



# PowerLog<sup>®</sup>

Comprehensive Petrophysical Interpretation



[www.GeoSoftware.com](http://www.GeoSoftware.com)

**PowerLog**® is the benchmark for petrophysics, rock physics, facies analysis and statistical mineralogy. The **PowerLog** suite enables asset teams to locate and evaluate zones in well bores and provides sophisticated tools to quantify the commercial potential of these intervals.

Greater insight into subsurface rock and fluid properties allows E&P companies to reduce their costs and risks while drilling and completing more effective wells.

## Proven Technology

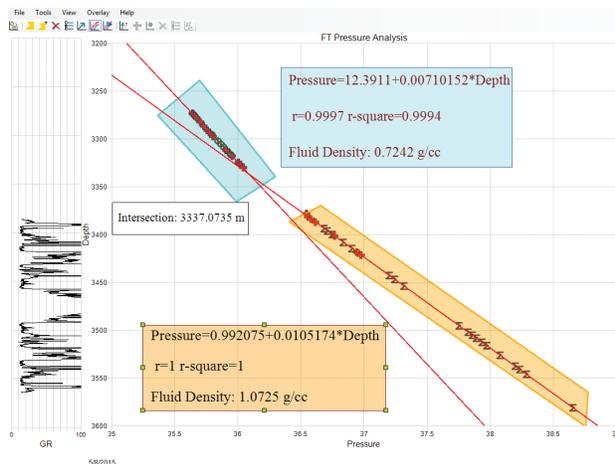
Introduced to the oil and gas community more than 35 years ago, **PowerLog** has evolved to become one of the most user-friendly, yet sophisticated solutions available. **PowerLog** lets you work on thousands of wells with data located anywhere in the world, as an individual or as part of a team.

Faster and easier than ever, it does the heavy lifting so you get more work done.

## Project Collaboration

Efficient multi-user functionality lets petrophysicists analyze logs, geologists pick tops, and engineers create zones for an integrated reservoir characterization workflow. A collage of powerful visuals, automatically updated by dynamic viewers, presents field data for review. **PowerLog** provides robust data management, improved asset team collaboration and streamlined workflows.

Automated backups of your data and projects are included with built-in data management to ensure data integrity and peace of mind that work will not be lost. IT departments can manage the data to grant access to all or specific users on a project-by-project basis.



*Multi-Well Formation Testing (FT) crossplots can determine fluid densities and fluid contact depths.*

## Rock Physics Module (RPM)

**RPM** builds rock physics models from log data and petrophysical interpretation results. This combination of high-quality petrophysics and sophisticated rock physics makes **RPM** uniquely powerful. **RPM** has an extensive library of current rock physics models including DEM, Xu-White, grain-supported, matrix-supported and a host of others along with tables of rock and fluid properties. **PowerLog** crossplots and logplots are used for quality control and visualization of model results.

## StatMin

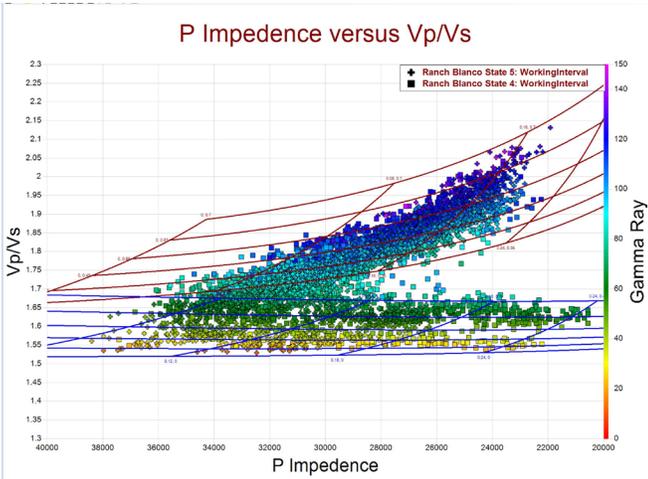
**StatMin** is a stochastic modeling package used to determine lithology, porosity and fluid content. This approach enables interpretation of complex lithological formations using forward modeling algorithms with known measured and computed curve responses for predicted minerals. **StatMin** is used extensively in unconventional reservoirs where deterministic methods cannot handle the large number of minerals, and when accuracy in computing porosity and water saturation is critical in evaluation of the reservoirs.

## FaciesID

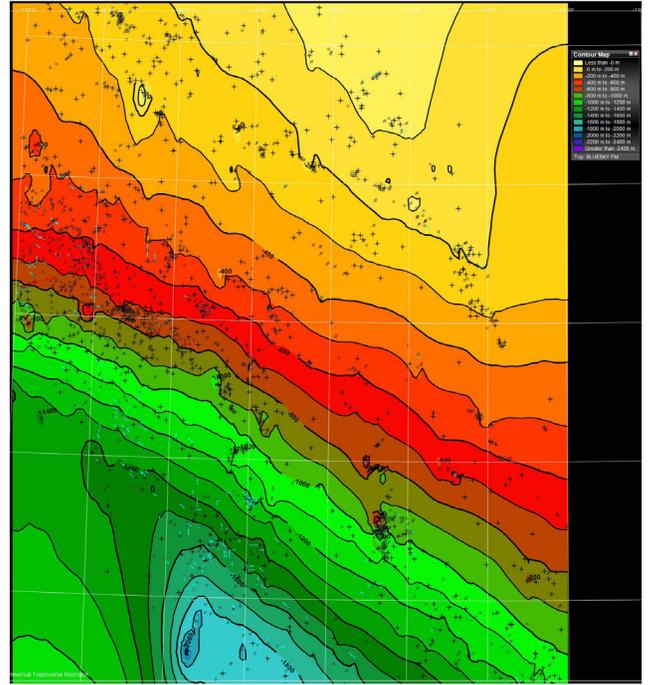
**FaciesID**™ is the most user-friendly and interactive electrofacies determination module in the oil and gas industry. The user selects seed points from logplots and/or crossplots and defines the facies of the seed points selected. These seed points then serve to define clusters of facies based on the k-nearest neighbor (kNN) algorithm. Block curves of facies are generated from the seed points as they are picked to serve as an interactive quality control tool.

## Python Extensions

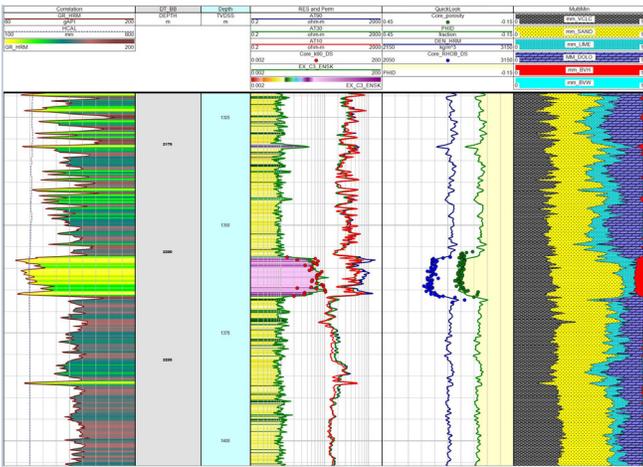
**Python Extensions** is an open-source distribution of Python in PowerLog that is used to build modules to perform any advanced processing. This integrated package for 3D displays, interpretation and processing connects to any version of Python being used. **Python Extensions** can perform machine and deep learning to help solve your toughest petrophysical challenges.



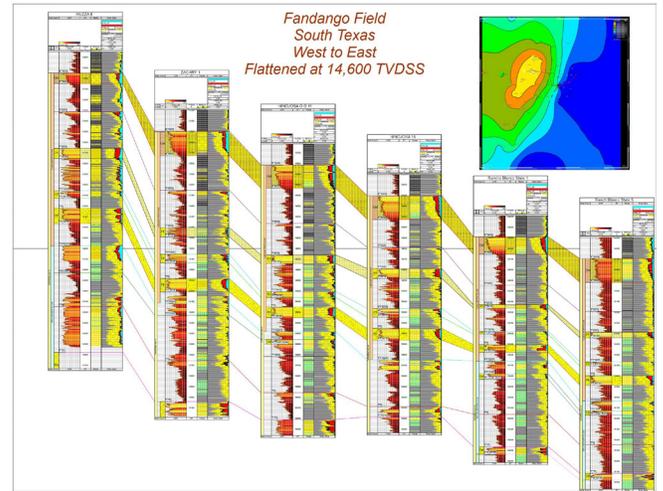
Crossplot with Rock Physics Template overlays



Basemap showing regional contours, Alberta, Canada, 5000 wells



LogPlot with Core Data, Multimin, and ML predicted Perms



Collage displays aid in correlation and understanding geology

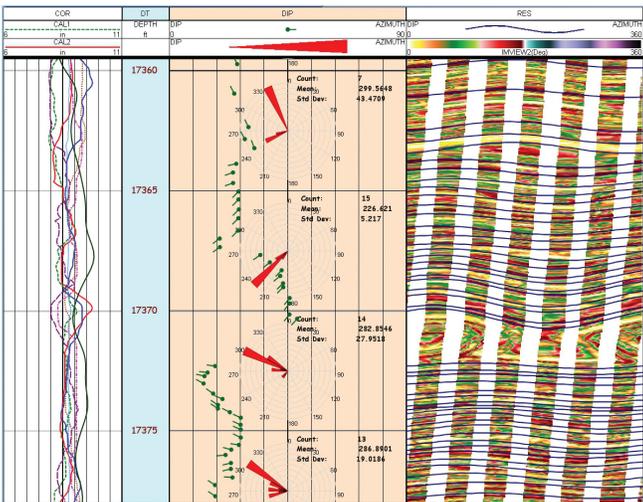
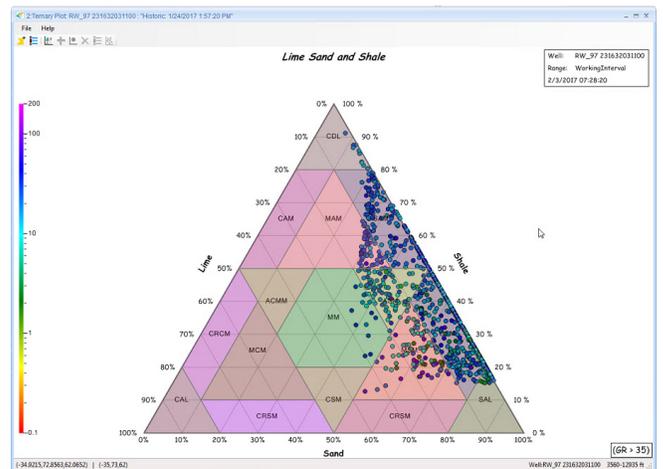


Image interpretation with Rose diagrams



Ternary plot helps aids in depositional environment modeling



GeoSoftware provides the industry's preferred comprehensive set of software products and support for E&P multi-disciplinary teamwork.

High-end, cross-product workflows enable a better understanding of reservoir properties and how they evolve through the life of the field.

GeoSoftware helps reduce reservoir risk and uncertainty in seismic reservoir characterization, velocity modeling, advanced interpretation, petrophysics, rock physics, AVO and geological modeling. The GeoSoftware portfolio includes **HampsonRussell**, **Jason**, **PowerLog**, and **InsightEarth**.



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**PowerLog**  
MULTI-WELL LOG ANALYSIS

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ADVANCED 3D INTERPRETATION

