



Figure 6: Migration example of 2-d acoustic synthetic seismograms, created with the 1-d velocity model used by Robinson (1994) to relocate Weber events. The horizontal lines show the depths of the velocity interfaces in the model. The layers have the constant velocities indicated. The LVZ is the 3% velocity drop at the 20-km-deep slab interface. Fifty model sources within the tilted region outlined in white, crossing the interface, were propagated into ten vertical-component model receivers on the surface. Processing of this resampling-enhanced migration was identical to processing of the Weber event data. White indicates negative reflectivity, black positive reflectivity, and gray little reflectivity. The velocity increase at 26 km depth below the LVZ interface images strongly from backscattered reflections, but only directly below the sources. The top of the interface (LVZ) appears strongly as poorly-focused forward-scattered reflectivity above the interface, but only over a limited lateral extent of the interface.