Geology & Geophysics

- Sequence Stratigraphy Analysis & Seismic Stratigraphy
- Sedimentology and Depositional environment interpretation for clastics and carbonates reservoirs
- Detailed Core Analysis & Description
- Bioestratigraphic and Petrographic Analysis.
- Structural Evaluation & Modeling
- Facies modeling and stochastic rock properties distribution.
- 3D Geological Modeling
- Basin Modeling
- Seismic Geometric Decomposition
- Advanced Seismic Interpretation
- Seismic Attribute generation & Interpretation
- Velocity Modeling & Depth Conversion
- Multicomponent Seismic Inversion & AVO Modeling
- 3D/3C Seismic Inversion
- Seismic Attributes & Petrophysics Data Integration

Petrophysics

- Advanced petrophysical Characterization in conventional and unconventional reservoirs (complex mineralogy, fractured Carbonates, tight reservoirs, shale gas, shale oil, CBM, etc.)
- Resource and reserve estimation
- Rock typing, petrofacies and lithotypes classification. Flow units definition.
- Permeability and Porosity architecture characterization.
- Saturation Height Modeling
- Rock physics characterization
- Advanced core data analysis and integration.
- Formation water characterization
- Seismic rock properties

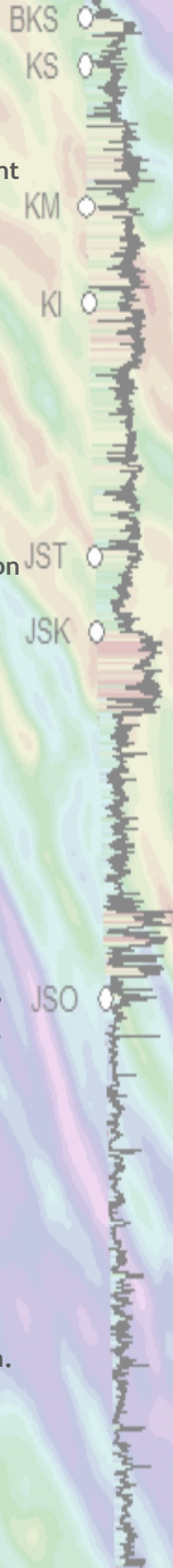## Field Development Planning, Economic & Risk Analysis

- Lifecycle financial assessments for multiple field development scenarios
- Project Risk Analysis
- Front-End-Loading (FEL) Projects
- Field Development Planning
- Concept Design and Project Feasibility

Facility and Process Engineering

- Process design, evaluation and optimization (Energy and Material balance)
- Process simulation and flow assurance
- Steady-state multiphase flow modeling in oil and gas networks and pipeline systems
- Pipe line network analysis
- Conceptual Facility Design
- Process Equipment analysis (separation, compression, etc.)
- Hydrocarbon mix characterization

Reservoir and Production Engineering

- Numerical Reservoir simulation
- Reservoir Surveillance (advanced PTA - RTA)
- Enhanced Productivity Projects
- Production Log analysis
- Advanced Reservoir Engineering
- Design & analysis of Hydraulic Fracturing results
- Production & Artificial Lift Optimization
- Material Balance Analysis
- Well test Analysis
- Enhanced Oil Recovery -EOR studies

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C-Fields© - Field Development Planning and Optimization

C-Fields© is a planning tool with different modules that allows to interactively design multiple concepts and scenarios for oil and gas development projects, perform lifecycle financial assessments and risk analysis.

The best opportunity to make a positive impact and value creation in the life-cycle of large capital projects is in the early planning, or Front End Development (FED) stages, well before capital expenses have been made. These early stages of a project are where most value is created or lost. Poor decisions here cannot be recovered in the project execution.

In order to maximize value and minimize risks during project execution, the Field Development Planning (FDP) needs to be performed in an optimum way to avoid being overly expensive and time consuming. Here is where CAYROS has expertise applying game-changing proprietary technologies to ensure the projects are developed in a very efficient way.

Our proprietary software C-Fields© allows us to easily integrate information from various disciplines in order to quantify the economic value of the oilfields under different development scenarios.

Some C-Fields© Benefits

- Have timely access to technical-financial information that can be adjusted and updated interactively to facilitate strategic decision-making regarding development options.

- Quantify the impact of different deviations from the base case on various economic indicators of the project in order to optimize the process of decision-making and risk mitigation.

- Significantly reduce evaluation time and cost.

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