

**LEGEND**

Concentration of heavy metal, 0.001 or greater ppm  
in stream waters . . . . . in spring waters . . . . .

Concentration of heavy metal, 0.000 ppm  
in stream waters . . . . . in spring waters . . . . .

Location of known veins . . . . .

Mineral occurrences . . . . . Au x

Mineral deposits . . . . .

**Mineral Symbols**

Arsenic . . . . . As	Molybdenum . . . . . Mo
Antimony . . . . . Sb	Silver . . . . . Ag
Copper . . . . . Cu	Tungsten (lode) . . . . . W
Gold (lode) . . . . . Au	Tungsten (placer) . . . . . W(P)
Gold (placer) . . . . . Au(P)	Tin (lode) . . . . . Sn
Lead . . . . . Pb	Tin (placer) . . . . . Sn(P)
Zinc . . . . . Zn	

**Index to Mineral Properties**

(1) Peso Silver (Pb, As, Sb, Cu, Ag, Zn, Bi)

(2) Rex (Pb, Sb, Zn, Cu, Ag)

Field work by C. F. Gleason, W. M. Tupper, A. Suparman, K. Domsal, M. Shafrukh, J. A. Colwell, J. R. Deighton, C. H. Yurchak, J. K. Worth, H. R. James, A. G. Troup, G. Wind, L. Hogg, and F. R. Campbell

Geological cartography by the Geological Survey of Canada, 1965

Intermittent lake and stream . . . . .

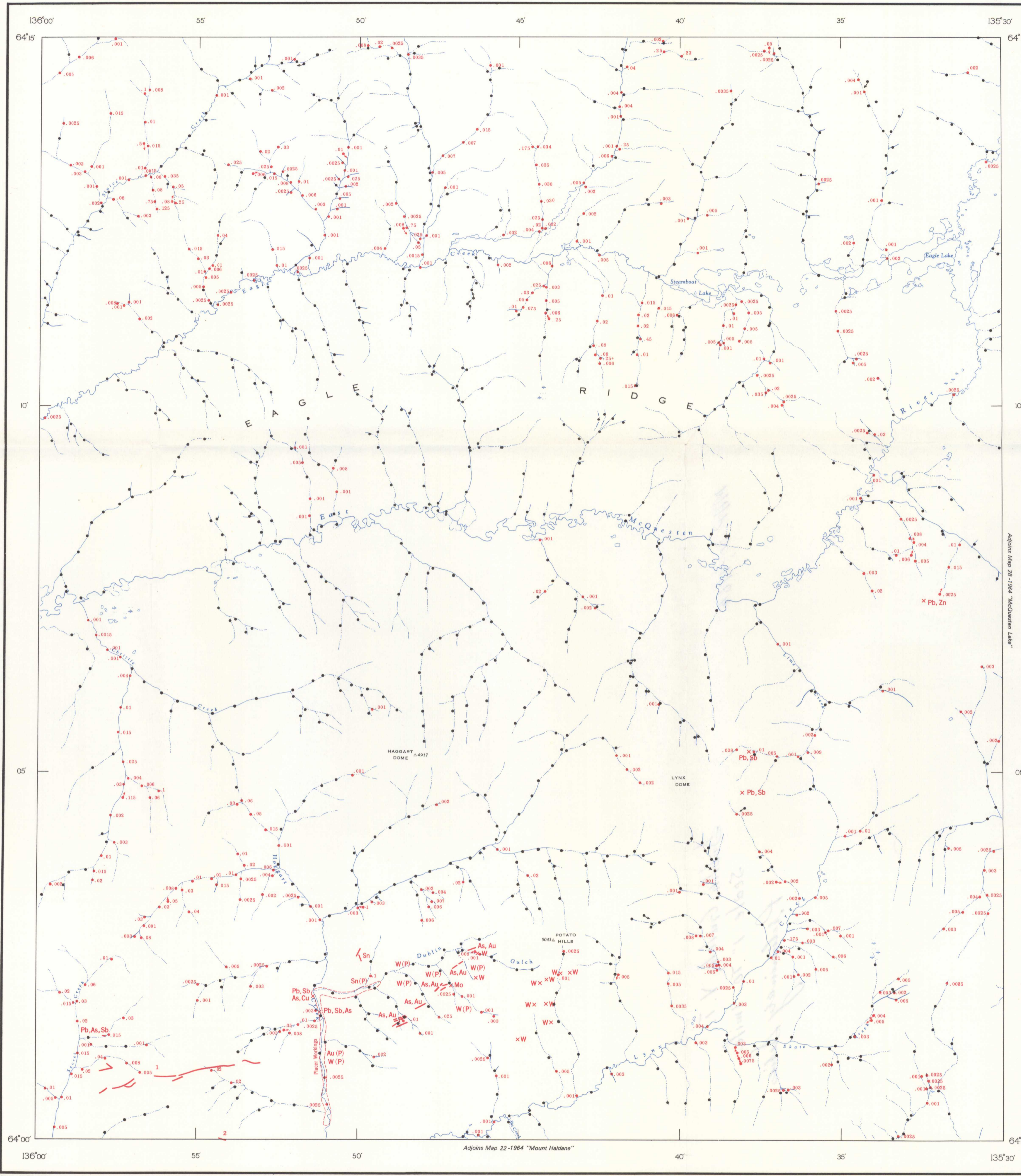
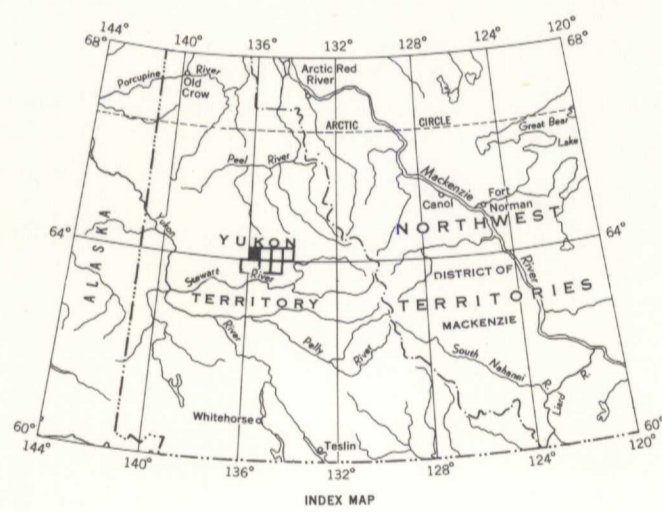
Marsh . . . . .

Horizontal control point . . . . .

Elevation in feet above mean sea-level . . . . .

Base-map produced by the Surveys and Mapping Branch 1958

Approximate magnetic declination, 33° 42' East, decreasing 4.2' annually



**DESCRIPTIVE NOTES**

**Geological**

The Dublin Gulch area is underlain by a series of metamorphosed sedimentary rocks, mainly quartzites, phyllites, slates, limestones, and sericite and chlorite schists. Stocks and sills of granite and a few small diorite, gabbro, and quartz-feldspar porphyry sills and dykes intrude the metamorphosed rocks.

The area has undergone several stages of glaciation. Glacial deposits occupy the major valleys and some of the hill slopes below an elevation of 3,000 feet. Permafrost underlies much of the area.

Easterly striking vein faults are mineralized with siderite, jamesonite, boulangerite, pyrite, arsenopyrite, galena, tetrahedrite, and chalcocopyrite. The veins are oxidized and commonly contain the following secondary minerals: limonite, bindheimite, boudantite, scorodite, angle-site, and malachite.

Quartz-arsenopyrite-gold veins with a general northeast strike are present along and near the contacts of the granitic stocks. Near the surface these are oxidized with the development of abundant limonite and scorodite. Scheelite is found in quartz stringers and in skarn rocks close to the granitic intrusions. In places the granitic rocks also contain minor amounts of disseminated molybdenite. Two cassiterite-tourmaline veins occur on top of the hill on the right limit of Dublin Gulch near its mouth.

Placer gold has been recovered from Dublin Gulch and Haggart Creek since 1958. In addition, the placers contain considerable amounts of scheelite and small amounts of cassiterite, wolframite, native bismuth, and jamesonite.

Further details on the geology and mineralization of the area can be obtained from the reports by Bostock (1943), Green and Roddick (1962), Aho (1964), Boyle (1965), and Poole (1965a, 1965b).

**Geochemical**

The data on the map are based on samples of stream and spring waters that were tested at the sample site using the method described by Boyle, Illsley, and Green (1955).

The values are expressed as total heavy metal (zinc, copper, and lead) in parts per million. Most of the heavy metal in the water is zinc.

The pH of the waters varies from 4.6 to 8.2 and the temperature from 0° to 10° C.

The creeks not accessible by road were reached by helicopter. An attempt was made to maintain a sample interval of 1,500 feet along the creeks.

The geochemical field results on the waters indicate that the known lead-antimony-zinc-arsenic lodes are marked by anomalies. The gold-arsenopyrite veins and scheelite occurrences often have no anomalies associated with them. If anomalies do occur they are present only at a few sample sites in the vicinity of the deposits.

Interesting anomalies occur in the southwest corner of the map-sheet. Some of these are due in part to metal-rich iron springs. Another group of anomalous creeks occurs near the headwaters of Lynx Creek. Part of this area is underlain by massive quartzite, the favourable host rock for the silver deposits in the Keno Hill - Galena Hill area. A further group of anomalous creeks is present in the north part of the area in tributaries of Eagle Creek and Sluice Creek. Very little prospecting has been done in this area. Some of these anomalies are related to metal-rich springs. The distribution of the anomalies suggests that they may be related in part to a stratigraphic horizon in the series of quartzites, slates, and limestones that strike northwest and across this part of the area.

The heavy metal content of the water on this map should be compared with the heavy metal content of stream and spring sediments and precipitates shown on Map 31-1964.

Aho, A. E.: Mineral potential of the Mayo district; Western Miner, vol. 37 No. 10, pp. 80-88 (1964).

Bostock, H. S.: Upper McQuesten River, Yukon Territory; Geol. Surv. Can., Prelim. Map 43-9 (1943).

Boyle, R. W., Illsley, C. T., and Green, R. N.: Geochemical investigations of the heavy metal content of stream and spring waters in the Keno Hill - Galena Hill area, Yukon Territory; Geol. Surv. Can., Bull. 32 (1955).

Boyle, R. W.: Geology, geochemistry and origin of the lead-zinc-silver deposits of the Keno Hill - Galena Hill area, Yukon Territory; Geol. Surv. Can., Bull. 111 (1955).

Green, L. H., and Roddick, J. A.: Dawson, Larsen Creek, and Nash Creek map-areas, Yukon Territory; Geol. Surv. Can., Paper 62-7 (1962).

Poole, W. H.: Reports of activities: field, 1964; Geol. Surv. Can., Paper 65-1 (1965a).

Mount Haldane, Dublin Gulch map-areas, Yukon Territory; Geol. Surv. Can., Prelim. map sheets (in press).

MAP 30-1964  
HEAVY METAL CONTENT OF STREAM AND SPRING WATERS  
DUBLIN GULCH  
YUKON TERRITORY

Scale 1:63,360  
1 inch to 1 mile

Miles 1 0 1 2 3  
Kilometres 1 0 1 2 3 4 5

5.1.11 Dublin Gulch  
A, Geol. map 30-1964  
Scale 1" to 1 mile

106 D/4  
DUBLIN GULCH  
YUKON TERRITORY  
MAP 30-1964