

Source-Rock Chemistry (con't.)

hydrocarbons (AROM); and polar organic compounds.

Gas chromatograms were recorded for the saturated fraction only. The results are given in Figure 24. Comparative analysis were also made by pyrolysis, using the Rock-Eval method. Using the generally accepted criteria that a minimum TOC content of 0.5 percent is necessary for a clastic rock to have hydrocarbon source potential, it is readily apparent that since all the samples reach and exceed this value, the lower Eastern View Coal Measures and Early Cretaceous section do have source potential. Disregarding the coal sample, the highest value of 20.10 percent is from a carbonaceous shale of Paleocene age.

A plot of total hydrocarbon content, SATS plus AROM against TOC gives a better rating of source-rock potential, Figure 25. The higher hydrocarbon to TOC ratios observed in the three categories, fair, good, very good, is suggestive of a more oil-prone than gas-prone source. Overall, the results indicate that the lower Eastern View Coal Measure contains rocks with good to very good source potential. The early Cretaceous Otway group has been rated as having fair to good source potential.