Since these reefs are far inland on the continent, and are covered by approximately one mile of thickness of sedimentary rock formations showing distinct features of slow deposition at many levels, it seems necessary to accept the evidence that both the reefs and at least most of the rock formations above them were produced long before the Flood. For example, the drilling cores taken from many of the reefs in northwest Alberta show that reef growth was similar to that observed in modern reefs, but that the growth was often intermittent. The apparent reason for the interruptions in growth of the reefs was that the water level often became too low and the evaporating water in the inland sea which then covered that area became too salty for coral growth. At such times the concentrated brine began to produce thin layers of precipitated minerals (called evaporites) on the shallow sea floor, and lapping up onto the sides of the reefs where the corals, lime-secreting algae, and other reef-forming organisms were still trying to grow. In fact, the stages of evaporitic sediments which were laid down in the basin around the reefs and at several levels up along their sides, give clear testimony to the extended struggle of these organisms to keep growing, but reveal that they finally succumbed and were completely buried by the evaporite sediments. (Langton and Chin, 1968, p. 1943-1944; Machielse, 1972, p. 201-210; Bebout and Maiklem, 1973, p. 287-295, 302-329.)

These cyclic, bedded, evaporite sediment layers which buried the reefs are the main component of the well-known Muskeg Formation which extends across most of northern Alberta, lying at an average depth of approximately 1,300 m and having an average thickness of about 180 m. Approximately 20 meters of this thickness consists mainly of thin microlayers of anhydrite, frequently alternating with even thinner layers of pure calcium carbonate and of organic microlayers. Some of these suites of microlayers are precisely correlatable in cores from wells separated by a distance of at least 25 km, thus showing that they were laid down in very tranquil, stagnant seas (Davies and Ludlam, 1973, p. 3528-3535). Judging from evaporation rates and precipitation rates in the most arid seacoasts of today, the total 180-meter covering of Muskeg evaporites must have required at least several hundred thousand years for its formation. (The primary reason that evaporites have been extensively studied and described by petroleum geologists is that the evaporite layers form an almost perfect seal that has prevented the escape of petroleum from the porous limestone formations which lie beneath them in Canada, the U. S. A., and many other petroleum-producing parts of the world.)

The reality of the growth periods of reefs in the ancient seas of northern Alberta, and their subsequent gradual burial by layers of minerals deposited from