

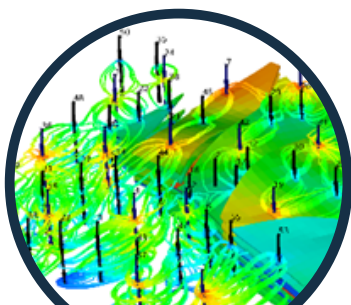
tNavigator[®]

Rock Flow Dynamics

WATERFLOODING

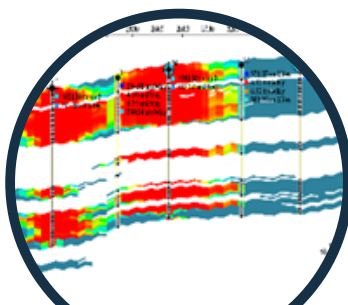
RFDYN.COM/PRODUCTION-ENHANCEMENT

As a cost-effective alternative, waterflooding has proven successful as a secondary recovery method in several types of reservoirs, being a technique thoroughly used in the industry. tNavigator has exceptional simulation capabilities for modeling waterflooding to allow the evaluation of mobility ratio effects, displacement and sweep efficiencies, water injection rates optimization, salinity effects and interactive tracer testing.



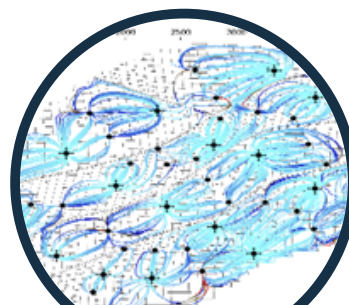
STREAMLINE SIMULATION

Streamlines are a mathematical abstraction calculated based on the computed pressure potential using the particle tracking method.



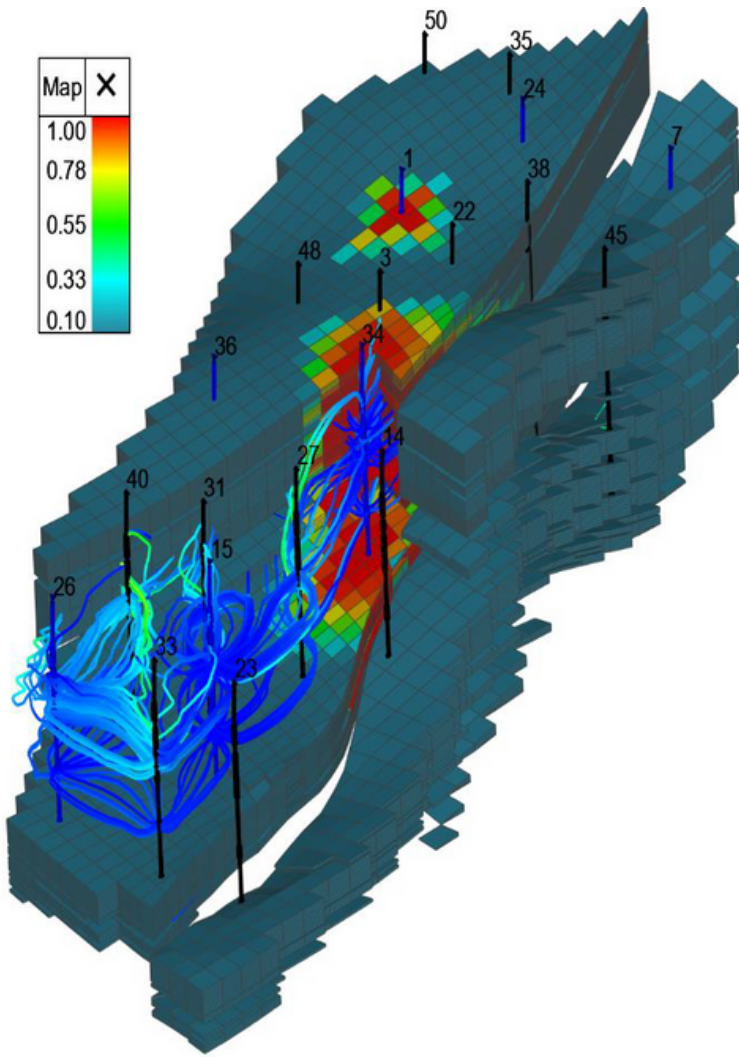
TRACER MODELING

tSimulating the flow of passive tracers, whose presence in the phase doesn't influence its PVT properties, so the processes such as adsorption and decaying aren't considered.



DRAINAGE NETWORK

tNavigator allows visualization of drainage network lines. The thickness of these lines between wells is proportional to the value of the stream according to streamlines.



ABOUT US

tNavigator, developed by Rock Flow Dynamics, is a one-stop comprehensive reservoir management solution that leverages modern computing architecture to deliver superior speed, scalability & ease-of-use for integrated static and dynamic modelling from reservoir to surface networks.

Promoting cross domain collaboration, tNavigator is a single environment that enables subsurface teams to work together to navigate your reservoir and not lose any time or data by moving between applications. In tNavigator you will find unique integrated workflows from geophysics to reservoir modelling, allowing geoscientists to construct a robust interpretation and reservoir model of their field. In the same interface, models can then be instantly carried forward to reservoir simulation, allowing for thorough analysis and evaluation of the field, and for your team to make informed decisions on your assets.

DYNAMIC SIMULATION & GEOMECHANICS

The versatility of tNavigator makes it an ideal choice for working with unconventional projects.

Whether you are working with 'Shales', Coal Bed Methane, Coal Seam Gas, or Heavy Oil, tNavigator has functionality you can use to improve results.

tNavigator integrates multiple features that will allow you to model green energy, conventional, and unconventional assets.

STREAMLINE SETTINGS

The movement of an imaginary particle (e.g., a molecule) of a fluid phase (e.g., oil, water, or gas) is observed over a period of time. The particle's positions are recorded at certain moments and connected with straight lines. If the streamline starts from an injection well, the movement of the particle unfolds forward in time; if the streamline starts from a production well, the movement of the particle is traced back in time.

CHEMICAL TRACER TEST

The modelling for tracer injection with tNavigator can be used as a method for assessing the residual oil saturation. The test can be evaluated in two forms:

- Passive Tracer Modeling: whose presence in the phase doesn't influence its PVT properties
- Environmental Tracer Modeling: simulating the flow of environmental tracers which should consider adsorption, decay, and diffusion.