

CURRICULUM VITAE

Santiago Flores, P.G.

PERSONAL

Name: Santiago Flores
Birthdate: January 16, 1988
Birthplace: Albuquerque, NM
Citizenship: United States
Language: English

SPECIALIZATION

Petroleum geoscience, well planning, acid gas and saltwater injection, carbon sequestration, drilling and completion, surface and subsurface mapping, well log interpretation, structural geology, sequence stratigraphy, data collection and visualization, analytics, technical writing and reporting, quality assurance, and regulatory compliance

EDUCATION

Utah State University, 2014
M.S. Geology

New Mexico Institute of Mining and Technology (New Mexico Tech), 2010
B.S. Earth Science (with Honors)

PROFESSIONAL CERTIFICATION AND REGISTRATIONS

Registered Professional Geologist – State of Texas (#15245)

HONORS AND AWARDS

CHK Core Values Award – Chesapeake Energy Corporation
2014 Outstanding Graduate Researcher – Utah State University
3rd Place Imperial Barrel Award – Rocky Mountain IBA Section
Graduate Research Assistantship – Utah State University
Earth and Environmental Science Estwing Award – New Mexico Tech
NMT Scholar – New Mexico Tech
NMGS Lucille H. Pipkin Senior Scholarship – New Mexico Tech
AAPG L. Austin Weeks Grant – New Mexico Tech

ORGANIZATIONS

American Association of Petroleum Geologists (AAPG)
Geological Society of America (GSA)
Oklahoma City Geological Society (OCGS)

PUBLICATIONS

Morales, A., Holman, R., Nugent, D., Wang, J., Reece, Z., Madubiike, C., **Flores, S.**, Berndt, T., Nowaczewski, V., Cook, S., Trumbo, A., Keng, R., Vallejo, J., and Richard, R., 2019, Case study: Optimizing Eagle Ford field development through a fully integrated workflow: SPE Annual Technical Conference and Exhibition. Society of Petroleum Engineers. 35 p.

Raduha, S., Butler, D., Mozley, P., Person, M., Evans, J., **Flores, S.**, Heath J., and Dewers, D., 2013, Potential seal bypass produced by deformation-band to opening-mode fracture transition at the reservoir-caprock interface [Abstract]: Geological Society of America Abstracts with Programs, vol. 45, no. 7, p. 107.

Axen, G., **Flores, S.**, Cather, SM., and Green, M., 2012, Neogene decollement-style faulting in Permian Yeso formation, Sierra Larga, Socorro County, New Mexico [Abstract]: Geological Society of America Abstracts with Programs, vol. 44, no. 6, p. 28.

EXPERIENCE

January 2021 – Present

Geolex, Inc.[®] - Project Geologist
500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

Duties, Accomplishments, Responsibilities:

1. Provide support for permitting and regulatory compliance of acid gas injection (AGI) and saltwater disposal (SWD) wells, including geologic evaluation, drilling and completion support, mechanical integrity tests (MIT), seismic monitoring plans and monitoring station set-up.
2. Create earthquake response plans for operators of injection wells, dictating the actions operators take when seismic activity of various levels is detected near the injection site.
3. Generate hydrogen sulfide (H₂S) contingency plans, ensuring midstream operators have plans to protect the public, employees, and the environment from unplanned releases of H₂S at sour gas plants, pipelines, and compressor stations.

4. Produce detailed surface and subsurface maps for geologic evaluations, litigations support, and emergency response plans.
5. Evaluate and analyze injection data for SWD and AGI wells to understand operational and reservoir performance and to support requests for operational changes from regulatory agencies.
6. Prepare Environmental Assessments (EAs), aiding federal agencies in determining whether or not projects proposed by clients will significantly impact the environment.

March 2014 – April 2020
Chesapeake Energy Corporation – Petroleum Geologist
6100 N. Western Avenue
Oklahoma City, Oklahoma 73118

Duties, Accomplishments, Responsibilities:

1. Served as subsurface expert for resource exploration and development. Provided geologic observations and interpretations. Communicated effects of stratigraphic changes and structural enhancements on petroleum system elements for onshore Gulf Coast Basins and the Powder River Basin.
2. Produced maps of reservoir fluid properties, rock properties, facies distributions, faults, pressure, stress direction, and resource volume, furthering geologic understanding in multiple basins.
3. Coordinated multidisciplinary teams to appraise and develop drilling prospects, outline type curves, model hydraulic fracture designs and well spacing, prepare facilities, determine landing depths, forecast production, propose and permit wells for drilling, plugging, and abandonment, reporting successes over 160,000 operated acres.
4. Led team to develop hydraulic fracture communication (frac hit) monitoring and detection tools, recommending optimization strategy to reduce production down time for hundreds of wells.
5. Advised managers, geoscientists, and engineers on Niobrara appraisal and development strategies, data collection needs, and geohazard identification, resulting in more accurate production forecasts and safer operations.
6. Assembled briefings with subsurface information for integration into well plans, focusing on geohazard identification, formation depths, strike/dip prediction, lateral length, well spacing and permitted locations points.
7. Oversaw ~150 Eagle Ford horizontal wells from planning through hydraulic fracturing, with an average of 98% of each wellbore in best target window.

8. Conducted rock strength-drilling interaction research and targeting analytics to implement target window changes, increasing rotational drilling penetration rates by 10%, saving \$100,000 per pad.
9. Prepared geologic assessments, reporting drilling successes, geologic formations depths, data collection, operational issues, and up-hole hydrocarbon indicators from rig gas, mudlogs, and flare sizes for ~150 wells.

August 2011 – March 2014

**Utah State University – Student Researcher and Teaching Assistant
Old Main Hill
Logan, Utah 84322**

Duties, Accomplishments, Responsibilities:

- 1) Established effects of structural position on natural fracture properties at a reservoir-seal contact in outcrop, evaluating risks to seal integrity for potential carbon sequestration sites analogous to the San Rafael Swell in central Utah.
- 2) Collected and cataloged fracture data in outcrop from scan-lines and photogrammetry, identifying evidence of subsurface fluid flow from structural diagenesis in multiple structural positions.
- 3) Retrieved and processed samples for thin sections inclusive of micro-fractures, mode I fractures, mixed mode fractures, and deformations bands.
- 4) Successfully defended observations, hypotheses, tests, results, and conclusions.

June 2013 – August 2013

**Chesapeake Energy Corporation – Petroleum Geology Intern
6100 N. Western Avenue
Oklahoma City, Oklahoma 73118**

Duties, Accomplishments, Responsibilities:

- 1) Developed regional structural history of Las Animas Arch, southern DJ Basin, and northern Anadarko Basin in SE Colorado through literature review and geologic data integration and interpretation.
- 2) Interpreted logs and 2D seismic to make interval thickness maps from basement to surface, constructing a tectonostratigraphic framework for the southern DJ Basin and northern Anadarko Basin.
- 3) Created basement shear zone maps from gravity and magnetic survey interpretations, facilitating interpretations of basement structure reactivation.