

The State of  
Department



Washington  
of Ecology

**Nautilus Environmental (San Diego)  
San Diego, CA**

has complied with provisions set forth in Chapter 173-50 WAC and is hereby recognized by the Department of Ecology as an ACCREDITED LABORATORY for the analytical parameters listed on the accompanying Scope of Accreditation. This certificate is effective January 1, 2018 and shall expire December 31, 2018.

Witnessed under my hand on December 5, 2017

Rebecca Wood  
Acting Lab Accreditation Unit Supervisor

Laboratory ID  
**C552**

# WASHINGTON STATE DEPARTMENT OF ECOLOGY

## ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

### SCOPE OF ACCREDITATION

#### Nautilus Environmental (San Diego)

##### San Diego, CA

is accredited for the analytes listed below using the methods indicated. Full accreditation is granted unless stated otherwise in a note. EPA is the U.S. Environmental Protection Agency. SM is "Standard Methods for the Examination of Water and Wastewater." SM refers to EPA approved method versions. ASTM is the American Society for Testing and Materials. USGS is the U.S. Geological Survey. AOAC is the Association of Official Analytical Chemists. Other references are described in notes.

Matrix/Analyte	Method	Notes
<b>Non-Potable Water</b>		
Atherinops affinis, 96-hr surv	EPA 821-R-02-012 (2002)	1,2,10
Atherinops affinis, surv & growth	EPA 1006.0, West Coast (1995)	2,3,10
Bivalve 48-hr embryo-larval dev: Crassostrea gigas	EPA 1005.0, West Coast (1995)	2,3,10
Bivalve 48-hr embryo-larval dev: Mytilus spp.	EPA 1005.0, West Coast (1995)	2,3,10
Ceriodaphnia dubia, 48-hr survival	EPA 2002.0 (2002)	1,2,10
Ceriodaphnia dubia, 7-d surv & reprod	EPA 1002.0 (2002)	1,4,10
Dangerous Waste Designation Salmonid	WDOE 80-12 Part A (2009)	9,10
Daphnid 48-hr surv; Daphnia magna	EPA 2021.0 (2002)	1,2,10
Daphnid 48-hr surv; Daphnia pulex	EPA 2021.0 (2002)	1,2,10
Echinoderm embryo dev: Dendraster excentricus	ASTM E 1563	10
Echinoderm embryo dev: Dendraster excentricus	EPA 600/R-95/136, West Coast (1995)	2,3,10
Echinoderm embryo dev: Strongylocentrotus purpuratus	ASTM E 1563	10
Echinoderm embryo dev: Strongylocentrotus purpuratus	EPA 600/R-95/136, West Coast (1995)	2,3,10
Echinoderm fertilization: Dendraster excentricus	EPA 1008.0, West Coast (1995)	2,3,10
Echinoderm fertilization: Strongylocentrotus purpuratus	EPA 1008.0, West Coast (1995)	2,3,10
Haliotis rufescens, 48-hr larval dev	EPA 600/R-95/136, West	2,3,10

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Matrix/Analyte	Method	Notes
	Coast (1995)	
Hyalella azteca 96 hour survival	EPA 821-R-02-012 (2002)	1,2,10
Macrocystis pyrifera, 48-h germ/tube length	EPA 1009.0, West Coast (1995)	2,3,10
Menidia beryllina, 7-d surv & growth	EPA 1006.0 (2002)	2,5,10
Menidia beryllina, 96-hr surv	EPA 2006.0 (2002)	1,2,10
Mysid: Americamysis bahia, 48-hr surv	EPA 2007.0 (2002)	1,2,10
Mysid: Americamysis bahia, 7-d surv & growth	EPA 1007.0 (2002)	2,5,10
Pimephales promelas, 7-d surv & growth	EPA 1000.0 (2002)	2,4,10
Pimephales promelas, 96-hr surv	EPA 2000.0 (2002)	1,2,10
Selenastrum capricornutum, 96-hr growth & inihib.	EPA 1003.0 (2002)	2,4,10
<b>Solid and Chemical Materials</b>		
Amphipod (A. abdita)	EPA 100.4 (1994)	7,10
Amphipod (E. estuarius)	EPA 100.4 (1994)	7,10
Amphipod (L. plumulosus)	EPA 100.4 (1994)	7,10
Amphipod (R. abronius)	EPA 100.4 (1994)	7,10
Bioaccumulation, Lumbriculus variegatus	ASTM E 1688	10
Bioaccumulation, Macoma spp.	ASTM E 1688	10
Bioaccumulation, Nereis/Neanthes spp.	ASTM E 1688	10
Bioconcentration, Mytilus galloprovincialis	ASTM E 1022	10
Bivalve 48 hour embryo-larval dev: Mytilus spp.	PSEP (1995)	10
Bivalve 48-hr embryo-larval dev: Crassostrea gigas	ASTM E 724	10
Bivalve 48-hr embryo-larval dev: Crassostrea gigas	PSEP (1995)	10
Bivalve 48-hr embryo-larval dev: Mytilus spp.	ASTM E 724	10
Chironomus tentans, 20-day surv & growth	EPA 100.5 (2000)	6,10
Echinoderm embryo dev: Dendraster excentricus	PSEP (1995)	10
Echinoderm embryo dev: Strongylocentrotus purpuratus	PSEP (1995)	10
Eisenia fetida 28 day bioaccumulation	ASTM E 1676	10
Eisenia fetida, 14-d survival	WDOE 96-327 (1996)	8,10
Freshwater bioaccum 28-d: Lumbriculus variegatus	EPA 100.3 (2000)	6,10
Freshwater sed: Chironomus tentans	ASTM E 1706	10
Freshwater sed: Hyalella azteca	ASTM E 1706	10
Freshwater sed: Hyalella azteca, 10-d surv	EPA 100.1 (2000)	6,10
Marine amphipod 10-d surv: Ampelisca abdita	ASTM E 1367	10
Marine amphipod 10-d surv: Ampelisca abdita	PSEP (1995)	10
Marine amphipod 10-d surv: Eohaustorius estuarius	ASTM E 1367	10

Washington State Department of Ecology

Laboratory Accreditation Unit

Effective Date: 1/1/2018

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Scope of Accreditation Report for Nautilus Environmental (San Diego)

Scope Expires: 12/31/2018

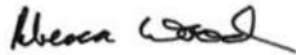
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Matrix/Analyte	Method	Notes
Marine amphipod 10-d surv: Eohaustorius estuarius	PSEP (1995)	10
Marine amphipod 10-d surv: Leptocheirus plumulosus	ASTM E 1367	10
Marine amphipod 10-d surv: Rhepoxynius abronius	ASTM E 1367	10
Marine amphipod 10-d surv: Rhepoxynius abronius	PSEP (1995)	10
Marine Polychaete, Neanthes 20-d surv & growth	PSEP (1995)	10
Midge (C. tentans)	EPA 100.2 (2000)	6,10

**Accredited Parameter Note Detail**

(1) USEPA. "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." EPA-821-R-02-012. Fifth Edition. October 2002. (2) Meets requirements of "Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria." Pub No WQ-R-95-80. Rev Dec. 2008. (3) USEPA. "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms." EPA 600/R-95/136. August 1995. (4) USEPA. "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." EPA-821-R-02-013. Fourth Edition. October 2002. (5) USEPA. "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms." EPA-821-R-02-014. Third Edition. October 2002. (6) USEPA. "Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates." EPA 600/R-99/064. March 2000. (7) USEPA. "Methods for Assessing the Toxicity of Sediment-associated Contaminants with Estuarine and Marine Amphipods." EPA 600/R-94/025. June 1994. (8) WDOE. "Earthworm Bioassay Protocol for Soil Toxicity Screening." WDOE 96-327. 1996. (9) WDOE. "Biological Test Methods for the Designation of Dangerous Waste." WDOE 80-12. 2009. (10) Accreditation based in part on recognition of the Lab ORELAP accreditation.



12/05/2017

Authentication Signature

Date

Rebecca Wood, Acting Lab Accreditation Unit Supervisor