



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

**Interim**



**CALIFORNIA STATE**

**ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM**

**CERTIFICATE OF ENVIRONMENTAL ACCREDITATION**

Is hereby granted to

**Laboratory: Enthalpy Analytical, LLC**

931 West Barkley Avenue

Orange, CA 92868

Scope of the certificate is limited to the  
"Fields of Testing"  
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1338**

Expiration Date: **10/31/2019**

Effective Date: **11/1/2018**

A handwritten signature in cursive script, reading "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**



**Enthalpy Analytical, LLC**

931 West Barkley Avenue  
Orange, CA 92868  
Phone: (714) 771-6900

**Certificate No. 1338  
Expiration Date 10/31/2019  
INTERIM**

**Field of Testing: 101 - Microbiology of Drinking Water**

101.010	001	Heterotrophic Plate Count	SM9215 B
101.010	002	Heterotrophic Bacteria	SimPlate
101.020	004	Total Coliform (Enumeration)	SM9221 B,C
101.020	005	Fecal Coliform (Enumeration)	SM9221 B,E
101.020	006	E. coli (Enumeration)	SM9221 B,F
101.050	001	Total Coliform P/A	SM9223 B (Colilert)
101.050	002	E. coli P/A	SM9223 B (Colilert)
101.050	003	Total Coliform (Enumeration)	SM9223 B (Colilert)
101.050	004	E. coli (Enumeration)	SM9223 B (Colilert)
101.050	005	Total Coliform P/A	SM9223 (Colilert 18)
101.050	006	E. coli P/A	SM9223 (Colilert 18)
101.050	007	Total Coliform (Enumeration)	SM9223 (Colilert 18)
101.050	008	E. coli (Enumeration)	SM9223 (Colilert 18)
101.050	009	Total Coliform P/A	SM9223 B (Colisure)
101.050	010	E. coli P/A	SM9223 B (Colisure)
101.050	011	Total Coliform (Enumeration)	SM9223 B (Colisure)
101.050	012	E. coli (Enumeration)	SM9223 B (Colisure)

**Field of Testing: 102 - Inorganic Chemistry of Drinking Water**

102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (calculation)	EPA 200.7
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	009	Sulfate	EPA 300.0
102.045	001	Perchlorate	EPA 314.0
102.050	001	Cyanide, Total	EPA 335.4

As of 10/31/2018, this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite (as N)	EPA 353.2
102.095	001	Turbidity	SM2130B-2001
102.100	001	Alkalinity	SM2320B-1997
102.120	001	Hardness (calculation)	SM2340B-1997
102.130	001	Conductivity	SM2510B-1997
102.140	001	Residue, Filterable TDS	SM2540C-1997
102.150	001	Chloride	SM 4110B,C-2000
102.175	001	Chlorine, Free	SM4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM4500-Cl G-2000
102.190	001	Cyanide, Total	SM4500-CN E-1999
102.200	001	Fluoride	SM 4500-F C-2011
102.203	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
102.234	001	Nitrite (as N)	SM4500-NO3 F-2000
102.234	002	Nitrate (as N)	SM4500-NO3 F-2000
102.240	001	Phosphate, Ortho (as P)	SM4500-P E-1999
102.242	001	Silica	SM4500-SiO2 E-1997
102.243	001	Silica	SM4500-SiO2 D-1997
102.260	001	Total Organic Carbon TOC	SM5310B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM5310B-2000
102.270	001	Surfactants	SM5540 C-2000

**Field of Testing:** 103 - Toxic Chemical Elements of Drinking Water

103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8

103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6

**Field of Testing:** 104 - Volatile Organic Chemistry of Drinking Water

104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	TNI	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Perchloroethylene)	EPA 524.2

104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2

**Field of Testing:** 107 - Microbiology of Wastewater

107.010	001	Heterotrophic Plate Count	SM9215 B
107.020	002	Total Coliform (Enumeration)	SM9221 B-2006
107.030	002	Total Coliform with Chlorine Present	SM9221 B,C-2006
107.040	002	Fecal Coliform (Enumeration)	SM9221 C,E-2006
107.050	002	Fecal Coliform with Chlorine Present	SM9221 C,E-2006
107.100	002	Fecal Streptococci	SM9230 B-2007
107.242	001	Enterococci	Enterolert
107.245	001	E. coli (Enumeration)	SM9223 (Colilert 18)
107.245	002	E. coli (Enumeration)	SM9223 B (Colilert)
107.247	001	E. coli (Enumeration)	SM9221 B,F-2006

**Field of Testing:** 108 - Inorganic Chemistry of Wastewater

108.020	001	Conductivity	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7

108.112	005	Potassium	EPA 200.7
108.112	006	Silica, Dissolved	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.113	001	Boron	EPA 200.8
108.113	002	Calcium	EPA 200.8
108.113	003	Magnesium	EPA 200.8
108.113	004	Potassium	EPA 200.8
108.113	006	Sodium	EPA 200.8
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.120	012	Nitrate (as N)	EPA 300.0
108.120	013	Nitrate-Nitrite (as N)	EPA 300.0
108.120	014	Nitrite (as N)	EPA 300.0
108.183	001	Cyanide, Total	EPA 335.4
108.209	001	Ammonia (as N)	EPA 350.1
108.209	002	Kjeldahl Nitrogen, Total (as N)	EPA 350.1
108.211	002	Kjeldahl Nitrogen, Total (as N)	EPA 351.2
108.232	003	Nitrate-Nitrite (as N)	EPA 353.2
108.232	004	Nitrite (as N)	EPA 353.2
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.360	001	Phenols, Total	EPA 420.1
108.381	001	Oil and Grease	EPA 1664A
108.385	001	Color	SM2120B-2001
108.390	001	Turbidity	SM2130B-2001
108.410	001	Alkalinity	SM2320B-1997
108.420	001	Hardness (calculation)	SM2340B-1997
108.430	001	Conductivity	SM2510B-1997
108.439	001	Residue, Volatile	SM2540E-1997
108.440	001	Residue, Total	SM2540B-1997
108.441	001	Residue, Filterable TDS	SM2540C-1997
108.442	001	Residue, Non-filterable TSS	SM2540D-1997
108.443	001	Residue, Settleable	SM2540F-1997
108.444	001	Temperature	SM2550B-2010
108.465	001	Chlorine, Total Residual	SM4500-Cl G-2000
108.470	001	Cyanide, Total	SM4500-CN B or C-1999
108.472	001	Cyanide, Total	SM4500-CN E-1999
108.473	001	Cyanide, amenable	SM4500-CN G-1999
108.480	001	Fluoride	SM4500-F B,C-1997
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
108.500	002	Ammonia (as N)	SM4500-NH3 B,C-1997

108.501	002	Kjeldahl Nitrogen, Total (as N)	SM4500-NH3 C-1997
108.506	002	Ammonia (as N)	SM4500-NH3 G-1997
108.507	002	Kjeldahl Nitrogen, Total (as N)	SM4500-NH3 G-1997
108.529	001	Nitrate-Nitrite (as N)	SM4500-NO3 F-2000
108.529	002	Nitrite (as N)	SM4500-NO3 F-2000
108.529	003	Nitrate (as N)	SM4500-NO3 F-2000
108.536	001	Oxygen, dissolved	SM4500-O G-2001
108.540	001	Phosphate, Ortho (as P)	SM4500-P E-1999
108.541	001	Phosphorus, Total	SM4500-P E-1999
108.552	001	Silica, Dissolved	SM4500-SiO2 C-1997
108.560	001	Sulfite	SM4500-SO3 B-2000
108.584	001	Sulfide (as S)	SM4500-S D-2000
108.592	001	Biochemical Oxygen Demand	SM5210B-2001
108.592	002	Carbonaceous BOD	SM5210B-2001
108.595	001	Chemical Oxygen Demand	SM5220D-1997
108.596	001	Organic Carbon-Total (TOC)	SM5310B-2000
108.603	001	Oil & Grease Total	SM5520B-2001
108.604	001	Oil & Grease Total	SM5520F-2001
108.605	001	Surfactants	SM5540 C-2000

**Field of Testing:** 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	006	Boron	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	025	Titanium	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7

109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.020	020	Gold	EPA 200.8
109.020	021	Iron	EPA 200.8
109.020	022	Tin	EPA 200.8
109.020	023	Titanium	EPA 200.8
109.104	001	Chromium (VI)	EPA 218.6
109.190	001	Mercury	EPA 245.1

**Field of Testing:** 110 - Volatile Organic Chemistry of Wastewater

110.040	000	Purgeable Organic Compounds	EPA 624
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**Field of Testing:** 111 - Semi-volatile Organic Chemistry of Wastewater

111.100	000	Base/Neutral & Acid Organics	EPA 625
111.170	000	Organochlorine Pesticides and PCBs	EPA 608

**Field of Testing:** 113 - Whole Effluent Toxicity of Wastewater

113.010	001B	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static Renewal
113.021	001B	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static Renewal

**Field of Testing:** 114 - Inorganic Chemistry of Hazardous Waste

114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B



114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196A
114.106	001	Chromium (VI)	EPA 7199
114.140	001	Mercury	EPA 7470A
114.141	001	Mercury	EPA 7471A
114.221	001	Cyanide, Total	EPA 9012A
114.222	001	Cyanide, Total	EPA 9014
114.240	001	Corrosivity - pH Determination	EPA 9040B
114.241	001	Corrosivity - pH Determination	EPA 9045C
114.250	001	Fluoride	EPA 9056
114.270	001	Fluoride	EPA 9214

**Field of Testing: 115 - Extraction Test of Hazardous Waste**

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311 (TCLP)
115.021	001	TCLP Inorganics	EPA 1311 (TCLP)
115.022	001	TCLP Extractables	EPA 1311 (TCLP)
115.023	001	TCLP Volatiles	EPA 1311 (TCLP) Interim
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312 (SPLP)

**Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste**

As of 10/31/2018, this list supersedes all previous lists for this certificate number.  
 Customers: Please verify the current accreditation standing with the State.

116.030	001	Gasoline-range Organics	EPA 8015B	
116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021B	
116.040	062	BTEX	EPA 8021B	
116.080	000	Volatile Organic Compounds	EPA 8260B	
116.080	120	Oxygenates	EPA 8260B	
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS	Interim
116.100	010	BTEX and MTBE	LUFT GC/MS	
116.110	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT	

**Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B	
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT	
117.110	000	Extractable Organics	EPA 8270C	
117.210	000	Organochlorine Pesticides	EPA 8081A	
117.220	000	PCBs	EPA 8082	

**Field of Testing: 119 - Toxicity Bioassay of Hazardous Waste**

119.010	001	Fathead Minnow ( <i>P. promelas</i> )	Polisini & Miller (CDFG 1988)	
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**Field of Testing: 120 - Physical Properties of Hazardous Waste**

120.010	001	Ignitability	EPA 1010	Interim
120.022	001	Ignitability	EPA 1030	Interim
120.070	001	Corrosivity - pH Determination	EPA 9040B	
120.080	001	Corrosivity - pH Determination	EPA 9045C	

**Field of Testing: 126 - Microbiology of Recreational Water**

126.010	001	Total Coliform (Enumeration)	SM9221 B-2006	
126.030	001	Fecal Coliform (Enumeration)	SM9221 B,E-2006	
126.050	001	Total Coliform (Enumeration)	SM9223 B (Colilert/Quanti-Tray)	
126.050	002	E. coli (Enumeration)	SM9223 B (Colilert/Quanti-Tray)	
126.080	001	Enterococci	Enterolert	