



Welcome to CAGS Phase 3!

The China Australia Geological Storage of CO₂ (CAGS) project was first established in 2008 and is now in its third phase, commencing in January 2016 and will continue for 2.5 years.

CAGS aims to further develop China and Australia's technical skills in the area of geological storage of CO₂ through capacity building activities; training opportunities; sharing of expertise through scientific exchanges; and advancing geological storage science through sponsored research projects in China. The project was led by Geoscience Australia (GA) and China's Ministry of Science and Technology (MOST) through the Administrative Centre for China's Agenda 21 (ACCA21).

CAGS scientific exchange program is currently open. If you are interest in participating, please download the application form from <http://www.cagsinfo.net/activities.htm> and submit it before the 21st of October 2016. Applications are closing soon!

If you would like to learn more about CAGS, please visit our website www.cagsinfo.net.

UPDATES ON RESEARCH PROJECTS

CAGS3 has funded three research projects.

Research Project 1

Integrated Monitoring Research of CO₂-EOR Demonstration Project at Yanchang Oilfield

Leading organisation: Institute of Rock and Soil Mechanics, Chinese Academy of Sciences

Participating organisation: Shaanxi Yanchang Petroleum (Group) Corp. Ltd.

Lead researcher: Dr Qi Li

The aim of the project is to develop an integrated monitoring scheme and to identify related key monitoring indicators for CCUS projects in China. The researchers have completed the following tasks:

- Collected relevant information of the study area;
- Analysed existing monitoring system of soil gas; and
- Selected the model of U-tube to be use in this research.

Research Project 2

Pre-feasibility Study on Xinjiang Guanghui Fuyun Coal to Gas CCUS Pilot Project

Leading organisation: Xinjiang University

Participating organisation: Institute of Rock and Soil Mechanics, Xinjiang Guanghui Fuyun New Energy Co. Ltd

Lead researcher: Professor Qingsan Shi

Xinjiang, with its major chemical industry, is an area of strategic focus for CCUS projects for the Chinese government. This research project will prepare a pre-feasibility study for a 100kt/a CCUS demonstration project. This study will provide research and development suggestions, deployment roadmap and policy recommendations to CCUS policy makers.

The researchers have completed the following tasks:

- A suitable storage site was identified and proposed for the government to review;
- Conducted preliminary analysis of the targeted wells in Dishuiquan oilfield;
- Collected basic data, including geological disaster assessment reports, project documents, feasibility studies, construction of gas pipelines and other related reports and data; and
- Conducted sites visits to the Xinjiang Zhundong carbon source area and the proposed storage site.

Research Project 3

Evaluation of CO₂ Geological Utilization and Storage Potential in Junggar Basin and Early Demonstration Opportunity in Eastern Junggar

Leading organisation: Center for Hydrogeology and Environmental Geology Survey, China Geological Survey

Participating organisation: Institute of Rock and Soil Mechanics, Chinese Academy of Sciences

Lead researchers: Dr Jianqiang Guo, Dr Yujie Diao

This research project plans to conduct comprehensive study of enhanced oil recovery (EOR) and enhanced water recovery (EWR) in the Junggar Basin in Xinjiang.

So far the researchers have completed the following tasks:

- Conducted preliminary investigation and evaluation of CO₂ emission sources in Junggar basin;
- Established the methodology that will be used to assess CO₂ geological utilization in Junggar basin;
- Collected available geology information and relevant data; and
- Visited relevant CCUS sites, including Guanghui Energy Co. Ltd., Xinjiang Oilfield Company, Cainan oilfield, the CO₂ capture plant in Dunhua and CHEGS CO₂-EWR selected sites.

UPDATES ON CAPACITY BUILDING ACTIVITIES

This program includes study tours, technical workshops and training schools. So far, two study tours have been completed — one to China, and one to Australia.

Chinese Study Tour 26-30 June 2016

CAGS organised a Chinese study tour for a group of Australian CCS representatives to visit CCUS demonstration sites and meet with key government and industry representatives.

The trip included visits to the following sites:

- Yanchang Petroleum's CCUS site at Jingbian, outside Yulin – injected 60 kt CO₂ for EOR

- Yanchang Petroleum's coal to acetic acid chemicals plant in Yulin, Shaanxi
- Sinopec's Shengli power station and CO₂ capture plant
- Sinopec's Shengli CCUS site near Zibo – injected 240 kt of CO₂ for EOR



The delegation from Australia

Australian Study Tour, 26-20 July 2016

Thirteen Chinese delegates participated in the Australian CCS and enhanced water recovery (EWR) study tour. The delegation consisted of representatives from major CCS research, government and industry organisations including:

- Center for Hydrogeology and Environmental Geology Survey, China Geological Survey
- Development Institute of Xinjiang Oilfield Exploration and Development Research Institute
- Engineering Technology Research Institute, PetroChina Xinjiang Oilfield Co.
- Xinjiang Guanghui Group
- Xinjiang Guanghui New Energy Co. Ltd.
- Mining Technology and Geosciences, Xinjiang University Institute of Rock and Soil Mechanics, Chinese Academy of Sciences
- The Administrative Centre for China's Agenda 21
- Geoscience Australia
- Australian Government Department of Industry, Innovation and Science

The study tour consisted of meetings and site visits:

- Meetings with representatives from CO₂CRC and Global CCS Institute;
- CO₂CRC's Otway CCS demonstration facility visit; and
- APLNG's coal seam gas water treatment facility at Condabri and water reuse scheme.



CAGS delegation visiting a cattle feedlot and irrigation scheme supported by APLNG's Condabri water treatment facility

SCIENTIFIC EXCHANGES

CAGS3 plans to sponsor research exchanges in China and Australia. This program will enhance knowledge sharing and capacity building for CCUS in both countries. The scientific exchange program is currently open. If you are interest in participating, please download the application form from <http://www.cagsinfo.net/activities.htm> and submit it before the 21st of October 2016.

Upcoming Event

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| 25 Oct 2016 | CAGS3 Research Projects Review Workshop & Project Meeting, China |
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Contact Us

If you have any comments, inquiries or wish to unsubscribe, please contact CAGS team.

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