

FACT SHEET

CTSCO INTEGRATED SURAT BASIN CCS PROJECT ENVIRONMENTAL BASELINE PROGRAM

There are more microbes in a teaspoon of soil than there are people on earth. These microbes and other factors like the presence of methane in coal seams, water and other naturally occurring chemicals like salt, influence the presence and concentration of natural gases in the earth. Even the weather (e.g. amount of water from rain) plays a role.

As part of the Integrated Surat Basin Carbon Capture and Storage Project, CTSCO are undertaking a comprehensive and multi-year Environmental Baseline program at the Glenhaven Project site to understand what naturally occurring gases and chemicals are present and in what concentrations in the earth of the project area. Work on this assessment commenced in mid 2016 and will continue throughout the life of the Project.



Environmental Baseline Monitoring site (site 4) on Glenhaven property.

WHY DO YOU NEED TO DO ENVIRONMENTAL BASELINE WORK?

The Environmental Baseline program activity is about understanding how things are now so if there are any changes during the future operational phase of the project, CTSCO can conclude why.

By understanding what chemicals and gases are naturally present in the earth at the project site and how these fluctuate over time, CTSCO will be able to accurately determine the cause of any variations in these concentrations and if these are caused by the Integrated Surat Basin Carbon Capture and Storage Project.

Knowing the 'baseline' levels and determining the causes of fluctuations means the project can develop the policies and procedures needed to respond to any unexpected changes in the ground gases and chemicals, such as temporarily or even permanently stopping the operation of the project.



Infield soil gas monitoring equipment.

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ENVIRONMENTAL BASELINING PROCESS

Scientists have installed monitoring sites across the proposed project area, which involves drilling a number of bores at different depths to collect information using special monitoring equipment.

This equipment sends readings in real time to a central database via mobile phone technology. One of the key interests for the

project is the soil. It is important to establish a baseline reading of environmental parameters within the existing soil in order to understand the long term trend and variability of the natural occurrences.

Measuring is underway and will continue for the current study phase to late 2018 and will continue until mid 2020s.



Soil and gas monitoring instrument used down hole on site.



Calibration of instruments on site.

ABOUT THE PROJECT

The Integrated Surat Basin Carbon Capture and Storage Project aims to demonstrate the safety and suitability of CCS in the region and is funded by industry and government. The outcomes of the project will benefit all emitters of CO₂.

The majority of activity is being conducted on Glencore owned land in Queensland, 15km from Wandoan (approximately 400 km north-west of Brisbane). This area was chosen to host this project because:

- › The 2009 National Carbon Storage Taskforce report and the Queensland Government Greenhouse Gas Storage Atlas identified the area as a key geostorage area.

- › Almost 3 billion tonnes of CO₂ theoretical storage potential is available in the Surat Basin. Precipice Sandstone (aquifer) accounts for 1.3 billion tonnes of theoretical storage potential.
- › There are a significant number of coal-fired-power stations nearby in the Surat Basin, meaning the source of the CO₂ and the storage are co-located, reducing transportation costs.

The project is being delivered by Carbon Transport and Storage Corporation Pty Ltd (CTSCo) - a wholly owned, 'non-profit' subsidiary of Glencore, one of the world's largest diversified natural resource companies.

For more information about the project visit www.ctsco.com.au