



## Sajjad Sarallah Zabihi

[sa.zabihi@gmail.com](mailto:sa.zabihi@gmail.com)

+98 912 5402130

**Petroleum Geoscientist**

---

### Areas of Expertise:

- ◆ Geostatistical reservoir modeling,
- ◆ Reservoir characterization
- ◆ Velocity Modeling
- ◆ Seismic interpretation (Structural & stratigraphic Interpretation)
- ◆ Seismic Inversion
- ◆ Structural modeling,

---

### EDUCATION:

- ◆ 2007: M.Sc. Degree of Petroleum Exploration from Tehran University in Tehran, Iran. (M.Sc thesis: Geostatistical Reservoir Modeling with Simulated Annealing )
- ◆ 2002-2006: B.Sc. Degree of Petroleum Engineering from Petroleum University of Technology in Ahwaz, Iran.

---

### WORK EXPERIENCE:

- ◆ NIOC Exploration Directorate (NIOC-EXP) /Sep 2010 – Now
- ◆ Pars Energy-Gostar Drilling and exploration(PEDEX)/ june 2008-Sep 2010(2weeks at job, 2weeks at rest)
- ◆ Collaboration with some Geoscience and Petroleum Consultancy Company/2008-Now (Part time).

---

## **PROFESSIONAL EXPERIENCE:**

### **➤ Field Development**

#### **Static modeling and volume calculation in offshore oil and Gas fields**

- Structural modeling, Property modeling (Porosity, permeability and water saturation modeling) and volume calculation of SIRIE-E oil field.May 2014.
- Structural modeling, Property modeling (Porosity, permeability and water saturation modeling) and volume calculation of South Pars Gas field (Phase 14)/April 2014.
- Structural modeling, Property modeling (Porosity, permeability and water saturation modeling) and volume calculation of South Pars Gas field (Phase 17 and 18)/November 2013.
- Structural modeling, Property modeling (Porosity, permeability) of Balal oil field/March 2009.

#### **Static modeling and volume calculation in onshore oil fields**

- Structural modeling, Property modeling (Porosity, permeability and water saturation modeling) and volume calculation of Aban oil field/March 2014.
- Structural modeling, Property modeling (Porosity, permeability) of Darquain oil field/January 2013.
- Structural modeling, Property modeling (Porosity, permeability) of Dehluran oil field/March 2008.
- 

### **➤ Petroleum Exploration**

- 1. Structural Interpretation and Velocity modeling of 3D seismic in Azadegan Oil field: -Date:2015**
- 2. Structural Interpretation and Velocity modeling of 3D seismic in Yadavaran Oil field: -Date:2015**

- 3. Structural Interpretation and Velocity modeling of 3D seismic in Jufair Oil field-  
Date:2015**
- 4. Structural Interpretation and Velocity modeling of 2D seismic lines in Abadan Plain-Date:2015**
- 5. Seismic Sequence stratigraphy of lower cretaceous (Fahliyan formation) in South of Abadan Plain-Date:2016**
- 6. Seismic Sequence stratigraphy of Turonian-Cenomanians (Sarvak formation) in Abadan Plain- Date:2017**
- 7. Pearl Program: Basin Analysis of Persian Gulf and Oman Sea: Start Date: Sep 2011 (Client: National Iranian Offshore Oil Company)**

The main goal of this project is to prepare reliable structural, facies and petrophysical model of Persian Gulf and Oman Sea to be utilized in petroleum system modeling. Structural interpretation of 2D/3D seismic data, regional well correlation, analysis of salt diapirism activities, regional facies and property modeling and seismic inversion are the main tasks which I am involved in.

- 8. Geological and Geophysical Study of Sarvak Formation at Border Corridor of 'Block A' in Persian Gulf: Start Date: Jan 2011 Delivery Date: Sep 2011 (Client: National Iranian Offshore Oil Company)**

The ambiguities in lateral facies variations of Mishrif member in regional scale caused this study to be implemented. The problem was investigated from several aspects and resulted in some conclusions that revised the old defined system tracts and proposed some prospects for further developments. I performed the following tasks in this project:

Regional offshore 2D seismic data interpretation (mis-tie analysis, well to seismic calibration), regional velocity modeling and depth conversion, seismic inversion, sequence stratigraphy analysis and unsupervised seismic data clustering.

- 9. Feasibility Study of EOR/IOR Process Monitoring by 4D Seismic Data: Start Date: Mar 2009 Delivery Date: Dec 2010 (Client: National Iranian Offshore Oil Company)**

In this project, static model of Balal oil field was built and dynamic simulation run on the model. Static model of reservoir was updated for several times to match the history of reservoir. The final model of dynamic simulation with maximum degree of history matching was used for rock physics modeling to estimate the variations of elastic properties during production/injection

stages. Reservoir behavior was forecasted by pre-defined EOR scenarios and saturation variations were monitored at different stages of reservoir life. Reservoir rock and fluid properties were utilized to estimate the elastic properties of reservoir.

At the next step, synthetic seismic cubes were generated by wave modeling techniques on the elastic cubes. Consequently, the generated time lapse seismic data were interpreted to analyze the feasibility of 4D seismic acquisitions in this field for further developments.

**10. Stratigraphic and Structural Interpretation of Kalhur Member in Zagros Fold Thrust Belt for Hydrocarbon Generation Potential Analysis: Start Date: Mar 2008 Delivery Date: Mar 2009 (Client: National Iranian Oil Company, Exploration Directorate)**

This project was implemented for exploration of stratigraphic-structural traps where lateral facies variations occur in Dezful Embayment. In this study, several 2D seismic lines were interpreted (where high topography variations exist) for structural purposes. Afterwards, all the seismic lines were inverted for acoustic impedances with the aim of lithology estimation. In the suspected areas, spectral decomposition was utilized for identification of stratigraphic prospects.

**11. Fracture Modeling of Dehluran Oil-field at Dezful Embayment: Start Date: Sep 2007 Delivery Date: Mar 2008 (Client: National Central Iranian Oil Fields Company)**

In this study, DFN (Discrete Fracture Network) model of Dehluran oil-field was built by utilization of non-seismic data (Image logs, mud losses, petrophysical well data, production logs and etc.). My responsibilities in this project can be summarized as:

Reservoir characterization: Building 3D model of reservoir properties such as porosity and permeability by geostatistical methods (SGS)

Three dimensional modeling of fracture intensity and building DFN model by combination of different sources of available data.

**12. Geo-Hazard Analysis of Gotvand Dam during Impoundment: Start Date: Jan 2007 Delivery Date: Sep 2007 (Client: Energy Ministry)**

The main goal of this project was to estimate the volume of surface and shallow salt bodies in vicinity of Gotvand dam. At the first step, by combination of outcrop information and well data, salt volume was estimated by geostatistical methods (IK, SIS) and stochastic 3D model of existing salt bodies presented. At the second step, seismic sections were interpreted for shallow horizons to locate the existing faults and investigate the probability of existence of regional salt diapirism.

---

## ARTICLES:

- ◆ S.zabihi, S.Shiroodi, 2009, “Geostatistical Modelling of Permeability by Simulated Annealing in Clastic Reservoir”, EAGE International Congress, Shiraz,Iran.
- ◆ S.M. SeyedAli, S. Zabihi., 2012, Optimizing seismic data acquisition by forward modeling: A case study in Zagros thrust belt, Istanbul International Geophysical Conference.
- ◆ S. Zabihi, S.A.Miri, M.Tavakoli, 2011, Constraining 3D Facies Model to Trend Maps to Improve Reservoir Porosity Modeling.
- ◆ I.Abdollahifard, S. Zabihi, S.A.Miri New concepts for exploration of stratigraphic-structural traps in the Abadan Plain of Zagros Belt, SW Iran

---

## SOFTWARE SKILLS:

### Geophysical Software Skills

- ◆ Schlumberger Petrel: Structural and petrophysical modelling (Expert)
  - ◆ Hampson Russell: Seismic data analysis and inversion (Expert)
  - ◆ OpendTect: Stratigraphic Interpretation and Attribute Analysis (Expert)
  - ◆ Geoframe: Structural Seismic Interpretation (Expert)
  - ◆ Paradigm: Muti attribute Clustering (Familiar)
  - ◆ Gocad: Structural modeling (Familiar)
  - ◆ 2D move: structural analysis (Familiar)
-