



# **Geoscience field training for Nunavut Students: a collaboration between CNGO and Dalhousie University**

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CANADA-NUNAVUT  
GEOSCIENCE OFFICE

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**DALHOUSIE  
UNIVERSITY**

*Inspiring Minds*



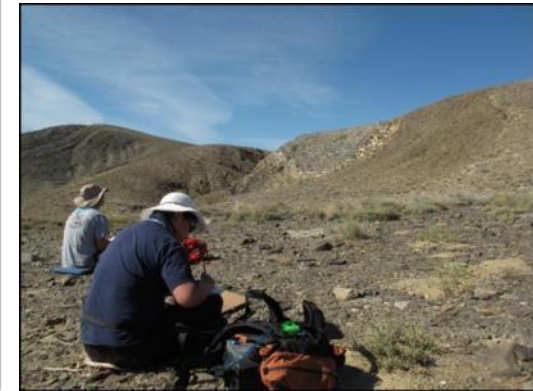
# Training Program Goal

- Facilitate employment opportunities in the geosciences
- Encourage students to pursue post-secondary education

**Chart 5**  
Top Challenges in Attracting Aboriginal Workers  
(per cent of businesses surveyed; n=151)



Source: The Conference Board of Canada.



# Pilot Training Program



CNGO and Dalhousie University piloted a collaborative geoscience training program for Nunavut Students focused on hands-on training.

- **Step 1:** Student Selection and classroom learning
- **Step 2:** Field School with Dalhousie University (California/Nevada)
- **Step 3:** Employed as summer field assistants with the CNGO
- **Step 4:** Conducted semi-independent geologic mapping project

# Student Selection and Classroom Learning



- Students selected from the Nunavut Arctic College ETP program. Successful students – *Patricia Peyton and Candice Sudlovenick.*



- Classroom Learning at the CNGO
  - Learn rock and mineral identification
  - Learn to take structural measurements
  - Recognize and record folds and faults

# Dalhousie Field School



- Dalhousie course for 3<sup>rd</sup> and 4<sup>th</sup> year students
- Every May in California; mobile field camp
- 21 Dalhousie students, 2 professors, 3 teaching assistants, 1 camp manager



## ***Northern Student component***

- Two week customized curriculum
- Integration with senior university students
- One-on-one instruction
- Access to exceptional learning laboratory
- Test themselves against university students

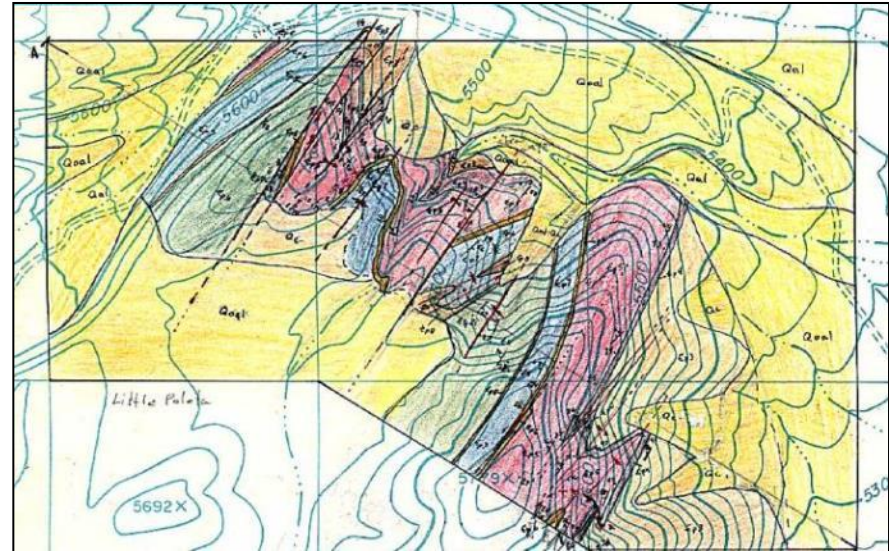


# Dalhousie Field School



## ***Customized Curriculum***

- Rock and mineral identification
- General field techniques (notes, traversing)
- Mapping and cross section (understanding 3D nature of geology)



## ***Camp Life***

- Fully integrated with university students (camp chores, campfire, cultural sharing)
- Develop a sense of community and responsibility



# Summer Job with the CNGO



- Hall Peninsula Integrated Geoscience Project
- 20-25 person field camp:
  - University/Nunavut Arctic College students
  - University professors
  - Camp Cook and assistants
  - CNGO staff
  - Helicopter pilots



# Summer Job with the CNGO



## *Health and Safety Training*

- ATV safety training
- Helicopter safety training
- Predator defense gun shot training
- Wilderness First Aid





# Summer Job with the CNGO



Classroom and field school training provided important framework for summer job.

## ***As field assistants:***

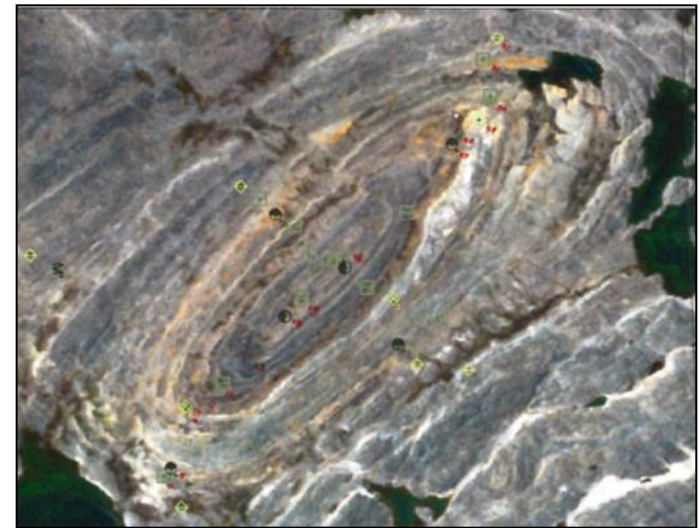
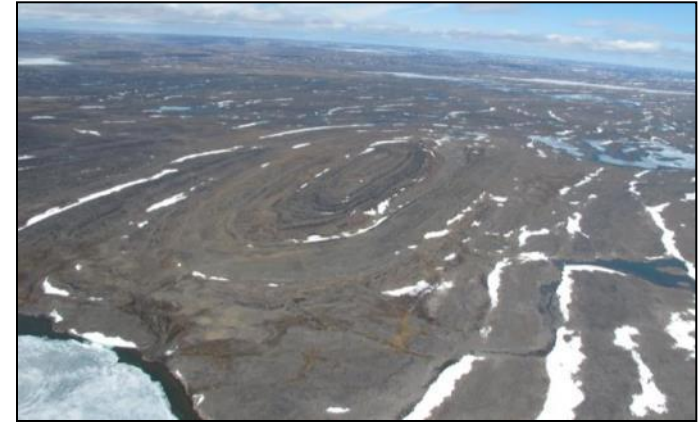
- Traversing out on the land
- Collecting samples of rocks
- Make geological structure measurements
- Gathering data on hand held computers
- Rock talk at the end of each day
- Learn from more experienced geologists



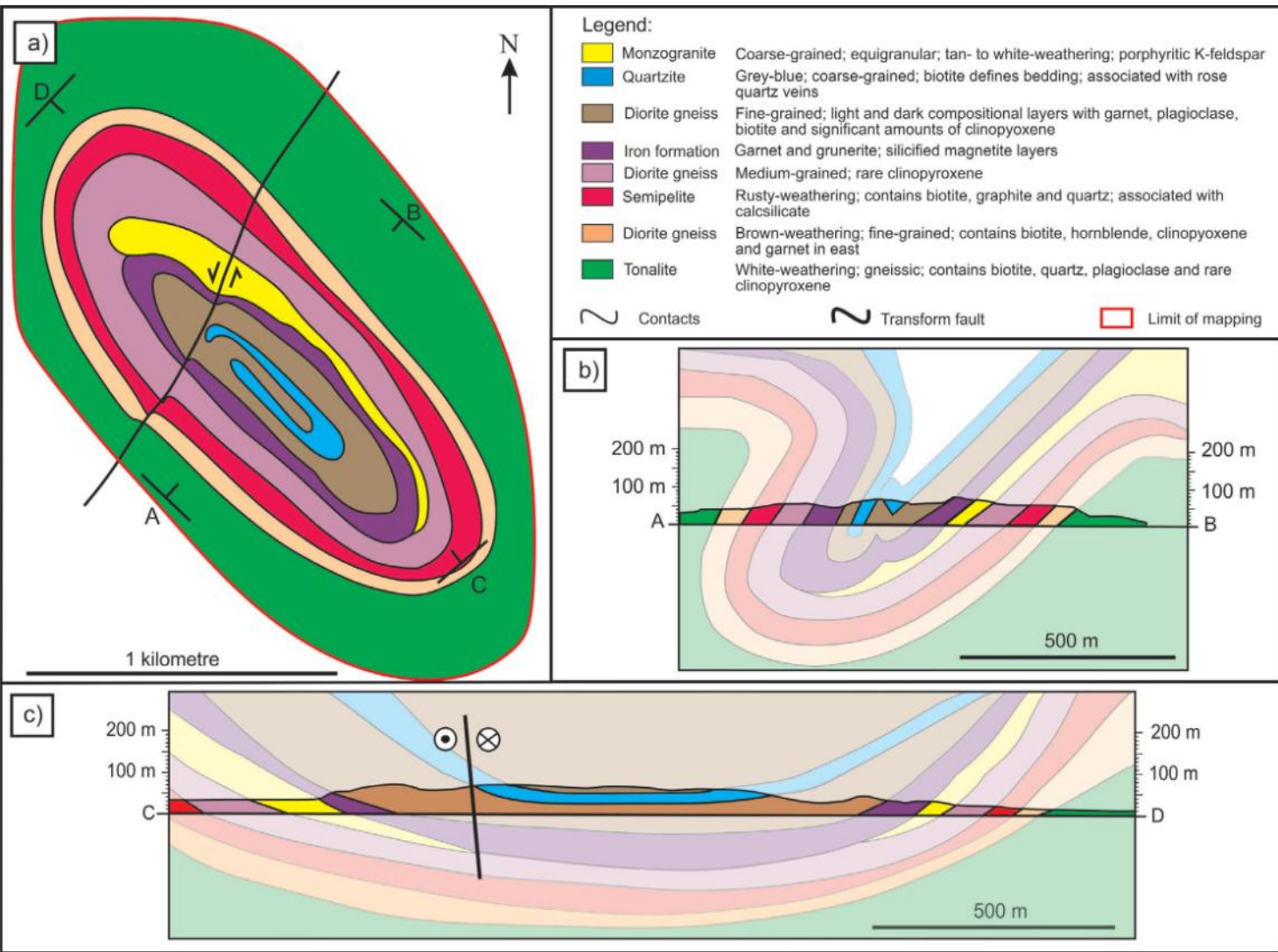
# Creating a Geological Map



- Use aerial photos and satellite imagery
- Made predictions prior to going to the field
- Collected field notes
- Recorded observations on a map including rock types and contacts
- Made a geological map and cross-section



# Creating a Geological Map






# For More Information

CANADA-NUNAVUT GEOSCIENCE OFFICE Summary of Activities 2013

The Canada-Nunavut Geoscience Office conducts new geoscience mapping and research, supports geoscience-capacity building, disseminates geoscience information and develops collaborative geoscience partnerships for Nunavut.

Summary of Activities  
2013

[www.cngo.ca](http://www.cngo.ca)

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# 2014 Program Plan

## *2014 Plan*

- 4 Arctic College students identified
- 3 geoscience and 1 camp cook
- Classroom activities planned
- Field school - May 17 to May 31; White Mountains and Death Valley
- 1-2 positions for geoscience students with the CNGO
- Looking for camp cook summer employment opportunity – eg. 1984 Inc.





# Challenges and Opportunities

- **Limited Capacity**
  - Intensive, long duration training; not high volume, high turnover.
  - Maximum of 5-6 each year at Dalhousie Field School
  - Employment opportunities to continue training in summer
  - Cost
- **Funding**
  - Expensive but worth it
  - Looking for partners
- **Engage northerners to pursue university degree programs**
  - The interaction with university students is an essential component
  - Allows them to gauge their development against university students
  - Often, northerners have a much better natural sense of landscape
- **Develop links with industry partners**
  - Employment opportunities
  - Funding

# Partners



Natural Resources Canada – GEM 2

- Seed money to support training program

Developing links with Government of Nunavut

Fostering relationships with industry

- Employment opportunities
- Long-term stability for training program
- Provide input on program design

# Questions?

