U. S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

AREAL GEOLOGY

WASHINGTON
SNOQUALMIE QUADRANGLE

LEGEND

IGNEOUS ROCKS
(continued)

Post-Peshastin — PRE-TERTIARY

- ms — **Mount Stuart granodiorite** *(batholith and smaller masses of granodiorite)*
- pr — **Peridotite** *(intrusive body and dikes largely altered to serpentine)*
- qd — **Quartz-diorite** *(intrusive bodies of sheared diorite)*

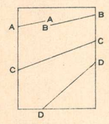
Metamorphic — CARBONIFEROUS ?

- hk — **Hawkins formation** *(diabasic lavas, tuffs, and breccias)*

Known faults

Probable faults

Sections



⚒ *Mines and prospects* *(coal, iron, gold, and other metals)*

Known productive areas

Roslyn coal outcrop *(dashed line indicates heavy alluvium covering)*

Area underlain by Roslyn coal

Lenses of low grade iron ore at base of Swauk formation

LEGEND

SEDIMENTARY ROCKS
(Areas of subaqueous deposits are shown by patterns of parallel lines, subaerial deposits by patterns of dots and circles; metamorphism is indicated by hachures combined with the line patterns)

QUATERNARY

- Qal — **Alluvium** *(fine silt and sand, with gravel near streams forming terraces)*
- Qg — **Glacial deposits** *(gravel and till, forming morainal ridges)*

TERTIARY

Miocene

- Teb — **Ellensburg formation** *(fluviatile deposits of sand and gravel of volcanic materials)*
- Tg — **Guye formation** *(grit, slate, chert, and limestone with interbedded basalt)*

UNCONFORMITY

Eocene

- Tm — **Manastash formation** *(sandstone, conglomerate, and shale)*

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- Trl — **Roslyn formation** *(sandstone and shale, with beds of coal)*

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- Tn — **Naches formation** *(sandstone and shale, with basalt lava flows)*
- Ts — **Swauk formation** *(sandstone, conglomerate, and shale)*

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CARBONIFEROUS ? AND OLDER

Metamorphic

- ps — **Peshastin formation** *(black slate and grit, with lenses of limestone locally)*

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- et — **Easton schist** *(quartz-mica-schist with associated hornblende-schist)*

IGNEOUS ROCKS
(Areas of igneous rocks are shown by patterns of triangles and rhombs; metamorphism is indicated by hachures)

TERTIARY

Pliocene ?

- Th — **Howson andesite** *(hornblende-andesite lava)*

Miocene (post-Guye)

- Tsq — **Snoqualmie granodiorite** *(batholith of massive granodiorite and granite)*
- Tkc — **Keechelus andesitic series** *(extensive lava flows and tuffs of andesite, with some basalt and rhyolite)*
- Tpd — **Pyroxene-diorite** *(intrusive bodies of massive rock related to Keechelus lavas)*
- Ty — **Yakima basalt** *(extensive series of lava flows with local tuff beds)*
- Td — **Diabase** *(intrusive bodies with associated dikes, constituting Yakima basalt conduits)*

Miocene (pre-Ellensburg)

- Tgr — **Rhyolite in Guye formation** *(lava with some tuff)*
- Tra — **Taneum andesite** *(hypersthene-andesite lava with beds of tuff and breccia)*
- Trb — **Teanaway basalt** *(lava flows with tuff beds)*
- Tbd — **Basic dikes and sheets** *(diabase, usually quartz bearing, filling Teanaway basalt conduits)*

Eocene (pre-Roslyn)

- Tk — **Kachess rhyolite** *(thick flows of white or yellow rhyolite)*

Legend is continued on the left margin.

Geology by George Otis Smith, F. C. Calkins, and W. C. Mendenhall, assisted by E. P. Carey and D. F. Macdonald.
Surveyed in 1899 and 1902.

R. U. Goode, Geographer in charge.
Triangulation by A. H. Sylvester.
Topography by A. E. Murlin.
Surveyed in 1900-1901.

APPROXIMATE MEAN DECLINATION 1902.

Scale 1/125000
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

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