Petroleum prospectivity evaluation of the Canterbury and Great South basins

GNS Science offer petroleum prospectivity screening reports for several basins in New Zealand. This report presents the geological setting and exploration history of the Canterbury and Great South basins, including an integrated assessment of new regional-scale seismic mapping with results from wells and regional geology. This 90 page report reviews the active petroleum systems in these two basins. Common risk segment maps are presented and petroleum prospectivity is assessed using multi-1D generation and ray-path migration basin models.

A range of prospects were initially identified, and these were reduced to 14 ranked prospects (resource potential by gross rock volume) on subsequent review. A 152 page set of Appendices presents a seismic line listing, well post-mortems, depth and isopach maps, paleogeographic maps, basin modelling results, common risk segment maps and 14 prospect summary sheets.

The report is delivered as a hard copy report with pdf document (<100Mb).

Canterbury and Great South basins GIS project

The GIS product compiles all the available map data from the petroleum prospectivity evaluation of the Canterbury and Great South basins. These data include interpreted depth grids for eleven mapped regional seismic reflectors with associated isopach grids, regional paleogeographic maps, basin modelling results (including multi-1D maturity in terms of temperature, vitrinite reflectance, transformation ratios for oil and gas; predicted volumes of oil and gas generated from each source rock interval), common risk segment maps (for reservoir and source rock presence, source rock maturity and migration risk), and mapped (and historical) leads and plays.

The grids comprise 1 km² cells covering a region of 460,000 km². These grids can be exported from the GIS product in ASCII format suitable for reading into most interpretation and database packages. If necessary we can also provide the grids in zmap format, although this should not be necessary if ArcGIS ASCII is able to be read by your software.

The GIS project will be delivered on CD/DVD (110 Mb).