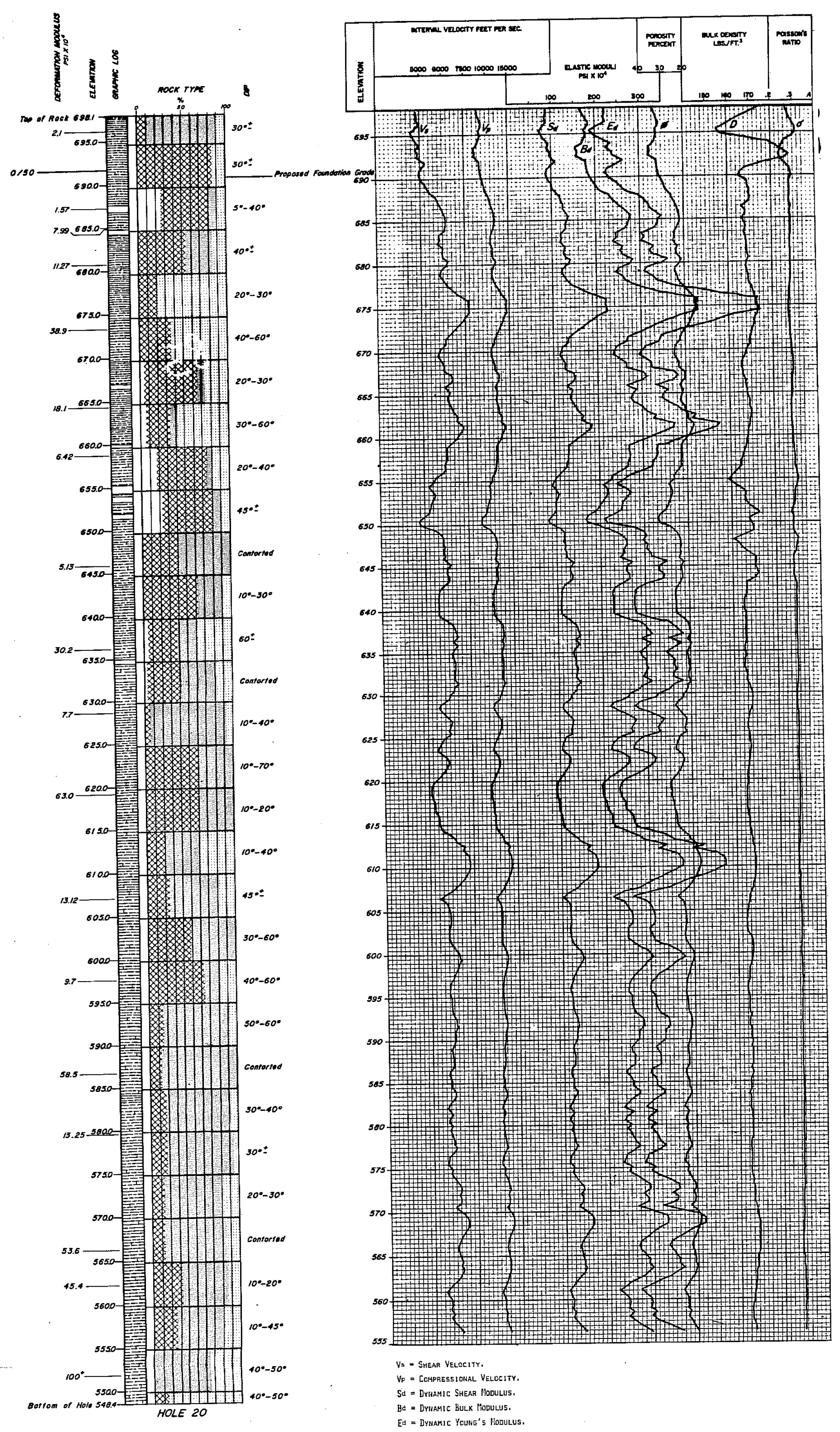


V_s = Shear Velocity.

V_p = Compressional Velocity.

S_d = Dynamic Shear Modulus.

B_d = Dynamic Bulk Modulus.

E_d = Dynamic Young's Modulus.

ϕ = Porosity.

D = Density.

σ = Poisson's Ratio.

LEGEND:

GRAPHIC LOG

0/50 Water Test Packer set showing gal per min/psi

Core Loss

General Rock Description

The foundation rock is composed of the Conasauga Formation. This formation consists of contorted gray-green shales interbedded with lenses of limestones.

ROCK TYPE
Given graphically in % and showing ranges of test values for deformation modulus. (psi x 10⁴)

☐ Type 0 - Core loss.

▨ Type 1 - Soft shale. 1 to 10

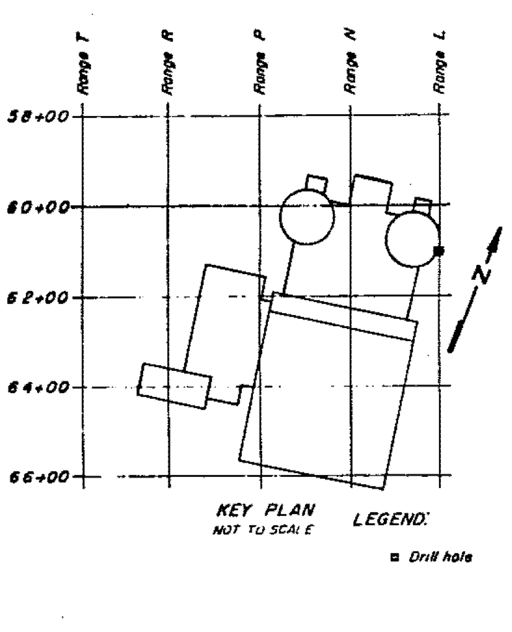
☐ Type 2 - Hard shale. 5 to 60

☐ Type 3 - Limestone. 100+

These types were identified from visual inspection of the core. Generally, determinations were made for each five foot length of core in the box.

NOTES:

1. The hole was drilled with an Nx wire line core drill.
2. The drill hole was inspected with a borehole television camera between elevations 698.1 and 619.7. The inspection showed the core loss areas to be soft shale.
3. The deformation modulus is defined as the in-situ secant modulus including both elastic and plastic deformation as determined from the results of the Menard pressuremeter tests.
4. The borehole survey for the dynamic elastic moduli was made by the Birdwell Division of Seismograph Service Corporation.



KEY PLAN
NOT TO SCALE

LEGEND:
▪ Drill hole

WATTS BAR NUCLEAR PLANT
FINAL SAFETY
ANALYSIS REPORT

GRAPHIC LOG AND
ELASTIC MODULI
STA. L-61+00

Figure 2.5-71