



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Brooks Applied Labs
18804 North Creek Parkway, Suite 100
Bothell, WA 98011

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies.

ADE-1447.02
Certificate Number


ANAB Approval

Certificate Valid: 08/01/2018-03/30/2020
Version No. 003 Issued: 08/01/2018



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Brooks Applied Labs
 18804 North Creek Parkway, Suite 100
 Bothell, WA 98011
 Frank McFarland
 206-632-6206

TESTING

Valid to: **March 30, 2020**

Certificate Number: **ADE-1447.02**

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Elemental Analysis	BAL-5040 In-house versions of: AOAC 2015.01 modified	Food	ISP-MS
Inorganic Arsenic Trivalent Arsenic	BAL-3300 1632A	Food	HGAAS
Pentavalent Arsenic	BAL-3300 1632A	Food	Difference
Total Inorganic Arsenic (TIA) Monomethylarsonic acid (MMA) Dimethylarsinic acid (DMA)	BAL-4101	Food	IC-ICP-MS
Low Level Hg	BAL-3101 1631E (appendix)	Food	CVAFS

Environmental

Non-Potable Water		
Technology	Method	Analyte
ICP-MS	BAL-5000	Aluminum
ICP-MS	BAL-5000	Arsenic
ICP-MS	BAL-5000	Antimony
ICP-MS	BAL-5000	Barium



Non-Potable Water		
Technology	Method	Analyte
ICP-MS	BAL-5000	Beryllium
ICP-MS	BAL-5000	Boron
ICP-MS	BAL-5000	Calcium
ICP-MS	BAL-5000	Cadmium
ICP-MS	BAL-5000	Chromium
ICP-MS	BAL-5000	Cobalt
ICP-MS	BAL-5000	Copper
ICP-MS	BAL-5000	Iron
ICP-MS	BAL-5000	Lead
ICP-MS	BAL-5000	Magnesium
ICP-MS	BAL-5000	Manganese
ICP-MS	BAL-5000	Molybdenum
ICP-MS	BAL-5000	Nickel
ICP-MS	BAL-5000	Selenium
ICP-MS	BAL-5000	Silver
ICP-MS	BAL-5000	Strontium
ICP-MS	BAL-5000	Thallium
ICP-MS	BAL-5000	Tin
ICP-MS	BAL-5000	Tungsten
ICP-MS	BAL-5000	Uranium
ICP-MS	BAL-5000	Vanadium
ICP-MS	BAL-5000	Zinc
ICP-MS	EPA 1638 mod	Aluminum
ICP-MS	EPA 1638 mod	Arsenic
ICP-MS	EPA 1638 mod	Antimony
ICP-MS	EPA 1638 mod	Barium
ICP-MS	EPA 1638 mod	Beryllium
ICP-MS	EPA 1638 mod	Boron
ICP-MS	EPA 1638 mod	Calcium
ICP-MS	EPA 1638 mod	Cadmium
ICP-MS	EPA 1638 mod	Chromium
ICP-MS	EPA 1638 mod	Cobalt
ICP-MS	EPA 1638 mod	Copper
ICP-MS	EPA 1638 mod	Iron
ICP-MS	EPA 1638 mod	Lead
ICP-MS	EPA 1638 mod	Magnesium



Non-Potable Water		
Technology	Method	Analyte
ICP-MS	EPA 1638 mod	Manganese
ICP-MS	EPA 1638 mod	Molybdenum
ICP-MS	EPA 1638 mod	Nickel
ICP-MS	EPA 1638 mod	Selenium
ICP-MS	EPA 1638 mod	Silver
ICP-MS	EPA 1638 mod	Strontium
ICP-MS	EPA 1638 mod	Thallium
ICP-MS	EPA 1638 mod	Tin
ICP-MS	EPA 1638 mod	Tungsten
ICP-MS	EPA 1638 mod	Uranium
ICP-MS	EPA 1638 mod	Vanadium
ICP-MS	EPA 1638 mod	Zinc
ICP-MS	EPA 200.8 mod	Aluminum
ICP-MS	EPA 200.8 mod	Arsenic
ICP-MS	EPA 200.8 mod	Antimony
ICP-MS	EPA 200.8 mod	Barium
ICP-MS	EPA 200.8 mod	Beryllium
ICP-MS	EPA 200.8 mod	Boron
ICP-MS	EPA 200.8 mod	Calcium
ICP-MS	EPA 200.8 mod	Cadmium
ICP-MS	EPA 200.8 mod	Chromium
ICP-MS	EPA 200.8 mod	Cobalt
ICP-MS	EPA 200.8 mod	Copper
ICP-MS	EPA 200.8 mod	Iron
ICP-MS	EPA 200.8 mod	Lead
ICP-MS	EPA 200.8 mod	Magnesium
ICP-MS	EPA 200.8 mod	Manganese
ICP-MS	EPA 200.8 mod	Molybdenum
ICP-MS	EPA 200.8 mod	Nickel
ICP-MS	EPA 200.8 mod	Selenium
ICP-MS	EPA 200.8 mod	Silver
ICP-MS	EPA 200.8 mod	Strontium
ICP-MS	EPA 200.8 mod	Thallium
ICP-MS	EPA 200.8 mod	Tin
ICP-MS	EPA 200.8 mod	Tungsten
ICP-MS	EPA 200.8 mod	Uranium



Non-Potable Water		
Technology	Method	Analyte
ICP-MS	EPA 200.8 mod	Vanadium
ICP-MS	EPA 200.8 mod	Zinc
ICP-MS	EPA 6020 mod	Aluminum
ICP-MS	EPA 6020 mod	Arsenic
ICP-MS	EPA 6020 mod	Antimony
ICP-MS	EPA 6020 mod	Barium
ICP-MS	EPA 6020 mod	Beryllium
ICP-MS	EPA 6020 mod	Boron
ICP-MS	EPA 6020 mod	Calcium
ICP-MS	EPA 6020 mod	Cadmium
ICP-MS	EPA 6020 mod	Chromium
ICP-MS	EPA 6020 mod	Cobalt
ICP-MS	EPA 6020 mod	Copper
ICP-MS	EPA 6020 mod	Iron
ICP-MS	EPA 6020 mod	Lead
ICP-MS	EPA 6020 mod	Magnesium
ICP-MS	EPA 6020 mod	Manganese
ICP-MS	EPA 6020 mod	Molybdenum
ICP-MS	EPA 6020 mod	Nickel
ICP-MS	EPA 6020 mod	Selenium
ICP-MS	EPA 6020 mod	Silver
ICP-MS	EPA 6020 mod	Strontium
ICP-MS	EPA 6020 mod	Thallium
ICP-MS	EPA 6020 mod	Tin
ICP-MS	EPA 6020 mod	Tungsten
ICP-MS	EPA 6020 mod	Uranium
ICP-MS	EPA 6020 mod	Vanadium
ICP-MS	EPA 6020 mod	Zinc
IC-ICP-MS	BAL-4100	Trivalent Arsenic
IC-ICP-MS	BAL-4100	Pentavalent Arsenic
IC-ICP-MS	BAL-4100	Monomethylarsonic acid (MMA)
IC-ICP-MS	BAL-4100	Dimethylarsinic acid (DMA)
IC-ICP-MS	BAL-4200	Selenite Se(IV)
IC-ICP-MS	BAL-4200	Selenate Se(VI)
IC-ICP-MS	BAL-4200	Selenocynate SeCN
IC-ICP-MS	BAL-4201	Selenite Se(IV)



Non-Potable Water		
Technology	Method	Analyte
IC-ICP-MS	BAL-4201	Selenate Se(VI)
IC-ICP-MS	BAL-4201	Selenocynate SeCN
IC-ICP-MS	BAL-4201	Selenomethionine SeMet
IC-ICP-MS	BAL-4300	Hexavalent Chromium Cr(VI)
HGAAS	EPA 1632A	Inorganic Arsenic
HGAAS	EPA 1632A	Trivalent Arsenic
HGAAS	BAL-3300	Inorganic Arsenic
HGAAS	BAL-3300	Trivalent Arsenic
Difference	EPA 1632A	Pentavalent Arsenic
Difference	BAL-3300	Pentavalent Arsenic
CVAFS	EPA 1631E	Low-Level Mercury
CVAFS	BAL-3100	Low-Level Mercury
CVAFS	EPA 1630	Methyl Mercury
CVAFS	BAL-3200	Methyl Mercury
Colorimetric	SM 3500-Fe B mod	Total Iron Fe
Colorimetric	SM 3500-Fe B mod	Ferrous Iron Fe(II)
Colorimetric	BAL-4500	Total Iron Fe
Colorimetric	BAL-4500	Ferrous Iron Fe(II)
By Calculation	SM 2340 B (20 th Ed.)	Hardness
Gravimetric	SM 2540 D (20 th Ed.)	Total Suspended Solids
Gravimetric	EPA 160.2	Total Suspended Solids

Seawater		
Technology	Method	Analyte
ICP-MS	EPA 1640 mod	Arsenic
ICP-MS	EPA 1640 mod	Beryllium
ICP-MS	EPA 1640 mod	Cadmium
ICP-MS	EPA 1640 mod	Chromium
ICP-MS	EPA 1640 mod	Cobalt
ICP-MS	EPA 1640 mod	Copper
ICP-MS	EPA 1640 mod	Iron
ICP-MS	EPA 1640 mod	Lead
ICP-MS	EPA 1640 mod	Manganese
ICP-MS	EPA 1640 mod	Nickel
ICP-MS	EPA 1640 mod	Selenium



Seawater		
Technology	Method	Analyte
ICP-MS	EPA 1640 mod	Silver
ICP-MS	EPA 1640 mod	Thallium
ICP-MS	EPA 1640 mod	Vanadium
ICP-MS	EPA 1640 mod	Zinc

Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	BAL-5000	Aluminum
ICP-MS	BAL-5000	Arsenic
ICP-MS	BAL-5000	Antimony
ICP-MS	BAL-5000	Barium
ICP-MS	BAL-5000	Beryllium
ICP-MS	BAL-5000	Boron
ICP-MS	BAL-5000	Calcium
ICP-MS	BAL-5000	Cadmium
ICP-MS	BAL-5000	Chromium
ICP-MS	BAL-5000	Cobalt
ICP-MS	BAL-5000	Copper
ICP-MS	BAL-5000	Iron
ICP-MS	BAL-5000	Lead
ICP-MS	BAL-5000	Magnesium
ICP-MS	BAL-5000	Manganese
ICP-MS	BAL-5000	Molybdenum
ICP-MS	BAL-5000	Nickel
ICP-MS	BAL-5000	Potassium
ICP-MS	BAL-5000	Selenium
ICP-MS	BAL-5000	Silver
ICP-MS	BAL-5000	Sodium
ICP-MS	BAL-5000	Strontium
ICP-MS	BAL-5000	Thallium
ICP-MS	BAL-5000	Tin
ICP-MS	BAL-5000	Vanadium
ICP-MS	BAL-5000	Zinc
ICP-MS	EPA 1638 mod	Aluminum



Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	EPA 1638 mod	Arsenic
ICP-MS	EPA 1638 mod	Antimony
ICP-MS	EPA 1638 mod	Barium
ICP-MS	EPA 1638 mod	Beryllium
ICP-MS	EPA 1638 mod	Boron
ICP-MS	EPA 1638 mod	Calcium
ICP-MS	EPA 1638 mod	Cadmium
ICP-MS	EPA 1638 mod	Chromium
ICP-MS	EPA 1638 mod	Cobalt
ICP-MS	EPA 1638 mod	Copper
ICP-MS	EPA 1638 mod	Iron
ICP-MS	EPA 1638 mod	Lead
ICP-MS	EPA 1638 mod	Magnesium
ICP-MS	EPA 1638 mod	Manganese
ICP-MS	EPA 1638 mod	Molybdenum
ICP-MS	EPA 1638 mod	Nickel
ICP-MS	EPA 1638 mod	Potassium
ICP-MS	EPA 1638 mod	Selenium
ICP-MS	EPA 1638 mod	Silver
ICP-MS	EPA 1638 mod	Sodium
ICP-MS	EPA 1638 mod	Strontium
ICP-MS	EPA 1638 mod	Thallium
ICP-MS	EPA 1638 mod	Tin
ICP-MS	EPA 1638 mod	Vanadium
ICP-MS	EPA 1638 mod	Zinc
ICP-MS	EPA 200.8 mod	Aluminum
ICP-MS	EPA 200.8 mod	Arsenic
ICP-MS	EPA 200.8 mod	Antimony
ICP-MS	EPA 200.8 mod	Barium
ICP-MS	EPA 200.8 mod	Beryllium
ICP-MS	EPA 200.8 mod	Boron
ICP-MS	EPA 200.8 mod	Calcium
ICP-MS	EPA 200.8 mod	Cadmium
ICP-MS	EPA 200.8 mod	Chromium
ICP-MS	EPA 200.8 mod	Cobalt
ICP-MS	EPA 200.8 mod	Copper



Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	EPA 200.8 mod	Iron
ICP-MS	EPA 200.8 mod	Lead
ICP-MS	EPA 200.8 mod	Magnesium
ICP-MS	EPA 200.8 mod	Manganese
ICP-MS	EPA 200.8 mod	Molybdenum
ICP-MS	EPA 200.8 mod	Nickel
ICP-MS	EPA 200.8 mod	Potassium
ICP-MS	EPA 200.8 mod	Selenium
ICP-MS	EPA 200.8 mod	Silver
ICP-MS	EPA 200.8 mod	Sodium
ICP-MS	EPA 200.8 mod	Strontium
ICP-MS	EPA 200.8 mod	Thallium
ICP-MS	EPA 200.8 mod	Tin
ICP-MS	EPA 200.8 mod	Vanadium
ICP-MS	EPA 200.8 mod	Zinc
ICP-MS	EPA 6020 mod	Aluminum
ICP-MS	EPA 6020 mod	Arsenic
ICP-MS	EPA 6020 mod	Antimony
ICP-MS	EPA 6020 mod	Barium
ICP-MS	EPA 6020 mod	Beryllium
ICP-MS	EPA 6020 mod	Boron
ICP-MS	EPA 6020 mod	Calcium
ICP-MS	EPA 6020 mod	Cadmium
ICP-MS	EPA 6020 mod	Chromium
ICP-MS	EPA 6020 mod	Cobalt
ICP-MS	EPA 6020 mod	Copper
ICP-MS	EPA 6020 mod	Iron
ICP-MS	EPA 6020 mod	Lead
ICP-MS	EPA 6020 mod	Magnesium
ICP-MS	EPA 6020 mod	Manganese
ICP-MS	EPA 6020 mod	Molybdenum
ICP-MS	EPA 6020 mod	Nickel
ICP-MS	EPA 6020 mod	Potassium
ICP-MS	EPA 6020 mod	Selenium
ICP-MS	EPA 6020 mod	Silver
ICP-MS	EPA 6020 mod	Sodium



Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	EPA 6020 mod	Strontium
ICP-MS	EPA 6020 mod	Thallium
ICP-MS	EPA 6020 mod	Tin
ICP-MS	EPA 6020 mod	Vanadium
ICP-MS	EPA 6020 mod	Zinc
IC-ICP-MS	BAL-4300	Hexavalent Chromium Cr(VI)
HGAAS	EPA 1632A	Inorganic Arsenic
HGAAS	EPA 1632A	Trivalent Arsenic
HGAAS	BAL-3300	Inorganic Arsenic
HGAAS	BAL-3300	Trivalent Arsenic
Difference	EPA 1632A	Pentavalent Arsenic
Difference	BAL-3300	Pentavalent Arsenic
CVAFS	EPA 1631E (appendix)	Low-Level Mercury
CVAFS	BAL-3101	Low-Level Mercury
CVAFS	EPA 1630 mod	Methyl Mercury
CVAFS	BAL-3200	Methyl Mercury
Gravimetric	SM 2540 G (20 th Ed.)	Dry Weight
Gravimetric	EPA 160.3	Dry Weight
Preparation	Method	Type
Alkaline Digestion	EPA 3060A	Extraction of Hexavalent Chromium
Alkaline Digestion	BAL-4310	Extraction of Hexavalent Chromium

Biological Tissue		
Technology	Method	Analyte
ICP-MS	BAL-5000	Aluminum
ICP-MS	BAL-5000	Arsenic
ICP-MS	BAL-5000	Antimony
ICP-MS	BAL-5000	Barium
ICP-MS	BAL-5000	Beryllium
ICP-MS	BAL-5000	Boron
ICP-MS	BAL-5000	Calcium
ICP-MS	BAL-5000	Cadmium
ICP-MS	BAL-5000	Chromium
ICP-MS	BAL-5000	Cobalt
ICP-MS	BAL-5000	Copper

Biological Tissue		
Technology	Method	Analyte
ICP-MS	BAL-5000	Iron
ICP-MS	BAL-5000	Lead
ICP-MS	BAL-5000	Magnesium
ICP-MS	BAL-5000	Manganese
ICP-MS	BAL-5000	Molybdenum
ICP-MS	BAL-5000	Nickel
ICP-MS	BAL-5000	Selenium
ICP-MS	BAL-5000	Silver
ICP-MS	BAL-5000	Strontium
ICP-MS	BAL-5000	Thallium
ICP-MS	BAL-5000	Tin
ICP-MS	BAL-5000	Vanadium
ICP-MS	BAL-5000	Zinc
ICP-MS	EPA 1638 mod	Aluminum
ICP-MS	EPA 1638 mod	Arsenic
ICP-MS	EPA 1638 mod	Antimony
ICP-MS	EPA 1638 mod	Barium
ICP-MS	EPA 1638 mod	Beryllium
ICP-MS	EPA 1638 mod	Boron
ICP-MS	EPA 1638 mod	Calcium
ICP-MS	EPA 1638 mod	Cadmium
ICP-MS	EPA 1638 mod	Chromium
ICP-MS	EPA 1638 mod	Cobalt
ICP-MS	EPA 1638 mod	Copper
ICP-MS	EPA 1638 mod	Iron
ICP-MS	EPA 1638 mod	Lead
ICP-MS	EPA 1638 mod	Magnesium
ICP-MS	EPA 1638 mod	Manganese
ICP-MS	EPA 1638 mod	Molybdenum
ICP-MS	EPA 1638 mod	Nickel
ICP-MS	EPA 1638 mod	Selenium
ICP-MS	EPA 1638 mod	Silver
ICP-MS	EPA 1638 mod	Strontium
ICP-MS	EPA 1638 mod	Thallium
ICP-MS	EPA 1638 mod	Tin
ICP-MS	EPA 1638 mod	Vanadium



Biological Tissue		
Technology	Method	Analyte
ICP-MS	EPA 1638 mod	Zinc
ICP-MS	EPA 200.8 mod	Aluminum
ICP-MS	EPA 200.8 mod	Arsenic
ICP-MS	EPA 200.8 mod	Antimony
ICP-MS	EPA 200.8 mod	Barium
ICP-MS	EPA 200.8 mod	Beryllium
ICP-MS	EPA 200.8 mod	Boron
ICP-MS	EPA 200.8 mod	Calcium
ICP-MS	EPA 200.8 mod	Cadmium
ICP-MS	EPA 200.8 mod	Chromium
ICP-MS	EPA 200.8 mod	Cobalt
ICP-MS	EPA 200.8 mod	Copper
ICP-MS	EPA 200.8 mod	Iron
ICP-MS	EPA 200.8 mod	Lead
ICP-MS	EPA 200.8 mod	Magnesium
ICP-MS	EPA 200.8 mod	Manganese
ICP-MS	EPA 200.8 mod	Molybdenum
ICP-MS	EPA 200.8 mod	Nickel
ICP-MS	EPA 200.8 mod	Selenium
ICP-MS	EPA 200.8 mod	Silver
ICP-MS	EPA 200.8 mod	Strontium
ICP-MS	EPA 200.8 mod	Thallium
ICP-MS	EPA 200.8 mod	Tin
ICP-MS	EPA 200.8 mod	Vanadium
ICP-MS	EPA 200.8 mod	Zinc
ICP-MS	EPA 6020 mod	Aluminum
ICP-MS	EPA 6020 mod	Arsenic
ICP-MS	EPA 6020 mod	Antimony
ICP-MS	EPA 6020 mod	Barium
ICP-MS	EPA 6020 mod	Beryllium
ICP-MS	EPA 6020 mod	Boron
ICP-MS	EPA 6020 mod	Calcium
ICP-MS	EPA 6020 mod	Cadmium
ICP-MS	EPA 6020 mod	Chromium
ICP-MS	EPA 6020 mod	Cobalt
ICP-MS	EPA 6020 mod	Copper

Biological Tissue		
Technology	Method	Analyte
ICP-MS	EPA 6020 mod	Iron
ICP-MS	EPA 6020 mod	Lead
ICP-MS	EPA 6020 mod	Magnesium
ICP-MS	EPA 6020 mod	Manganese
ICP-MS	EPA 6020 mod	Molybdenum
ICP-MS	EPA 6020 mod	Nickel
ICP-MS	EPA 6020 mod	Selenium
ICP-MS	EPA 6020 mod	Silver
ICP-MS	EPA 6020 mod	Strontium
ICP-MS	EPA 6020 mod	Thallium
ICP-MS	EPA 6020 mod	Tin
ICP-MS	EPA 6020 mod	Vanadium
ICP-MS	EPA 6020 mod	Zinc
IC-ICP-MS	BAL-4100	Trivalent Arsenic
IC-ICP-MS	BAL-4100	Pentavalent Arsenic
IC-ICP-MS	BAL-4191	Arsenobetaine (AsB)
HGAAS	EPA 1632A	Inorganic Arsenic
HGAAS	EPA 1632A	Trivalent Arsenic
HGAAS	EPA 1632A	Monomethylarsonic acid (MMA)
HGAAS	EPA 1632A	Dimethylarsinic acid (DMA)
HGAAS	BAL-3300	Inorganic Arsenic
HGAAS	BAL-3300	Trivalent Arsenic
Difference	EPA 1632A	Pentavalent Arsenic
Difference	BAL-3300	Pentavalent Arsenic
CVAFS	EPA 1631E (appendix)	Low-Level Mercury
CVAFS	BAL-3101	Low-Level Mercury
CVAFS	EPA 1630 mod	Methyl Mercury
CVAFS	BAL-3200	Methyl Mercury
Gravimetric	SM 2540 G (20 th Ed.)	Dry Weight
Gravimetric	EPA 160.3	Dry Weight

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. ADE-1447.02



Vice President