PRODUCT MOLYBDENUM | TERRITORY | N.T.S. AREA 93 M/12 | REF.MO 1

NAME OF PROPERTY BEAR

OBJECT LOCATED -drilled area.

UNCERTAINTY IN METERS 300. Lat. 55°33'30" Long. 127°38'10"

Mining Division Omineca District Cassiar

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The Laura porphyry plug is a satellite of a group of small plutons in the core of Mount Thomlinson. These epizonal plutons are outriders in a zone of small plutons that mark the northern flank of the Skeena Arch. In this zone the thick sequence of clastic sediments of the Bowser Group is punctured by isolated intrusions that mark the zone of transition from the Bowser Basin proper to the frayed, faulted, and digitated southern margin. The Bowser Group in the vicinity of the Laura pluton originally consisted mainly of lithic sandstones and siltstones. These have been moderately compressed into northwesterly trending folds. The Laura plug occurs in the western flank of a major anticline, but locally the attitudes are discordant and, where bedding can be determined, the beds dip commonly northeasterly. Surrounding the plug the volcanic sandstones have been thermally metamorphosed in an irregular halo up to 1,500

see Card 2 ....

Associated minerals or products of value – Copper

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at about the 4,500 foot elevation on the west flank of Mt. Thomlinson, between McCutcheon and Sterritt Creeks, 20 miles north of Hazelton.

The showings were first located as the Mike group by Kennco Explorations, (Western) Limited but details are lacking.

The Bear 1-26 recorded claims were owned in 1968 by E. and H. Simpson, of Hazelton. Laura Mines Ltd. held an option on the property and during 1968 carried out a detailed soil survey, 28,600 feet of trenching, and 10,000 feet of diamond drilling in 17 holes. Midwest Oil Corporation, of Denver, held the property in 1970 and carried out geological mapping, and 1,542 feet of diamond drilling in one hole.

Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa

512302 *

HISTORY OF PRODUCTION

MAP REFERENCES

Map 971 A, Smithers-Fort St. James, (Geol.), Sc. 1": 8 miles (1949).

Map 69-1, Smithers, Hazelton, and Terrace Areas, (Geological compilation), Sc. 1":4 miles, British Columbia Dept. of Mines.

#Laura porphyry pluton, (Geol.), Sc. 1":800 ft., Fig. 15, Report of Minister of Mines, British Columbia, 1968, p. 115.

*Map 93 M/12 E, Kisgegas, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	2-75						

REFERENCES

Brown, A. Sutherland; Bear (Laura); Report of Minister of Mines, British Columbia, 1968, pp. 113-116.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1970, p. 177.

Carter N.C. Porphyry Copper and Molybdenum deposits West-Central B.C. Bulletin 64 P.117, etc...

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NAME OF PROPERTY **BEAR**

DESCRIPTION OF DEPOSIT (continued)

feet wide characterized by the growth of new felted purplish-brown biotite. Near the porphyry plug the hornfels has an intense fracture stockwork.

The Laura pluton is an irregular but fairly simple porphyry plug consisting of two nearly identical phases. In hand specimen P 1, the earlier phase, is an obvious porphyry, but P 2, the later phase, commonly appears more granitoid because it is crowded with phenocrysts. Both phases are rusty-weathering medium-grey rocks with prominent plagioclase, hornblende, and scattered hexagonal biotite books. P 2 has intruded the P 1, for it has hornfelsed adjacent parts, indicated by conversion of original hornblende into a felted mass of brown biotite or, more restrictedly, fine acicular actinolite.

Hydrothermal alteration appears rather erratically distributed. In the drill core for most holes there is an alternation of fresh and altered rock, mostly kaolinite (and carbonate) or sericite with pyrite and quartz. Rarely there is some potassium feldspar alteration or intense silicification. The altered zones appear to be relatively flat lying, but with the widely spaced vertical drill-holes it is difficult to be sure. Intense sericitized zones appeared most closely associated with mineralization.

Disseminated pyrite and pyrrhotite also appear to be rather erratically distributed, but a tendency is evident in which pyrrhotite increases in proportion with depth and pyrite is dominant in hydrothermally altered rocks.

Diamond drilling has established that molybdenum and minor copper mineralization is widely distributed within the pluton, and better grades are commonest toward the periphery. The detailed distribution is fairly erratic. Molybdenite and chalcopyrite occur in quartz veinlets and in dry fractures in a stockwork. Four stages of fracturing and veining are evident:-

(1) Dry pyrite fractures with traces of chalcopyrite and amphibole.

(2) Quartz-pyrite-molybdenite stockwork with chief orientations steep.

continued above ....

DESCRIPTION OF DEPOSIT (continued)

(3) Quartz-pyrite.

(4) Quartz-carbonate banded veins with vuggy openings and minor pyrite, sphalerite, specularite, arsenopyrite, and hair-like stibnite or bismuthinite - oriented chiefly near the horizontal.