Profile:

development technologies for Underof Chemical and Petroleum Engineerof faculties and alumni's of the school Integrated Field Studies Middle East. There is a wide variety of and Petroleum Lab Services in the quality Petroleum Lab Instruments ground Gas Storage, Enhanced Oil high quality products and professional condensate Recovery along with high lines in providing innovative reservoir the upstream sector of the oil and gas services to the industry: Recovery , Improved Oil and Gas and associates are among the front industries. Our distinguished partners ing, Shiraz University, we provide high Through close cooperation of a group juality integrated services mainly to

Identify the assets to improve the gains

Reservoir Development Services Specialized Petroleum Lab Equipment

Specialized Petroleum Lab Services

Rock and Fluid Lab Equipment

Rock and Fluid Analysis Services

Well, Reservoir and Field manag ment







PETRO AZMA

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Dr. Hesabi Blvd., Shiraz, I.R. Iran Fars Science and Technology Park

PETRO ASA

Your companion from the lab to the field



Specialized Petroleum Lab Equipment

Fluid Lab Instruments (PVT)

- PVT Equipment
- Reservoir Condition Viscometer
- Density Measurement System
- GOR Apparatus
- Manual Gasometer
- Wax Appearance Temperature Equipment
- Reservoir Condition Asphaltene Analysis Setup
- Asphaltene Content Measurement System
- Recombination Cell Setup







EOR Lab Instruments:

- Core Flooding Setup (EOR Equipment)
- Slim Tube Equipment
- Vanishing Interfacial Tension Equipment
- Spinning Drop Tensiometer
- Fractured Reservoir rig (Gravity Drainage)
- High Pressure Micro-model rig
- Steam Injection Setup





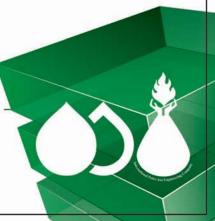
Other Petroleum Lab Instruments:

- High Pressure Injection Pumps
- Core Acidizing Setup
- Hydraulic Fracturing Setup
- Zeta Potential Setup



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Specialized Petroleum Lab Equipment

Petro Asa and its distinguished partners and associates are among the vanguards in providing high quality specialized lab instruments for hydrocarbon reservoir characterization including Routine Core Analysis (RCAL), Special Core Analysis (SCAL), Fluid Analysis (PVT) Enhanced Oil Recovery (EOR) apparatuses and any other customized lab setups for oil companies, research institutes and the individuals. The products can be customized for a wide range of pressure and temperature conditions.

Petro Asa Products:

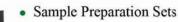
Routine Core Lab Instruments:

- · Core Plugging, Preparation and Cleaning Sets
- Helium Porosity Equipment
- Air Permeability Equipment
- Liquid Permeability Equipment
- Saturation determination Sets





Special Core lab Instruments:



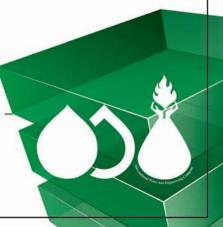
- Reservoir Condition PoroPerm Equipment
- Two Phase Relative Permeability Setup (Steady & Unsteady State)
- Centrifuge Capillary Pressure System
- Porous Plate Capillary Pressure System
- Resistivity Index and Electrical Properties System
- Wettability determination Instruments
- High Pressure IFT and Contact Angle Equipment





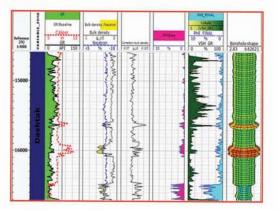
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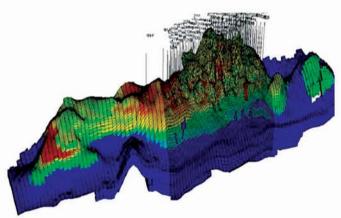
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Reservoir Development Services

Petro Asa and its distinguished partners and associates are among the frontlines in providing innovative reservoir development technologies for Underground Gas Storage, Enhanced Oil Recovery, Improved Oil Recovery and Improved Gas condensate Recovery in the Middle East. Our reservoir engineering services group is dedicated to technological innovation. Our team of qualified reservoir engineers, chemical engineers, environmental engineers, economists, geologists and petrophysicists, extract and analyze reservoir data to optimize reservoir development in all aspects.





Petro Asa provides a complete range of integrated value added petroleum services to the upstream petroleum industry in the course of providing optimized production plans and depletion strategies for hydrocarbon reservoirs. Our technical services includes:

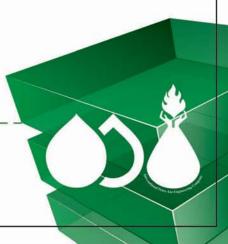




- Integrated Full Field Studies and Master Development Plans
- Geological & Geophysical Studies
- Formation Evaluation
- Rock and Fluid Analyses
- Reservoir Characterization
- Reservoir and Production Engineering
- Surface Facility and Environmental Studies
- Economic Analyses
- Optimized EOR/IOR Strategies

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Specialized Petroleum Lab Services

The elements of *PetroAzma* RCAL services includes:

- · Core Handling, Preparation and Cleaning
- Plug and whole Core Analyses
- Fluid Saturation
- Porosity (0.01 to 60 %, accuracy = 0.01%)
- Permeability (Gas and liquid permeability measurement, 0.01 to 15000 mD, accuracy = 0.1%)
- Spectral Gamma Logging
- Core Archiving





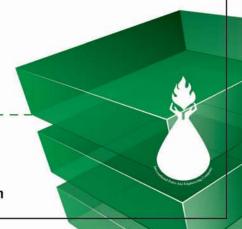
The elements of *PetroAzma* SCAL services includes:

- Sample Preparation includes wettability restoration, mounting of unconsolidated sand and fractured carbonates, preparation of composite core plugs
- Electrical Properties
 - Formation Resistivity Factor: Cementation Factor (m) at both ambient and reservoir conditions
 - Resistivity Index: Saturation Exponent (n), at both ambient and reservoir
 - conditions
 - Cation Exchange Capacity (CEC), by wet chemistry or by Core Conductivity
 - Method (CCM)



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Specialized Petroleum Lab Services

PetroAzma and its distinguished partners and associates are among the frontlines in providing high quality specialized lab services for hydrocarbon reservoir characterization including Routine Core Analysis (RCAL), Special Core Analysis (SCAL), Fluid Analysis (PVT) and Enhanced Oil Recovery (EOR) tests as well as any other customized lab services for oil companies, research institutes and the individuals.



RCAL Services

In *Petro Azma* Routine Core Analysis Lab, measurement of common petrophysical properties of core plugs are determined by well trained professionals using high quality facilities. Through statistically targeted point analysis, our RCAL services aimed at the quantification of a series of key petrophysical parameters, the service commences at the well site extends through the lab and ends in the core store. These services are available at client's place and well sites through our mobile lab facilities.

SCAL Services

PetroAzma SpecialCoreAnalysis Lab offersparticular services for characterizing the properties of reservoir rocks at reservoir conditions or lab conditions by well-trained professionals using high quality facilities. Our SCAL services offers a wide range of SCAL preparation and testing formats and can be customized to suit the specific objectives of the client. The PetroAzmaSCAL services is associated with complimentary services whenever asked by the client. The service also includes program design, data interpretation and integration formation evaluation and reservoir model input.

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Specialized Petroleum Lab Services

Core Properties at Overburden Stress

- Porosity and Pore Volume Compressibility
- Specific and Effective Permeability to air, brine and oil

Capillary Pressure

- Centrifuge Capillary Pressure Services
- Air-Brine and Oil-Brine by the Porous Plate technique at ambient and
- overburden pressures

Wettability and IFT

- Amott test
- USBM method
- Combined Amott/USBM method
- Contact Angle method
- Interfacial Tension by pendant drop method at ambient and reservoir
- conditions
- Interfacial Tension by Spinning drop method

Relative Permeability

- Both Unsteady and Steady State displacement options
- Ambient and reservoir conditions, with dead and live crude oil
- Drainage and Imbibition Full Curves and end Points
- Displacement of mobile phase by gas, water or oil
- Trapped (Residual) Saturations

Cap Rock Analyses

- Capillary pressure
- Relative Permeability
- Compressibility
- Cap Rock Failure Point







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