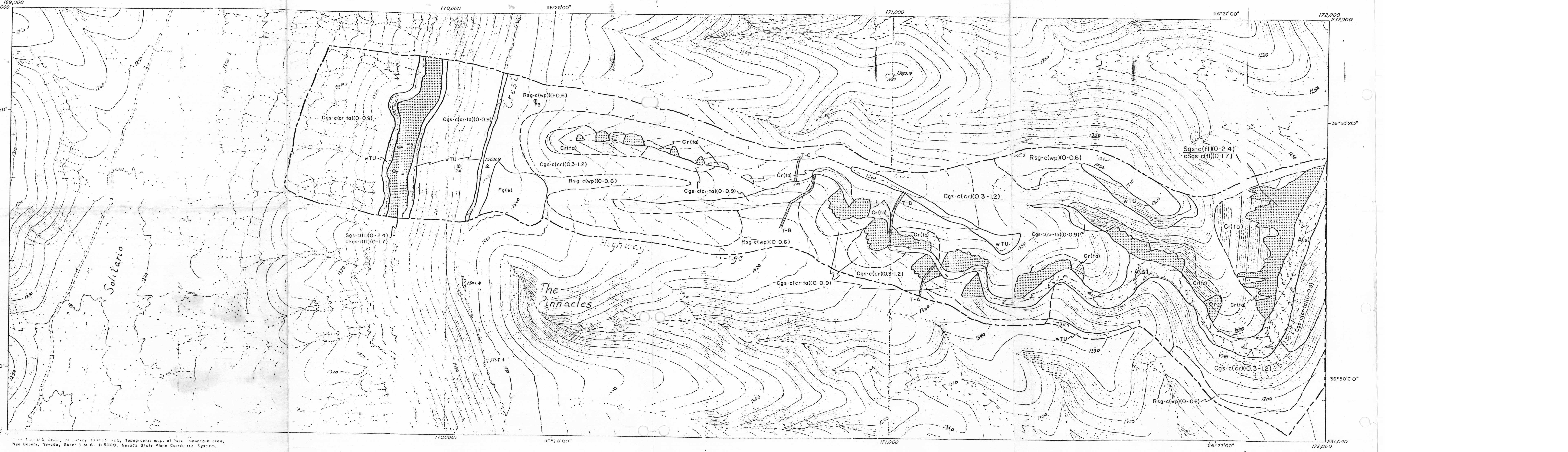

Base from U.S. Geological Survey, OFR 85-620, Topographic maps of Yucca Mountain area, Nye County, Nevada, Sheet 1 of 6. 1:5000. Nevada State Plane Coordinate System.

Field mapping by M.R. Schmidt, 1986

MICHAEL R. SCHMIDT

ER-3351

PLATE 1

Enclosure 3
8.3.1.2.2.1

EXPLANATION

UNCONSOLIDATED MATERIALS

GENERAL SYMBOL e/b(c)(d)

A - Genetic symbol
b - Lithologic symbol
(c) - Qualifier symbol
(d) - Thickness, in meters
e Modifier symbol

GENETIC SYMBOLS

A - Alluvial
C Colluvial
F Fill (constructed)
R - Residual
S - Slide

LITHOLOGIC SYMBOLS

b Boulders
c Clay
g Gravel
r - Rock rubble
s - Sand

QUALIFIER SYMBOLS

(cr) - Creep
(e) - Engineered
(fl) Flow
(s) - Strem deposits
(ta) - Talus
(wp) - Weathering Profile

MODIFIER SYMBOL

c - Cemented

BEDROCK MATERIALS

GENERAL SYMBOL cAA

AA - Rock type symbol
c - Modifier symbol

ROCK TYPE SYMBOL

TU - Tuff

MODIFIER SYMBOL

w - Welded

EXAMPLES

Cgs-c(cr-ta)(0-0.9)
Colluvial deposits composed of gravel in a matrix of sand to clay, forming creep and talus deposits 0.0 to 0.9 meter thick.

Sgs-c(fl)(0-2.4)
cSgs-c(fl)(0-1.7)
Slide deposits composed of gravel in a matrix of sand to clay, deposited as earth flows 0.0 to 2.4 meters thick; underlain by cemented slide deposits composed of gravel in a matrix of sand to clay, deposited as earth flows 0.0 to 1.7 meters thick.

wTU
Welded tuff bedrock exposure.

MAP SYMBOLS

- Map units with statistical results presented in table, this plate.
- Map units not included in statistical results.
- Contacts of map units, dashed where approximate or gradational.
- T-A Approximate location of trench T-A.
- P 2 ⊕ Location of sample pit P2.
- △1508.9 USGS Benchmark, in meters.
- Boundary of study area.

GN MN
0°20' 6 MILS
14½° 258 MILS

SCALE 1:2500

100 50 0 100 200 300 400 500 Meters
300 200 100 0 500 1000 1500 Feet

CONTOUR INTERVAL 2 METERS

PLATE 1

GENESIS-LITHOLOGY-QUALIFIER MAP OF A WASH/RIDGE SYSTEM, YUCCA MOUNTAIN, NEVADA

by
Michael R. Schmidt
1988

STATISTICAL DISTINCTIONS OF SURFICIAL-SOIL PHYSICAL-PROPERTIES *

Gravel Content

Map Unit	Number of Samples	Mean	Distinction
Cgs-c(cr-ta)(0-0.9)	26	50.65	High
Sgs-c(fl)(0-2.4)	28	46.84	High
Cgs-c(cr)(0.3-1.2)	30	46.56	High
Rsg-c(wp)(0-0.6)	20	33.18	Low

Sand Content

Map Unit	Number of Samples	Mean	Distinction
Rsg-c(wp)(0-0.6)	20	63.39	High
Cgs-c(cr)(0.3-1.2)	30	60.60	Ambiguous
Sgs-c(fl)(0-2.4)	28	59.88	Ambiguous
Cgs-c(cr-ta)(0-0.9)	26	58.40	Low

Silt Content

Map Unit	Number of Samples	Mean	Distinction
Cgs-c(cr-ta)(0-0.9)	26	27.52	High
Sgs-c(fl)(0-2.4)	28	25.58	High
Cgs-c(cr)(0.3-1.2)	30	25.32	High
Rsg-c(wp)(0-0.6)	20	19.58	Low

Clay Content

Map Unit	Number of Samples	Mean	Distinction
Rsg-c(wp)(0-0.6)	20	17.03	High
Sgs-c(fl)(0-2.4)	28	14.54	Ambiguous
Cgs-c(cr-ta)(0-0.9)	26	14.08	Low
Cgs-c(cr)(0.3-1.2)	30	14.08	Low

Fine Soil Grain-Size Geometric Standard Deviation

Map Unit	Number of Samples	Mean	Distinction
Rsg-c(wp)(0-0.6)	20	5.83	High
Cgs-c(cr-ta)(0-0.9)	[illegible]	5.57	Ambiguous
Cgs-c(cr)(0.3-1.2)	[illegible]	[illegible]	Low
Sgs-c(fl)(0-2.4)	[illegible]	[illegible]	Low

Map Unit	Number of Samples	Mean	Distinction
Rsg-c(wp)(0-0.6)	7	25.81	High
Cgs-c(cr)(0.3-1.2)	9	25.67	Ambiguous
Cgs-c(cr-ta)(0-0.9)	8	22.60	Ambiguous
Sgs-c(fl)(0-2.4)	8	21.66	Low

Rock Bulk Density

Map Unit	Number of Samples	Mean	Distinction
Sgs-c(fl)(0-2.4)	8	1.94	High
Cgs-c(cr-ta)(0-0.9)	8	1.92	Ambiguous
Cgs-c(cr)(0.3-1.2)	9	1.85	Ambiguous
Rsg-c(wp)(0-0.6)	7	1.78	Low

Cobble Count

Map Unit	Number of Samples	Mean	Distinction
Cgs-c(cr-ta)(0-0.9)	26	22.59	High
Cgs-c(cr)(0.3-1.2)	30	13.87	Low
Sgs-c(fl)(0-2.4)	28	12.72	Low
Rsg-c(wp)(0-0.6)	20	11.35	Low

* Explanation of statistical methods in "Classification of upland soils by geomorphic and physical properties affecting infiltration at Yucca Mountain, Nevada", by Michael R. Schmidt, CSM ER-3351, 1988

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