

NAME OF PROPERTY                      ROUNDY CREEK

OBJECT LOCATED - Sunshine Creek Zone.

UNCERTAINTY IN METRES 300.      Lat. 55°25'35" Long. 129°29'40"

|                 |        |                     |
|-----------------|--------|---------------------|
| Mining Division | Skeena | District            |
| County          |        | Township or Parish  |
| Lot             |        | Concession or Range |
| Sec             | Tp.    | R.                  |

OWNER OR OPERATOR

**DESCRIPTION OF DEPOSIT.**

The deposit occurs in a quartz monzonite porphyry which intrudes Upper Jurassic, westerly dipping, argillaceous sediments of the Hazelton group. A major north trending fault zone in Roundy Creek has separated the porphyry stock into eastern and western parts with an intervening wedge of hornfelsed sedimentary rocks. The eastern part measures 800 feet in diameter, while the western part measures 1,800 by 800 feet in a westerly direction. Sedimentary rocks have been metamorphosed to biotite hornfels in a zone, roughly 60 meters wide surrounding the intrusion. Structural relationships of the intrusion are complex. Drill evidence indicates inward-dipping lower intrusive contacts, suggesting that parts of the intrusive may be sheet-like in form surrounding a central feeder pipe. The eastern segment is apparently tabular in section. A fine- to medium-grained alaskite intrudes the quartz monzonite porphyry as dykes and irregular bodies, localized near the boundaries of the stock. Several varieties of northeast-trending basic dykes intrude both the porphyry and the alaskite.

see Card 2 ....

Associated minerals or products

**HISTORY OF EXPLORATION AND DEVELOPMENT**

This property is located on Roundy Creek, and its tributary Sunshine Creek, about 1¼ miles from tidewater and some 4 miles south of the village of Alice Arm.

The occurrence of molybdenite on Roundy Creek was reported in 1916 but there is no indication that the showing was staked at that time. The discovery was probably related to activity on lead-zinc showings at the head of the creek.

A group of about 40 recorded claims owned by Gunn Fiva, of Alice Arm, were under option in 1960 to Southwest Potash Corporation. Work during the year included geological mapping and 2,500 feet of diamond drilling in 6 holes.

Sileurian Chieftain Mining Company Limited optioned the property from Mr. Fiva early in 1965. Diamond drilling was begun on the high-grade showings on Sunshine creek; drilling during the year totalled 1,433 feet in 15 holes. Work in 1966 included a geochemical survey and 8,863 feet of diamond drilling in 43 holes. Part of this work was on the Sunshine creek showings, and part on the eastern segment of the stock.

Bethlehem Copper Corporation Ltd. optioned the property in January 1967 and transferred a 25% interest in the option to a subsidiary Bethex Explorations Ltd. Work under the agreement included geological mapping, an induced polarization survey of the Sunshine creek segment of the stock, and 4,055 feet of diamond drilling in 12 holes on the Sunshine creek showings. The option agreement was terminated in November 1967 and the original 40 claims plus 19 claims staked by Bethlehem were returned to Sileurian.

During 1968 Sileurian carried out a soil geochemical survey, and 8,227 feet of diamond drilling in 51 holes on Sunshine creek. In November 1969 an adit was begun at the 1,050 foot elevation on the south side of Sunshine creek and approximately 1,500 feet of drifts, crosscuts, and raises were driven. In March 1970 a lower adit was begun at the 850 foot elevation and driven southerly under Sunshine creek for a total of 1,240 feet of drifts and crosscuts. Underground diamond drilling totalled 2,241 feet in 13 holes.

Pechiney Development Limited optioned the property in April 1971. Diamond drilling in 9 holes totalling 2,078 feet from the lower (850) adit indicated the mineralization encountered in the upper adit does not extend to the 850 level in the area covered by the drilling. On the low-grade

see Card 2 ....

HISTORY OF PRODUCTION

REFERENCES

Reports of Minister of Mines, British Columbia:  
 1916, p. 66; 1960, p. 10; 1964, pp. 24-30<sup>+</sup> ;  
 1965, p. 62; 1966, p. 48; 1967, p. 43; 1968,  
 pp. 61-63.

Geology, Exploration, and Mining; British Columbia Dept.  
 of Mines: 1969, p. 68; 1970, pp. 91-94<sup>++</sup> ; 1971,  
 p. 122.

Mineral Policy Sector; Corporation Files: "United  
 Chieftain Resources Ltd."; "Bethlehem Copper Corpor-  
 ation Ltd."; "Climax Molybdenum Corporation of British  
 Columbia, Limited".

+++Woodcock, J.R. and Carter, N.C.; Geology and Geochemistry  
 of the Alice Arm Molybdenum Deposits; Porphyry Deposits  
 of the Canadian Cordillera, The Canadian Institute of  
 Mining and Metallurgy, Special Volume 15, pp. 462-475,  
 1976.

Woodcock, J.R.; Bradshaw, B.A.; Ney, C.S.; Molybdenum  
 Deposits at Alice Arm, British Columbia; Tectonic  
 History and Mineral Deposits of the Western Cordillera,  
 The Canadian Institute of Mining and Metallurgy,  
 Special Volume 8, pp. 335-339, 1966.

Porphyry Copper and Molybdenum Deposits, West-Central British  
 Columbia: Bulletin 64, p. 104, B.C. Dept. of Mines, 1981.

MAP REFERENCES

Geology of Roundy Creek stock and vicinity, Sc. 1":1,000' -  
 Report of Minister of Mines, B.C., 1964, p. 37.

Map 307 A, Portland Canal Area, (Geol.), Sc. 1":4 miles -  
 accomp. Mem. 175.

Sileurian Chieftain Mining, underground plan of Roundy Creek  
 property, Fig. 8, Geology, Exploration, and Mining,  
 British Columbia Dept. of Mines, 1970, p. 92.

#Plan of Surface Geology and 1971 Underground Workings,  
 Sc. 1":165 ft., Fig. 22, Geology, Exploration, and  
 Mining, British Columbia Dept. of Mines, 1971.

\*Map 103 P/6, Aiyansh, (Topo.), Sc. 1:50,000.  
 Porphyry Molybdenum Deposits Alice Arm-Nass River Area,  
 Fig. 19, Bulletin 64.

~~Geology of the Moly property, Fig. 30, Bulletin 64, p. 97.~~

REMARKS

Location of East zone: Lat.: 55°25'35";  
 Long.: 129°29'25"

|               |       |       |  |  |  |  |  |
|---------------|-------|-------|--|--|--|--|--|
| Comp./Rev. By | DMacR | DMacR |  |  |  |  |  |
| Date          | 2-79  | 08-86 |  |  |  |  |  |

NAME OF PROPERTY

ROUNDY CREEK

## DESCRIPTION OF DEPOSIT (continued)

Two zones of molybdenum mineralization are known within the intrusion. The eastern segment, east of Roundy Creek, is host to uniform grades of molybdenite, occurring as selvages in numerous randomly oriented quartz veinlets and as fracture fillings. Drilling has indicated the presence of 7 million tonnes of 0.11 per cent molybdenite in this zone (CIM Spec Vol 15, p. 467).

The western segment of the intrusion, on the west side of Roundy Creek and lower end of Sunshine Creek, is nearly barren of molybdenite mineralization except for two high-grade zones in the central and southern part of the segment. Drilling and underground work has indicated 1.35 million tonnes of 0.347% molybdenite in the main Sunshine Creek zone, and some 35,000 tonnes grading 0.668% molybdenite in a small zone 400 feet to the west (CIM Spec Vol 15, p. 467). In both zones, higher grades of molybdenum mineralization are contained in alaskites. In the upper underground heading, closely spaced 1- to 2-cm bands of molybdenite are oriented crudely parallel to the trend of an enclosing alaskite body and appear to be an integral part of the magmatic crystallization. In addition, 1-cm rosettes of molybdenite are uniformly distributed within the alaskite. Molybdenite also occurs in numerous randomly oriented hairline fractures with chlorite in brecciated quartz monzonite and in closely spaced 0.5- to 1-cm-wide quartz veinlets in alaskites and leucocratic 'quartz-eye' quartz monzonite porphyries.

Drilling and underground exploration indicate that the zones of molybdenum mineralization are lens-like in form and extremely erratic in lateral and vertical extent. The distribution of the higher-grade zones suggests that they are spatially related to the intrusive center or feeder pipe.

## HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

eastern segment of the stock, east of Roundy Creek, diamond drilling was done in 2 nearly horizontal holes totalling 1,126 feet. The option terminated in June 1971. The company name (Sileurian Chieftain) was changed in 1972 to United Chieftain Resources Ltd.

Amax Inc. purchased the property in 1974 for its wholly owned subsidiary Climax Molybdenum Corporation of British Columbia, Limited; the property was subsequently transferred to Amax of Canada Limited.