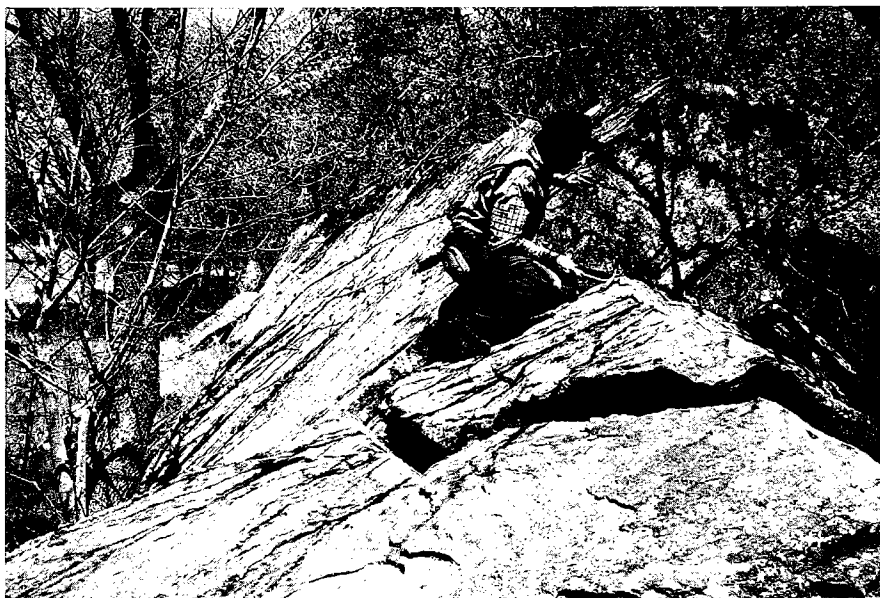


Figure 29. Steeply dipping outcrop of the Lake Ardmore Sandstone Member of the Springer Formation exposed north of the MGM Ranch driveway (Unit 2, Fig. 28). The beds strike N. 25° W. and dip S. 65° W. at 65°. The top surface of the beds is to the left in the photograph.



The measured section and the Samson well are only ~2.7 mi apart.

Cuttings from the Beach & Talbot No. 1 Pruitt BB well (Appendix 2; map inside front cover) confirm the above observations and interpretations. Units 3–6 correlate well with the Lake Ardmore strata in the Samson well and with the strata exposed at Stop 6A. The Lake Ardmore Member is poorly developed in the subsurface ~2 mi north of Stop 6A, where it is mostly siltstone (see Goldsmith & Perkins No. 1 Herman Smith well [Appendix 3; map inside front cover]).

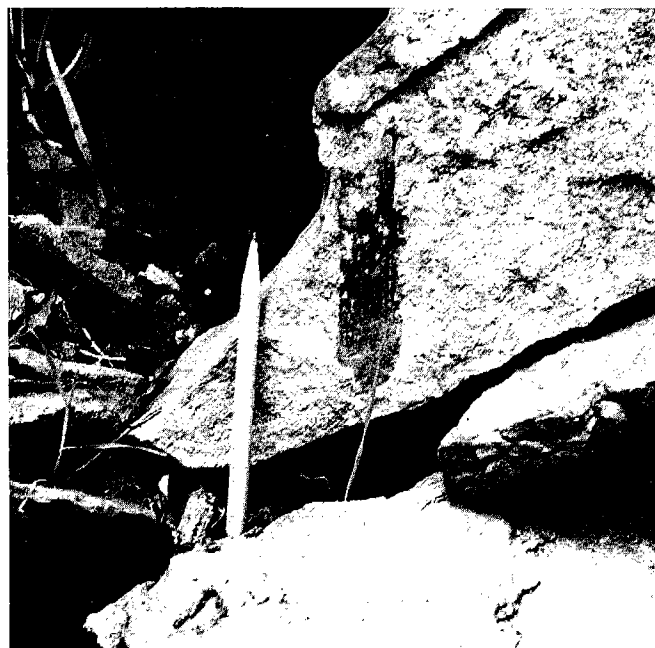


Figure 30. Cast of a fossil wood fragment (1 × 4 in.) in the Lake Ardmore Sandstone Member of the Springer Formation (Unit 2, Fig. 28) at Stop 6A.

Both the surface GR profile of the Lake Ardmore Sandstone at the MGM Ranch and the GR log of the same formation in the Samson well clearly show coarsening-upward textural profiles (Fig. 33). On the surface GR profile, the cleanest sandstone with the best potential as a reservoir occurs at the very top of the sandstone interval, where the GR intensity is less than ~85 cts/sec (Fig. 33, left side). On the GR log from the Samson well, this same “clean” sandstone zone occurs at 1,406–1,417 ft (Fig. 33, center). Based upon analogies of GR responses presented thus far, the strata in the 1,417–1,470-ft interval in the Samson well can be interpreted as planar-, ripple-bedded sandstone interstratified with numerous shale and silty shale partings.



Figure 31. Boxwork concretionary structures exposed on the steeply dipping surface of Unit 2 (Fig. 28) of the Lake Ardmore Sandstone at Stop 6A. Geologic pick for scale.