



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CONSUMERS ENERGY/LABORATORY SERVICES

Laboratory Services
135 West Trail Street
Jackson, MI 49201
Merideth Armstrong Phone: 517 788 2238
merideth.armstrong@cmsenergy.com

ENVIRONMENTAL

Valid To: July 31, 2024

Certificate Number: 1097.04

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the laboratory's compliance with the 2016 TNI Standard), accreditation is granted to this laboratory to perform recognized EPA methods and Standard Methods for the Examination of Water and Wastewater tests in various matrices, including groundwater, wastewater and solids, using the following testing technologies and in the analyte categories identified below:

Testing Technologies

Atomic Absorption, Atomic Fluorescence, Inductively Coupled Plasma/Mass-Spectrometry, Gas Chromatography, Gas Chromatography/Mass-Spectrometry, Ion Chromatography, Spectrophotometry, Miscellaneous-Electronic Probes (pH, O₂), Gravimetry, Titrimetry, and Hazardous Waste Characteristics Tests.

<u>Parameter/Analyte</u>	<u>Nonpotable Water</u>	<u>Solid Hazardous Waste</u>	
		<u>Aqueous</u>	<u>Solid</u>
<u>Metals</u>			
Aluminum	EPA 200.8	EPA 6020B	EPA 6020B
Antimony	EPA 200.8	EPA 6020B	EPA 6020B
Arsenic	EPA 200.8	EPA 6020B	EPA 6020B
Barium	EPA 200.8	EPA 6020B	EPA 6020B
Beryllium	EPA 200.8	EPA 6020B	EPA 6020B
Boron	EPA 200.8	EPA 6020B	EPA 6020B
Cadmium	EPA 200.8	EPA 6020B	EPA 6020B
Calcium	EPA 200.8	EPA 6020B	EPA 6020B
Chromium	EPA 200.8	EPA 6020B	EPA 6020B
Cobalt	EPA 200.8	EPA 6020B	EPA 6020B
Copper	EPA 200.8	EPA 6020B	EPA 6020B
Iron	EPA 200.8	EPA 6020B	EPA 6020B
Lead	EPA 200.8	EPA 6020B	EPA 6020B
Lithium	EPA 200.8	EPA 6020B	EPA 6020B
Magnesium	EPA 200.8	EPA 6020B	EPA 6020B
Manganese	EPA 200.8	EPA 6020B	EPA 6020B

<u>Parameter/Analyte</u>	<u>Nonpotable Water</u>	<u>Solid Hazardous Waste</u>	
		<u>Aqueous</u>	<u>Solid</u>
Molybdenum	EPA 200.8	EPA 6020B	EPA 6020B
Nickel	EPA 200.8	EPA 6020B	EPA 6020B
Potassium	EPA 200.8	EPA 6020B	EPA 6020B
Selenium	EPA 200.8	EPA 6020B	EPA 6020B
Silicon as SiO ₂ (Silica)	EPA 200.8	EPA 6020B	EPA 6020B
Silver	EPA 200.8	EPA 6020B	EPA 6020B
Sodium	EPA 200.8	EPA 6020B	EPA 6020B
Thallium	EPA 200.8	EPA 6020B	EPA 6020B
Tin	EPA 200.8	EPA 6020B	EPA 6020B
Titanium	EPA 200.8	EPA 6020B	EPA 6020B
Vanadium	EPA 200.8	EPA 6020B	EPA 6020B
Zinc	EPA 200.8	EPA 6020B	EPA 6020B
Metals Sample Prep	SM 3030E	SM 3030E	EPA 3051
Mercury	EPA 245.1	EPA 7470A	EPA 7471B
Mercury, Low Level	EPA 1631E	EPA 1631E	-----
<u>Nutrients</u>			
Ammonia (as N)	SM4500-NH ₃ H	SM4500-NH ₃ H	-----
Nitrate (as N)	EPA 300.0	EPA 300.0	EPA 300.0
Nitrite (as N)	EPA 300.0	EPA 300.0	EPA 300.0
Total Phosphorus (as P)	SM4500-P B5, E	SM4500-P B5, E	-----
<u>General Chemistry</u>			
Alkalinity	SM2320 B	SM2320 B	-----
Available Cyanide	ASTM D6888	ASTM D6888	-----
Fluoride	EPA 300.0	EPA 300.0	EPA 300.0
Hardness	SM2340 B	SM2340 B	-----
pH / Corrosivity	SM4500-H ⁺ B	SM4500-H ⁺ B	EPA 9045C
Filterable Residue (TDS)	SM2540 C	SM2540 C	-----
Nonfilterable Residue (TSS)	SM2540 D	SM2540 D	-----
Sulfate	EPA 300.0	EPA 300.0	EPA 300.0
Residual Chlorine	SM4500-Cl D	SM4500-Cl D	-----
Oil & Grease	EPA1664B	-----	-----

<u>Parameter/Analyte</u>	<u>Nonpotable Water</u>	<u>Solid Hazardous Waste</u>	
		<u>Aqueous</u>	<u>Solid</u>
<u>Extractable Organics (Semi-volatiles)</u>			
Acenaphthene	-----	EPA 8270D	EPA 8270D
Acenaphthylene	-----	EPA 8270D	EPA 8270D
Anthracene	-----	EPA 8270D	EPA 8270D
Benzo(a)anthracene	-----	EPA 8270D	EPA 8270D
Benzo(b)fluoranthene	-----	EPA 8270D	EPA 8270D
Benzo(k)fluoranthene	-----	EPA 8270D	EPA 8270D
Benzo(g,h,i)perylene	-----	EPA 8270D	EPA 8270D
Benzo(a)pyrene	-----	EPA 8270D	EPA 8270D
Chrysene	-----	EPA 8270D	EPA 8270D
Dibenzo(a,h)anthracene	-----	EPA 8270D	EPA 8270D
Fluoranthene	-----	EPA 8270D	EPA 8270D
Fluorene	-----	EPA 8270D	EPA 8270D
Indeno(1,2,3-cd) pyrene	-----	EPA 8270D	EPA 8270D
2-Methylnaphtalene	-----	EPA 8270D	EPA 8270D

<u>Parameter/Analyte</u>	<u>Nonpotable Water</u>	<u>Solid Hazardous Waste</u>	
		<u>Aqueous</u>	<u>Solid</u>
Naphthalene	-----	EPA 8270D	EPA 8270D
Phenanthrene	-----	EPA 8270D	EPA 8270D
Pyrene	-----	EPA 8270D	EPA 8270D
Semi-Volatiles Sample Prep	-----	EPA 3511	EPA 3545A
<u>PCBs</u>			
<u>Arocolor 1016</u>	-----	8082A	8082A
<u>Arocolor 1221</u>	-----	8082A	8082A
<u>Arocolor 1232</u>	-----	8082A	8082A
<u>Arocolor 1242</u>	-----	8082A	8082A
<u>Arocolor 1248</u>	-----	8082A	8082A
<u>Arocolor 1254</u>	-----	8082A	8082A
<u>Arocolor 1260</u>	-----	8082A	8082A
<u>Arocolor 1262</u>	-----	8082A	8082A
<u>Arocolor 1268</u>	-----	8082A	8082A
<u>PCB Sample Prep</u>	-----	EPA 3510C	EPA 3545A
<u>Hazardous Waste Characteristics</u>			
<u>Toxicity Characteristic Leaching Procedure (TCLP)*</u> * Metals and Semi-Volatiles	-----	EPA 1311	EPA 1311



Accredited Laboratory

A2LA has accredited

CONSUMERS ENERGY/LABORATORY SERVICES

Jackson, MI

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 the 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 of September 2022.

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

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1097.04
Valid to July 31, 2024

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