

Geologic Map of the Dartford 7.5-minute Quadrangle, Washington

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Geologic Units

Quaternary Sediments

- Qa** Alluvium (Holocene) - Stream deposits consisting of silt, sand, and gravel in present-day stream channels and on flood plains.
- Qaf** Alluvial fan deposits (Holocene) - Alluvium consisting of sand and gravel in fan-shaped deposits found where drainages from hills adjacent to the Little Spokane River reach the gentler terrain adjacent to the Little Spokane River.
- Qs** Sand deposits (Holocene and Pleistocene) - Windblown deposits of predominantly fine, sub-rounded to rounded sand; consists of frosted lithic fragments and mineral grains that range from medium gray to nearly white.
- Ql** Loess (Holocene and Pleistocene) - Light- to medium-brown, unstratified, windblown silt and clay, locally including small amounts of fine sand and volcanic ash; occurs on the top of Fivemile Prairie and as cover to granitic rocks north of the Little Spokane River.
- Qfg** Missoula flood deposits, predominantly gravel (Pleistocene) - Light-brown to yellowish gray, poorly to moderately well sorted, massive to thick bedded, stratified mixture of boulders, cobbles, pebbles, and sand; locally contains beds and lenses of sand.
- Qfs** Missoula flood deposits, predominantly sand (Pleistocene) - Light-brown to yellowish gray, moderately well sorted, massive to thick bedded, stratified sand with rare pebbles, cobbles, and boulders; locally contains beds and lenses of gravel.

Tertiary Sedimentary and Volcanic Rocks

- Mvwp** Wanapum Basalt, Priest Rapids Member, Columbia River Basalt Group (middle Miocene) - Fine-grained, dark-gray to black basalt with diktyxtalitic texture; contains sparse plagioclase laths and small olivine phenocrysts; reversed magnetic polarity.
- Mvgr2** Grande Ronde Basalt, magnetotatigraphic unit R2, Columbia River Basalt Group, (middle Miocene) - Fine-grained, gray to greenish gray, aphyric to sparsely phyrlic basalt; contains small plagioclase laths; normal magnetic polarity.
- Mc1** Latah Formation (middle to lower Miocene) - Light-gray to yellowish gray and light-tan, poorly indurated deposits of finely laminated siltstone, claystone, and minor sandstone.

Tertiary Intrusive Igneous Rocks

- Ei** Porphyritic rock (Eocene) - Pale greenish gray porphyry containing 40 to 50 percent prominent euhedral hornblende and potassium feldspar phenocrysts; considered to be the hypabyssal equivalent of the Silver Point Quartz Monzonite of the Leona Lake area.

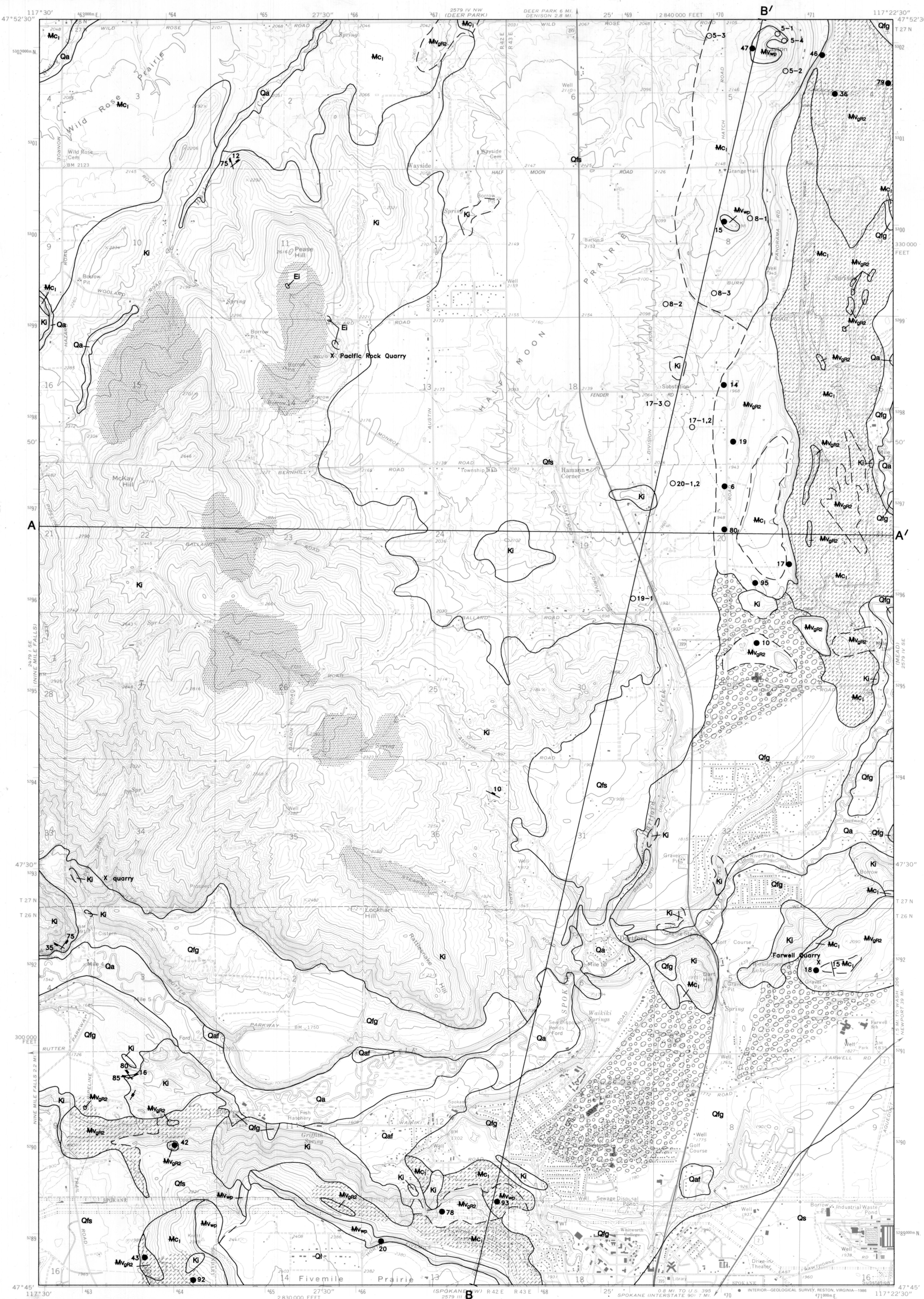
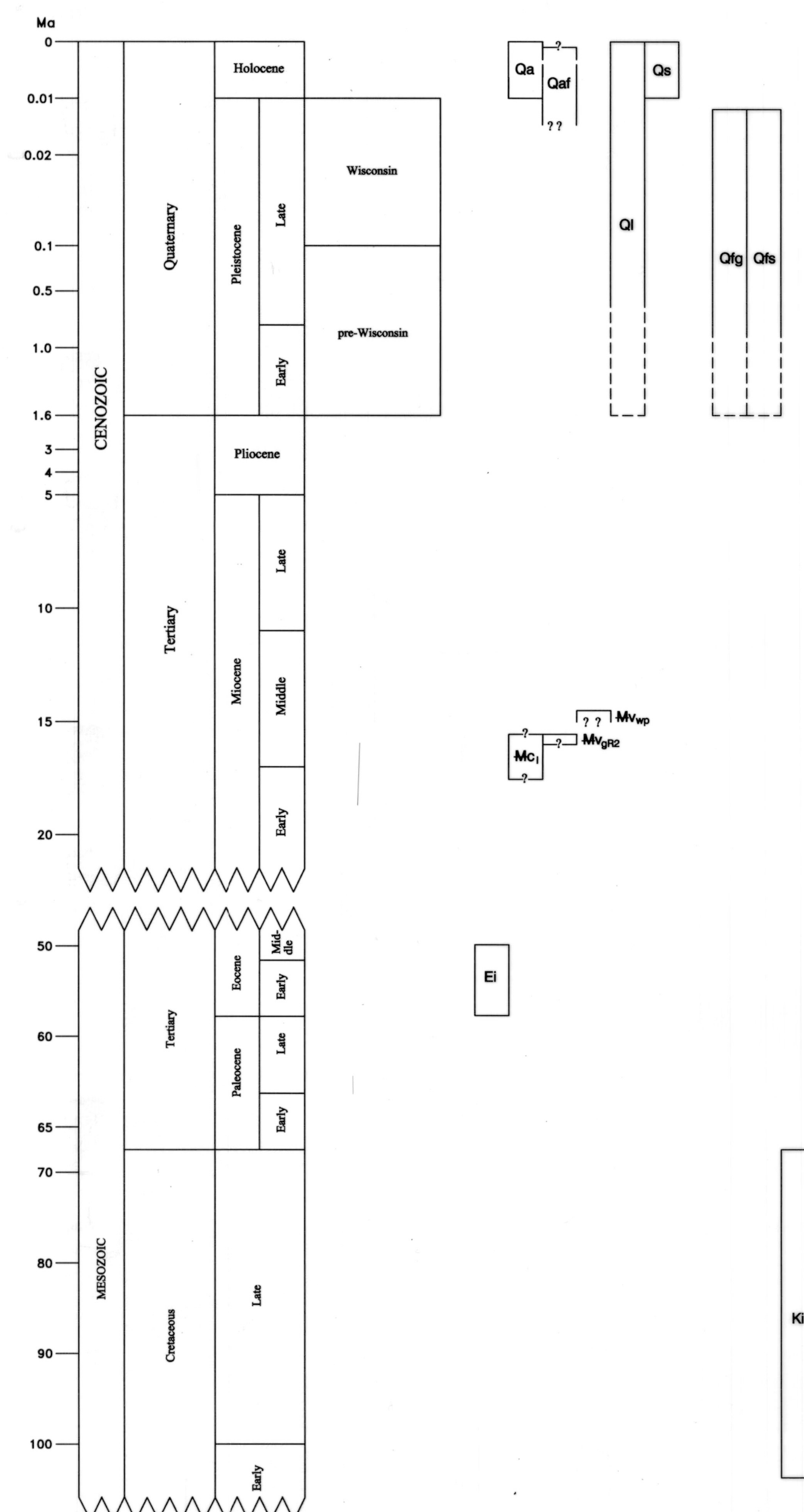
Mesozoic Intrusive Igneous Rocks

- Ki** Biotite-muscovite granite (Cretaceous) - Light-gray to pinkish gray, medium- to coarse-grained, typically hypidiomorphic-granular granite; includes pegmatite and aplite veins and irregular bodies.

EXPLANATION

- Contacts - long dash where approximately located, short dash where inferred.
- 15 Strike and dip of bedding
- 10 Strike and dip of joints
- 55 75 same location
- vertical
- 19-10 Water wells. Numbers correspond with well numbers on cross sections.
- 36 Geochemistry sample locations. Numbers correspond to sample numbers in appendix.
- Pendant bars: Streamlined flood gravel bars that parallel flow direction and occur just downstream from bedrock projections in the flood channel (Baker, 1973).
- Areas with landslide morphology, including hummocky terrain, sag ponds, basaltic slide blocks, and/or associated silt (Latah Formation ?). Morphology could also be caused by irregular intrusive basalt flows.
- Areas of thin loess cover.

CORRELATION DIAGRAM



Base map by U.S. Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs

taken in 1972. Field checked 1973

Lambert conformal conic projection. 1927 North American datum

10,000-foot grid based on Washington coordinate system, North zone

1000-meter Universal Transverse Mercator grid (zone 11)

Map revision from serial photographs taken 1982 and

other sources.

Cartographic design and production by Keith G. Iland,

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