MENA 2002 Oil & Gas Conference
The 3rd Middle East and North Africa Oil and Gas Conference

What’s New in the E&P of Middle East & North Africa?
With Special Sessions on E&P Technologies of SONATRACH, ALGERIA
19 and 20 September 2002

The Imperial College
London, SW7, UK

Organised by Target Exploration
Sponsored by MEES
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. Yousefpour, (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 piercing 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. Mailak (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. UNCERTINITIES VERSUS CERTINITIES: IRAQ AND LIBYA VERSUS THE EUROPEN 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.
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
- Aims of the Project
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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
- 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.

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-Itten, Germany).

- 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. Deghmoun (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
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.


- 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/analogs
  - 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,
  - Early and late diagenetic reservoir enhancement,
  - 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 dependent 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 TECHNIQUES

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.
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 11th 2001
- Objectives of US Involvement in Central Asia
- Other Developments post September 11th 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.
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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- 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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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.

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 Asphaltene and Resins
- Reliability of Asphaltene Extraction Methods
- Determination of the Acido-Basic Characters of Oils and Asphaltene
- Inhibitors of Asphaltene 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.

- 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
Cancelled Presentations

**Petroleum in Antiquity: the Contribution of Oil to the Archaeology of Iraq.**
L. Gailani, NABU, London, UK

**An Introduction to Libyan Oil Legislations.**
Irene Dallas, Partner, Osborne Clarke Solicitors

**Petroleum in Antiquity and the Contribution of Oil to the Archaeology of Iraq: Posters I+ II.**
L. Gailani, NABU, London, UK

**Graphic Approaches to Hydrocarbon Habitat: Arabian Plate.**
Dr. W. Pierce, WHPierce Explorations, Houston, USA.

**Chronostratigraphic Isopach Mapping of Sequences of the Arabian Plate.**
Dr. W. Pierce, Director, WHPierce Exploration, Houston, Texas, USA
CHAIRMEN AND AUTHORS

CHAIRMEN

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.
Dr. Fenghour has a B.Sc., M.Sc. and Ph.D. in Chemical Engineering, and CASLAT in advanced education. He is a Chartered Chemical Engineer, a member of the Inst. of Chemical Engineers, and the Editor of the Journal of Chemical Thermodynamics. Worked as Process Engineer, Plants Manager, Senior Project Engineer for the National Petrochemical Company of Algeria, and as Research Associate in the National Engineering Laboratories, East Kilbride, Glasgow, Scotland, and as a Research Associate in the IUPAC Centre, Department of Chemical Engineering, Imperial College. Dr. Fenghour authored more than 30 publications in refereed journals, books and conference proceedings.

Dr. Walter Pierce
Director, WHPierce Exploration, Houston, Texas, USA.
Regional Geologist with the USGS, and AMOCO, specialised in the Middle East and North Africa.

Dr. Thamir Uqaili
Managing Director, Petroconsult Canada, Mississauga, Canada.
Reservoir Engineer (BPC), Field Manager (NOC); General Manager (CPO) General Manager Planning Department (MOO), Iraq; Area Reservoir Coordinator (North Africa) Repsol, Spain.

AUTHORS

Mr. Adel Abuktef
Petroleum Geologist, Petroleum Research Centre, Tripoli, Libya.
Adel has a B.Sc. in Geology, Al-Fateh University, Tripoli, M.Sc. in "Earth and Environmental Sciences, Application & Management", The University of Manchester. Current research projects include studying the burial history, diagenesis, reservoir quality and heterogeneity of the Nubian Sandstone in Abufolve Oil Field, Sirt Basin, Libya.
Dr. M. Ala  
Director of M.Sc. Courses, Petroleum Geology Section, Geology Department, Royal School of Mines, Imperial College, London, UK.  
Mike has BSc, MSc & PhD in Petroleum Geology, Imperial College, and University of London. Authored more than 50 research and review articles. Member of the editorial board of international technical journals, and chief editor of one book. Acknowledged expert on the petroleum geology of Iran. Worked in the oil industry for 8 years in global petroleum exploration - identification and evaluation of oil and gas prospects. Currently Senior Academic and Director of the internationally recognised MSc programme in Petroleum Geosciences at the Imperial College, responsible for up to 45 postgraduate students per year. Involved since 1982 in consulting, organising and presenting industry training courses for the private and state sectors in many oil and gas producing countries. Author of numerous proprietary and non-proprietary reports on petroliferous regions in northern Europe, eastern Mediterranean countries, Africa, eastern South America and the Middle East. Co-founder in 1988 and Director of Hydrocarbons Venture Limited, an organisation involved in providing consulting services and running industry training programmes.

Dr. Khalid Al-Thour  
Professor and Chairman of the Stratigraphy and Oil Unit at the University's Department of Earth and Environmental Sciences. Khalid's current studies are Environment, Remote Sensing and its applications in urban and rural areas, Mesozoic stratigraphy, sedimentology, hydrocarbon and basin analysis of Yemen and the Middle East region. Served as an environment and education extension expert and presently a Focal Point of the Arab Regional Ecotechnie Network (AREN), Chairman of the National Coordinating University (NCU) and Member of the Management and Planning Group of AREN. Has a track record of more than 10 years of academic and professional consultancy experience in Earth Sciences, Environment, Cultural Heritage, Extension Education Training, Research, Planning and Organization Programs and Campaigns on a national, regional and international level. Able to respond to any emergence requirements. Supervisor and co-supervisor of several Ph.D and M.Sc. students at Sana’a University of Yemen, Cairo University of Egypt, Yarmouk University of Jordan and Mohammed Bin Abdellah University of Morocco in the field of Hydrocarbon Reservoirs, Petroleum Geology, Diagenesis, Hydrology, Basin Analysis, and Environment. He is a member of the SEPM and IAS, a fellow of the World Innovation Foundation (W.I.F.), a Focal Point of the Arab Regional Ecotechnie Network (AREN), a fellow of Yemen Geological Society (YGS), Chairman of Yemen Sedimentary Research Group (YSRG), the Executive President of the Scientific Consulting Center (SCC) and President of Environment & Development Journalists Society of Yemen – EDJSY. Member of the Supreme Council for the Preservation and Development of old Sana’a City. Support the foundation of several NGO’s in Sana’a city & overall Yemen (e.g. Society of the preservation of old Sana’a City, Traditional Women Handicrafts Society). Supervised all projects of Hayssan Consultants. Represent the Government of Yemen in several International, Regional & Local Conferences. Published several books & articles (in Arabic and English) in the field of environment, geology, education, culture, oil industry, border dispute, economy, information and administration.

Mr. Sofiane Bachar  
Sofiane is a software developer in the area of drilling and reservoir engineering at Sonatrach R&D Division, Boemerdes, Algeria. Sofioane holds a B.Sc. at Houari Boumedien University of Technology, and a Master degree at Polytechnic National School in Algiers, both in mechanical engineering. He is a certified specialized engineer in petroleum drilling, production and reservoir engineering by the Algerian Petroleum Institute, Boumerdes. Algeria. He is currently the lead constructor of VIBRAFOR software that allows the prediction while drilling of lateral vibration in the Bottom Hole Assembly (BHA), and WTS (Well testing software) based on Tiab’s Direct Synthesis, which permits an automatic interpretation of well test data.
Mrs. C. Benamara
Analysis Engineer in the Chemical Analysis Department of the Research and Development Centre of SONATRACH Petroleum Group. She worked as an Associate Teacher in the National Institute of hydrocarbons and Chemistry before joining Sonatrach in 1995.

Mr. M. Bemamara
Sedimentologist and Manager of software and hardware, Deimentology Department, Geology Directorate, Centre de Recherche et Development, Sonatrach, Boumerdes, Algeria. Mustapha joined Sonatrach in 1993, as a sedimentologist, in 1995 he also became an associate teacher in the Algerian Petroleum Institute, teaching petroleum geology, stratigraphy of sedimentary basins. Mustapha published several internal reports, and taught several internal courses.

Mr. N. Benayad
Institute Algerien de Petrole, Sonatrach, Boumerdes, Algeria.

Dr. Roberto Bencini
Director, GA.I.A. srl, Rome, Italy. Dr Bencini (honours MSc in Geological Sciences, Pisa -Italy, 1978) started as exploration geologist with Gulf Oil co. in Houston and London in 1981, working on the North Sea including the Alba field. In 1985 he joined Laxmo plc in London where he later contributed to their success in Algeria. He moved to Rome with growing technical and operating responsibilities, including Chief Geologist for the Tempa Rossa field and Business Development Adviser. In 1999 Dr Bencini founded GA.I.A. srl, an Italian independent E&P company, where he is now Director. Dr Bencini is oil industry Expert for the European Commission and for INTAS, lecturer and writer. He co-operates with INGV of Rome on the Weyburn CO2 sequestration international research project. Dr. Bencini is AAPG Italy Team Leader for 2002-2005. He is Chartered Geologist of the London Geological Society, and member of SPE, SGI (Italian Geological Society) and AIEE (Italian Association of Energy Economists). He has been in the Editorial Board of the National Geological Survey of Italy.

David R. D. Boote.
Independent Consultant Geologist, London, England, UK. Twenty five years international new venture exploration with Occidental Oil and Gas Company, variously as Chief Geologist, Worldwide Exploration, Regional Manager and Senior Geological Advisor, responsible for basin evaluations, play analysis, prospect generation and appraisals in many parts of the world, including Oman, Yemen, Australia, Philippines, Algeria, Libya, UK and California. Since leaving Occidental two years ago, have been active as an independent consultant in regional stratigraphic and hydrocarbon petroleum system syntheses.

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Mr. Berrached FEKIRINE
Research engineer in the geochemistry department of the CRD-Sonatrach in Boumerdes, Algeria. Received a degree in petroleum geology from the INH Boumerdes in 1976. Joining Sonatrach CRD/DOP the same year, he worked as an oilrig logging unit geologist until 1989. He rejoined the INH-Boumerdes to graduate as a petroleum geologist engineer in 1991. Afterwards, he joined the Sonatrach-CRD-Boumerdes where he worked first as a sedimentologist in the sedimentology department, then as the head of the core storage facilities while remaining involved in research activities. In 2000 he moved to the geochemistry department and he still is working in as a research engineer. His main research interest includes sedimentology, sequence stratigraphy and reservoir characterization. He has authored and co-authored many publications related to sequence stratigraphy, reservoir geology, stratigraphy and paleogeographic reconstruction.

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**Ms. Lamia Kloul**  
Research engineer investigating in the area of fluid mechanics, thermo-energetic and wettability. Lamia holds a Bs at Algiers school and engineer diploma at Houari Boumedien University (USTHB) in Algiers. Lamia is under research work preparing a doctorate at IFP, Institut Francais du Petrole, in the area of quantitative methods and modeling sedimentary basins.

**Prof. A. Mallak**  
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**Dr Masoud Moradi**  
Ph.D., candidate in geology at Tehran University. At the present time he works at the Iranian National Center for Oceanography. His main research interest is the computer modelling of earth surface and subsurface processes. He received his Master’s degree in volcanology at Tehran University and prior to that he attended Isfahan University. He has extensive experience with application of computer in geological problems and been involved in several research projects and presented different presentation in domestic and international conferences.

**Duenchien Mou**  
Independent Consultant Geologist, Bakersfield, California, USA. Received a BS degree in geology from National Taiwan University in 1974 and MS Geology from the University of Iowa in 1980. Subsequently spent twenty four years in international new venture exploration with Occidental Oil and Gas, in various positions including Chief Geologist, Worldwide Exploration and overseas Exploration Manager in the Netherlands and Columbia and was intimately involved in the geological evaluations of a wide variety of sedimentary basins/petroleum provinces around the world with emphasis on the Middle East, Far East, North Sea and South America. Author or co-author of several publications on sandstone diagenesis, the Camago discovery in the Philippines, thrust belt geology and the Safah oil field in Oman. Founded Exploration Consulting International (ECI) after leaving Occidental last year, to provide independent technical advice on international new ventures with a focus upon petroleum system analysis, prospect generation and risk assessment.
Mr. Kamal Muammar  
A wide MENA exploration experience with Sonatrach, KOC, Exploration Manager of ADNOC and Advisor to NPC.

Dr. Azhari Mustafa  
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Before coming to the UK to study towards his PhD. in Petroleum Geochemistry at the University of Newcastle upon Tyne, Dr Mustafa worked in Development Geology Department of the General Petroleum Corporation of Sudan as head of Field Studies Section and participated in preparing development plans for several oil fields in the Sudan as well as conducting reservoirs characterisation studies. He also worked in the Exploration Geology Department on basin analysis studies, prospects mapping and evaluation; and surface geological studies, and in Development Geology Department performing well site duties, log analysis, reservoirs mapping, and field development studies. Dr Mustafa has the City & Guilds Diploma in Software Development, Diploma in Petroleum Geochemistry, and B.Sc. in Geology & Chemistry from the University of Khartoum.

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Dr. Walter H. Pierce  
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Walter has a Ph.D. and MSc degrees in Geology from The Colorado School of Mines and an A. B. from DePauw University. Explored the Africa and Middle East as an Amoco geologist for seventeen years. Taught Geology for eight years at Ball State University, University of Georgia, and The Colorado School of Mines. Worked for the USGS in the Petroleum Group and in the Heavy Metals group. His recent work has included New Ventures, hydrocarbon system analysis of the Arabian plate, undiscovered reserve assessment, multi-basin assessment of Central Asia and the Middle East.

Dr. Everett Rutherford, Jr.  
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Ms. Louiza SAMAR
Stratigraph engineer in the stratigraphy department of the CRD Sonatrach in Boumerdes, Algeria.
Louiza graduated as a mining engineer from the University of Bab-Ezzouar in 1992. She began with the ORGM in 1993 where she was involved in uranium and titanium studies. Afterwards, she moved to ENOF in1995 where she undertook mineral concentration studies. In 2000 she joined CRD of Sonatrach where she is still working. Her main research interest is Biostratigraphy of the Palaeozoic series of the Saharan Platform.

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M. Yousefpoor
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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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