



# Target Exploration

Energy Geosciences Research & Development

**Target Exploration Course (TarC-7)**

## **Petroleum Geology and Typical Fields of the United Arab Emirates**

**Instructor: Mohammed Warrak, PhD.**

**Date: To be decided**

**Location: The Imperial College, London, UK.**

**Organised by: Target Exploration Consultants, London, UK.**

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## Why the UAE?

United Arab Emirates has been exploring, discovering, developing and producing some of the most prolific giant oil fields in the Middle East, and can provide proximal analogues for giant oil fields explorers in other MENA countries in innovative exploration plays, field development methods and production profiles of regional Middle East Mesozoic reservoirs yet to be adequately explored in other MENA countries.

This is the first comprehensive public course that introduces the Petroleum Geology and Typical Fields of the United Arab Emirates, and focusing on petroleum systems, exploration plays and typical oil and gas fields of UAE. The main objectives of this course are:

- Deliver a comprehensive coverage of UAE's upstream petroleum industry challenges and opportunities that are very relevant to any one working on upstream new venture, exploration of field development of UAE, as well as senior managers in the upstream sector who are interested in understanding the regional Petroleum Geology of onshore and offshore UAE.
- Provide a regional stratigraphic and tectonic evolution background of the petroleum systems of the UAE to new and seasoned geologists and petroleum engineers working in conventional, unconventional, heavy oil, light oil, gas and solar energy projects of the UAE upstream industry.
- The course is useful to UAE's and MENA upstream staffs including but not limited to: geo-scientists (wellsite geologists, exploration geologists, field development geologists, stratigraphers, sedimentologists, petrographers, petrophysicists, reservoir characterizers, geochemists and basin modelers) and petroleum engineer (drilling engineers, reservoir engineers) and HSE staff and engineers).

# Course Agenda

## Day One

08:30-09:00. Registration and Coffee

### **9:00 INTRODUCTION & EVOLUTION OF TECTONIC ELEMENTS**

- The country in brief
- Tectonic setting of the UAE within the Arabian Plate
- Major structural elements
- Tectonic evolution

10:00-10:30 Morning Tea Break

### **10:30 PRECAMBRIAN TO CENOZOIC STRATIGRAPHY**

- An overview of the sedimentary basins and their HC potential
  1. Late Proterozoic-Early Cambrian Hormuz Salt
  2. Palaeozoic
  3. Mesozoic
  4. Cenozoic

12:00-13:00 Lunch Break

### **13:00 PETROLEUM SYSTEMS OF THE UAE I**

- Petroleum System elements and analysis
  1. Source rocks
  2. Source rock maturity and HC migration

14:00-14:30 Afternoon Tea Break

### **14:30 PETROLEUM SYSTEMS OF THE UAE II**

3. Reservoirs
4. Seals
5. Traps

16:00-16:30 End of Day One Questions and Discussion

17:00 End of Course Day 1

## Day Two

08:30-09:00 Morning Coffee

### **9:00 PETROLEUM PLAYS**

- Petroleum Plays
- Structural Plays
- Stratigraphic Plays
- Combination Plays
- Diagenetic and Hydrodynamic Plays

**10:00-10:30 Morning Tea Break**

**10:30 PROVINCES & STYLES OF STRUCTURAL PETROLEUM TRAPS**

- Structural Provinces
- Structural control of HC accumulations
- Salt Tectonics and Salt Plugs

**12:00-13:00 Lunch Break**

**13:00 TYPICAL PETROLEUM FIELDS OF THE UAE**

- Description of selected oil & Gas fields onshore and offshore UAE

**14:00-14:30 Afternoon Tea Break**

**14:30 PETROLEUM RESERVES, EXPORT VS CONSUMPTION**

- HC reserves
- Why the UAE is so rich in oil
- Oil & Gas production and consumption
- Official future energy perspective
- Unconventional shale oil & gas
- Renewable Energies

**16:00-16:30 End of Day Two Questions and Discussions**

**16:30-17:00 Distribution of Evaluation Forms and Certificates**

**17:00 End of Course Day 2 and the Course**

**Instructor: Dr. Mohammed Warrak, *PhD.***

**Geological Consultant** based in the UK. He has a B.Sc. **Honours** in Geology from the University of Liverpool, M.Sc. and D.I.C. in Petroleum Geology, and a Ph.D. degree in Structural Geology (on the structurally complex **Western Alps** of France) from the **Imperial College**, University of London. Dr. Warrak is a well-known researcher and lecturer on Earth Sciences with detailed knowledge of the Geology of the Arabian Plate. He lectured on Earth Sciences for 25 years at the **UAE University, Kuwait University and the UK Open University.**



**Dr. Warrak was a consultant and team member of the British Geological Survey (UAE Project, 2002-2006)** that mapped the mountains of the Northern Emirates of the UAE and Al Ain area. **He was a resident consultant and**

**‘Geological Studies Project Manager’ to the UAE Supreme Petroleum Council and ADNOC from 2011-2013**, where he mapped some of the emergent salt domes of the UAE as well as islands and seafloor of western offshore Abu Dhabi. He researched and published on the structural geology the UAE including six geological maps of the Northern Oman Mountains of the UAE. He carried out Geological consultations to the Government of the UAE and contributed to petroleum exploration studies for oil companies such as AMOCO, Calvalley, OMV and UNOCAL on Iraq, Syria and Yemen.

## Course Logistics:

Date	Venue
To be decided	Imperial College, London SW7, UK.
Timing	Course starts at 09:00 am and ends at 17:00 pm
Language	English
Format	4 sessions of 1.5hr each, 2 Refreshments and 1 Lunch breaks/Day
Ideal Number	19 Participants

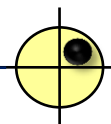
## Participants Receives:

- A. Course materials and fieldtrip guidebook with up to date references
- B. Certificate of course completion

## Covid-19 Pandemic Protections Measures

The Covid-19 Pandemic may be over well before this event, otherwise the following conditions applies:

1. Bring a recent (< 4 days) PCR Test Certificate with you to the event's registration desk.
2. Body temperatures of managers, catering staff, lecturer(s) and attendees will be monitored by a certified professional at the registration desk and during the event.
3. Minimum seating distance arrangement of 2+ meters will be maintained throughout the event and tea/lunch breaks. Disposable plates, cutlery, cups and napkins will be used during the event.
4. Face masks and sanitation fluids will be provided free of charge by the event organizer, to be used by all attendees during the event.



## Registration Form

### Course TarC-7: Petroleum Geology and Typical Fields of the UAE

Date	Venue	Select
To be decided	<a href="#">Imperial College, London, SW7, UK.</a>	

#### PERSONAL DETAILS

Delegate	Name	Position	Telephone	E Mail
1 <sup>st</sup> Delegate				
2 <sup>nd</sup> Delegate				
3 <sup>rd</sup> Delegate				
4 <sup>th</sup> Delegate				
5 <sup>th</sup> Delegate				

#### PAYMENT DETAILS

Registration fee for single participant is UK£ 3,000 (includes course materials, coffee and lunches). There are escalating group registration discounts, as shown below:

Number of participants	Registration Fee in UK£/Participant
One to Five Participants (1 -5)	3,000
Six to Ten Participants (6 - 10)	2,750
> Ten Participants (> 10)	2,500

Send Target ECL Bank Account Details to: \_\_\_\_\_

To register, fill & e-mail the registration form to: [target@targetexploration.com](mailto:target@targetexploration.com).

Course registration payments should be credited to Target Exploration Consultants bank account no later than 30 days before course date.

Payment receipts are proof of registration.

For information, contact Dr. Muhammad W. IBRAHIM, Target Exploration Consultants. 65 Kenton Court, London W14 8NW, UK. Tel: +44 (207) 371 2240. E. mail: [m.ibrahim@targetexploration.com](mailto:m.ibrahim@targetexploration.com)

**No refund for cancelation within 30 days of the course date**