ments with varied paleotopographic forms. The cyclicity was generated largely by eustatic changes in sea level superposed on slow, continuous elevation of the source areas and corresponding subsidence of the depositional areas. The distribution of lithologies was controlled primarily by the topography, of depositional origin, which determined the sites of higher energy expenditure and therefore coarser sediment accumulation, and vice versa. These sites were shifted significantly by marked changes in sea level, the secondary control of sediment distribution. Conventional direct "tectonic control of sedimentation" was not significant.

Under these circumstances the appropriate sedimentation model is one based on the inductive concept of depositional topography, not tectonic control. This model links the sedimentary processes in fluvial, marine-shelf, and deep-water environorganisms on the sediments. The model is particularly appropriate for stratigraphic exploration because, where conditions are favorable, the depositional topography can be mapped as a series of continuous paleotopographic surfaces to which the discontinuous pattern of reservoir lithologies can be related in ways that are useful for understanding and prediction.

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ENERGY AND ENVIRONMENTAL IMPACT FROM DE-VELOPMENT OF OIL SHALE AND ASSOCIATED MINERALS

The energy crisis in the United States is rapidly becoming serious. The crisis exists because more than 90% of our energy reserves cannot be used without degrading the environment beyond the limits specified by law.

Only oil shale and coal have sufficient reserves to make up adequately the energy deficit over the long term. The solution to the energy crisis is in technology which will provide clean, economic energy from both oil shale and coal.

Oil shale containing the minerals nahcolite and dawsonite can be processed into products which will relieve the energy crisis. Shale oil can be processed into low-sulfur utility fuel. Nahcolite can be utilized to reduce SO_x , and possibly reduce NO_x , emissions from the burning of coal. Dawsonite can be processed into aluminum compounds for use in the treatment of waste water. As an alternative, dawsonite can be processed into metallurgical-grade aluminum.

Processing these products in one integrated operation reduces the cost and renders each product economically usable.

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SEDIMENTARY ENVIRONMENTS AND OCCURRENCE OF MAJOR HYDROCARBON ACCUMULATIONS

No abstract available.

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PLATFORM CARBONATE DEPOSITION OF LOWER MARBLE FALLS FORMATION OF CENTRAL TEXAS No abstract available.