

COMMONWEALTH OF KENTUCKY

Energy and Environment Cabinet

2019

Wastewater Laboratory Certification Program
In Accordance with KRS 224.10-670 and 401 KAR Chapter 5:320



THIS CERTIFIES THAT

Environmental Monitoring, Inc.
5730 Industrial Park Rd
Norton, VA 24273
Laboratory ID Number: KY98012



The above laboratory has complied with Kentucky Administrative Regulation 401 KAR 5:320, Wastewater Laboratory Certification Program, for the analyses of wastewater samples, as specified in 33 U.S.C. 1342, for the method-analyte pairs specified on the attached certification list.

Effective From: January 1, 2019

To: December 31, 2019

Kevin Stewart

Certification Program Manager

Environmental Monitoring, Inc.
98012

KY Category	CAS #	Analyte	Status	Reference Method	MDL	MDL Units	MRL	MRL Units	ATP	Method Mod
Field		Oxygen, Dissolved	Certified	SM 4500-O G-2011		N/A		mg/L	N/A	N
Field		Specific Conductance	Certified	SM 2510 B-2011		N/A	10	umhos/cm	N/A	N
Field		Temperature	Certified	SM 2550 B-2000		N/A		degrees Celsius	N/A	N
Field		Turbidity	Certified	SM 2130 B-2011		N/A	0.02	NTU	N/A	N
Field		pH	Certified	SM 4500-H+ B-2011		N/A		S.U.	N/A	N
Inorganic/General Chemistry		Acidity, Total (as CaCO3)	Certified	SM 2310 B-2011	4	mg/L	4	mg/L	N/A	N
Inorganic/General Chemistry		Alkalinity, Total (as CaCO3)	Certified	SM 2320 B-2011	4	mg/L	4	mg/L	N/A	N
Inorganic/General Chemistry	7664-41-7	Ammonia	Certified	EPA 350.1 Rev. 2.0 (1993)	0.0690	mg/L	0.20	mg/L	N/A	N
Inorganic/General Chemistry		BOD, 5-day	Certified	SM 5210 B-2011	2	mg/L	2	mg/L	N/A	N
Inorganic/General Chemistry	24959-67-9	Bromide	Certified	EPA 300.0 Rev 2.1 (1993)	0.1115	mg/L	0.60	mg/L	N/A	N
Inorganic/General Chemistry		Carbonaceous Biochemical Oxygen Demand (CBOD5)	Certified	SM 5210 B-2011	2	mg/L	2	mg/L	N/A	N
Inorganic/General Chemistry		Chemical Oxygen Demand (COD)	Certified	HACH 8000 (1979)	10.4016	mg/L	20	mg/L	N/A	N
Inorganic/General Chemistry	16887-00-6	Chloride	Certified	EPA 300.0 Rev 2.1 (1993)	0.8315	mg/L	5	mg/L	N/A	N
Inorganic/General Chemistry	16887-00-6	Chloride	Certified	SM 4500-Cl ⁻ B-2011	1	mg/L	1	mg/L	N/A	N
Inorganic/General Chemistry	57-12-5	Cyanide, Total (as Cn)	Certified	EPA 335.4 Rev. 1.0 (1993)	6.35	ug/L	10	ug/L	N/A	N
Inorganic/General Chemistry	16984-48-8	Fluoride	Certified	EPA 300.0 Rev 2.1 (1993)	0.15	mg/L	0.40	mg/L	N/A	N
Inorganic/General Chemistry		Hardness, Total (as CaCO3)	Certified	SM 2340 C-2011	4	mg/L	4	mg/L	N/A	N
Inorganic/General Chemistry	84145-82-4	Nitrate	Certified	EPA 300.0 Rev 2.1 (1993)	0.1403	mg/L	0.60	mg/L	N/A	N

Environmental Monitoring, Inc.
98012

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Inorganic/General Chemistry		Nitrate-Nitrite (as N)	Certified	EPA 300.0 Rev 2.1 (1993)	0.2670	mg/L	1	mg/L	N/A	N
Inorganic/General Chemistry	14797-65-0	Nitrite	Certified	EPA 300.0 Rev 2.1 (1993)	0.1277	mg/L	0.40	mg/L	N/A	N
Inorganic/General Chemistry		Oil and Grease	Certified	EPA 1664 Rev. A	2.2716	mg/L	5	mg/L	N/A	N
Inorganic/General Chemistry	7723-14-0	Phosphorus, Total (as P)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0873	mg/L	0.50	mg/L	N/A	N
Inorganic/General Chemistry		Solids, Settleable	Certified	SM 2540 F-2011	0.40	mL/L	0.40	mL/L	N/A	N
Inorganic/General Chemistry		Solids, Total Dissolved	Certified	SM 2540 C-2011	1	mg/L	1	mg/L	N/A	N
Inorganic/General Chemistry		Solids, Total Suspended (TSS)	Certified	SM 2540 D-2011	1	mg/L	1	mg/L	N/A	N
Inorganic/General Chemistry	14808-79-8	Sulfate, Total (as SO4)	Certified	EPA 300.0 Rev 2.1 (1993)	1.5632	mg/L	5	mg/L	N/A	N
Inorganic/General Chemistry	18496-25-8	Sulfide, Total (as S)	Certified	SM 4500-S2 ⁻ F-2011	1	mg/L	1	mg/L	N/A	N
Inorganic/Metals	7429-90-5	Aluminum, Total (as Al)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0072	mg/L	0.05	mg/L	N/A	N
Inorganic/Metals	7440-36-0	Antimony, Total (as Sb)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0090	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-36-0	Antimony, Total (as Sb)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.1689	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-38-2	Arsenic, Total (as As)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0035	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-38-2	Arsenic, Total (as As)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0370	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-39-3	Barium, Total (as Ba)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0013	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-39-3	Barium, Total (as Ba)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.2338	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-41-7	Beryllium, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0006	mg/L	0.0020	mg/L	N/A	N
Inorganic/Metals	7440-41-7	Beryllium, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0364	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-42-8	Boron	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0047	mg/L	0.03	mg/L	N/A	N

Environmental Monitoring, Inc.
98012

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Inorganic/Metals	7440-43-9	Cadmium, Total (as Cd)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0025	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-43-9	Cadmium, Total (as Cd)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0370	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-70-2	Calcium, total [as Ca]	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0736	mg/L	0.50	mg/L	N/A	N
Inorganic/Metals	7440-47-3	Chromium, Total (as Cr)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0094	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-47-3	Chromium, Total (as Cr)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0685	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-48-4	Cobalt, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0007	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-48-4	Cobalt, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	0.1063	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-50-8	Copper, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0062	mg/L	0.01	mg/L	N/A	N
Inorganic/Metals	7440-50-8	Copper, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	0.4339	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7439-89-6	Iron, Total (as Fe)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0099	mg/L	0.05	mg/L	N/A	N
Inorganic/Metals	7439-92-1	Lead, Total (as Pb)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0031	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7439-92-1	Lead, Total (as Pb)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0543	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7439-95-4	Magnesium, Total (as Mg)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0713	mg/L	0.50	mg/L	N/A	N
Inorganic/Metals	7439-96-5	Manganese, Total (as Mn)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0099	mg/L	0.05	mg/L	N/A	N
Inorganic/Metals	7439-98-7	Molybdenum, Total (as Mo)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0004	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7439-98-7	Molybdenum, Total (as Mo)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.1232	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-02-0	Nickel, Total (as Ni)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0007	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-02-0	Nickel, Total (as Ni)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.2897	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-09-7	Potassium, Total (as K)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0978	mg/L	0.50	mg/L	N/A	N
Inorganic/Metals	7782-49-2	Selenium, Total (as Se)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.3548	ug/L	2	ug/L	N/A	N
Inorganic/Metals		Silica, Dissolved	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0414	mg/L	0.20	mg/L	N/A	N
Inorganic/Metals	7440-22-4	Silver, Total (as Ag)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0068	mg/L	0.03	mg/L	N/A	N

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98012

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Inorganic/Metals	7440-22-4	Silver, Total (as Ag)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0236	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-23-5	Sodium, Total (as Na)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0815	mg/L	0.50	mg/L	N/A	N
Inorganic/Metals	7440-28-0	Thallium, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0062	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-28-0	Thallium, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	0.1031	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-31-5	Tin, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0054	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-62-2	Vanadium, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	0.01	mg/L	0.03	mg/L	N/A	N
Inorganic/Metals	7440-62-2	Vanadium, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	0.0629	ug/L	2	ug/L	N/A	N
Inorganic/Metals	7440-66-6	Zinc, Total (as Zn)	Certified	EPA 200.7, Rev. 4.4 (1994)	0.0063	mg/L	0.01	mg/L	N/A	N
Inorganic/Metals	7440-66-6	Zinc, Total (as Zn)	Certified	EPA 200.8, Rev. 5.4 (1994)	0.7973	ug/L	5	ug/L	N/A	N