EXPLANATION:

SOIL DESCRIPTIONS

Stratigraphic Unit A

A — Silty and Sandy Clay (CL), Clayey and Sandy Silt (ML), Gravelly Sand (SP), Clayey Sand (SC): brown; coarse grained horizons are dense, poorly sorted-poorly graded, angular to subangular, very fine to coarse quartz and lithic fragments, gravel to 2" diameter, fines 12% to 35%. Fine grained horizons: low to medium plasticity, stiff to hard. Horizons are discontinuous both horizontally and vertically, intermediate contacts gradational. Caliche nodules and root casts are abundant.

Stratigraphic Unit B

B — Silty Sand (SM), Gravelly Sand (SP), gray to brown, poorly sorted-poorly graded, angular to subangular, very fine to coarse quartz and lithic sand, 12% to ±25% fines and <10% to ±30% gravel, dry, loose, non to slightly calcareous, locally cross-bedded.

B_1 — Silty Clay-Clayey Silt (CL-ML), Sandy Silt (ML), brown, <10% to ±40% sand, low to medium plasticity, very stiff to hard, slightly to highly calcareous; lenses of silty sand, caliche nodules.

Stratigraphic Unit C

C — Silty and Sandy Clay (CL), Clayey Silt (ML), Clayey Sand (SC), brown to reddish brown, medium plasticity, very stiff, locally calcareous; 12->30 percent fine sand.

C_1 — Caliche; white, dense, hard, discontinuous. Not exposed in Unit 2.

Stratigraphic Unit D

D — Clayey Sand (SC), Silty Sand (SM), Sand and Gravelly Sand (SP-GP), Silts and Clays (ML and CL); brown to red; coarse grained horizons dense, poorly sorted; angular to subangular, very fine to coarse quartz and lithic fragments; cobbles to 10" diameter, fines approximately 12-35%. Fine grained horizons: low to medium plasticity, stiff to hard, thinly interbedded. Horizons discontinuous horizontally and vertically. Locally crossbedded

D_1 — Silty Clay (CL), Clayey Silt (ML); brown, low to medium plasticity, dry to moist, stiff to very stiff.

Stratigraphic Unit E

E — Silty Clay and Clayey Silt; (CL and ML), dark reddish brown, <10% sand, medium to high plasticity, very stiff to hard, non to moderately calcareous, occasional caliche nodules, root casts, dark mineral staining.

E_1 — Clayey Sand (SC), Clayey Sandy Silt (ML); brown to dark reddish brown, low plasticity, moist, stiff to very stiff, non to slightly calcareous; fine quartz and mica sand 15-50%; discontinuous stringers of silty clay.

GEOLOGIC CONTACTS

SOLID; located within 1 inch

LONG DASH; located within 3 inches

SHORT DASH; located within 3-6 inches

HACHURED; located as gradational across 6-12 inches

CONTACT CONCEALED BY ILL

SYMBOLS

△ C – 14 — GEOLOGIC SURVEY CONTROL POINT, Referenced to Arizona State Plne Coordinates

53 — GEOLOGIC MAP AREA; defind by control points

N

SCALE. 1 inch = 20 feet

0 20 40 60 80

Contour Interval 2 feet

Topography by photogrammetic methods from aerial photography; base map supplied by Bechtel Corporation and modified by Fugro, Inc.

Arizona Nuclear Power Project
Palo Verde Nuclear Generating Station
Units 1, 2 & 3

AS GRADED GEOLOGIC MAP
UNIT 1 CATEGORY 1 EXCAVATION
(Sheet 1 of 7)

Figure 22-1

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