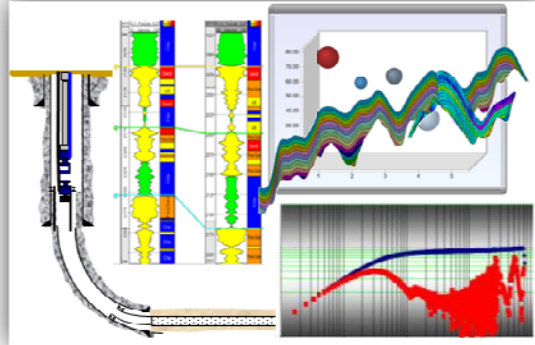




RESERVOIR & PRODUCTION ENGINEERING SERVICES

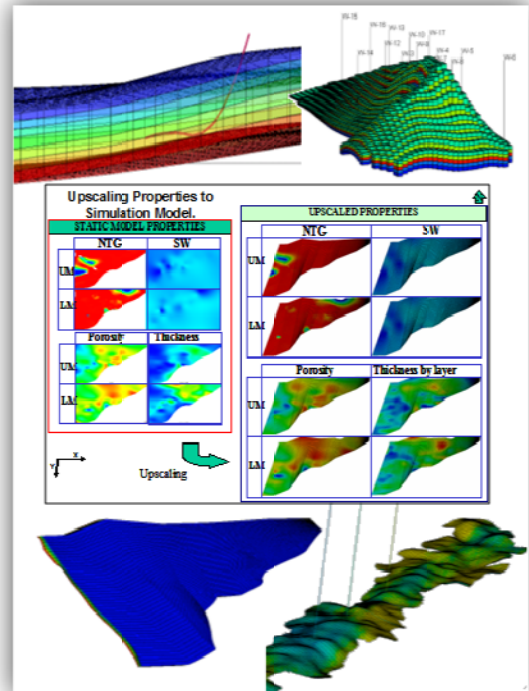
Analytical Reservoir Engineering

Reservoir Engineering Analysis provides a means of understanding and defining the reservoir so that the production of hydrocarbons can be optimized. GATE LLC provides a comprehensive reservoir engineering service from prospect evaluation through development planning to field abandonment. These services would be aimed at determining and increasing asset value, ranging from data acquisition and audit, to production optimization, to analytical studies and computer model analysis.



Dynamic Reservoir Modeling

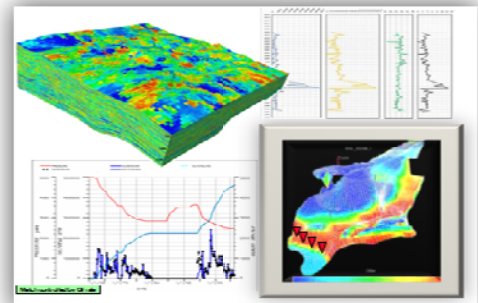
GATE LLC has the expertise to build 3D numerical models to describe and simulate the time dependant flow processes active in a hydrocarbon reservoir. Providing to the client the flexibility to study the performance of the field under different conditions and complexities. Combining: The Static Model, Pressure Dependent Properties, Saturation Properties, Near-wellbore and wellbore characteristics and Facilities information. To define Conceptual and Detailed Field Development Plans, Optimize Reserves, and Capture and Maximize the Commercial Value of the Asset.



Likewise, GATE is able to offer more than 10 years of specialization in building Numerical Reservoir Simulation models using most of the commercial simulators (ECLIPSE, CMG, Tempest, VIP, ATHOS, 3DSL, REVEAL) for Black oil, Compositional and Thermal options, Miscible flood, Gas condensate, Reservoir Gridding, Up-scaling, History Match and Model Calibration, Review and Optimization of preexistent models, and Streamline Simulation. We provide the expertise in a 'multi-disciplinary' level to effectively address the technical challenges to interpret and integrate Static models into Dynamic simulation models.

Reservoir Evaluation

Our firm applies risk-assessment expertise to evaluate exploration programs in established producing areas. GATE LLC will identify field-development life cycles and recommend operational strategies to maximize rates

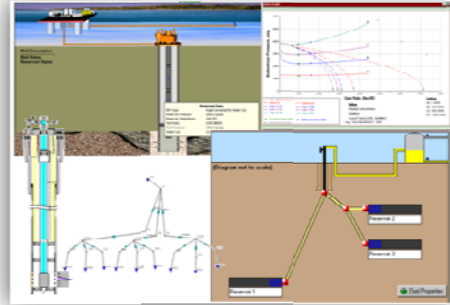




of return and minimize overdevelopment. This process offers the client advanced reservoir and production management tools that align their goals with their business strategy. Additionally, significant experience in the application of geostatistical methods of heterogeneity modeling is offered, allowing a more accurate representation of the internal reservoir architecture, and capturing the variability of the reservoir properties.

Well Optimization

GATE LLC offers Well Engineering services for new and existing wells. Related to activities such as: Prediction of flowing pressures & temperatures for design (Wells, Flowlines, Surface Equipment), Reservoir, well, and flowline monitoring, Generate pressure & temperature profiles, IPR Models, Pressure Traverse Calculations, and Choke Correlations.



Deepwater Waterflooding

GATE LLC experience in offshore Waterflooding Projects allows to the firm develops an Integrated approach to interconnect Surface, Subsea and Subsurface disciplines in a common context, which plays a fundamental role to improve the overall field understanding and solve technical and business challenges associated with Waterflood project design. Expertise in Waterflood Performance Evaluation, Injection Well test design, Thermal Fracturing integrating thermo-poro-elastic effects with injection profile and fracture mechanics, and Well Injectivity study are some of the capabilities offered.

