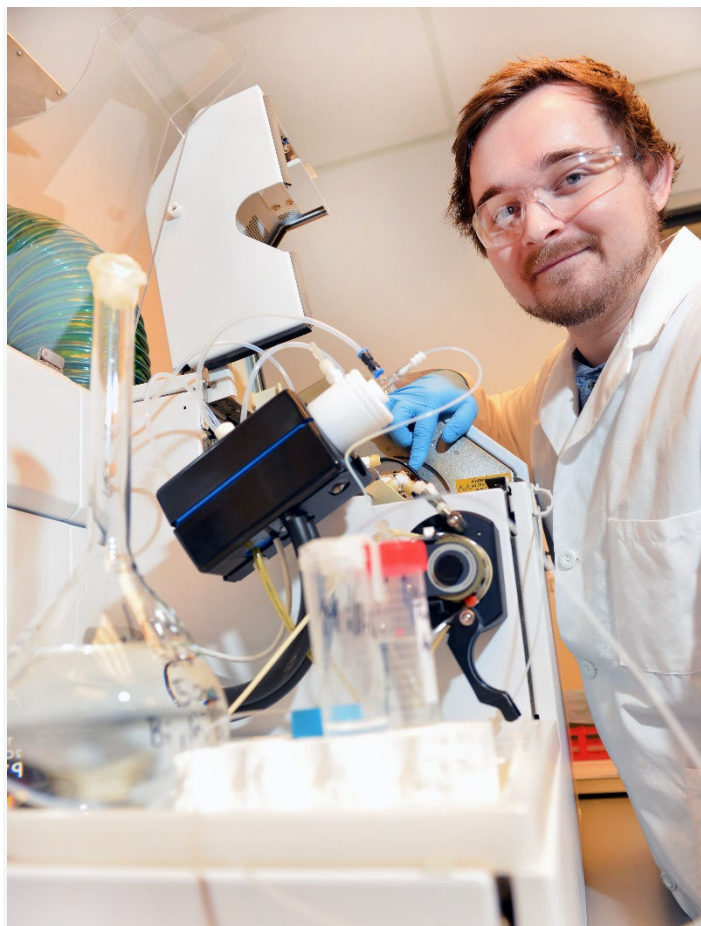
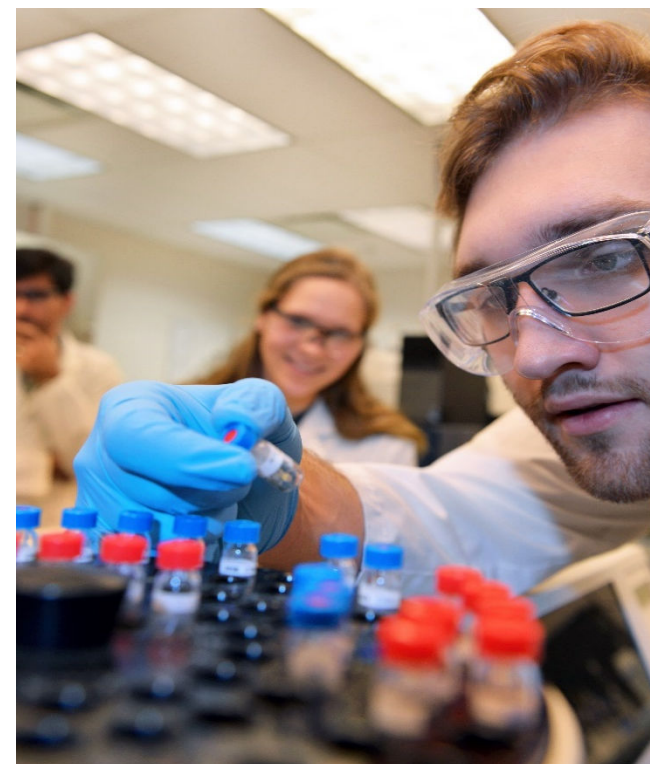


Lab Services in the North for the North

UNBC UNIVERSITY OF
NORTHERN BRITISH COLUMBIA
Northern Analytical Laboratory Services

Northern Analytical Laboratory Services

Northern BC's Environment & Climate Solutions Innovation Hub



Standards Council of
Canada Accredited Lab*
ISO/IEC 17025:2017
*Our scope of accreditation
is listed on our website.

Northern Analytical Lab Services

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The University of Northern British Columbia is **home to an extensive suite of analytical science instrumentation** that enables a broad spectrum of chemical, physical, and biological analyses.

UNBC has made these services available to researchers as well as private, public, and non-profit sectors to help meet their research, development, and quality assurance needs through the **Northern Analytical Laboratory Service (NALS)**.

Water and Wastewater

Elemental Analysis

Metals suite, including total phosphorous

Microbiological Examination

Total Coliforms & E-coli

Fecal Coliforms

Heterotrophic Plate Count (HPC)

Physical and Aggregate Properties

Color, Odor, Alkalinity, Turbidity, Hardness

TDS, TSS, EC, ORP, LSI, UV Transmittance

Inorganic Constituents

Anions (F, Cl, Br, SO₄, PO₄, NO₂, NO₃)

Ammonium-N, Total-N, sTKN, Organic-N

TIC, pH, Total and Free Chlorine, Dissolved CO₂

Aggregate Organic Constituents

COD, BOD₅, CBOD₅, TOC, Oil and Grease

Individual Organic Compounds

Chlorophyll(a), Total C and N in Organic Liquids

SVOCs and VOCs, BTEX, PAHs, EPH

Solid Phase Micro Extraction (SPME); GC-MS/MS

Unknown Organics Analysis

Soils, Minerals, Solids

Elemental Analysis

Metals suite, including total phosphorous

Inorganics and General Chemistry

Anions, Available Ammonium-N, pH, EC

Total C/N/S, Inorganic C, Carbon-13, Nitrogen-15

Ash, Sulphated Ash, Moisture, Effective CEC

Sodium Adsorption Ratio, Carbonate Equivalency

Mehlich-3 Extractable Metals

Toxicity Characteristic Leaching Procedure (TCLP)

Mechanical Sieving, Milling, Grinding

Freeze Drying, High-speed Centrifugation

Organics

Non-volatile Organic Carbon

Organic Matter, Loss on Ignition

SVOCs and VOCs, BTEX, PAHs

Unknown Volatiles Analysis

Pyrolysis and Bio-char synthesis

Materials Characterization

Particle Size Distribution, Bulk Density

Specific Gravity, Water Holding Capacity

HHV, Proximate (Fixed C + Volatile Matter + Ash)

Thermal Analysis (TGA, DSC, DMA)

Surface Area, Physisorption, Chemisorption (BET)

Mineral, Chemical, Morphological, and Molecular Analysis (FTIR, XRD, XRF, SEM)

Industrial Hygiene & Gas Testing

Elemental Analysis

Metals Analysis (NIOSH 7303 or NIOSH 7304) on various media (e.g., MCE, Quartz fiber, PTFE)

Other Analyses

Gravimetric Analysis (Media: DIS, IOM, DRS, MCE, PVC)

Hexavalent and Trivalent Chromium (Media: DIS)

BTEX (Media: Sorbent Tubes)

Ambient Air and Gas Testing

SVOCs and VOCs

Unknowns Analysis

Syngas suite (H₂, CO₂, CO, CH₄, Ethane, Propane, NO₂, SO₂, H₂S, N₂, O₂/Ar)

Analytical Equipment

ICP-OES; ICP-MS; ICP-QQQ; LA-ICP-MS; IR-MS
Ion Chromatography; Elemental Analyzer (C/N/S)

Total Organic and Inorganic Carbon Analyzer

Colony Counter and Optical Microscope

Particle Size Analyzer, Auto-analyzer

GC-FID; GC-MS/MS; Gas analyzer

Block and Microwave Digesters

pH, EC, DO, CO₂, and Ammonia Meters

XRD, XRF, SEM, FTIR, BET

TGA, DSC, DMA