Are you prepared for Shale 2.0?

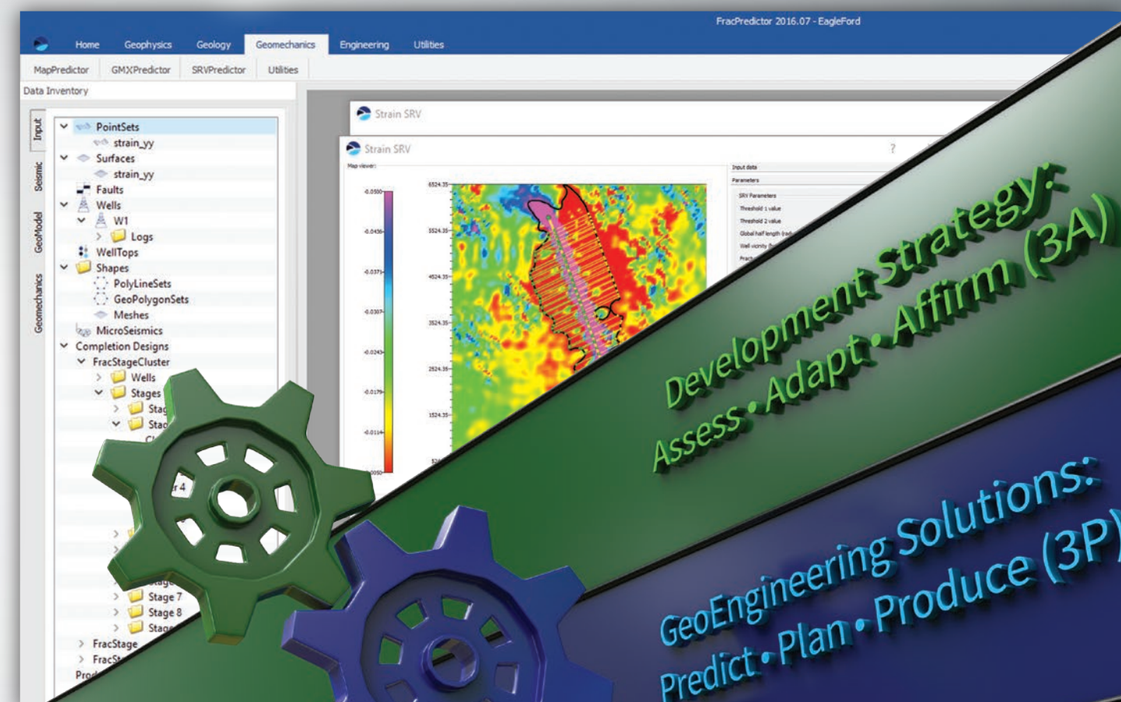
FracGeo

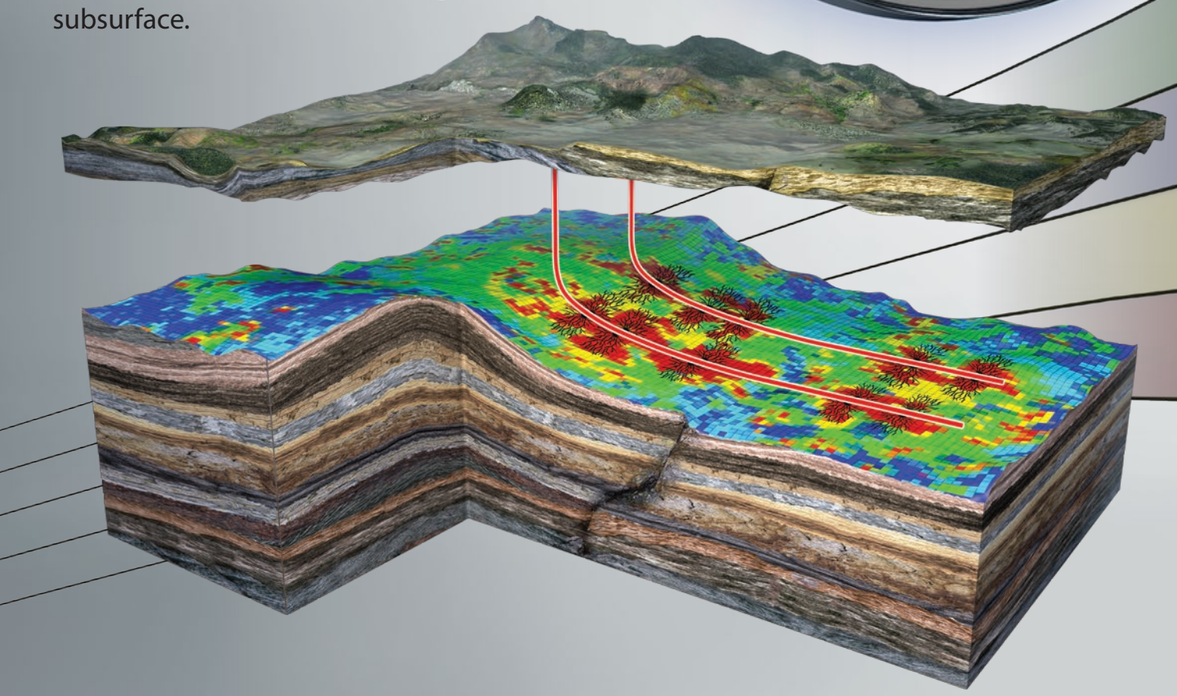
The Future of Shale Management, Today

www.FracGeo.com

FracPredictor™

FracGeo provides decision makers, assest managers, engineers and geoscientists with Shale Management™ solutions for sweetspot and landing zone selection, adaptive asymmetric frac design, and completion and well spacing optimization in unconventional and tight reservoirs to improve asset ROR and well performance. The 3D seismically driven geological and geomechanical fracture modeling software and services focus on the estimation, throughout the reservoir volume, of stress gradients and subsurface properties affecting hydraulic fracturing and SRV development. These include rock geomechanical properties, pore pressure and natural fractures, and additionally their complex interaction with regional stress before and during hydraulic fracture stimulation. FracGeo's fracture geomechanical simulator uses new and fast computational tools integrating geoscience and engineering in a way that has not been done before, allowing the completion engineer to quantitatively adapt the hydraulic fracture treatment based on these varying reservoir properties to achieve the optimal stimulation which accounts for variable stress gradients in the subsurface.





Development Strategy:
Assess • Adapt • Affirm (3A)

GeoEngineering Solutions:
Predict • Plan • Produce (3P)

3G-Driven Fracture
Geomechanics for Engineering

3G Workflows:
Geology • Geophysics • Geomechanics

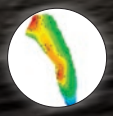
FracPredictor™

LogPredictor™

Pore pressure, stress gradients, geomechanical logs and natural fracture proxies from conventional wireline data. Multivariate regression analysis and Artificial Intelligence to estimate missing logs.

SeisPredictor™

Seismic resolution enhancement, colored inversion, stochastic-geostatistical inversion, lithology-driven pre-stack extended elastic inversion, spectral decomposition, seismic structural attributes (coherency, volumetric curvature).



MapPredictor™

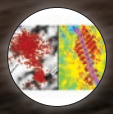
2D mapping techniques based on geostatistics, multivariate regression analysis and Artificial Intelligence to estimate property distribution. Sweet spot identification using data analytics based on 2D maps.

StratPredictor™

3D structural framework and 3D grid builder able to handle a large number of reverse and normal faults in structured grids. 3D grids can be easily imported to any third-party software.

RockPredictor™

3D reservoir geologic modeling using geostatistics and Artificial Intelligence. Continuous Fracture Modeling (CFM) technology.

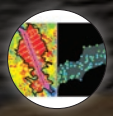


GMXPredictor™

Geomechanical modeling using the Material Point Method (MPM) to predict differential stress and strain validated with microseismicity. Provides geomechanical half-lengths for frac design and stimulated permeability to any reservoir simulator.

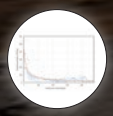
StimPredictor™

Time-efficient frac design using asymmetrical half-lengths constrained by geomechanics. Sensitivity analysis of frac parameters to optimize completions. Direct links to CMG reservoir simulator and FieldPro advanced frac design software.



SRVPredictor™

Estimate SRV based on geomechanical modeling or microseismicity.



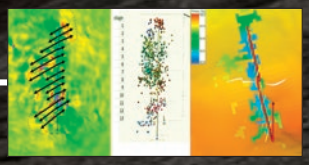
ProdPredictor™

Production forecasting using asymmetric half-lengths in a tri-linear analytical model.

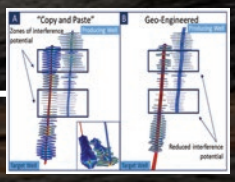
EconPredictor™

Net Present Value, ROR, ROI using production forecast.

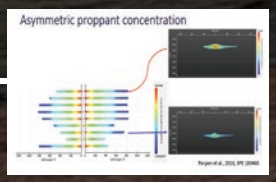
How effective is your frac stage and well spacing?



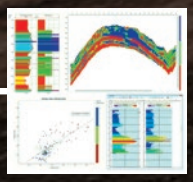
Are you getting frac hits with a "Copy & Paste" frac design?



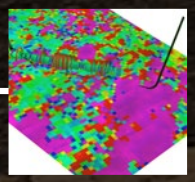
Where does your proppant go? and why?



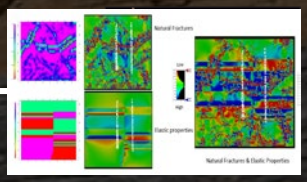
Do you constrain elastic seismic inversions with lithology for reliable estimation of geomechanical properties?



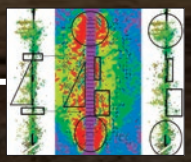
Are your natural fracture models validated?



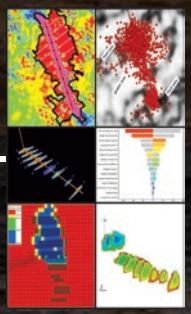
Does your geomechanical simulation of differential stress benefit from variable elastic property and natural fracture distributions?



Do you include variable stress gradients in your hydraulic fracture models to generate asymmetric SRVs validated with field data?



Do you account for asymmetric SRVs in your frac design and reservoir models?



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