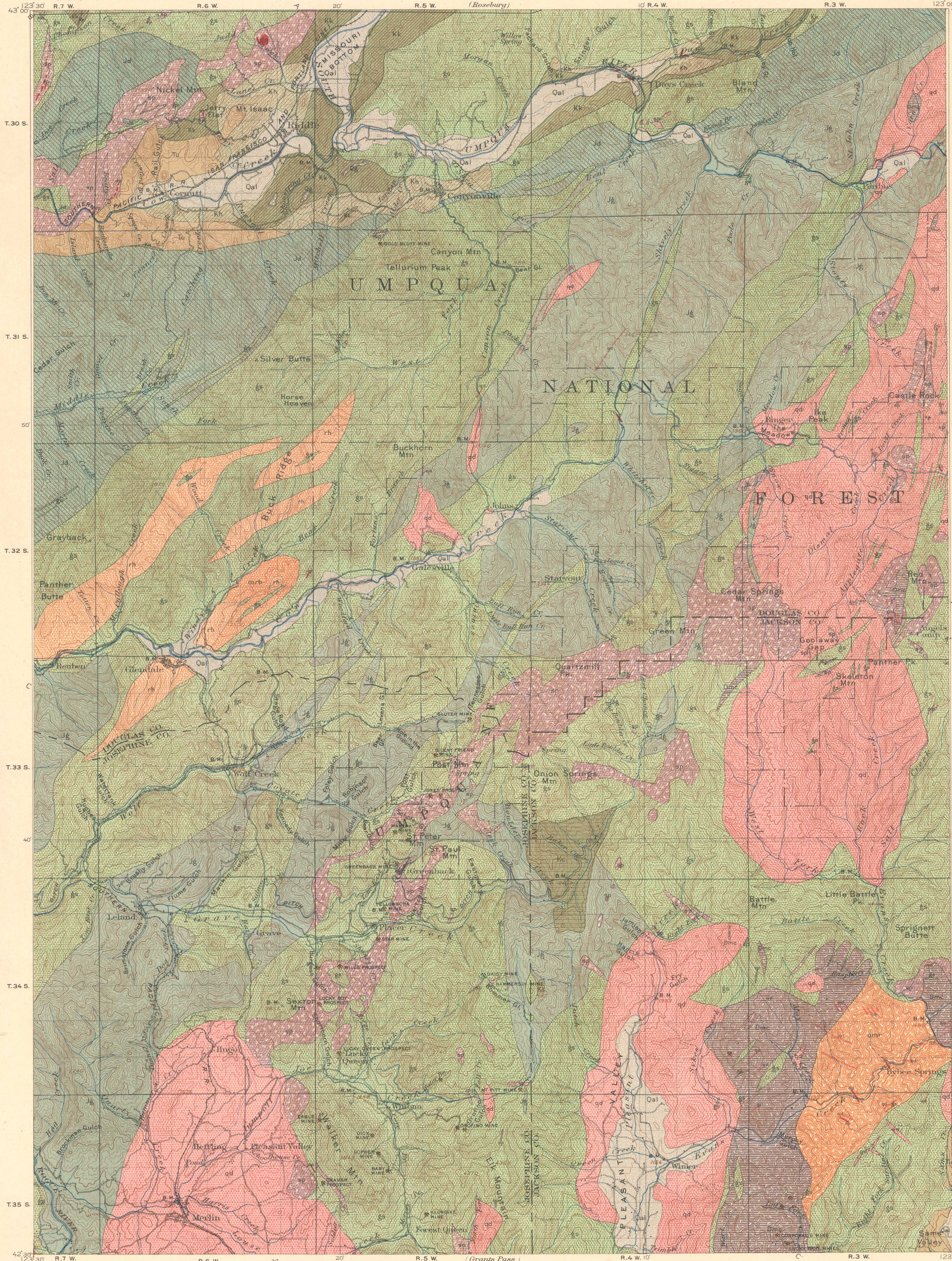
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

# AREAL GEOLOGY

OF THE
OREGON
RIDDLE QUADRANGLE




## EXPLANATION

### 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** *(in flood plains of present streams)*
- Qg — **High terrace gravels** *(remnants of old stream gravels on high terraces and benches)*

UNCONFORMITY

**TERTIARY**

*Eocene*

- Tu — **Umpqua formation** *(chiefly thin-bedded sandstone and shale, with some conglomerate)*

UNCONFORMITY

**CRETACEOUS**

*Upper Cretaceous*

- Kc — **Chico formation** *(chiefly sandstone with conglomerate and shale)*

UNCONFORMITY

*Lower Cretaceous*

- Kh — **Horsetown formation** *(chiefly gray shale and thin gray sandstones)*

UNCONFORMITY

- Kk — **Knoxville formation** *(chiefly sandstone and shale; massive conglomerate at base)*

UNCONFORMITY

**JURASSIC**

- Jd — **Dothan formation** *(chiefly hard sandstone containing a little conglomerate and some gray shale)*

UNCONFORMITY?

- Jg — **Galice formation** *(chiefly fine-grained dark slate with some sandstone and conglomerate)*

UNCONFORMITY

**DEVONIAN ?**

*Metamorphosed sedimentary rocks*

- Dmc — **May Creek formation** *(mica schist and slate)*

### IGNEOUS ROCKS

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

**TERTIARY**

- Tb — **Basalt** *(dikes)*

**LATE JURASSIC OR EARLY CRETACEOUS**

- dp — **Dacite porphyry and related rocks** *(knoblike masses and dikes)*
- qd — **Quartz diorite, quartz-mica diorite, and related rocks** *(large intrusive masses and dikes; quartz diorite in the greenstone north of South Umpqua River not separately mapped)*
- sp — **Serpentine derived from and including some peridotite and saxonite** *(intrusive masses)*

**CHIEFLY LATE JURASSIC (possibly in part Paleozoic)**

- gs — **Greenstone, gabbro, and related rocks** *(lavas and intrusive rocks; greenstone north of South Umpqua River includes quartz diorite not separately mapped)*

*Metamorphosed igneous rocks*

- rh, mrh — **Rhyolite** *(includes some metarhyolite, mrh; lava flows)*
- omr — **Older metarhyolite** *(lava flows associated with May Creek formation)*

**DEVONIAN ?**

*Principal gold-lode mines and prospects in 1907*

*Faults not shown on map.*

R.U. Goode, Geographer in charge.
Triangulation by W.T. Griswold.
Topography by A.B. Searle and J.G. Hefty.
Surveyed in 1901-1902.

Geology by J.S. Diller and G.F. Kay.
Surveyed in 1905-1907.

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 20 feet below mean sea level.*

*(The elevations on this map were derived from railroad levels and originally referred to mean sea level. Subsequent accurate leveling by the U.S. Geological Survey shows these to have been 20 feet too high.)*

APPROXIMATE MEAN DECLINATION 1922.
21° TRUE NORTH MAGNETIC NORTH

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 |

Edition of Aug. 1923.