



Activity Information

Deep Crustal Reflection Seismic Survey

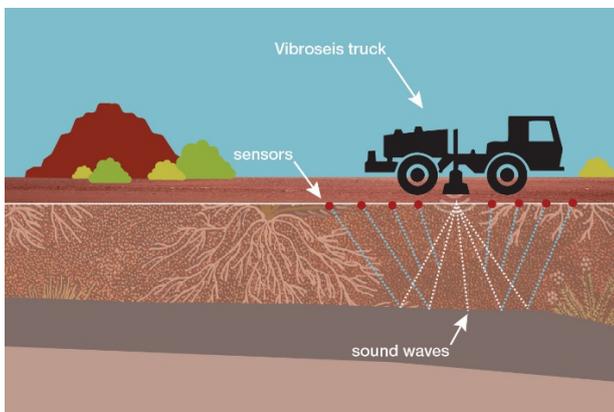
Geoscience Australia is planning a deep crustal reflection seismic survey in South Australia, New South Wales and Victoria as part of the Exploring for the Future program.

Why do we want to collect this data?

Reflection seismic data are used to map the geology and structure of the Earth. The data will be used to learn more about how the southeastern Australian crust evolved throughout geological time. The data will also be assessed with an emphasis on mapping potential groundwater resources and locating potential new mineral reserves, and may be used to assess energy potential.

How do we collect the data?

A reflection seismic survey is carried out using Vibroseis trucks. The trucks are fitted with vibrating plates to send seismic (sound) waves into the ground that bounce off underground rock layers. The reflected signals are recorded by small sensors (geophones), and are processed to create an image of the Earth. The process is similar to a medical ultrasound scan. The seismic waves cause no damage to infrastructure or the environment.



How a typical seismic survey works

What you might see or hear

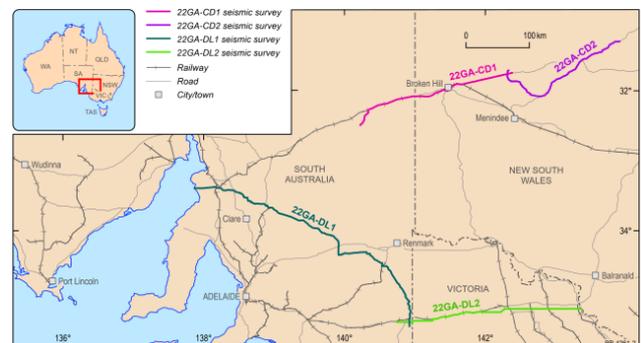
A reflection seismic survey involves 10 to 15 vehicles. These include 3 to 4 Vibroseis trucks, a recording truck and 4WD vehicles. A survey crew can include up to 40 people. The trucks travel slowly, on the edge of the road, and only need to travel along the road once. The truck's noise and vibrations sound like a road train passing by. Support vehicles travel separately and can include trucks, 10 to 15 caravans, a water tanker and other equipment used at camp sites.



A picture of a Vibroseis truck. The vibrating plate can be seen in the middle of the truck in contact with the ground.

Timeframes and work area

The scouting for the survey took place in April 2021 and the seismic surveys are planned for mid-2022. More detailed information will become available during the survey.



Locality map of the proposed seismic surveys

Community engagement

Geoscience Australia staff and our partners will contact landholders, local government (Councils) and other agencies. Measures will be taken to minimise impacts to farm activities, the environment and cultural heritage.

All Geoscience Australia staff and contractors will be complying with Geoscience Australia's COVID-19 protocol, available upon request.

For further information contact Geoscience Australia:

Email: ClientServices@ga.gov.au, phone: 1800 800 173, web: www.ga.gov.au/efft