



SECTION III

DISCUSSION

Data quality from the Cape Nelson to Cape Otway Seismic Survey was not quite as good as expected due to the presence of high amplitude reflected refractions. This energy, sometimes called "leaking P-mode" energy cannot be accounted for by simple ray path theory; but is explained by wave theory, based on the constructive interference of plane waves totally reflected in a wave guide. This phenomenon produced high amplitude noise trains on the field records. A vertical stack of consecutive field records tended to reinforce this coherent, shot-generated noise. Because this leaking P-mode energy was offset dependent, some attenuation was obtained by mixing traces of different offsets (i.e. #47 and #48). This form of vertical stack was performed on the majority of the data (see Appendix A). To improve the data further, a Cross Record Mix was run on all lines in the prospect.