



#### D. DEPTH CONVERSION

Sixty nine separate and distinct final velocity functions (starting from water-bottom) were designed and applied in final processing (refer Subsections E and G, Section VII). The reliability of these functions is generally good down through the Horizon B level. The reliability below Horizon B is generally poor.

On the basis of these velocity functions, average velocity (water-bottom to horizon) gradient interpretations were made for Horizons A and B (see enclosures 7 and 8). The velocity variations are substantial and have a significant effect on structural definition.

Steps in depth conversion of Horizon A and B were:

1. Reflection times from water-bottom to horizon were obtained for each data point by subtracting  $2(\text{water depth})/7000$  ft. per sec. from the record section reflection times.
2. Average velocity (water-bottom to horizon) was interpolated from the velocity gradient contours.
3. Depth below water-bottom was obtained by applying the velocity from step 2 to the time of step 1.
4. Total depth was obtained by adding the water depth to the depth obtained in step 3.

For the depth conversion of Horizon C, the time interval from Horizon B to Horizon C was converted to thickness by applying the function  $\bar{V}$  (average interval velocity) =  $11000 \text{ ft. per sec.} + 1000T$  (reflection time).