Roderick Pérez Altamar, Ph.D.

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SHORT PROFILE

Ph.D. in Geophysics, M.S. in Geology, Bachelor's degree in Geophysical Engineer and MBA. Specialist in exploration field development, capable to integrate geological, geophysical and engineering data to identify new drill locations. Fluent in English speaking and writing (bilingual), with interest in a position in the exploration, appraisal and development team of a company in the energy sector. More than 12 years of experience in 2D/3D seismic processing and interpretation, with advance geological knowledge in seismic sequence stratigraphy, structural knowledge, and seismic attributes. Advanced in DecisionSpace® Geosciences, Petrel, PaleoScan, Hampson & Russel and Kingdom Suite. Professional with a high level of initiative and independent judgment, leadership skills, result-oriented throughout qualitative analysis for decision making, and problem-solving, making things to happen between the operation and drilling engineering workgroups. Experience working in high-performance multidisciplinary teams through effective communication. Skills in solving problems through effective communication and applying negotiation techniques. Able to prioritize and rank multiple projects. Experience working with field engineers, multidisciplinary geoscience teams, managers and stakeholders. Availability to travel.

PROFESSIONAL EXPERIENCE

SCIENTIA GROUP, Bogotá, Colombia

Senior Development Geologist / Geophysicist   April, 2017 - Present
- Interpret and delimit prospects in the Lower and Middle Valley basin of Magdalena, Sinu – San Jacinto, Catatumbo, Putumayo, and Los Llanos using 2D lines and 3D seismic volumes, using well correlations and production data.
- Build reliable velocity models incorporating raw, edited and interpreted data for the Fields: Cerro Gordo Field, Turpial, Tubara, Rubiales – Quifa, and Cuyabeno (Ecuador), among others.
- Perform the hierarchy of prospects in exploratory areas based on economic deterministic and probabilistic analysis, resulting in a detailed study of geological risk analysis.
- Generate attributes of seismic attributes (AVO) to delimit OWC and fluid discrimination in exploratory reservoirs to support field development programs.
- Integrated interpretation of 2D and 3D seismic incorporating all relevant well data and non-seismic information.

PACIFIC RUBIALES (PACIFIC EXPLORATION & PRODUCTION), Bogotá, Colombia

Seismic Interpretation Specialist   November, 2014 - February, 2017
- Plan, design and execute more than 100 km of 2D seismic lines and 300 km2 of volumes seismic, supervision of seismic data processing, VSP and potential methods (gravimetry, magnetometry) in several areas of Colombia.
- Identified and planned new drilling locations in fluvial depositional environments using reservoir characterization and seismic stratigraphy, directly reporting to the Team Leader of the VP of Geoscience.
- I proposed more than 40 wells (stratigraphic and production) based on the seismic stratigraphy patterns analysis and accommodation space of amalgamated channels in the Los Llanos Basin of Colombia.
- I designed more than 25 verticals, deviated, and horizontal development wells in the Rubiales and Quifa fields, during five drilling campaigns, which generated the production of 750 bbl/d (average).
- Through a linear AVO inversion, I managed to model and estimate the impedance reflectivity of the P and S- waves, with the objective of restoring the low-frequency components in remote offsets, thus improving data quality and improving the S / N ratio by more than 25%. The results helped to de-risking plays and reducing subsurface uncertainties in Los Llanos Basin.

DRILLINGINFO, Houston, Texas (USA)

O&G Technology Expert – Solutions Architect/Sales   July, 2014 - November, 2014
- Manage and maintain a database with geoscientific information, with more than 3 million wells (electric logs and production data), miles of km^2 of seismic data, and structural maps of main stratigraphic markers in time and depth.
- Development and application of machine learning and artificial intelligence algorithms to perform evaluations in unconventional reservoirs in the main basins of the USA.
- Worked closely with sales managers to create strategic solutions and create business plans for clients.
- Advised more than 15 operating companies in Texas (Barnett and Eagle Ford), Oklahoma (SCOOP), Colorado, Delaware; and Colombia

(Carbonera, La Luna, Porquero), in the evaluation of 25 successful wells in various oil systems.

Technical Services Consultant   April, 2013 - July, 2014
- Performed more than 30 consulting services projects, which represented revenues of more than US$ 300,000 for the company between 2013 and 2014.
- Generated workflows using the company's technical solutions, which were key to the exploration of 10 successful wells drilled in non-conventional reservoirs.

PATHFINDER EXPLORATION LLC, Norman, Oklahoma (USA)

Field Geophysicists   May, 2009 - May, 2013
- Evaluated and monitored the proposed horizontal trajectory of more than 10 exploratory wells in the Cherokee Platform (Southern and Central Oklahoma)
- Collaborated in the creation of investment budgets for the acquisition, development, and operation of more than 170 producing wells in the Oklahoma, Texas, Kansas and Arkansas area.
- Analyzed over 1,000 km2 of aeromagnetic data and satellite imagery data to identify potential areas of oil and gas and proposed more than 50 exploratory and development well locations.

THE UNIVERSITY OF OKLAHOMA, Norman, Oklahoma (USA)   August, 2007 - May, 2013

- Development of the stratigraphic framework in unconventional reservoirs, based on information of drilled cored wells in the Fort Worth Basin, electrical logs, geomechanical lab test, and 3D seismic information.

NOBLE ENERGY, Houston, Texas (USA)

Geophysicists   May, 2009 - August, 2009
- Generated 6 structural and stratigraphic maps, and their respective cross-sections, which were correlated with a map of amplitudes.
- Calculated reserves in the Kepler field of 250 million barrels of oil equivalent, which represented 20% more than the reserves estimated to date by the company.
- Proposed drilling a well based on detected amplitude anomalies.

ANADARKO PETROLEUM, Houston, Texas (USA)

Geophysicists   May, 2008 - August, 2008
- Correlated seismic velocities with the information of 125 velocity logs, and their respective pore pressure values.
- Constructed a cumulative geopressure curve that allowed me to conclude that the occurrence of oil or gas in fields in the Gulf of Mexico is significantly reduced when the pressure was greater than 14.5 PPG.

EDUCATION

The University of Oklahoma, Norman, USA | Ph.D. Geophysics | 2013

The University of Oklahoma, Norman, USA | M.S. Geology | 2009

Universidad Simón Bolívar, Caracas, Venezuela | Ingeniería Geofísica | 2007

Universidad de los Andes, Bogotá | MBA | 2019

ADDITIONAL SKILLS

Languages:
- English: Fluent, spoken and written
- Spanish: Mother tongue
- German: Basic

Distinctions
- Best Paper Award for the technical article published in Interpretation Journal, 2015.
- 1st place in the AAPG Imperial Barrel Award, 2008.
- 8th place in The Negotiation Challenge, Bogotá, 2017.

Software Proficiency
- Seismic Interpretation software: DecisionSpace®, Petrel, PaleoScan, Hampson & Russel, Kingdom Suite, Transform, TechLog, and OpendTect.
- Advanced user in Microsoft Office programs (Word, Excel, PowerPoint)
- Programming Language: Python, MatLab, and R.

Special Skills
- Skills in problem-solving through effective communication and applying negotiation techniques.
- Project management, public relations, strategic communications
- Writing, editing, marketing, brand management
- Conflict resolution, mentoring, team-building coaching.

Personal Interest
- Travelling, Hiking, Cycling, and Reading.

COURSES AND SEMINARS
- Leadership Symposium, SEG - Exxon Mobil, San Antonio, Texas (USA), 2011
- Seismic Anisotropy Course, SEG Annual Convention, San Antonio, 2011
- Geophysics Course Under Stress, Dallas Geophysical Society, Dallas 2010

EXTRACURRICULAR ACTIVITIES
- Professor Petroleum Geology at the Universidad de los Andes (Master of Petroleum), Structural Geology (Undergraduate of Geosciences), and Seismic Stratigraphy at the National University of Colombia (Master of Geophysics). (2016 - 2018)
- Regional Coordinator of the Imperial Barrel Award (AAPG) for Latin America and the Caribbean, as well as other student activities in the region (2013 - 2016)
- Associate editor of the EAGE magazine "Latin American Applied Geosciences", in charge of editing articles related to QI, seismic attributes, and unconventional reservoirs. (2013 - 2016)

RELEVANT PUBLICATIONS
- R. Perez and K. Marfurt, 2014, Mineralogy-Based Brittleness Prediction from Surface Seismic Data: Application to the Barnett Shale: Interpretation, 2, 1 - 17.
- R. Perez, 2013, Brittleness Estimation from Seismic Measurements in Unconventional Reservoirs: Application to the Barnett Shale: Ph.D. Dissertation, ConocoPhillips School of Geology and Geophysics: The University of Oklahoma.
- Russian, C., R. Perez, and K. Marfurt, P- and S- Wave Delineation of the Horseshoe Atoll, Diamond-M Field, West Texas, The Leading Edge, September 2010
- Slatt, R.M., P.R. Philp, N. O'Brien, Y. Abousleiman, P. Sing, E.V. Eslinger, R. Perez, R. Portas, E. T. Baruch, K. J. Marfurt, and S. Madrid-Arroyo, 2012, Pore-to regional-scale, integrated characterization workflow for unconventional gas shales, , in Breyer, J. (ed) Shale Reservoirs—Giant Resources for the 21st Century, AAPG Memoir 97, p. 127-150.
- Perez, R., 2009, Quantitative Analysis of Gamma-Ray Parasequences in the Barnett Shale: M.S. Thesis, ConocoPhillips School of Geology and Geophysics: The University of Oklahoma.
- Aktepe, S., K. Marfurt and R. Perez, Attribute Expression of Basement Faulting – Time Versus Depth Migration, The Leading Edge, March 2008
- Singh, P., R. Slatt, R. Perez, et al., Reservoir Characterization of Unconventional Gas Shale Reservoirs: Example from the Barnett Shale, Texas, U.S.A, Shale Shaker Volume 60, July-August 2009, Number 1, Page 15-31.

RELEVANT PRESENTATIONS
- I Cumbre del Petróleo y Gas, Improved Interpretation and High-Resolution Stratigraphic Delimitation through Spectral Attributes of Fluvial Reservoirs in the Los Llanos Basin (Colombia), Oral Presentation, November 14-16, Bogotá.
- I Cumbre del Petróleo y Gas, Identification of Fragility in Non-Conventional Reservoirs, through the estimation of mineralogy in pre-stacked seismic data and micro-seismic events, Poster Session, November 14-16, Bogotá.
- I Cumbre del Petróleo y Gas, Production Correlation of the Fm. Carbonera and Seismic Sequence Stratigraphy through the Wheeler Diagram, Poster Session, November 14-16, Bogotá.
- Congreso Mexicano del Petróleo, Identifying brittle zones for natural gas condensate heterogeneous reservoirs using rock physics and seismic inversion, Oral Presentation, September 26-29, 2018 / Acapulco, Mexico.
- AAPG International Conference & Exhibition, Seismic Brittleness Index Volume Estimation From Well Logs in Unconventional Reservoirs, Oral Presentation, April 6 - 9, 2014 / Houston, TX
- SEG Annual Meeting, Session: Characterization of Unconventional Reservoirs, Brittleness Estimation from Seismic Measurements in Unconventional Reservoirs: Application to the Barnett Shale, Oral Presentation, October 22-25, 2013 / Houston, TX
- AAPG International Conference & Exhibition – Geosciences Technology Workshop, Unconventional Resources: North American Plays, Integration of Surface and Subsurface Tools in Reservoir Characterization of Unconventional Reservoirs, Oral Presentation, September 7-10, 2013 / Cartagena, Colombia
- AAPG Geosciences Technology Workshop, Geomechanics and Reservoir Characterization of Shales and Carbonates, Calibration of brittleness to elastic rock properties via mineralogy logs in unconventional reservoirs, Oral Presentation, July 16-17, 2013 / Baltimore, MD
- AAPG Geosciences Technology Workshop – International Shale Plays, Calibration of Pre-Stack Anisotropic Seismic Inversion with Well Production Data in Unconventional Reservoirs: where the gas is coming from?, Oral Presentation, October 10-11, 2011 / Houston, TX
- AAPG Geosciences Technology Workshop – U.S. Shale Plays, Application of $\lambda\rho$ – $\mu\rho$ Inversion and Clustering Analysis in Unconventional Reservoirs, Oral Presentation, August 2-4, 2011 / Fort Worth, TX

REFERENCES ON REQUEST