



PARS KAYHAN | Experience, Expertise, Excellence | 2024

**Head office:**

No. 10, 14<sup>th</sup> St., Ahmad Ghasir Boulevard, Tehran, Iran  
Tel: +98-21-88505710 Fax: +98-21-88505711  
Web: [www.parskayhan.org](http://www.parskayhan.org) Email: [info@parskayhan.org](mailto:info@parskayhan.org)

**Iraq Office:**

Opposit Palestine Hotel, Al Saadoon St., Baghdad , Iraq  
Tel: +964-7730061882 Tel: +964-7721202173  
Web: [www.parskayhan.org](http://www.parskayhan.org) Email: [info@parskayhan.org](mailto:info@parskayhan.org)



**2024**  
**PARS KAYHAN**  
Experience, Expertise, Excellence

# TABLE OF CONTENTS

- 1 Company Overview
- 3 Co-Founder Message
- 5 History
- 7 Mission & Vision
- 9 At a Glance
- 11 Manpower
- 13 Machinery
- 15 HSE
- 17 Quality Control
- 19 Fabrication & Construction
- 21 Mid and Downstream Services & Projects
- 39 Upstream Services & Projects
- 53 International Projects
- 55 Investment & Finance
- 59 Pars Kayhan Group of Companies
- 61 Certifications & Qualifications
- 63 Social Responsibilities
- 65 Look Forward

## One Company Multiple Solutions

Onshore EPC | Onshore E&P | Onshore Drilling





**NEVER STOP PEDALING  
TO POWER YOUR DREAMS**





# Company Overview



Pars Kayhan Group of Companies is a multisector holding known for its presence in Oil & Gas, Transportation/Aviation, Information Technology, and Training (as social responsibility) in the Middle East, particularly in Iran, Iraq, and the UAE. Our primary focus on activities in the Oil and Gas sector has allowed us to establish expert subsidiaries in the region.



MIDDLE EAST



## Co-Founder Message



It is with great pride and gratitude that we reflect on the remarkable journey of Pars Kayhan in the oil & gas industry. As co-founder, I am honored to have played a role in shaping the legacy of this company.

Since our founding, Pars Kayhan has been at the forefront of innovation and excellence in the energy sector. Our unwavering commitment to operational integrity, environmental stewardship, diligence in performing our social responsibility, and precision in engineering has been the cornerstone of our success.

As co-founder, I have been guided by a shared vision of sustainable growth, responsible resource management, and a dedication to the well-being of our employees, partners, and the environment in which we operate. We take immense pride in the contributions of our talented team, whose passion and expertise have elevated us to new heights.

Today, as we look to the future, we remain focused in our commitment to delivering value, driving progress, and embracing the opportunities and challenges that lie ahead. With a legacy built on trust, collaboration, and a pioneering spirit, we are poised to continue shaping the future of the oil & gas industry.

Our dedication to performing our part in taking social responsibility has led us down a great path in an effort to make education more available to all people regardless of their background and socioeconomic status. I believe that access to high value education is the right of every individual and aim to fill the gaps that prevents them from realizing that right.

We extend our heartfelt appreciation to all who have been a part of our journey, and we look forward to continuing to write the next chapters of success together.

Sincerely,  
**Mohammad Halvaei**

## CEO MESSAGE

In Pars Kayhan, we have embarked on this journey together, bridging the realms of investment and development.

Our team represents a convergence of expertise, vision, and determination to drive meaningful impact in the industries we serve.

With each project we undertake, we have the opportunity to not only deliver exceptional returns to our investors but also to showcase our prowess in engineering, procurement, and construction. It is this synergy between financial acumen and technical proficiency that sets us apart and positions us for sustained success.

Together, we are not just building structures; we are constructing legacies that will stand the test of time. Through our collective efforts, we have the power to shape industries and inspire future generations.

I am immensely proud of the talent, dedication, and innovation that define our team. Your unwavering commitment to excellence is the cornerstone of our success, and I am honored to lead such an exceptional group of individuals.

With gratitude and determination,  
**Shahrokh Shivaie**







## HISTORY

Founded in 1991, Pars Kayhan is a privately held contracting company started by providing **Design, Engineering, Procurement** and **Construction** Services in fields of Oil, Gas, Petrochemical, and Power. After 3 decades of adventures with execution of biggest projects in Iran and also international projects abroad, Pars Kayhan has started its activities in upstream section as well.

Pars Kayhan has performed various projects, started by Power plant facilities and followed by Tank farms, pump stations, pipelines, refinery and petrochemical units. We entered to upstream since 2016 by executing 18 wellhead facilities in South Yaran oil field of Iran.

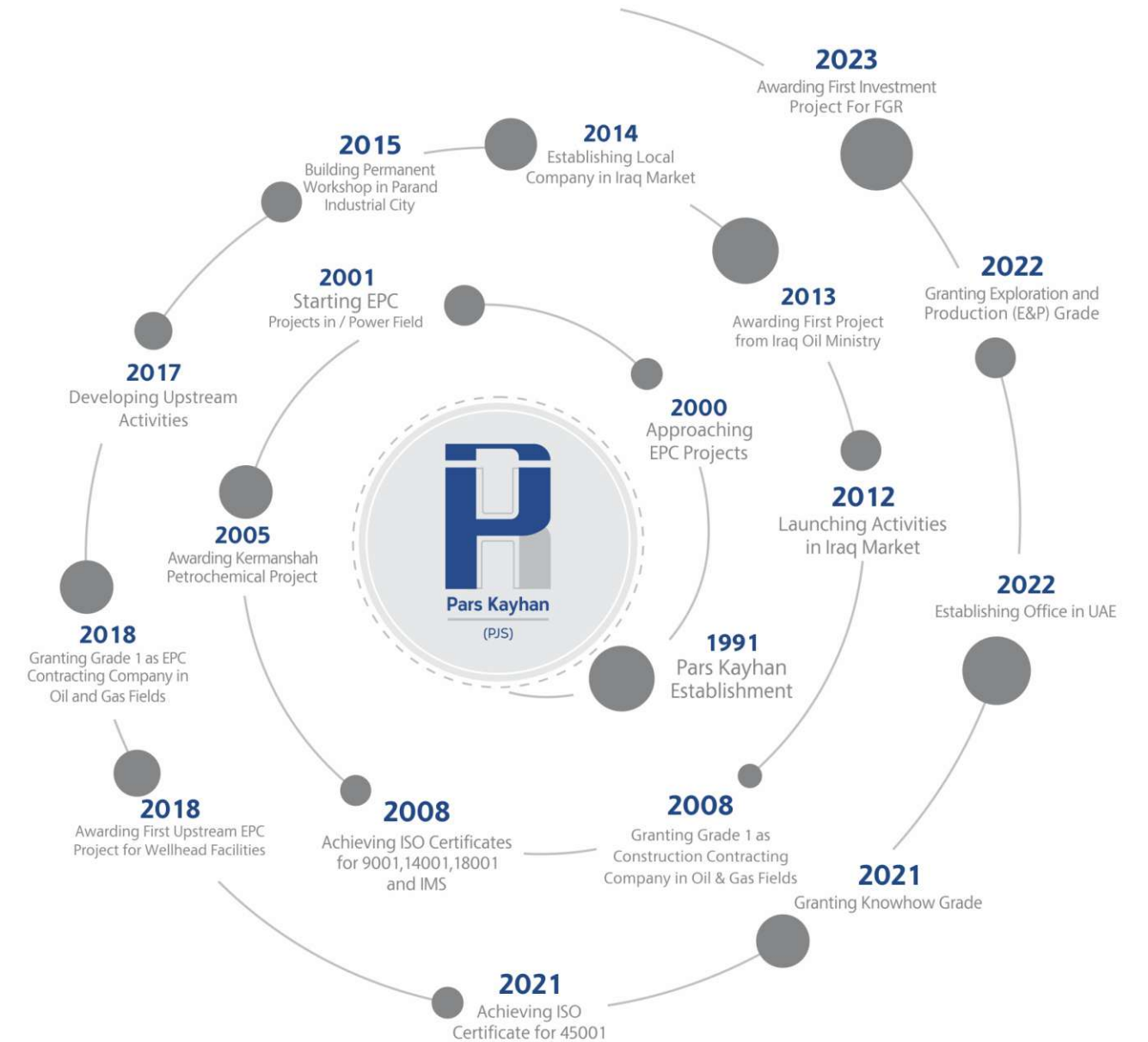
Developing oil fields study, Drilling team and machineries, Pars Kayhan selected as one of Iranian Qualified Exploration and Production (**E&P**) Company by Oil Ministry.

Today we can take care of every aspect of a project from its initial concept to techno-economic studies, front-end and detailed design, upgrades and optimization plans, hazard and risk analysis, procurement, project management and site supervision. We boast the full set of ISO certifications, a tangible sign that quality and safety are top priorities in everything we do.

We build long-term relationships with our clients, focusing on bringing every assignment to a successful completion, on time and to budget. Whether direct contracts, frame agreements, service contracts or EPC, EPCM and PMC contracts we use QA, HSE, QRA, risk assessment, continuous improvement and sustainability protocols and processes to deliver excellence to our clients.

Pars Kayhan has been awarded **Knowhow Grade** for innovation and development of engineering solutions in EPC projects. Nowadays, Pars Kayhan is ambitious to invest on big national projects in Iran and Middle East.

# 33 Years PERSEVERANCE







## MISSION

We are committed to Delivering projects safety, timely, and economical with high quality. Developing the skills and knowledge of our employees in a friendly and cooperative working environment. Providing opportunities for the people in the region of project execution to increase their life quality.

## VISION

To be a socially responsible company which benefits all stakeholders, from company shareholders to employees from clients to local people.



# AT A GLANCE

## DOWNSTREAM

### OIL, GAS & PETROCHEMICALS

- Terminal & Storage Facilities
- Pipeline & Pump Stations
- Treatment / Process Plants
- Gas / Condensate and Oil Production
- Petrochemical Complexes
- Refinery Units

### POWER GENERATION & DISTRIBUTION

- Single & Combined Cycle Power Plant (BOP)
- Mobile Sub-Station
- Overhead Lines / Cables / Substations up to 400kv
- Transmission Line up to 400kv

### WATER

- Potable Water Treatment
- Oily / Wastewater Collection and Treatment
- Desalination
- Dam



## UPSTREAM

### UPSTREAM SUBSURFACE

- Geology, Petro-Physics and Geophysics Services
- Processing and Interpretation OF Seismic Data
- Analysis and Interpretation of Seismic and Geological Data
- Core and Fluid Analysis
- Reservoir Screening
- Economic Evaluation / MDP Preparation
- IOR /EOR Techniques

### DRILLING & COMPLETION

- Well-placement Trajectory/ Planning
- Horizontal/ Vertical well Placement and Interference Analysis
- MPD & CPD Services
- RMR- Riser less Mud Recovery Service
- MPC- Managed Pressure Cementing Service
- Well Concept Selection
- Site Survey Management
- Rig Service (Truck mounted/ Skid)
- H2S Service
- Coiled Tubing / N2 Pump Service
- Cementing Service
- Mud logging Service
- Mud Cube

### WELLHEAD SURFACE FACILITIES

- Well PAD Design & Construction
- Chemical Injection Packages
- Control Panel
- Piping & Special Valves





## MANPOWER

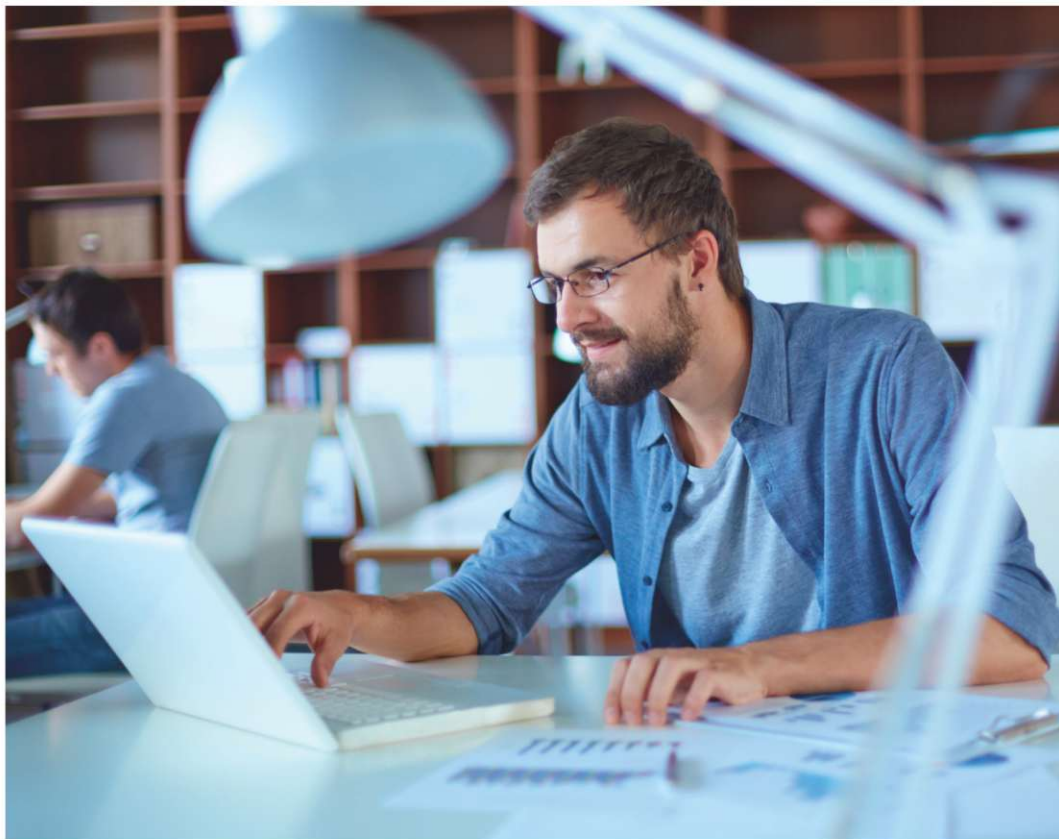
After 30 years of successful completion of various projects in Energy fields in Iran and outside the country, we are proud of our most valuable properties which is our human resources who are highly qualified skilled workers and experienced team work during many years.

Our construction key personnel proofed their commitment and performance to the management and company policy.

Our staff has their own grow up plan in the company and would be trained periodically.

Loyalty is the great achievement which Pars Kayhan got from its personnel.

Pars Kayhan 's permanent manpower is based in its offices in Tehran, Ahwaz, Iraq and UAE.



# CURRENT EMPLOYEES 900

**90**  
Design & Eng.

**20**  
Procurement

**40**  
Key Construction

**660**  
Shops and Sites

**30**  
HR & Admin

**15**  
Planning

**15**  
QA & QC

**20**  
HSE

**10**  
Logistics







## MACHINERY

Construction equipment management is one of the major factors to run the project in a successful manner. Proper selection of the equipment and using it appropriately will contribute to quality, safety, economy and timely completion of the project.

Pars Kayhan, has its own machinery resources including heavy onshore machinery, special tools and equipment and also offshore Rigs and other special equipment.

Our Machinery department developed a professional maintenance and supervision program for our machineries in order to keep the best performance and efficiencies. Also, we have maintained our machinery resources in cooperation with our partners during past years, in order to increase the capacity and readiness for new and big projects.

## PERMANET SHOP

Pars Kayhan owns Facilities in Parand City near Tehran as Permanent Shop. Our shop area is around 3500Sq Meter, including 1000Sq Meter equipped shop ready for Fabrication and Production of project equipment.

## TEMPORARY AND JOINT SHOPS

Due to some project's requirement, we have successfully experienced building temporary shops at project site in order to remove long and heavy transportation risks and costs and increase quality management and HSE observations. However, Pars Kayhan has access to various shops in Iran and Iraq for special fabrication which have been already used in our previous projects.





# HSE



## HSE

The safety and health of its people, of local communities and its partners are a top priority for Pars Kayhan.

Pars Kayhan conducts its activities in accordance with all international agreements regulations, standards and conventions and all national laws and policies safeguarding the health and safety of workers.

Pars Kayhan takes an integrated approach to safeguarding health and safety in accordance with the principles of planning, prevention, protection and continuous improvement, investing all levels of the company with responsibility.

We have developed a comprehensive HSE Management System that meets the requirements of all applicable laws and is certified to international standards ISO 14001 and OHSAS 45001. Pars Kayhan's HSE risk management is based upon the principles of prevention, protection, awareness, promotion and participation. Its aim is to ensure the health and safety of workers and to protect the environment and public's general welfare.

# HSE





## QUALITY MANAGEMENT SYSTEM

Pars Kayhan implements its Quality Policy to become a first-class in the Middle East by providing customers products and services with the enterprise best quality.

The satisfaction of customers' needs is a primary goal for our company, achieved by implementing the principles and methods of operational excellence throughout the life cycle of every project.

A strong focus on the customer, motivation and implication of top management, a process-based approach and on-going improvement are the essential elements of our commitment to quality.

At Pars Kayhan, we are convinced that quality is primarily a matter of attitude; in fact, it is mostly about having the right attitude and constantly striving to achieve stakeholders' satisfaction.

This is achieved through on-going improvement of all processes and activities, striving to achieve mutual benefits with all stakeholders, including vendors and subcontractors, with a view to enhancing the ability of both to create value and meet customers' expectations.



In all aspects of our work, we operate on the basis of internationally recognized standards, which are implemented in the company through a series of policies, procedures and appropriate best practices embedded in our management systems, including our Quality Management System and Quality Policy.

All these systems and policies are subject to audits, which provide Pars Kayhan management with assurance that effective and efficient processes are in place to ensure that activities aimed at on-going improvement are implemented to satisfy stakeholders' needs.

Pars Kayhan's Quality Management System achieved certification of compliance with standard ISO 9001 in the year 2009. Pars Kayhan is also Certified under standard ISO 3834-2:2005 (Quality requirements for manufacturing, installation in EPC Projects in Oil and Gas industry)



# FABRICATION & CONSTRUCTION



Pars Kayhan has access to powerful and mobilized yards to provide fabrication solutions to Clients' capital projects. With the knowledge gained by self-performing fabrication, Pars Kayhan can effectively manage third parties to meet fabrication standards on projects in diverse industries.

We provide Clients the flexibility of offsite fabrication and the proven expertise to deliver the cost and compressed schedule benefits of modular construction for Client's capital projects. Self-perform fabrication yards may be adjacent to the site or at remote locations, reducing onsite craft densities and shifting work to inherently safer and more controlled work environments. Remote locations may offer cost and schedule advantages.

#### OUR SERVICES FOR FABRICATION BRIEFLY COVER BELOW ITEMS :

- Plate & Structure Fabrication Shops
- Spool Fabrication
- Skid Design and Fabrication
- Mechanical Package Assembly
- Risk Assessment
- Design Optimization
- Pre-Fabrication and Onsite Construction



## MID & DOWNSTREAM SERVICES & PROJECTS

Pars Kayhan 's team with 25 years' experience has been engaged in design and construction of Production, Storage and Transporting Facilities, Process Plants, Export Terminals, Pipelines, Pump Stations, etc. We have been involved in different stages of refinery development and possess extensive knowledge and expertise covering all stages and components of development of Petrochemical Units. Today we can take care of every aspect of a project from initial concept to techno-economic studies, front end detailed design, upgrades and optimization plans, hazard and risk analysis, procurement, project management and site supervision We build long-term relationships with our clients, focusing on bringing every assignment to a successful completion, on time and with assigned budget .





## TANK FARM AND OIL TERMINAL



Pars Kayhan has designed, fabricated, installed, repaired and maintained any kind of storage facilities, from the simple to the most sophisticated, providing a wide range of services and cost-effective solutions to key industries including refineries, terminals, LPG depots and more. We handle every project with skilled craftsmanship, the latest equipment, and a dedication to safety and customer satisfaction. Pars Kayhan's policy is to use the latest and most safe methods which bring high quality and speed. We have used various modern automatic welding machines in our projects and also have the knowledge of hydraulic jack-up method for erection of storage tanks.

Whether the tank or vessel is to be shop fabricated or field erected, our experienced professionals are at your service.

There are only a few contractors in the world who built Storage Tanks with the capacity of 1,000,000 BBL.

OIL TERMINAL

## MAJOR PROJECTS

- Kharg Island Tank Farm / Kharg Island / EPC  
Including 4 floating roof crude oil storage tanks and facilities with the capacity of each 1,000,000 BBL (Client: IOTC)
- Exir Chemical Terminal / Mahshahr City / PC  
Including 18 sets of storage tanks and facility  
(Client: Exir Chemical & Odfjell Norway & Oil Tanking Germany)



MAJOR PROJECTS





DESIGN, SUPPLY AND CONSTRUCTION OF 4 X1,000,000 BBL  
FLOATING ROOF CRUDE OIL STORAGE TANKS  
As the largest storage tanks in Iran with 109 m diameter  
same as a real football pitch



## PIPELINE & PUMP STATION

More than 500 KM Pipeline from 6 inches up to 56 inches and Pump Stations in EPC Schema, for Oil and Gas products, including Design, Stress analysis, Foundation and structural design, Supply, installation and commissioning in various locations in Iran and Iraq has performed by Pars Kayhan team. Pars Kayhan is Innovative and efficient main line Engineering and construction company for Oil and Gas, LPG, Petroleum products, natural gas Cross country piping line Engineering, which provide Complete range of Services. we have highly experienced Manpower, Resources and Equipment, which can construct pipe of any range, size, geography and terrain. Our Engineering and construction team always focus on quality, Safety and cost efficiency.

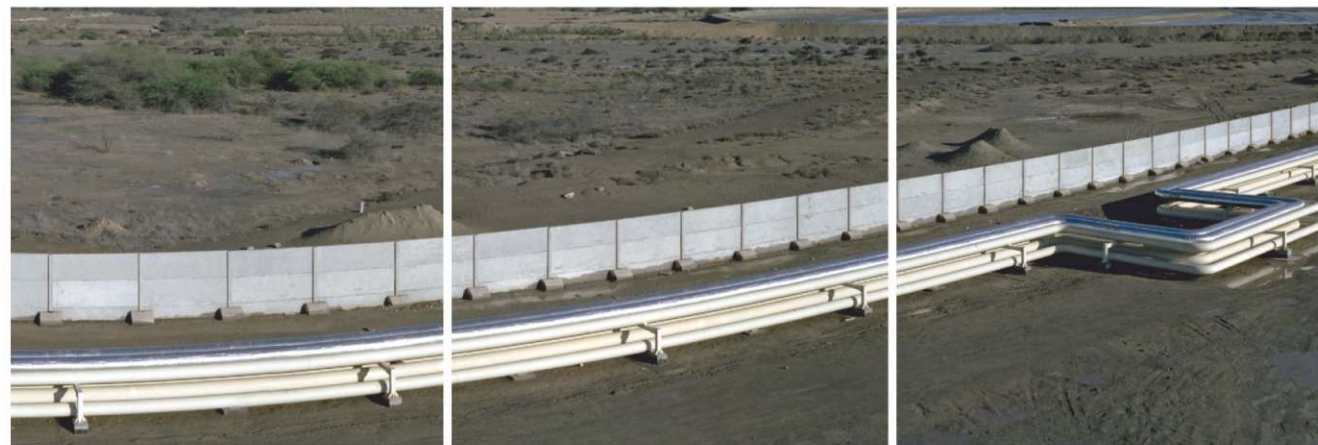
### OUR SERVICES INCLUDE :

- Conceptualization and Feasibility Study of cross-country pipeline
- Basic Engineering & Details Engineering
- Pipe laying, Construction, Testing and Commissioning Including (Electrical, Instrumentation, Fire & Gas, Fiber-optics & Telecommunication)
- Pipe Coating
- Pigging Operation
- Horizontal Directional Drilling (HDD)

Pars Kayhan offers complete services with specialized and experience manpower, engineers and equipment for construction of major compressor stations, Pump stations, meter stations, LNG Facilities, Liquid handling facilities and CNG stations.



PIPELINE &  
PUMP STATION



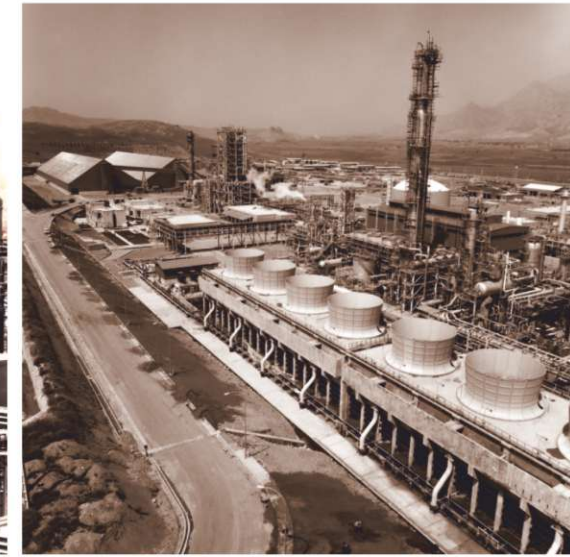
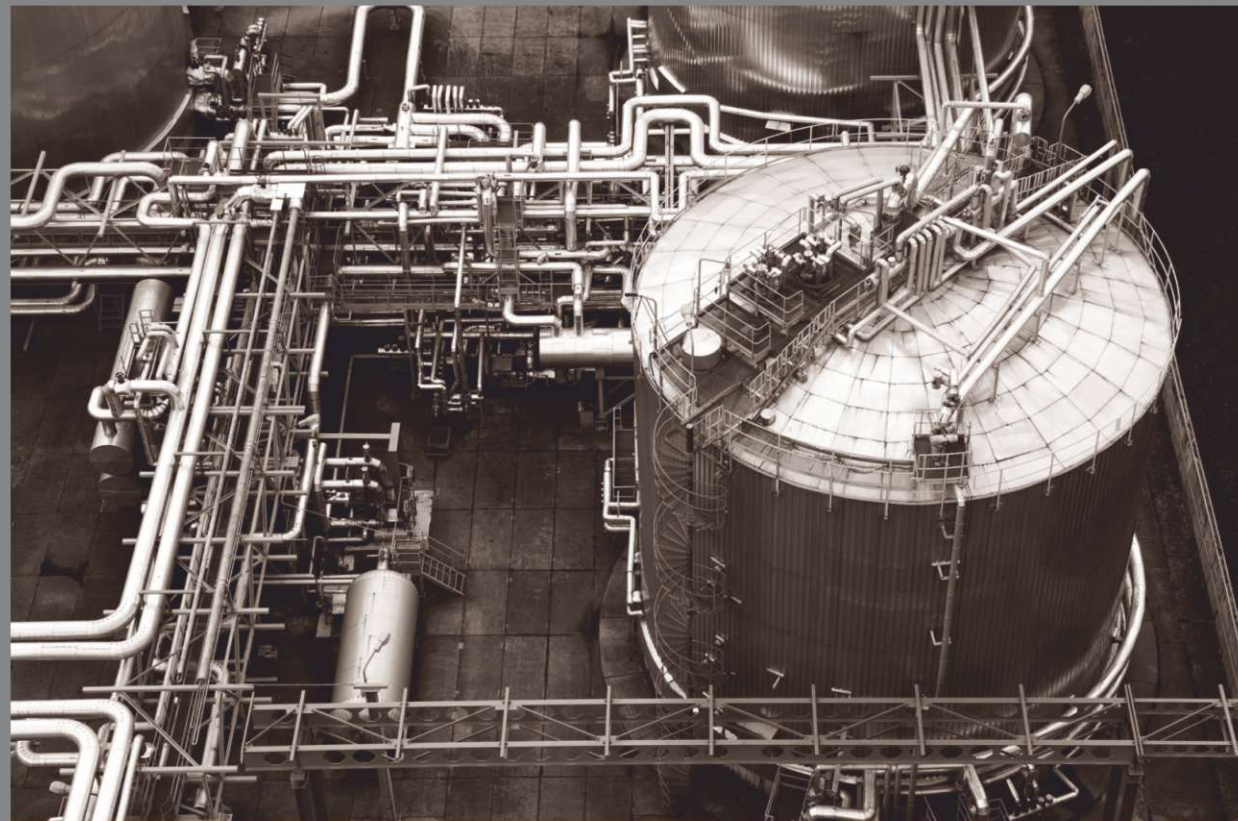
## MAJOR PROJECTS

- South Azadegan Pipeline / Ahwaz Suth Azadegan Oil Field / EPC Including 110 Km pipeline from 6 inches up to 28 inches (Client: PEDEC)
- Bandar Abbas Jetties Project / Bandar Abbas / EPC Including 45 KM of 24 inches Pipeline and Loading-Unloading Facilities (Client: NIOEC)
- Strategic Pump Station / Khoram Abad / EPC Including Pump Station and Tank Farm (Client: IOPTC)
- Abadan Refinery Expansion Project / Abadan / EPC Including 40 KM of Pipeline and Pump Station Facilities (Client: NIOEC)



## PETROCHEMICAL & REFINERY

Refinery projects are normally billion-dollar developments designed around core refinery process units. We have been involved in different stages of refinery development. Petrochemicals are derived from petroleum sources like crude oil and natural gas. Pars Kayhan possesses extensive knowledge and expertise covering all stages and components of a petrochemical unit development including preparation of techno-economic feasibility reports, licensor selection, cost estimation as well as detailed engineering and overall project management.



## MAJOR PROJECTS

- Kermanshah Petrochemical Complex / Kermanshah / C (Client: Kermanshah Petrochemical Company)
- Tehran Refinery Cooling System / Tehran / EPC Including New Cooling System (Client: Tehran Refinery)
- Assaluyeh Gas Refineries No. 13,14,19 / Assaluyeh / EPC (Client: POGC)









KERMANSHAH PETROCHEMICAL COMPLEX







## POWER & TRANSMISSION

Our power capability covers all aspects of thermal energy generation, transmission and distribution. In order to provide the correct balance of expertise to each client, our staff works in an integrated manner to utilize the extensive range of skills. Our clients include private or public sector and funding agencies. Our services range from start to finish for new power developments and across power existing facilities. Transmission and distribution provide multidisciplinary expertise at all stages of power transfer from generator to consumer. We have the full range of skills in overhead lines, underground cables and substations and apply these at all voltages up to the highest in common use including high voltage DC. We follow all the stages of the engineering process to provide critical evaluation and technical justification of the recommended solutions.



## MAJOR PROJECTS

- Parand Power Plant / Tehran / EPC Including BOP of Fuel (Client: Mapna)
- Damavand Power Plant / Tehran / EPC Including BOP of Fuel & Water (Client: Mapna)
- Orumiyeh Power Plant / Tehran / EPC Including BOP of Fuel (Client: Mapna)
- Sanandaj & Abadan Power Plant / Tehran / EPC Including BOP of Fuel (Client: Mapna)



# ORUMIYEH COMBINED CYCLE POWER PLANT





# & PROJECTS

# UPSTREAM SERVICES



## UPSTREAM SERVICES & PROJECTS

As an E&P Company, Pars Kayhan provides a complete range of services for Geology, Geophysics, Geochemistry, Petrophysics, and Reservoir engineering as the keys to discover new hydrocarbon reservoirs and to unlocking the potential of its assets.

Pars Kayhan E&P section, carry out exploration, appraisal, development, and production as integrated services. Our blend of exploration and production solutions brings together reservoir evaluation, production optimization, asset integrity management, and fiscal measurement of hydrocarbons.

We fully support our clients to recover valuable resources in the most efficiently and sustainably way possible to promote the longevity of the fields, minimize environmental impact and optimize production at each stage of the field life cycle.



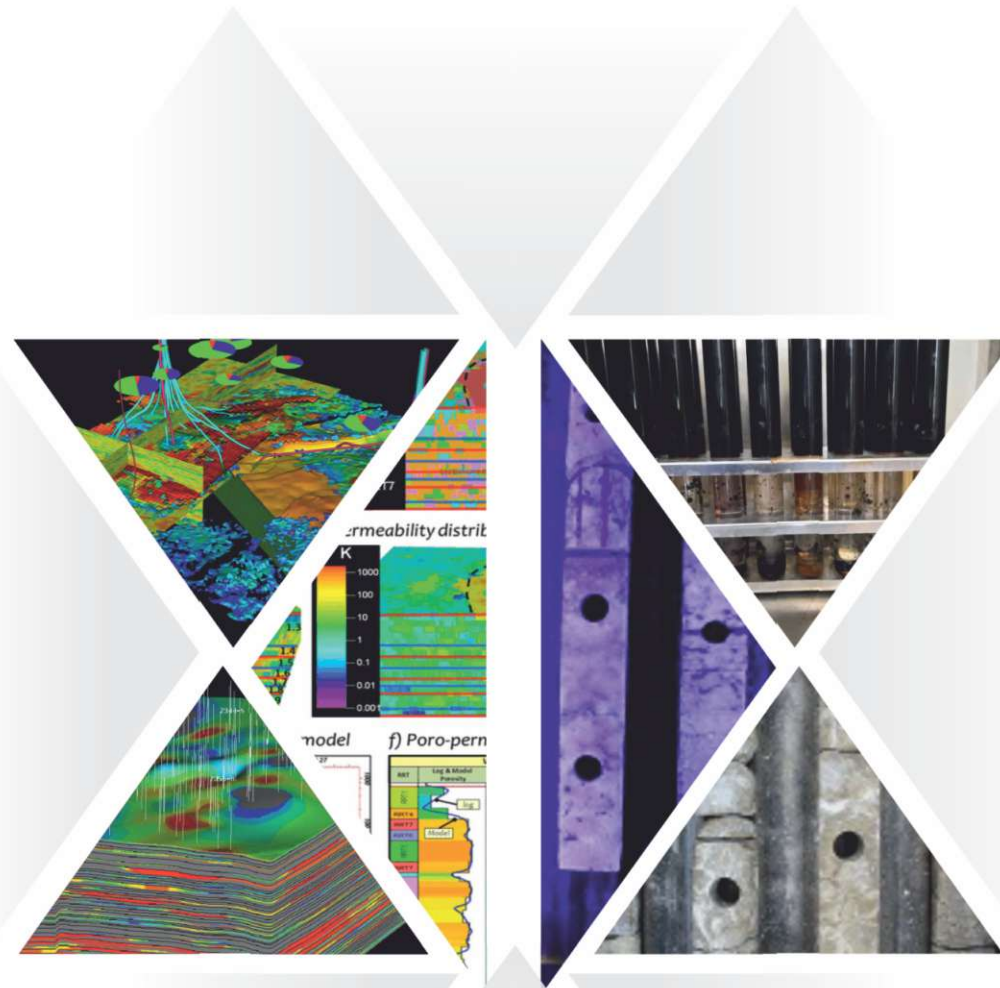
## ENGINEERING AND TECHNICAL STUDIES OF SUBSURFACE

Master Development Plan (MDP) is the ultimate purpose of most full-field integrated studies, which is designed to maximize field production. In other words, optimizing the MDP is a real objective in terms of reservoir management and surface facilities performances. The integration of simulation results and surface versus sub-surface field behaviors is the success key for production improvement.

The MDP involves many specialists, such as reservoir engineers, simulation experts, field engineers, field architects, and drilling/completion engineers. The benefit, i.e. is a better understanding of the field potential through the improvement of wells' placing, completion, artificial lift, reduction of bottlenecking, and selecting the production scenario, and facilities.

An MDP includes the following parts:

<b>Data Gathering</b> <ul style="list-style-type: none"> <li>Data Gathering</li> <li>Data Review, Qc &amp; Validation</li> <li>Database Building</li> </ul>	<b>Geo Science Study</b> <ul style="list-style-type: none"> <li>Geophysical Study</li> <li>Geological Study</li> <li>Geo Mechanical Study</li> <li>Geo Modeling</li> </ul>
<b>Reservoir Engineering Analysis</b> <ul style="list-style-type: none"> <li>Fluid Analysis</li> <li>Core Study</li> <li>Field Pressure Analysis</li> <li>Initial Condition Definition</li> <li>Fluid Contact Level Movement</li> <li>Production Data Analysis</li> <li>Material Balance</li> <li>Well Modelling</li> </ul>	<b>Reservoir Simulation &amp; Modelling</b> <ul style="list-style-type: none"> <li>Model Setup Initialization</li> <li>Model History Matching</li> <li>Forecast Scenarios</li> </ul>
<b>Surface Facilities Engineering</b> <ul style="list-style-type: none"> <li>Existing Facilities Evaluation</li> <li>Techno-Economic Study</li> <li>Process Facilities Requirement</li> </ul>	<b>Drilling Engineering &amp; Well Planning</b> <ul style="list-style-type: none"> <li>Review of Drilling History</li> <li>Typical Drilling Programs</li> <li>Well Completion Program</li> </ul>
<b>Petro Physical Study</b> <ul style="list-style-type: none"> <li>Key Wells</li> <li>Other Wells</li> </ul>	<b>Economic Evaluation</b> <ul style="list-style-type: none"> <li>Natural Depletion</li> <li>Artificial lift</li> <li>Pressure Maintenance</li> <li>Economic Analysis to Define Optimum Scenario</li> <li>EOR Field Development Scenarios</li> </ul>



## CORE ANALYSIS AND FLUID ANALYSIS

Recognizing the reservoir rock is a critical benchmark for field development, production prediction, and employing the EOR/IOR methods. In this regard, the first step after drilling a well is to evaluate the petrophysical properties. To do so, the extracted cores are investigated through standard core analysis tests. More basic core analysis tests, such as porosimetry and permeability calculation, are called Routine Core Analysis (RCAL). Investigating more detailed information from rock petrophysical properties, such as relative permeability and capillary pressure, is conducted by Special Core Analysis (SCAL).

Physical fluid analysis is another essential laboratory test, that is required for designing any field development and production strategy. Critical information, such as gas oil ratio (GOR), oil formation volume factor ( $B_o$ ), and oil viscosity, are some of the fluid properties determined to characterize the reservoir fluids. Knowing the PVT properties of the reservoir fluids, the following questions could be addressed.

What is the reservoir fluid volume in the reservoir?  
 What is the optimized scenario for liquid production?  
 What is the best scenario for maintaining the reservoir pressure?

RCAL analysis • SCAL analysis • PVT analysis





### EOR / IOR Methods

The process of increasing the production of crude oil and other hydrocarbons from an oil or gas well once the production starts declining. The procedures used in the process are similar to those used in Enhanced oil recovery (EOR) and so the terms are often used interchangeably. However, the scope of IOR is greater than the techniques employed in EOR. IOR encompasses EOR methods as well as new drilling and well technologies, intelligent reservoir management and control, advanced reservoir monitoring techniques and the application of different enhancements of primary and secondary recovery processes.

Flooding chemical fluids is one of the well-accepted EOR methods. In these methods, chemical additives are added to injected fluid to alter the rock wettability and control the fluid mobility. The chemicals, such as water-dissolving polymers, surfactants, alkaline, salts, and nanoparticles are added to the injecting fluid to control its chemo physical properties.

### NEW TECHNOLOGIES IN RESERVOIR STUDIES (IOR / EOR)

Although the energy for oil production is supplied from the natural reservoir pressure, it rapidly declines by continuing reservoir depletion. The recovery factor of oil production through reservoir natural energy is low. In this condition, improving oil recovery is owing to increasing reservoir pressure and alteration of reservoir chemo physics to facilitate the oil flow. Methods that are employed to improve oil production via changing the reservoir chemo physics are called Enhanced Oil Recovery (EOR).

The improving oil production is not only limited to the alteration of reservoir chemo physic. In some conditions, oil production is hindered by the well damage.

The stimulation of damaged oil wells, which leads to remediation of the damaged wells, is part of the process called Improved Oil Recovery (IOR).

1. Synthesis and injection of chemicals with optimum rheological properties and high stability in reservoir salinity and temperature
2. Smart water injection to improve oil recovery factor
3. Preparation of composite solvent to remediate well damage caused by organic scales
4. Employing gels, viscous polymer fluids, and nanotechnology to control water production
5. Controlling sand production using feasible chemical fluids
6. Extraction of valuable minerals and elements from the produced water
7. Well-stimulation through high-tech microwave and ultrasonic-based methods
8. Preparing inhibitors to prevent mineral scales
9. Software development and modeling of multi-phase flow in the well



### DRILLING & COMPLETIONS (D&C) ENGINEERING/SERVICES

From traditional to unconventional drilling / completions, our goal is to provide more economical and efficient solutions and successful projects to our clients.

Some of our clients see us as experienced guides to help them navigate new or unfamiliar basins. Others turn to us for onsite execution, preferring to leverage high - quality, turnkey talent for a limited venture instead of expanding permanent internal staff.

### RESULTS DRIVE CLIENT RETENTION

Ultimately, the results are what keep our clients coming back to PARS KAYHAN D&C time and again. Managing drilling economics is more important than ever. The knowledge and experience our team have acquired translate into gains in efficiency and effectiveness at the wellsite. Lower NPT, faster TD, reduced expendables.

Our team of drilling engineers and drilling services each segment engineers are able to assist with all aspects of the drilling process for vertical, directional, and horizontal wells including location evaluation and planning, facility design and construction, equipment selection and procurement, drilling optimization, regulatory filings, HSE management and our drilling new services (MPD/EOR).

### PARS KAYHAN D&C ADVANTAGE

While every PARS KAYHAN D&C engineer/ drilling services brings vast experience to your project, each serves as a gateway to the collective knowledge base of the entire PARS KAYHAN organization.

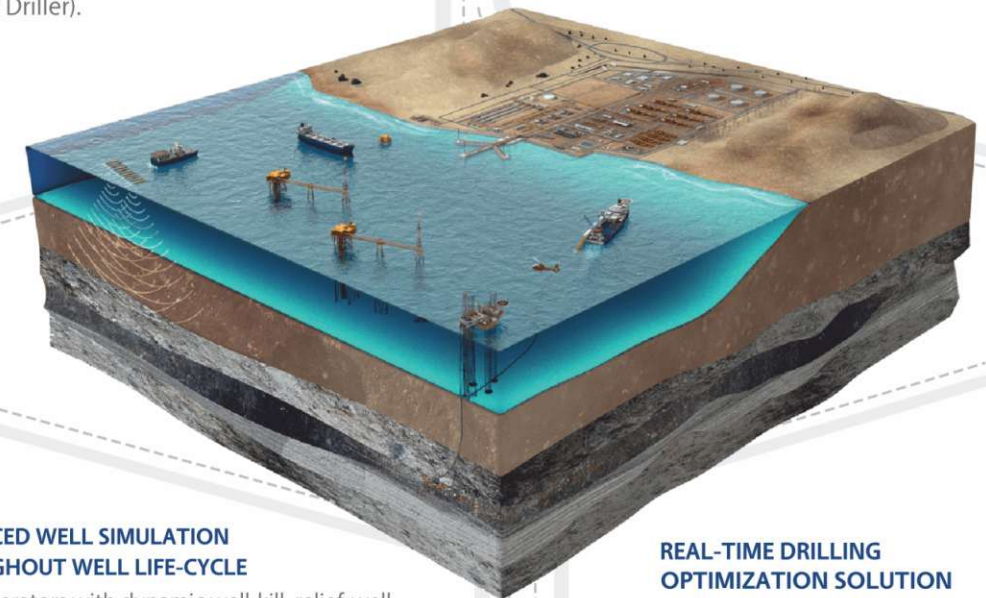


### WELL ENGINEERING

Well Design Optimization and Proactive Well Planning Develop Well Operations-Activity Plan, Well Integrity Management Plan, Risk Assessment, and Digital Drilling Activity Plan (for Driller).

### ADVANCED DRILLING SERVICES

Perform offset well analysis and pre-drill analysis, fingerprinting to fine-tune drilling procedures and optimize drilling parameters well ahead of time using Thermal-Hydraulics-Mechanical (THM) software and services. Bottom-hole Hydraulics, improve wellbore integrity of conventional, HPHT, ERD, and Depleted reservoirs by Prototyping changing wellbore condition and drilling fluid behavior using TMFS software.



### ADVANCED WELL SIMULATION THROUGHOUT WELL LIFE-CYCLE

Assist operators with dynamic well-kill, relief-well planning, Annular-Pressure Build-up, well clean-up, well-restart, and well integrity assessment simulations using Next-Generation transient-multiphase flow simulation (TMFS) software (LedaFlow for Well or OLGA for Well) and services. We deliver Well Liquid unloading, Well Restart, Well Clean-up simulation along with Well Integrity analysis as part of the Production Engineering service whereas Well Production and Performance simulation as part of the Well Operation Optimization.

### REAL-TIME DRILLING OPTIMIZATION SOLUTION

Assist Operators with real-time solution based on Thermal-Hydraulics- Mechanical (THM) to autodetect the symptoms (leading to drilling events, NPT, ILT) and find optimization opportunities through simulation well ahead in time.

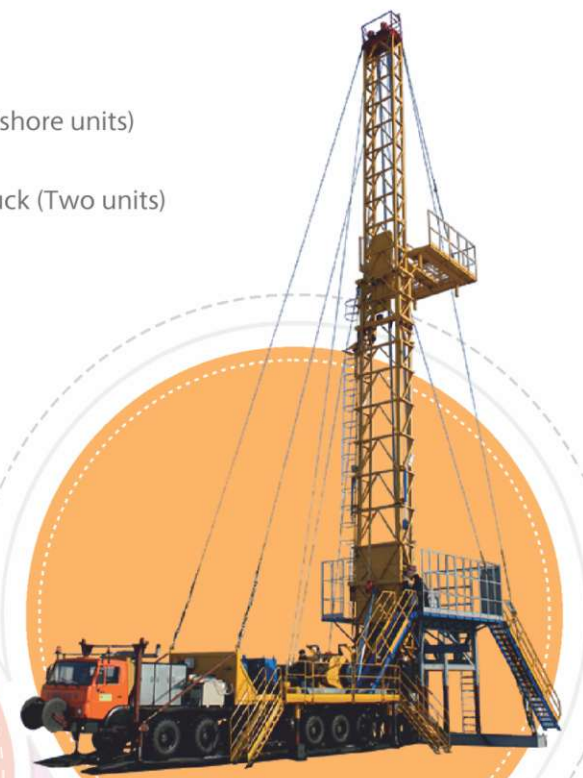
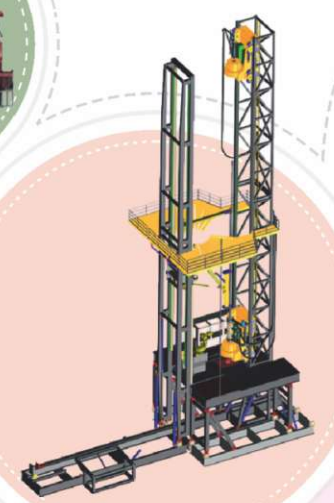




# DRILLING & EOR ASSETS

## DRILLING & EOR ASSETS

- 1- Truck Mounted 1200 HP ( Three available )  
Fully auto pipe handler sys.  
Iron-roughneck  
Fast move  
Max wind speed  
Deep drill depth
- 2- Skid rigs (one 3000 HP / one 2000 HP available)  
Iron- Roughneck  
Auto Pipe  
Fast mixing
- 3- H2S Units (Four onshore & Two offshore units)
- 4- CTU (Two units)
- 5- Cementing/Acidizing HP pump truck (Two units)
- 6- Slick line Unit (Two units)





**SOUTH YARAN OIL FIELD**

EPC of 18 Sets of Wellhead Facilities  
C.S. / S.S. / Duplex and Super Duplex  
5000/10,000 Psi Chemical  
Injection Package, Wellhead Control  
Panels & Piping works, Pipeline  
Manifold, Flowline







### Well Engineering/ Operations / Drilling Services Projects

- 1** Providing of Coiled-Tubing Service (Iran- Onshore))
- 4** Providing of Cementing Pump truck Service (Iran Onshore)
- 2** Providing of H2S Service (Iran Onshore- Offshore)
- 5** Providing of Slick Line Service (Iran Offshore)
- 3** Providing of Truck Mounted/ Skid Rig (Iran Onshore)
- 6** Iran onshore Truck mounted rig Project (Well Planning/ Operations Exploration (3 wells))



## INTERNATIONAL PROJECTS

Strategic Gas Pipeline from Basra to Najaf Complementary works plus ESD and MOV stations in EPC Schema (Client: BOC) / Iraq



9 Sets of Storage tanks Fixed and Floating Roof with Accessories in Basra and Nassiriya Refineries (Client: SRC) / Iraq



4 Sets of Storage Tanks Fixed and Floating Roof with Accessories in Al Daura Refinery (Client: HEESCO) / Iraq



Drilling Engineering Planning (Nigeria Deep Water HPHT ENI-Agip Project)



Drilling Engineering Planning/ Operations – Using of MPD/ Hugh Loss HP (Russia/ Kazakhstan North Caspian Sea Consortium of TOTAL/ ENI/EXXON/INPEX/BP/STATOIL)



Well Planning/ Operations Exploration/ Development (24 wells) (Qatar/ Iran HP OMV Offshore Jack up Project)



Acid Fracturing & Drilling Services in Baku (Client: BP) / Azerbaijan



INTERNATIONAL PROJECTS





## INVESTMENT & FINANCE

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The investment and finance department at Pars Kayhan follows a rigorous approach to determine the feasibility of projects in the oil and gas industry. This involves conducting a comprehensive study that assesses the technical, economic, legal, operational, and scheduling aspects of each project. Similar to other professional international companies, Pars Kayhan adopts an engineering contract model, including Engineering, Procurement, Construction, Finance (EPCF), Build, Operate, Transfer (BOT), and Build, Transfer, Operate (BTO). The financing policy at Pars Kayhan is influenced by the macroeconomic situation in Iran, the Middle East, and the world. Consequently, the investment and finance department thoroughly examine various parameters to propose the most favorable offer for each project.



## Flare Gas Recovery Unit

Location: 9<sup>th</sup> Gas Refinery / Phase 12 / Assalouyeh/ Iran  
Client: SPGC / Iran Oil Ministry  
Schema: Investment / B.O.T.





## PARS KAYHAN GROUP OF COMPANIES



### PARS KAYHAN ENERGY POUYA (E&P)

Pars Kayhan E&P offers exploration and production services in the oil & gas upstream sector. With a team of highly experienced experts, assets, and a research & development team, we are able to take on new challenges in this field.



### MIDDLE EAST ALMAAS DRILL CO. (MADCO)

MADCO utilizes some of the best managers and engineers whose qualifications include outstanding excellence coupled with long practical international experiences in the subject of Sub-surface (G&G, Seismic, Reservoir Modelling, Petroleum), Drilling & Completion Engineering and Production of oil and gas (Green and Brown) fields.



### ARIYAN ENERGY & PETROLEUM EXPLORERS (AEPE)

Providing technical engineering services in upstream oil and gas industries, AEPE carry out petrophysics studies, geology, geomechanics, geophysics, reservoir engineering, static and dynamic modeling, core studies and analysis, drilling engineering, engineering the surface of the earth.



### PARSIS SOLUTION CO.

Established in 2016, Parsis aims to provide design, engineering, and procurement services by collaborating with international manufacturers and consultants. The company has successfully delivered products from renowned European and East Asian manufacturers to major Iranian oil clients like NISOC, NOOC, PEDEC, and EPC contractors. Currently, Parsis is concentrating on providing design and engineering consultancy services to incorporate the latest design methods and technologies in collaboration with international partners.



### PARS KAYHAN TAJHIZ (PKT)

PKT provides high quality services for Design, Assembly, fabrication and production of oil and energy equipment. PKT shop located in Parand city near Tehran and equipped for fabrication of tanks, skids, mechanical packages, piping spools and ...



### PARS KAYHAN IRAQ BRANCH (PKI)

Pars Kayhan's Iraq branch has two offices in Basra and Baghdad. PKI executed various contracts successfully in Iraq and qualified by Iraq oil ministry and affiliated companies.



# CERTIFICATIONS & QUALIFICATIONS

## E&P GRADE



## Grade 1 in Oil & Gas EPC CONTRACTING



## Grade 1 in Oil & Gas Construction



## Grade 1 in Oil & Gas Engineering Consultancy



- E&P Grade from Iran Oil Ministry
- Knowhow Grade for EPC projects in Oil and Gas Project (Iran Presidency / Deputy of Planning)
- EPC contracting Grade 1 for Oil Projects (Iran Presidency / Deputy of Planning)
- Engineering Consultancy Grade 1 for Oil Projects (Iran Presidency / Deputy of Planning)
- Contracting Grade 1 for Oil Projects (Iran Presidency / Deputy of Planning)



Iran Oil ministry and Affiliated Companies (NIOC, NIOEC, PEDEC, IOTC, NIGC, )



Iraq Oil Ministry and Affiliated Companies (BOC, SGC, TOC, MOC, MDOC, HEESCO, SCOP)



## Awards

- Best Company of Iran For Exporting Technical and Engineering Services in 2019
- Best Company of Iran For Exporting Technical and Engineering Services in 2020

## Memberships



Association of petroleum industry engineering and construction companies



Association of construction companies



International Consultants and Contractors Association of Iran



Tehran Chamber of Commerce, Industries, Mines & Agriculture



Engineering & Construction Companies Association (Oil and Power Industries)





## SOCIAL RESPONSIBILITIES

Pars Kayhan will remain focused on progress as the sustainable leader that fulfills its social responsibilities and pursues sustainable growth and development by building schools for children of low-income class families, and social welfare facilities. Pars Kayhan supports children's dreams and hopes.







## LOOK FORWARD

Looking ahead, we are focused on accelerating our growth while continuing to strengthen our brand through helping our clients, share knowledge and create innovation and bringing positive change to the communities in which we work and live.

We like the world as a better place to live.