

Field school 2022, exposing the geoscientists of tomorrow to field acquisition methods

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INTRODUCTION

Geophysics field school in 2022 took place from Friday August 18th through to Thursday August 25th. First all the students were taken through a safety orientation upon arriving. Each day in the field was a full day of laying out the equipment, acquiring data, and then packing the equipment up again.

The first full day of field school started with a focus on the vertical seismic profile of the observation well. Both three component geophones and fibre optic cable, for distributed acoustic sensing, are permanently installed around the casing of this well. The afternoon was then spent laying out the equipment for the reflection seismic.

The second day in the field concentrated on reflection seismic. The students were broken up into groups with one group finishing the layout and gathering the GPS location of each geophone while the other group was operating the instruments and acquiring data.

Day three saw the students that had done layout the day before running the instruments and acquiring data. Those students who were not involved with acquiring data started layout of the refraction equipment. Refraction acquisition and data interpretation took place the rest of the day.

Day four finished off the refraction survey and then layout of the electrical resistivity tomography equipment was performed.

Day five was the last day of field data acquisition. The ERT survey was completed and all acquisition equipment was packed up for transport back to Calgary.

Day six was a classroom day where the students finished their written assignments and organized the data they collected.

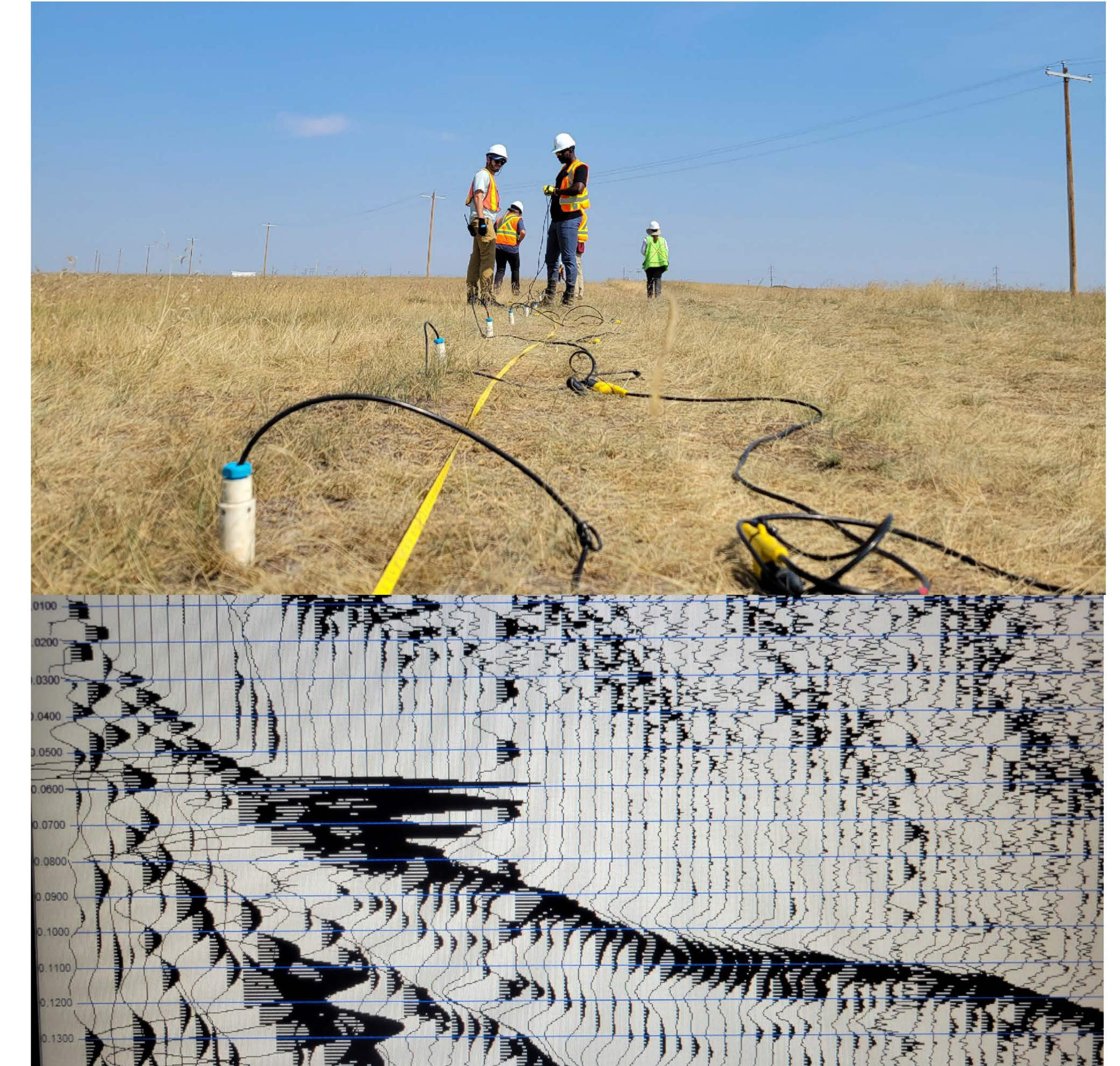
On the final day the students had their final exam in the morning. Everyone returned to Calgary that afternoon.



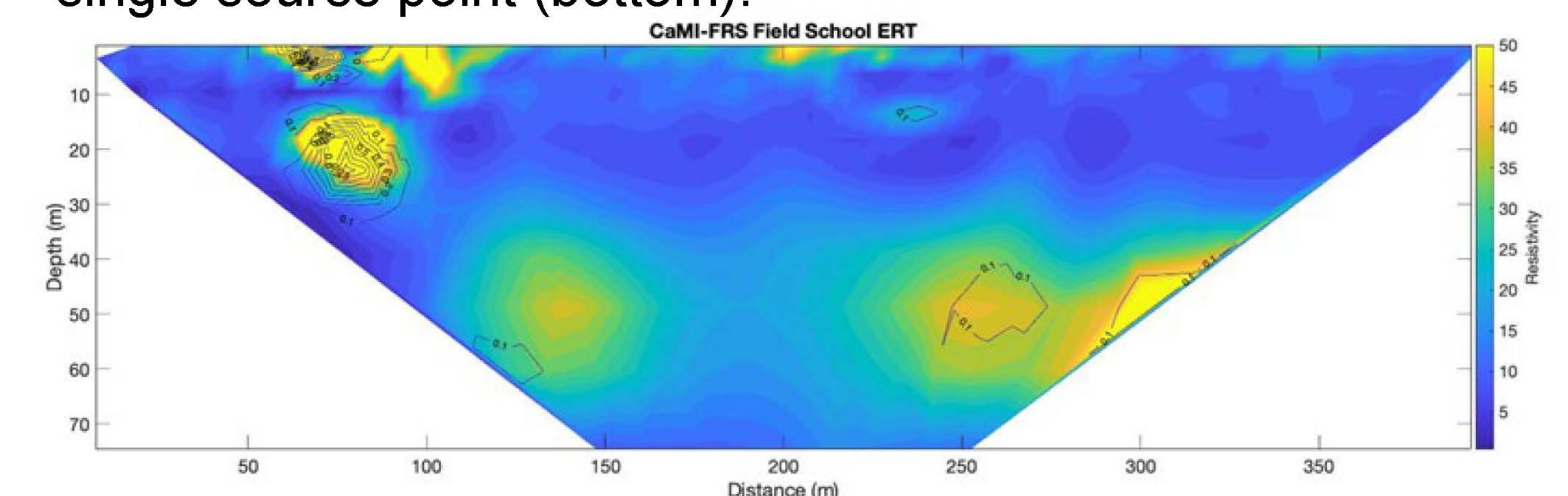
A morning safety briefing by the head of the observation well.



Aries 3C Ram (top silver box) and line tap used for collecting reflection seismic.



The refraction line on the ground (top) and a record from a single source point (bottom).

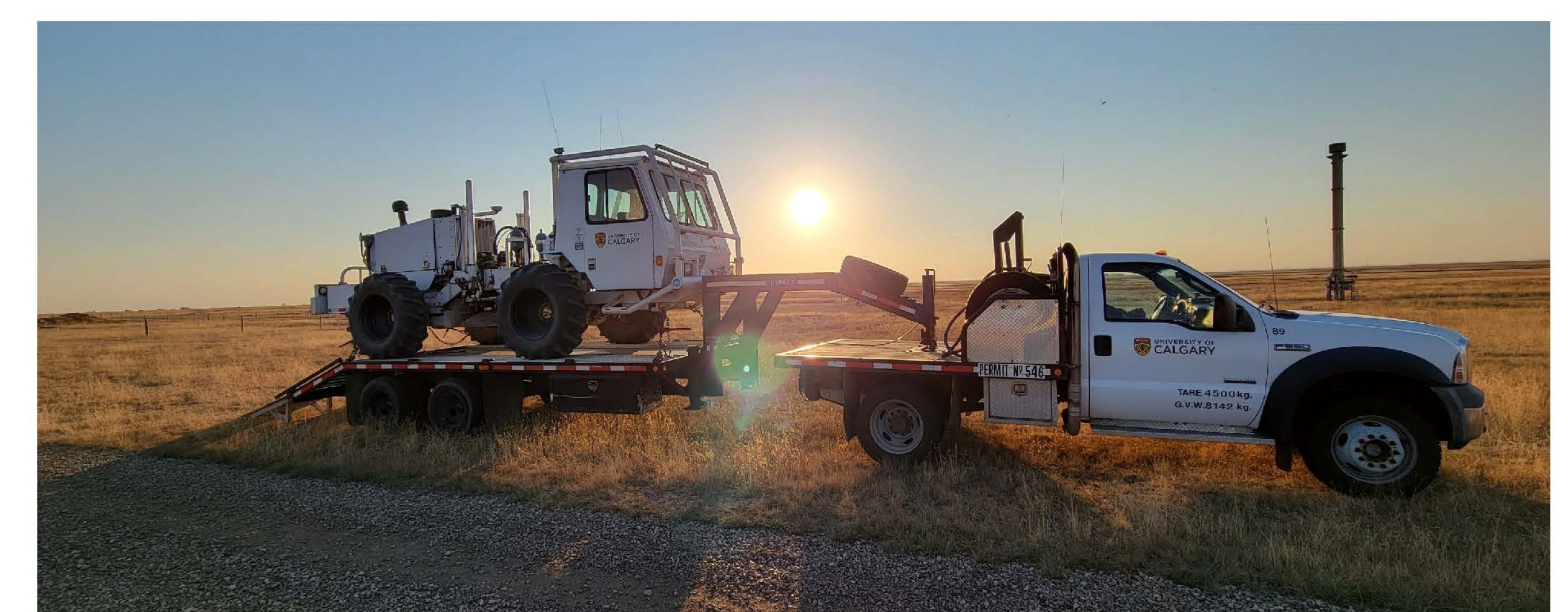


Results from the ERT survey carried out by the students.

ACKNOWLEDGEMENTS

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Students and staff at the 2022 field school posing with the vibroseis source.



A student discussing the results of a single source point reflection record. First breaks, air blast, and a reflection can be seen in the rightmost section on the record taped to the door.