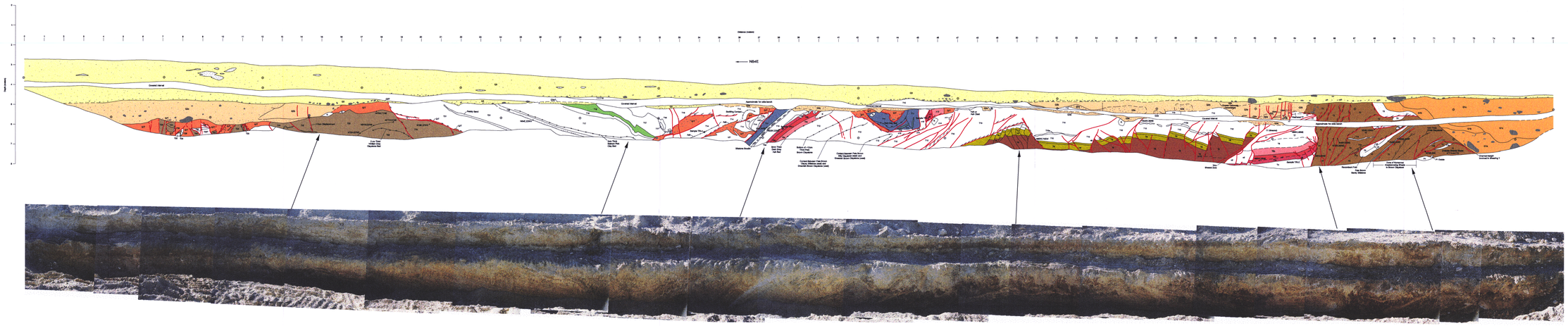


Unit Descriptions:

Quaternary Deposits:

Q3 Post-Provo Sand Ramp
Very pale brown (10YR 7/3,m) fine SAND; well sorted, isolated angular to subrounded clasts from coarse sand to 2 cm ; includes SANDY GRAVEL lenses, mode grain size between 2 mm and 2 cm ; basal cobble and boulder lag gravel , maximum clast size up to 30 cm

Q3a Stansbury Shoreline Facies (Gravel bar)?
SANDY GRAVEL; matrix-supported; rounded to subrounded pebbles and cobbles; mode 2 to 4 cm, maximum size 18 cm; loose; thin carbonate coatings on clast bottoms

Q2a Post Little Valley-Pre Bonneville Sand Ramp
Light yellowish brown (2.5YR 6/4,m) SANDY GRAVEL lenses and lag deposits; subangular to rounded pebble to cobble gravel clasts, maximum clast size 10 cm, mode grain size between 3 mm to 3 cm; Stage II+ carbonate soil development characterized by massive carbonate in matrix

Q2b Post Little Valley-Pre Bonneville Sand Ramp
White (10YR 8/1,m) in upper part and along fractures grading down to very pale brown (10YR 7/3, m) SILTY SAND; scattered subangular coarse sand to pebble-size clasts up to 2 cm, isolated subrounded to rounded clasts up to 5 cm; Stage II+ carbonate cementation in matrix

Q2c Post Little Valley-Pre Bonneville Channel Deposit
Very pale brown (10YR 7/3,m) SANDY GRAVEL; silty fine sand matrix; subangular to rounded pebble to boulder size clasts; maximum size 50 cm, mode <1 cm to 3 cm; poorly sorted; Stage II+ carbonate (1 to 2 mm thick rinds on clast bottoms, thin coatings on tops of clasts, few (1 to 2 %) thin, discontinuous filaments in sandy matrix; rare 4 to 5 mm thick rinds may be on clasts reworked from older gravel deposits

Q1c K Soil Horizon Formed on Pre-Little Valley Alluvium (Channel Deposit) White (10YR 8/1, m) in upper part, pinkish white (5YR 8/2, m) and light gray (5YR 7/2, m) in lower part, SANDY GRAVEL; subangular to subrounded cobble to boulder-size clasts, maximum diameter 50 cm, mode grain size 2 mm to 3 mm; Stage IV carbonate with well developed 0.5 to 1.0 cm thick platey structure throughout unit, well cemented matrix; hard

Q1b Pre-Little Valley Alluvium/Colluvium
Very pale brown (10YR 8/2, m) SILTY SAND; matrix supported, subangular to subrounded clasts in coarse sand and 5 mm fine sand and silt matrix

Q1a Pre-Little Valley Alluvium (Channel Deposit)
Light yellowish brown (10YR6/4, m) SANDY GRAVEL; subangular to subrounded clasts, maximum size 70 cm in diameter, mode pebble to fine gravel; carbonate rinds on clasts range from 1 to 6 mm thick

Quaternary? /Tertiary Deposit:

QT Landslide Debris?
Light gray to very pale brown (10YR 7/2.5, d); GRAVELLY SANDY SILT, ~15 to 20% fine gravel (mode <2 cm); matrix-supported gravel clasts are subangular and subrounded locally-derived dolomite (from Hickman Knolls) and Tertiary siltstone and claystone; massive breaking into small subangular blocky structure; slightly sticky, slightly plastic. The unit is the deeper parts of the trench is massive, hard; moderately thick clay films on pebble clasts. Where the unit is exposed near the Tertiary/Quaternary contact the unit has Stage II carbonate development (1 to 2 mm thick rinds on bottoms of clasts)

Tertiary Units:

T1a White claystone

T1b Pale brown siltstone with light brown claystone interbeds

T2 Brown claystone

T3 Pale brown sandy siltstone

T4 Light brown silty claystone

T5a White volcanic ash

T5b White to light gray reworked ash; cross bedding and graded bedding

T5c Dirty reworked ash; well bedded

T6 Reddish brown interbedded claystone and siltstone

T7 Brown claystone; weathered to pink, green and light brown

T8 Medium brown claystone

T9 Interbedded pale brown siltstone and brown claystone; siltstone beds range in thickness from 3 to 7 cm

T10 Medium brown claystone; weathered to olive gray in upper 30 cm; small subangular blocky structure

T10a Pale brown siltstone

T11 Interbedded thin to medium thick light gray siltstone and thin greenish gray and red claystone

T12 Overturned sequence of interbedded pale brown claystone, silty claystone, and clayey siltstone, and greenish brown claystone; selected contacts shown on log (probably correlative in part with Units T8 and T7)

T13 Pale brown tuffaceous siltstone

T14 Pale brown tuffaceous siltstone; hard, blocky

T15 Grayish green claystone

T16 Green weathered silty claystone; sheared

T17 Pale brown tuffaceous siltstone

T18 Medium brown (green in upper weathered zone) claystone

T19 Interbedded claystone (similiar to T18) and pale brown siltstone

T20 Pebbly sand; fining upward to coarse sand

T21 Pale brown siltstone

T22 Pale brown interbedded siltsone and claystone; siltstone beds range in thickness from 6 to 15 cm

T23 Brown claystone; massive; upper 15 cm is pink to green and brown

T24 Light grayish brown and white claystone

T25 Light brown siltstone; blocky structure

T26 Pale greenish gray to white siltstone

Paleozoic

P1 Dolomite?; weathered, sheared, and broken; includes dark gray blocks adjacent to pale greenish yellow more broken bedrock.

Map Symbols

Lithologic contact: dashed where less distinct or gradational

Faults and Shears

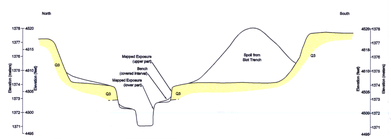
Shear fabric

Krotovina (filled animal burrow)

Volcanic ash (vitric tuff) sample

Notes

n1 Mullion plunge 30°SE
n2 Red clay seam
n3 Intensely sheared T2
n4 Conjugate shear N45E; 75NW
n5 T6; disrupted in fault zone
n6 T5c and T6 disrupted in fault zone
n7 Due to benching of the trench exposures it is difficult to trace individual faults into lower panel. The lower contact of Q2a in the lower part of the trench is displaced, but due to the loose nature of the pea gravel and the lack of a vertical wall in the upper part of the lower panel, amounts of displacement were difficult to measure
n8 Unit is displaced by numerous small (<5 cm vertical displacement) faults not shown on trench log
n9 Pea green secondary crystalline mineralization
n10 Primarily siltstone
n11 Boudin of white claystone
n12 Massive light gray ash
n13 Reworked pale olive ash
n14 Zone of sheared grayish brown claystone and boudins of light gray claystone
n15 Subrounded block of carbonate cemented gravel (Q/T)
n16 Gravel clasts along sheared contact
n17 Sharp, subvertical contact; possible fault contact
n18 Silty sand (reworked ash); hard
n19 Pebbly silty sand; includes large 15 cm long, subrounded boulder clast.
n20 Gravel clasts (Q/T) in green claystone; sheared along fault
n21 Pale brown tuffaceous siltstone and grayish brown claystone; deformed and faulted, contorted bedding; lenses of Q/T gravel along clayey shear zones
n22 Tuffa (?) in sandy gravel



Trench T-1, view looking east

APERTURE CARD

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APERTURE CARD

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MAP OF SOUTH WALL TRENCH T-1
Private Fuel Storage Facility
Skull Valley, Utah

D-2

GEOMATRIX	Project No. 4790	Plate 2

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