UNIT DESCRIPTIONS:

Unit 1 BONNEVILLE LAKE DEPOSITS

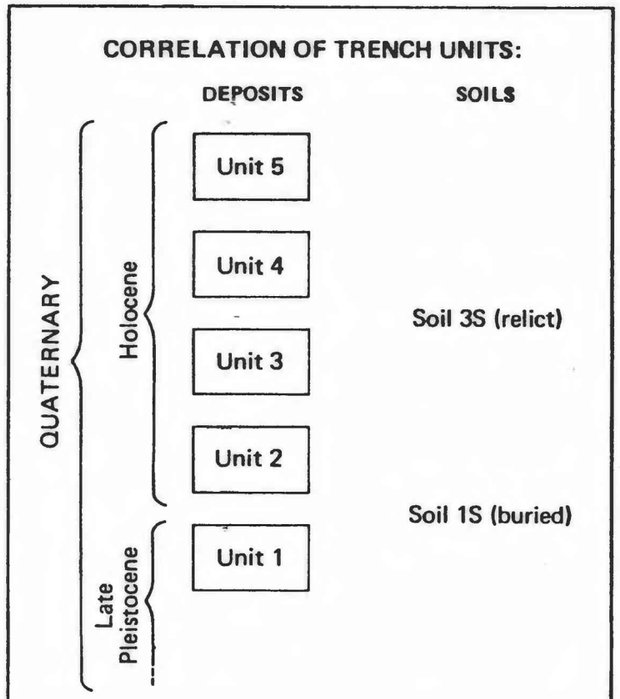
(1S) **Post-Bonneville soil** — light brownish gray to light yellowish brown (2.5 YR 6/3, moist) silt; massive; calcareous.

(1a) Interbedded fine to coarse sand, gravelly sand and sandy gravel; light gray to light brownish gray (10 YR 6.5/2, dry) brown and dark grayish brown (10 YR 5/3 and 10 YR 4/2, moist); well stratified and bedded; beds range in thickness from less than 1 cm to 10 cm; gravel clasts are subrounded and rounded; gravel clasts are generally less than 2 cm, pebbles up to 3 to 4 cm common; fine-grained horizons are weakly cemented by calcium carbonate; gravel horizons are generally loose.

(1b) Grayish brown (2.5 YR 5/2, moist) and light olive brown (2.5 YR 5/4, moist) silt; finely laminated, individual lamina are generally less than 1 mm thick.

(1c) Silty clay; finely laminated; bedding disrupted, in places, and tilted 5 degrees to the west; calcareous.

CORRELATION OF TRENCH UNITS:



Unit 2 ALLUVIAL FAN DEPOSITS

(2a) Yellowish brown to dark yellowish brown (10 YR 4.5/4, moist) silty fine sand and minor clay; upper 10 to 20 cm contains approximately 10 percent pebbles and cobbles, maximum size 10 cm; massive; upper 15 cm contains some organic material and is dark brown (10 YR 3.5/3, moist) in color.

(2b) Dark brown (10 YR 3/3, moist) gravelly sand; poorly sorted, unstratified; contains 5 to 20 percent subangular and some subrounded pebbles and cobbles, mode less than 2 cm, maximum size 20 cm; massive.

Unit 3 GRABEN-FILL DEPOSITS

Interbedded sequence of sandy silt, gravelly sandy silt, and silty sand; contains minor discontinuous lenses of pebbly sand and gravel. These deposits are subdivided into the following units:

A horizon of soil developed on unit 3 (formed on upper 50 to 100 cm of unit 3, not shown everywhere) —

(3S) Very dark gray (10 YR 3/1, moist) pebbly sandy silt; massive to weakly developed coarse blocky structure; numerous fine roots: upper 20 to 30 cm may be disturbed by plowing; gradational lower soil boundary.

(3a) Dark brown (10 YR 3/3, moist) pebbly fine sandy silt, silty fine sand, coarse sand, and pebble to cobble sand; massive; unstratified, lenticular bedding poorly developed in places. Upper 1.5 m contains 5 to 10 percent subangular pebble- to cobble-size clasts; mode less than 2 cm, maximum size 10 cm; gravel content decreases to less than 2 percent towards bottom of unit. Minor disseminated charcoal fragments occur in the lower part of the unit.

(3b) Interbedded sequence of brown to dark yellowish brown (10 YR 4/3.5, moist) silty fine sand, pebbly medium to coarse sand, and pebble to cobble gravel; gravel clasts are generally subrounded to subangular; bedding is poorly to well developed. In places poorly developed buried A horizons of soils are preserved; some of which can be followed laterally for several meters (see markers mh_3 and mh_4).

(3c) Dark brown (10 YR 3/3, moist) gravelly sandy silt; contains 5 to 10 percent subangular and a few subrounded pebbles, maximum size 10 cm, mode less than 1 cm, 2 to 3 cm clasts common; some fine rootlets in upper part of unit.

(3d) Dark brown (10 YR 3/3, moist) interbedded sandy silt, silty sand, pebbly sand, and pebble-cobble gravel; generally coarsens to east; lenticular bedding, moderate to well bedded bedded; beds vary in thickness from 2 to 20 cm.

(3e) Dark yellowish brown (10 YR 4/4, moist) clayey silt and minor coarse sand; locally contains discontinuous sandy silt lenses; massive.

(3f) Interbedded silty fine sand, pebbly sand, and sandy fine gravel; beds are generally discontinuous and less than 5 cm thick.

(3g) Similar to 3c, except contains less pebbles (approximately 1 to 2 percent) and less organic material; pebble content increases slightly to the east.

(3h) Dark brown (10 YR 3/3, moist) fine sandy silt; minor small pebbles, coarse sand, and discontinuous pebbly sand lenses; pebbles generally less than 2 to 5 mm in diameter; less than 1 percent $CaCO_3$ occurs along root tubules; some fine rootlets.

(3i) Very dark gray (10 YR 3/1, moist) pebbly sandy silt; contains 5 to 10 percent subangular to subrounded pebbles; maximum size 1 cm; mode less than 3 mm; micaceous; massive; organic staining; fine rootlets, some animal burrows.

Unit 4 SCARP-DERIVED COLLUVIUM

Dark brown to dark yellowish brown (10 YR 4/3.5, moist) pebbly silty sand derived primarily from units 2a and 2b; contains 15 to 20 percent small (less than 1 cm) subangular to angular clasts and a few pebbles up to 4 cm; massive, poorly sorted.

(4a) **Disturbed zone between units 4 and 5** — zone of mixing; consists primarily of unit 4; numerous burrows; organic material in upper part.

Unit 5 YOUNG SCARP COLLUVIUM

Very dark gray (10 YR 3/1, moist) and very dark grayish brown (10 YR 3/2, moist) pebbly sandy silt; contains 5 percent angular to subangular pebbles; very weakly defined stratification, subparallel to slope where developed; disturbed by numerous animal burrows; some roots and rootlets.

Project No. 14093B	USGS Contract No. 14-08-0001-16827	UNIT DESCRIPTIONS TRENCH LC–1 Little Cottonwood Canyon Site	Figure 7a
Woodward-Clyde Consultants			