

NAME OF PROPERTY DUNCAN Nos. 4-8 ZONES (G.J.)
(LAKESIDE, GRIZZLY)

OBJECT LOCATED - Zones 5-8 - #23,
Map 82 K/SE (MI)

UNCERTAINTY IN METRES 300. Lat. 50°21'50" Long. 116°56'50"

Mining Division	Slocan	District	Kootenay
County		Township or Parish	
Lot		Concession or Range	
Sec	Tp.		R.

OWNER OR OPERATOR AND ADDRESS
Cominco Ltd.

DESCRIPTION OF DEPOSIT

Map 235 A indicates the rocks in this vicinity include the Lardeau Series and the Badshot Formation, of Late Precambrian age. The mineralized zones are in dolomite and siliceous dolomite of the Badshot Formation. The general lithological succession of the Badshot on the Duncan anticline consists of a lower and an upper dolomite separated by a thin layer of crystalline limestone. The uppermost part of the upper dolomite is siliceous. Mineralized zones are found in both the lower and the upper dolomites and along the contact between the upper dolomite and the siliceous dolomite.

Eight mineralized zones have been found on the Duncan property. One important zone and some scattered mineralization are found in the lower dolomite, and the remainder of the mineralized zones are in the upper dolomite, particularly along the contact between the dolomite and the siliceous dolomite. The formations on the Duncan property are on the eastern limb of the Duncan anticline. Two important westerly dipping strike faults see Card 2

Associated minerals or products of value - Zinc.

HISTORY OF EXPLORATION AND DEVELOPMENT

The Duncan Nos. 4-8 zones are located on the peninsula in Duncan Lake, the No. 4 zone being at the south end of the peninsula and the 5 to 8 zones about midway up the peninsula.

The first reported activity was on the Lakeside Nos. 1 and 2 claims, owned in the 1920's by G.H. Scott, the Matthew Bros., and J.N. Watson. Trenching was reported at that time. The Grizzly Crown-granted claim (Lot 14371) was located on the south end of the peninsula (No. 4 zone); details are lacking.

The showings were restaked in about 1950 by J.G. Gallo and associates, of Howser, as the J.G. group of some 49 claims. The J.G. group extended southerly as far as the Glacier Creek showings (see 82 K/7, Pb 2 and Pb 3). Lardeau Lead and Zinc Mines Ltd. optioned the J.G. group in 1951 but work was apparently confined to the south end of the claim group. In September 1952 Berens River Mines Limited purchased a share interest in Lardeau Lead and Zinc and took over management of the exploration work. There is no report of work on the peninsula at that time.

The Consolidated Mining and Smelting Company of Canada Limited optioned the J.G. group of about 58 claims from Mr. Gallo and associates in 1957. The claims subsequently became known as the Duncan property. Geological mapping in 1957, and mapping and diamond drilling on the peninsula in 1958 disclosed an extensive zone of lead-zinc mineralization. Underground development began in June 1959 with the driving of a crosscut adit at the 1,800 foot elevation, 35 feet above lake level. The crosscut passed through No. 6 zone and drifts followed No. 7 and No. 8 zones. No. 5 zone is beneath the present level. A vertical raise was driven from the crosscut to the surface, a distance of 346 feet. Development work during 1959-60 totalled 6,565 feet of crosscut, drifts and raises, 19,710 feet of underground diamond drilling, and 4,014 feet of surface diamond drilling in 5 holes on No. 7 zone. During 1961 further surface diamond drilling totalling 6,416 feet in 13 holes was done in the area south of the adit, and in the vicinity of No. 4 zone at the south end of the peninsula. "Several million tons of low-grade lead-zinc mineralization is indicated" (Bulletin 49, p. 71).

The Duncan Dam, completed in 1967, raised the level of the lake about 90 feet, flooding a portion of the property.

see Card 2

HISTORY OF PRODUCTION

REFERENCES

+Fyles, James T.; Geology of the Duncan Lake Area, Lardeau District British Columbia; Bulletin No. 49, pp. 71-75, British Columbia Dept. of Mines, 1964.

Reports of Minister of Mines, British Columbia: 1923, p. 213; 1926, p. 268; 1951, p. 180; 1952, p. 192; 1953, p. 146; 1955, p. 68; 1956, p. 106; 1957, p. 60; 1958, p. 50; 1959, p. 71; 1960, p. 79⁺⁺; 1961, p. 79; 1966, p. 225.

Muraro, T.W.; Stratigraphy, Structure and Mineralization at Duncan Mine, Lardeau District, British Columbia; Unpublished Thesis (MSc.), Queen's University, 1962.

Gunning, H.C.; Lardeau Map-Area, B.C.; Memoir 161, p. 95, Geol. Surv. of Canada, 1930.

Exploration in British Columbia; British Columbia Dept. of Mines: 1979, p. 88; 1981, p. 26.

Trygve, Hoy; Stratigraphic and structural setting of stratabound lead-zinc deposits in southeastern BC; CIM Bulletin Vol. 72, #840, April 1982, p. 125.

MAP REFERENCES

Geological Map of the Duncan Lake Area, Sc. 1":1 mile, Fig. 3 - accomp. Bulletin 49, British Columbia Dept. of Mines.

Map 12-1957, Lardeau, (Geol.), Sc. 1":4 miles.

Map 235 A, Lardeau Area, (Geol.), Sc. 1":4 miles - accomp. Memoir 161.

#Map 82 K/SE (MI), Lardeau, (Mineral Inventory), B.C. Dept. of Mines.

*Map 82 K/7 W, Duncan Lake, (Topo.), Sc. 1:50,000.

Vertical section, zones 6, 7, 8, Sc. 1":125 ft., Fig. 17, Bull. 49, p. 73, B.C. Dept. of Mines.

Map 1326 A, Lardeau (East Half), (Geol.), Sc. 1:250,000 - accomp. Memoir 369, Geol. Surv. of Canada, 1973.

REMARKS

Comp./Rev. By	DMacR	DMacR					
Date	12-77	01-86					

PRODUCT

LEAD

PROVINCE OR
TERRITORY

British Columbia

N.T.S. AREA 82 K/7

- Card 2 -
REF. PB 1

NAME OF PROPERTY

DUNCAN Nos. 4-8 ZONES (G.J.)
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DESCRIPTION OF DEPOSIT (continued)

and several smaller ones are recognized in the Zone 5-8 workings. Probably others are present on the property but have not been found even by close mapping.

Mineralized zones of the Duncan type consist of pyrite, sphalerite, galena, and minor pyrrhotite disseminated in dolomite and siliceous dolomite. They are lenticular zones with gradational but in general well-defined margins. The attitude of the zones is essentially parallel to that of the enclosing formations, and consequently the strike is about north 20 degrees west and the dip in general is steeply to the east.

The proportion of individual sulphides in the deposits varies widely. In general, pyrite is the most abundant sulphide, and sphalerite is more abundant than galena. Pyrrhotite in minor amounts is present in one zone in the Duncan mine, and minute amounts of chalcopyrite, marcasite, ruby silver, and meneghinite are reported by Muraro (1962, p. 77). The sulphides in general are very fine grained. They form disseminated grains, lenticular clusters, or fairly massive layers in dolomite.

No. 7 zone is a steeply dipping tabular body averaging 15 to 20 feet thick along the western contact of the siliceous dolomite. The zone as indicated by drilling plunges about 7 degrees to the north and is about 400 feet high. It has been followed for 3,000 feet in the drift and found in drilling beyond. The zone is layered, with a western layer in which dolomite, pyrite, and sphalerite are found in fairly well-marked bands; a central layer with lenticular masses of pyrite, galena, and sphalerite in carbonate layers associated with fine-grained quartz; and an eastern siliceous layer in which pyrite and sphalerite are the dominant sulphides.

No. 5 zone is below and to the south of No. 7 zone along the same western contact of the siliceous dolomite. It has the same plunge as No. 7 zone and is separated from it by a zone along the contact about 200 feet high in which there is only scattered sulphide mineralization.

No. 8 zone is a relatively small lens in the upper dolomite about 100 feet west of No. 7 zone. It dips at moderate angles to the east and, although not fully outlined, is 300 to 400 feet high parallel to the dip. It plunges to the north and appears to

see reverse Card 2

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

In 1966 the crosscut adit 35 feet above lake level was sealed with a substantial concrete plug and the mine buildings moved to higher ground. Estimated reserves include approximately 9 000 000 tonnes with 2.7% Pb and 2.9% Zn (Muraro, 1962 as quoted in CIM Bull, Vol. 75); or 2 760 000 tonnes at 3.3% Pb, 3.1% Zn (BC Dept. of Mines, Reserves Map, 1984).

Cominco Ltd in 1979 carried out 1 117 m of diamond drilling in 4 surface holes on the Rosco claim. A seismic survey over 25 km was carried out in 1981.

DESCRIPTION OF DEPOSIT (continued)

be offset on a steeply dipping strike fault above the main crosscut. Pyrite and sphalerite are the main sulphides, and galena has been found only in polished sections.

No. 6 zone is 300 to 400 feet west of No. 7 zone and is the most westerly and the largest zone found in the mine. The dominant sulphide is pyrite, with minor amounts of sphalerite and galena. Pyrrhotite is present locally in bands an inch to a few inches wide. The zone is lenticular in cross-section, approximately 300 feet high and 20 to 100 feet thick. The zone has been found in drilling for 3,000 feet along the plunge which is at low angles to the north, parallel to that of the other zones. The zone in the main crosscut is bounded on the east and probably offset by a westerly dipping fault. Most of the mineralization is uniformly fine-grained pyrite with varying small amounts of galena and sphalerite disseminated in closely spaced thin lenses or bands in siliceous dolomite.