

# Out of the office, a brief overview of CREWES field acquisition

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## ABSTRACT

CREWES is proud to have access to an ever expanding collection of commercial grade seismic and survey equipment. Most of the CREWES staff are eager to take acquisition ideas out of the office and test them in the field. It is also very beneficial for students to witness how the equipment is used to acquire data and some of the challenges that exist with acquisition. In 2014 CREWES has completed the following acquisition projects: a) a video inspection of the original observation well at the Rothney Astrophysical Observatory near Priddis, Alberta; b) an introduction of the seismic recording system and source to the new students of CREWES; c) a 3C 3D survey at a CO<sub>2</sub> injection test site near Brooks, Alberta; d) the 2014 GOPH549 undergraduate Field School project at the Castle Mountain Ski Resort in Alberta; e) a broadband 3C survey with VSP and a geophone coupling experiment at the Rothney Astrophysical Observatory site.

## Visual Inspection of Testhole

The integrity of the original testhole at Priddis had been called into question. In order to determine if the casing was still good a down hole inspection camera was used to visual inspect the entire well.

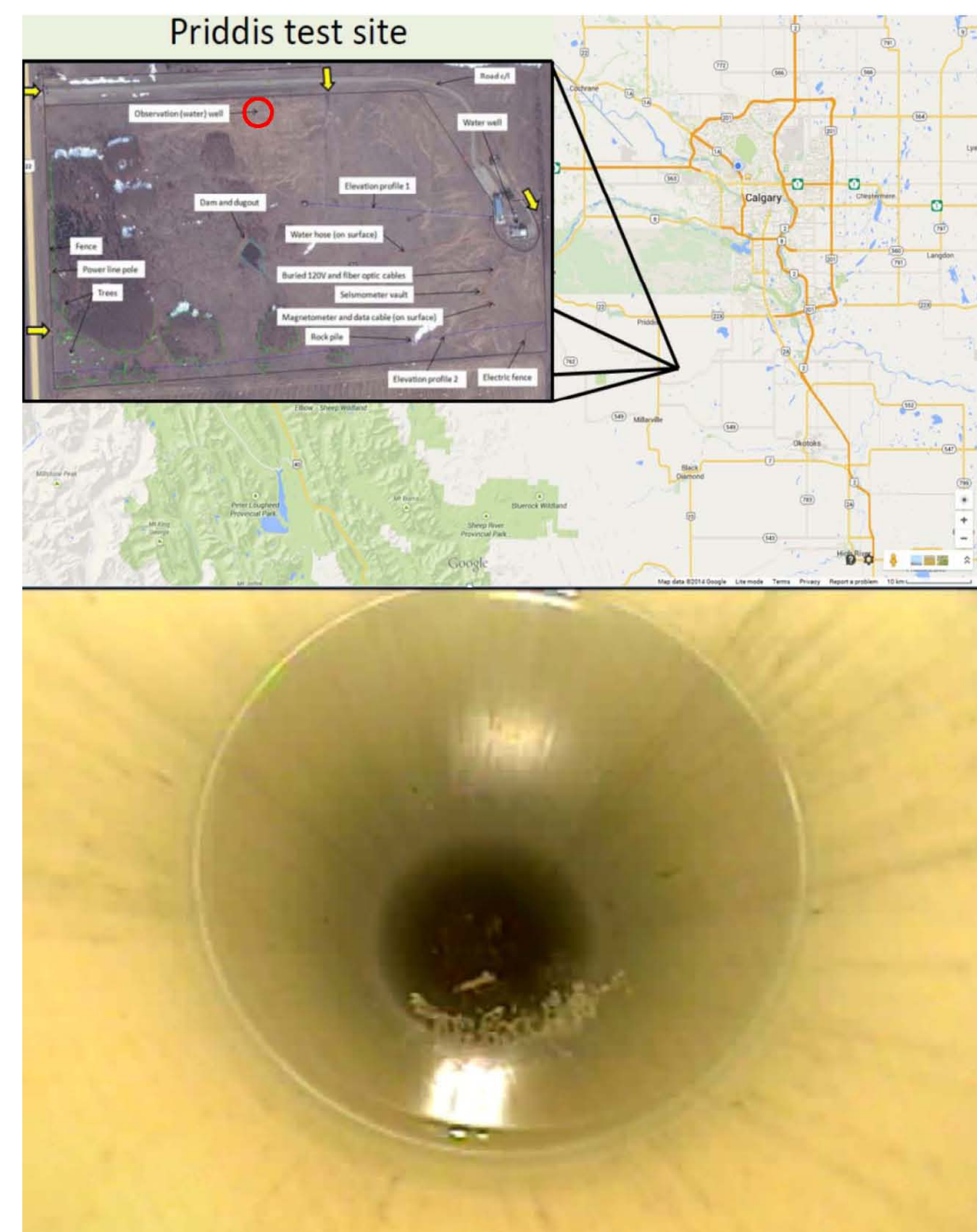


FIG. 1. The camera's light being reflected by the surface of the water in original test hole, location shown above.

## CMC Test Site Near Brooks, Alberta

Carbon Management Canada now has access to a new test site for injection and monitoring. A baseline 3C survey was done early 2014.



FIG. 2. Some of the equipment being used at the Brooks test site.

## Demonstrating Equipment to Students

CREWES has a large number of students and those that complete their education and move into the work force are replaced by new graduates. It is important to CREWES that the students are aware of the capabilities of carrying out real world acquisition experiments. For this reason it has become a yearly routine to introduce the new students to some of the equipment that CREWES has access to. This "mini field school" lasts one day and has the students lay out a small 2D spread and use the Envirovibe as a source simply as a demonstration of how basic seismic data is recorded.



FIG. 3. Students learning how data is acquired.

## Field School

For the past several years CREWES has aided the Geoscience Department at the University of Calgary to run its geophysical field school by providing equipment, people, and experience.



FIG. 4. Students running the acquisition survey.



FIG. 5. Students running the GPS.

## Priddis Broadband Survey

At the end of October and beginning of November a broadband survey was completed at the Priddis test site.



FIG. 6. Students and staff working in the field at Priddis.

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