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Preliminary Geologic Map of the Hayden Lake Quadrangle, Kootenai County, Idaho

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Description of Map Units

Quaternary

Qal — Recent alluvium -- clay, silt, sand, and gravel in stream valleys.

Qgf — Sand, gravel, cobbles, and boulders transported by outburst floods from glacial Lake Missoula.

Tertiary

Tcr — Columbia River basalt -- tholeiitic basalt flows and accompanying pillow basalt and palagonite tuff.

Tog — Old gravel -- tan to orangish colored silt, sand, gravel, and cobbles. Gravel and cobbles are sub-angular to subrounded, both resting on and interbedded with Columbia River basalts. Grades westward into Latah Formation in places. Probably derived mainly from highlands to the east.

Tl — Latah Formation -- clay, silt, and sand interbedded with Columbia River basalt flows. Grades eastward into old gravel (Tog) in places. Probably derived mainly from highlands to the west.

Tertiary or Cretaceous

TMzg — Stocks and other irregular bodies of granodioritic to quartz monzonitic composition.

preCambrian Middle Proterozoic

Wallace Formation

pEw3 — Laminated to thin-bedded gray to brown dolomite, laminated dolomite with black argillite and minor thin-bedded, interlayered quartzite or siltite with black argillite. Equivalent to Unit 4 in the Clark Fork, Idaho district. (Harrison and Jobin, 1963)

pEw2 — Thin-bedded to laminated gray quartzite and siltite, rusty-weathering dolomitic quartzite and ferroan dolomite with prominent but quantitatively minor black argillite bedding planes. Lower part of unit consists in places of finely interlaminated black argillite, ferroan dolomite and gray quartzite-siltite. Equivalent to Units 2 and 3 in the Clark Fork, Idaho district (Harrison and Jobin, 1963)

Lowest Wallace, equivalent to Unit 1 in the Clark Fork, Idaho district (Harrison and Jobin, 1963), subdivided as follows:

pEw1c — Interbedded ferroan dolomite, green argillite and gray to rusty-weathering (ferroan dolomite bearing) siltite-quartzite. Few thin beds of black argillite. Dolomite is dominant constituent.

pEw1B — Thin- to medium-bedded black argillite, gray to rusty-weathering quartzite-siltite and ferroan dolomite.

pEw1A — Thin- to medium- bedded green and purple argillite, gray to rusty-weathering quartzite-siltite and ferroan dolomite. Argillite and quartzite-siltite are dominant constituents.

pEsr — St. Regis Formation -- green and purple argillite with green siltite and gray to tan and greenish impure quartzite. Contains a little black argillite in places. Quartzite is especially prominent in the lower half of the formation, where it is more abundant than argillite and siltite. Few wisps and thin beds of ferroan dolomite, especially toward the top. Top of unit placed at lower contact of prominent ferroan dolomite layers or quartzite beds with substantial ferroan dolomite content.

pEr — Revett Formation -- thin- to thick-bedded gray to white and some greenish quartzite with thin- to medium-bedded siltite and thin-bedded greenish argillite in places. Quartzite is generally more vitreous, blocky, and less susceptible to weathering than underlying Burke Formation. Argillite increases toward formation's top, which is placed at the last medium to thick bedded white quartzite layers.

pEb — Burke Formation -- thin- to thick-bedded gray to greenish, subvitreous siltite with abundant argillite and siltite-argillite, especially in the lower one third. Contains numerous layers of quartzite, which in a few thin beds resembles vitreous Revett quartzite, in the upper third to half of the formation. The top of the Burke is placed at the bottom of thick beds of vitreous white quartzite.

Reference

Harrison, J.E. and Jobin, D.A., 1963, Geology of the Clark Fork Quadrangle Idaho-Montana: US Geological Survey Bulletin 1141-K, 38p.

Symbols

- Contact, approximately located
- Contact, concealed
- Fault, approximately located
- Fault, concealed
- Strike and dip of beds: 30 inclined; 90 vertical; ⊕ horizontal
- Strike and dip of foliation: 40 inclined; 90 vertical
- Area of abundant outcrop and/or roadcut exposure
- × Individual outcrop, roadcut exposure or diagnostic rubble

Base map USGS digital raster graphic.

Control by USGS and NOS/NOAA.

Topography by photogrammetric medthods from aerial photographs taken 1958. Field checked 1961.

Polyconic projection. 10,000-foot grid based on Idaho coordinate system, west zone.

1927 North American datum.

National geodetic datum of 1929.

UTM grid and 1961 magnetic north declination at center of sheet.

SCALE: 1:24,000

1 1/2 0 1 MILE

1 0.5 0 1 KILOMETER

Contour interval 40 feet.
Dotted lines represent 20-foot contours.

IDAHO

QUADRANGLE LOCATION

Field work 1998-1999.

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