



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CHEMICAL

Valid To: February 28, 2021

Certificate Number: 5669.07

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on water:

Test(s):	Test Method(s):
Water:	
Conductivity	APHA 2510B; EMT-M-OP-CH-DOH-MD201
Chromium VI	APHA 3500 Cr B; EMT-M-OP-CH-DOH-MD330
Chloride (Cl)	APHA 4500 CL B; EMT-M-OP-CH-DOH-MD205
Ammonia	APHA 4500; EMT-M-OP-DOH-MD302 by Colorimetry
Cyanide (free)	APHA 4500 – SiO ₂ ; EMT-M-OP-CH-DOH-MD310
Flouride	APHA 4500-F B and APHA 4500-F D; EMT-M-OP-CH-DOH-MD328
Nitrate	APHA 4500 NO ₃ ; EMT-M-OP-CH-DOH-MD315
pH value	APHA 4500 pH; EMT-M-OP-CH-DOH-MD301
Residual (free available) Chlorine	APHA 4500 Cl; EMT-M-OP-CH-DOH-MD206 by Colorimetry
Sulphate (SO ₄)	APHA 4500 SO ₄ C; EMT-M-OP-CH-DOH-MD324
Total Phosphorous	APHA 4500P E and APHA 4500P B; EMT-M-OP-CH-DOH-MD329
BOD	APHA 5210B; EMT-M-OP-CH-DOH-MD304 by Oximeter
Total Suspended Solids (TSS)	APHA 2540D; EMT-M-OP-CH-MD209 by Gravimetry

Test(s):	Test Method(s):
COD	APHA 5220B; EMT-M-OP-CH-DOH-MD307 by HACH Digestion and Colorimetry
TOC	APHA 5310; EMT-M-OP-CH-DOH-MD319
Ammonia	USEPA 350.1; EMT-M-OP-CH-DOH-MD302
Nitrate Nitrite	USEPA 353.2; EMT-M-OP-CH-DOH-MD317
Phosphate ortho	USEPA 365.1; EMT-M-OP-CH-DOH-MD326
Sulphate	USEPA 375.4; EMT-M-OP-CH-DOH-MD331
Silica Oxide	ASTM D859-16; EMT-M-OP-CH-DOH-MD327
<u>Drinking Water; Surface Water; Ground Water; Waste Water and Saline Water:</u>	
Total Dissolved Solids (TDS)	APHA 2540B; EMT-M-OP-CH-MD208C by Gravimetry
<u>Waters and Soils:</u>	
Benzene, Toluene, Ethylbenzene and Xylenes (BTEXs) and Volatile Organic Compounds (VOCs) including: Benzene, Bromobenzene, Bromoform, Bromomethane, Bromochloromethane, Bromodichloromethane, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, Chloroethene, (Vinyl Chloride), Chloroform, Chloromethane, Dibromomethane, Dichlorofluoromethane, Dichloromethane (Methylene Chloride), Ethylene Dibromide, 2-Chlorotoluene	EPA 502.2/624 & 8260B; EMT-M-OP-CH-DOH-MD404A (Waters) by GC-MS, EMT-M-OP-CH-DOH-MD404B (Soils) by GC-MS

Test(s):	Test Method(s):
Waters and Soils (continued):	
<p>Benzene, Toluene, Ethylbenzene and Xylenes (BTEXs) and Volatile Organic Compounds (VOCs) including (<i>cont'd</i>):</p> <p>1,2-Dibromo-3-chloropropane Toluene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,1-Dichloroethane, 1,2-Dichloroethane, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,3-Dichloropropane, 1,1-Dichloropene, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Trichloroethane, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichloroethane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene</p>	<p>EPA 502.2/624 & 8260B;</p> <p>EMT-M-OP-CH-DOH-MD404A (Waters) by GC-MS, EMT-M-OP-CH-DOH-MD404B (Soils) by GC-MS</p>
<p>Semi Volatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbon (PAHs) including:</p> <p>Azobenzene Bis(2-chloroisopropyl) ether Bis(92-chloroethyl) ether bis(2-chloroethoxy) metyhane Bis(2-ethylhexyl) phthalate Butyl benzylphthalate Dibenzofuran Dimethyl phthalate Diethyl phthalate Di-n-butylphthalate Di-n-octylphthalate Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane</p>	<p>EPA 625 & 8270C;</p> <p>EMT-M-OP-CH-DOH-MD406;</p> <p>PAH (Waters): EMT-M-OP-CH-DOH-MD403A;</p> <p>PAH (Soils): EMT-M-OP-CH-DOH-MD403B</p>

Test(s):	Test Method(s):
<u>Waters and Soils (continued):</u>	
Semi Volatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbon (PAHs) including (<i>cont'd</i>): Naphthalene Nitrobenzene Phenol 4-Bromophenyl Phenylether Isophorone 4-Chloroaniline 4-Chloro-3-methylphenol 2-Chlorophenol 4-Chlorodiphenylether 2-Chloronaphthalene o-Cresol p-Cresol 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2,4-Dichlorophenol 2,4-Dimethylphenol 2-Methylnaphthalene 2-Nitroaniline 2-Nitrophenol n-nitrosodi-n-propylamine n-nitrosodimethylamine 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	EPA 625 & 8270C; EMT-M-OP-CH-DOH-MD406 by GC-MS PAH (Waters): EMT-M-OP-CH-DOH-MD403A; PAH (Soils): EMT-M-OP-CH-DOH-MD403B
Polycyclic Aromatic Hydrocarbons (PAHs) including: Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(g,h,i)preylene Benzo(a)pyrene Carbazole Chrysene Dibenze(a,h)anthracene Fluorene Polycyclic Aromatic	EPA 550.1/610 & 8270C; EMT-M-OP-CH-DOH-MD403A (soils) by GC-MS, EMT-M-OP-CH-DOH-MD403B (waters) by GC-MS

Test(s):	Test Method(s):
<u>Waters and Soils (continued):</u>	
Hydrocarbons (PAHs) including (<i>cont'd</i>): Fluoroanthene Ideno (1, 2, 3-c, d) Naphthalene Pyrene Phenathrene Pyrene	EPA 550.1/610 & 8270C; EMT-M-OP-CH-DOH-MD403A (soils) by GC-MS, EMT-M-OP-CH-DOH-MD403B (waters) by GC-MS
<u>Waters (Potable, Effluent and Saline):</u>	
Metals including; (* Excluding Sodium for Saline Waters) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cu, Cr, Fe, Hg, K, Li, Mg, Mn, Mo, Na*, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn	EMT-M-OP-CH-DOH-MD106
Phenols	EPA 528; EMT-M-OP-CH-DOH-MD415 by SPE, Derivatisaion and GC-MS
<u>Waters (Potable, Wastewater and Recreational):</u>	
Turbidity	APHA 2130A; EMT-M-OP-CH-DOH-MD203 by Nephelometry
Total Alkalinity	APHA 2320B; EMT-M-OP-CH-MD210 by Titration
Total Hardness	APHA 2340C; EMT-M-OP-CH-DOH-MD211 by EDTA Titration
Total Kjeldahl Nitrogen	APHA 4500N; EMT-M-OP-CH-DOH-MD318 by Distillation
Oil and Grease	APHA 5520D; EMT-M-OP-CH-DOH-MD414 by Soxhlet Extraction Gravimetry
<u>Soils:</u>	
Metals by ICP-MS	APHA 3125; Documented In-house Method EMT-M-OP-CH-DOH-MD106

BIOLOGICAL

Test(s):	Test Method(s):
Total Bacterial Count (Heterotrophic Plate Count)	EMT-M-OP-EN-MD001 based on standard method APHA 9215b
Enumeration of Coliforms and E. coli	MPN using IDEXX Colilert EMT-M-OP-EN-MD002 based on standard method APHA Method 9223

Test(s):	Test Method(s):
Enumeration and Confirmation of Total Coliforms	Membrane Filtration EMT-M-OP-EN-MD003 based on standard method APHA Method 9222b
Enumeration and Confirmation of Fecal Coliforms	Membrane Filtration EMT-M-OP-EN-MD004 based on standard method APHA Method 9222d
Enumeration Enterococci	Membrane Filtration EMT-M-OP-EN-MD005 based on standard method BSEN ISO 7899-2 and BS 6068: Section 4.4
Detection of Legionella spp (not including species identification)	EMT-M-OP-EN-MD01 based on CCFRA Manual of Microbiological Methods (Manual 43) 5th Edition 2007 Method 3.9.1
Sampling and testing of Legionella	BS 7592; ISO 11731; EMT-M-OP-EN-MD023
Enumeration and Confirmation of Psuedomonas Aeruginoa	Membrane Filtration EMT-M-OP-EN-MD006 based on ISO 16266
WATER – Closed Hot and Cold Systems, Primary Storage Tanks and Treated Bathing Water	
Detection and Enumeration of Legionella Species (not including species identification)	Direct Membrane Filtration Documented In-house Method EMT-M-OP-EN-MD021 based on standard method BS EN ISO 11731-2 and BS 6068 Section 4.18



Accredited Laboratory

A2LA has accredited

ELEMENT DOHA, LLC

Doha, Qatar

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 31st day of October 2019.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5669.07
Valid to February 28, 2021

For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.