

EXPLANATION

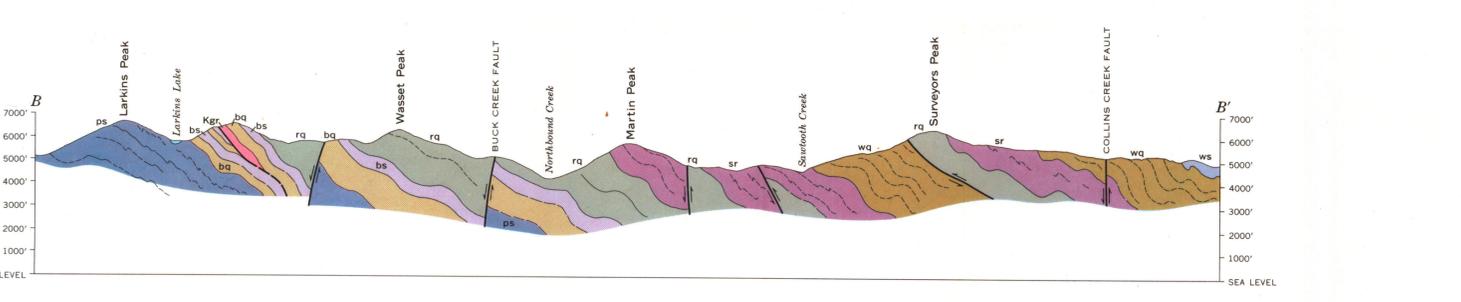
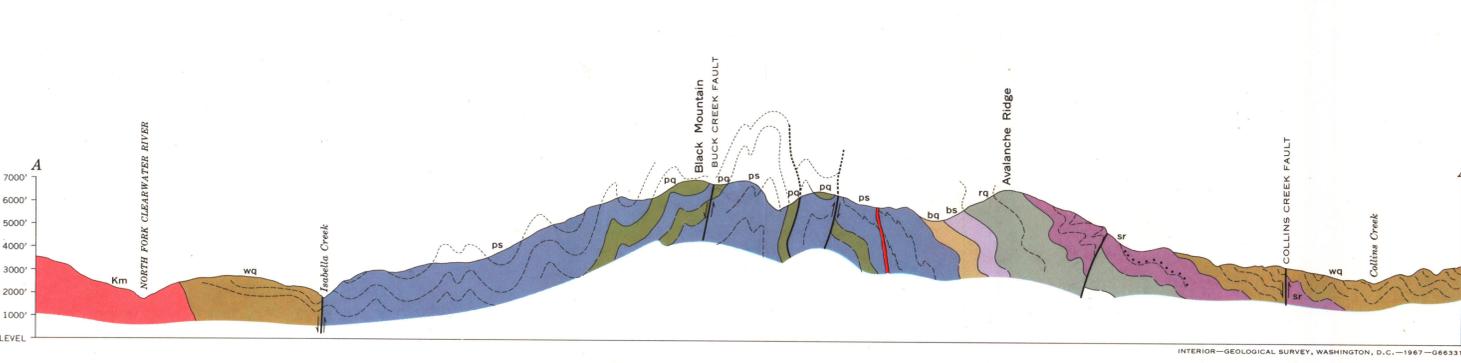
- IGNEOUS ROCKS**
- Tgr** Dikes and sills
 - Tgr** light- to medium-gray porphyritic rocks, the composition of which ranges from granite to quartz monzonite. Phenocrysts in granite dikes are quartz, orthoclase, and albite. In quartz monzonite dikes they consist of quartz and oligoclase
 - Tgb** dark-gray fine- to medium-grained rocks, the composition of which ranges from diorite to gabbro. Major constituents are plagioclase (An₂₀₋₃₅), augite, and hornblende
- Plutonic rocks related to Idaho batholith**
- Kgr** granite: very light gray coarse-grained rocks that consist of quartz, plagioclase (An₁₀₋₂₀), orthoclase, and biotite
 - Km** quartz monzonite: light-gray medium- to coarse-grained plagioclase (An₁₀₋₂₀)-quartz-orthoclase-biotite rocks; rarely contains hornblende. Small euhedral to subhedral plagioclase crystals are included in large anhedral orthoclase grains
 - Kt** tonalite: medium-grained light gray quartz-plagioclase (An₁₀₋₂₀)-biotite rock
 - Kd** quartz diorite: medium- to coarse-grained plagioclase (An₂₀₋₃₅)-quartz-hornblende-biotite rocks
 - Kgb** gabbro: dark-gray plagioclase (An₂₀₋₃₅)-hornblende rock with or without augite, biotite, and quartz
- METAMORPHIC ROCKS**
- ag** Amphibolite and garnet amphibolite
 - ag** small sill-like bodies consisting of dark well-foliated medium-grained plagioclase-hornblende rock with or without quartz, biotite, and garnet
 - ws** Wallace Formation
 - ws** fine- to medium-grained garnet-mica schist containing staurolite and kyanite in the northeastern part of the area; coarse-grained sillimanite-garnet schist in the southern part
 - wq** thin-bedded fine-grained white to light-gray granular quartzite and medium- to dark-gray biotite gneiss containing carbonate- and scapolite-bearing layers in the northern and eastern part of the area; medium- to coarse-grained light-green diopside-plagioclase gneiss, biotite-plagioclase gneiss, and quartzite in the southern part
 - sr** St. Regis Formation
 - sr** medium- to coarse-grained mica schist and micaceous quartzite. Contains abundant garnet in the northern part and garnet and sillimanite in the southern part of the area. A layer of white slightly foliated quartzite is interbedded (dots)
 - rq** Revett Formation
 - rq** thick-bedded medium- to very coarse-grained white to very light gray quartzite containing thin muscovite laminae. A few layers contain kyanite or staurolite
 - bs** Burke Formation
 - bs** medium-grained brownish-gray muscovite-biotite schist with or without garnet
 - ba** thin-bedded coarse-grained light-colored to white quartzite containing micaceous layers and occasional thicker pure quartzite beds
 - ps** Prichard Formation
 - ps** coarse-grained garnet-mica schist containing kyanite in the northern part of the area and sillimanite in the southern part
 - pq** includes white to light-gray foliated quartzite containing micaceous and garnetiferous layers and medium-gray thin-bedded biotite quartzite
- Geological Symbols:**
- Contact, showing dip
 - Dashed where approximately located
 - Fault, showing dip
 - Dashed where approximately located. U, upthrown side; D, downthrown side
 - Thrust fault
 - Sawtooth on upper plate. Dashed where approximately located
 - Anticline
 - Showing direction of plunge of axis
 - Direction and plunge of minor fold axis
 - Point of observation at base of arrow
 - Strike and dip of beds
 - Strike and dip of overturned beds
 - Strike of vertical beds
 - Strike and dip of foliation
 - Strike of vertical foliation
 - Strike and dip of fracture cleavage
 - Direction and plunge of lineation
 - Point of observation at base of arrow
 - Horizontal lineation
 - Strike and dip of beds and plunge of lineation
 - Strike and dip of joint
 - Strike of vertical joint
- Other Symbols:**
- KYANITE AND SILLIMANITE
 - SILLIMANITE AND MUSCOVITE
 - Isograd
 - Dike, undifferentiated
 - Dike, showing dip
 - 2218
- Locality and specimen number**
- The following list gives the section, township, and range for each locality
- | No. | Section | Township north | Range east |
|------|---------|----------------|------------|
| 876 | 29 | 40 | 8 |
| 1550 | 15 | 42 | 7 |
| 1558 | 7 | 42 | 8 |
| 1721 | 12 | 41 | 7 |
| 2050 | 27 | 40 | 7 |
| 2058 | 27 | 41 | 7 |
| 2155 | 26 | 40 | 7 |
| 2157 | 17 | 40 | 8 |
| 2213 | 12 | 41 | 7 |
| 2218 | 30 | 42 | 7 |

Base from U.S. Forest Service and U.S. Geological Survey preliminary 7½' quadrangles: Buzzard Roost, Mallard Peak, Pole Mountain, Sheep Mountain, and The Nub, 1963
 Planimetric base, S.W. corner, compiled by U.S. Forest Service aerial photographs 1936-39

SCALE 1:48 000

CONTOUR INTERVAL 40 FEET
 DATUM IS MEAN SEA LEVEL

Geology by Anna Hietanen, 1960-1963



GEOLOGIC MAP OF THE MALLARD PEAK AREA, IDAHO