

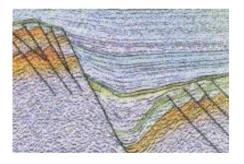
Petrophysic-Consultants

A NEW CONCEPT FOR THE FUTURE OF GEOTHERMY

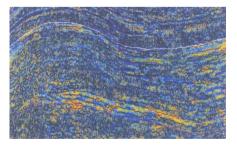
World specialists from the petroleum exploration industry present a new concept for geothermal exploration that will maximize efficiency and reduce risks.



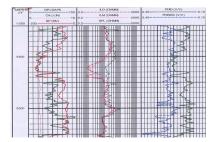
The intial stages of the study involves a regional geological analysis, seismic and petrophysical investigation of the project area to search for potential geothermal reservoir bodies.



For our new concept it is imperative to carry out a campaign of 3D seismic measurements, from which static geological model can be constructed, a real three-dimentional tomography of the subsoil. Here we can obtain the first view of the structural architecture of our potential geothermal reservoir.

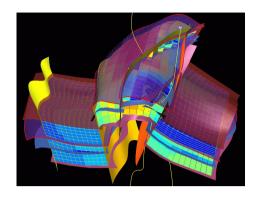


A special team of geophysicists will perform a detailed seismic analysis on the 3D seismic data. The seismic attribute analysis is focused on the structural interpretation and on the porosity characterization.

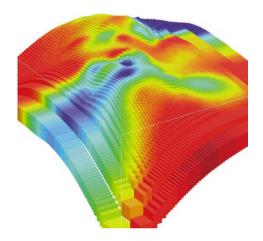


The petrophysical analysis will exponentially increase the resolution of our model allowing a microstructural 3D analysis up to the millimeter scale where the data density reaches the optimal intensity.

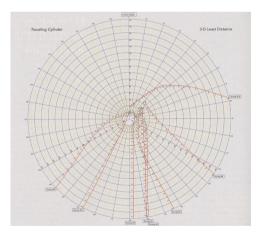
Other areas will be simulated geostatistically using measurements from actual and previous wells.



Detailed analysis of the data and their interpretation is followed by the construction of a static geologic model. An earth cube that we can inspect in its interior down to the microscale.



Finally we analyze the fluid flow and the thermal flow, the spreading of its fronts, its speed and direction. We can quantify porosity, permeability, and thermal exchange efficiency. We can obtain important information about its critical permeability distribution, we can plan the drilling project, its coordinates and the drilling target with the maximal resolution. We can plan the optimal stimulation operations in order to increase the thermal sweep efficiency. We can maximize the thermal efficiency to yield the best possible results.



Ultimately, we are ready to trace our well trajectory to reach the critical permeability and the right target to maximize the results of the stimulations and the efficiency. We can exactly plan our well trajectory in order to avoid dangerous areas and to decrease the risk of accidents while drilling. This concept will decrease the risk of high financial losses, one of the most frequent reasons for of increasing drilling prices.

This is a benchmark in the history of geothermal exploration, it is a revolutionary change with the best promising results.

Our goal is: with 25-30 % increase of project costs to rise the efficiency more than 100 % and decrease the risks more that 50 %.

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