

- DESCRIPTION OF MAP UNITS**
- Qs SURFICIAL DEPOSITS (HOLOCENE AND PLEISTOCENE)--Chiefly sand and gravel of floodplain and terrace deposits along principal streams; also includes alluvial fan deposits at mouths of streams that enter the major valleys.
 - Ql LANDSLIDE, EARTHFLOW, AND RELATED DEPOSITS (HOLOCENE AND PLEISTOCENE)--Only larger examples shown.
 - Qm LANDSLIDE DEPOSITS AND MORAINES (HOLOCENE AND PLEISTOCENE)--Area around Calamity Meadows in the Cuddy Mountains may be underlain by a complex of marginal material and landslide debris as suggested by aerial photographs.
 - Qos OLDER SURFICIAL DEPOSITS (PLEISTOCENE)--Sand and gravel of older erosion surfaces separated by scarp from lower-lying surfaces of Qs. Distinguished only in Indian Valley; an occurrence questionably assigned to this unit occurs in a strip along Highway 95 beginning about 7 mi (11.2 km) east of Cambridge.
 - Qp PAVEMENT GRAVEL (PLEISTOCENE)--Relict pediment gravel mantle that overlies Ts near southeast corner of map. The remnant within the map area is northward extension of much larger gravel-mantled area south of map area.
 - Basaltic andesite(?) cinder cone and related lava flows (MIOCENE)--Interstratified with sedimentary rocks (Ts).
 - Ts Lava flows--Dark-gray nonporous to light-gray dike-taxitic basaltic andesite(?) with prominent olivine phenocrysts; resembles rock of dike exposed about 22 mi (35 km) to the southwest that has been chemically analyzed and that has a K-Ar age of 10.0±0.6 m.y. (McIntyre, 1976, Table 1, analysis H).
 - Tl Dikes of basaltic andesite(?) within cinder cone--Rock indistinguishable from that of adjacent nonporous lava flows.
 - Tp Pyroclastic rocks of cinder cone--Crudely layered grayish-brown and yellowish-brown altered fine tuff with abundant subrounded basaltic andesite(?) scoria.
 - Ts SEDIMENTARY ROCKS (MIOCENE)--Chiefly arkosic sandstone with variable amounts of coarser and finer material. Gravel more common toward the northeast; outcrops near Meas contain beds of cobble and boulder gravel with clasts of basaltic rock foliated granitic rocks, and light-gray feldspar porphyry. Gravel lenses locally present near Monday Gulch and along west shore of Ben Ross Reservoir; some were noted farther southwest. Silica cementation, a common feature of this unit in the Weiser area (McIntyre, 1976), is not present in this area.

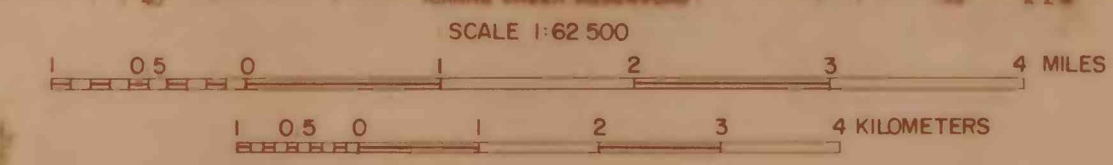
- Tl LAVA FLOWS (MIOCENE)--Chiefly lava flows and interflow breccia zones of basaltic aspect. Unit contains basalt of Columbia River Group; may also contain andesitic or other more albitic rocks of unknown provenance. Also included are minor silt- and clay-rich sedimentary units interstratified with lava flows; two prominent occurrences are west of the dam that impounds Ben Ross Reservoir and on south-facing slopes in NW 1/4 sec. 29, T. 13 N., R. 1 W. Contact with Tl in Cuddy Mountains modified from King (1971).
- Tp RHYOLITE DIKES (EOCENE)--Aphanitic rocks with phenocrysts of quartz, alkali feldspar, plagioclase, and biotite; dikes cut pre-Tertiary rocks on south flank of Cuddy Mountains. Dikes first noted by King (1971), who believed them to be related to emplacement of the Cretaceous Idaho Batholith. A welded ash-flow tuff exposed in Long Gulch, believed by King (1971) to be genetically related to the dikes, has yielded an Eocene K-Ar age (47.7±4 m.y.; Armstrong, 1975, p. 23), which raises the possibility that the dikes, too, are Eocene. The dike distribution suggested by aerial photographs differs somewhat from that of King (1971).
- pT PRE-TERTIARY CRYSTALLINE ROCKS (TRIASSIC)--Exposed on south flank of the Cuddy Mountains; includes gabbro, quartz diorite, and porphyritic granodiorite that are mapped separately and described in detail by King (1971), who notes that the K-Ar ages for similar intrusive rocks elsewhere in the Cuddy Mountains cluster around 200 m.y. Contact with Tl in Cuddy Mountains modified from King (1971).

REFERENCES

Armstrong, R. L., 1975, The geochronometry of Idaho: *Ischron/West*, no. 14, p. 1-30.
 King, J. R., 1971, The geology of the southeastern Cuddy Mountain district, western Idaho: M.S. Thesis, Oregon State Univ., 78 p.
 McIntyre, D. H., 1976, Reconnaissance geologic map of the Weiser geothermal area, Washington County, Idaho: U.S. Geol. Survey Misc. Field Studies Map MF-745.

- ? CONTACT--Dashed where approximately located; queried where location uncertain.
- 1/2 ? FAULT--Dashed where approximately located; queried where location uncertain; dotted where concealed beneath younger deposits. Bar and ball on downthrown side. Half-arrows indicate sense of inferred strike-slip motion. Arrow indicates direction of dip of fault plane.
- + ANTICLINE, SHOWING CRESTLINE--Dashed where approximately located.
- + SYNCLINE, SHOWING TROUGHLINE--Dashed where approximately located.
- STRIKE AND DIP OF BEDS OR LAVA FLOWS
- ~ Inclined beds; lack of number denotes approximate determination from aerial photographs.
- ⊙ Approximately horizontal.
- ⊙^{HA} HYDROTHERMALLY ALTERED ZONE--Poorly exposed; south of Thorn Creek at North end of Indian Valley.

Base from U.S. Geological Survey, Cambridge, 1957, Council, 1954



Photogeology by D. H. McIntyre in 1976
 Field checked May-June, 1976
 Air Photos used: U.S. Geol. Survey GS-Rd, 1953, 1:47,200; ERIS-1 Aircraft Flight 73-131, altitude 65,000 ft (19,800 m) Sept. 3, 1973, band 810-800 nm [Color IR].

U.S. Geological Survey
 OPEN FILE REPORT
 This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards.

PHOTOGEOLOGIC MAP OF THE CAMBRIDGE QUADRANGLE AND WESTERN HALF OF COUNCIL QUADRANGLE, WESTERN IDAHO

By
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 1976