



**PROJECT DESCRIPTION:**

**Background:** Oil resources on the Jicarilla Reservation are found in the Cretaceous sandstone reservoirs of the Dakota Sandstone, El Vado Sandstone Member of the Mancos Shale ('Gallup' of drillers), and various members of the Mesaverde Formation. These resources are primarily developed in the southern part of the Reservation in Conventional stratigraphic and structural traps located on the northern and eastern edge of the Chaco slope. Oil is also found in unconventional fractured shale of the Mancos Shale and in thin sandstone and siltstone, and limestone traps of the El Vado Sandstone Member of the Mancos Shale ('Gallup' of drillers) along the eastern margin of the Reservation. The eastern two thirds of the Reservation is less well explored relative to the southern part and the boundaries between oil and gas hydrocarbon plays throughout the Reservation has not been well defined. Declining hydrocarbon production has focused the Jicarilla Apache Tribe to active management of their own resources, but they currently lack a strong technical, geologic-knowledge base.

**Work to be Performed:** Define the geometry of the surface geology. Assess the nature and types of oil currently being produced. Define limiting lines of production, controls and thermal maturity. Evaluate low resistivity reservoirs. Extend outcrop relationships to the subsurface to model geophysical log interpretations. Define the facies and structural configuration in the El Vado-Mancos Shale interval. Characterize the petroleum geology play types and boundaries in the El Vado-Mancos Shale interval. Synthesize select existing seismic data. Prepare final synthesis incorporating log-derived structural analysis.

**PROJECT STATUS:****Current Work:****Scheduled Milestones:**

Quarterly Report	04/98
Quarterly Report	07/98
Quarterly Report	10/98
Quarterly Report	01/99
Progress Report and Presentation	08/98
Phase One Report Published	03/99
Progress Report and Presentation	11/99
Phase Two Report Published	09/99

**Accomplishments:**