

View to the northeast from a site west of Espanola (UTM coordinates of: 3985766 N, 399783 E; NAD 27; zone 13). In foreground are Quaternary terrace deposits of Qtcg2a and Qtcg2b; a lower surface behind these deposits is on top of the Qtcg3 deposit. In the distance are good exposures of the Tesuque Formation; here, contacts separating Ttac, Ttbc, and Ttbp2 are delineated on the west-facing bluffs.



Cross-laminated sand, interpreted to be eolian, in unit Ttmp2. The sand in this exposure is fine-upper to medium-upper in grain size, very clean, and contains sand grains typical of both lithosomes A and B. A channel-fill of sand and very fine pebbles, located 0.5 km to the west, is interpreted to represent volcanic detritus derived from the San Luis basin. Jacob staff is 1.5 m-long. Site located 1 km east of El Llano (UTM coordinates of 3985611 N, 407051 E; NAD 27; zone 13).



Cross-laminated sand, interpreted to be eolian, in unit Ttmp2. Tangential foresets face east. The sand in this exposure is fine-upper to medium-upper in grain size, very clean, and contains sand grains typical of both lithosomes A and B. Jacob staff is striped in 10 cm increments. Site located 1 km east of El Llano (UTM coordinates of 3985611 N, 407051 E; NAD 27; zone 13).



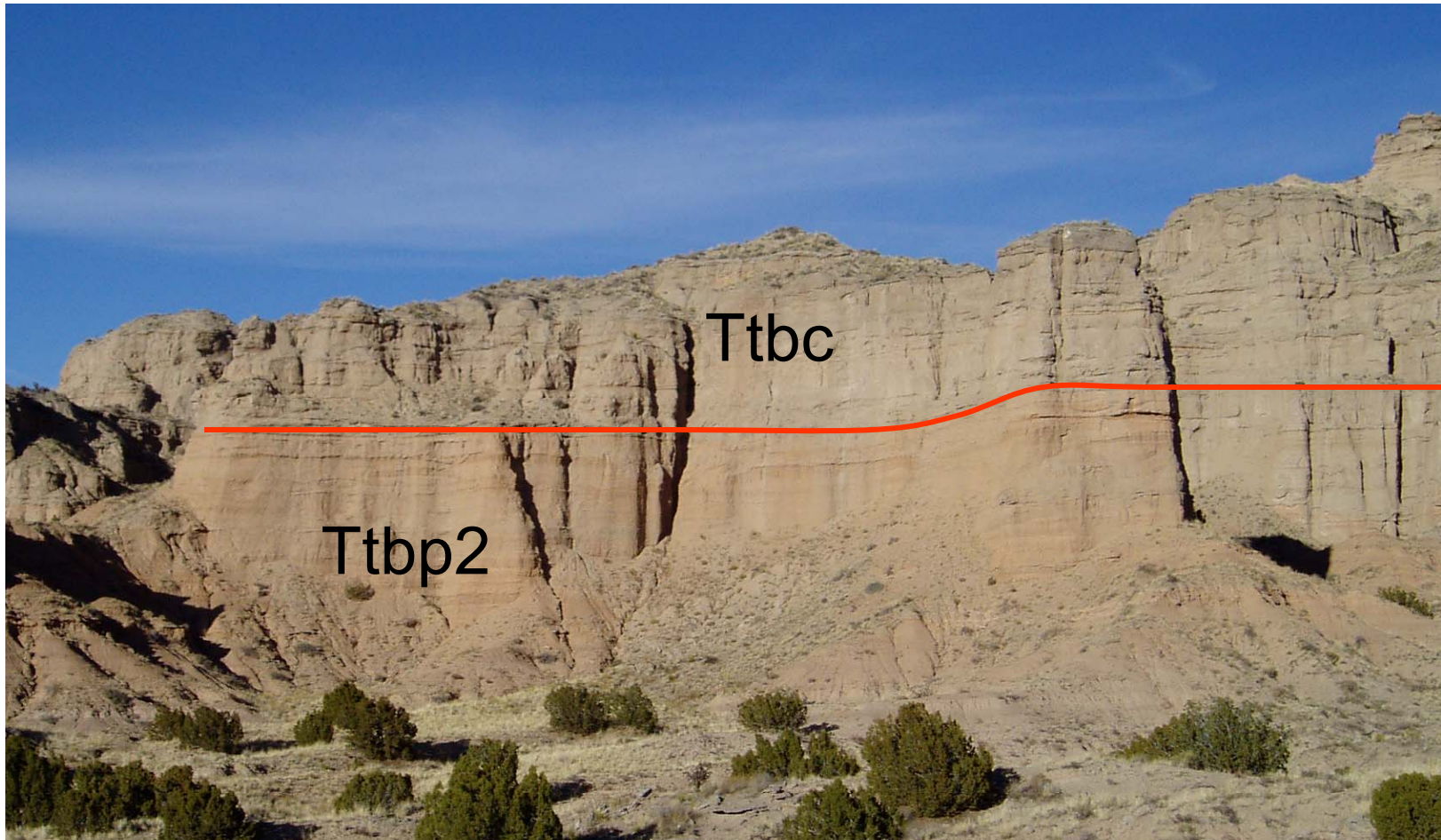
Photo of muddy lithosome B floodplain deposits of unit Ttbp2, with a channel-fill of gray sand outlined in red. View is to north from a site about 2 km east of El Llano (UTM coordinates of: 3985705 N, 407898 E (NAD 27; zone 13)).



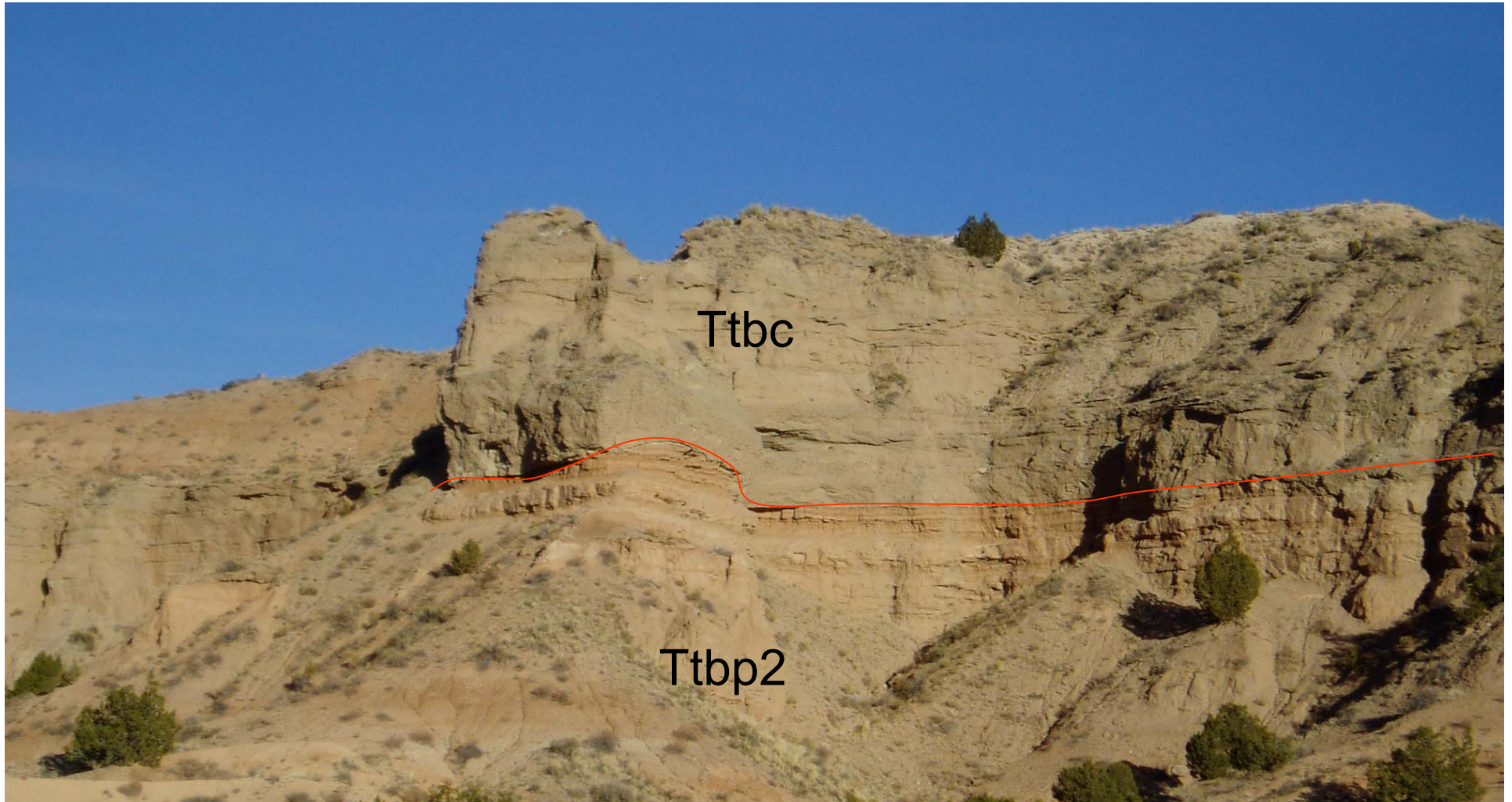
A photo of unit Ttbp2 near the eastern quadrangle boundary at Arroyo de Quarteles. Sediment consists largely of siltstone, claystone, and very fine- to fine-grained sandstone floodplain deposits. One cemented bed of sandy pebble conglomerate is near the center of the photo (UTM coordinates: 39896178 N, 410067 E; NAD 27; zone 13).



Conglomerate bed in upper part of unit Ttbp2, where clast sizes are generally larger than lower lithosome B strata. Clasts are subrounded to rounded, poorly sorted, and consist of greenish-grayish Paleozoic limestone, sandstone, and siltstone, with approximately 10-15% Proterozoic quartzite and less than 3% granite. Photo taken at site with UTM coordinates of: 3986659 N, 407936 E; NAD 27, zone 13.



Planar, sharp contact between the Cejita Member and underlying, finer-grained lithosome B of the Tesuque Formation. Photo taken 1-2 km east of El Llano, view is to north (UTM coordinates of 3987191 N, 405368 E; NAD 27; zone 13).



Another photo of the basal Cejita contact 1-2 km east of El Llano (UTM coordinates of site: 3985946 N, 407762 D; NAD 27; zone 13). Here, the basal contact is slightly scoured.





Coarse channel deposits of the Cejita Member; these are very thin to thin, planar-bedded and cross-stratified. To the left of the staff (1.5 m-tall) are 0.5-1.5 m blocks of clayey floodplain sediment; this clayey sediment was tilted and deformed by discharge that deposited the Cejita Member. Such large-scale soft-sediment deformation is generally not observed in Pojoaque Member strata.



Very pale brown, cross-laminated Ojo Caliente Sandstone. The two orange lines parallel vague foresets that dip to the east. Photo taken 70 m west of the quadrangle boundary (UTM coordinates 3985460 N, 398560 E; NAD 27; zone 13). Jacob staff is striped in increments of 10 cm.



Typical outcrops of the coarse, upper lithosome A unit (Ttacu). Photo is looking northeastward from near the eastern quadrangle boundary (UTM coordinates: 3988114 N, 409890 E; NAD 27; zone 13). Ttacu is not as well consolidated here as in the central Chimayo quadrangle to the east, and generally erodes to form low hills such as that in this photograph. A medium bed of coarse white ash is present in the foreground, indicating an interpreted age of 12.0-12.8 Ma for these strata.



A coarse channel-fill of pebbly sandstone underlain by reddish yellow to light brown, finer-grained extra-channel sediment. This channel-fill is located near the center of the previous photograph.



Example of gravel composition in the coarse, upper lithosome A unit. Clasts are mostly granite with minor quartzite.



Photo of Black Mesa, looking northwest from a site 1-2 km east of El Llano. Note how the basalt that caps Black Mesa is deformed. Shown in red is a prominent strand of the Santa Clara fault, which is down-to-the-east and probably has a left-lateral component of slip.

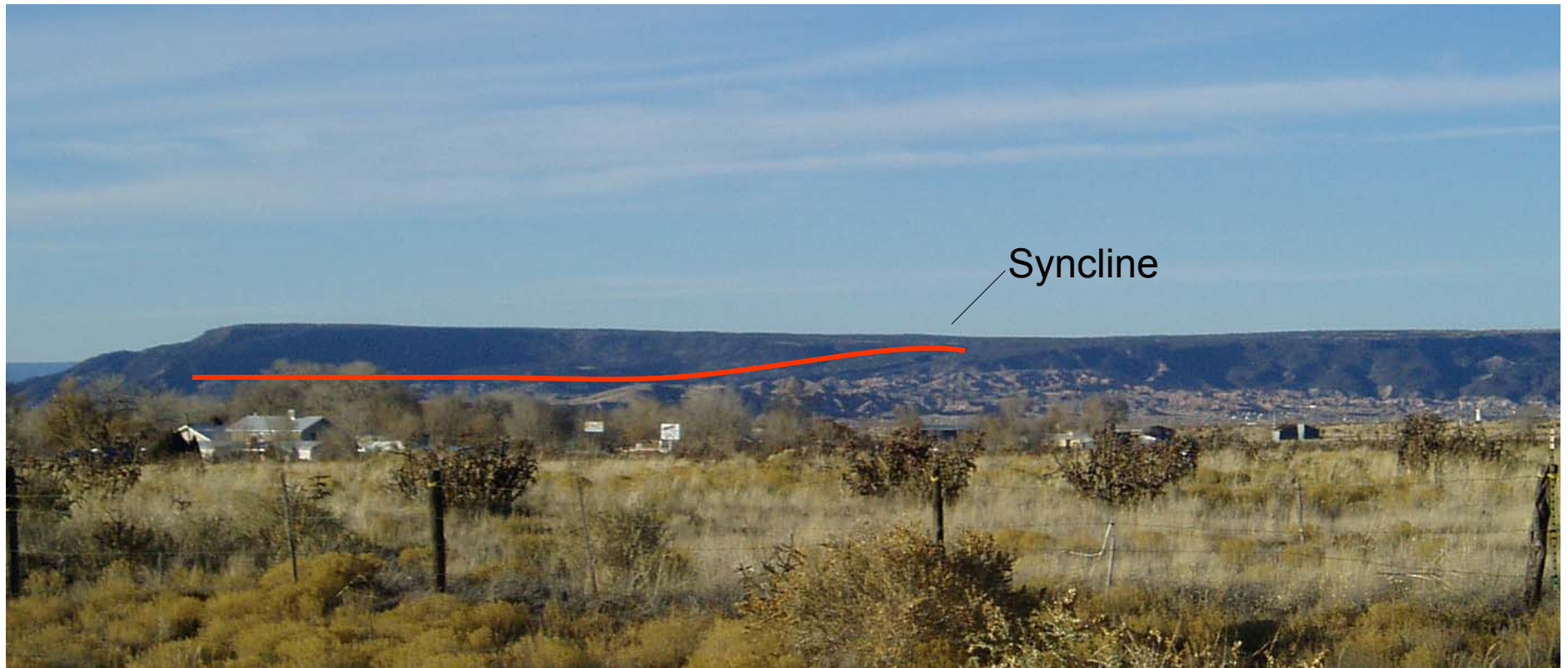


Photo of Black Mesa, looking northwest from a site 1-2 km east of El Llano. Note how the basalt that caps Black Mesa is deformed into an approximate syncline. Shown in red is a prominent strand of the Santa Clara fault, which is down-to-the-east and may have a left-lateral component of slip as well.



Another view of Black Mesa (in background) showing an irregular upper surface formed by tectonic deformation in the Pliocene-Pleistocene. In foreground are terrace deposits of unit Qtcg1. View is looking north from near the southwestern corner of the quadrangle.