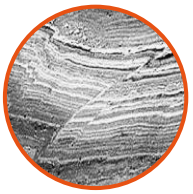
Geovariances
Where no one has gone before

Oil & Gas Service Partnership

WE HELP YOU IMPROVE YOUR RESERVOIR MODEL AT EACH STEP OF THE MODELING PROCESS



STRUCTURAL MODEL

DATA QUALITY CONTROL

We do	Advanced data analysis for identification of outliers, local anomalies and seismic acquisition footprints
We use	Statistics and advanced variogram/variogram cloud analysis
You gain	**Improved reservoir knowledge** **Improved model quality**

SEISMIC PROCESSING

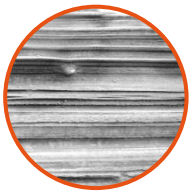
We do	Filtering of acquisition or processing artefacts (white noise or structured artefacts)
We use	Factorial kriging Multivariate variography and cokriging
You gain	**Facilitated velocity picking** **Improved velocity cube quality**

MERGING OF SEISMIC CUBES

We do	Seismic data assimilation accounting for priority rules
We use	Kriging
You gain	**Consistent regional seismic cubes**

TIME-TO-DEPTH CONVERSION

We do	Mapping with assimilation of all available data, certain or uncertain, including horizons and faults
We use	Kriging and simulations using filtered velocity cubes
You gain	**Optimized depth maps with uncertainty assessment**



STRATIGRAPHIC MODEL

DATA QUALITY CONTROL

We do	Advanced data analysis for identification of outliers and local anomalies
We use	Statistics and advanced variogram/variogram cloud analysis
You gain	**Improved reservoir knowledge and model quality**

STRATIGRAPHIC UNIT DEFINITION

We do	Accurate definition of stratigraphic units limits
We use	Vertical Proportion Curves and experimental variograms
You gain	**More robust sequence stratigraphy interpretation**

CORRELATION ANALYSIS

We do	Accurate definition of stratigraphic units internal layering
We use	Vertical Proportion Curves and experimental variograms
You gain	**Realistic and consistent units internal layering**

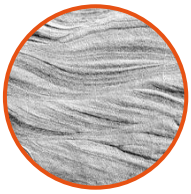
CONTACT US

sales-oil@geovariances.com
+33 1 6074 9090
www.geovariances.com

Geovariances
Where no one has gone before

Oil & Gas Service Partnership

WE HELP YOU IMPROVE YOUR RESERVOIR MODEL AT EACH STEP OF THE MODELING PROCESS



SEDIMENTOLOGICAL MODEL

SEDIMENTOLOGICAL CONCEPTUAL MODEL QUANTIFICATION

We do
Characterization of geological trends
Conditioning to seismic 2D maps

We use
Local Vertical Proportion Curves (VPCs)
Advanced algorithms for facies proportion 3D models calculation from local VPCs and seismic data

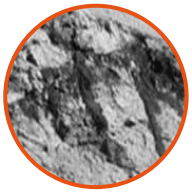
You gain
Realistic facies distribution

GEOLOGICAL MODELING

We do
Lithofacies and geological objects modeling
Diagenesis modeling

We use
Wide range of facies simulations methods:
- SIS, TGS, Plurigaussian Simulations
- MPS (with training images)
- Meandering channel modeling with FLUMY (process-based algorithm)
- Sophisticated workflows combining several simulation methods

You gain
Ability to model most of the geological environments



FLUID FLOW MODEL

PETROPHYSICAL MODELING

We do
Modeling of complex porosity and permeability trends within rock-types, including border effects
Characterization and modeling of spatial correlations between porosity and permeability

We use
Kriging with external drift, cokriging and cosimulations

You gain
Accurate modeling of porosity and permeability

STATIC MODEL POST-PROCESSING

We do
Calculation of connected geobodies
Model conditioning to the presence of permeable pathways between wells

We use
Information acquired from stochastic realizations (simulations)

You gain
In-depth control of static models
Efficient history matching

CONTACT US

sales-oil@geovariances.com
+33 1 6074 9090
www.geovariances.com