

Location/Identification

MINFILE Number:	082KNE013	National Mineral Inventory Number:	082K16 Ba1
Name(s):	<u>BRISCO</u> BRISCO BARITE, SALMON (L.15046)		
Status:	Past Producer	Mining Division:	Golden
Mining Method	Underground, Open Pit	Electoral District:	Columbia River-Revelstoke
Regions:	British Columbia	Resource District:	Rocky Mountain Forest District
BCGS Map:	082K089		
NTS Map:	082K16W	UTM Zone:	11 (NAD 83)
Latitude:	50 49 47 N	Northing:	5631103
Longitude:	116 19 50 W	Easting:	547146
Elevation:	975 metres		
Location Accuracy:	Within 500M		
Comments:	Quarry within Lot 15046, located between the Templeton River and Dunbar Creek, 4 kilometres west of the village of Brisco and the Columbia River (Property File - Map of workings).		

Mineral Occurrence

Commodities:	Barite		
Minerals	Significant:	Barite	
	Associated:	Dolomite	
	Mineralization Age:	Unknown	
Deposit	Character:	Vein, Breccia, Stratabound	
	Classification:	Sedimentary, Industrial Min.	
	Type:	E17: Sediment-hosted barite	
	Shape:	Tabular	Modifier: Faulted
	Dimension:	237x7x0 metres	
	Comments:	Barite orebody is also brecciated.	

Host Rock

Dominant Host Rock:	Sedimentary		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Ordovician	Undefined Group	Beaverfoot	-----
Isotopic Age	Dating Method	Material Dated	
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Lithology:	Dolomite, Limestone		

Geological Setting

Tectonic Belt:	Omineca	Physiographic Area:	Purcell Mountains
Terrane:	Ancestral North America		

Inventory

No inventory data

Summary Production

		Metric		Imperial	
Mined:		133,000	tonnes	146,607	tons
Milled:		133,000	tonnes	146,607	tons
Recovery	Barite	133,000,000	kilograms	293,214,809	pounds

Capsule Geology

The region includes strata from the Purcell and Windermere supergroups, overlain by a Paleozoic platform carbonate succession. The structure of the area is dominated by the Mount Forster-Steamboat fault, one of a series of Mesozoic thrust faults, and it carries folded Middle and Upper Proterozoic strata over folded Upper Proterozoic and Paleozoic strata.

In the Brisco occurrence area, the Upper Cambrian to Middle Ordovician McKay Group conformably overlies the Jubilee Formation and is unconformably overlain by the Upper Ordovician Beaverfoot Formation. The Middle-Upper Cambrian Jubilee Formation consists of a thick succession of massive to thin bedded dolomite and limestone. The McKay Group consists of recessively weathering shales, argillaceous limestone, thin sandstones and dolomitic biowackestones. The top few metres of the McKay Group are often hematite-stained reflecting possible subaerial exposure prior to the deposition of the overlying Beaverfoot Formation. The Middle Ordovician to Silurian Beaverfoot Formation rests unconformably on the McKay Group and on the Jubilee Formation. A white quartzite at the base of the Beaverfoot Formation is medium to thick bedded and usually massive and is overlain by a series of thick-bedded, massive biowackestones and peloidal mudstones with some beds of mature quartz pebble grits, limestone and dolomite. The top of the formation is eroded beneath the Middle Devonian Mount Forster Formation. Karst features, coarse recrystallization, silicification, breccias and base metal mineralization are developed adjacent to this unconformity.

At the Brisco quarries, barite had been exposed across an average width of 7.62 metres for 237.7 metres along a northerly striking breccia zone within dolomite of the Beaverfoot Formation. The host rocks have a north strike and steep dips, ranging from 77 degrees to vertical. The deposit is in the east limb of a syncline which is cut by numerous faults of varying magnitude. The west wallrock is highly fractured dark grey to black dolomite that is commonly brecciated with a few scattered lenses or horses of brown quartzite. Mountain leather is abundant as films on fracture surfaces and a few small barite veins are present. The east wallrock is light grey weathering buff to flesh-coloured dolomite and limestone. It is brecciated, and near the main barite body contains barite in the matrix. The orebody itself is brecciated. Much of the barite is white, but the white sections are irregularly shaped and are usually edged or cut by zones of variable width that consist of a fine-grained black matrix enclosing angular fragments of white barite a fraction of a centimetre to several centimetres in diameter. The black colour is due to carbon (graphite).

The barite pinches and swells both horizontally and vertically. To the north it appears to be cut off by a fault and it pinches out to the south. White barite, occurring as irregular masses forming the matrix around breccia fragments of light coloured dolomite, occurs 762 metres north of the main body. A small amount of barite, present as irregular discontinuous masses in a zone of shearing, occurs 550 metres to the south.

Drilling in 1980 at the south end of the main ore zone intersected only a few stringers of barite. Drilling to the east and northeast of the main zone indicated a potential for 3000 tonnes of barite with a specific gravity of 4.27.

Old workings indicate that the barite occurred in a steeply dipping horizon bounded to the east by a fault structure. The west contact appears to be both fault controlled and conformable with the host dolomite. The mined out zone appears to have been controlled by a northerly plunging structure.

Production from the Brisco operations began in 1952 and continued to 1980. Initial production was from an open pit. In subsequent years production came from underground operations. A total in excess of 133,000 tonnes of barite was produced during this time. The deposit is considered depleted but a modest reserve of barite, not economical, is still present (Butrenchuk, S.B.B., 1988)

The main deposit and quarrying operations are on the Salmon claim (Lot 15046).

Bibliography

EMPR AR 1945-A130; 1946-A203,A204; 1947-A203,A204; 1948-A183; 1949- A246; 1950-A217; 1952-A246-A248; 1953-A185; 1954-A175; 1955-90; 1956-148,149; 1957-77; 1958-84,85; 1959-151; 1960-134,135; 1961- 140,141; 1962-147; 1963-138; 1964-200; 1965-258,259; 1966-260; 1967-300; 1968-296
EMPR GEM 1969-383; 1970-489; 1971-454; 1972-578; 1973-538; 1974-371, 372
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EMPR MINING 1975-1980 p. 42; 1981-1985 p. 54; 1986-1987 p. 79; 1988 p. 79
EMPR MAP 62; 65, 1989
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EMPR PF (Geology map of Brisco adit; Surface geology map; Drilling report by F. Nuss, Mountain Minerals, 1980)
EMR MP CORPFILE (Mountain Minerals Limited)
GSC MAP 12-1957; 1326A
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CANMET IR 60, p. 18
Butrenchuk, S.B. (1988), *Ministry of Energy, Mines and Petroleum Resources, internal unpublished draft manuscript on Barite
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EMPR PFD 3732, 3733, 3734, 3735, 3736, 3737, 840794, 843078, 507028

Date Coded:	1985/07/24	Coded By:	BC Geological Survey (BCGS)	Field Check:	N
Date Revised:	1991/01/29	Revised By:	George Owsiacki (GO)	Field Check:	Y