

ALEXIS FERRER

Reservoir Geophysicist – Freelance Consultant

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OVERVIEW

- 20 years experienced Geophysicist in Seismic Reservoir Characterization, working as an independent consultant today.
- Core speciality: Reservoir Geophysics, global knowledge and experience on Seismic Processing techniques, as well as most of exploration techniques.
- Worked on Fractured Carbonate reservoirs as well as clastic, significant experience in integrating different specialties and in project leadership.
- Large experience in many Gulf of Mexico fields with special emphasis to fractures, and also for shale reservoirs.
- Interested in leading technically complex projects which involves research application as well as communication with clients.

SERVICES

Lithologies, Fluid content and Fractures detection. Feasibility and complete studies.

Techniques: Rock-Physics analysis, Pre and Post-stack Seismic Inversion, Stochastic Inversion, AVO, AVAz, Multicomponent inversion, Attributes generation & classification, Time-depth conversion models.

Trainings: Seismic reservoir characterization, Rock Physics, Introduction to Reflection Seismic Geophysics, Seismic Stratigraphy interpretation, and related topics.

EXPERIENCE

RESERVOIR GEOPHYSICIST - FREELANCE CONSULTANT

SINCE MARCH 2014

Several trainings delivered through IFP training (see below)

Sept.2018-Jan.2019:

Seismic Reservoir Characterization for IPC (International Petroleum Company),

Seismic Acoustic and Stochastic Inversion, Porosity Prediction, Azimuthal Analysis. This is a very challenging project performed in Carbonates, delivering very interesting results.

2014-2015:

Prestack Seismic Inversion and Characterization of BMC-C-33 block for RepsolSinopec, Brazil (11 Months project)

Very complete project involving Preconditioning of seismic gathers, Post and Pre-Stack inversion and Lithology discrimination, with different processed seismic versions. 2 successful wells were drilled using the results substantially increasing the reserves.

RESERVOIR OPEN CENTER TEAM LEADER – CGG BRAZIL

SEPT.2012-MARCH 2014

Technical supervisor and commercial for consultancy services related to Seismic Reservoir Characterization for Oil companies in Brazil and whole Latin America. Special emphasis on Stress field detection proposals for shale gas/oil reservoirs. Giving trainings and demos with Hampson-Russell's software. Working for technological development projects.

Relevant Project: AVO analysis for Albacora 3D (TCT: Technology Collaboration Test) with Petrobras for a value of 1.5M\$ (AVO part estimated to 0.3M\$)

TECHNOLOGY CENTER INVESTIGATOR– CGG MEXICO

JUNE 2009-SEPT.2012

Small-beds identification (Chicontepec), and Fracture detection using seismic anisotropy, Velocity modeling for time-depth conversion of several 2D lines in the Gulf of Mexico. Early opportunities characterization for Bolol cube applying AVO and seismic attributes. A new illumination feature was specially developed specially for this. I developed a feasibility methodology to check the detectability of fractures on seismic cubes (based on fracture images in wells and HTI anisotropic seismic modelling). Worked on Seismic processing techniques as well as seismic reservoir characterization.

Relevant Project: Leader for a project worth 1.2M that saved PEMEX an estimated 10M by avoiding the need for a new acquisition. Developed new methodology to reprocess conventional seismic data in order to recover the azimuthal information without requiring a new acquisition. The successful project became the standard methodology for other fields.

SUBSIDIARY MANAGER – BEICIP-FRANLAB MEXICO

MARCH 2007-MAY 2009

Project leader for 8 geophysicists for a 10,000km² exploration project worth 1.5M. This project determined the location and priorities for the drilling of exploratory wells. The highest priority well proved to be a successful drill (the estimated worth of a drill in the region is 20-30M). Additionally, as a result of this project PeMex bought software licenses for a total value of 1M..

TEAM LEADER – BEICIP-FRANLAB FRANCE

JUNE 2005 - MARCH 2007

Team leader for a 3 reservoir geophysicist group, working for different clients. Relevant projects:

Carbonate Fracture Characterization of Ixtal field (the most productive field in Mexico), for PEMEX.

Carbonate matrix and Fracture Characterization study of Forastero and Pirineo fields. A successful gas well was drilled (Forastero-101) based on the study which resulted to be 50% more productive than preceding ones.

Prestack Characterization pilot study of “Bul Hanine” field for PGS-Qatar Petroleum. Successful in carbonate discrimination and porosity evaluation, fully appreciated by the client. The whole study was given to Beicip-Franlab.

PROJECT LEADER – BEICIP-FRANLAB FRANCE

MARCH 2001 - JUNE 2005

Reservoir geophysicist working on different clastic and carbonated fields. Relevant projects:

2004-2005: Prestack Seismic Inversion and Characterization of Arenque-Lobina field. Porosity, Probability, new opportunities determination and preliminary reserves in place estimation.

2004: Acoustic inversion of a 2D clastic reservoir in Ecuador for Petroecuador.

2001: AVO modeling with fluid substitution and 2D acoustic inversion on Trutch field for IFP-Canada, the objective being a porous dolomitic reservoir.

**DELIVERED
TRAININGS**

DECEMBER 2019 (2WK)

"3D Seismic Interpretation" for different students, though IFP-Training

NOVEMBER 2019 (2WK)

"Tools for SRC: AVO and Seismic Inversion" for GNPC, though IFP-Training

APRIL 2019 (1WK)

"Seismic Interpretation & Attributes Analysis Workshop: Qualitative & Quantitative Methods" for IAP-Sonatrach, though IFP-Training

APRIL 2018 (1WK)

"Geophysics for non-Geophysicists" for TOTAL, though IFP-Training

DECEMBER 2018 (2WK)

"3D Seismic Interpretation" for different students, though IFP-Training

NOV 2017 (2WK)

"Seismic Interpretation and Attribute Analysis" for Kenyan Ministry of Energy and NOCK , through IFP-Training

OCT 2016 (1WK)

"Seismic Interpretation for petroleum exploration – PETEX module" for Kenyan Ministry of Energy, through IFP-Training

MAY 2016 (1WK)

"Introduction to Seismic Interpretation: Qualitative and Quantitative Methods", through IFP training (Angola – Total center)

FEBRUARY 2016 (1WK)

"Seismic Stratigraphy Interpretation" for YPF (Bolivia), through IFP-Training

FEBRUARY 2016 (1WK)

"Seismic Reservoir Characterization for YPF (Bolivia), through IFP-Training

NOVEMBER 2015 (1WK)

"Geophysics for Petroleum Systems" for geoscientists from Africa (Tanzania, Cameroun, Ghana), through IFP-Training

FEBRUARY 2015 (1WK)

"General Geophysics for non-geophysicists" for PDVSA through IFP-Training

NOVEMBER 2014 (6WK)

"Reservoir Seismic Characterization" coaching for online training (TOTAL) – 12 students.

MAY 2013 (1WK)

"Hampson-Russell Post and Pre Stack Inversion" for PDVSA – 8 students.

MARCH 2013 (2WK)

"Hampson-Russell Post and Pre Stack Inversion" for PDVSA – 10 students.

JANUARY 2004 (1WK)

Rock Physics and Inversion training for Sonatrach (Argelia).

JANUARY 2003 (2WK)

"Geophysics for Engineers" for PRC (Tripoli, Libia).

NOVEMBER 2002 (1WK)

"Seismic Inversion" for DMNG.

MAY 2002 (1WK)

“Seismic Inversion” for PEMEX.

EDUCATION | **IFP-SCHOOL** , RUEIL-MALMAISON, FRANCE

SEPT.1997-JANUARY 1999

MASTER OF SCIENCES IN OIL EXPLORATION GEOPHYSICS

Speciality: Seismic interpretation and Reservoir

UB (UNIVERSITAT DE BARCELONA), SPAIN

OCT.1991-JUNE 1996

PHYSICS SCIENCES

Speciality: Geophysics, Fluid Dynamics and Meteorology

PREVIOUS EXPERIENCES | **NET SYSTEM ADMINISTRATOR (IBM)**

MARCH 2000-MARCH 2001

Important Bank Portal maintenance, Using AIX system

RESERVOIR GEOPHYSICIST (BEICIP-FRANLAB)

FEB 1999- JUL 1999

Internship+employed working on inversion projects:

North Sea 3D block inversion for WINTERSHALL.

East France - 2D Inversion for ANDRA, targeting deep shales intended to radioactive residual storage.

SEISMIC INTERPRETATION (ETAP) - INTERNSHIP

JUL. 1998- OCT.1998

Regional study of the Hammamet Gulf Deep Horizons project: Interpretation of 100 2D lines using 50 wells in the whole study.

EBRO RIVER ESTUARY FLUID-PHYSICS WORK - UPC (BARCELONA, SPAIN)

SEPT. 1996-JUNE 1997

Thesis developing a Finite Differences method to model the fluid dynamics of the Ebro Estuary.
Programming Language: Fortran

REFRACTION SEISMICS INTERNSHIP – GEOMAR (KIEL,GERMANY)

JULY 1995-SEPT.1995

Refraction volcanic Canarias islands seismic processing and interpretation.

- PUBLICATIONS** | **COMBINING GEOMECHANICS AND GEOPHYSICS FOR NON-CONVENTIONAL RESERVOIR PRODUCTION OPTIMIZATION.** Claudio Rabe, Alexis Ferrer . SBGF 2013.
- BENEFITS OF BROADBAND SEISMIC DATA FOR RESERVOIR CHARACTERIZATION. SANTOS BASIN, BRAZIL .** Ekaterina Kneller, Alexis Ferrer, Jeremy Langlois. SBGF 2013
- FEASIBILITY STUDY METHODOLOGY FOR FRACTURE ANALYSIS STUDIES USING SEISMIC AZIMUTHAL VARIATION: APPLICATION IN SOUTHERN MEXICO.** Alexis Ferrer, Nahum Perez Campos, Jesús Garcia Hernández. GCAGS 2011
- LANGUAGES** | French, Spanish, Catalan: Native tongues Portuguese: Average level
English: Fluent German: Basic level
- SOFTWARE SKILLS** | Geology/geophysics applications: Paradigm: Vanguard, Echos, SeisEarth, Hampson&Russell, Petrel, Interwell, Easy-Trace, Geovation, Charisma, Seisworks.
Computer languages : Fortran, C, Pascal, Matlab.
- SHORT TRAININGS** | **NEW HUMAN RIGHTS AMBASSADOR .** Dec.2019: <http://www.theinnerstate.global/>
- LEADING FROM THE EMERGING FUTURE. U-LAB MOOC 2018**
- GOUVERNANCE PARTAGEE.** Colibris. April 2017
- FRACTURED RESERVOIRS .** AAPG: by Lorentz, Ouenes in Casper, Wyoming. JUNE 2001

HAMPSON-RUSSELL AVO AND INVERSION (CGG) . JANUARY 2010

MULTICOMPONENT PROCESSING TECHNIQUES (CGG). DECEMBER 2010

GEOVATION BASICS IN SEISMIC PROCESSING (CGG). APRIL 2010

MANAGEMENT TRAINING (MOORTGAT RESOURCES). JANUARY-JUNE 2007

SEISMIC INTERPRETATION, DATA LOADING WITH CHARISMA (SLB). JAN 2002, NOV 2001

BASIC AND ADVANCED AIX ADMINISTRATION (IBM). APRIL 2000, OCT 2001

VOLUNTER EXPERIENCES

Engaged with “Les Vergers de Mareil” association, promoting and practicing permaculture in Mareil city. LES VERGERS DE MAREIL – 2015-TODAY

Engaged with “biodivercités78”, taking local care about biodiversity. BIODIVERCITÉS78 – 2015-TODAY

Co-founder for NGO: “Les Champs de l’Avenir”, supporting agriculture development in Northern Togo (CD2A center). Blog: <http://leschampsavenir.over-blog.com/> . 2005-TODAY

Mountaneering leader for teenagers during 4 years in Barcelona, enjoying mountains and developing team leading and logistic skills. UEC GRÀCIA – 1989-1993.

HOBBIES

Sports (Basketball, Mountaineering, Cycling, Yoga), traveling, reading, painting, Astronomy (member of local astronomy club in Mexico), Agroecology and Permaculture.

INTERESTS

Science and Technology, specially at human service. Social and environmental Sustainability. Ethical economy. Transition. Education. Spirituality.