

OFFICE MEMORANDUM

TO : Vernon J. Stephens, Eng-2

DATE: April 28, 1971

FROM : William D. Purtymun, H-8 *WDP*

SUBJECT: RESULTS OF TEST DRILLING AND PENETRATION TESTS AT AREA "C"

SYMBOL : H8-M-2124

1206
7A 50
Twelve test holes ranging in depth from 5 to 25 feet were drilled in Solid Waste Disposal Area "C", on April 14 and 15, 1971. Enclosed are the results: geologic logs, penetration tests, moisture content of soil, fill, or tuff, and a particle distribution analyses of the soil.

Tests at the 120 SW guy indicated that the location is underlain by a disposal pit, probably the chemical pit. No holes were drilled at the 240N guy, 120N guy or the 120SE guy.

Robert Sandoval, H-1, monitored cuttings from all holes drilled. No radioactive contamination was detected.

Notes:

1. - "N" is equal to the number of blows required to drive a 2-inch outside diameter by 1.375-inch outside diameter standard split spoon sampler through a vertical distance of one foot using a 140 lb. hammer with a free fall of 30 inches.
2. - Penetration count at 6 inch interval.
3. - Natural or existing moisture content of recovered core of soil, fill, or tuff is listed to right of penetration test results. Moisture contents are circled and are in percent moisture by weight.
4. - General description of soil, fill, and tuff

Soil, weathered in place, light brown, containing small crystal fragments of quartz and sanidine, rock fragments of tuff, pumice, latite, and rhyolite generally less than 1-inch in diameter in soil matrix (see particle size distribution).

Fill, reworked material consisting of pebble, cobble to boulder size fragments of tuff in a matrix of soil.



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2.

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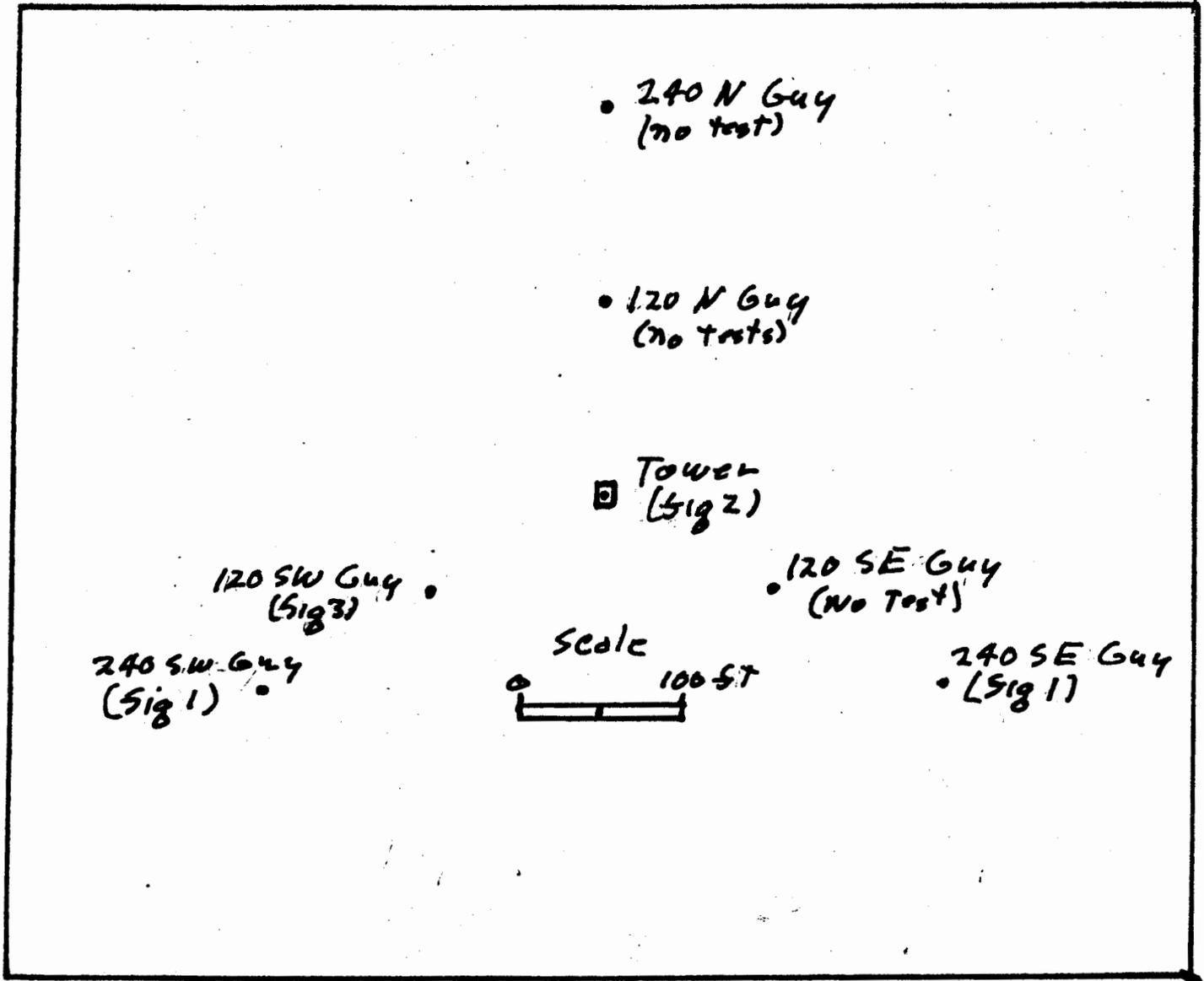
Tuff beneath the soil zone is weathered, consisting of crystal and crystal fragments of quartz and sanidine with small rock fragments of latite, rhyolite and pumice in a light brownish gray ash matrix. Pumice fragments are weathered to a light brown and are less than 1 inch in length. The unweathered tuff at depth (hole C, Fig. 2) same as above except ash matrix and pumice fragments are unweathered; matrix light gray; pumice fragments, dark gray.

5. - Particle size Distribution of Soil

<u>Classification</u>	<u>Particle Diam. mm</u>	<u>Distribution Wt. %</u>
Silt and clay	<0.062	8
Very fine sand	0.062 - 0.125	4
Fine Sand	0.125 - 0.250	7
Medium Sand	0.250 - 0.500	9
Coarse sand	0.500 - 1.00	16
Very coarse sand	1.00 - 2.00	11
Gravel	>2.00	45

WDP:et

cc: Roland Pettitt, Zia Engineering



Lay out of guy and tower
at Area "C"

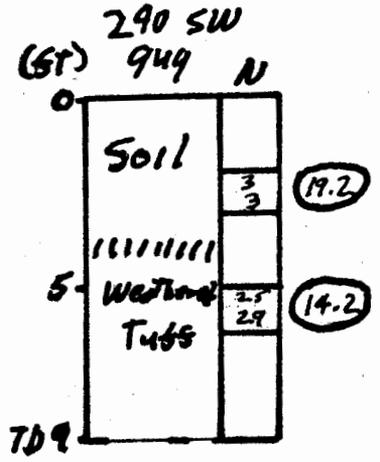
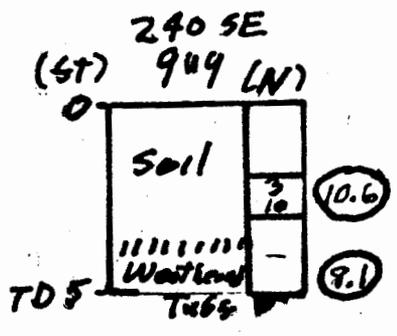
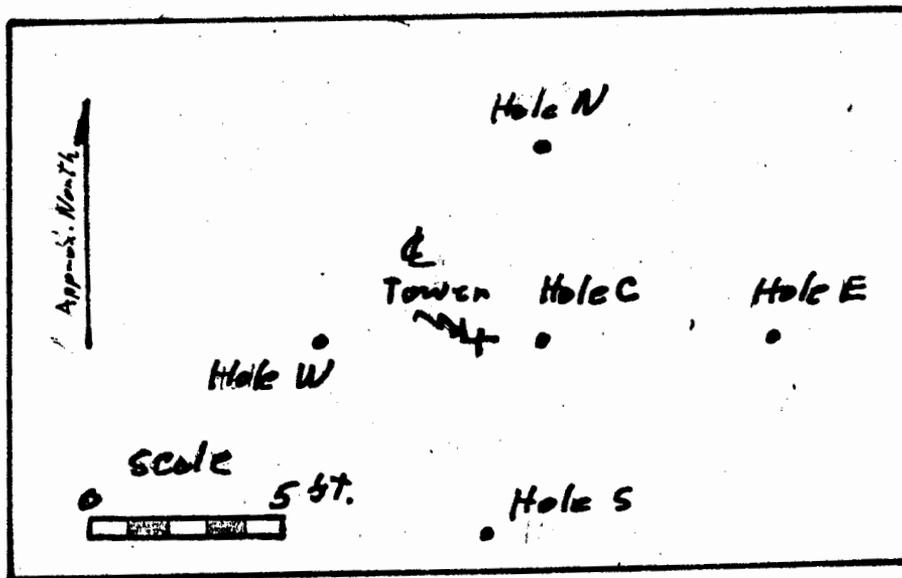
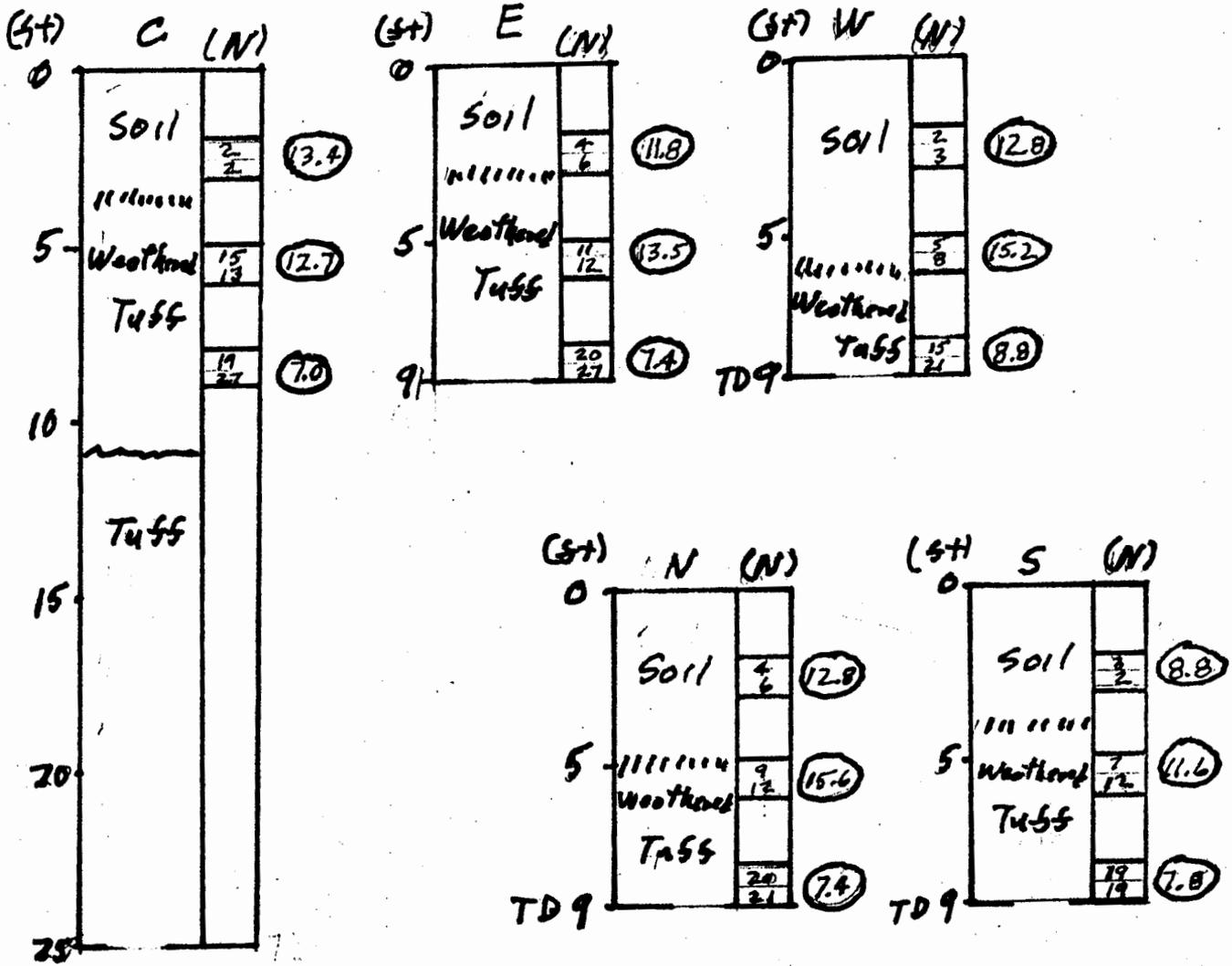
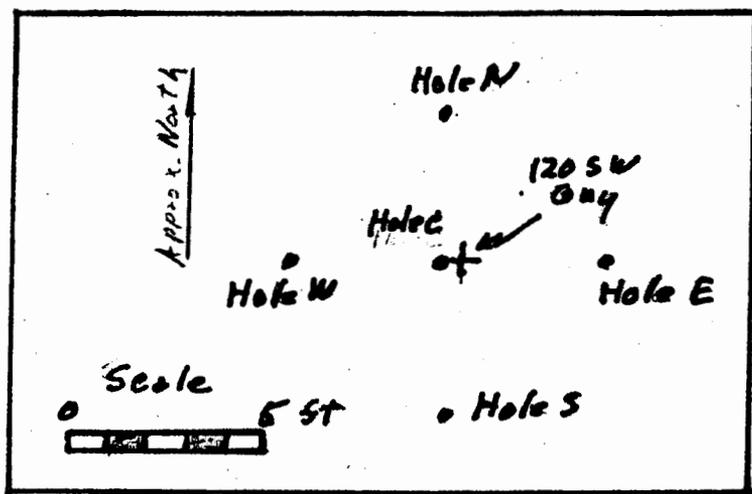
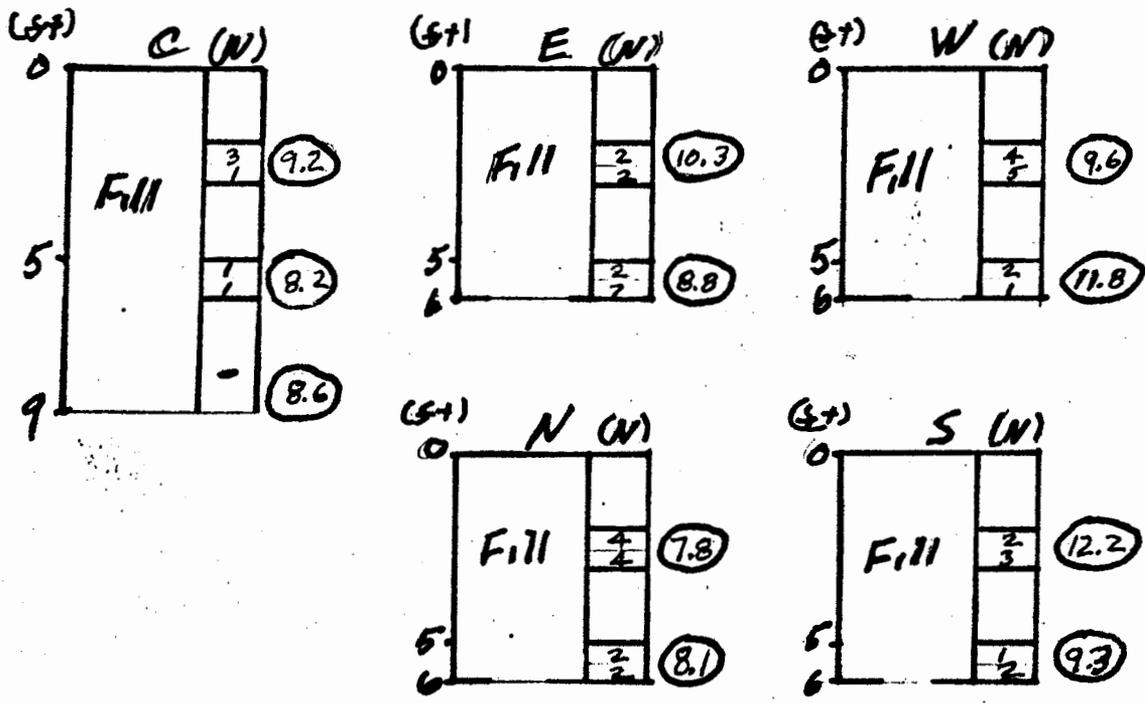


Fig 1. - Details of tests



Planview of Hole at Tower Base

Fig. 2 Details of Tests



Plan view of Holes at 120 SW Guy

Figure 3. - Details of testing