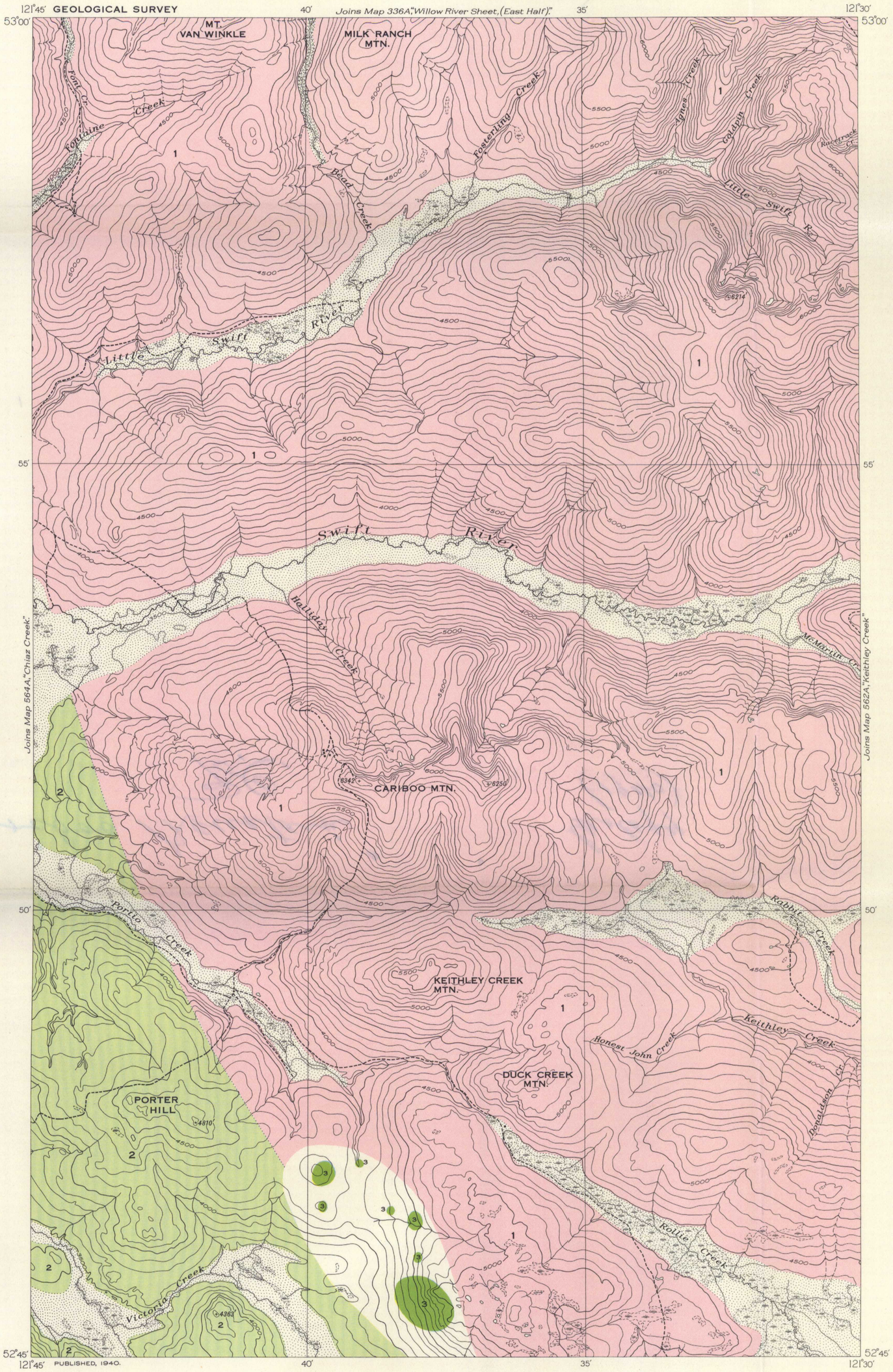
CANADA

DEPARTMENT OF MINES AND RESOURCES

MINES AND GEOLOGY BRANCH

BUREAU OF GEOLOGY AND TOPOGRAPHY

GEOLOGICAL SURVEY



LEGEND

MESOZOIC

JURASSIC (?)

3 — *Amphibolite, other basic rocks*

2 — *Shale, argillite, basalt, andesite, flow-breccia, tuff* — QUESNEL RIVER GROUP

PROTEROZOIC (LATE PRECAMBRIAN)

1 — **CARIBOO SERIES**
RICHFIELD FORMATION (mainly): quartzite, quartz-sericite schist, argillite, limestone; chlorite schist, hornblende schist and gneiss; numerous bodies of (3)

Area of deep alluvium and glacial drift

Geological boundary (assumed)

Trail, and cabin

Passable pack-train route

Intermittent stream

Marsh

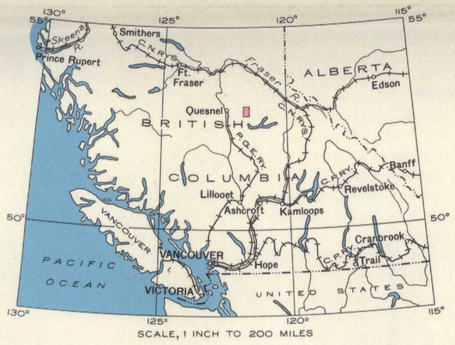
Contours (interval 100 feet) — 5000

Contours (position approximate) — 5500

Height in feet above Mean sea-level — 6342'

Geology by A.H. Lang, 1937.

Base-map prepared by the Topographical Survey, 1938, from map supplied by the British Columbia Department of Lands. Cartography by the Drafting and Reproducing Division, 1939.



SCALE, 1 INCH TO 200 MILES

DESCRIPTIVE NOTES

The area is densely wooded, chiefly with spruce, the elevation of timber-line being about 6,200 feet. The few unwooded localities are meadows on some of the higher summits and in the bottoms of the larger valleys, the principal meadow being that of Rollie creek.

The extreme northeastern part of the area can be reached readily by a trail from Barkerville. A trail from Stanley enters the area near the head of Font creek and extends to Cariboo mountain and a poor branch trail follows Little Swift river. The southern part of the area is reached most readily from the vicinity of Keithley Creek P.O., a trail leaving the road at the Rollie creek bridge and following Rollie and Portio creeks. A branch from the Keithley-Yanks Peak trail leads westward to Cariboo mountain but is in disrepair. Most of the trails are boggy, making travel with pack horses difficult.

GENERAL GEOLOGY

Bedrock is largely concealed and is best exposed on the summits.

The whole of the Cariboo Series (1) as developed in this area resembles the Richfield formation of Willow River and Keithley Creek areas but possibly the Barkerville and Pleasant Valley formations are also represented but because of lithological changes are not recognizable. Chlorite schist, hornblende schist, and hornblende gneiss occur at intervals from Cariboo mountain southward. They have been considered to be older than the Cariboo series but are here regarded as being altered sediments of the Cariboo series.

The rocks of the Quesnel River group (2) overlie those of the Cariboo series unconformably. Fossils discovered in similar rocks in the area of Quesnel Forks sheet (Map 294A), which adjoins the Cariboo Mountain area on the south, were classed provisionally as Jurassic.

The rocks of the Cariboo series are intruded by numerous, small, irregular bodies of amphibolite and related much altered rocks, and a few bodies of diabase (3). In general the outcrops are small and widely separated, and in only one place were they found closely enough spaced to permit the mapping of a body of this rock. The basic rocks are thought to be younger than the strata of the Quesnel River group but were nowhere definitely recognized within the area of this group.

Most of the area is covered by glacial drift, the thickest deposits being lateral moraines on the slopes of the larger valleys. The drift on the summits and upper slopes is, at many localities, only a few feet thick. The larger valleys are floored with unknown thicknesses of silt, stream gravel, and glacial drift.

STRUCTURE

Practically all of the rocks of the Cariboo series in the area are in the southwest flank of a broad anticlinorium. They have a general northwesterly strike and they dip 20 to 50 degrees southwest but show marked local deviations because of minor folding. The rocks at the Cariboo Mountain mine are traversed by numerous northeasterly-striking faults and shear zones. Similar faults are common in adjoining areas and are probably widespread in the Cariboo Mountain area but are difficult to recognize because exposures are poor. The more competent rocks are much fractured, in many directions. Some of the older fractures contain quartz veins which are crossed by younger fractures.

The rocks of the Quesnel River group occupy a synclinal structure and are much contorted by minor folds. Their general strike is slightly more westerly than that of the Cariboo series. The sediments of this group are less sheared and fractured than those of the Cariboo series, a fact that confirms the belief that the Cariboo series was folded before the deposition of the Quesnel River group.

ECONOMIC GEOLOGY

The area has not been an important producer of placer gold. Shafts were sunk in 1905 and subsequent years at Fontaine creek near the crossing of the Stanley trail. Some gold was mined in the early days on Little Swift river below Fosterling creek. In 1919 four holes were drilled to depths of 16 to 24 feet at the mouth of Bead creek. Some fine gold is reported to occur near the surface at Fosterling, Agnes and Goldpin creeks.

The area has not been prospected thoroughly for lode deposits. Quartz veins outcrop on and near several summits where rocks of the Cariboo series are well exposed. On Cariboo mountain, near the summit, a quartz vein up to 17 feet wide outcrops at intervals for 1,000 feet. Visible gold is reported to be present.

On the summit of the ridge east of Fontaine creek are exposures of quartz veins up to 20 inches wide, containing pyrite and galena. A vein containing pyrite outcrops on the summit of Keithley Creek mountain. At two localities on Porter hill, quartz veins 4 and 7 feet wide occur in rocks of the Quesnel River group.

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MAP 563A

CARIBOO MOUNTAIN

CARIBOO DISTRICT

BRITISH COLUMBIA

Scale, 1/63,360 or 1 Inch to 1 Mile

Miles 1 0 1 2 3

Approximate magnetic declination, 27° East.