

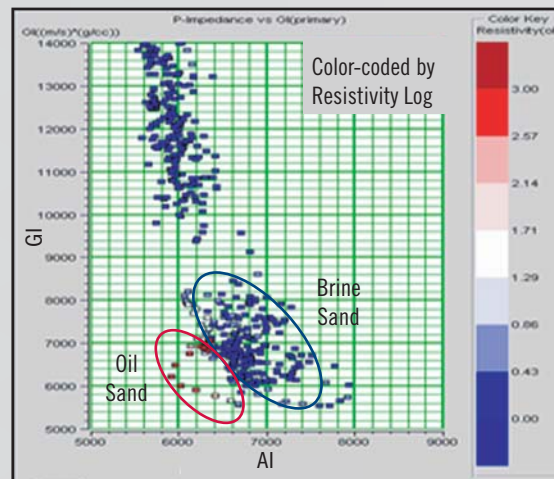
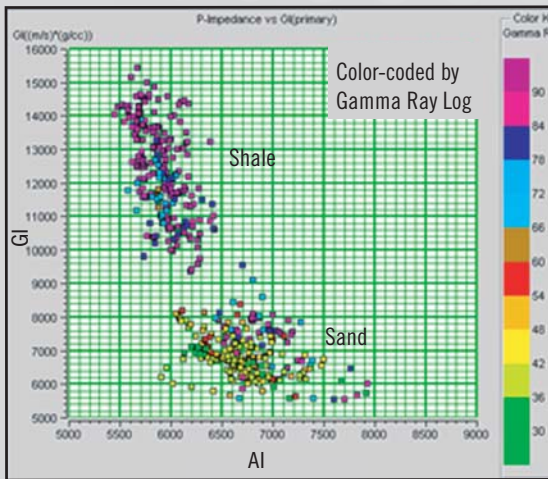
AI - GI Inversion

Acoustic Impedance (AI) and Gradient Impedance (GI) are inversion products that, when cross-plotted, can be very effective in defining both lithology and fluid. Geotrace Reservoir Services analysts use available log data to determine the applicability to an area and to calibrate seismic data.

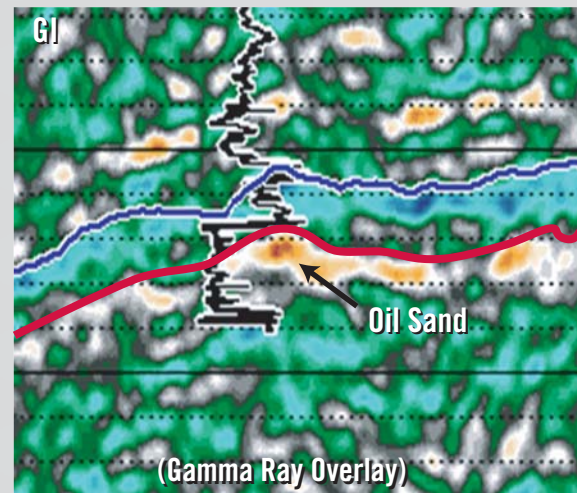
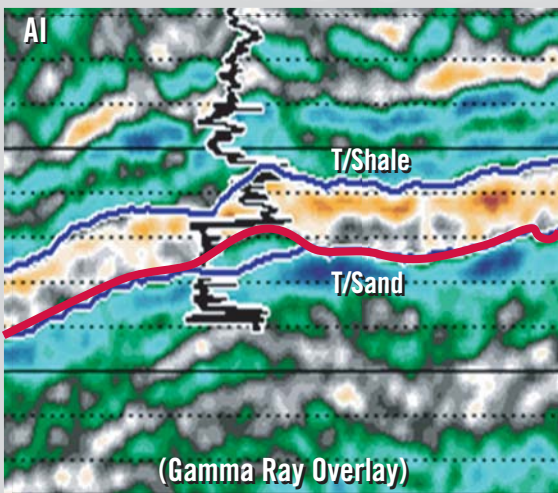
Features

- A seismic lithology volume to define reservoir architecture
- A seismic fluid volume to indicate the distribution of hydrocarbons within a reservoir

This case history is from the North Sea. AI-GI Inversion has proven to be a beneficial technology in basins all over the world.



Cross-plots from well data

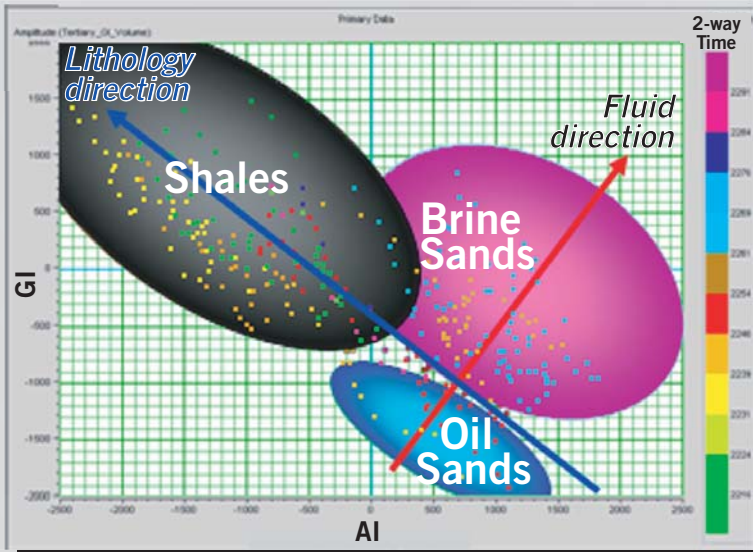


Inversion of Intercept and Gradient

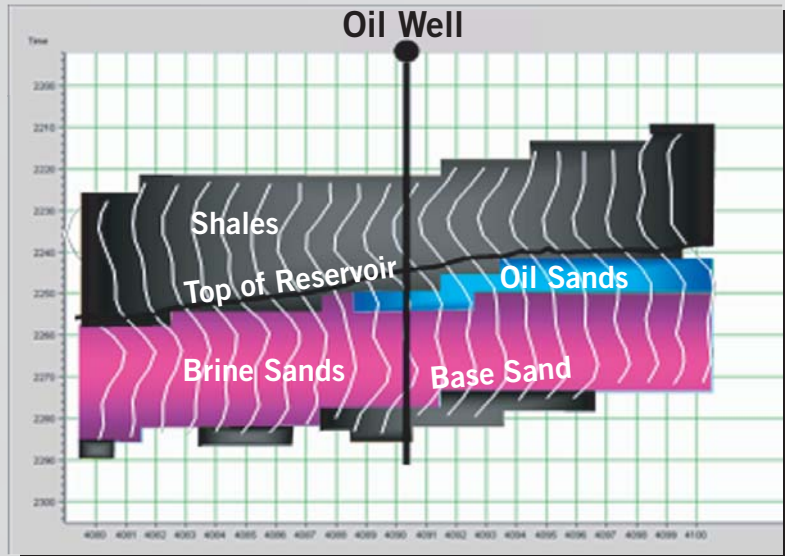
What data is the best input to Geotrace's AI-GI Inversion?

Gathers with:

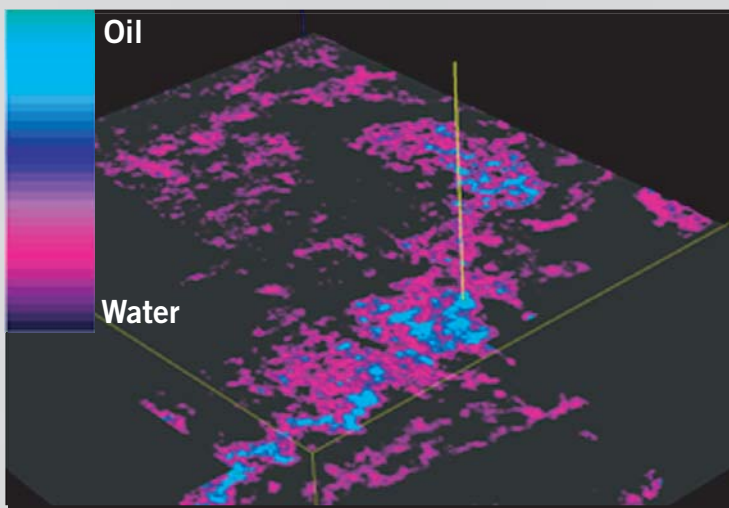
- Top-notch imaging such as our extended curved ray prestack Kirchhoff time migration or prestack Kirchhoff depth migration with tomographic model building
- Enhanced gather conditioning with AnVel for improved velocities, Radon demultiple and wavenumber filter to reduce random noise



Cross-plot of Seismic AI-GI through oil-producing well



Projection of cross-plotted values onto profile through oil well



Fluid volume. Blue anomalies indicate oil sands.

These images illustrate:

- Taking well-calibrated cross-plotted AI-GI back to vertical profile to review geological relationships, and then
- Building and visualizing a fluid volume to determine additional drilling locations.

