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MINFILE Record Summary

MINFILE No 094M 003

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SUMMARY [Summary Help](#)

Name	FIRESIDE, BEAR, MOOSE, BEAVER, WOLF, DEER, WEST BEAR, EAST BEAR	NMI Mining Division	94M14 Ba1 Liard
Status	Producer	BCGS Map	094M074
Latitude	059° 46' 18"	NTS Map	094M14E
Longitude	127° 12' 29"	UTM	09 (NAD 83)
Commodities	Barite, Lead, Zinc	Northing	6627342
Tectonic Belt	Foreland	Easting	600630
		Deposit Types	I10 : Vein barite
		Terrane	Ancestral North America
Capsule Geology	<p>This barite deposit, part of which was mined in the early 1980s, is situated in the Fireside property, 6 kilometres southeast of the eastern end of Hillgren Lakes and 11 kilometres north-northwest of the settlement of Fireside on the Alaska Highway (Assessment Report 9052).</p> <p>The Fireside deposit is in a poorly exposed area in the Liard Plain. The few outcrops in the region are Cambrian (or older) to Devonian, and consist of fine- to medium-grained siliciclastics and calcareous rocks belonging to Ancestral North America (Geological Survey of Canada Maps 46-1962, 1712A, 1713A).</p> <p>The rocks hosting the barite showings on the property are mainly thin bedded brown to grey argillite, shale, siltstone and grit, some of which are brecciated with a siliceous matrix (Minister of Mines Annual Report 1965; Property File - Property Description, circa 1988). In general, bedding strikes north to northwest and dips gently to moderately east.</p> <p>Barite is present in a number of zones, known as the Bear, Moose, Beaver and Wolf zones. Formerly the largest before it was mined, the Moose zone contains a system of barite veins within a north-striking, steeply dipping, anastomosing fault zone (Assessment Report 9052). Barite pinches and swells along the structure and rarely exceeds 3.5 metres in width. The barite is white to creamy white, coarsely crystalline, commonly iron stained, and locally banded. It is associated with secondary sideritic dolomite. A grab sample returned an analysis of 58.26 per cent barium, with negligible base metal values; its specific gravity was 4.2 (Property File - Property Description, circa 1988). The barite contains only 0.11 per cent strontium.</p>		

The Moose zone has been mined by open pit over a length of 400 metres (Property File - Property Description, circa 1988; Assessment Report 9052). Records show that in 1984 and 1985, a total of 41,071 tonnes of barite ore was mined and milled by Dresser Industries Incorporated, presumably all from the Moose quarry (Mining in British Columbia 1981–1985). Reserves are virtually exhausted from this quarry, but substantial reserves of barite still exist at the Bear zone (Property File - Property Description, circa 1988).

The Bear zone, on which the occurrence is centred, is situated 2.5 kilometres northeast of the Moose zone. Two main barite veins are exposed over a length of 130 metres and width of 20 metres, striking northeast with subvertical dips. The south vein is 3 metres wide and the north vein is 1 metre wide. The barite veins are very similar in appearance and composition to that at the Moose zone. They are streaked grey and white and cut by fractures parallel to the length of the veins. Galena and minor sphalerite are present in irregular patches along some fractures (Minister of Mines Annual Report 1965). Other fractures are open and have vuggy pockets of barite crystals. A sample from the Bear zone assayed 57.04 per cent barium (Property File - Property Description, circa 1988). There are a number of other smaller veins and lenses of barite in the area, and thin stringers of barite and quartz in the argillite and brecciated argillite hostrocks.

The Beaver zone is located approximately 700 metres northwest of the Moose zone. It is exposed over a length of 45 metres and across a width of 4 metres, and strikes north-northeast and dips vertically. Like the other zones, the barite is coarsely crystalline, cream or white to very pale grey in colour, with some limonite staining. A sample assayed 58.14 barium (Property File - Property Description, circa 1988).

Measured geological reserves in the Bear zone are approximately 21,000 tonnes of barite with a specific gravity of 4.25, and in the Beaver zone there are 18 000 tonnes of barite with a specific gravity of 4.25 (Property File - Property Description, circa 1988).

In the late 1990s, a crew of nine persons were employed at Fireside Minerals' barite processing plant in Watson Lake, processing approximately 181 tonnes per day. The plant was bought from Dresser Industries (previous operator). The very high-quality barite was shipped north to the Alaska oilfields and south to the Grand Prairie area for use as drilling mud (T. Schroeter, personal communication, 1997). Approximately 18,000 tonnes of barite were mined from the Bear vein pit in the 1998 season. From the new West Bear pit, 11,500 tonnes were mined. At this time a mineable reserve was being established for the fault-extension East Bear.

In 1997, Fireside Minerals Ltd. estimated a reserve of 5,200,000 tonnes of barite (Information Circular 1999-1, page 11). In 2011, reserves were estimated at 170,400 tonnes of barite (Information Circular 2012-1, page 5).

In 2005, Fireside Minerals Inc. drilled 10 exploration holes, totaling 750 metres, on the Bear and nearby Moose vein. Production continued uninterrupted from 1998 to 2005 except for during 2000, when the mine was idle. For several years, all production was from the Bear vein.

In 2012, a reverse circulation drilling program was conducted primarily on the Moose zone, where 16 collars were drilled; two additional collars were drilled on the Lynx 1 claim. The program successfully extended the barite veins northward by approximately 220 metres (Assessment Report 34000).

In 2013, a diamond drilling program was conducted at the Fireside, Moose and Beaver zones; 60 holes were drilled on the Fireside Minerals production leases, and 6 on the Lynx 1 claim. The Lynx 1 program extended the barite veins north by 16 metres; four holes intersected commercial quantities of barite (Assessment Report 34620).

In 2014, production increased 30% from 2013 levels to approximately 32,000 tonnes from 36,000 tonnes mined. A non-NI-43-101 compliant reserve estimate totals 550,000 tonnes. Exploration drilling at the Moose Pit identified sufficient barite resources to justify plans for its reactivation. Barite ore is crushed, milled, and bagged onsite. It is sold mainly as a heavy drilling fluid additive (Information Circular 2015-2, p. 99).

Production in 2015 was 32,000 tonnes milled and bagged from 65,000 mined tonnes of barite. The Bear Pit has been mined out and pre-stripping of overburden at the Moose Pit was underway in preparation for the 2016 mining season (Information Circular 2016-1, p. 37).

In 2016, the first 10,000 tonnes of barite were mined from the Moose Pit (Information Circular 2017-1, p. 44). Forecast production in 2017 was 38,800 tonnes of barite (Information Circular 2018-1, p. 41). In 2018, production was estimated at 30,000 tonnes of barite from the Moose Pit (Information Circular 2019-1, p. 45).

In 2019, an exploratory nine-hole diamond drilling program was conducted at the Moose pit. Barite veins were shown to extend 145 metres north of pit limits, bringing the total vein strike length to 840 metres. Whole-rock inductively coupled plasma analysis of four cored vein samples measured between 88.78 and 94.67 per cent barium sulphate (Assessment Report 38893).

Bibliography

EMPR AR *1965-257, 258; 1966-252

EMPR ASS RPT [767](#), [2880](#), *[9052](#), *[34000](#), *[34620](#), [35100](#), [37312](#), *[38893](#)

EMPR EXPL 1999-6; 2001-5; 2002-11; 2003-14; 2004-24; 2005-26; 2006-32,34; 2007-2,7; 2008-3,9; 2009-3,4; 2010-19,21; 2011-14,15

EMPR FIELDWORK *2007, pp. 219-225

EMPR GEM 1971-455; 1972-579, 580; 1973-540

EMPR IND MIN FILE (Butrenchuk, S.B. (1990): Barite Deposits in British Columbia; unpublished Open File manuscript. Copy of relevant pages in Property File)

EMPR INF CIRC 1996-1, p. 9; 1999-1, p. 11; 2000-1, pp. 8,11; 2001-1, p. 8; 2002-1, p. 18; 2004-1, pp. 5,27; 2005-1, p. 4; 2007-1, pp. 3,6; 2008-1, pp. 5,6; 2009-1, p. 6; 2010-1, p. 5; 2011-1, pp. 5,6; 2012-1, pp. 3,5,6; 2014-1, p. 16; 2015-1, pp. 5,6; 2015-2, p. 99; 2016-1, p. 37; 2017-1, p. 44; 2018-1, p. 41; 2019-1, p. 44; 2020-1, p. 61; 2021-1, p. 68; 2022-2, p. 70; 2023-1, p. 80

EMPR MAP 65 (1989)

EMPR MINING 1981-1985, p. 53; 1986-1987, p. 79

EMPR OF 1992-1; 1992-9; 1997-16, pp. 87-90

EMPR PF (*Property description, circa 1988)

GSC MAP 2-1961; 46-1962; 1712A; 1713A

EMPR PFD [17054](#), [17055](#), [882952](#), [843312](#), [675852](#), [675853](#), [675854](#), [675855](#), [675856](#), [675857](#)