



Accredited Laboratory

A2LA has accredited

MICROBAC LABORATORIES, INC. KNOXVILLE DIVISION

Maryville, TN

for technical competence in the field of

Environmental 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 laboratory also meets the requirements of A2LA R206 – *Specific Requirements – Environmental Testing Laboratory Accreditation Program*. 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 28th day of May 2019.

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

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3131.03
Valid to May 31, 2021
Revised July 9, 2020

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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

MICROBAC LABORATORIES, INC. – KNOXVILLE DIVISION
 505 East Broadway Ave.
 Maryville, TN 37804
 T.J. McCallum Phone: 865 997 1200

ENVIRONMENTAL

Valid To: May 31, 2021

Certificate Number: 3131.03

In recognition of the successful completion of the A2LA evaluation process, (including an assessment of the laboratory's compliance with ISO IEC 17025:2017 and the 2009 TNI Environmental Testing Laboratory Standard), accreditation is granted to this laboratory to perform recognized EPA methods using the following testing technologies and in the analyte categories identified below:

Testing Technologies: Cold Vapor AA (CVAA), ICP, ICP/MS, Ion Chromatography, SmartChem Analyzer, and Skalar (Demands).

<u>Parameter/Analyte</u>	<u>Potable Water</u>	<u>Non-potable Water</u>	<u>Solid Hazardous Waste</u>
<u>Metals</u>			
Aluminum	EPA 200.7/200.8	EPA 200.7/200.8	-----
Antimony	EPA 200.7/200.8	EPA 200.7/200.8	-----
Arsenic	EPA 200.7/200.8	EPA 200.7/200.8	-----
Barium	EPA 200.7/200.8	EPA 200.7/200.8	-----
Beryllium	EPA 200.7/200.8	EPA 200.7/200.8	-----
Boron	EPA 200.7	EPA 200.7	-----
Cadmium	EPA 200.7/200.8	EPA 200.7/200.8	-----
Calcium	EPA 200.7	EPA 200.7	-----
Chromium	EPA 200.7/200.8	EPA 200.7/200.8	-----
Chromium (III)	-----	Calculation	-----
Cobalt	-----	EPA 200.7/200.8	-----
Copper	EPA 200.7/200.8	EPA 200.7/200.8	-----
Iron	EPA 200.7	EPA 200.7	-----
Lead	EPA 200.7/200.8	EPA 200.7/200.8	-----
Lithium	-----	EPA 200.7	-----
Magnesium	EPA 200.7	EPA 200.7	-----
Manganese	EPA 200.7/200.8	EPA 200.7/200.8	-----
Mercury	EPA 245.1	EPA 245.1	-----
Molybdenum	EPA 200.7/200.8	EPA 200.7/200.8	-----
Nickel	EPA 200.7/200.8	EPA 200.7/200.8	-----
Potassium	EPA 200.7	EPA 200.7	-----
Selenium	EPA 200.8	EPA 200.7/200.8	-----
Silicon	EPA 200.7	EPA 200.7	-----
Silver	EPA 200.7/200.8	EPA 200.8	-----

<u>Parameter/Analyte</u>	<u>Potable Water</u>	<u>Non-potable Water</u>	<u>Solid Hazardous Waste</u>
Sodium	EPA 200.7	EPA 200.7	-----
Strontium	-----	EPA 200.7	-----
Thallium	EPA 200.7/200.8	EPA 200.7/200.8	-----
Tin	-----	EPA 200.7	-----
Titanium	-----	EPA 200.7	-----
Uranium	EPA 200.8	EPA 200.8	-----
Vanadium	EPA 200.7/200.8	EPA 200.7/200.8	-----
Zinc	EPA 200.7/200.8	EPA 200.7	-----
<u>Nutrients</u>			
Ammonia (as N)	-----	EPA 350.1	-----
Kjeldahl Nitrogen	EPA 351.2	EPA 351.2 SM 4500-Norg C	-----
Nitrate (as N)	EPA 300.0	EPA 300.0	-----
Nitrate-Nitrite (as N)	EPA 300.0	EPA 300.0	-----
Nitrite (as N)	EPA 300.0	EPA 300.0	-----
Organic Nitrogen	-----	Calculation	-----
Orthophosphate (as P)	EPA 300.0	EPA 300.0	-----
Nitrogen, Total	-----	Calculation	-----
Phosphorus, Total	EPA 200.7	EPA 200.7	-----
<u>Demands</u>			
Biochemical Oxygen Demand (BOD)	-----	SM 5210B	-----
Carbonaceous BOD	-----	SM 5210B	-----
Chemical Oxygen Demand (COD)	-----	SM 5220D	-----
<u>Wet Chemistry</u>			
Alkalinity	SM 2320B	SM 2320B	-----
Chloride	EPA 300.0	EPA 300.0	-----
Chlorine (Residual)	SM 4500-Cl G	HACH 8167	-----
Color	SM 2120B	SM 2120B	-----
Filterable Residue	SM 2540C	SM 2540C	-----
Fluoride	EPA 300.0	EPA 300.0	-----
Hardness	SM 2340B	SM 2340B	-----
pH	SM 4500-H ⁺ B	EPA 9040B/9041A SM 4500-H ⁺ B	-----
Nonfilterable Residue	-----	SM 2540D	-----
Oil and Grease	-----	EPA 1664B	-----
Settleable Residue	-----	SM 2540F	-----
Specific Conductance	-----	-----	-----
Sulfate	EPA 300.0	EPA 300.0	-----
Total Residue	-----	SM 2540B	-----
UV254	SM 5910B-2001	-----	-----
<u>Microbiology</u>			
Coliforms, Fecal	-----	SM 9223 B	-----
Coliforms, Total and <i>Escherichia coli</i>	-----	SM 9223 B	-----

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Parameter/Analyte	Potable Water	Non-potable Water	Solid Hazardous Waste
Turbidity	EPA 180.1	EPA 180.1	-----

