

## DEEP CANYON TRENCH (PLATE 1C), WELLSVILLE FAULT

- UNIT 1      **ALLUVIAL-FAN DEPOSIT** (*matrix supported*) - Sandy lean clay with gravel (CL); light yellowish brown (10YR 6/4); maximum clast size 30 cm, clasts angular to subrounded; medium toughness; no to slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; upper contact sharp to gradational.
- UNIT 2      **ALLUVIAL-FAN DEPOSIT** (*matrix supported*) - Sandy elastic silt (MH); brownish yellow (10YR 6/6); 10 percent gravel, 30 percent sand, 60 percent fines; maximum clast size 18 cm, clasts subangular to subrounded; low toughness; no to slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; upper contact gradational; contains charcoal near base of unit.
- UNIT 3      **ALLUVIAL-FAN DEPOSIT** (*matrix supported*) - Clayey gravel with sand (GC) to gravelly lean clay with sand (CL); yellow (10YR 7/6); 40 percent gravel, 20 percent sand, 40 percent fines; maximum clast size 28 cm, clasts subangular to subrounded; medium toughness; no to slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; upper contact gradational to indistinct.
- UNIT 4 (a and b)      **FAULT-ZONE MATERIAL AND FAULT-SCARP COLLUVIUM**
- 4a      *Fissure Fill* - Clayey gravel with sand (GC); brownish yellow (10YR 6/6); 40 percent gravel, 30 percent sand, 30 percent fines; maximum clast size 24 cm, clasts subangular to subrounded; medium toughness; no to slow dilatancy; medium dry strength; nonstratified, some vertical clast-alignment fabric; no reaction to HCl; upper contact gradational.
- 4b      *Colluvial Wedge* - Sandy lean clay with gravel (CL); very pale brown (10YR 7/4); 25 percent gravel, 35 percent sand, 40 percent fines; maximum clast size 19 cm, clasts subangular to subrounded; medium toughness; no to slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; upper contact sharp in hanging wall, gradational in footwall.
- UNIT 5      **ALLUVIAL-FAN DEPOSIT** (*matrix supported*) - Gravelly elastic silt with sand (MH); very pale brown (10YR 8/3); 40 percent gravel, 15 percent sand, 45 percent fines; maximum clast size 25 cm, clasts subangular to subrounded; medium toughness; slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; upper contact sharp; paleosol S1 formed on top of unit but mostly removed by scarp erosion.
- UNIT 6      **LOESS** - Elastic silt (MH); very pale brown (10YR 8/4); 5 percent gravel, 5

*percent sand, 90 percent fines; maximum clast size 7 cm, clasts subrounded; low toughness; slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; paleosol S1 formed on top of unit; not evident in footwall.*

- PALEOSOL S1**      **SOIL A HORIZON FORMED ON UNITS 5 AND 6** - *Elastic silt (MH); brown (10YR 3/3); 5 percent gravel, 5 percent sand, 90 percent fines; maximum clast size 7 cm, clasts subrounded; low toughness; slow dilatancy; medium dry strength; nonstratified; no reaction to HCl; upper contact gradational; organic rich, few roots.*
- UNIT 7**            **COLLUVIAL WEDGE** - *Sandy silt (ML); dark grayish brown (10YR 4/2); 10 percent gravel, 40 percent sand, 50 percent fines; maximum clast size 28 cm, clasts subangular to subrounded; low toughness; slow to rapid dilatancy; no to low dry strength; nonstratified, but fining eastward; no reaction to HCl; upper contact gradational; organic rich, few roots and animal burrows; most clasts oriented along the degraded-scarp free face.*
- UNIT 8**            **SLOPE COLLUVIUM** - *Silty sand (SM); dark grayish brown (10YR 4/2); 10 percent gravel, 50 percent sand, 40 percent fines; maximum clast size 15 cm, clasts subangular to subrounded; low toughness; slow to rapid dilatancy; low dry strength; nonstratified; no reaction to HCl; organic rich, abundant roots and few animal burrows; soil S2 formed on top of unit.*
- SOIL S2**            **SOIL A HORIZON FORMING ON UNIT 8** - *Silty sand (SM); dark grayish brown (10YR 4/2); 10 percent gravel, 50 percent sand, 40 percent fines; maximum clast size 15 cm, clasts subangular to subrounded; low toughness; slow to rapid dilatancy; low dry strength; nonstratified; no reaction to HCl; organic rich, abundant roots and few animal burrows.*