

# Target Exploration

Energy Geosciences Research & Development

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## E & P Developments in the Middle East & North Africa

With Special Sessions on E&P Technologies of

**SONATRACH, ALGERIA**

**MENA 2002 Oil & Gas Conference**

(MENA02) The 3<sup>rd</sup> International Middle East & North Africa Oil & Gas Conference

19 and 20 September 2002

**The Imperial College**

London, SW7, UK.

Organised by *Target Exploration*

Sponsored by **MEES**

# ***MENA 2002 Oil & Gas Conference***

*(E&P Developments in the Middle East & North Africa)*

**Day One Thursday 19 September 2002**

## 8.30-Registration and Coffee

## 8.55-Chairmen Opening Remarks

**Dr. Thamir Uqaili**, Managing Director, Petroconsult Canada, Mississauga, Canada

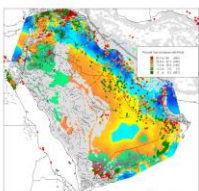
**Dr. M. Ala**, Director of M.Sc. Courses, Petroleum Geology Section, Geology Department, Royal School of Mines, Imperial College, London, UK.

**Dr. A. Fenghour**, Research Fellow, Department of Chemical Engineering, Imperial College, London, UK.

**Dr. Walter H Pierce**, Director, WHPierce Exploration, Houston, Texas, USA.

## A. HYDROCARBON HABITAT IN THE ARABIAN PLATE

### **9.00 (A1) Arabian Plate Hydrocarbon Habitat: Gas Expansion Versus Gussow.**



- ☐ Problem Observation, Recognition, Definition
- ☐ Post Paleocene Uplift and Subsidence
- ☐ Gas Versus Oil in Uplift and Subsidence Context
- ☐ Gas Versus Oil in a Reservoir Elevation Context
- ☐ Mapping
- ☐ Expanded Gussow
- ☐ Conclusions

**Dr. W. Pierce**, and **Everett Rutherford**, WHPierce Explorations, Houston, Texas, USA.

### 9.30 (A2) Morphodynamical Features of SE Zagros Salt Plugs, Onshore and Offshore Iran.

- ☐ Introduction
- ☐ Geological Setting
- ☐ Structural Elements of SE Zagros
- ☐ Salt Plug Activity
- ☐ Active Salt Plugs
- ☐ Passive Salt Plugs
- ☐ Ruins of Salt Plugs
- ☐ Salt Plug Shapes
- ☐ Discussion and Conclusions

**Dr. Masoud Moradi**, Marine Data and Information Department, Iranian National Center for Oceanography, Tehran, Iran, and **Dr. Fereydoun Ghazban**, Faculty of Environment, Tehran University, Tehran, Iran.

### 10.00 (A3) Depositional and Diagenetic History of the Cretaceous Sedimentary Sequence in Sirri Oil Field in the Persian Gulf, Iran.

- ☐ Introduction
- ☐ Aims of the Project
- ☐ Stratigraphy
- ☐ Petrography
- ☐ U. Mishrif
- ☐ M. Mishrif
- ☐ L. Mishrif
- ☐ Sedimentary Environments
- ☐ Diagenetic Processes
- ☐ Conclusions

**Ms Elham HajiKazemi**, **Fereydoun Ghazban**, (Faculty of Environment, University of Tehran, Tehran, Iran), and **M. Yousefpoor**, (Iranian Offshore Oil Company, Tehran, Iran).

### 10.30 (A4) Salt Plugs: Are they the Next Exploration Targets in the Persian Gulf?

- ☐ Introduction
- ☐ Distribution of the Neoproterozoic- Eocambrian salt deposits (Hormoz Formation) in the Persian Gulf Basin
- ☐ Recent data on the depositional controls and stratigraphy of the Hormoz Formation
- ☐ Role of the basement in the formation of the salt domes
- ☐ Role of the Hormoz salt in the formation of structures in the Phanerozoic cover
- ☐ Relationship between piercement salt domes and fold axes
- ☐ Salt dome related traps: comparison between the onshore Zagros fold belt and the Arabian shelf sector

- ❑ Evaluation of hydrocarbon prospects in the light of the Persian Carpet seismic data

**Dr M. Ala**, Senior Academic and Director of MSc Programme in Petroleum Geosciences, Imperial College, London. Director of Hydrocarbon Venture Ltd, London.

## 11.00 Morning Coffee

### B. PRODUCTION PROBLEMS OF SUPER K, FRACTURED AND CAVERNOUS RESERVOIRS

#### **11.30 (B1) Integrating Inertial Factor Obtained from Turbulent Gas Flow in Reservoir Characterization and Well Performance.**

- ❑ Introduction
- ❑ Literature Review
- ❑ Study Objective
- ❑ Theoretical Background
- ❑ Experimental Data
- ❑ Results and Discussions
- ❑ Conclusions

**A. H. Deghmoum** (Sonatrach, AMT, CRD, Algeria), **K. Slimani** (Univ. of Oklahoma, Tulsa, Ok, USA), **M. Akkouche**, **A. R. Hadji** (Sonatrach, AMT, CRD, Algeria) **A. Mazouzi**, and **A. Azouguene** (Sonatrach, AMT, PED, Algeria).

#### **12.00 (B2) Novel Methodologies to Resolve Severe Lost Circulation Problems Involving Fractured or Cavernous Formation to Improve Oil Production.**

- ❑ Introduction
- ❑ Principal Types of Localisation and Losses
- ❑ Principal Causes and Prevention Methods
- ❑ Principle Types of Products and Plugging Clinkers
- ❑ What are the Remedies for Mud Losses Problems?
- ❑ Experimental Protocol and Methodology
- ❑ Conclusions

**N. Kherfellah** (CRD, Sonatrach, Boumerdes, Algeria), **K. Bekkour** (Inst. De Macanique de Fluides, Strasbourg, France), **A. Mallak** (INH, Univ. de Boumerdes, Algeria), **N. Coumaz** (Division Forage, Sonatrach, Hassi Messaoud, Algeria), **N. Guerraiche** ( ENSP/DOS, Hassi Messaoud, Algeria) and **S. Benhadid** (Univ. de Sciences et de la Technologie Houari Boumediene, Inst. De Physique, El Alia, Algeria).

### **12.30 (B3) Multiphase Flow in Artificial and Natural Fractures, Application to TFT Reservoir.**

- ☐ Background
- ☐ Laboratory Setup
- ☐ Results and Discussion
- ☐ Capillary Pressure and Relative Permeability before Saw-Cut
- ☐ Absolute Permeability and Capillary Pressure after Saw-Cut
- ☐ Brief Geological Description
- ☐ Well Selection
- ☐ Core Sample Preparation
- ☐ Interpretation of Experimental Data
- ☐ Full Diameter Core Sample
- ☐ Conclusions

**A. Hakim Deghmoum** (Sonatrach, AMT, CRD, Boumerdes, Algeria), **D. Taib** (Univ. of Oklahoma, Tulsa, OK, USA) and **A. Mazouzi** (Sonatrach, AMT, CRD, Boumerdes, Algeria).

### **13.00 Lunch**

## **C. UNCERTAINTIES VERSUS CERTINITIES: IRAQ AND LIBYA VERSUS THE EUROPIAN ENERGY MARKET**

### **14.00 (C1) U.S. Strategies Towards Iraq and Libya.**

- ☐ The 11 September crisis and the "axis of evil".
- ☐ The sanctions issue.
- ☐ Energy security and foreign policy.
- ☐ Washington and its "allies": small disagreements between friends?
- ☐ The debate within the U.S.
- ☐ Competition among oil producing countries.
- ☐ Uncertainties in Washington.
- ☐ Libya has some cards to play but must improve its record.

**Dr. Francis Perrin**, Editorial Manager, Arab Oil and Gas, Arab Petroleum Research Center, Paris, France.

### **14.30 (C2) Italy: a Typical European Market for Middle East and North Africa Oil and Gas.**

- ☐ Italy Energy Needs.
- ☐ Italy Consumption Trends.
- ☐ Current Oil and Gas Export Infrastructures in MENA.

- ❑ Current Oil and Gas Infrastructure in Italy.
- ❑ New Pipelines, Gas Storage Sites and LNG Plants (Being Built or Planned) in Italy.
- ❑ Italy, an Energy Gateway to Europe.
- ❑ Current and Future Trends in Cross-Mediterranean Energy Trade.

**Dr. R. Bencini**, Director, GA.I.A, srl, Rome, Italy.

### **15.00 Tea Break**

#### **D. PALEOZOIC HYDROCARBON HABITAT IN NORTH AFRICA**

**15.30 (D1) Palynostratigraphy of the Lower Devonian and Lower Carboniferous Formations, the Teg and Reg Fields; Timimoun Basin, West Algerian Sahara.**

❑

**N. Alem**, Centre de Recherche et Development, Sonatrach, Boumerdes, Algeria.

**16.00 (D2) Structural Prediction and Tectonic Regime Determination of the Triassic and Cambro-Ordovician Formations, Garet Ben Chentir Structure; Southern Hassi Messaoud Area.**

❑

**Dr. R. Chaouchi, L. Yahiaoui, L. Teibi and B. Baouali**, Faculty of Hydrocarbons, Univ. of Boumerdes, Boumerdes, Algeria.

**16.30 (D3) Sedimentology and Reservoir Quality of the Cambro-Ordovician of the South Central Saharan Platform, Algeria.**

- ❑ Introduction.
- ❑ Lithostratigraphy.
- ❑ Sedimentology.
- ❑ Sequence Stratigraphy.
- ❑ Reservoir Geometry.
- ❑ Petrography and Diagenesis.
- ❑ Reservoir Quality.
- ❑ Fracturing.
- ❑ Conclusions.



**B. Fekirine and L. Samar**, Sonatrach, CRD, Boumerdes, Algeria.

**17.00-17.30 Discussions and Chairmen Closing Remarks.**

**Poster Presentations**

**(PP1) The Use of Global Conductivity Imaging in Sedimentological Interpretations: Application on South-eastern Algerian Basins.**

- ❑ Introduction
- ❑ Theoretical Aspects
- ❑ Experimental Study
- ❑ Application to Wells in Berkine Basin
- ❑ Results and Discussion
- ❑ References

**M. Benamara**, Centre de Recherche et Development, Sonatrach, Boumerdes, Algeria.

**(PP2) Depositional and Diagenetic History of the Cretaceous Sedimentary Sequence in Sirri Oil Field in the Persian Gulf, Iran.**

- ❑ Introduction.
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- ❑ M. Mishrif.
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- ❑ Diagenetic Processes.
- ❑ Conclusions.

**Ms. Elham HajiKazemi, Fereydoun Ghazban**, (Faculty of Environment, University of Tehran, Tehran, Iran), and **M. Yousefpoor**, (Iranian Offshore Oil Company, Tehran, Iran).

**(PP3) Morphodynamical Features of SE Zagros Salt Plugs, Onshore and Offshore Iran.**

- ❑ Introduction.
- ❑ Geological Setting.
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- ❑ Salt Plug Shapes.
- ❑ Discussion and Conclusions.

**Dr. Masoud Moradi**, Marine Data and Information Department, Iranian National Center for Oceanography, Tehran, Iran, and **Dr. Fereydoun Ghazban**, Faculty of Environment, Tehran University, Tehran, Iran.

## **Standby Presentations**

### **(SB1) Application of an Exploration Method using Biological, Isotopic and Geochemical Parameters from Shallow Sediments.**

- ❑ Introduction (The B.I.G. Method)
- ❑ Input
- ❑ Output
- ❑ Model, Design and Sample Processing of BIG Survey
- ❑ Design of Surveys
- ❑ Sample Acquisition; Microbiological Samples
- ❑ Sample Acquisition; Geochemical Samples
- ❑ Sample and Data Processing
- ❑ Genetic Characterization of Hydrocarbons using Carbon Isotopes
- ❑ Hydrocarbon Gases in Near –Surface Sediments
- ❑ Distribution of BIG Signals in Surface Sediments above an Onshore Oil Accumulation
- ❑ Advantages of B.I.G. System
- ❑ References

**Dr. Khalid AL Thour**, (Sana'a University, Sana'a, Yemen), **Manfred Schmitt**, (Geochemische Analysien GCA, Sehnde-Iten, Germany).

### **(SB2) A Method for Reducing Model Error when Interpreting Pressure Derivatives in Well Tests Analysis.**

- ❑ Background
- ❑ Pressure Derivative Determination
- ❑ Well Test Interpretation
- ❑ Infinite Homogenous Reservoir
- ❑ Naturally Fractured Reservoir
- ❑ Case Study: Well Tests Interpretation, Hassi Messaoud Oil Field



- ❑ Conclusions

**S. Bachar** (Sonatrach, AMT, PED), **A. H. Deghmoum** (Sonatrach, AMT, CRD) and **D. Tiab** (Univ. of Oklahoma, Tulsa, OK, USA).

**(SB3) Tomographic Velocity Images by Artificial Neural Networks.**

- ❑

**N. Djarfour, K. Baddari and M. Djeddi**, Laboratoire de Physique de la Terre, Univ. de Boumerdes, Algeria.

**(SB4) An Experimental Study to Improve Production by Minimising Formation Damage of Algerian Fields.**

- ❑

**S. Hamza, N. Kherfallah, and M. Kartout** (Sonatrach, CRD, Bumerdaes, Algeria).

**(SB5) Jordan Exploration Opportunities and Incentives**

- ❑ Introduction
- ❑ Physiography Tectonic History, Stratigraphy and Oil Habitat
- ❑ Exploration History and Current Exploration Status
- ❑ Hydrocarbon Discoveries, Production and Occurrences
- ❑ Jordan Petroleum Potential:
- ❑ Azraq Basin Evaluation
- ❑ Risha Basin Evaluation
- ❑ Sirhan Basin Evaluation
- ❑ Safawi Basin Evaluation
- ❑ Northern Highlands Basin Evaluation
- ❑ Al Jafr Basin Evaluation
- ❑ Dead Sea Basin Evaluation
- ❑ Contract Incentives, Basic PSA Conditions and Fiscal Terms
- ❑ References

**Mr. Y. Shahin**, Head of Petroleum Studies and Contracts, Natural Resources Authority, Amman, Jordan.

# *Conference Dinner*

*The Time: 20.00-22.00 PM*

*The Date: 19 September*

*\The Place: TBA*



# ***MENA 2002 Oil & Gas Conference***

***(E&P Developments in the Middle East & North Africa)***

**Day Two Friday 20 September 2002**

## **8.30 Registration and Coffee**

## **8.55 Chairmen Opening Remarks**

**Dr. Thamir Uqaili**, Managing Director, Petroconsult Canada, Mississauga, Canada

**Dr. M. Ala**, Director of M.Sc. Courses, Petroleum Geology Section, Geology Department, Royal School of Mines, Imperial College, London, UK.

**Dr. A. Fenghour**, Research Fellow, Department of Chemical Engineering, Imperial College, London, UK.

**Dr. Walter H Pierce**, Director, WHPierce Exploration, Houston, Texas, USA.

## **E. ARABIAN PLATE I: STRATIGRAPHIC AND STRUCTURAL TRAPS, TYPES, TIMES, LOCATIONS AND POTENTIAL**

### **9.00 (E1) Major Unconformity of the Arabian Plate.**

- ☐ Introduction
- ☐ Distribution of Unconformities in the Stratigraphic Record of the Arabian Plate
- ☐ Regional Structural Maps at Unconformable Stratigraphic Boundaries
- ☐ Unconformities Ages Used in the Study
- ☐ Time Mapping the Hiatus, Range and Amalgamation
- ☐ Conclusions

**Dr. W. Pierce**, WHPierce Explorations, Houston, USA.

### **9.30 (E2) Structural Control of Petroleum Accumulation in the UAE.**

- ❑ Regional setting and structural provinces of the UAE.
- ❑ Oil fields of the UAE; nearly all are structural traps
- ❑ Classification and characteristic:
  - ❑ Oman mountain front fields
  - ❑ Salt intrusions fields
  - ❑ Basement blocks fields
  - ❑ Strike-slip faults fields
- ❑ Structural control:
  - ❑ Occurrence
  - ❑ Size
  - ❑ Type of hydrocarbon
  - ❑ Time of formation: timing of deformation, synchronous growth and migration
  - ❑ Exploration strategies

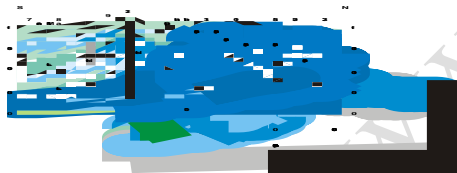
**Dr. Mohammed Warrak**, Imperial College, London, UK.

#### **10.00 (E3) Remaining E&P Potential in Onshore and Offshore UAE.**

- ❑ Geographical Location and Geological setting of the UAE.
- ❑ Exploration History of the UAE.
- ❑ Oil Discoveries, and Developed Oil Fields
- ❑ Reservoir Description.
- ❑ Subsurface Structural Features.
- ❑ Structural trends and Distribution of the Oil Discoveries.
- ❑ Reserves Percentages per Fields and Reservoirs.
- ❑ Remaining potential.
- ❑ Summary, and Conclusions.

**Kamal Muammar**, Consultant Geologist, London, UK.

#### **10.30 (E4) Stratigraphic Safah Field, Oman: Changing Geological Ideas from Blue-Sky Exploration Concept to Mature Development Models.**



- ❑ Review changing geological interpretations of Safah Field from pre-discovery to mature development (1980-2000)
  - ❑ Exploration Phase
  - ❑ New concept Upper Shuaiba stratigraphic prospect
  - ❑ No precedent/analog
  - ❑ Consensual risk assessments weakly discriminatory/ only highgraded area
  - ❑ Appraisal Phase

- ❑ Safah 1x discovery provided interpretative focus
- ❑ Consensus elusive because of complex/subtle trapping mechanism, reservoir architecture and PVT fluid property gradients
- ❑ Several competing explanations
- ❑ Development Phase
- ❑ Further interpretative constraints from new data AND re-evaluation of old data.
- ❑ Current interpretation:
  - mid-Shuaiba highstand/late Shuaiba (Bab) lowstand low energy carbonate reservoir architecture,
- (1) Early and late diagenetic reservoir enhancement,
- (2) Dual source Jurassic and Silurian/dual charging before and during late Miocene tilting with ongoing in-field mixing.
- ❑ Moral of the Story
- ❑ Geological interpretations/predictions evolve in non-linear, erratic, rather circuitous fashion.
- ❑ Predictive accuracy is best achieved by integrating data/testing interpretations within a narrative framework
- ❑ Effectiveness of this narrative construct is directly dependant upon regional geological understanding and conceptual framework.

**David Boote** (Consultant Geologist, London, UK) and **Duenchien Mau** (Bakersfield, California, USA).

#### 11.00 Morning Coffee

### F. OVERCOMING PRODUCTION PROBLEMS AND IOR TEQNIQUES

#### **11.30 (F1) Hydrocarbon Exploration and Development in the Republic of Yemen.**

- ❑ Introduction
- ❑ Tectonic and Stratigraphic Setting
- ❑ Hydrocarbon Exploration and Discoveries
- ❑ Vertical and Lateral Distribution of Proven Hydrocarbon Reserves
- ❑ International Oil Operating Companies
- ❑ International Oil Exploration Companies
- ❑ Remaining Hydrocarbon Potential
- ❑ Future Exploration Strategy
- ❑ An Invitation to Invest in the Oil Industry of Yemen

**Dr. Khalid AL Thour**, (Sana'a University, Sana'a, Yemen), **Nabil Al Qawsai**, and **Abdullah Al Ateesh** (Petroleum Exploration and Production Authority, Sana'a, Yemen).

#### **12.00 (F2) Wettability Evaluation of Guellala Oil Field, Algeria.**

- ❑ Introduction

- ❑ Core Sample Preparation
- ❑ Procedure for Wettability Evaluation
- ❑ Results and Discussion
- ❑ Conclusions

**L. Kloul** (USTHB of Algeria), **A.H. Deghmoum** (Sonatrach, AMT, CRD, Algeria), **S. Chikh** (USTHB of Algeria), **R. Bensalem** (Sonatrach, AMT, PED, Algeria), **H. Hamaz and A. Hadji** (Sonatrach, AMT, CRD, Algeria).

### **12.30 (F3) Simulations of Production Performance of Combinations of Producers and Horizontal Gas Injectors Patterns.**

- ❑ Introduction
- ❑ Potential of Horizontal Well Technology in EOR Gas Injection Process
- ❑ Simulation Study of Horizontal Gas Injection
- ❑ Simulation Results and Discussion
- ❑ Conclusions

**N. Benayad** (Institute Algerien de Petrole, Sonatrach, Boumerdes, Algeria), **N. Kherfellah** (CRD, Sonatrach, Boumerdes, Algeria), **S. Bachiri** (PED, Sonatrach, Hydra, Algeria, M. Ait Hammouda (Institute Algerien de Petrol, Sonatrach, Boumerdes, Algeria).

### **13.00 Lunch**

## **G. ALGERIAN UPSTREAM ROUND AND CASPIAN GEOPOLITICS**

### **14.00 (G1) Algeria's Upstream Bid Rounds: a First Assessment.**

- ❑ Bilateral negotiations vs. international tenders.
- ❑ Exploration and oil and gas development projects.
- ❑ 3 bid rounds for exploration: a fair success.
- ❑ Significant progress in terms of diversification (areas and companies).
- ❑ The supermajors remain cautious.
- ❑ Other upstream bid rounds: the jury is still out.
- ❑ The way ahead.

**Dr. Francis Perrin**, Editorial Manager, Arab Oil and Gas, Arab Petroleum Research Center, Paris, France.

### **14.30 (G2) Implications of Recent Geopolitical Developments in the Indian Subcontinent on the Development and Supply of the Caspian Hydrocarbons.**

- ☐ Background
- ☐ Obstacles to Extraction and Transportation of Caspian Hydrocarbons
- ☐ Russian Attempts to Export Central Asia's Hydrocarbons
- ☐ Obstacles Faced by Russia
- ☐ Situation post September 11<sup>th</sup> 2001
- ☐ Objectives of US Involvement in Central Asia
- ☐ Other Developments post September 11<sup>th</sup> 2001
- ☐ Future Developments

**T. Mustafa**, Freelance political analyst and writer, London.

### **15.00 Tea Break**

### **H. FRONTIER AND MATURE BASINS OF NORTH AFRICA**

#### **15.30 (H1) Petrography and Reservoir Quality of the Upper Satal Carbonate Reservoir, Bahi Oil Field, Sirt Basin, Libya.**

- ☐ Introduction
- ☐ Location and Geological Setting
- ☐ Methodology
- ☐ Petrography and Facies Analysis
- ☐ Facies Sequence and Environmental Interpretation
- ☐ Diagenesis and Diagenetic Sequence
- ☐ Reservoir Quality
- ☐ Summary and Conclusions

**I. Kanouni** and **A. Abuktef**, Petroleum Research Centre, Tripoli, Libya.

#### **16.00 (H2) Hydrocarbon Potential of Libya.**

- ☐ Background.
- ☐ Exploration Results.
- ☐ Reserves.
- ☐ Prospects.
- ☐ Crude Oil Characteristics.



- ❑ Production.
- ❑ Summary
- ❑ References.

**Dr. Thamir Uqaili**, Managing Director, Petroconsult Canada, Mississauga, Canada.

**16.30 (H3) The Taoudeni Basin of Mali and Mauritania, a Possible New Saharan Oil Province.**

- ❑ The Taoudeni Basin, a Huge Sedimentary Basin that Extends Across Mauritania and Mali
- ❑ A Continent-Wide Geological Perspective.
- ❑ Regional Stratigraphy.
- ❑ Wells Drilled to-date in the Basin.
- ❑ Source Rocks and Possible Maturation Pattern.
- ❑ The Basin Potential.

**Dr. R. Bencini**, Director, GA.I.A. Srl, Rome, Italy.

**17.00-17.30 Panel Discussions Chairmen Closing Remarks**

## **Poster Presentations**

**(PP1) The Use of Global Conductivity Imaging in Sedimentological Interpretations: Application on Southeastern Algerian Basins.**

- ❑ Introduction
- ❑ Theoretical Aspects
- ❑ Experimental Study
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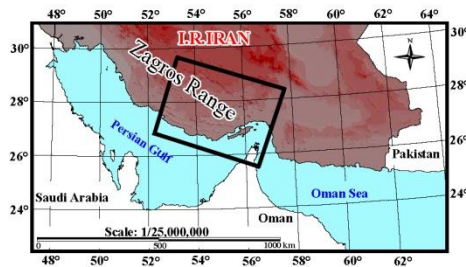
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**(PP3) Morphodynamical Features of SE Zagros Salt Plugs, Onshore and Offshore Iran.**



- ☐ Discussion and Conclusions

- ☐ Introduction
- ☐ Geological Setting
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- ☐ Ruins of Salt Plugs
- ☐ Salt Plug Shapes

**Dr. Masoud Moradi,** Marine Data and Information Department, Iranian National Center for Oceanography, Tehran, Iran, and **Dr. Fereydoun Ghazban,** Faculty of Environment, Tehran University, Tehran, Iran.

## **Standby Presentations**

**(SB6) Seek of an Inhibitor of Asphaltene Deposits Through the Parameters of Solubility of a Solvent and Tests of Inhibition with Solvents in High Acido-Basic Matter.**

- ☐ Introduction
- ☐ Definitions and Structures of Asphaltenes and Resins
- ☐ Reliability of Asphaltenes Extraction Methods
- ☐ Determination of the Acido-Basic Characters of Oils and Asphaltenes
- ☐ Inhibitors of Asphaltenes Deposits

- ❑ Fractionation of Asphaltenes into Generic Groups
- ❑ Prediction of the Flocculation of the Asphaltenes
- ❑ Solvents Compatibilities: Seeking ideal Inhibitor of Asphaltenes Deposits for Asphaltenes Generic Groups
- ❑ Conclusions

**C. Benamara, S. Hafid, and B. Boubguirah**, Centre de Recherche et Development, Sonatrach, Boumerdes, Algeria.

**(SB7) Improve Oil Recovery by Using Xanthan Polymer Solutions, Application to Hassi Messaoud Oil Field, Algeria.**

❑

**R. Hachemi, M. Bellahcene** (Algerian Petroleum Institute) **and A. Hakim Deghmoum** (Sonatrach, AMT, CRD), Algeria.

**(SB8) Unconformable Stratigraphic Traps Potential of South Iraq.**

- ❑ Introduction The Incomplete Stratigraphic Record of Iraq.
- ❑ Upper Bathonian Unconformity.
- ❑ Mid Tithonian Unconformity.
- ❑ Upper Aptian Unconformity.
- ❑ Upper Albian Unconformity.
- ❑ Lower Turonian Unconformity.
- ❑ Lower Maastrichtian Unconformity.
- ❑ Upper Maastrichtian Unconformity.
- ❑ Lower Eocene Unconformity.
- ❑ Upper Eocene Unconformity.
- ❑ Lower Miocene Unconformity.
- ❑ Summary of Unconformable Trapping Potential, and Conclusions.

**Dr. Muhammad W. Ibrahim**, Geologist, Target Exploration, London, UK.

**(SB9) Unconformable Stratigraphic Traps Potential of Eastern Sirte Basin, Libya.**

- ❑ Introduction, Stratigraphic and Tectonic Framework
- ❑ Petroleum Systems of Eastern Sirte Basin, Unconformity Play Components
- ❑ Top Precambrian Basement Unconformity, Structure and Bottom-seal
- ❑ Top Ordovician Unconformity, Underlying Reservoir Facies
- ❑ Top Hercynian Unconformity, Underlying Reservoir Facies
- ❑ Pre Upper Cretaceous Unconformity, Structure and Underlying Reservoir Facies
- ❑ Upper Cretaceous Sequence, Structure, Source and Top-seal
- ❑ Additional Stratigraphic and Combination Plays
- ❑ Summary and Conclusions

**Dr. Muhammad W. Ibrahim**, Geologist, Target Exploration, London, UK.

**(SB10) Organic Facies of Early Cretaceous Synrift Lacustrine Source Rocks from the Muglad Basin, Sudan**

- ❑ Introduction

- ❑ Previous Work
- ❑ Samples and Methods
- ❑ Results and Discussion
- ❑ Organic Facies
- ❑ Organic Maturation
- ❑ Conclusions

**Dr A. Mustafa and Dr R. V. Tyson**, Fossil Fuel and Environmental Geochemistry, University of Newcastle, Newcastle upon Tyne, UK

### **Cancelled Presentations**

#### **Petroleum in Antiquity: the Contribution of Oil to the Archaeology of Iraq.**

**L. Gailani**, NABU, London, UK

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**Dr. W. Pierce**, Director, WHPierce Exploration, Houston, Texas, USA

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***MENA 2002 Oil & Gas Conference*** will be held on the 19 & 20 September 2002. Following early registrations, the conference had to be relocated to a larger venue at and around the Chemical Engineering Lecture Theatre No. 1, Chemical Engineering Building, Imperial College, Prince Consort Road, London SW7 ([\*building No.5 Double Click for Location Map\*](#)). The Building is within 10-15 minutes walking distance from South Kensington or High Street Kensington Underground Stations, and 5 minutes from stops of Bus routes 9, 10, 49 and 52.

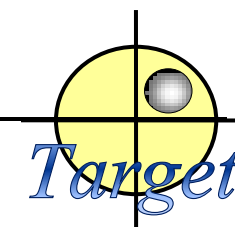
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