

related, this interpretation does not necessarily conflict with the derivation of computer rock zones. An interpretation of the difference between the shale types 2 and 3 does not appear to be obvious.

The primary value of the project results with respect to influencing Bass Basin exploration is three-fold. The project established the presence of widespread volcanics, supported the interpretation of a greater marine influence during deposition, and supported the interpretation that good quality reservoir rock exists throughout the basin. On a broader scale, this project established that computer rock zone analyses have significant future applications, especially in the area of field exploitation.

The computer rock zone analyses established that the volcanic extrusives and intrusives are much more widespread across section age and in probable areal extent than would otherwise be reliably interpreted from cuttings and core descriptions. The interpretation of widespread Paleocene volcanic seals has significantly impacted the interpretation of hydrocarbon migration pathways.

The computer rock zone analyses also established that the basin received more marine deposition than was earlier interpreted. This interpretation is being supported by the environmental paleontology and facies description. Although evidence is limited at this time, the source rocks thought by Analabs to have marine components are oil prone. This interpretation is encouraging support for continued exploration.

The remaining broadscale result of the project effort is encouraging from an exploration standpoint, but the results do not allow for sand-reservoir correlations across the basin as originally hoped. The primary difficulty with correlations in the Bass Basin is that the section from the top of the Eastern View Coal Measures through the Paleocene is composed of alternating sands, shales, and coals without correlatable breaks. The result of the computer rock zone analysis also expresses the presence of multiple interfingering sands and shales. Furthermore, the breakout of the sand and shale populations into rock zones shows that each of the zones is intermittently present throughout the entire section, rather than being found isolated geographically or with respect to palynologic age. The result is that the analyses, at least within the Bass Basin, can not be used to refine basin correlations as originally planned.

Reservoir quality sands are present in each of the rock zones, based on the correlation of good porosity and permeability values with each of the computer sand zones. This interpretation, in conjunction with the widespread presence of each zone throughout the basin, establishes that good reservoir sands are present throughout the basin and, in all probability, within the exploration targets on the outskirts of the central basin.

The computer rock zone analyses also support the interpretation that there is no major lateral or vertical facies changes in the central basin. The rock zones reflect changes in rock properties. Similiar rock zones (rock properties) will have similiar seismic character. The