (Corrective Action Required)	
Microbiology				
<i>E. coli</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fecal Coliform, MF or MPN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Coliform, MF or MPN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trace Metals				
Aluminum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antimony	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arsenic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beryllium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium, total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium, hexavalent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cobalt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manganese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury (Low Level)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Molybdenum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nickel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selenium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Silver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thallium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vanadium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zinc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demands				
5-day BOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5-day Carbonaceous BOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TOC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minerals				
Alkalinity, total (CaCO ₃)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chloride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fluoride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hardness, total (CaCO ₃)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specific conductance (25°C)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sulfate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Dissolved Solids (180°C)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nutrients				
Ammonia as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrate as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrite as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orthophosphate as P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl-Nitrogen as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Phosphorus as P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Misc. Analytes				
Non-Filterable Residue (TSS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil and Grease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Cyanide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Phenolics (4-AAP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Residual Chlorine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Residual Chlorine (Low Level)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Settleable Solids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turbidity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature _____

Date _____

WET Organisms/Test Conditions/End Points Checklist

DMR-QA Study 31

Analyte Number	Organisms / Conditions	End Points	Test Required	Laboratory's Graded Result		Analyte determined by state-certified laboratory*
				Acceptable	Not Acceptable (Corrective Action Required)	
Test Code 13/EPA Method 2000						
754	Fathead minnow (<i>Pimephales promelas</i>) - MHSF 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 14/EPA Method 2000						
755	Fathead minnow (<i>Pimephales promelas</i>) - 20% DMW	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 15/EPA Method 1000						
756	Fathead minnow (<i>Pimephales promelas</i>) - MHSF	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
808	Fathead minnow (<i>Pimephales promelas</i>) - MHSF	IC25 (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
810	Fathead minnow (<i>Pimephales promelas</i>) - MHSF	NOEC (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 16/EPA Method 1000						
759	Fathead minnow (<i>Pimephales promelas</i>) - 20% DMW	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
812	Fathead minnow (<i>Pimephales promelas</i>) - 20% DMW	IC25 (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
814	Fathead minnow (<i>Pimephales promelas</i>) - 20% DMW	NOEC (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 19/EPA Method 2002						
764	<i>Ceriodaphnia dubia</i> - MHSF 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 20/EPA Method 2002						
765	<i>Ceriodaphnia dubia</i> - 20% DMW 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 21/EPA Method 1002						
766	<i>Ceriodaphnia dubia</i> - MHSF	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
767	<i>Ceriodaphnia dubia</i> - MHSF	IC25 REPRODUCTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
768	<i>Ceriodaphnia dubia</i> - MHSF	NOEC REPRODUCTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 22/EPA Method 1002						
769	<i>Ceriodaphnia dubia</i> - 20% DMW	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
770	<i>Ceriodaphnia dubia</i> - 20% DMW	IC25 REPRODUCTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
771	<i>Ceriodaphnia dubia</i> - 20% DMW	NOEC REPRODUCTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 32/EPA Method 2021						
788	<i>Daphnia magna</i> - MHSF 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 38/EPA Method 2021						
794	<i>Daphnia pulex</i> - MHSF 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 42/EPA Method 2007						
798	Mysid (<i>Mysidopsis bahia</i>) 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 43/EPA Method 1007						
799	Mysid (<i>Mysidopsis bahia</i>)	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
816	Mysid (<i>Mysidopsis bahia</i>)	IC25 (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
818	Mysid (<i>Mysidopsis bahia</i>)	NOEC (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 44/EPA Method 2006						
803	Inland silverside (<i>Menidia berylina</i>) 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 45/EPA Method 1006						
824	Inland silverside (<i>Menidia berylina</i>)	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
825	Inland silverside (<i>Menidia berylina</i>)	IC25 (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
826	Inland silverside (<i>Menidia berylina</i>)	NOEC (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 46/EPA Method 2004						
804	Sheepshead minnow (<i>Cyprinodon variegatus</i>) 25°C	LC50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Code 47/EPA Method 1004						
805	Sheepshead minnow (<i>Cyprinodon variegatus</i>)	NOEC SURVIVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
820	Sheepshead minnow (<i>Cyprinodon variegatus</i>)	IC25 (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
822	Sheepshead minnow (<i>Cyprinodon variegatus</i>)	NOEC (ON) GROWTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name _____ Signature _____ Date _____

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THANKS!

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