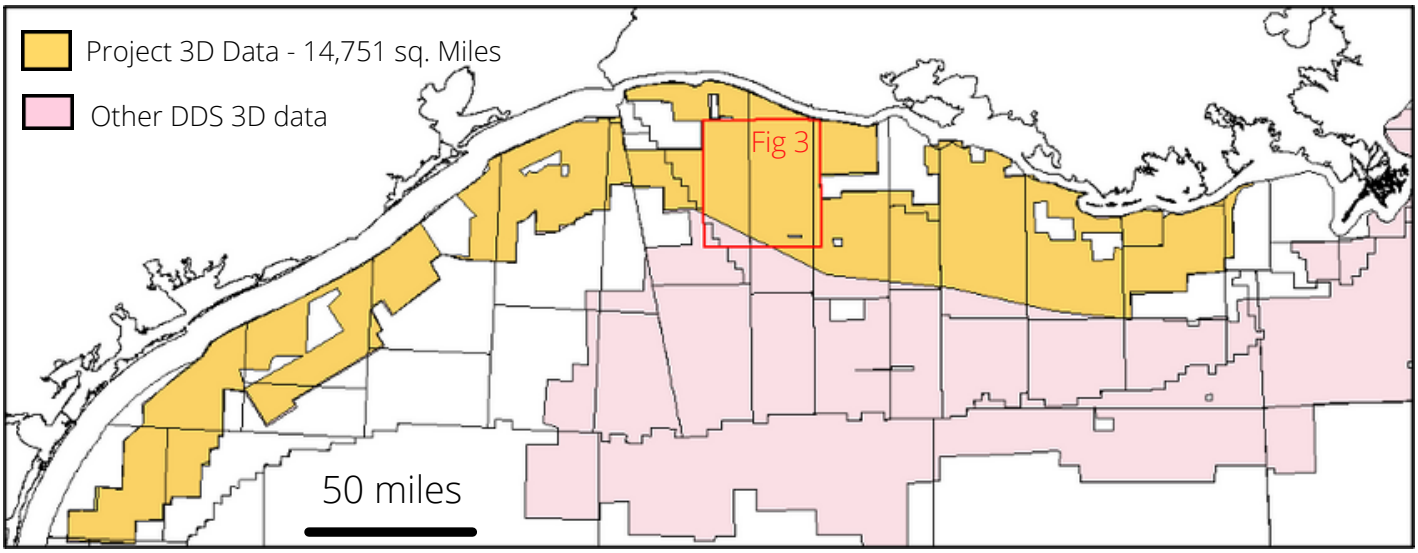
Gulf of Mexico CCS Project: Offshore Texas and Louisiana Carbon Storage Screening

Dynamic Data Services (DDS) and Subsurface Consultants and Associates (SCA) are delighted to announce our JV project to screen potential carbon storage offshore in the Gulf of Mexico. The project will deliver a geological and commercial ranking of potential carbon storage sites in the federal waters of Texas and Louisiana. The analysis will be based on detailed structural and stratigraphic interpretation of regional 3D seismic within 50 miles of the coastline and will incorporate economic criteria that rank potential sites on size and cost of storage.



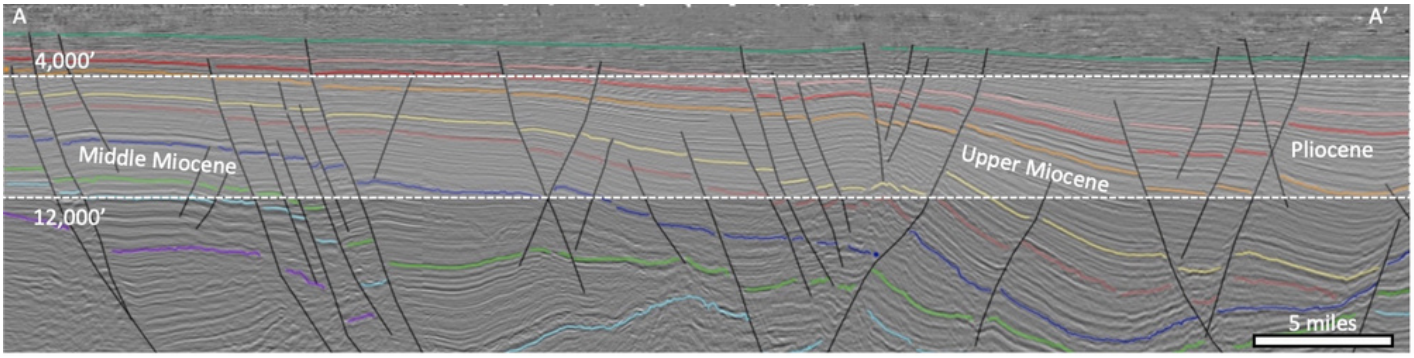


Fig.2 representative 3D seismic data and interpretation showing Miocene and Pliocene growth wedges

The foundation of the project is a detailed structural and stratigraphic interpretation of a regional 3D seismic volume within 50 miles of the coastline. Our existing seismic stratigraphic framework has been developed through 5 years of detailed 3D mapping on the Western Louisiana shelf, which will now be extended to offshore Texas. Ten major flooding surfaces have been identified on the 3D data within the 4000'-12,000' target interval and tied to public domain well biostratigraphy.

DYNAMIC DATA SERVICES

SCA SUBSURFACE CONSULTANTS

Gulf of Mexico CCS screening

The target stratigraphic interval is anticipated to be Middle Miocene to Lower Pliocene offshore Louisiana, and Lower and Middle Miocene offshore Texas. Examples of our existing seismic interpretation and structural mapping are shown in fig.2 and fig.3. The objective is to identify the largest sealed pore volumes in both existing hydrocarbon fields and unconfined aquifers. The engineering screening study will determine key sensitivities to lowest cost storage per mt of CO_2. Analyses will include analog projects, reservoir characterization, pressure and phase behavior, capex and opex and fiscal considerations. The final ranking phase of the project will integrate the identified largest pore volumes with the engineering sensitivities to assess the most commercially viable targets.

Project Deliverables and Timing

- 15,000 sq miles 3D seismic volume - available immediately
- Regional Geological Interpretation - ongoing, available end-Q4, 2022
- Engineering and commercial sensitivities to lowest cost per ton storage - within 6 months of project commencement
- Ranking of the top potential storage sites on pore volume, seal risk, injectivity and cost - within 6 months of project commencement

Underwriting and Pricing

- Underwriting ongoing - 40% discount over regular project pricing
- Underwriters benefits additionally include:
  - Guide project goals and priorities
  - Early access to project results and reports
  - Quarterly workshops and meetings
- Underwriting in progress
- Pricing available on request.
- Please contact DDS or SCA to schedule a data and proposal review

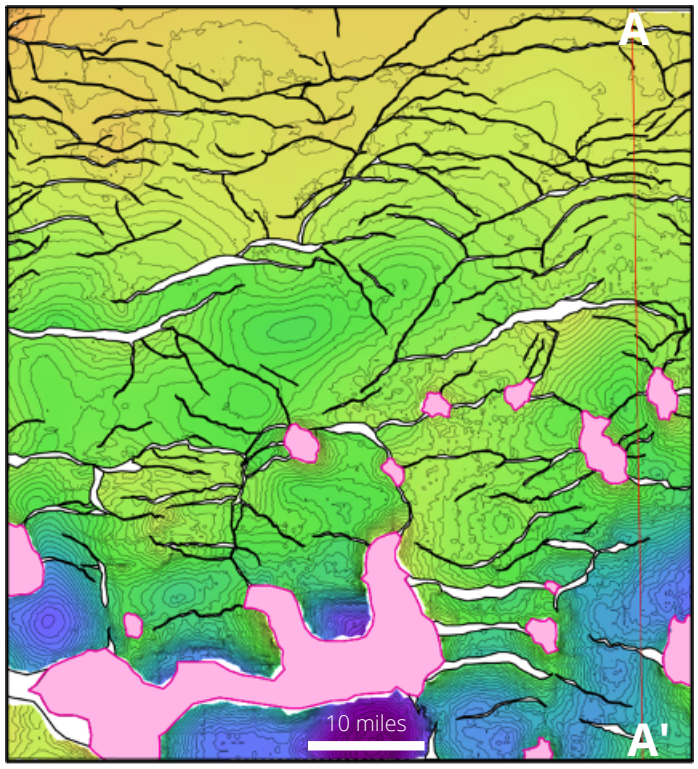


Fig.3 representative Middle Miocene depth structure showing the scale of fault traps for existing hydrocarbon fields and large unconfined aquifer areas. Location of fig.2 shown as A-A'.

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Business and Technical Context

The last year has seen an unprecedented rise in response to the climate crisis by investigation of the potential for Carbon Capture and Sequestration (CCS). Rystad Energy recently estimated that global CCS projects are on track to grow by more than tenfold to 500 million mtpy by 2030. Multiple government and academic studies have indicated that offshore Texas and Louisiana are optimally positioned for CCS, with respect to both industrial CO2 emissions and geology. Columbia Center on Global Energy Policy (2021) concluded that "Texas is the largest greenhouse gas emitter in the United States with many large sources clustered in the Greater Houston area; while these characteristics are true of Texas, many are true as well in Louisiana; on a national basis, the Gulf of Mexico region could host multiple hubs that would accelerate decarbonization and improve competitiveness on a national basis". Within the last year ExxonMobil and Talos Energy have announced CCS projects in the region. XOM's Houston Ship Channel CCS Innovation Zone "could store up to 100 mtpy by 2040". Talos Energy has announced 4 CCS hub projects between Corpus Christi and New Orleans, one of which is offshore.

In 2018 NETL-DOE assessed the CO2 storage capacity of offshore Texas and Louisiana as 20 billion mt in existing oil and gas reservoirs and hundreds of billions mt in saline aquifers. These studies appear to be mostly well based, without recourse to regional 3D seismic. The Texas Bureau of Economic Geology has focused a decade long study on offshore Texas and published major interim results in 2017, but the access to 3D seems to have been limited to isolated 3Ds mostly in state waters. One of the conclusions of that study was that most of the existing oil and gas fields are too small to be commercially viable for CCS, and that identifying the largest sealed pore volumes is key to high-grading potential sites.

The emphasis of this study is to screen offshore Texas and Louisiana, out to 50 miles from the coastline, with near continuous 3D seismic and to screen both the largest existing fields and the large unconstrained aquifers.

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