PESA DL Events

The PESA Distinguished Lecturer Tour PESA WA Short course:

Dr Marita Bradshaw  (Distinguished Member 2015)

"Petroleum Systems, plays and prospects – identification, analysis & evaluation"

Date: Wednesday 6th & Thursday 7th April 2016

Venue : Mantra Hotel 305 Murray Street, Perth WA 6000

The two day workshop covers the petroleum system, its elements and processes and the application of this framework to exploration. The focus will be on practical worked examples that will take the participants from acreage selection, through building play concepts to prospect ranking. Along the way different approaches to resource assessment will be introduced and we will consider what can be learnt from unsuccessful wells. Do they represent failure at the play or prospect level? Do they indicate that a play remains untested or hint at a previously unrecognised petroleum system?

The course will help build skills that are useful in the low oil price environment where it is increasingly important to rigorously evaluate opportunities and to develop new play concepts. Also included is a component covering applications of the petroleum geoscience skill set beyond oil and gas. The course is designed to accommodate participants with different levels of experience and professional backgrounds with a focus on working in multi-disciplinary teams.
Outline

Day 1

- Introduction to petroleum systems – definitions, processes and products
  Exercise 1: Petroleum systems & oil families – using North West Shelf data including wells, seismic & geochemistry identify the different petroleum systems, map their proven distributions and possible further extensions

- Hydrocarbon habitats & play elements
  Exercise 2: Play element mapping – using sequence stratigraphy and palaeogeography with Australian data sets to predict and map source, reservoir & seal facies in a variety of depositional systems

- Use of analogues in petroleum exploration
  Exercise 3: Construct play concepts using exploration results & analogues – from international & local data sets identify and fully describe petroleum plays capturing key information for assessment & comparison

- Exploration outcomes – testing play concepts
  Exercise 4: Well audits – what plays are tested? What plays are proven? Does a dry well indicate failure of the play or only of that prospect? – using data from Australian & international basins organise well information for input into risk analysis

- Applications of the petroleum geoscience skill set beyond oil & gas
  Exercise 5: Energy Industry futures - global, national, corporate & personal – workshop & discuss what comes next?

Day 2

- Exploration histories – petroleum systems meet the real world
  Exercise 6: Drill or drop? Assess exploration opportunities to determine whether to continue to explore in an established area, or try a new play, a new basin, a new country? - Australian & international case studies

- Approaches to play and prospect evaluation – conventional & unconventional resource assessment methodologies
  Exercise 7: Acreage selection Part 1 –using Australian data sets screen, evaluate and rank exploration areas
  Exercise 8: Acreage selection Part 2 – document and present the case for exploration investment, which block and why?
  Exercise 9: Energy Industry futures Part 2 – outcomes

- Members AU$600 + GST
- Non-Members AU$700 + GST
- Student Members AU$120 Incl GST