

THE PACIFIC EASTERN GOLD PROSPECT PIONEER EXTENSION PROPERTY LILLOOET MINING DIVISION (92J/15)

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INTRODUCTION

The Pacific Eastern property (MI 092J/NE-009) is centred at latitude 50°45' north, longitude 122°45' west, 5.5 kilometres south-east of the Bralorne mine, approximately 170 kilometres north of Vancouver. Access is by gravel road 12.4 kilometres southeast from the town of Gold Bridge (Figure 2-3-1).

The property consists of 88 Crown-granted mineral claims and fractions including the Pioneer Extension, President, Plutus and Dan Tucker claim groups. Current exploration is focused on the Pioneer Extension ground.

The writer visited the property in August 1986 and logged core from recently completed diamond drilling. Much appreciation is owed to Messrs. Gary Nordine and George Norman of Normine Resources Ltd. and Bema Industries Ltd. for access to the property and company information.

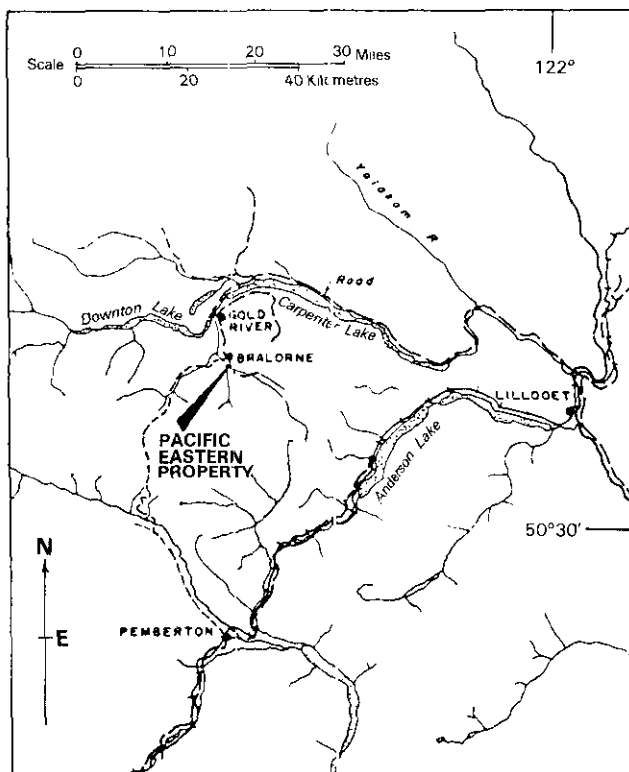


Figure 2-3-1. Location Map, Pacific Eastern Gold prospect.

EXPLORATION AND DEVELOPMENT HISTORY

Placer gold was first discovered on the lower course of the Hurley River prior to 1860. By 1865 its source had been traced to quartz veins exposed on the slopes above Cadwallader Creek.

The area became famous following development of the Bralorne and Pioneer mines. This operation, in continuous production from 1928 to 1971, achieved the status of the largest gold producer in

British Columbia, yielding 174 900 kilograms of gold and 40 000 kilograms of silver from 7.21 million tonnes of ore milled. Recent estimates by E&B Exploration Inc. indicate that 740 275 tonnes grading 8.9 grams per tonne gold remain in the Bralorne mine above the 2600 level.

Pacific Eastern Gold Mines Ltd. was formed in 1929 to explore the Pioneer Extension claim group adjoining the Pioneer mine on the southeast. In addition to much surface work and drilling, extensive underground tunnelling was completed between 1935 and 1937. Mine development during this period included the Pioneer Extension adit, driven 200 metres from the slopes north of Cadwallader Creek and an internal shaft, 160 metres deep, connected to the 520 level crosscut which was driven southerly 1300 metres under the valley of Cadwallader Creek. From the 520 level crosscut the 1595 drift system was driven 525 metres easterly and a winze, 70 metres deep, sunk near the west end to link the 1595 drift with several short tunnels on the 690 level (Figure 2-3-2).

Exploration was resumed in 1945 to 1947, following a period of dormancy. Several new veins were discovered by diamond drilling and subsequently tested by extension of the 1595 drift to the east.

Ownership of the claims subsequently passed from Noranda Mines Ltd. (1947-1973) to R.J. Barclay (1973-74) and later to J.T.M. Enterprises Ltd. and B.R.H. Investments Ltd. of Vancouver. In May 1983 the property was optioned by Normine Resources Ltd.

Work by Normine Resources confirms the continuation of lithology and structure from the Bralorne-Pioneer mines through the Pioneer Extension claim group. Three deep diamond-drill holes 85-2, 85-3 and 86-1 (to 855, 710 and 762 metres respectively), prove the presence of quartz veins and associated carbonate alteration typical of production zones in the nearby mines.

GEOLOGICAL SETTING

Exploration on the Pioneer Extension claims is focused on a segment of a 2-kilometre-wide, east by southeast-trending belt of metasedimentary, metavolcanic and intrusive rocks. The mine workings and the three long diamond-drill holes directed across the belt provide a good view of lithologies and structures (Figure 2-3-2).

The principal lithological units are Paleozoic chert beds of the Fergusson Group and downfaulted Triassic greenstones (Pioneer Formation) and metasedimentary rocks (Noel and Hurley Formations) of the Cadwallader Group. Structural relationships are complicated by the emplacement of diorite and granite bodies (the Bralorne intrusions), ultrabasic rocks (President intrusions) and younger hornblende and feldspar porphyry dykes. The major intrusions are elongated subparallel to the trend of the belt and concordant with the principal formations, following the course of the main faults.

Diamond-drill holes north of Cadwallader Creek are collared in Fergusson chert. These rocks are separated from the Cadwallader formations by a steeply dipping ultrabasic body and the Fergusson fault. Repeated intercepts of Triassic greenstones and metasediments suggest that these rocks are tightly folded, but this is not proved by the internal structural relationships.

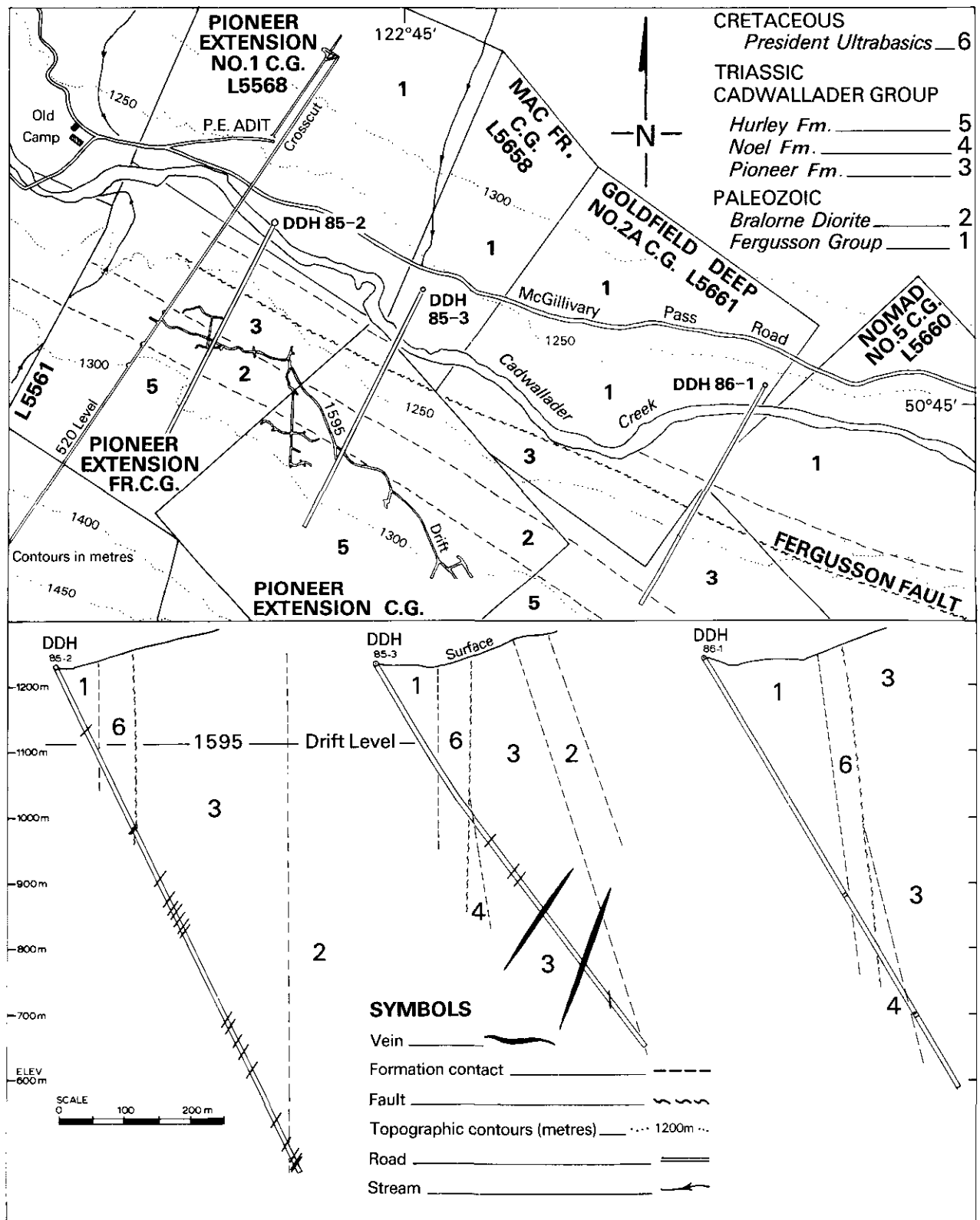


Figure 2-3-2. Geology and diamond-drill hole sections, Pioneer Extension property.

MINERALIZATION

Typical mineralization in the Bralorne-Pioneer camp consists of free gold with pyrite and arsenopyrite (1 to 3 per cent) in banded quartz veins. Veins average 1 to 2 metres wide with strike length and down dip extent ranging from 100 to 1500 metres. Most veins are gashes developed by repeated fracturing of the competent greenstones and crystalline plutonic rocks lying between the Fergusson fault and other subsidiary rifts in the Cadwallader fault system. Extensive hydrothermal carbonate alteration envelopes, up to 70 metres wide, accompany and appear to slightly postdate many of the quartz veins.

Two mineralized zones were opened up by the Pacific Eastern underground workings in previous exploration programs. These are (1) a quartz vein in the west drift (690 level), located 370 metres south of the Pioneer Extension portal and (2) two quartz veins intercepted by drilling from the 1595 drift near the eastern extremity of the mine, 775 metres southeast of the Pioneer Extension portal. According to company reports, the vein in the west drift is 29 metres long, 0.3 metre wide and averages 19.8 grams per tonne gold. The veins near the southeast end of the 1595 drift are 1.0 to 1.5 metres wide and contain visible gold; complete assay results are not available. They appear to be en échelon or continuous with two quartz veins, 1.2 and 1.5 metres wide, intersected in diamond-drill hole 85-2 within a wide zone of intense carbonate and biotite alteration.

The age of mineralization is estimated to range from Upper Cretaceous to Lower Tertiary, the interval between emplacement of

the Bendor granodiorite stock and the unaltered crosscutting Tertiary dykes. In a few instances late growth of stibnite has been observed in small fissures in the dykes.

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