

Corporate CV

Juan Pablo Radic
MSc, BSc

Associate Exploration Geologist, South America

PROFESSIONAL PROFILE

Senior exploration and structural geologist with 24 years of experience in hydrocarbon prone sedimentary basins. Skilled in field structural mapping, neotectonics, structural modelling and workstation seismic interpretation of complex structural settings. Natural and induced hydraulic fracturing modelling, geomechanics and wellbore image interpretation. Basin analysis and integration of hydrocarbon systems into play and prospect risk evaluations. Experienced in South American and North African Petroleum Geology, as well as geothermal exploration in Chile.

LANGUAGES

English, Spanish.

EDUCATION

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| 2004 | MSc in Earth Sciences
Cornell University, USA
<i>Thesis project: Structural interpretation and basin analysis of the Girardot Basin, Magdalena Valley Basin, Colombia</i> |
| 1997 | BSc in Geology
University of Chile
<i>Thesis project: Structural analysis of compressional and extensional terrains, Upper Magdalena Valley Basin, Colombia; Gulf of Suez, Egypt</i> |

EMPLOYMENT

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| 2021- today | Associate Exploration Geologist at Terractiva
Geological consultancy and training for O&G Exploration |
| 2019- today | Universidad del Desarrollo (UDD), Chile
Associate Lecturer at Universidad del Desarrollo (UDD), Structural geology. |
| 1998- today | ENAP-SIPETROL
Senior Structural Geologist at ENAP-SIPETROL, Explorationist and in-house structural geology consultant |

PROFESSIONAL AFFILIATIONS

Member, American Association of Petroleum Geologists since 2003

Member, Chilean Geology Society since 2009

GRC Geothermal Resource Council since 2005

PROFESSIONAL EXPERIENCE

Geological characterization and exploration in all types of tectonic-basin settings worldwide (South American basins of Chile, Argentina, Peru, Colombia, Ecuador, and Trinidad & Tobago, North American basin of Gulf of Mexico, North African basins of Egypt, Tunisia, and Middle East basins of Israel and Lebanon). Expert in seismic interpretation and field mapping of complex deformed terrains, prospect generation & evaluation, and petroleum system analysis.

Exploration Studies

North America/Caribbean

- 3D and 2D seismic interpretation for petroleum bidding round evaluation in Sudeste Basin, Gulf of Mexico, offshore Mexico: extensional and salt system.
- 2D seismic interpretation for petroleum bidding round evaluation in Southern Basin, Onshore Trinidad, Trinidad & Tobago, strike slip system.

South America

- Field mapping, geological modelling and basin analysis for hydrocarbon potential evaluation, Cura Mallin basin, Southern Central Chile: inversion and strike-slip system.
- Field mapping, geological modelling and basin analysis for hydrocarbon potential evaluation, Pedernales basin, Northern Chile: compressional and inversion system.
- Field mapping, geological modelling and basin analysis for hydrocarbon potential evaluation, Arauco basin, Southern Central Chile: inversion and strike-slip system.
- 3D and 2D seismic interpretation, geological modelling and basin analysis for hydrocarbon potential evaluation, Valdivia basin, offshore Southern Central Chile, inversion and strike slip system.
- Field mapping and structural modelling, Tatio/Pampa Apacheta geothermal system, Northern Chile, inversion and strike slip system.
- Field mapping and structural modelling, Lirima geothermal system, Northern Chile, strike slip system.
- Field mapping and structural modelling, Polloquere geothermal system, Northern Chile, strike slip system.
- Field mapping and structural modelling, Chillan geothermal system, Southern central Chile, inversion and strike slip system.
- Field mapping and structural modelling, Tinguiririca geothermal system, Southern central Chile, inversion and strike slip system.
- Field mapping and structural modelling, Calabozos geothermal system, Southern central Chile, inversion and strike slip system.

- 3D and 2D seismic interpretation and structural modelling, Magallanes basin, Southern Chile, compressional and inversion system.
- 3D and 2D seismic interpretation and structural modelling, San Jorge basin, Southern Argentina, strike slip system.
- 3D and 2D seismic interpretation and structural modelling, Magallanes basin, Southern Argentina, inversion and strike slip system.
- 3D and 2D seismic interpretation and block evaluation for hydrocarbon potential evaluation, Tumbes basin, offshore Northern Peru, strike slip system.
- 3D and 2D seismic interpretation, structural modelling, and prospect generation, Upper Magdalena Valley basin, Colombia, compressional system.
- 3D and 2D seismic interpretation and block evaluation, Llanos basin, Colombia, compressional system.
- 3D and 2D seismic interpretation, structural modelling and block evaluation, Oriente basin, Ecuador, compressional and inversion system.
- 3D and 2D seismic interpretation, structural modelling and block evaluation for hydrocarbon potential evaluation, Golfo de Guayaquil basin, offshore Ecuador, strike slip system.

Asia

- Regional screening for petroleum bidding round evaluation, Mumbai/Barmer basin, offshore India, extensional system.
- Regional screening for petroleum bidding round evaluation, Levant basin, offshore Lebanon, inversion and strike slip system.
- 2D seismic interpretation, geological modelling and block evaluation, Levant basin, offshore Israel, inversion and strike slip system.

Africa

- 3D and 2D seismic interpretation and structural modelling, Nile Delta basin, Egypt, extensional and strike slip system.
- 3D and 2D seismic interpretation, structural modelling, and petroleum bidding round evaluation, Western desert, Egypt, inversion and strike slip system.
- 3D and 2D seismic interpretation and structural modelling, Gulf of Suez basin, Egypt, extensional system.
- Field mapping for hydrocarbon potential evaluation, Tabarka basin, Tunisia, compressional system.

Oceania

- Regional screening for petroleum bidding round evaluation in the northwestern basins, offshore Australia, extensional system.
- Regional screening for petroleum bidding round evaluation in offshore/onshore basins of Java and Sumatra, Indonesia: extensional system, inversion tectonics.

Europe

- Regional screening for petroleum bidding round evaluation in the Panonian basin, onshore Croatia, compressional system.

COMPUTER SOFTWARE EXPERTISE

Geological Modelling	Petroleum Experts Blue Marble Schlumberger	Move, FieldMove and FieldMove Clino Global Mapper Petrel Suite
Seismic Interpretation	IHS Schlumberger dGB Earth Sciences	The Kingdom Suite Petrel 2013-2020 OpendTect
Graphical: Microsoft Office: Operating Systems:	Corel Draw, Canvas, ACD Canvas Word, Excel, PowerPoint, Access Windows, Linux, Mac OS	

TEACHING EXPERIENCE

Thesis Advisor, Universidad de Chile, 2008-2010.

Structural geology field course guide, XVIII Argentinian Geological Conference. May 2011.

Inversion systems, field course guide, ENAP in-house, November 2013.

Associate lecturer, structural geology, Universidad del Desarrollo UDD, 2019-2021

Thesis Advisor, Universidad del Desarrollo, 2021.

FIELD EXPERIENCE

1999 – 2000	Cura Mallin basin, Chile, inversion tectonics, hydrocarbon exploration
2001	Pedernales basin, Chile, Fold and thrust belt, hydrocarbon exploration
2002	Tabarka basin, Tunisia, fold and thrust belt, hydrocarbon exploration.
2006- 2007	Arauco basin, Chile, extensional tectonics, hydrocarbon exploration.
2007-2008	Atacama basin/Pampa Apacheta, inversion and strike slip tectonics, geothermal exploration.
2008	Chillan and Calabozo basin, inversion and strike slip tectonics, geothermal exploration.
2013	Tinguiririca, concession, inversion and strike slip tectonics, geothermal exploration.
2014	Lirima concession, strike slip tectonics, geothermal exploration.

PROFESSIONAL DEVELOPMENT

- Seismic interpretation, Franco Spano, 1998
- Advanced Structural Interpretation for Petroleum Exploration in Fold and Thrust belts (Pyrenees, Spain), Ken McClay and Josep Anton Munoz, 1999.
- Kinematic evolution of structures, YPF 1999, Tomas Zapata.
- Analysis of sedimentary basins, Teresa Jordan, 1999.
- Maturity Modelling and basin Modelling, Douglas Waples, 1999.
- Well log interpretation, Schlumberger, 2000.
- Unconventional Gas accumulations, Nautilus M082, 2005, Hampton, Seidle and Bereskin.
- Introduction to Sequence Stratigraphy and Foreland Basins, George Bertram Stratigraphic Research Int (UK), 2006.
- Tectonics and sedimentation in rift systems, west central Sinai, Filed seminar 2007.
- The Analysis of Fractured Reservoirs (Wyoming, USA) field course, Nautilus N190b, Hutch Jobe, Paul MacKay, 2007.
- Practical applications of Geothermal Science, SKM, 2008.
- Compressional Structural Styles: Models for Exploration and Production (Alberta, Canada) field course, Nautilus N053b, Paul MacKay and Deborah Spratt. 2008.
- Seismic interpretation of Deep-water depositional systems, nautilus M072a, Ryer and Wood 2009.
- Extensional Tectonics and Normal Fault Patterns, Utah, NV, USA field course, Nautilus M41a, 2010.
- Chile-Argentina geological transect, field course, 2011.
- Facies analysis: From Sediments to depositional Systems, Bauberg Klein, Octavian Catuneanu 2012.
- Structural and Stratigraphic interpretation of dipmeter and borehole image logs, Petroskills, Laura Foulk, 2013.
- Practical Aspects of Shale Gas Geomechanics, Next Schlumberger, Nelly Rubio, 2014.
- Microseismic Imaging of hydraulic fracturing: Improved Engineering of Unconventional Shale reservoirs, Shawn Maxwell, SEG, 2015.
- Hydraulic fracturing, Bauberg Klein, Ignacio Martinez oct 2016.

SELECTED PUBLICATIONS

Radic, J.P. 2010. Las cuencas terciarias y su control en el volcanismo de los complejos volcánicos Chillán y Copahue-Callaqui (Andes del Sur 36°-39°S). *Andean Geology*, 37 (1):220-246.

Radic, J.P.; Mpodozis, C.; Alvarez, P., 2007. Tectonic Evolution of the Magallanes Fold and Thrust Belt between Seno Skyring and Península Brunswick, southernmost Andes. *Geosur* 2007, Santiago, Chile.

Alvarez, P.; Mpodozis, C.; Giambiagi, L.; Godoy, E.; **Radic, J.P.** 2006. Relationships between tectonic shortening and slab shallowing: Chilean-Argentine Andes (25°-35° S). *Backbone of the Americas* Patagonia to Alaska, Mendoza.

Croft, D.A; **Radic, J.P.**; Zurita, E.; Charrier, R., Flynn, J.J.; Wyss, A., 2003. A Miocene toxodontid (Mammalia: Notungulata) from the sedimentary series of the Cura-Mallín Formation, Lonquimay, Chile. *Revista Geológica de Chile*, Vol. 30, n°. 2.

Rojas, L.; Muñoz, N.; **Radic, J.P.**; McClay K., 1999. The stratigraphic controls in the transference of displacement from basement thrusts to the sedimentary cover in the Malargue Fold and Thrust Belt, Neuquén basin, Argentina: The Puesto Rojas Oil Field example. Thrust Tectonics, Royal Holloway University of London, UK.

SELECTED CONFERENCE ABSTRACTS

Carpinelli A., Zurita E., Valderrama J., Agurto C., **Radic J.P.** 2022. Exploración y desarrollo en complejos turbidíticos del Paleoceno superior a Eoceno medio. Conexplo, Mendoza Argentina.

Alvarez, P.; **Radic, J.P.**; Mpodozis, C., Elgueta, S. 2011. Estratigrafía y tectónica de la cuenca de antepaís cretácica - terciaria de los Andes Australes: la zona de Seno Skyring, Magallanes, Chile. XVIII Congreso Geológico Argentino, Neuquén.

Radic, J.P., Alvarez, P, Czollak, C, Parada, R, Ortiz, V. 2009. La cuenca de Valdivia como parte del sistema de antearco de la plataforma continental de Chile central entre los 36° y 40°S. XII Congreso Geológico Chileno, Santiago.

Radic, J.P. 2006. Anisotropías de basamento como control estructural del volcanismo en el Complejo Volcánico Chillán. XI Congreso Geológico Chileno, Antofagasta.

Alvarez, P.; **Radic, J.P.**; Rojas, L. 2006. Evolución tectonosedimentaria de la cuenca de antearco Arauco Itata, Chile Central. XI Congreso Geológico Chileno, Antofagasta.

Radic, J.P.; Alvarez, P.; Rojas, L., 2005. Tectonostratigraphic evolution of the Arauco-Itata forearc basin, Central Chile. 6 th International Symposium on Andean Geodynamics, Barcelona, Spain.

Radic, J.P.; Jordan, T.E., 2004. Late Cretaceous evolution of the Girardot Basin, Upper Magdalena Valley, Colombian Andes. Tercera Convención Técnica Asociación Colombiana de Geólogos y Geofísicos del Petróleo, Bogotá, Colombia.

Folguera, A.; Melnik, D.; **Radic, J.P.**; Iaffa, D.; Ramos, V.A. 2002. 37° to 39° intra-arc basin in the Southern Central Andes-Cenozoic activity of western Neuquén basin. Actas 7° Congreso Internacional de Ciencias de la Tierra. Simposio Internacional "Interacciones entre los volcanes y sus basamentos y los riesgos geológicos relacionados". Electronic Files. Santiago de Chile.

Radic, J.P.; Rojas, L.; Carpinelli, A.; Zurita, E., 2002. Evolución tectónica de la Cuenca terciaria de Cura-Mallín, región cordillerana Chileno-Argentina (36°30' 39°00'S). XV Congreso Geológico Argentino, El Calafate.

Rojas, L.; **Radic, J.P.**, 2002. Estilos de deformación del basamento y de la cobertura sedimentaria en la Faja Plegada y Fallada de Malargue en el área de Puesto Rojas, Mendoza, Argentina. XV Congreso Geológico Argentino, El Calafate.

Baeza, O.; Charrier, R.; **Radic J.P.**, 2000. Análisis estructural mediante el programa Trishear 1.4.2 de la deformación observada en el área de la confluencia de los ríos Yeso y Volcán, Región Metropolitana. IX Congreso Geológico Chileno, Puerto Varas, Chile.

Muñoz, N.; Charrier, R.; **Radic J.P.**, 2000. Formación de la Cordillera de la Sal por propagación de fallas y plegamiento por despegues, II región, Chile. IX Congreso Geológico Chileno, Puerto Varas, Chile.