

## NAME OF PROPERTY

REEVES-MacDONALD

OBJECT LOCATED-Reeves outcrop ("glory hole").

UNCERTAINTY IN METERS -100. Lat. 49°01'25" Long. 117°21'10"

Mining Division Nelson District Kootenay

County Township or Parish

Lot Concession or Range

Sec Tp. R.

## OWNER OR OPERATOR AND ADDRESS

Reeves MacDonald Mines, Limited.

## DESCRIPTION OF DEPOSIT

The lead-zinc sulphide replacement deposits occur in the Reeves limestone member of the Laib Formation of lower Cambrian age. The most prominent structural feature in the area is the Salmo River anticline. This is a gently plunging isoclinal anticline with axial plane striking N70-80°E and dipping about 60° south. Steeply plunging isoclinal folds have been superimposed on both limbs of the primary anticline. The orebodies occupy a large steeply plunging syncline, named the Reeves syncline, developed as a secondary fold on the south limb of the anticline. The Reeves, B.L., O'Donnell, and No. 4 orebodies are faulted segments of one zone which has been cut by a series of late normal faults striking north-south and dipping 25 to 40 degrees east. The Point, MacDonald, and Prospect are separate deposits. The orebodies range up to 100 feet in width, are often several hundred feet long, and are fairly continuous down

see Card 2 ....

Associated minerals or products of value - Lead, silver, cadmium, copper.

## HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the junction of the Salmo and Pend D'Orille Rivers approximately 35 miles south-southwest of Nelson.

The Drumlummon group of claims was located between 1910 and 1912 by J.H. MacDonald and J. Quayle, of Rossland. At about the same time R.M. Reeves staked the International Lead group on showings some 4,000 feet to the northeast. In 1923 the MacDonald property was reported on under the name "Rio Tinto"; the 7 claims were bonded by L.P. Larsen and associates, of Metalline, Washington.

The Victoria Syndicate, Limited, of London, England, optioned the International Lead and Drumlummon groups in 1925. Exploration and development work continued into 1927 and included about 1,500 feet of openings in the MacDonald adit, located about 60 feet above the Pend D'Orille River, and over 2,500 feet of openings in the Reeves adit, located some 4,000 feet to the northeast. Diamond drilling during this period totalled about 10,000 feet. Five promising ore zones were indicated.

Reeves MacDonald Mines, Limited, was incorporated in 1928 with Pend Orille Mines & Metals Company, of Spokane, holding a controlling interest; the Victoria Syndicate retained a small interest in the new company. During 1929 the 1,900 level was driven to intersect the Reeves orebody. Operations were suspended in 1930. The Drumlumin (Lot 12076), International Lead No. 1 (Lot 12692), and a number of other claims were Crown-granted to the company in 1931. Further crosscutting, and diamond drilling, was done in the 1,900 level during 1937-38. Work resumed in 1947 with a view to bringing the mine into production. A 500 ton-per-day concentrator was installed and put into operation in August 1949; concentrator capacity was increased to 1,000 tons-per-day in 1950. With the exception of a two year closure (1953-1955) due to a decline in metal prices, operations were continuous until July 1971 when the ore reserves were depleted and the mine closed. The mine was developed from the 8,000 foot long 1,900 level main haulage, and on the upper 2,650 level. The two levels are connected by an

see Card 2 ....

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

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HISTORY OF PRODUCTION

Production from the Reeves-MacDonald for the period 1949-1971, inclusive, totalled 6,413,093 tons. From this ore 637,945 ounces of silver, 60,811 pounds of copper, 127,191,976 pounds of lead, 448,898,796 pounds of zinc, and 680,092 pounds of cadmium were recovered.

MAP REFERENCES

- #Surface Geology, Reeves MacDonald Mine, Sc. 1":400 ft., Figure 17 - Bulletin No. 41, B.C. Dept. of Mines.
- Geology of the Salmo Lead-Zinc Area, Sc. 1":2,000 ft., Figure 3, Sheet B - Bulletin No. 41.
- Map 1145 A, Salmo, (Geol.), Sc. 1":1 mile.
- \*Map 82 F/3 W, Salmo, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR	DMacR					
Date	12-73	7-76					

REFERENCES

Fyles, T.J., and Hewlett, G.G.; Stratigraphy and Structure of the Salmo Lead-Zinc Area; Bulletin No. 41, pp. 139-146, British Columbia Dept. of Mines, 1959.

Walker, J.F.; Geology and Mineral Deposits of Salmo Map-Area, British Columbia; Memoir 172, pp. 57-61, Geol. Surv. of Canada, 1934.

Reports of Minister of Mines, British Columbia: 1918, p. 198; 1923, p. 220; 1925, p. 248; 1926, p. 281; 1927, p. 315; 1928, pp. 345-351; 1929, p. 353; 1937, p. E-53; 1938, p. E-44; 1947, p. 165; 1948, p. 135; 1950, p. 129; 1951, p. 142; 1952, p. 153; 1953, p. 119; 1954, p. 129; 1955, p. 53; 1956, p. 85; 1957, p. 46; 1958, p. 40; 1959, p. 63; 1960, p. 71; 1961, p. 71; 1962, p. 76; 1963, p. 71; 1964, p. 117; 1965, p. 183; 1966, p. 215; 1967, p. 247; 1968, p. 245.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 320; 1970, p. 444; 1971, p. 401; 1972, p. 49; 1973, p. 59; 1974, p. 68.

White, W.H.; Reeves MacDonald Mines Limited; Report of Minister of Mines, British Columbia; 1949, pp. 169-174.

Green, L.H.; Wall-rock Alteration at Certain Lead-Zinc Replacement Deposits in Limestone, Salmo Map-Area, B.C.; Bulletin 29, pp. 12-16 & Fig. 2, Geol. Surv. of Canada, 1954.

Mineral Development Sector; Corporation Files: "Reeves MacDonald Mines, Limited"; "Pend Orille Mines & Metals Company."

Mines Branch, Ottawa; Investigations in Ore Dressing and Metallurgy; 1943, Investigation No. 1349; 1947, Investigation No. 2320.

Fyles, J.T. and Hewlett, C.G.; Reeves MacDonald Mine; Structural Geology of Canadian Ore Deposits, Vol. 2, pp. 110-116, Canadian Institute of Mining and Metallurgy, 1957.

The Reeves Macdonald Operation, by Staff of Reeves Macdonald; Canadian Institute of Mining and Metallurgy, Bulletin, Vol. 54, No. 586, February 1961, pp. 143-147.

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REEVES-MacDONALD

## DESCRIPTION OF DEPOSIT (continued)

dip; ore has been mined through a vertical range of more than 2,000 feet. The ore consists of bands, lenses, and disseminated grains of pyrite, honey-coloured sphalerite, and galena, in a medium grey to dark grey banded dolomite.

## HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

internal 55° shaft. Two internal inclined shafts extend from the 1,900 to the 1,100 level. Development work was carried to the 55 foot level, 1,845 feet below the 1,900 level. The B.L. and O'Donnell orebodies were developed from separate openings established at the 2,350 level.

Subsequent mining operations were carried out on the Annex part of the property (see 82 F/3, Zn 4).

Some salvage mining was done during the years 1972-1974, inclusive. Lateral development work and raising in 1974 totalled 828 feet. The mine and mill closed in April 1975.