



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Water Resources Division
P. O. Box 4369
Albuquerque, New Mexico 87106

30 June 1969

Mr. William Kennedy
Group Leader, Group H-6
Los Alamos Scientific Laboratory
Los Alamos, New Mexico 87544

Subject: Materials Waste Pit, Area "A", TA-21--excavated April 1969

Dear Bill:

A reconnaissance was made of the waste pit at TA-21 on May 9, 1969. At that time the first layer of waste had been placed in the pit and covered with tuff. The wastes are contaminated material from the facilities that are being renovated at TA-21.

General description

TA-21 is on a eastward-trending "finger-like" mesa, a part of the Pajarito Plateau. The land surface in the immediate area of the pit slopes northward about 100 yards then breaks into a series of benches and steep slopes to the channel of DP Canyon about 100 feet below the top of the mesa. The pit was excavated in a near east-west direction leaving steep ramps on each end (figure 1). The excavated tuff was piled over two sealed solid disposal pits (see LASL Eng. Drawing 6250). An access road to the bottom of the pit was cut along the south wall.

Parts of the north and south walls are nearly vertical with the remainder sloping at about 1 to 5. The walls at present are stable, though several small blocks were dislodged during construction.

General Geology and hydrology

The pit is excavated in Unit 3 of the Tshirege Member of the Bandelier Tuff (figures 2 and 3). Total thickness of the unit is about 120 feet with the lower part consisting of a nonwelded tuff grading up into a moderately welded tuff which form the upper part of the mesa. The pit is completed in the moderately welded tuff. The soil cover exposed by excavation ranges from 2 to 5 feet in thickness.



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TA-21

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Consideration is given to the preceding paragraph, the pit is acceptable for disposal of solid wastes as outlined in guidelines set up by the University and Geological Survey (letter to S. E. Russo, Eng. 3, from F. C. Koopman, USGS, June 30, 1965). Please contact us if we can be of further assistance.

Sincerely yours,

For: William E. Hale
District Chief

Prepared by
W. D. Purtymun

Enclosures 4

Copy to:

George Hilton, AEC, Los Alamos
Jim Desilits, Eng. 2, LASL, Los Alamos
Dean Meyers, H-1, LASL, Los Alamos

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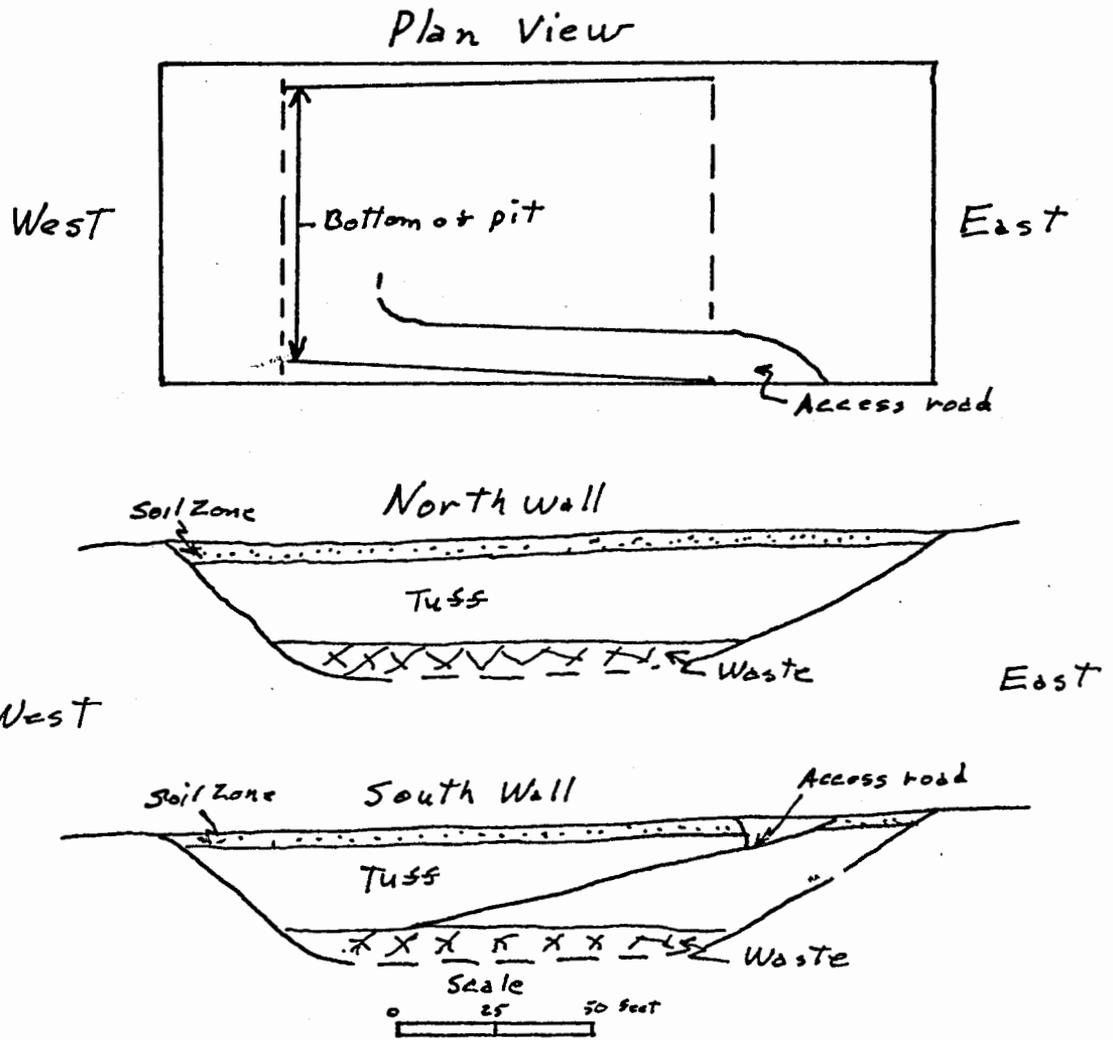


Figure 1.- Sketch of pit showing plan view and North and south walls

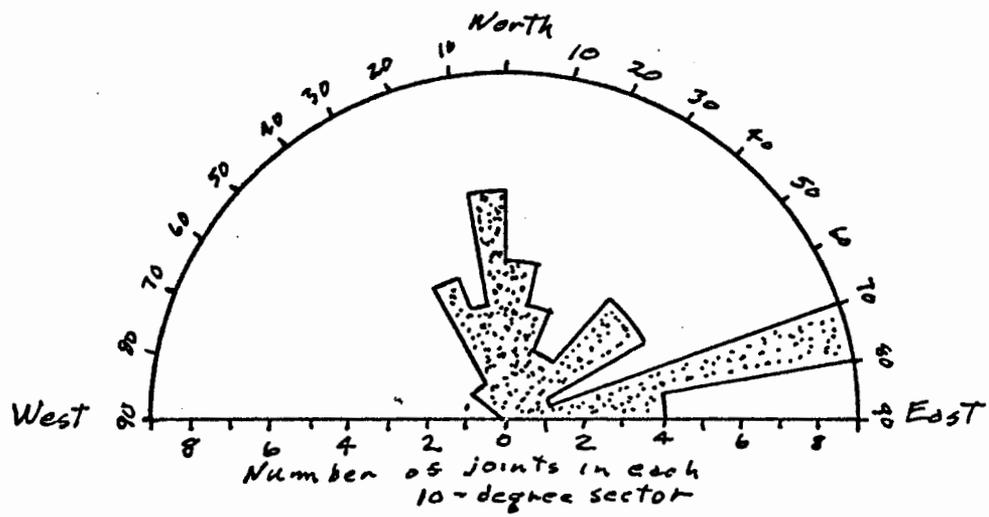


Figure 4.- Orientation of joints in North and South walls of pit