



# Innovations to advance improved GHG monitoring & storage

## Field Research Station

**An initiative of CMC Research Institutes in partnership with the University of Calgary**

*Researching ways to verify secure storage of carbon dioxide and detect fugitive emissions of methane into the atmosphere.*

Testing at the Field Research Station (FRS) is generating state-of-the-art technologies for use in the global effort to reduce greenhouse gas emissions. By developing technologies to ensure the secure, long-term storage of carbon dioxide and detect methane emissions we provide solutions to create a low carbon, clean energy future.

### **Collaboration will move us farther, faster.**

At our Field Research Station, we work with five industry partners, stakeholders from nine countries, and researchers from 13 post-secondary institutes. We've supported and assisted 38 small to medium enterprises and helped train 205 highly qualified personnel. There is strength in numbers and these networks of experts will more rapidly advance the development low carbon innovations and support policy and regulations to accelerate commercialization and export.

[www.cmcghg.com/cami](http://www.cmcghg.com/cami)

# \$8M

capital invested by  
government & industry

# 200 ha

lease land in  
Newell County

# 23

processes or products  
facilitated or  
demonstrated for clients

## Carbon Capture and Storage Monitoring



CO<sub>2</sub> storage tank and condenser tower

Climate models suggest we cannot keep temperature increases under 2°C without the wide-scale implementation of Carbon Capture and Storage (CCS) operations. At the Field Research Station, we partner with researchers, industry and small businesses from around the world to develop technologies that accurately track CO<sub>2</sub> stored underground. This research will inform best practices in CCS monitoring technologies and help assure government, industry and the public that operators know stored CO<sub>2</sub> is stable and will not leak back into the atmosphere.

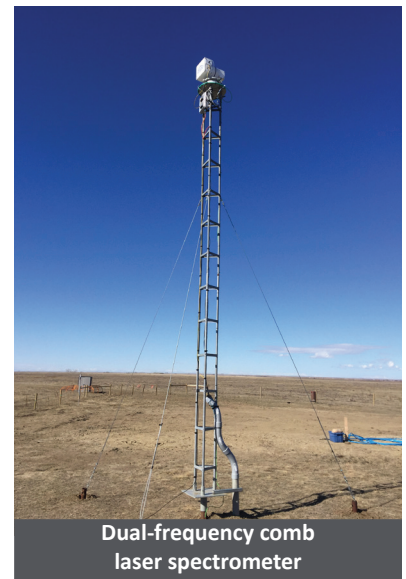
We're also a training ground for young researchers who learn by collaborating on leading-edge research to solve complex storage challenges. Graduate students, postdocs and undergraduates benefit from exposure to the world's foremost experts and come away with a deep understanding of best practices for accurate CO<sub>2</sub> monitoring.

## Methane Monitoring and Detection

Governments around the world are implementing tougher methane emissions standards, creating a need for new technologies that accurately and cost-effectively detect and measure methane released into the atmosphere. CMC Research Institutes is accelerating the development of new innovations through the launch of a monitoring and detection facility at the Field Research Station.

Our facility provides companies and researchers a place to field-test new technologies. On site are:

- Dual-frequency comb laser spectrometer
- Picarro cavity ring-down spectrometer
- Optical gas imaging camera
- Controlled methane gas releases - and more!



Dual-frequency comb laser spectrometer

### FRS SPONSORS AND SUPPORTERS: