Mira Geoscience
...modelling the earth

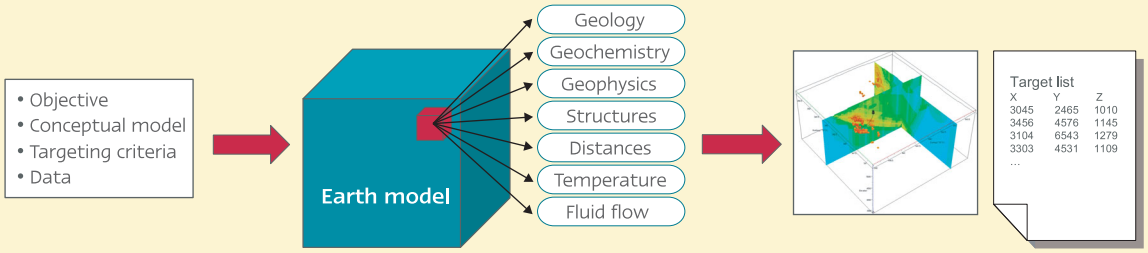
Geothermal Exploration Targeting Consulting Services

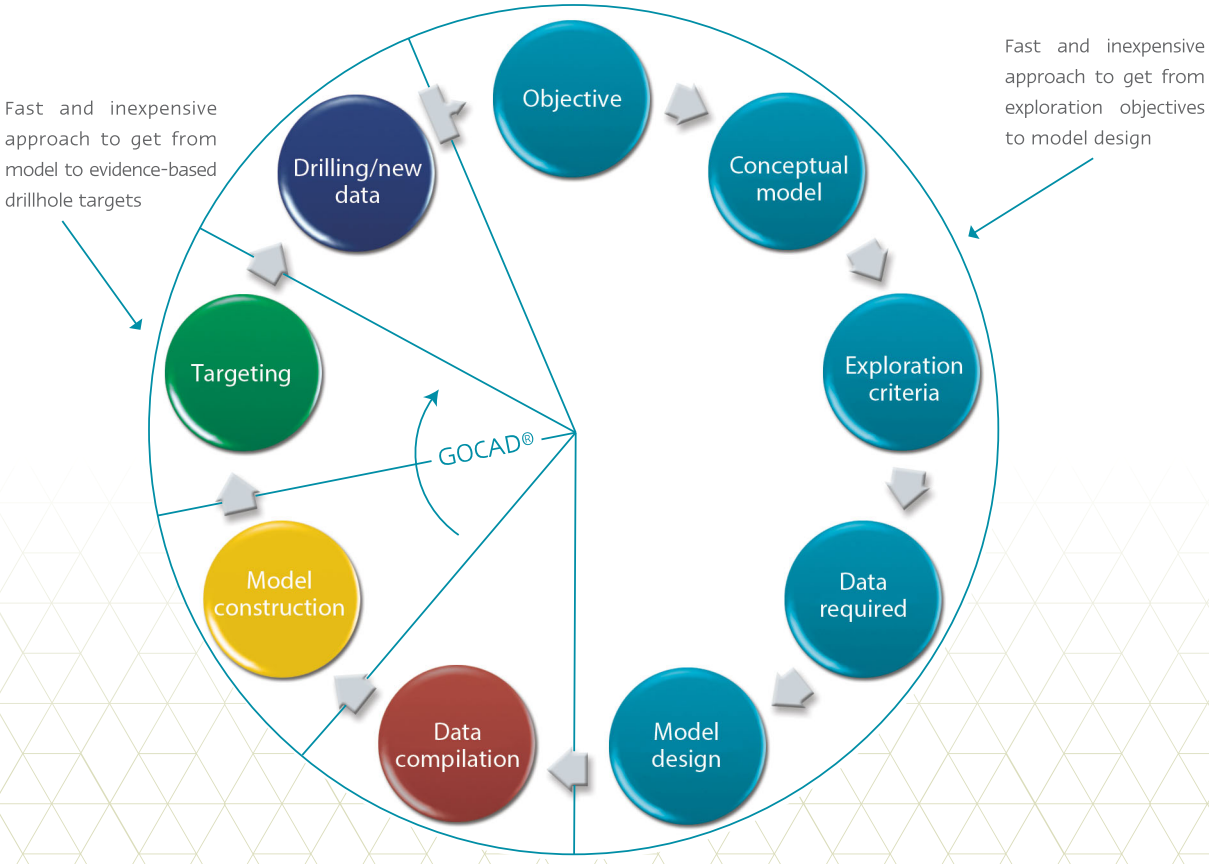
From exploration data to quality drillhole targets

Building on a new technology for exploration drillhole targeting, called targeting workflow. This is a fully 3D realization of existing 2D "mineral potential mapping" concepts. The technology is a proven resource finder. Through working with our clients we have refined the processes that make its deployment work in practice. These methods can help teams get through data quickly to generate high quality targets. This is a culmination of 10 years of work in 3D integrated earth modelling for exploration.

Proven Technology

» Introducing an expert targeting system, not a black box
» Based on team understanding of exploration model and process
» Explicit, repeatable, auditable chain of reasoning from conceptual model to data to target
» Applicable to all commodities
» Targets ranked and prioritized on quantitative exploration criteria

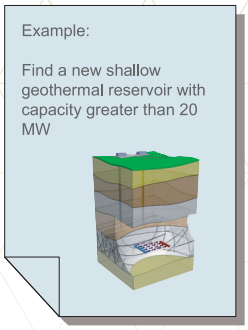




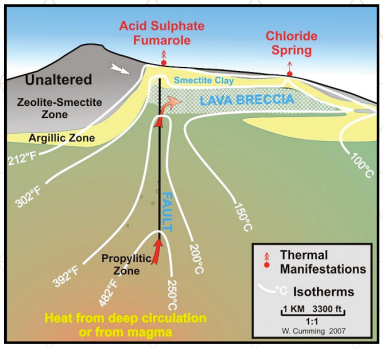
Targeting Workflow

Exploration objective to model design

» Objective



» Conceptual model



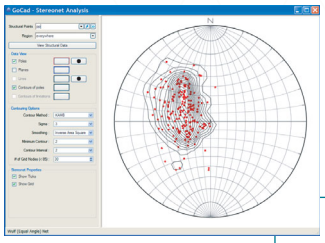
» Exploration criteria
e.g. temperature, permeability

» Data required
e.g. borehole temperature logs, geothermometry results

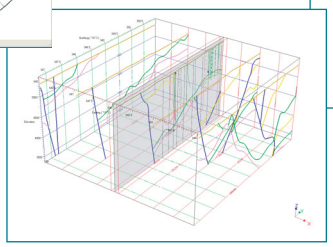
» Model design
e.g. borehole logs, estimated block model property, thermal modelling

Model generation process

» Data compilation/interpretation

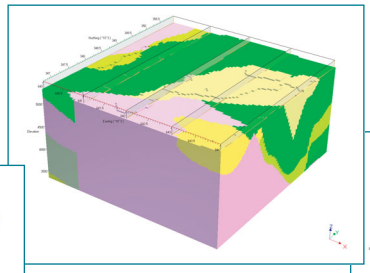


Stereonet analysis

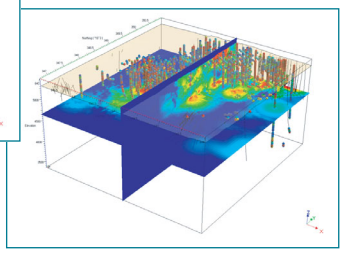


Section interpretations

» Model construction



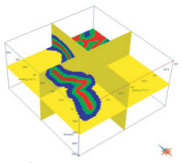
Geologic block model



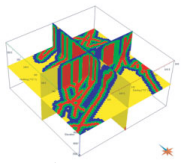
3D Geophysical inversion modelling

» Targeting
Quantitative analysis and advanced visualization tools are used to identify and rank drill-hole targets.

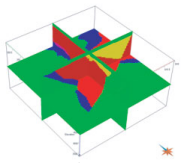
Targeting: from 2D potential mapping to 3D geothermal potential mapping



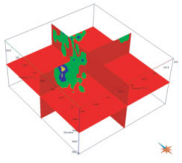
Manifestation proximity



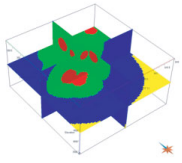
Fault proximity



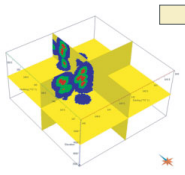
Rock type



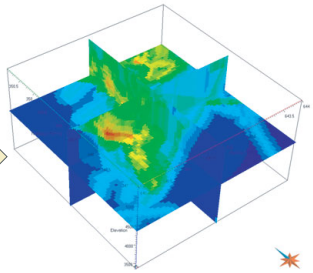
Gravity/magnetics



Temperature



ZTEM/MT resistivity



» 3D Geothermal potential index
Multiple exploration criteria can be combined using a variety of knowledge and data-driven methods to highlight prospective ground.

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