Open-file report
75-410

TABLE 4 -- LOG OF DRILL HOLE U8a4

Location: N. 884,356; E. 665,733

Surface elevation: 4,613.3

Date drilled: 1/6/66-3/20/66

Date compiled: 5/2/66

Logged by: H. W. Dodge, Jr., W. J. Carr, and C. H. Miller

EXPLANATION

Ash-flow tuff
Spacing of lines indicates degree of welding. Solid lines indicate vitric (glassy) zones, dashed lines devitrified zones. Solid black indicates vitrophyre (densely welded glass)

Bedded tuff, vitric

Bedded tuff or tuffaceous sedimentary rocks

Volcanic breccia or lithic-rich tuff

Silicic lava

Colluvium-alluvium

Limestone

Dolomite

Shale

Quartzite

Highly fractured rock

	Relative[1] strength of rock	Field estimate of unconfined compressive strength (psi)	Examples of rock types
1	Very weak	< 5,000	Friable to very friable bedded tuff and alluvium
2	Weak	5,000-10,000	Altered bedded tuff, compacted non-welded tuff, indurated alluvium
3	Intermediate	10,000-15,000	Moderately to slightly welded tuff, indurated bedded tuff
4	Strong	15,000-25,000	Densely welded tuff, vitrophyre
5	Very strong	>25,000	Dense basalt, fresh granite, Paleozoic carbonate rocks, quartzite

CORES

Conventional core taken from depth of to feet; -foot recovery.

Sidewall core taken at depth of feet.

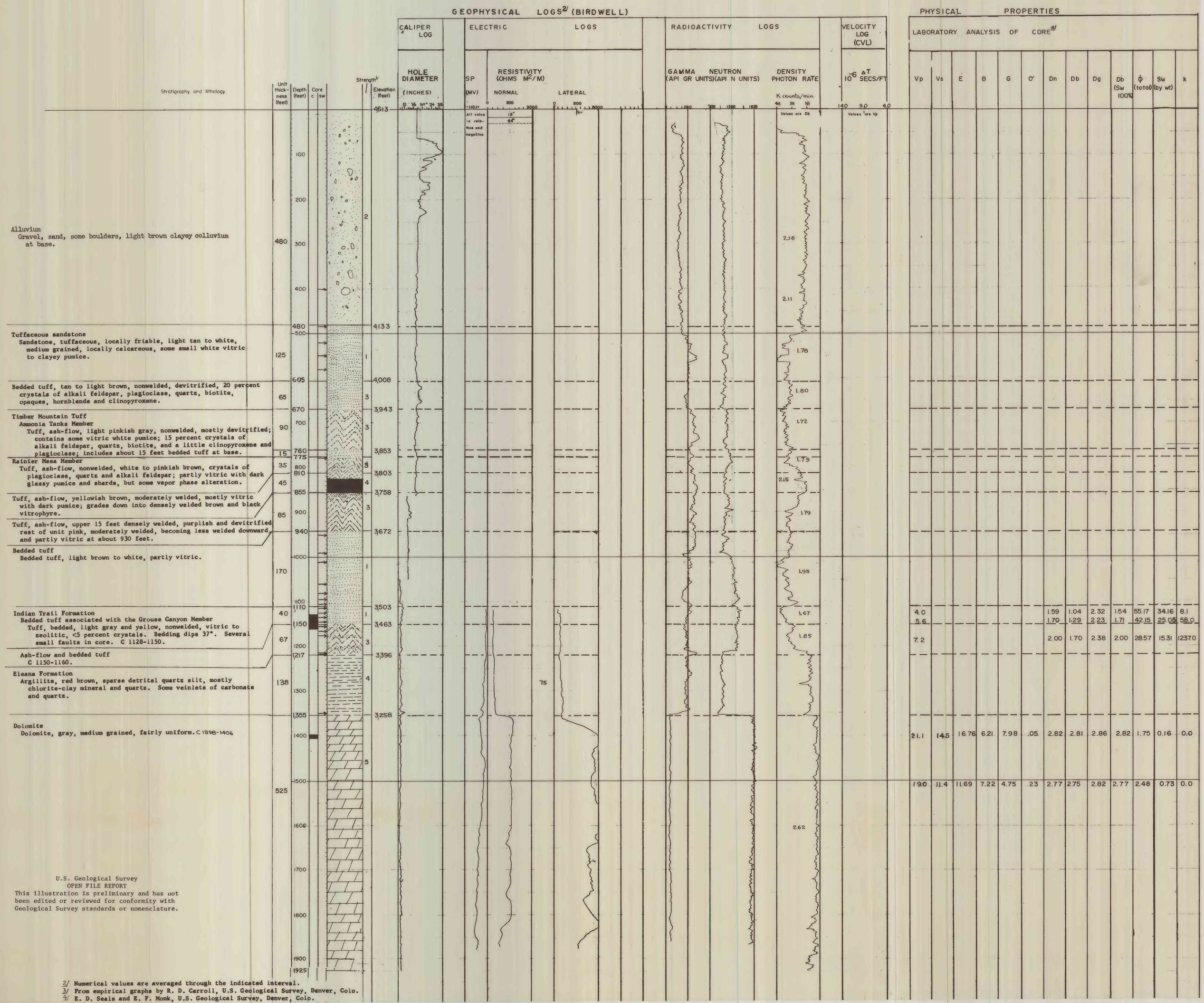
CHART SYMBOLS

Density (g /cc)
- Db-- Bulk
- Dg-- Grain
- Dn-- Natural State

Velocity (KFPS)
- Vp-- P-wave
- Vs-- Shearwave
- ΔT-- Travel time (10^6 sec/ft)
- CVL--Continuous velocity log
- 3-DVL--Three-dimensional velocity log
- Db x V--Acoustic impedence (g /cc x K- feet/sec)

ϕ Porosity (%)
- SW-- Saturation water (%)
- K-- Magnetic susceptibility (x 10^6 cgs units)

Elastic Constants (10^6 psi)
- E-- Young's Modulus
- B-- Bulk modulus
- G-- Shear modulus
- σ-- Poisson's ratio



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This illustration is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.

2/ Numerical values are averaged through the indicated interval.
3/ From empirical graphs by R. D. Carroll, U.S. Geological Survey, Denver, Colo.
4/ E. D. Seals and E. F. Monk, U.S. Geological Survey, Denver, Colo.