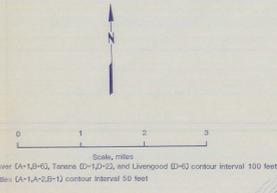




**LEGEND**

- Unconsolidated Sediments**
- Loess, tan to gray, local dune features, much more extensive than shown.
  - Qt** Alluvial sand and gravel deposits forming floodplains and low benches along major drainages (shown only on figure 7).
  - Og** High level terrace gravels and sands, coarse sand common or of alluvial origin; arrow indicates paleochannel direction.
  - Basalt conglomerate with quartz pebbles, form cliff on top of bluffs.
  - Twg** White channel, quartz gravels commonly weather white due to films of clay and mica.
- Bedrock**
- Tb** Fissure basalts, olivine basalt locally vesicular, columnar jointing observed in river bluffs.
  - Ts** Tertiary coal-bearing mudstones, conglomerate lining upward to sandstone sequences, tuff and volcanic ash beds; thickness unknown; K-Ar date on ash is late Eocene (Barker, 1981).
  - Jv** Mafic andesite volcanics, gabbro, diorite, and chert of the Jozina terrane.
  - Ultramafic rocks including clinopyroxenite, peridotite and dunite.
  - Kg** Granitic rocks, including quartz monzonite and granite. Equigranular to porphyritic K-feldspar.
  - Ka** Aplite
  - Fine-grain equigranular granitic rocks
  - Med- to coarse-grained equigranular granitic rocks.
  - Kgp** Porphyritic granitic rocks.
  - Kt** Tourmaline-bearing fine-grained granitic and leucocratic phases; commonly display silica and sericite alteration, two-mica granite.
  - Greenstone, described by Brosge (1973)
  - Pzl** Paleozoic limestone, marbles, locally altered to calc-silicate; includes minor quartzite.
  - Pzd** Phyllite, quartz-mica schist and quartzite.

- Symbols**
- Thermal springs and seeps, temperatures in fahrenheit.
  - Gravel pit.
  - Quartz and quartz stockwork.
  - Coal, including concentrations of coal rubble in stream beds.
  - Contact, dashed where inferred, dotted where projected, queried where uncertain.
  - Inferred fault or pronounced photo linear.
  - Thrust fault, dashed where inferred, dotted where projected, queried where uncertain.
  - Dip and strike of bedding
  - Paleochannel, arrow indicates direction of flow.
  - X-section A - A' and B - B' (see figure 5)
- Note: Geology in shaded areas confirmed by ground traverse.



Map adapted from U.S.G.S. 1:63,360 scale Beaver (A-6,B-6), Bettles (A-1,A-2,B-1), Tanana (D-1,D-2), and Livengood (D-4) quadrangles

Figure 3. - Geology (1:63,360 scale) of the Ft. Hamlin Hills-Ray River area.