

SSEB SECARB Offshore Gulf of Mexico Partnership

STEMM-CCS Open Science Meeting & 4th International Workshop on Offshore
Geologic CO₂ Storage

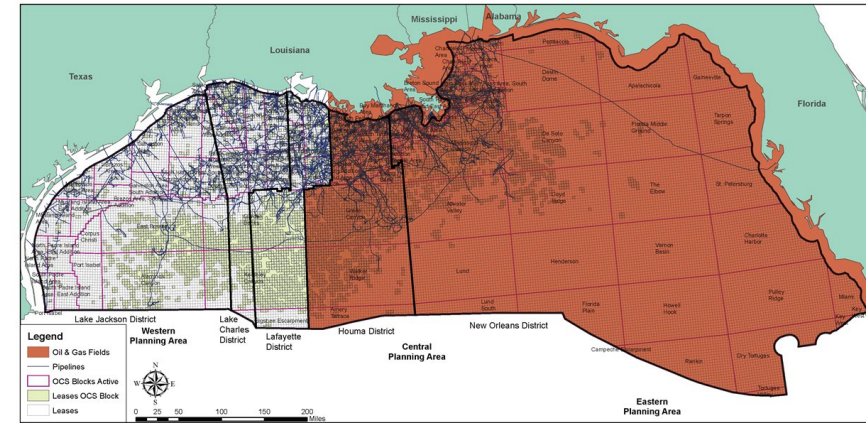


Presented by: Michael Godec, Advanced Resources International
U.S. Department of Energy | National Energy Technology Laboratory | DE-FOA-0001734
11-12 February 2020

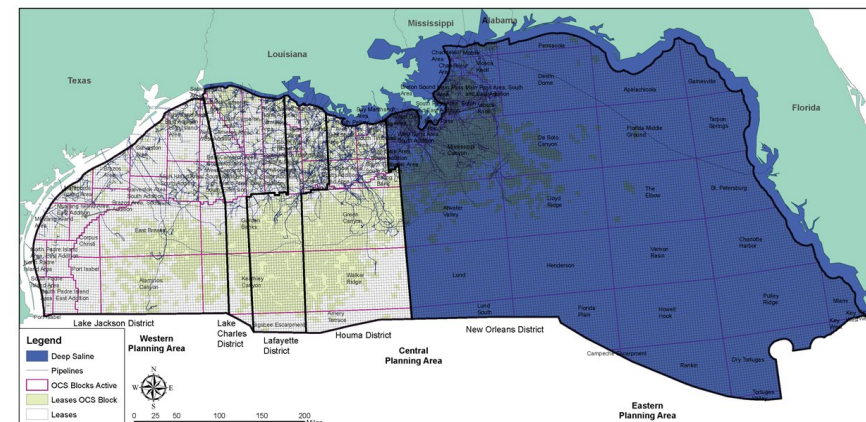
SECARB Offshore Study Area & Project Boundaries

FEDERAL WATERS		
	Depleted Oil & Gas Fields, and Potentially Associated CO ₂ -EOR	Deep Saline
Western Planning Area	No	No
Central Planning Area	Study Area is East of Houma District's Western Boundary (includes Houma District)	Study Area is East of New Orleans District's Western Boundary (excludes Houma District)
Eastern Planning Area	All	All
STATE WATERS		
	Depleted Oil & Gas Fields, and Potentially Associated CO ₂ -EOR	Deep Saline
Texas	No	No
Louisiana	Partial, Includes State Waters East of Houma District Boundary Extension	Partial, Excludes Chandeleur Sound/Islands
Mississippi	Yes	Yes
Alabama	Yes	Yes
Florida (West Coast)	Yes	Yes

Study Area | Oil and Gas



Study Area | Saline Aquifers



Anticipated Project Outcomes

- Integrating data to identify “high-quality “prospects”
- Development of concept for commercially viable CO₂-EOR and a saline storage prospects
- Refine/adapt simulation tools, geologic models, risk assessment/mitigation strategies for site-specific assessments.
- Develop “best practices” based on understanding of the offshore storage prospect(s) targeted, uncertainties, the performance of site characterization, MVA and other technologies, and risk perceptions
- Reduce uncertainties/risks, better understand/validate performance of MVA technologies, and assist regulators to better understand risks
- Address regulatory gaps in the oversight and regulation of CO₂ storage activities (with and without EOR) in the offshore GOM.



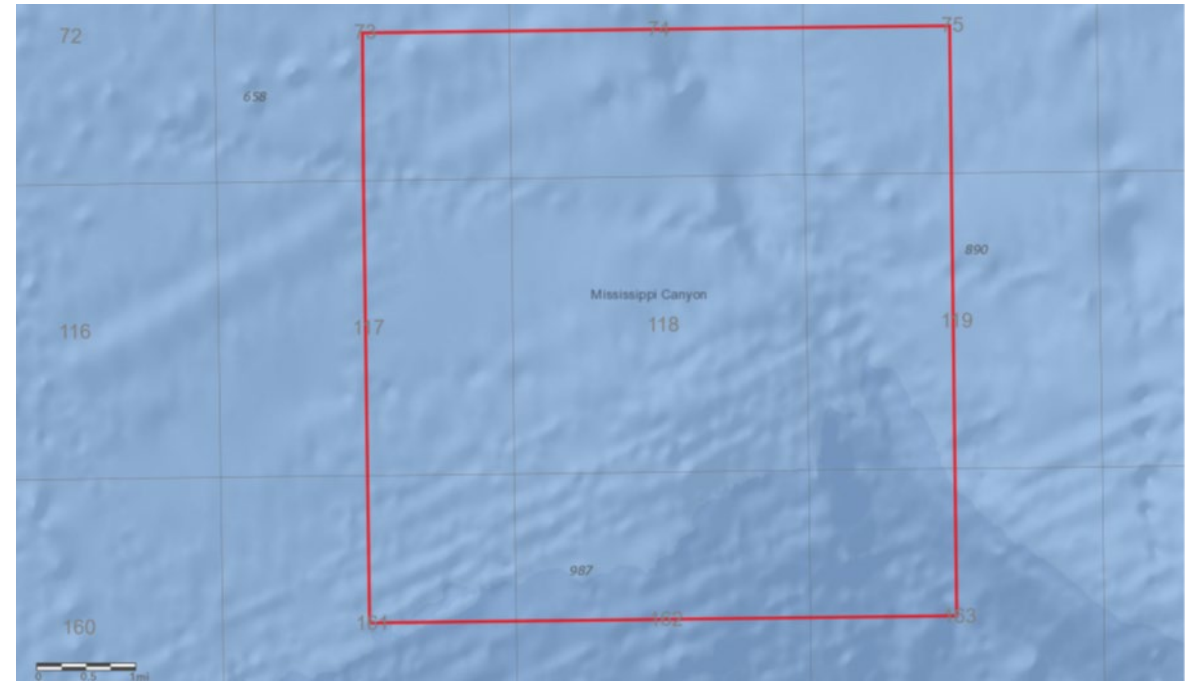
INITIAL Focus of Activity

- Defining what a good CO₂ storage prospect might look like in the offshore Gulf of Mexico.
- Understanding the current regulatory environment in the offshore GOM, so that regulatory gaps are characterized and potentially addressed early to ensure expeditious project deployment.
- Reviewing how regulatory frameworks have evolved in other jurisdictions, and how they might apply in the offshore GOM.
- Understanding possible financial incentives and their potential applicability for CO₂ storage/CO₂-EOR in the offshore GOM.
- Reviewing characterizations of offshore project risks and uncertainties that may impact how regulatory frameworks and financial incentives may need to evolve to address.
- Reviewing offshore best practices for CO₂ storage & transport.

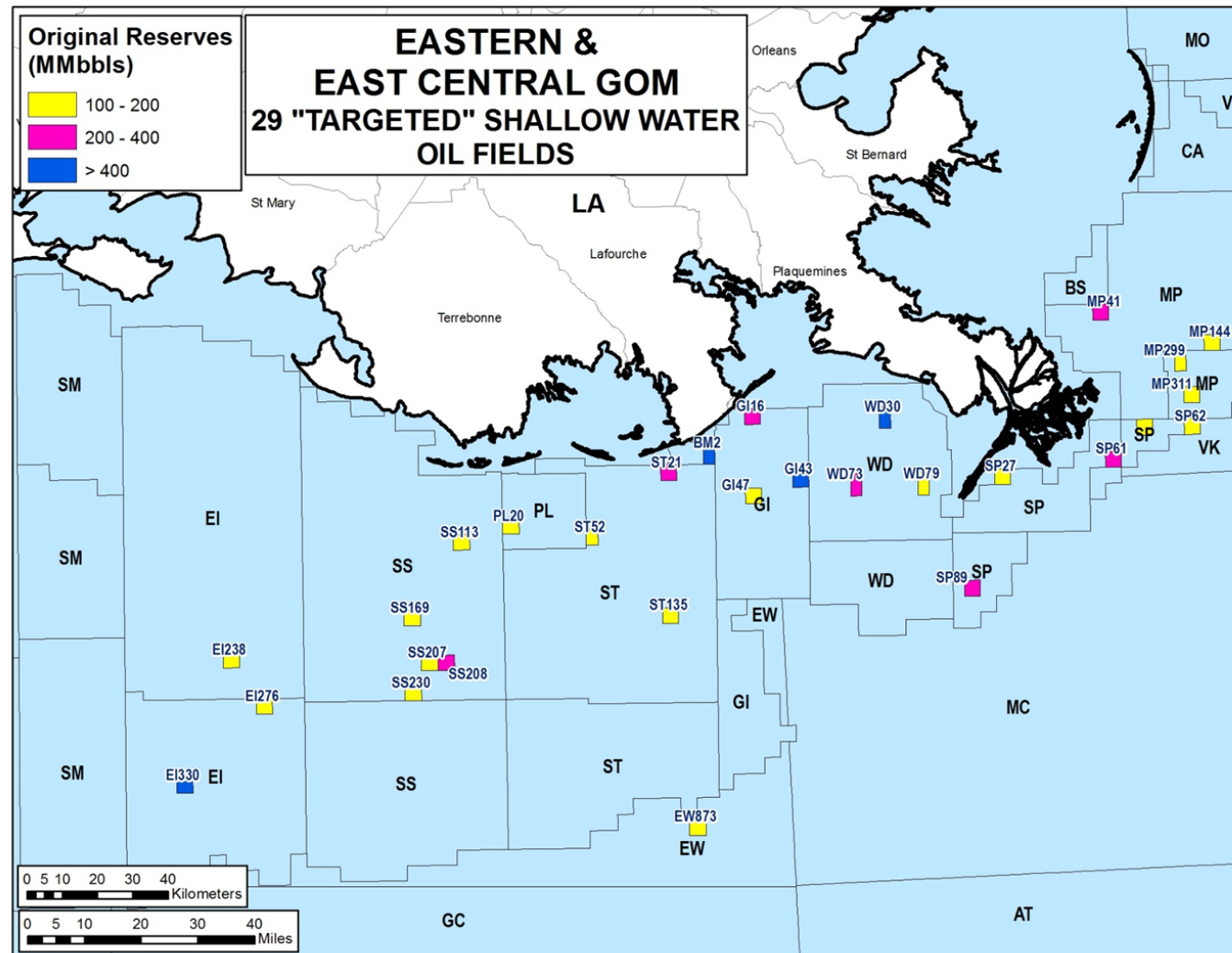


Acquisition and Analysis of 3-D Seismic Data (OSU)

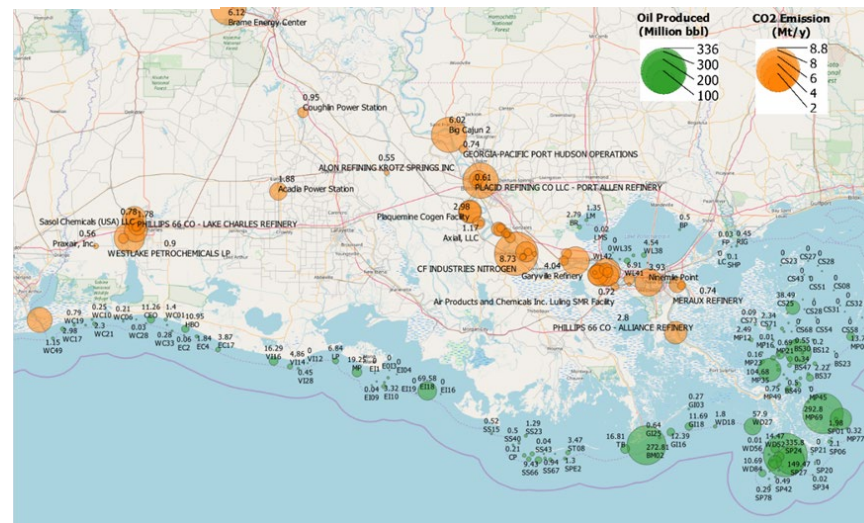
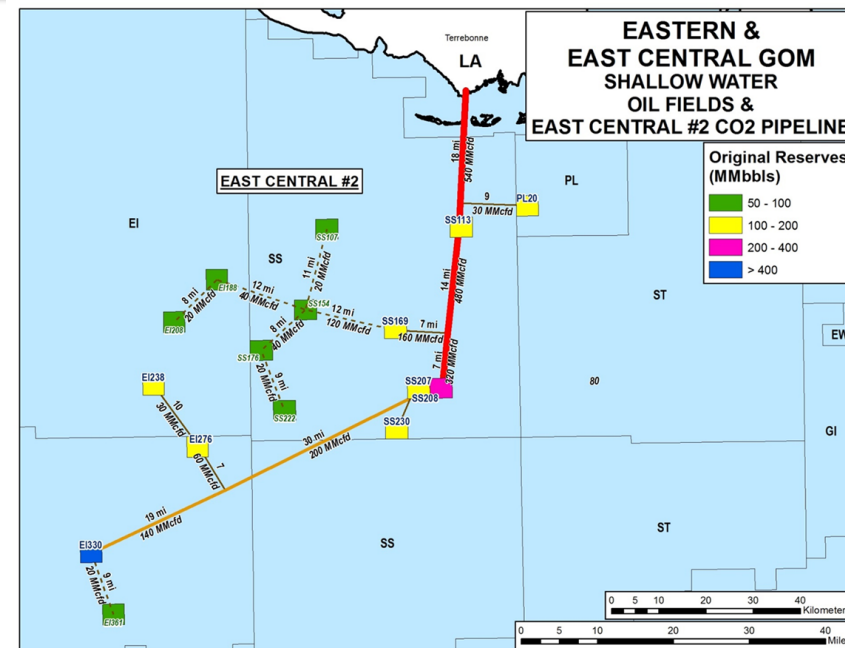
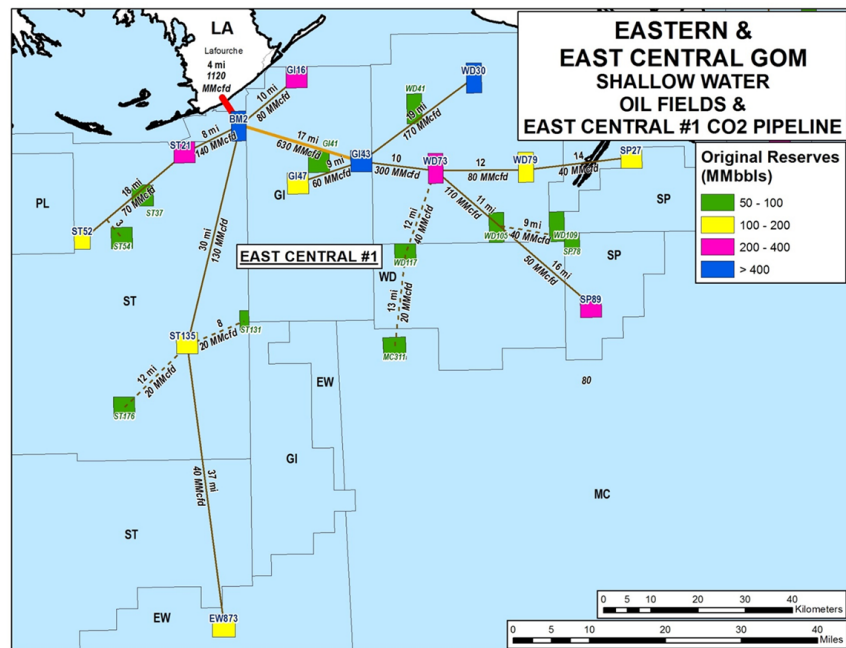
- OSU in process of purchasing three 3-D seismic datasets from Mississippi Canyon 118 block
- Research focused on performing AVO analysis and inversion to identify and corroborate the presence of bright spots and identify the base of the gas hydrate stability zone.



Shallow Water Offshore GOM Oil Fields



Examples of Prospective Oil and Gas Fields in the Gulf of Mexico



THANK YOU!



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