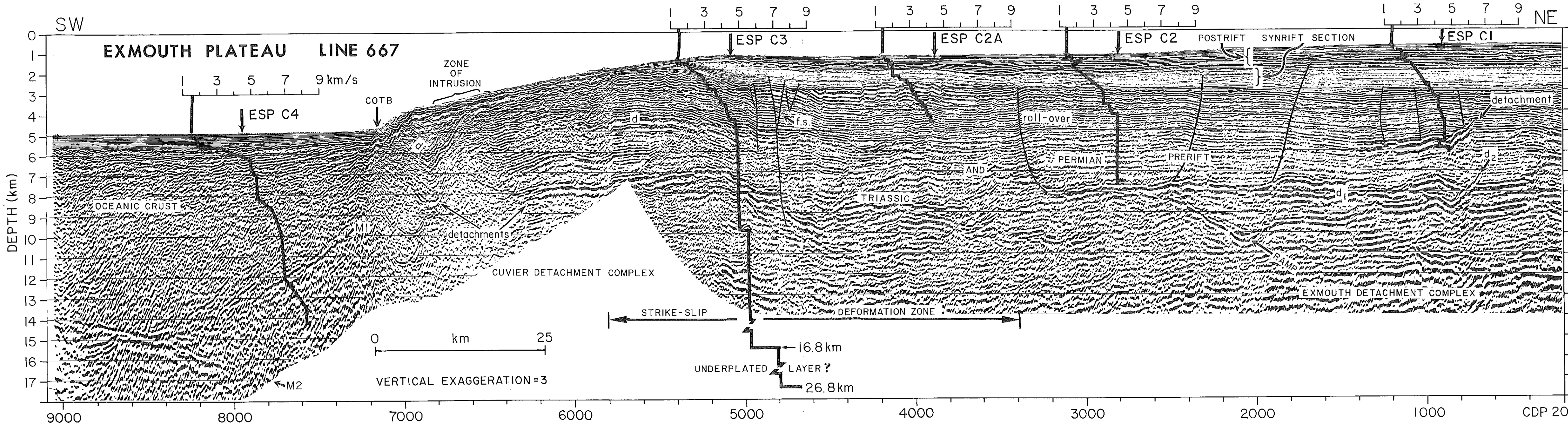

Figure 2. Reflection profile shot along line 667 (Fig. 1). Source and receiver array are as in Mutter et al. (1989). Profile is common-depth-point (CDP) stack gathered in 25 m bins, followed by sevenfold additive mix, time-varying velocity filtering to remove multiple energy, migrated and depth converted by using expanded-spread-profile (ESP)-derived velocities. Velocity vs. depth solutions for ESPs C1, C2, C2A, C3, and C4 are calculated at midpoint of experiment (see also Fig. 1). Final models were achieved by forward modeling in distance-traveltime and τ-p domain, by amplitude modeling (ray theory) and waveform modeling. Low-frequency band-pass filter applied 6–18 Hz with high- and low-end cosine tapers of width 3 and 10 Hz, respectively. Major normal faults sole out into detachment surfaces (d). Shallower detachment reflectors (CDPs 800–1400) lack throughgoing faults and may represent a less developed shear zone composed of short, nucleating segments. Crosscutting relations in deeper parts of complex indicate that different detachments may have been active at different times; they are indexed (d_1, d_2) to show sequence of relative activation. In order to conserve area, and assuming in-plane strain, hanging wall must have deformed as movement occurred down and over ramp, producing roll-over structure. South of roll-over, oblique strike-slip faulting displaced detachments; example of strike-slip flower structures (f.s.) is indicated. Faulting dominates in prerift basement and deepest synrift section where there is evidence for early syntectonic sedimentation in the form of sets of reflectors diverging toward local master faults (CDP 4600). We note that basement faults may represent reactivated zones of preexisting weakness. Between oceanic crust and igneous intrusion zone, interpreted detachment reflectors dip about 15°N, perhaps within rotated fault block. COTB—continent-ocean transform boundary.

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Figure 2
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