

CCS Seismic Data Collection

Seismic data collection helps us learn more about the rock layers that make up potential carbon capture and storage (CCS) locations to ensure they are suitable. At bp, we exercise great caution when surveying. Community activities will not be affected by seismic data collection, and residents will be made aware of operations prior to the start of the survey.

What is seismic data collection?

- Field crews conduct seismic data collection, a form of geophysical surveying, to collect information about rock layers in the deep subsurface.
- The data from the survey helps us evaluate the rock layers more than a mile below the surface, and develop an accurate understanding of whether the area is suitable for a CCS project.

How is seismic data collected?

- A truck-mounted piece of equipment generates vibrations using a metal plate that sits on the ground.
- The vibrations travel deep into the earth and are reflected back to the surface where sensors record the vibrations.
- Geophysicists process these signals to create an image of the subsurface rock layers, much like an ultrasound at the doctor's office.

How is seismic data used to ensure safe geological storage?

- The geology in Indiana generally dips from north to south, shallow by the lake and deep by Evansville. Northwest Indiana is a zone where the rocks are neither too deep nor too shallow. This makes it an ideal place to locate a storage facility.
- Previous geological mapping of the area by the Illinois and Indiana Geologic Surveys suggests there are no known faults in the area.
- bp will collect seismic data over a larger area to be able to study the rocks in detail to confirm that no faults or fractures are present.

How will data collection impact the community?

- Seismic data collection will take place on county roads under a permit from the county commissioners.
- Safety and courtesy will be bp's top priorities during this survey.
 - A low-level noise, similar to that of a passing truck, will be generated at each location.
 - A person standing 100 feet from the source will not feel the ground vibration.
- Crews will provide advanced notification for residents along the survey route ahead of data collection, speaking directly to the resident or leaving a door hanger notice on the door.
- Crews will minimize placement of noise-generating equipment in front of homes and speak with impacted residents prior to any placement of sensors.
- Data collection activities will not be conducted on holidays or Sundays.

