NEW SEDIMENTARY UNIT IN THE ILLINOIS BASIN NAMED

New data obtained from MGSC establishes the Argenta Sandstone as a new formation.

CHARACTERIZATION INCREASES THE UNDERSTANDING OF THE MOUNT SIMON AND PRE-MOUNT SIMON

The Illinois Basin – Decatur Project Site

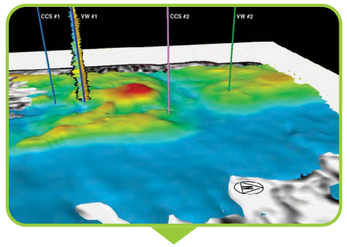
In 2007, the Midwest Geological Sequestration Consortium (MGSC)—one of seven of DOE's Regional Carbon Sequestration Partnerships—began site characterization of the Illinois Basin storage complex at the Decatur project site.

The goals of the site characterization were to:

- Demonstrate CO_2 injectivity.
- Establish storage capacity.
- Validate efficiency of the reservoir.
- Verify the integrity of the seals.
- Implement pre-injection characterization.
- Perform injection process monitoring.
- Execute post-injection monitoring.

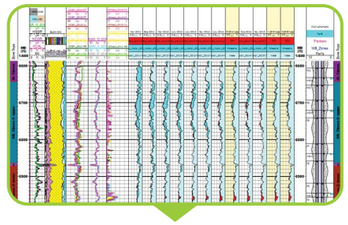
IMPROVED DEEP SUBSURFACE DATA OF THE ILLINOIS BASIN

- Data obtained by drilling and logging characterization wells.
- Cores obtained from multiple geologic formations.
- Regional structure and isopach maps.
- Regional Geophysical data.
- 2D and 3D surface seismic data.
- Microseismic data.
- Full wireline well log suites.
- Baseline pressure and temperature measurements.



Visualization of Mount Simon Sandstone Using 3D Seismic Reflection

Mount Simon Sandstone Core Recovered from CCS1



Pulsed Neutron Logging at VW1 Well

3D VSP Pattern

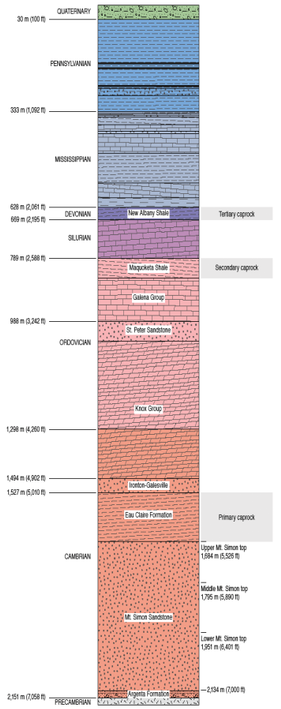
NEW DATA SEPARATES THE ARGENTA FROM THE MOUNT SIMON

The Argenta Sandstone was previously identified as part of the Mount Simon Formation. New core and geophysical log data obtained by MGSC clearly establish the petrophysical and sedimentological distinctness required by the North American Stratigraphic Code for recognition of a new formation.

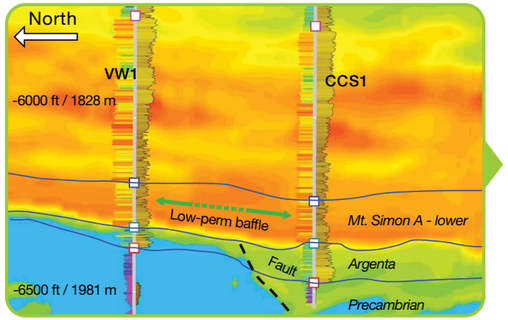
ARGENTA FORMATION PROVIDES NEW INSIGHT INTO CARBON STORAGE

Impacts of characterizing the Argenta:

- New input for storage capacity estimates for the Mount Simon, which has been identified as the region's prime reservoir for commercial-scale CO_2 storage.
- Influence on the extent to which induced seismicity may occur in the basement rock below the Mount Simon during and after CO_2 injection.
- Improved understanding of the Mount Simon and Pre-Mount Simon depositional systems and structural settings.



Generalized Geologic Column



Visualization of Cross Section Using Reflection of Seismic Porosity Inversion

PARTNERS

MGSC

IGS INDIANA GEOLOGICAL & WATER SURVEY INDIANA UNIVERSITY

Kentucky Geological Survey

ILLINOIS Illinois State Geological Survey

Projeo

ADM

Schlumberger Carbon Services

AWARD NUMBER

DE-FC26-05NT42588

PROJECT BUDGET

TOTAL FUNDING

- DOE $112,719,485
- PERFORMER..... $30,241,458

CONTACTS

HQ PROGRAM MANAGER
DARIN DAMIANI

TECHNOLOGY MANAGER
MARK MCKOY

FEDERAL PROJECT MANAGER
WILLIAM ALJOE

PRINCIPAL INVESTIGATOR
DR. SALLIE GREENBERG

FECM RDD&D PRIORITY

DEMONSTRATE AND DEPLOY POINT-SOURCE CARBON CAPTURE

CLICK HERE FOR MORE INFORMATION >>>