State of Wisconsin
Department of Natural Resources

WISCONSIN
DEPT. OF NATURAL RESOURCES

recognizes

Wisconsin Certification under NR 149

of

Badger Laboratories, Inc.

Laboratory Id: **445023150**

as a laboratory licensed to perform environmental sample analysis in support of covered environmental programs (ch. NR149.02 Note) for the parameter(s) specified in the attached Scope of Accreditation.

August 31, 2021

Expiration Date

August 7, 2020

Issued on

Steven Geis, Chief
Environmental Science Services

Preston D. Cole Secretary
Department of Natural Resources

This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control practices, records, and proficiency of the laboratory have been reviewed and found to satisfy the requirements of ch. NR 149, Wis. Adm. Code.

Scope of Accreditation

Badger Laboratories, Inc.
501 W Bell Street
Neenah, WI 54956-1392

Laboratory Id: **445023150**
Expiration Date: **08/31/21**
Issued Date: **08/07/20**

Wisconsin Certification under NR 149
Matrix: Aqueous (Non-potable Water)

Class: General Chemistry

- Acidity as CaCO3 *by Titration*
- Alkalinity *by Colorimetry*
- Alkalinity *by Titration*
- Ammonia as N *by Colorimetry*
- Biochemical Oxygen Demand (BOD) *by 5-d Assay*
- Carbonaceous Oxygen Demand (cBOD) *by 5-d Assay*
- Chemical Oxygen Demand (COD) *by Colorimetry*
- Chloride *by Colorimetry*
- Chloride *by IC*
- Cyanide, Available *by Colorimetry*
- Cyanide, Total *by Colorimetry*
- Fluoride *by IC*
- HEM [Oil & Grease, Hexane Ext. Material (HEM)] *by Grav-HEM*
- Hardness, Total as CaCO3 *by ICP*
- Hardness, Total as CaCO3 *by ICP-MS*
- Kjeldahl Nitrogen, Total *by Colorimetry*
- Nitrate *by IC*
- Nitrate + Nitrite *by Colorimetry*
- Nitrate + Nitrite *by IC*
- Nitrite *by IC*
- Orthophosphate *by Colorimetry*
- Phenolics, Total *by Colorimetry*
- Phosphorus, Total *by Colorimetry*
- Residue, Filterable (TDS) *by Grav*
- Residue, Nonfilterable (TSS) *by Grav*
- Residue, Total *by Grav*
- Residue, Volatile (TVS) *by Grav*
- Residue, Volatile, Nonfilterable (TVSS) *by Grav*
- SGT-HEM (Silica Gel Treated HEM) *by Grav-HEM*
- Silica *by Colorimetry*
- Sulfate *by Colorimetry*
- Sulfate *by IC*
- Sulfide *by Titration*
- Sulfite *by Titration*
- Surfactants *by Colorimetry*

Class: Metals

- Aluminum *by GFAA*
- Aluminum *by ICP*
- Aluminum *by ICP-MS*
- Antimony *by GFAA*
- Antimony *by ICP*
- Antimony *by ICP-MS*
- Arsenic *by GFAA*
- Arsenic *by ICP*

Class: Metals

- Arsenic *by ICP-MS*
- Barium *by ICP*
- Barium *by ICP-MS*
- Beryllium *by GFAA*
- Beryllium *by ICP*
- Beryllium *by ICP-MS*
- Boron *by ICP*
- Boron *by ICP-MS*
- Cadmium *by GFAA*
- Cadmium *by ICP*
- Cadmium *by ICP-MS*
- Calcium *by ICP*
- Calcium *by ICP-MS*
- Chromium (Hexavalent) *by Colorimetry*
- Chromium (Total) *by GFAA*
- Chromium (Total) *by ICP*
- Chromium (Total) *by ICP-MS*
- Cobalt *by ICP*
- Cobalt *by ICP-MS*
- Copper *by ICP*
- Copper *by ICP-MS*
- Iron *by ICP*
- Iron *by ICP-MS*
- Lead *by GFAA*
- Lead *by ICP*
- Lead *by ICP-MS*
- Lithium *by ICP*
- Magnesium *by ICP*
- Magnesium *by ICP-MS*
- Manganese *by ICP*
- Manganese *by ICP-MS*
- Mercury *by Hyd-CVAA*
- Molybdenum *by ICP*
- Molybdenum *by ICP-MS*
- Nickel *by GFAA*
- Nickel *by ICP*
- Nickel *by ICP-MS*
- Potassium *by ICP*
- Potassium *by ICP-MS*
- Selenium *by GFAA*
- Selenium *by ICP*
- Selenium *by ICP-MS*
- Silicon *by ICP*
- Silver *by GFAA*
- Silver *by ICP*

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Wisconsin Certification under NR 149
Matrix: Aqueous (Non-potable Water)

Class: Metals

- Silver *by ICP-MS*
- Sodium *by ICP*
- Sodium *by ICP-MS*
- Strontium *by ICP*
- Strontium *by ICP-MS*
- Thallium *by ICP*
- Thallium *by ICP-MS*
- Tin *by ICP*
- Tin *by ICP-MS*
- Titanium *by ICP*
- Titanium *by ICP-MS*
- Vanadium *by ICP*
- Vanadium *by ICP-MS*
- Zinc *by ICP*
- Zinc *by ICP-MS*

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Laboratory Id: **445023150**
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Wisconsin Certification under NR 149
Matrix: Drinking Water (Potable Water)

Class: SDWA - Primary Non-metals
- Cyanide - EPA 335.4
- Fluoride - EPA 300.0
- Nitrate + Nitrite - EPA 300.0
- Nitrate - EPA 300.0
- Nitrite - EPA 300.0

Class: SDWA - Primary Metals
- Antimony - EPA 200.8
- Antimony - SM 3113B
- Arsenic - EPA 200.8
- Arsenic - SM 3113B
- Barium - EPA 200.7
- Barium - EPA 200.8
- Beryllium - EPA 200.7
- Beryllium - EPA 200.8
- Beryllium - SM 3113B
- Cadmium - EPA 200.8
- Cadmium - SM 3113B
- Chromium - EPA 200.8
- Chromium - SM 3113B
- Copper - EPA 200.7
- Copper - EPA 200.8
- Lead - EPA 200.8
- Lead - SM 3113B
- Mercury - EPA 200.8
- Mercury - EPA 245.1
- Nickel - EPA 200.8
- Nickel - SM 3113B
- Selenium - EPA 200.8
- Selenium - SM 3113B
- Thallium - EPA 200.8

Class: SDWA - Secondary Non-metals
- Alkalinity - SM 2320B
- Chloride - EPA 300.0
- Orthophosphate - SM 4500-P E
- Sulfate - EPA 300.0
- TDS (Total Dissolved Solids) - SM 2540C
- pH - SM 4500-H+ B

Class: SDWA - Secondary Metals
- Aluminum - EPA 200.7
- Aluminum - EPA 200.8
- Aluminum - SM 3113B
- Calcium - EPA 200.7
- Iron - EPA 200.7
- Magnesium - EPA 200.7

Class: SDWA - Secondary Metals
- Manganese - EPA 200.7
- Manganese - EPA 200.8
- Silver - EPA 200.7
- Silver - EPA 200.8
- Silver - SM 3113B
- Sodium - EPA 200.7
- Zinc - EPA 200.7
- Zinc - EPA 200.8

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Wisconsin Certification under NR 149
Matrix: Solid (Biosolids, Leachates, Soils, Tissues, & Wastes)

Class: General Chemistry

Ammonia as N *by Colorimetry*
Chloride *by Colorimetry*
Chloride *by IC*
Cyanide, Available *by Colorimetry*
Cyanide, Total *by Colorimetry*
Fluoride *by IC*
Kjeldahl Nitrogen, Total *by Colorimetry*
Nitrate *by IC*
Nitrate + Nitrite *by Colorimetry*
Nitrate + Nitrite *by IC*
Nitrite *by IC*
Orthophosphate *by Colorimetry*
Phenolics, Total *by Colorimetry*
Phosphorus, Total *by Colorimetry*
Residue, Total *by Grav*
Sulfate *by Colorimetry*
Sulfate *by IC*
Sulfide *by Titration*

Class: Metals

Aluminum *by GFAA*
Aluminum *by ICP*
Aluminum *by ICP-MS*
Antimony *by GFAA*
Antimony *by ICP*
Antimony *by ICP-MS*
Arsenic *by GFAA*
Arsenic *by ICP*
Arsenic *by ICP-MS*
Barium *by ICP*
Barium *by ICP-MS*
Beryllium *by GFAA*
Beryllium *by ICP*
Beryllium *by ICP-MS*
Boron *by ICP*
Boron *by ICP-MS*
Cadmium *by GFAA*
Cadmium *by ICP*
Cadmium *by ICP-MS*
Calcium *by ICP*
Calcium *by ICP-MS*
Chromium (Total) *by GFAA*
Chromium (Total) *by ICP*
Chromium (Total) *by ICP-MS*
Cobalt *by ICP*
Cobalt *by ICP-MS*

Class: Metals

Copper *by ICP*
Copper *by ICP-MS*
Iron *by ICP*
Iron *by ICP-MS*
Lead *by GFAA*
Lead *by ICP*
Lead *by ICP-MS*
Lithium *by ICP*
Magnesium *by ICP*
Magnesium *by ICP-MS*
Manganese *by ICP*
Manganese *by ICP-MS*
Mercury *by Hyd-CVAA*
Molybdenum *by ICP*
Molybdenum *by ICP-MS*
Nickel *by GFAA*
Nickel *by ICP*
Nickel *by ICP-MS*
Potassium *by ICP*
Potassium *by ICP-MS*
Selenium *by GFAA*
Selenium *by ICP*
Selenium *by ICP-MS*
Silicon *by ICP*
Silver *by GFAA*
Silver *by ICP*
Silver *by ICP-MS*
Sodium *by ICP*
Sodium *by ICP-MS*
Strontium *by ICP*
Strontium *by ICP-MS*
Thallium *by ICP*
Thallium *by ICP-MS*
Tin *by ICP*
Titanium *by ICP*
Titanium *by ICP-MS*
Vanadium *by ICP*
Vanadium *by ICP-MS*
Zinc *by ICP*
Zinc *by ICP-MS*

Class: Waste Characterization Extractions

Reagent Water Shake Extraction (ASTM Leach Test) *by Waste Extractions*
SPLP Extraction *by Waste Extractions*
TCLP Extraction *by Waste Extractions*

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Wisconsin Certification under NR 149
Matrix: Solid (Biosolids, Leachates, Soils, Tissues, & Wastes)

Class: Waste Characterization Assays

Corrosivity, Liquids *by Waste Assays*

Ignitability (Flashpoint), Pensky-Martens Closed Cup *by Waste Assays*

Paint Filters Liquids Test *by Waste Assays*

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