Kevin Meazell

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Summary

Multi-disciplined exploration geoscientist. I have experience processing, analyzing, and ground-truthing passive source satellite data with ENVI, ArcGIS, and QGIS.

Education

PhD., Geology – The University of Texas at Austin December 2021

Dissertation: Deepwater gas hydrate reservoirs of the northern Gulf of Mexico: Characterization and Consequences.

- I used geophysical techniques to identify and map a gas hydrate resource in the Gulf of Mexico. I used sedimentological data analysis to describe and predict reservoir properties.
- I created conceptual models for the deposition of a hydrate reservoir and the venting of fluids from an overpressured reservoir to the surface.

Masters of Science, Geology – The University of Nevada at Las Vegas August 2014

Thesis: Porphyry copper exploration of the Hualapai Mountains, Arizona, USA

- Combined geologic mapping and remote sensing to identify precious metal prospects.
- Processed and classified ASTER satellite data to highlight hydrothermal alteration.

Bachelors of Science, Geology – The University of Georgia May 2009

Professional Positions

Graduate Research Assistant – The University of Texas at Austin 2015 - December 2021

- Used geophysical analysis to map the subsurface geology and plan 11 deepwater exploration wells to investigate a natural gas resource within the Gulf of Mexico.
- Collaborated with scientists at the BOEM, USGS, and DOE to identify methane hydrate plays within clastic reservoirs in the deepwater Gulf of Mexico.
- Prepared and successfully delivered proposals and presentations of drilling targets to the Environmental Protection and Safety Panel of the International Ocean Drilling Program.

Exploration Geoscience Intern – Shell Exploration and Production 2019 – 2020

- Used stratigraphic data analysis of rock core to identify and explain correlations between geological bed thickness and reservoir properties.
- Used geophysical analysis to identify high-potential reservoir targets. Results were used to polarize the view of three potential prospects, and aided in the planning of a $70 million exploration well.

Geoscience Intern – Hilcorp Oil & Gas Corp. Summer 2018

- Integrated subsurface mapping and data analysis with seismic and production data in order to identify and catalogue remaining economic opportunities.

Exploration Geoscience Intern – Kinross Gold Summer 2013

- Used clay and mineral spectroscopy of soil and rock chip samples to map the paleo-temperature of a fossilized geothermal field.
- Created and maintained a database of 20,000 hyperspectral and geologic database samples.

Project Geologist – Aerostar Environmental 2009-2012

- Supervised installation and sampling of dozens of groundwater wells.
- Lead sampler of a multi-million-dollar superfund remediation site.

Computer Skills

ENVI	Python	QGIS	ImageJ
ESRI ArcMap	ioGas	Fortran	Excel

Selected Graduate Coursework

Remote Sensing	Basin Analysis
Introduction to Scientific Programming	3D Analysis of Volumetric Data
Exploration Seismology	Statistical Data Analysis

Publications

Meazell, P.K., and Flemings, P.B., 2022. *The evolution of seafloor venting from hydrate-sealed gas reservoirs.* **Earth & Planetary Science Letters**.

Meazell, P.K., Flemings, P.B., and Santra, M., 2020. *Sedimentology and stratigraphy of a deep-water gas hydrate reservoir in the northern Gulf of Mexico.* **AAPG Bulletin**.

Flemings, P.B., Phillips, S., Boswell, R., Collet, T., Cook, A., Dong, S., Frye, M., Goldberg, D., Guerin, G., Holland, M., Jang, J., **Meazell, K.,** Morrison, J., O'Connell, J., Petrou, E., Pettigrew, T., Polito, P., Portnov, A., Santra, M., Schultheiss, P., Seol, Y., Shedd, W., Solomon, E., Thomas, C., Waite, W., and You, K., 2020. *Pressure coring a Gulf of Mexico deep-water turbidite gas hydrate reservoir: Initial results from the UT-GOM2-1 Hydrate Pressure Coring Expedition*. **AAPG Bulletin**.

Fang, Y., Flemings, P.B., Daigle, H., Phillips., S., **Meazell, P.K.**, and You, K., 2020. *Petrophysical properties of the GC 955 hydrate reservoir from reconstituted sediments: Implications for hydrate formation and production*. **AAPG Bulletin**.

Santra, M., Flemings, P., Scott, E., and **Meazell, K**., 2019. *Evolution of a gas hydrate-bearing deepwater channel-levee system in the abyssal Gulf of Mexico – Levee growth and deformation*: **AAPG Bulletin**.

Hillman, J., Cook, A., Daigle, H., Nole, M., Malinverno, A., **Meazell, K.**, and Flemings, P, 2017. *Gas hydrate reservoirs and gas migration mechanisms in the Terrebonne Basin, Gulf of Mexico*: **Marine and Petroleum Geology.**