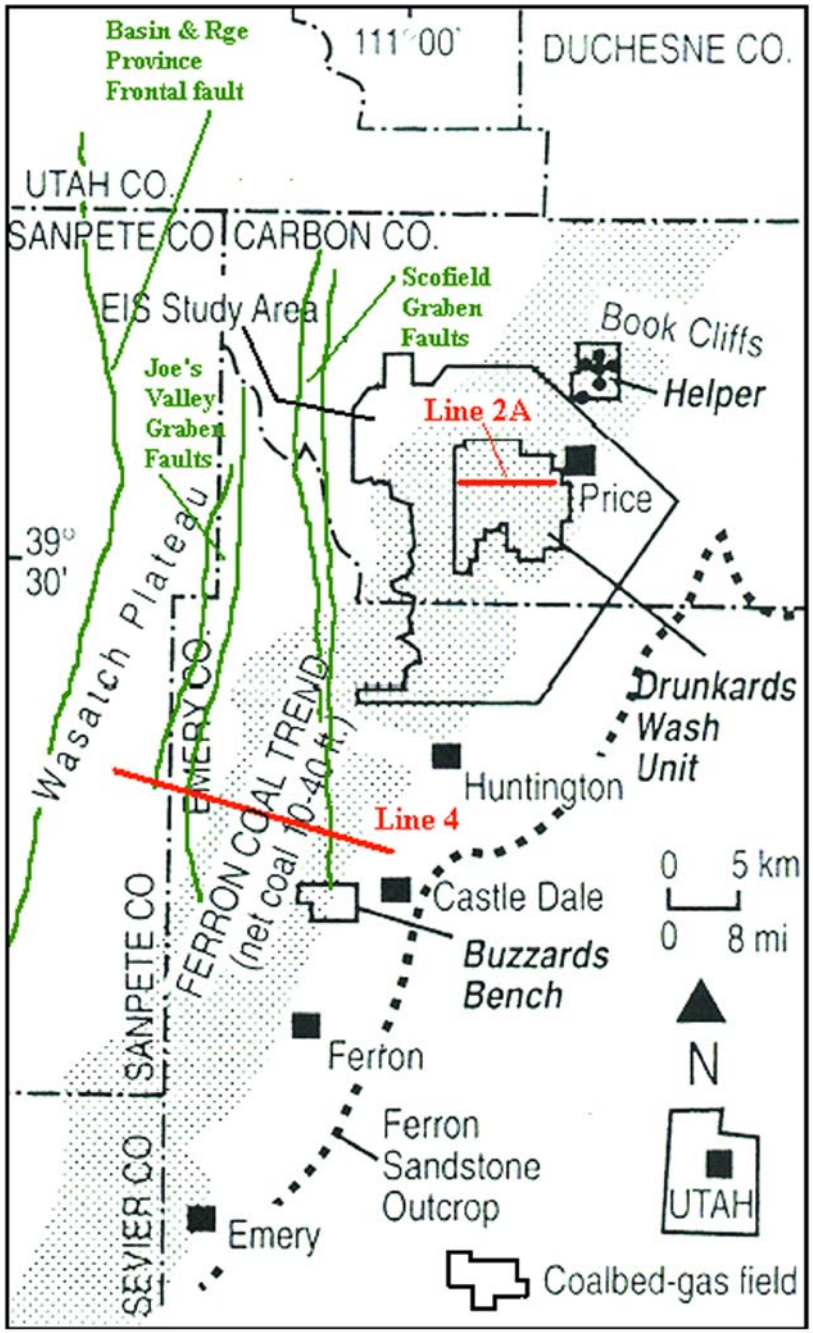

Figure 1. Regional geologic features and index map. Note locations of seismic lines 2A and 4 and southern end of Schofield graben faulting crossing line 4.

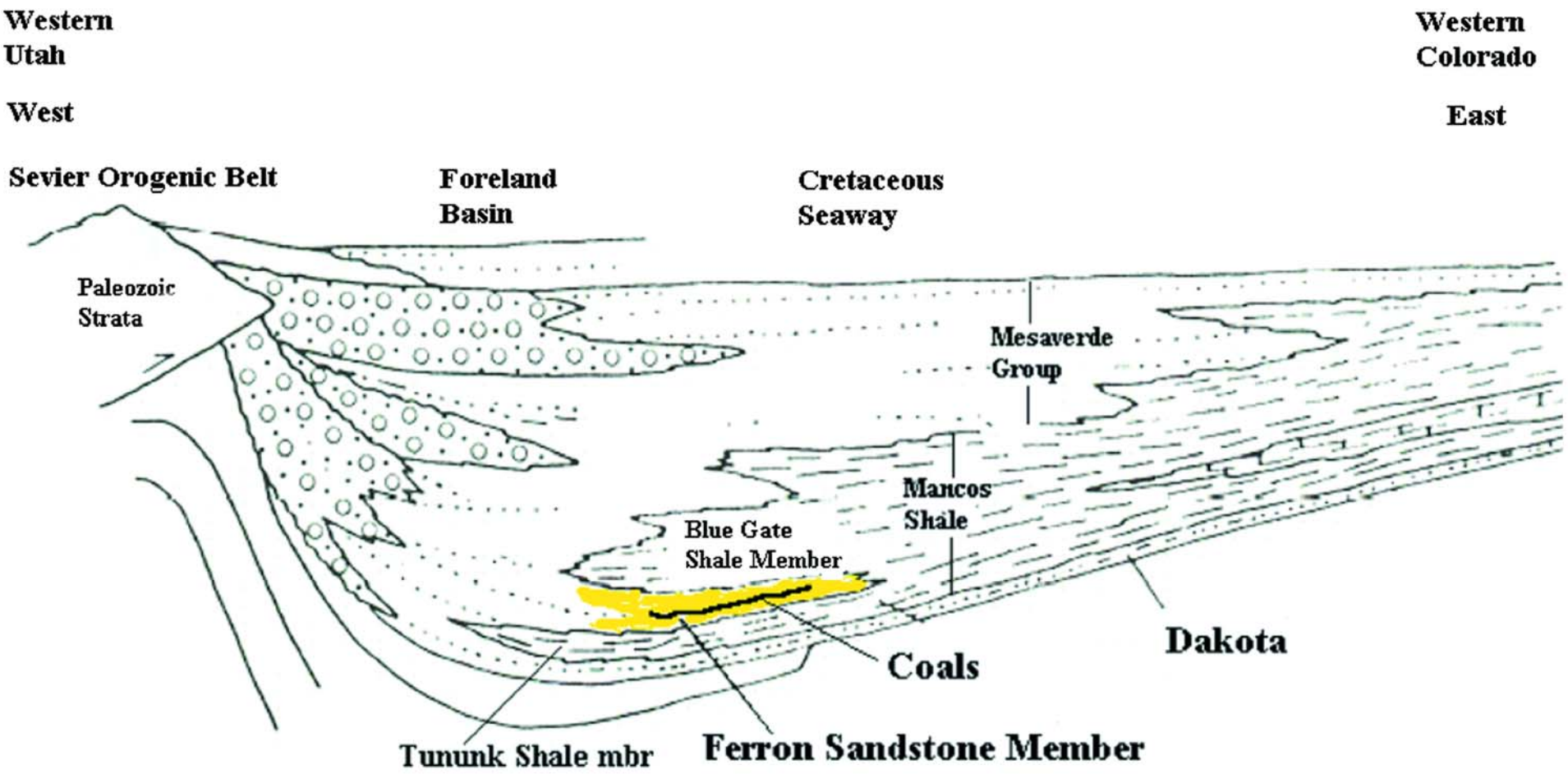

Figure 2. Diagrammatic regional cross section through study area (modified from Armstrong, 1968).

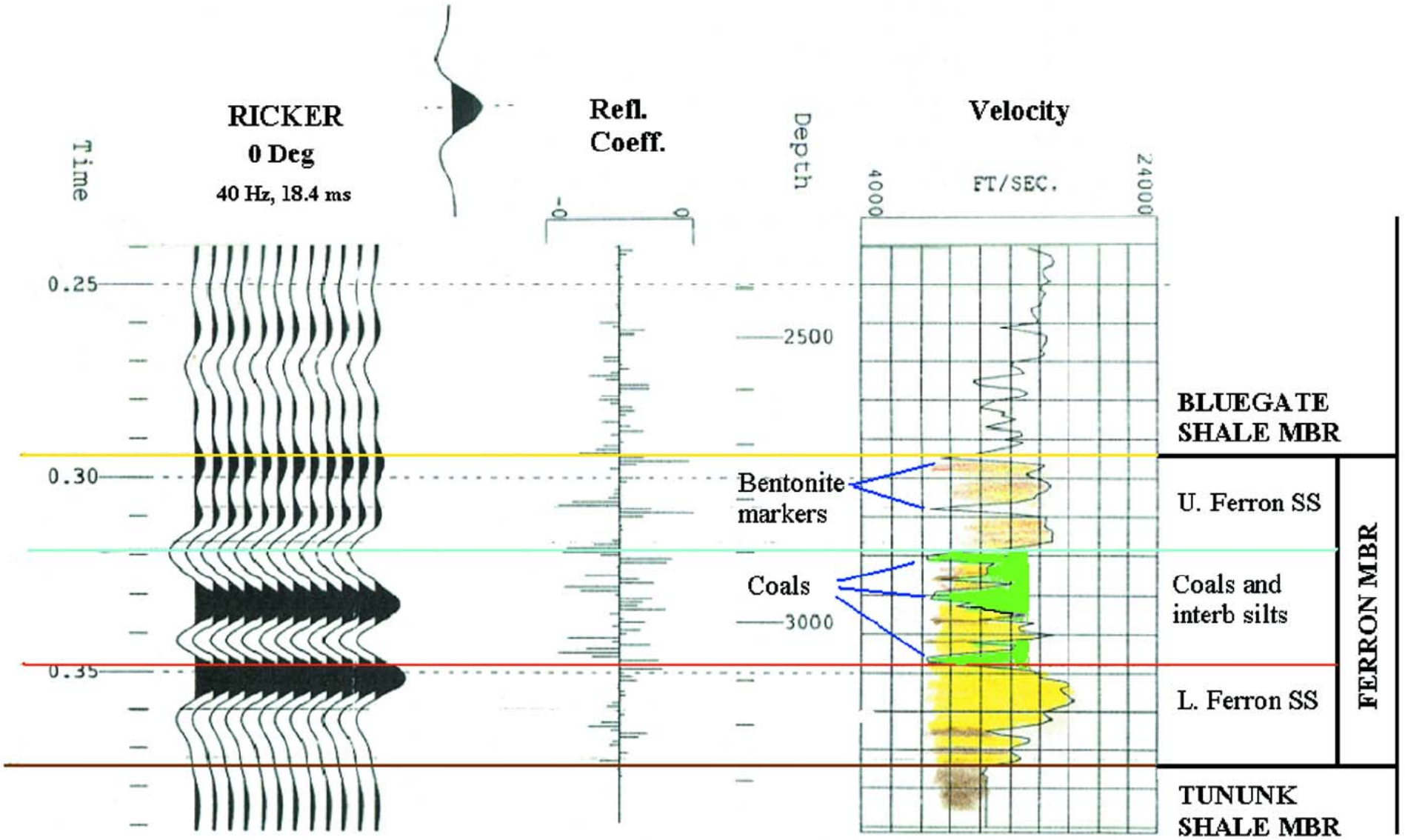

Figure 3. Synthetic seismogram and pseudo-velocity log produced from density log on the Telonis 30-157, Drunkards Wash Field. Comparison of synthetics created from density logs and from sonics in the same wells closely match this area. Note the double trough-peak set generated through the Ferron sand and coal interval.

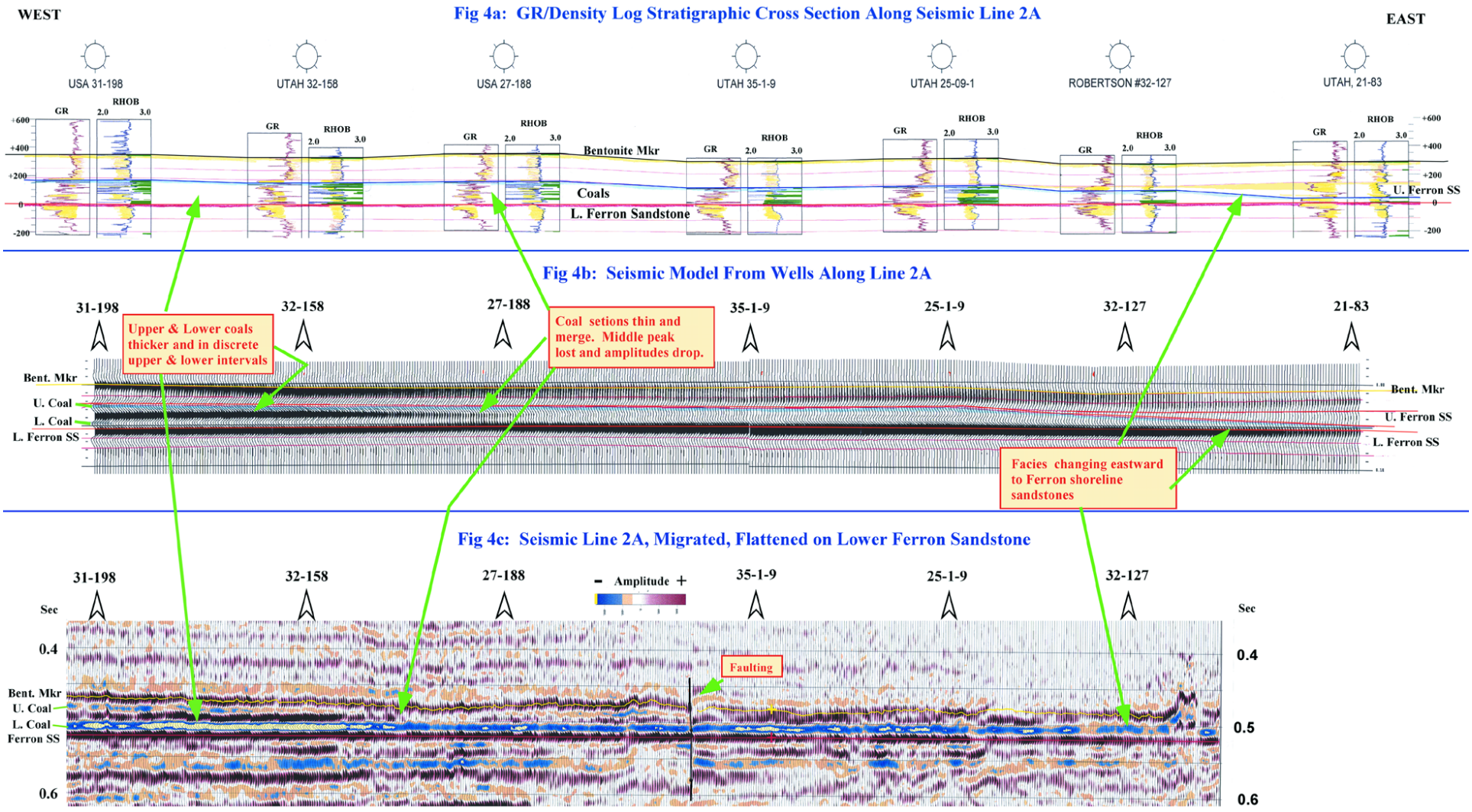

Figure 4a, b, and c. Coincident sections demonstrating how stratigraphic changes in the Ferron interval observed in logs relate to changes seen on seismic.

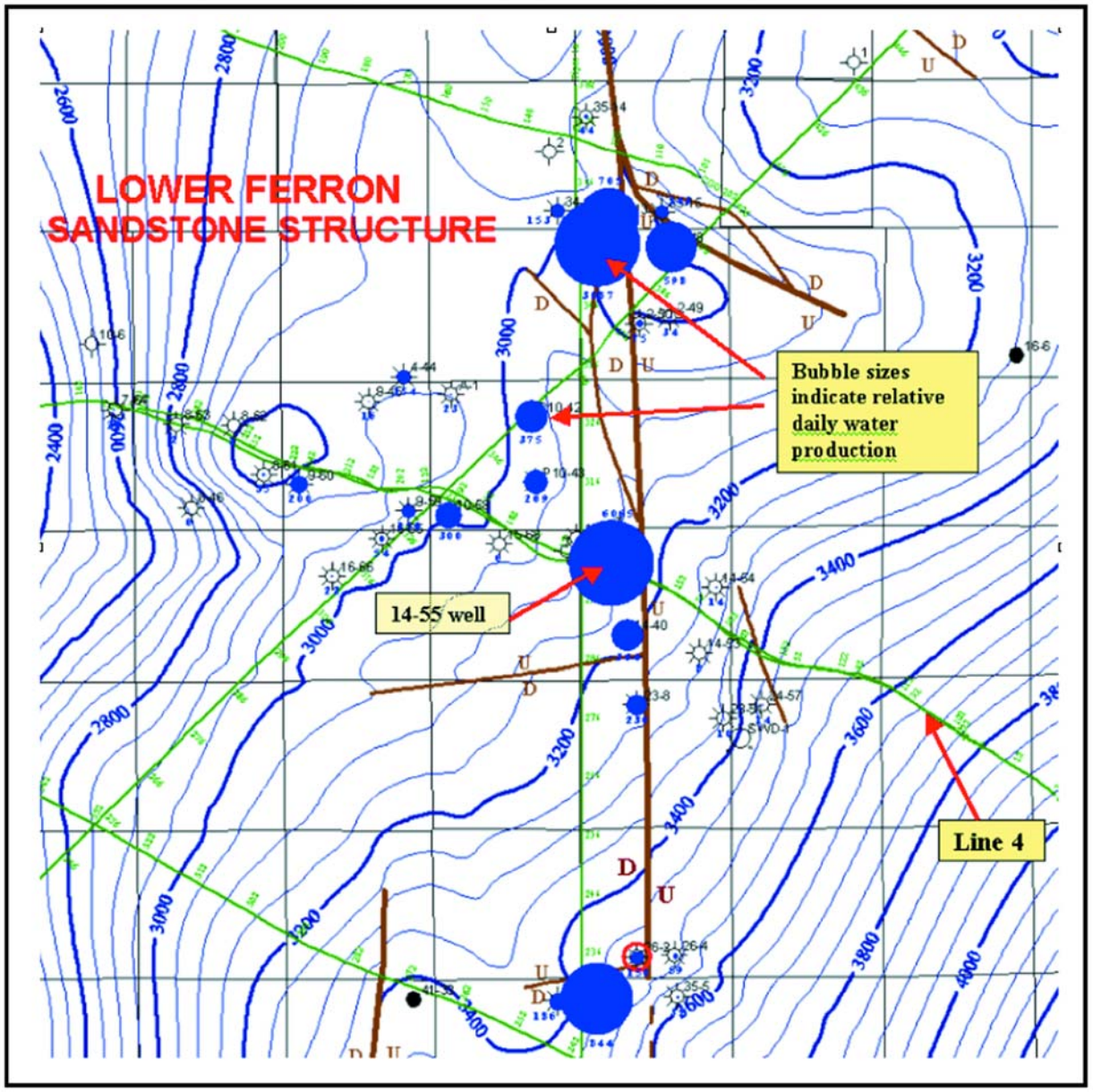

Figure 5. Structure map, top of Lower Ferron sandstone and water production bubble map. Note location of line 4. Dip to the WNW away from the San Rafael Swell is disrupted by a prominent north-south fault near the center of the map, as seen on accompanying seismic line 4 (Figure 6).

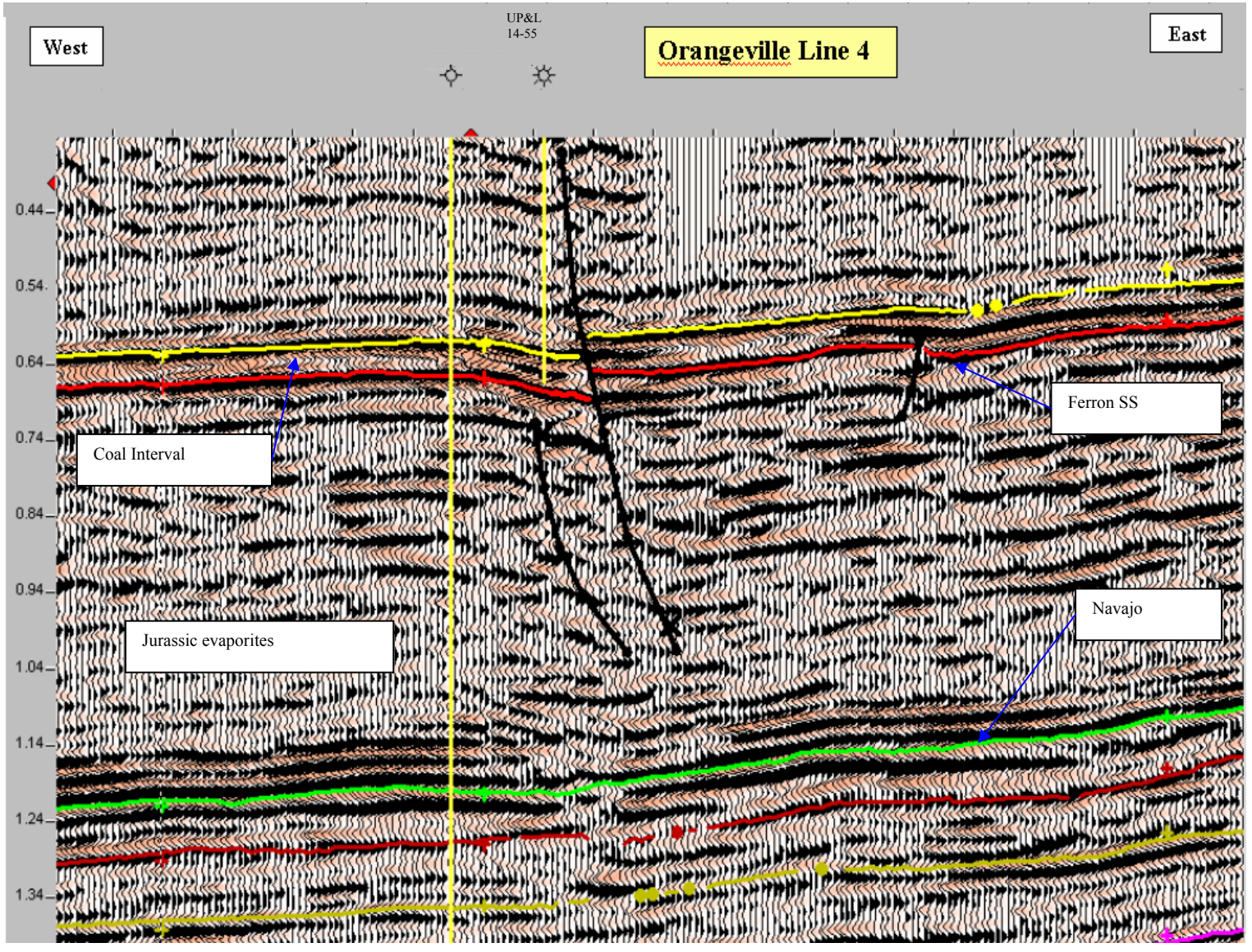

Figure 6. Buzzard Bench area, seismic line 4, showing prominent faulting of coal interval with "reverse drag" folding on the downthrown side. Folding likely increases fracturing and permeability locally near the fault creating an elongate and linear "fairway" of higher production. Note that faulting dies out into Jurassic Carmel evaporitic section.