



UNIVERSITY OF
ALBERTA

The *SWAMP* Laboratory



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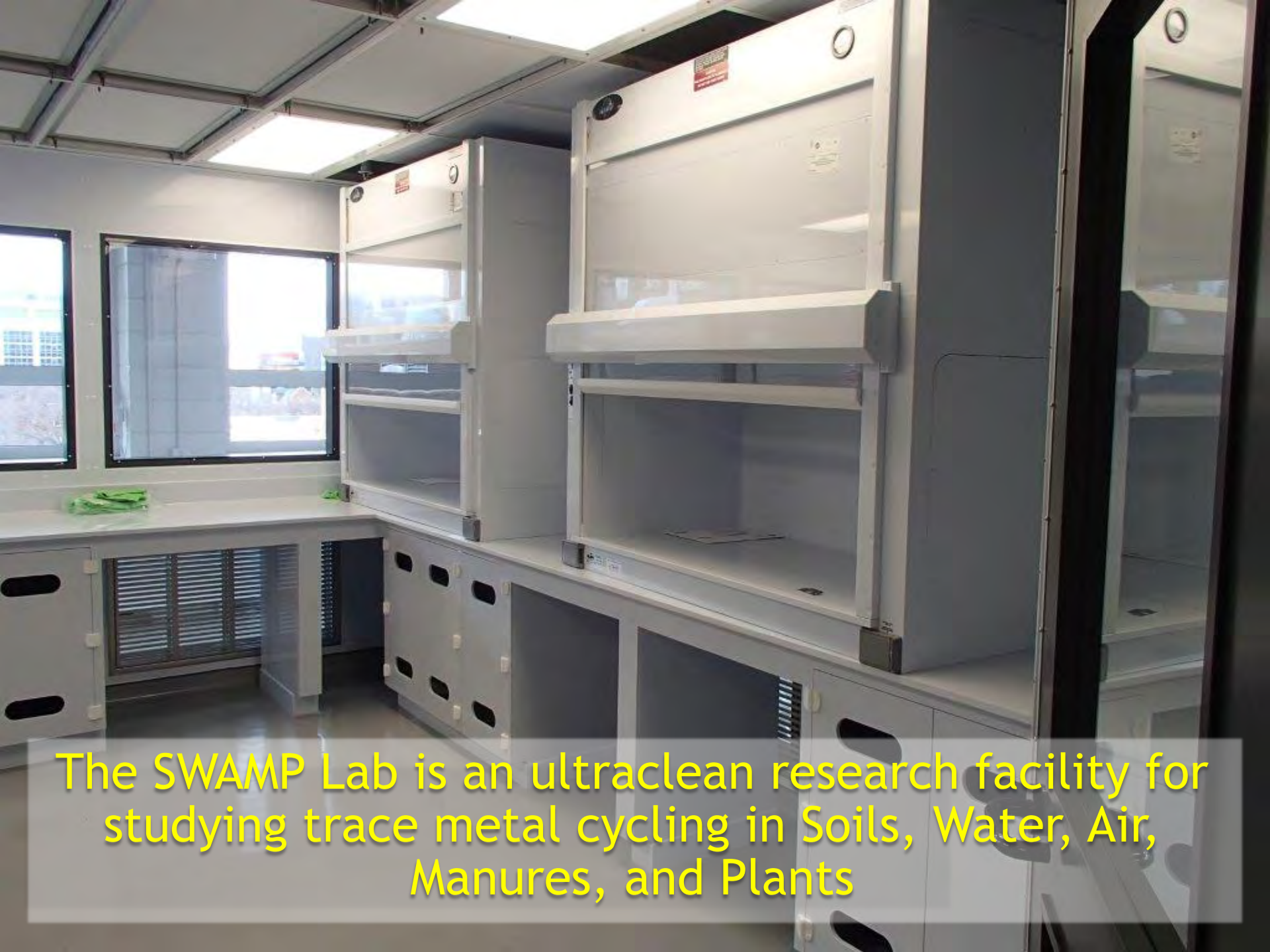
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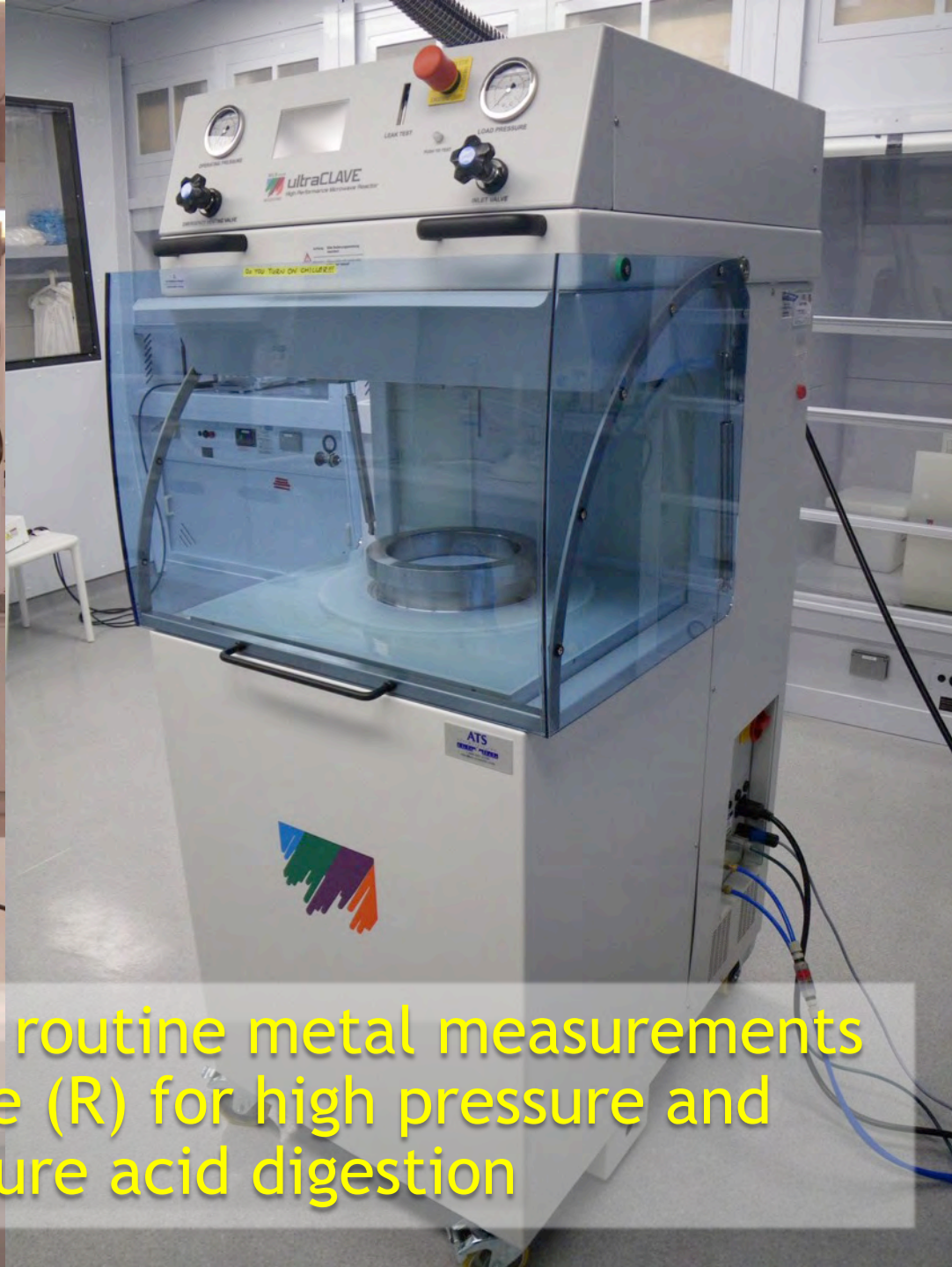
A “swamp” is a forested wetland and precious ecosystem at the interface between the atmosphere, lithosphere, and hydrosphere



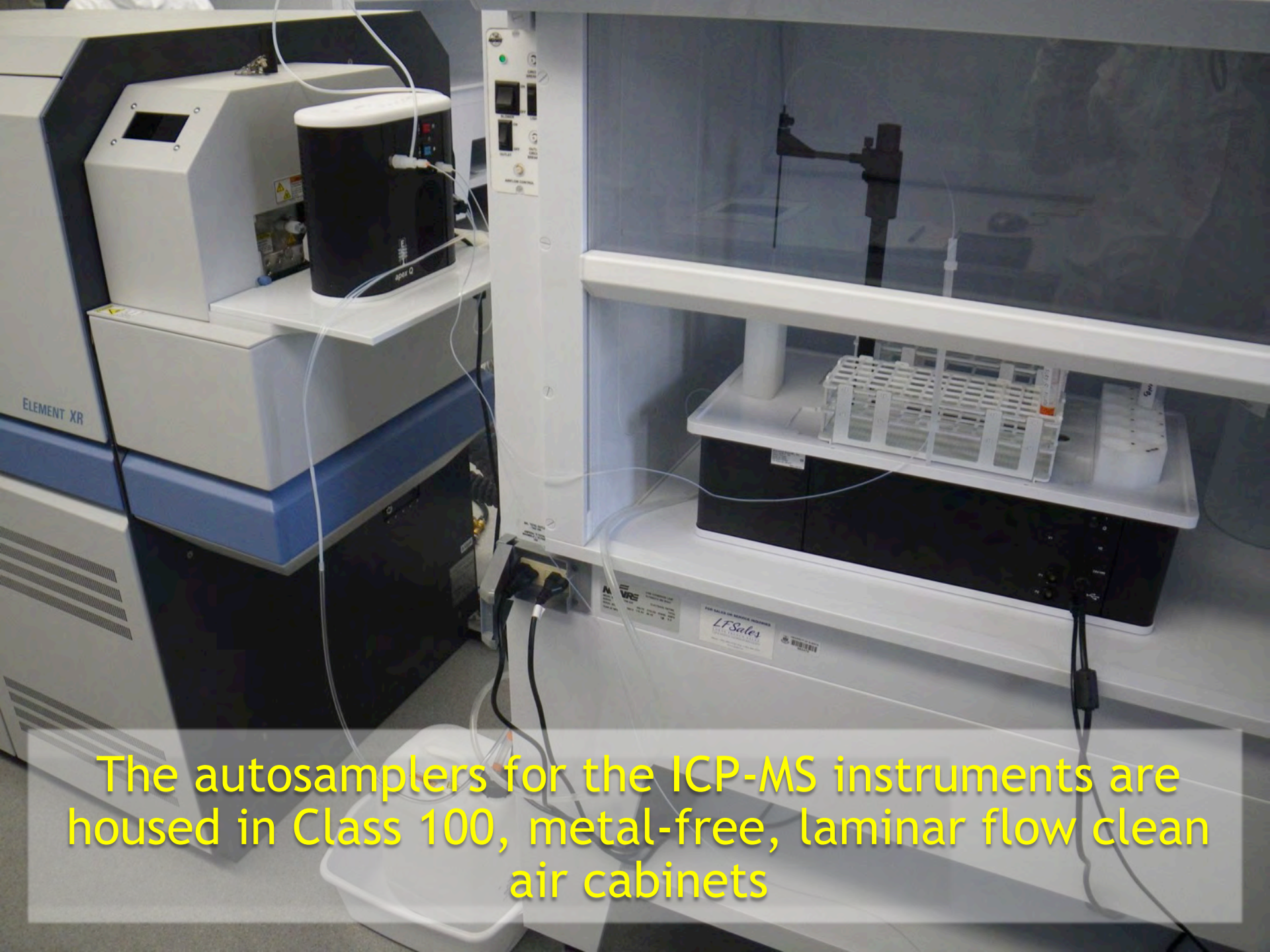
The SWAMP Lab is an ultraclean research facility for studying trace metal cycling in Soils, Water, Air, Manures, and Plants



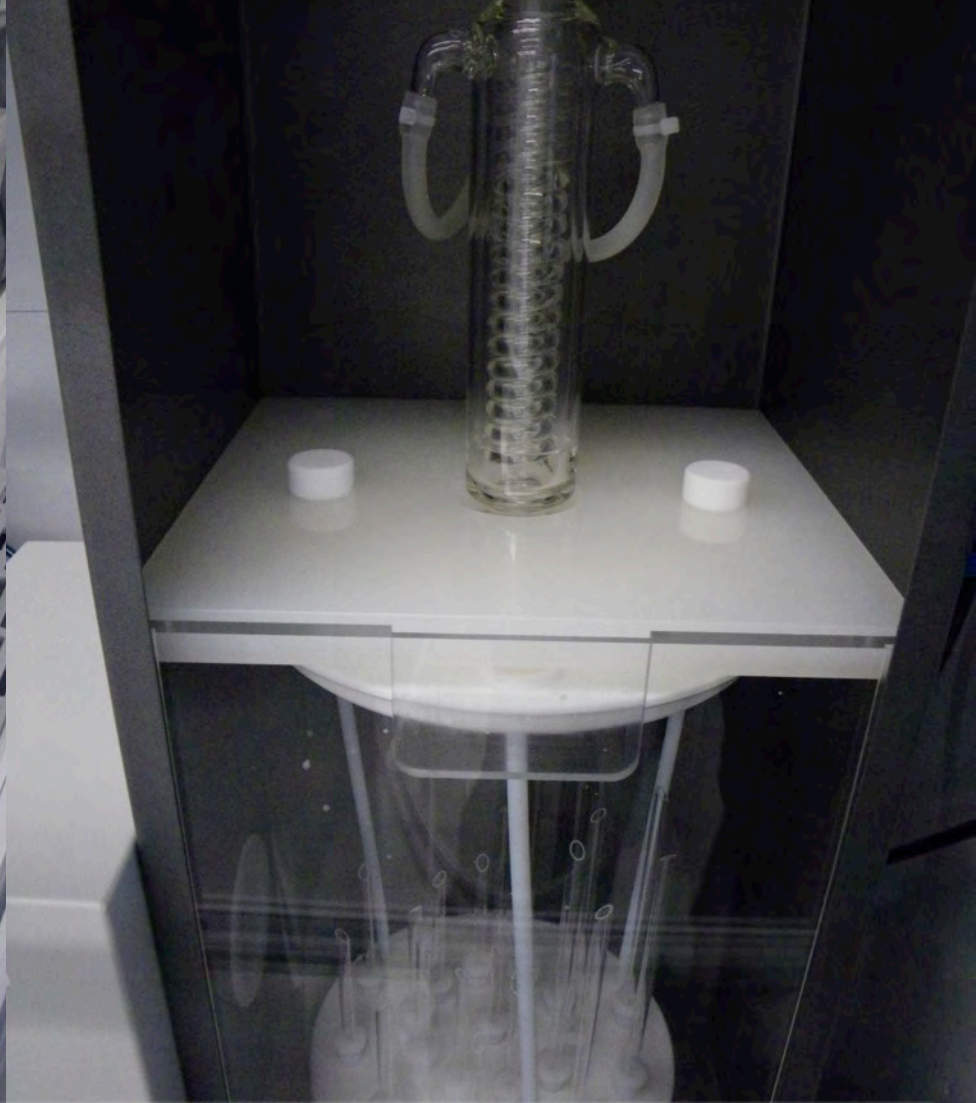
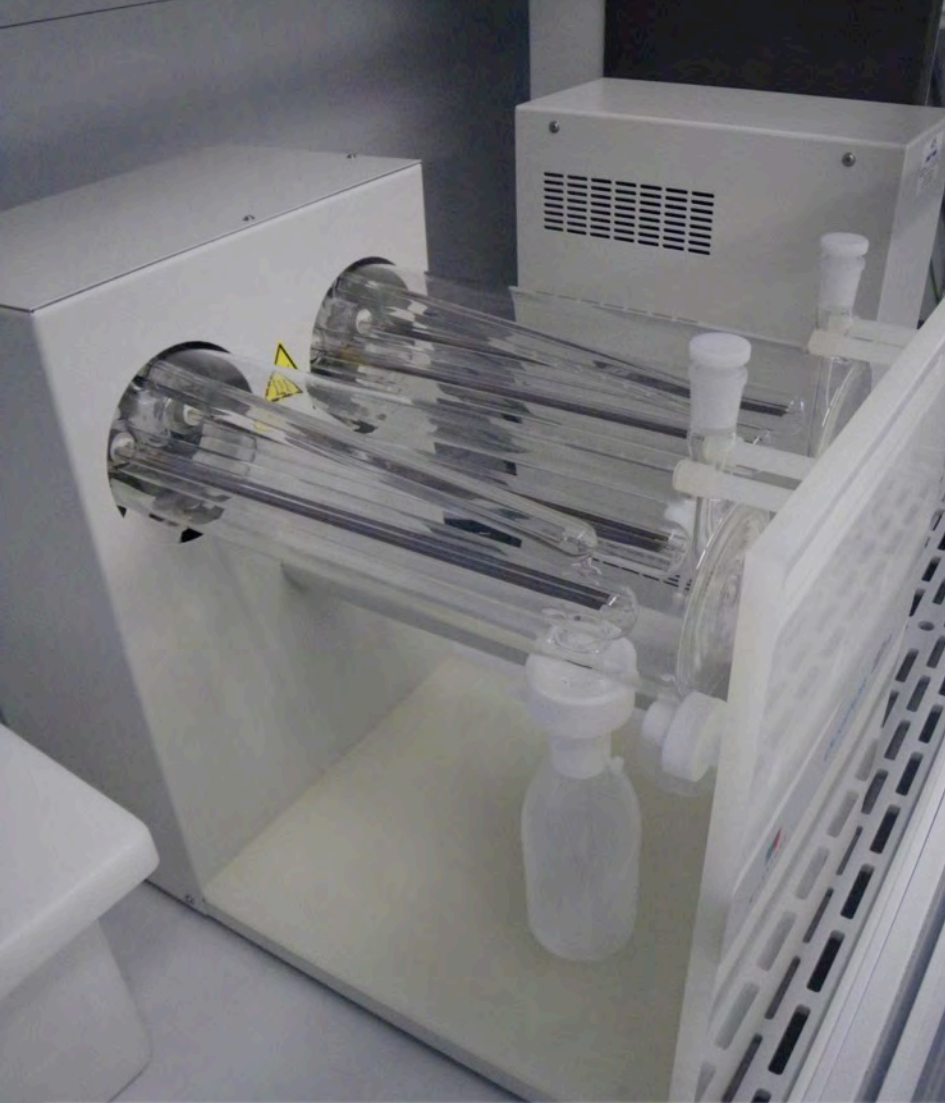
Element 2 XR sector-field ICP-MS for ultralow metal concentrations and stable Pb isotope ratios



ICAP-Q ICP-MS (L) for routine metal measurements
and MLS Ultraclave (R) for high pressure and
temperature acid digestion



The autosamplers for the ICP-MS instruments are housed in Class 100, metal-free, laminar flow clean air cabinets



MLS Duopur quartz (L) still for acid distillation
and Trace Clean (R) for acid cleaning of
plasticware



MilliQ water with dispenser in Class 100,
metal-free, laminar flow, clean air cabinet



Postnova Field Flow Fractionation



Postnova G-SPLITT



ULTRALOW
BACKGROUND
GAMMA
SPECTROMETRY LAB





ORTEC
ultralow background gamma
spectrometers



FIELD VEHICLES





Dodge HD 2500 diesel pickup with 24 ft trailer



Can Am 850 quads with Apache snowtracks (great for peat bogs!)

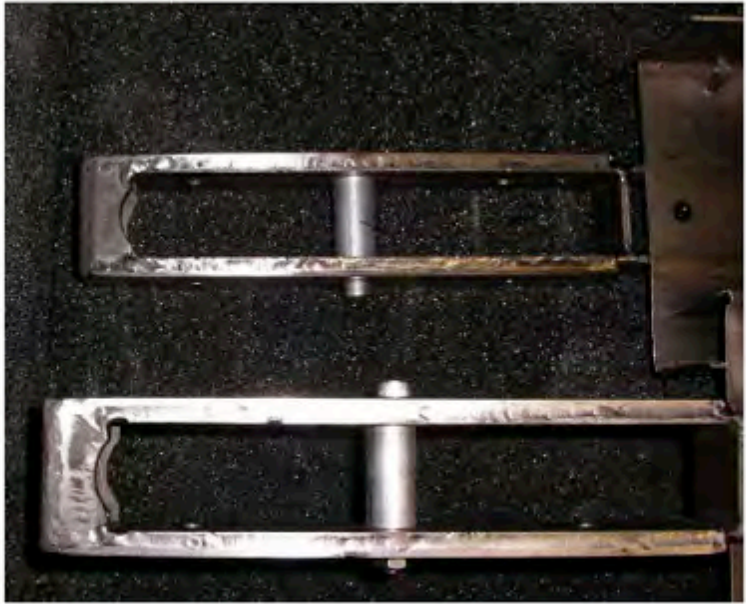
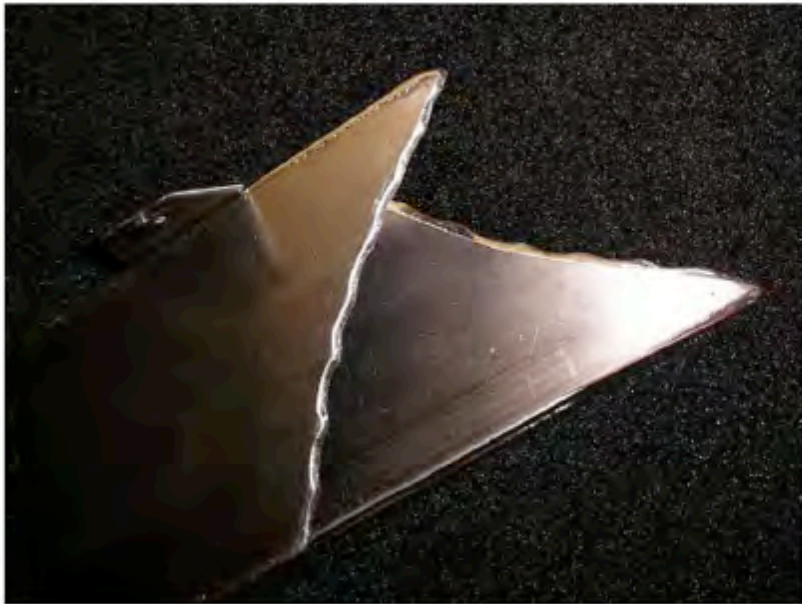




The Water Strider!

PEAT CORING EQUIPEMENT





Modified Wardeaar peat
monolith corer, titanium



Corer, frozen peat

Coring rock and sediment under peat

PREP ROOMS, STORAGE, WORKSHOP





Peat core cutting table and band saw



Retsch centrifugal ball mill
(agate jars and balls)



Retsch titanium
ultracentrifugal mill



MLS Pyro microwave asher

WORKSHOP





Lathe (Schaublin, Switzerland)



Milling machine (Aciera, Switzerland)



Grinder (KEF, Denmark)



Band saw (Ukendt, Taiwan)



Drill presses (Clou, Denmark)

PEAT SAMPLE STORAGE





Rolling cabinets for
storing dried samples

ACKNOWLEDGEMENTS





**Government
of Alberta** 

INNOVATION.CA

CANADA FOUNDATION
FOR INNOVATION

FONDATION CANADIENNE
POUR L'INNOVATION

AB Innovation and Advanced Education



UNIVERSITY OF ALBERTA
FACULTY OF AGRICULTURAL,
LIFE & ENVIRONMENTAL SCIENCES

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If you need to access the lab, you must first contact either
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