

SEISMIC ANALYSIS AND FINAL
AGI WELL RECOMMENDATION

LINAM RANCH PLANT AREA, LEA COUNTY, NM

Geolex, Inc. (Geolex) has completed the evaluation of the seismic data obtained for the Linam Ranch AGI study area. This report summarizes our refined understanding of the structure and stratigraphy of the site and our target injection zone gained from the seismic analysis.

In summary, the final location which Geolex recommends for the AGI well test is the NE ¼ SE ¼ Sec. 30 T18S R37E. This is based on the clearly-observed thickening of the Lower Bone Spring section visible on the downside of the normal faults in the area confirming our earlier stratigraphic analysis. In fact, when compared to the thickness of the target zone observed in the Conoco #1 State, the recommended location should encounter a total thickness of about 175-190' (50-65 more feet of porous Lower Bone Spring than was found the Conoco location).

Our analysis was conducted by constructing synthetic seismic profiles for the Conoco #1 State and the Lea State ACF #1 wells (Figures 1 and 2). These synthetic profiles combined with the stratigraphic and lithologic analysis from our May 22, 2005 report allowed for the detailed interpretation of both the E-W and N-S seismic lines through our recommended area (Figure 3). The detailed geologic and seismic analysis is described below and further shown graphically in the interpreted seismic lines included here as Figures 4 and 5.

The Lower Bone Spring (often called "Wolfcamp" by local operators) in the vicinity of the Linam plant was deposited as a carbonate clast conglomerate, in response to contemporaneous faulting, erosion, and re-deposition. This faulting was part of an episodic event associated with continental margin collision and thrust faulting that originated in the Marathon region of far west Texas, to the southeast of Linam. Faults were periodically re-activated during the so-called Marathon event. One such re-activation occurred in late Wolfcamp to early lower Bone Spring time. Blocks of shallow marine limestone (lower Abo-equivalent) were uplifted, exposed and eroded, and the erosional debris was carried over the immediate shelf edge into deeper water, where they piled up into the debris aprons we now see reflected in the subsurface as local thickening of the Lower Bone Spring Formation. These debris aprons were formed at the base of slope of many fault-induced submarine scarps along this over-steepened portion of the Central Basin Platform margin, and coalesced laterally into locally continuous and connected units along the fault scarps.

The period of exposure provided for creation of primary and solution-enlarged porosity in the host rocks. This is similar to rocks observed today in active Karst terrains. Once this debris was re-deposited on the shallow marine floor, reflux dolomitization provided secondary matrix porosity to the lithologic package. The matrix porosity connected otherwise poorly-connected porosity in the individual clasts into a well-interconnected porosity system, giving rise to the consistent and high permeabilities indicated by the results of the drillstem tests shown on the revised Lower Bone Spring map (included as inset on Figure 4) and which are discussed in our May 22, 2005 report.

The south-to-north seismic section (Figure 5) better illustrates the shelf-to-basin relationship between the lower Abo and its equivalent Lower Bone Spring detrital unit. The Lower Bone Spring thickens along the down-to-basin faults along this line of section, most notably beneath the proposed AGI well location in the NE ¼ SE ¼ Sec. 30 T18S R37E. This detrital unit continues to thicken northward along this section, into the San Simon Channel area to the north, cut and influenced by other down-to-basin faults. The unit is also variously expressed on the west-to-east seismic section (Figure 4), because this section stays within the edge of the Lower Bone Spring fairway along its course. The faults terminate a little above the Lower Bone Spring Formation; so the throws within the Lower Bone Spring are probably insufficient to provide much fault-induced compartmentalization within the detrital unit. For these reasons, we believe that lateral permeability within the Lower Bone Spring is carried across the faults, providing the potential for sustained, high-volume injection from an AGI well. The thickening of the section is especially visible on the downside of the fault in the recommended area shown on the north to south seismic section (Figure 5).

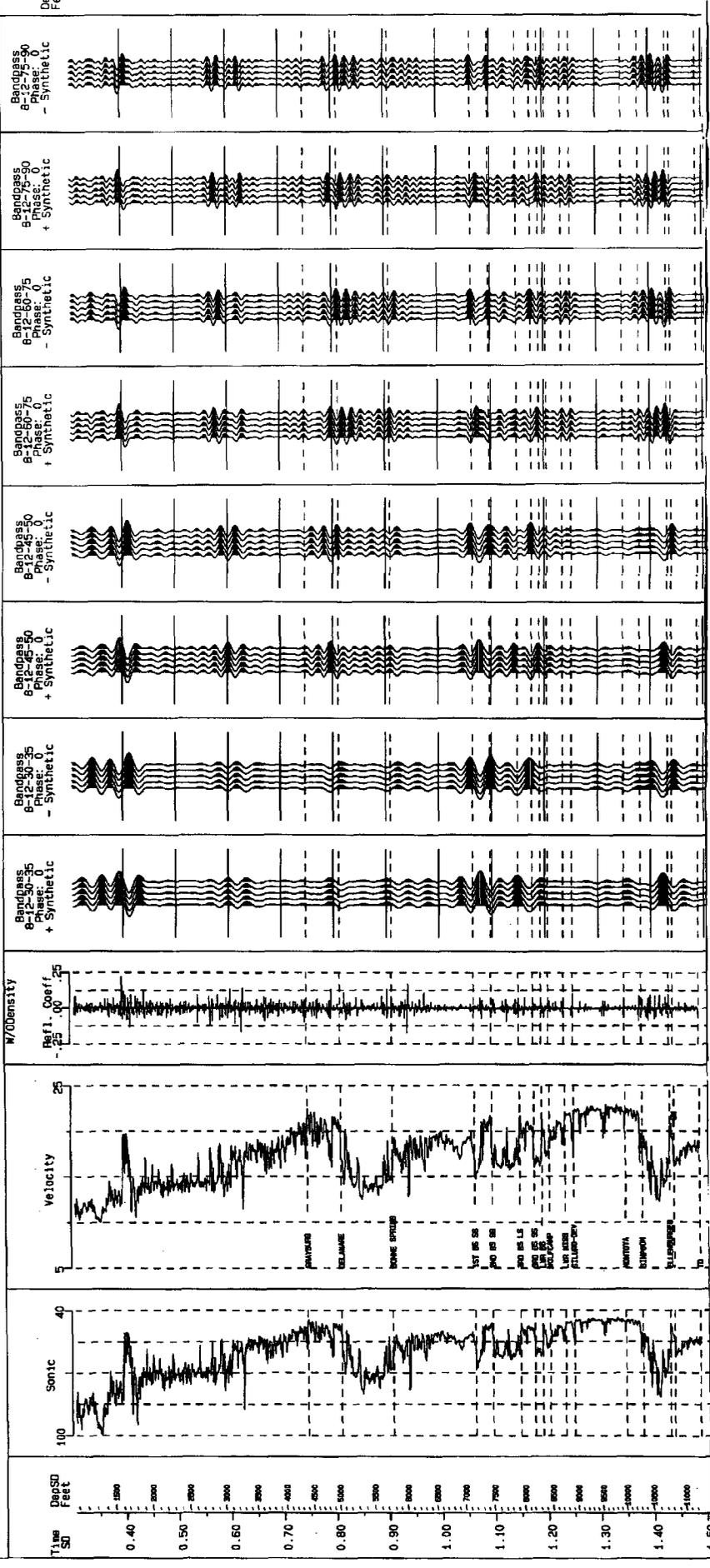
In conclusion, the best location for the AGI well NE ¼ SE ¼ Sec. 30 T18S R37E, because it is well away from one of the major down-to-basin faults, and in a thicker part of the potential high porosity-permeability zone of the Lower Bone Spring. Geolex Inc recommends this location to the DEFS for the drilling and completion of an AGI well test for the Linam Ranch Plant.

CLIENT: LOUIS MAZZULLO
 GULF OIL #1 LEA MCF ST
 5900 FM 1660 FEL TWP: 18S
 LEA COUNTY NEW MEXICO

Rng: 36 E

Time Scale: 7.50
 Inco Scale: 3750
 Seis Datum: 3785

Corr Velocity: 7000



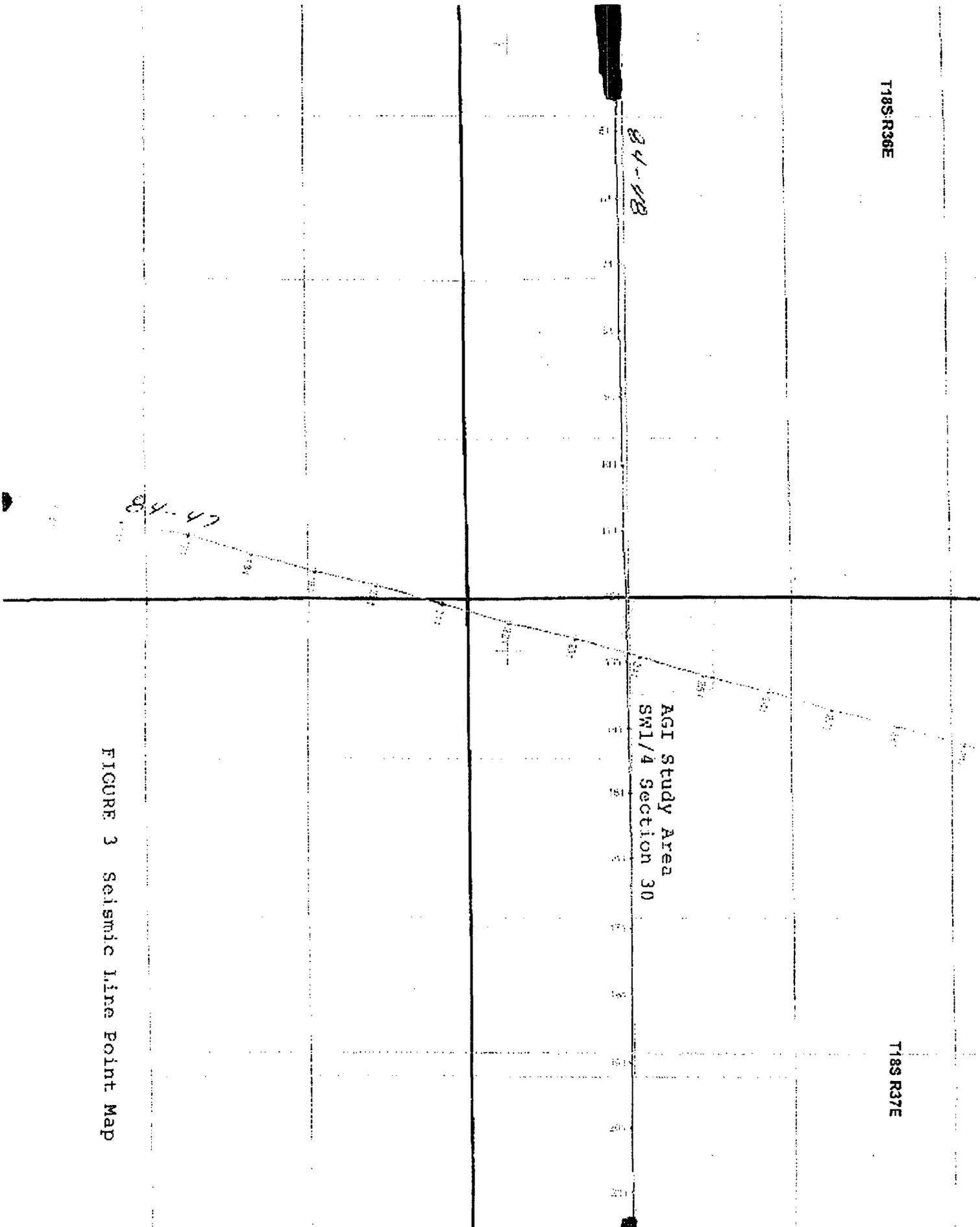
T18S-R36E

T18S R37E

24-118

AGI Study Area
SW1/4 Section 30

FIGURE 3 Seismic Line Point Map



The lower Bone Spring (often called "Big Swamp" by operators) in the vicinity of the Lower plant was deposited as a calcareous clay equivalent to a calcareous shale, associated with erosion, and re-deposition. The faulting was part of an episodic event associated with continental margin collision and thrust faulting that originated in the Marathon region of far west Texas, south of the area of the plant. Faults were periodically re-activated during the so-called "Big Swamp" time. Blocks of shallow marine limestone (lower Bone Spring) were uplifted, eroded and eroded, and the erosional debris was carried over the immediate shelf edge into deeper water, where they piled up into the debris aprons we now see in the subsurface. These debris aprons were deposited in the lower Bone Spring, and continued laterally into locally continuous and connected units along the fault scarps.

The period of erosion provided for creation of primary and secondary porosity in the host rocks. Once the debris was deposited, the shallow, low pore articularization provided secondary matrix porosity to the package. The matrix porosity connected otherwise poorly-connected porosity in the individual clasts into a well-interconnected porosity system, giving rise to the consistent and high permeabilities suggested by the results of the drillstem tests shown on the lower Bone Spring far away map.

The south-to-north seismic section better illustrates the shelf-to-basin relationship between the lower Abo and its equivalent lower Bone Spring detrital. The lower Bone Spring thickens along the shelf edge, and the detrital unit continues to thicken northward along this section, into the Star Simon Channel area to the north, cut and influenced by other down-to-basin faults. This unit is also variously expressed on the west-to-east seismic section, this section being within the zone of the Bone Spring. The unit ends a little above the top of the Bone Spring. The Bone Spring is a high permeability unit, and the much fault-induced compartmentalization within the detrital unit. Consequently, it is believed that lateral permeability within the lower Bone Spring is carried across the faults, providing the potential for sustained, high-volume injection from an AGL well. The final recommended well location is well away from one of the major down-to-basin faults, and in a thicker part of the potential high porosity-permeability zone.

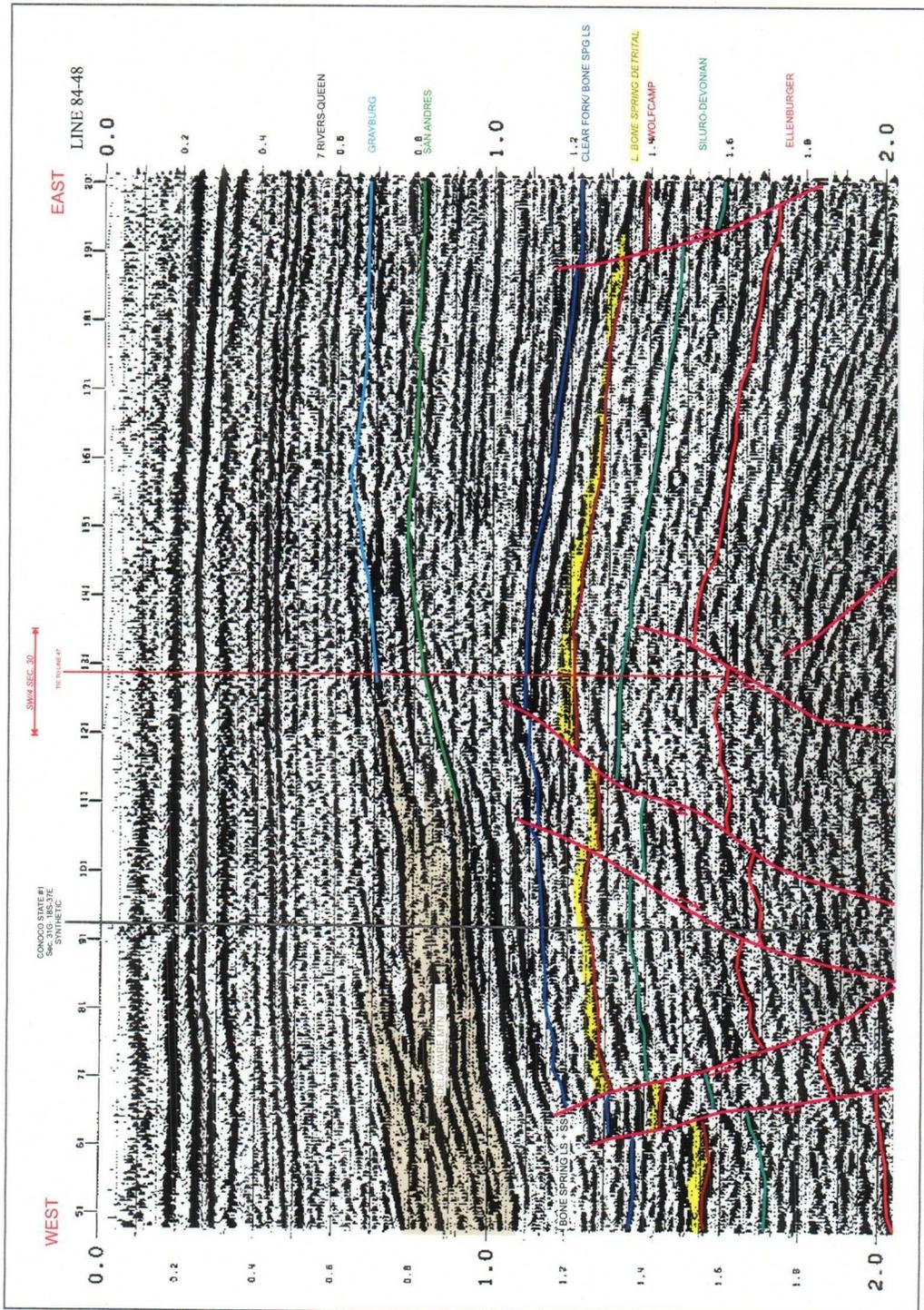
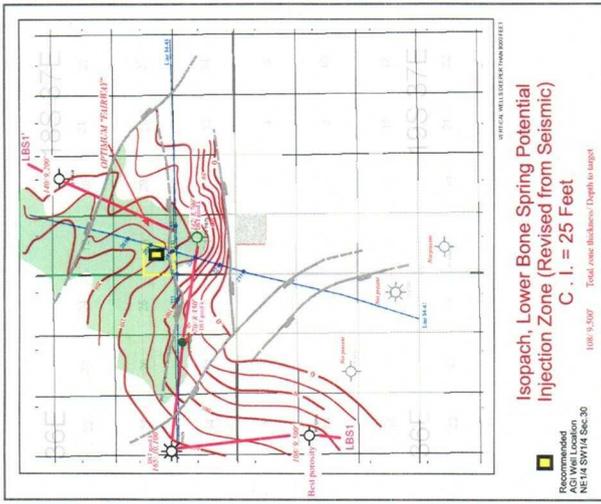
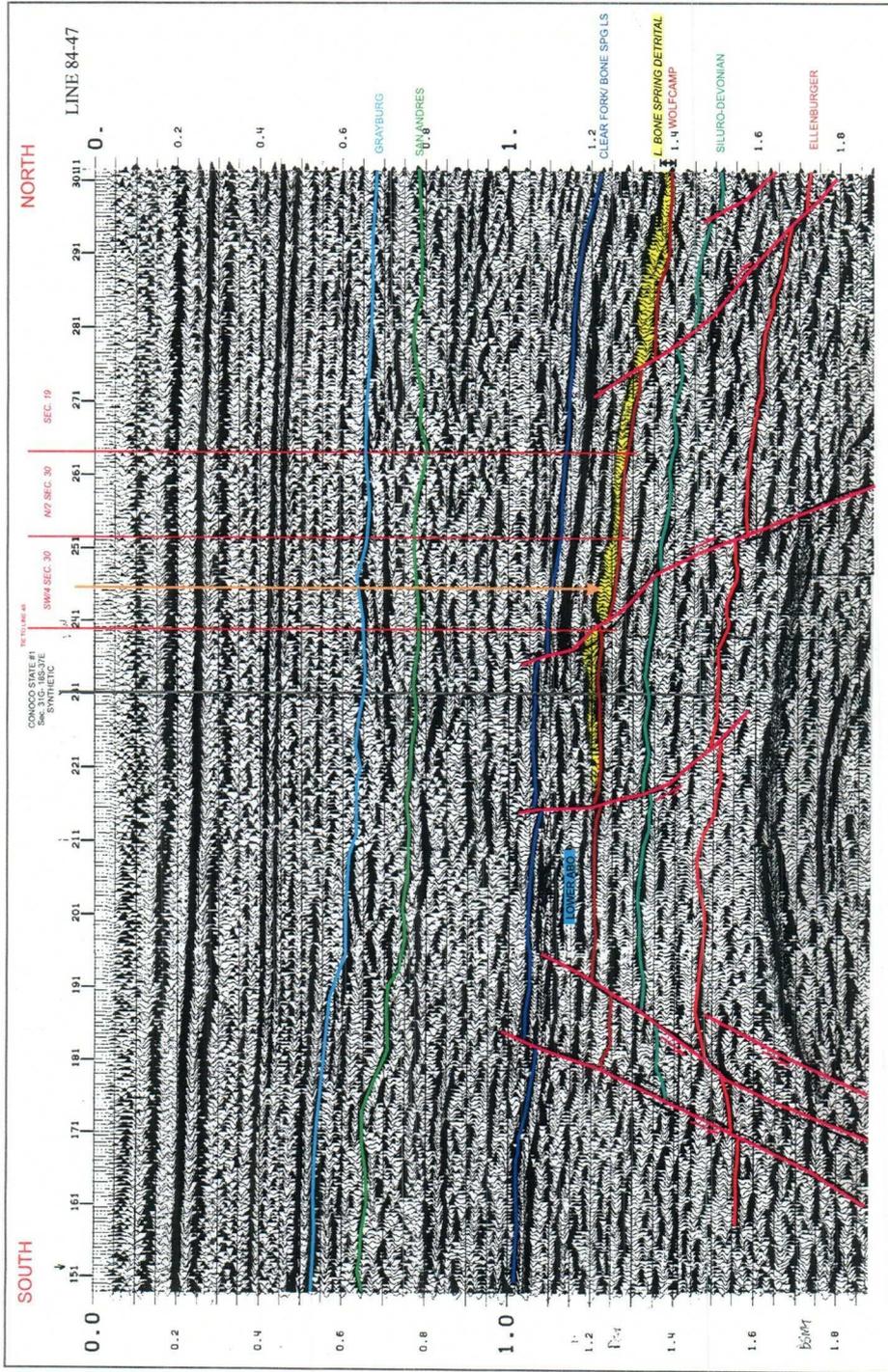


Figure 4

Geolex, Inc.
 DUKE ENERGY-LINAM RANCH PLANT
 Lea County, New Mexico
 Seismic Definition of Lower Bone Spring Detrital Fairway and Faults Along West-to-East Seismic Section

CLIENT: DEFS DATE: 08/01/2005



(SEE TEXT ON WEST-EAST SEISMIC EXHIBIT)

Figure 5

Geolex, Inc.

DUKE ENERGY LINAM RANCH PLANT
Lea County, New Mexico

Seismic definition of Lower Bone Spring Detrital Fairway and Faults Along South-to-North Seismic Cross Section

CLIENT: DEFS DATE: 08/01/2005