

## **Abigail Hughes**

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### **Staff Geochemist**

#### **Expertise**

Geochemistry, Stable Water Isotope Analysis

#### **Education**

Ph.D. (Geology), 2021  
University of Colorado Boulder, Boulder, Colorado, USA  
  
B.S. (Chemistry, Applied Mathematics), 2015  
Ohio Northern University, Ada, Ohio, USA

#### **Honors**

NSF Graduate Research Fellowship Program (2015)

#### **Professional Experience**

*2021 – Present*

*Itasca Denver, Inc., Lakewood, Colorado  
Staff Geochemist*

*2015 – 2021*

*University of Colorado Boulder, Stable Isotope Laboratory, Boulder, Colorado  
Graduate Research Assistant*

#### **Project Experience**

*Analysis of stable water isotopes in Greenland ice cores:* Collected and analyzed water isotope data from two Greenland ice cores. Work included three field seasons in northeast Greenland to drill and recover ice core samples. Resulting water isotope data were used to study polar climate dating back 50,000 years.

*Quantifying water isotope evolution at the snow surface:* Completed experimental work to characterize evolution processes occurring at the snow surface over short timescales and how this process influences the water isotope signal recorded in ice cores. Data were used to develop a numerical model to describe water isotope evolution.