## Pakistan Foundation for the Advancement of

Engineering & Technology provides superior solutions to Oil & Gas Companies/ industry upstream, production, transportation, refining and related industries. Upstream products include well service & stimulation pressure pumping and flow control products. Downstream products include API 610 centrifugal pumps and spare parts for refining and petrochemical industries from Engineered mechanical and rotating equipment repairs and upgrades, oilfield and drilling equipment repair and certification, Advanced Parts Solutions (APS) including robust asset management and field engineering services are delivered globally.

Detailed designed programmable control systems. Management of all stages and aspects of projects including; detailed engineering activities, planning, materials procurement and sub contracted packages, variation claims and commercial negotiations. Programmable and solid state control systems design. Application software design. Structured projects development from user requirements and system architecture definition through functional specification, detail design specification, coding, test procedures, test specifications and performance proving / acceptance testing.



Main areas of services are:

- 1. Design of Well & Services
- 2. Drilling Fluids Services
- 3. Lab Equipments.
- 4. Oil Well Cement, Additives & Stimulation Program
- 5. Additives and Stimulation Software
- 6. Casing Conductor Pipes
- 7. Supply of Demulsifier for the Treatment of Missan Crude Oil
- 8. Development of Oil Field Pumps
- 9. EPIC For Potable Water Storage Tanks and Pumps
- 10. Field Services Workboat-Based Construction Services
- 11. Contracting Services
- 12. EPC Contract for Diesel Hydro-Desulphurisation Revamp
- 13. Security and Safety Equipment Fire, Gas Monitoring and Fire Suppressant Systems.
- 14. Vessels, Tanks Supply of GRP Tanks and Piping & Fittings
- 15. Pumps: Centrifugal Complete Horizontal Centrifugal Pump
- 16. Machine Tools Supply of Power Pipe Cutter
- 17. Lifting & Handling Equipment Supply of Pipe Layer
- 18. Survey & Maps Survey, LWD, DD, MWD and FEWD Services
- 19. Software HMI & Alarm Rationalization
- 20. Filtration, Separation Supply of Acid Gas Separator
- 21. Engines & Gen Sets Heavy Maintenance of Gas Turbine Unit
- 22. Valves Supply of Gate Valve for Water Treatment
- 23. Instruments Supplying of Gas Chromatography
- 24. Transportation and Accessories Transportation Services

- 25. Water Treatment Plant Feasibility Study for Improvement in MAF Refinery.
- 26. Transportation and Accessories Air Transportation Services
- 27. Motors & Reducers Motors Service for AB3 Gas Compressor
- 29. Drilling & Well Services Oil Well Cement Class (G) High Sulfate Resistant
- 30. Instruments Procurement of Metering Skids Consumers
- 31. Shipping & Marine Services Completion of Break Water at LNG Terminal.
- 32. Geological, Geophysical Serv
- 33. Chemicals Intermediates and Ingredients Supply of Stuck Breaker
- 34. Instruments Pressure Gauges for Gas & Oil Processing Stations.
- 35. Engineering Materials and Structurals Supply.
  Instruments Pressure Switches for Processing Stations
- 37. Drilling & Well Services Cementing Services and Materials
- 38. Field Services Eighth New Exploration Licensing Policy (NELP) Bid Round.
- 39. Engineering Services Pre-qualification for Comprehensive Maintenance.
- 40. Security and Safety Equipment Water Mist System and Halon Cylinders
- 41. Drilling & Well Services Casing Running and Handling Equipment and Services.
- 42. Field Services Hydrocarbon Exploration
- 43. Contracting Services EPC for New Service Water Line
- 44. Contracting Services Pipeline Laying & Associated Facilities
- 45. Petrochemical Enhanced Oil Recovery Project
- 46. Drilling Equipment Supply of Wellheads & X-Mass Trees
- 47. Pumping Station Supply of Water Injection Pumping Station
- 48. Compressors Designing & Supply of New Gas Compressor Station.
- 49. Engineering Services Project Management Consultancy Services.
- 50. Security and Safety EquipmentNew Fire Alarm System of
- 51. Contracting Services Installation & Commissioning of Port-A-Cabins.
- 52. Process Equipment Asphalt Blowing Unit with Ancillaries
- 53. Field Services Medical Services
- 54. Drilling & Well Services H2S Equipment Supply and Services.
- 55. Drilling & Well Services Water Well Drilling services

#### Gas Field Turkemanistan

Pipeline Installation

#### CONTRACT SERVICES

PFAET is capable of providing Contract Services for investors and i clients that appreciate the value of utilizing outside expertise. PFAI demonstrated that these services have reduced overall costs for cc engaged in all aspects of the petroleum industry. The services PFA Contract Services are:

- Field Pumping Services
- Petroleum Engineering Services
- Refinery Engineering Design Services

- Construction Management Services
- Engineering Drafting Services
- Geological Services
- Lease Supervision Services
- Petroleum Accounting Services
- Professional Land Services
- Site Assessment Services

#### **OIL & GAS FIELD SERVICES**

#### **ENGINEERING SERVICES**

PFAET offers a complete line of engineering services to the petroleum industry through its affiliated companies and associates. PFAET engineers can take a project from to start to finish by obtaining permits, supervise drilling and completion, conceptual and detail design of oil and gas facilities and see them through construction, training and start-up. PFAET can monitor the projects from its inception provide clients with all engineering and accounting records and reports including any and all state and federal reporting requirements. PFAET is capable of designing, constructing and operating all facilities related to oil and natural gas processing and can provide highly capable individuals or a team of experts to its clients on a short-term or long-term basis. This multi-disciplinary staff of qualified professionals will assure that a project is evaluated thoroughly from several viewpoints and none of the aspects of the project are overlooked. PFAET offers Engineering Services expertise in the following areas:

- Conceptual Engineering Design
- Detailed Engineering Design
- Construction Engineering Management
- Geological Engineering
- Production Engineering
- Reservoir Engineering
- Oil and Gas Process Development
- Natural Gas Processing Design
- Pipeline Design
- Mathematical Modeling/Computer Simulation
- Enhanced Oil Recovery Process Design
- Expert Testimony
- Facilities and Gas Plant Training Seminars



Sour Gas Processing Plant



Federal #1-19 Lease Metering Station

#### SUPPORT SERVICES

PFAET is set up to optimize time and effort on a daily basis to provide oil and gas client companies with a computerized schedule of all related projects under its supervision. The Engineering Services includes oil and gas plant drafting support, construction supervision, daily work schedules and time line flow charts. The Land Services includes lease rentals, rights-of-way, damages, division orders, title opinion coordination, permits etc. The Accounting Services is performed with computer software to prepare joint interest billing, revenue distributions, accounts payable, PFAET budgets and reports, 1099's etc. The Lease Supervision Services includes all field contract operations for production, completions, workovers, equipment maintenance, pipelines, plants, etc.

#### **REFINERY DESIGN & CONSTRUCTION**

#### **FABRICATION SERVICES**

PFAET has the capability to provide contract oil and gas facilities fabrication services and bring a project from its initial fabrication stage to the final construction and start-up phase ay keeping track of all code requirements, weld histories and x-r reports.

# **EOS Waste Oil Refinery**







Skid #2 - Gasoline Production Vessels

# PROJECT MANAGEMENT

PFAET employs an integrated, computerized system that tracks the progress of a project from its inception. A critical path of the entire project is initially set up, showing the general timing of each segment, as well as all key deadlines throughout the project. This chart is constantly updated to assure timely execution of the job. All equipment and materials are ordered through a continuously updated database program that aids in tracking the delivery of each piece of equipment involved in the project. Accounts payable are handled through the same database with amounts due checked against the master equipment order list assure accurate payment. In this way, the total project cost and scheduling can be closely monitored.

The ability to go from the embryonic stage through maturity as to engineering design, contract negotiations, funding, construction and ongoing operations has been well demonstrated and is an attribute PFAET takes particular pride in accomplishing.

**Sulfur Recovery Plant** 





# **OTHER ENGINEERING SERVICES**

### TECHNICAL TRAINING SERVICES

PFAET has the expertise to provide technical training of engineers and field personnel in all aspects of operations and process of hydrocarbon plants and facilities. PFAET has over 20 years experience in design and project management in oil and gas processing as follows:

- P&IDs / Plot Plans / Civil Design / Mechanical Design / Drafting
- Piping Design / Code Vessel Design / Skid Package Design
- Instrumentation / Automation / Controls Design
- Bid Review / Estimating / Scheduling / Training / Start-up

# Pretty Water Gas Field



Pretty Water Federal #1-1 Separation & Metering Facilities



# Pretty Water Federal #1-1 Gas Injection Compressor

PFAET is a client/project oriented technical services company which can meet the unique and challenging demands of the oil and gas industry and can provide quick, cost-effective solutions over a broad range of disciplines. PFAET has a proven track record of providing timely, accurate and neat documentation and can meet rigorous time frame schedules.

PFAET operations and process training seminars have been well received within the industry for many years. PFAET can offer custom designed and site specific seminars which enable the operators to comprehend processes for troubleshooting, diagnosing, correcting and optimizing. Plant documents are incorporated into the format with additional documents drafted as needed to simplify presentations to the operators. The hydrocarbon processing is taught at a "practical applications" level and helps organize operators to be systematic, goal oriented and coordinated in approaching troubleshooting and daily operations. The courses are taught in a motivational format that establishes operator job responsibilities.