

Reservoir engineering

Integral to Senergy's subsurface consultancy are our reservoir engineers, who apply their technical skills and knowledge to maximising the economic recovery of hydrocarbons.

Senergy can provide management for clients' projects from inception to completion, tackling the technical challenges to maximise production and reserves.

Effective reservoir development and management is built on a foundation of sound reservoir description. Senergy achieves this by integration and iteration of reservoir engineering with geophysics, geology, petrophysics and other technical disciplines. Customers receive static and dynamic reservoir evaluation and integrated management solutions. Our services are aligned to our clients' business drivers and performance targets, and cover the complete cycle for oil and gas reservoirs, from exploration through appraisal and development to 'brown field' redevelopment.

Reservoir engineering services are available to support exploration and appraisal planning and assessment, development planning, reservoir evaluation / management and commercial / business needs.

Senergy reservoir engineers have a proven track record of delivering innovative engineering solutions to our clients.

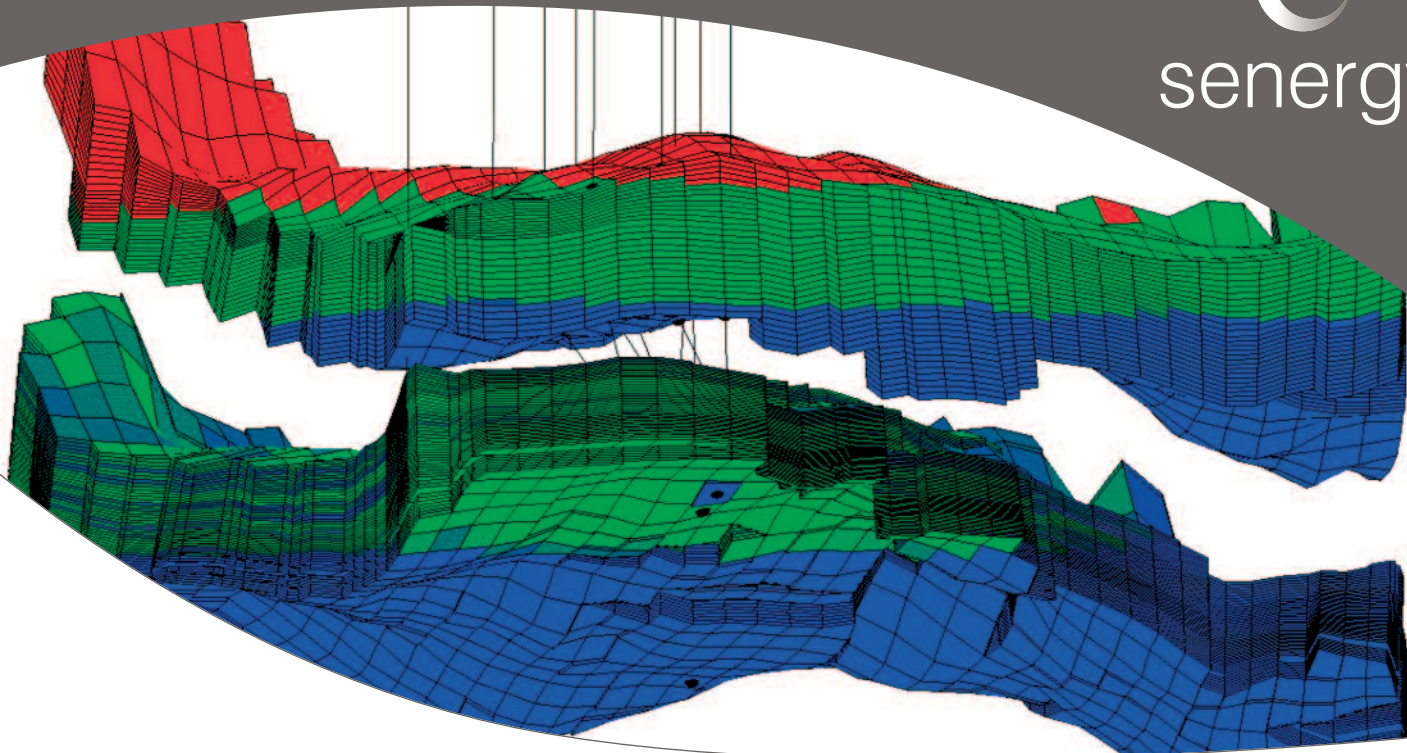
The majority of our reservoir engineers have experience gained from working for major international oil companies.

Subsurface

Many of Senergy's projects are focused on delivering a fully integrated service, such as a Field Development Plan or a Managed Drilling Programme. However, through our subsurface consultancy service, we also provide the ad-hoc consultancy our clients need. No project is too big or too small.

We can provide one reservoir engineer for a few days of technical support (for example, a well test or production log analysis) or we can integrate the skill sets of a number of consultants and manage the delivery of a wider project.

Our unrivalled technical know-how and our ethos of 'high performance' ensure that, whatever your requirement, we have the capability to deliver a solution.



Many facets make up reservoir engineering at Senergy:

Appraisal

From well test planning and supervision, to analyses of DST, PLT and static pressure data, Senergy engineers have the skills and experience to support all field appraisal activities.

Reservoir simulation

We utilise industry-standard packages, from material balance software such as MBAL, to fully 3D black-oil and compositional reservoir simulators, including Eclipse, VIP and the Tempest and CMG suites.

Commercial evaluations

We deliver a variety of confidential asset evaluation services ranging from the assessment of hydrocarbon potential and risk, from exploration data through to the estimation of reserves and economic evaluations for producing assets or companies.

Members of the Senergy team have substantial practical knowledge of the commercialisation of oil and gas projects and have participated in many tariff, third party and gas sales negotiations as well as unitisation and allocation issues.

Reserves estimations, Competent Persons Reports and acquisition and divestment support all have a large reservoir engineering component.

Enhanced Oil Recovery (EOR)

The term Enhanced Oil Recovery encompasses a wide range of advanced processes for increasing hydrocarbon reserves. It includes such techniques as injection of carbon dioxide (CO₂) or nitrogen, surfactant or polymer injection, microbial EOR, WAG and low-salinity water flooding.

There is keen interest in CO₂ EOR currently. The technique offers the opportunity for long-term geological storage of large quantities of CO₂, a key greenhouse gas, while increasing the recovery of oil from the field in which the CO₂ is stored.