

Bitumen, Residual Oil Analysis

	<u>Table</u>	<u>Figure</u>	<u>Appendix</u>
C15+ bulk composition	9	11	-
C15+ saturates (alkanes)	9	12,13	-
GC-MS of naphthenes	10,11	17-21	4

4. SOURCE ROCK ANALYSIS

Headspace gas data delineate the same trend of increasing maturity with depth that is evident from the vitrinite reflectance profile (Appendix 2). In particular,

1. total gas (C1-C4) reaches a maximum at approximately 2700 metres depth and declines sharply over the interval 3600-4000 metres depth (fig. 1);
2. percent wet gas values in excess of 50% occur between 2600 and 3700 meters (Fig. 2B); and
3. the $n\text{-C}_4/n\text{-C}_4$ (Fig. 3) and $i\text{C}_5/n\text{-C}_5$ (Fig. 4) isomeric ratios respond in textbook fashion to increasing maturity (cf. Alexander et al., 1983).