



Engineering and Consulting

Gas & Oil





Engineering and Consulting Corporation

PROYNCA USA is a California Engineering Corporation established in Bakersfield since 2005 that provides; engineering and integral solutions services to the oil, gas, and energy business to maximize asset value of our clients.

It is a subsidiary of PROYNCA, an international corporation composed of highly qualified engineers and professionals, with clients in Venezuela, Argentina, Nigeria, Mexico and Trinidad and Tobago.

<< Success is possible by effective interaction of a high performance team sharing ethical values and principles, focus on client-centered services, and building strong relations with our clients, by fulfilling required cost, time and quality objectives >>

<< Increasing your Oil & Gas asset value is our concern >>

Who we are ?



- Staff of engineers with more than 25 years average experience handling business units to produce hydrocarbons and other specialists that support this activity.
- Offer Service to Oil & Gas Corporations in California in Agreement with: Processes Unlimited (PROU):
 - ✓ CHEVRON, Aera Energy LLC, Nuevo Energy, Plains Exploration and Production, Macpherson Oil Company, and Inergy.
- Able to support your assets in the strategies establishment, diagnosis of the reservoir behavior, plans, operations, maintenance, optimization of the productive process, administration and management and budgetary control in order to optimize the operational and financial results.



Background

- Strong experience in reservoir performance solutions of Heavy and Light Oil, Natural Gas Liquids (N.G.L.), produced water treatment and steam Injection.
- Highly qualified in facilities project development: Project Management, Planning, Engineering, Design, Construction / Procurement Support, Commissioning, Operations Support, Process Hazard Analysis .



Services Lines

RESERVOIR PERFORMANCE SOLUTIONS

Offer services to optimizing reservoir performance and maximizing hydrocarbon recovery from producing fields and to estimate the decline curve of the reservoir, the potential and the availability of the production. Recommend Reservoir Performance Solutions to increase the production in an efficient way, volumetrically and financially - those are goals we all share.

ENGINEERING AND CONSULTING

We are a team of Petroleum and Gas Professionals with experience handling Business Units to produce hydrocarbons and other specialists that support this activity. We are able to support your assets in the strategies establishment, plans, operations, maintenance, optimization of the productive process, administration and management and budgetary control in order to optimize the operational and financial results.

TRAINING

Project Management, Planning, Reservoir Engineering, Gas Engineering, Production Facilities, O&M Asset, Process Hazard Analysis.

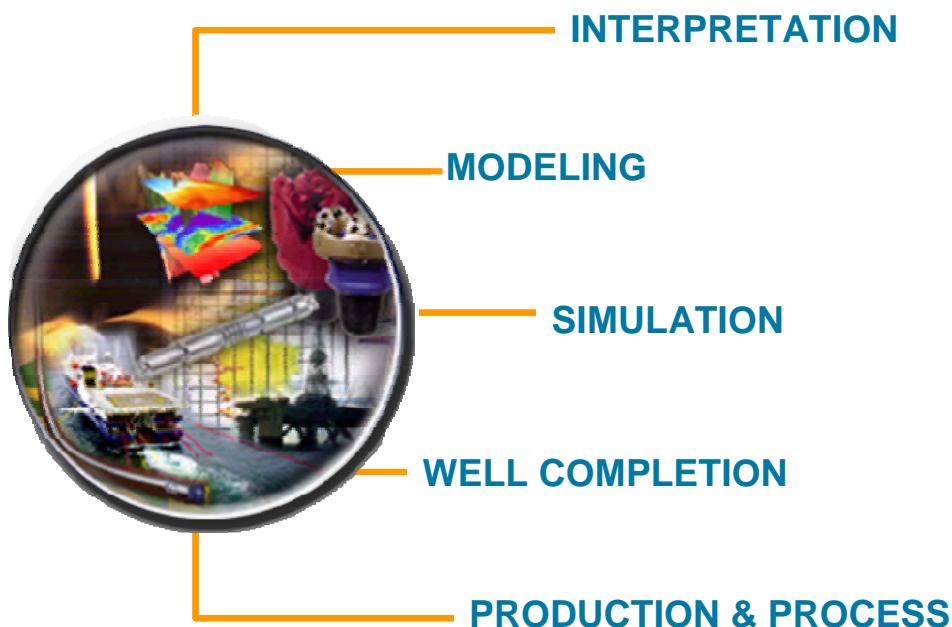


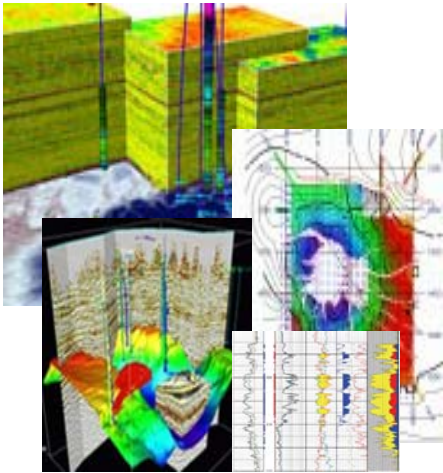
Reservoir Performance Solutions

... optimizing reservoir performance and maximizing hydrocarbon recovery from producing fields – those are goals we all share ...

Yet on average, worldwide oilfields produce only 40 percent of their hydrocarbons. Any improvement in optimizing the performance of these reservoirs requires a detailed understanding of the complexities of the reservoir system – the rocks, natural gas, crude oil, and water, as well as the mechanisms that control the flow of liquids and gases through the rocks. PROYNCA exists to help you produce increasing amounts of oil and gas daily, while maximizing ultimate hydrocarbon recoveries from your fields.

Services and products offered through our five businesses:



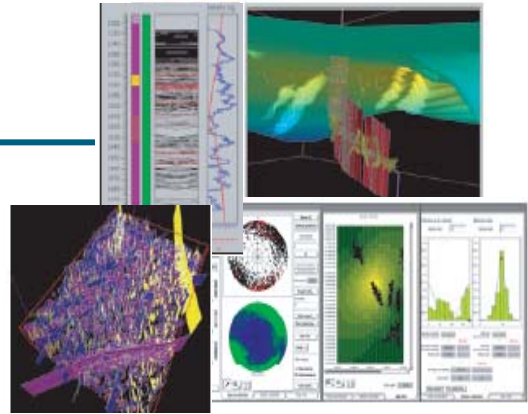


Reservoir Interpretation

A team of skilled engineers and geologists can deal with any aspect of reservoir interpretation, characterization and modeling, from data analysis to the definition of the best production strategy.

- We offer outstanding consulting expertise and advanced technology for seismic interpretation, geology and petrophysics. These services include 2-D and 3-D interpretations, sequence stratigraphy, petrophysical analysis, characterization of the mineralogy, rock properties, fluid distribution and production capabilities of the reservoir.
- Well-logging data normalization, quality control, analysis and interpretation: Classical interpretation methods (QuickLook methods like log-core and multi-well correlations, synthetics construction). Analysis schemes using multivariate statistics, inversion methods, neural networks and inference to calculate continuous profiles of mineralogy and petrophysical properties, and describe the sedimentary pile in terms of fluid flow, fluid and thermal alterations, under or over-compaction and over-pressures.

Reservoir Modeling



- **Uncertainty modeling from static to dynamic integration 3d model.**

Including structural, petrophysical and fluid-related.

- **Primary Production:** Enhance completion design and model multi-layer downhole networks. Analyze injection wells, flowlines, coiled tubings, velocity strings, flow assurance, and more.
- **Reservoir Analysis:** Perform material balance analysis to estimate reserves and understand drive mechanisms, early and accurately—even in complex reservoirs.
- **Artificial LIFT:** To design and analyze wells on electric submersible pumps. Design and analyze gas lift wells and fields.
- **Field and pipeline design and optimization:** Model an entire complex network, or design just one link, multiphase or compositional models (blackoil, condensate, steam, compositional).
- **Mature Field Exploitation Studies:** We'll identify and quantify the reserves growth potential of mature fields.
- **Capabilities in heavy oil exploitation**
- **Fractured Reservoir**
- **Well Test Analysis**

Simulation Reservoir

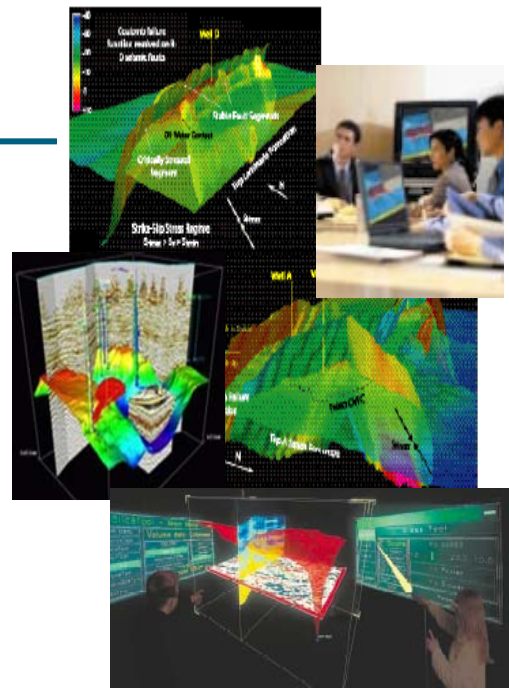
- Numerical reservoir simulation is a state of - the art evaluation that includes material balance, fluid flow, reservoir heterogeneity, well interference, wellbore hydraulics, and facility characteristics in its predictions of reservoir performance

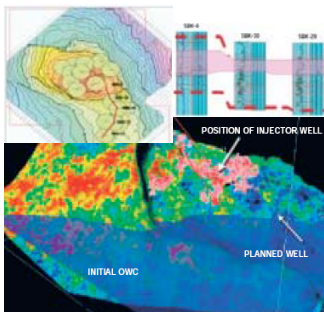
Simulations can be a valuable tool to determine the best development plan for a new reservoir or improve an existing field by understanding historical production behavior.

- Our reservoir simulation team has established a reputation for applying the most respected commercial simulators to the study of reservoir fluid types and recovery processes. ECLIPSE, STARTS, OFM, PIPEPHASE, ...

- Benefits:

- ✓ Increased overall asset-wide production
- ✓ Improved well & flow line performance
- ✓ Improved pipeline & facilities design
- ✓ Integrated field development & planning
- ✓ Reduced operating costs
- ✓ Reduced capital costs
- ✓ Increased engineering productivity





Well Completion

● We offer outstanding consulting expertise and advanced technology

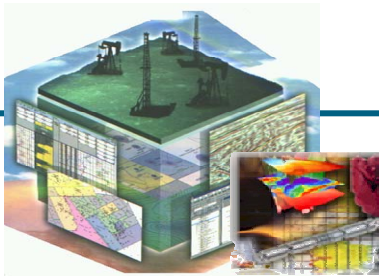
- ✓ Diagnosis of well production anomalies
- ✓ Water, gas and sand control proposals
- ✓ Well workover and stimulation programs
- ✓ Stripper well production technology
- ✓ Selection, design and optimization of artificial lift methods



Production & Process

● We offer consulting expertise for:

- ✓ **Integrated Reservoir Management:** Process engineering and surface facilities - surface operations. fluid separation. processing and conditioning of gas condensates and natural gases. hydrocarbon transportation and storage. Health, safety and environment.
- ✓ **Risk and economic analysis:** We'll evaluate, critique and provide balancing recommendations for your company portfolio for value-chain. (*Probabilistic and Monte-Carlo / Cristal Ball models*).
- ✓ **Production fluids forecasting and development plans:** Analysis of different opportunities of reservoir exploitation & production plans to increase or optimize oil recovery factor.



Heavy Oil Exploitation

- Provide technical support for implementing processes and technologies aimed at increasing the productivity and recovery factor in heavy oil reservoirs and existing projects. Heavy oil exploitation project control and follow-up.
- Conceptual design and optimization of the process to dehydrate and desalt the diluted heavy oil and also, separation, gathering and transportation of the diluents towards Upgrading Unit.
- Feasibility, specialized studies and conceptual engineering services oriented to the evaluation of production, transportation and upgrading of heavy oil, Including economical, and environmental considerations.
- Provide support in asset management and operation for every stage in the heavy oil exploitation chain.

RESERVOIR

- Reservoir characterization
- Reservoir analysis
- Production behavior analysis
- Reservoir simulation
- Feasibility studies

UPGRADING

- Crude oil destination
- Crude oil handling and transportation
- Upgrading processes

OIL TREATMENT

- Storage of heavy oil
- Oil dehydration and desalting
- Water Disposal



WELL DESIGN

- Vertical
- Desviated
- Horizontal
- Multilateral

PRODUCTION

- Well patterns
- Diluents injection facilities
- Flow Stations
- Gas handling systems
- Pipelines

LIFTING METHODS

- Sucker rod pump
- Progressive cavity pumps
- Gas lift
- Electrical submersible pumps



Engineering and Consulting

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● PLANNING



● EVALUATION OF BUSINESS OPPORTUNITIES

● ENGINEERING AND PROJECT MANAGEMENT

● TECHNICAL ASSISTANCE AND CONSULTING

● HEALTH, SAFETY & ENVIRONMENT INTEGRAL EVALUATION

Engineering and Consulting



● Planning

- ✓ Project Development
- ✓ Process Planning
- ✓ Enhancing decision-making processes and production value by analysis of technical economical and financial variables

● Evaluation of business opportunities

- ✓ Identification and evaluation of subsurface and surface technical resources
- ✓ Analysis of business structure
- ✓ Investment, cost and revenue estimation
- ✓ Production asset evaluation
- ✓ Economic and risk analysis

● Engineering and Project Management

- ✓ Feasibility Studies
- ✓ Conceptual, Basic and Detail Engineering
- ✓ Project Management and Economics Evaluation
- ✓ Assistance to Asset and Operations Management
- ✓ Pre-commissioning and Commissioning of Oil and Water treating facilities and Natural Gas Compression, Treating and Processing Plants
- ✓ Health, Safety and Environment evaluation

● Technical Assistance and Consulting

- ✓ Comprehensive Asset Evaluation
- ✓ Asset Operation and Maintenance
- ✓ Operation and Maintenance Management
- ✓ Supply Chain Evaluation
- ✓ Operational Risk Evaluation



Training

PROYNCA knows the pivotal role of personnel training in the performance of the activities developed by the personnel, including oil and gas facilities engineering and project management, commissioning, start-up and operations. The final objective of the training courses is to provide knowledge, methodologies and tools to the participants in the areas of Engineering, Operation, Maintenance and Management.

● **PLANNING AND BUSINESS MANAGEMENT/ RISK AND RELIABILITY ENGINEERING**

- ✓ Project economic evaluations and Risk Analysis



● **PROCESS DESIGN**

- ✓ Natural Gas Processes
- ✓ Operation and Maintenance
- ✓ Gas Dehydration Processes
- ✓ Natural Gas Sweetening
- ✓ Operation and Maintenance of Vapor Recovery Units

● **RESERVOIR**

- ✓ Formation Damage
- ✓ Heavy crude production
- ✓ Production engineering

● **RISK AND RELIABILITY ENGINEERING**

- ✓ Safety, Health and Environmental in Process Plants and Facilities



Strategic Alliances

We have several strategic alliances with national and International companies to provide the industrial or commercial segments with the best advanced process solution.



● Solutions of management for the oil sector

- ✓ Processes Unlimited (PROU)
- ✓ NCT Energy Group
- ✓ Energy Solutions Group (Trinidad and Tobago)
- ✓ Energy Integrated Solutions, Maracaibo, Venezuela



● Solutions area of processes, quality, preparation for certification ISO

- ✓ Ingeneg, C.A., Maracaibo, Venezuela:

● Oil & Gas Integrated Production Optimization

- ✓ OPICA Consultores



● Reservoir Performance Solutions

- ✓ SPECTRUM Consultores
- ✓ SOS Consultores



● Well construction and maintenance

- ✓ CMPC Consultores



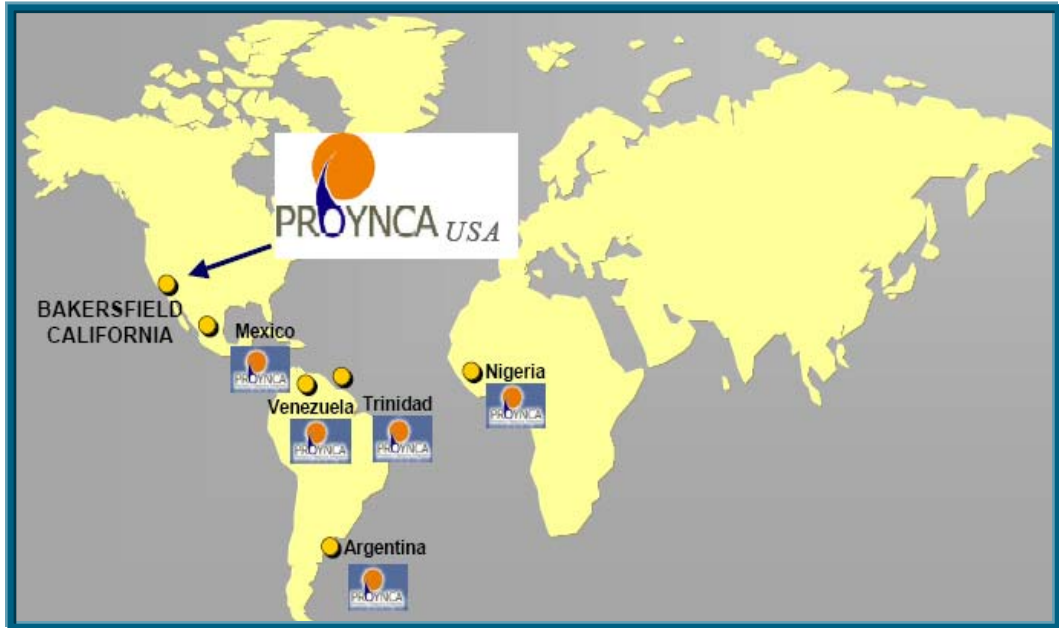
● Companies oriented to the identification of opportunities of businesses and commercialization of consulting companies

- ✓ VETRA





International Relationships



Ameriven



Atlas Poligenics



BP



中国石油 CNPC (China)



Eni (Italia)



Harvest



Meta Energy

PETROBRAS



Petrotrin



PROCESSES UNLIMITED
INTERNATIONAL, INC.



Sidor



Shell



Statoil



Wilpro



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