

NAME OF PROPERTY
 NOM DE LA PROPRIÉTÉ

SNOWBIRD (McMULLEN) (STUART LAKE)

OBJECT LOCATED
 OBJET LOCALISÉ

UNCERTAINTY
 FACTEUR D'INCERTITUDE

Mining Division	Omineca	District	Range 5 Coast
Division minière		District	
County		Township or Parish	
Comté		Canton ou paroisse	
Lot		Concession or Range	
Lot		Concession ou rang	
Sec	Tp.	R.	
Sect.	Ct.	R.	

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The claims are underlain by northwest trending interbedded Palaeozoic argillites, slates, quartzites, and greenstones of the Cache Creek group. Diorite was observed in several places cutting the sedimentary formations. A zone of altered rock, consisting mainly of aggregates of ankeritic carbonate, quartz, serpentine, and mariposite, and intersected by a network of quartz veins and lenses, crosses the property. The zone strikes northwesterly about parallel with the bedding of the formation, and dips 40-50° northeast. Quartz veins and stringers mineralized with stibnite and pyrite occur in the carbonate zone, chiefly near its hanging-wall site, and in the argillites on that side. The main showings consist of 3, northwest trending veins in the carbonate zone and a northeast trending vein in the argillites. The main vein in the carbonate zone has been exposed for 280 feet. It contains an ore shoot 95 feet long and at least 135 feet deep, averaging 0.25 ounce of gold a ton and 9.2% antimony across an average width of 29 inches. About 300 feet to the northwest of the shoot a

see Card 2

Associated minerals or products - Gold, selenium,
 Minéraux ou produits associés

HISTORY OF EXPLORATION AND DEVELOPMENT
 HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

This property is located about 1,500 feet from the south shore of Stuart Lake, 10 miles west of Fort St. James. The showings were discovered in 1928 and staked as the McMullen group; a shaft was sunk 20 feet at that time; the claims subsequently lapsed. The showings were restaked in 1938 as the Snowbird group by T.E. Neilson and A. Ostrem. Exploration and development work was carried on during 1938-39 and some sorted and cobbled ore was shipped to the Prince Rupert sampling plant. This operation was carried out under the name "St. James Antimony Company" of Vancouver, but there is no record of such an incorporation. In December 1939 an interest in the property was acquired by R.H. Stewart and V. Dolmage, of Vancouver.

Pioneer Mines of B.C., Limited, optioned control of the 11 claims and 5 fractions, held by location, in May 1940. During the year the company sank a shaft for 130 feet on a 45 degree incline; at the bottom a small amount of lateral development work was done. On another showing a drift was run 150 feet. Several shipments of high-grade ore were made to the Antimony Smelting Company, in Texas; further shipments were refused as the ore contained 0.08% selenium. Operations were suspended in the fall of 1940 and the option dropped.

Cominco Ltd. carried out some diamond drilling on the property in 1942; the results are not known. Leta Explorations Limited is reported to have done some diamond drilling on the property in 1943. Tungsten of British Columbia, Ltd., optioned the 13 claim property in 1953 but no work was reported at that time. Bralorne Pioneer Mines Limited optioned 6 claims in 1963 and located an additional 16 claims. Work during the year included a magnetometer survey over 72,000 feet of line.

In 1970 the original claims of the Snowbird group (Record No. 1896-1900 and 8723) were still owned by T.E. Neilson. The Bay group of 17 surrounding claims were owned by Mr. Neilson and W.M. Bjarnason, of Vancouver. By an option agreement dated November 1970, Consolidated Shunsby Mines Limited acquired the above 22 claims and 1 fractional claim. A geochemical survey carried out over part of the property during November 1970 indicated several anomalous areas along the one

see Card 2

HISTORY OF PRODUCTION/HISTORIQUE DE LA PRODUCTION

Production for the period 1939-1953 totals 104,485 pounds of antimony.

REFERENCES/BIBLIOGRAPHIE

Armstrong, J.E.; Fort St. James Map-Area, Cassiar and Coast Districts, British Columbia; Memoir 252, pp. 186-189, Geol. Surv. of Canada, 1949.

Rice, H.M.A.; Preliminary Report on the Stuart Lake Antimony Mines, Fort St. James, Omineca Mining Division (1940); Mineral Policy Sector, Resource File: MR-SB-301.00 (British Columbia).

Gray, J.G.; East Half, Fort Fraser Map-Area, British Columbia; Paper 38-14, p. 7, Geol. Surv. of Canada.

Reports of Minister of Mines, British Columbia: 1929, p. 186; 1939, p. 99; 1963, p. 38.

Mineral Policy Sector; Corporation Files: "Pioneer Gold Mines of B.C. Limited"; "Tungsten of British Columbia, Ltd."; "Consolidated Shunsby Mines Limited"; "Westwind Mines Ltd."; "X-Cal Resources Ltd.".

Mineral Policy Sector; Resource File: MR-SB-301.00 (British Columbia).

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1970, p. 117; 1971, p. 166; 1974, p. 254.

Exploration in British Columbia; BCDM: 1980, p. 337; 1986, p. C346

George Cross News Letter: 1986, No. 67; 1987, No. 10, 47, 108, 208; 1988, No. 40, 73, 191

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Map 630 A, Fort Fraser, (Geol.), Sc. 1":4 miles. (1941).
 Map 907 A, Fort St. James, (Geol.), Sc. 1":6 miles. (1948) - accomp. Memoir 252.
 Map 1581 G, Fort St. James, (Aeromag.), Sc. 1":1 mile. (1963).
 Map 1591 G, Shass Mountain, (Aeromag.), Sc. 1":1 mile. (1963).
 Map 93 K, Fort Fraser, (Topo.), Sc. 1:250,000.
 Map 93 K/8, Fort St. James, (Topo.), Sc. 1:50,000.
 Map 93 K/7, Shass Mountain, (Topo.), Sc. 1:50,000.
 Snowbird property, Claim Map, Sc. 1: 50 000, X-Cal Resources, News Release, 02/03/87.

REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par				DMacR	DMacR		
Date Date	05-69	11-71	02-75	10-86	08-88		

PRODUCT PRODUIT	ANTIMONY	PROVINCE OR TERRITORY	PROVINCE OU TERRITOIRE	British Columbia	N.T.S. AREA 93 K/8 RÉGION DU S.N.R.C.	REF. SB 1 RÉF.
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DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

drill hole cut 0.6 feet of quartz assaying 0.52 ounce of gold a ton; intervening drill holes revealed only a little gold. The other veins in the carbonate zone are only sparsely mineralized. The northeast trending vein in the argillites carries a body of almost solid stibnite 30 feet long and averaging 4.1 inches wide. Hand sorted ore from this shoot assayed about 60% antimony, and 0.05 ounce of gold a ton. Drifting to the northeast on this vein failed to reveal other shoots. Assays of the antimony have yielded up to 0.70% selenium.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued) HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

mile of strike covered by the survey. Work during 1971 included geological mapping, experimental geochemical, magnetometer, and electromagnetic surveys, and trenching.

Westwind Mines Ltd. by an agreement of October 1973 acquired an option on a 75 per cent interest in the 21 located claims from T.E. Neilson and Frank R. Joubin, President of Consolidated Shunsky Mines. Work in 1974 included 910' of surface diamond drilling in 5 holes on the Snowbird and Shaft Fr claims.

Prism Resources Ltd held an option on the property in 1980 and carried out 607 m of diamond drilling in 10 holes.

X-Cal Resources Ltd in 1986 optioned the property from F.R. Joubin and associates. Reserves were reported as 5,000 tons of 0.2 oz/t Au, 3% Sb (X-Cal Resources, News Release 09/10/86). Work in 1986 included 3000 feet of diamond drilling in 10 holes. A detailed geophysical survey in 1987 included induced potential, resistivity, magnetometer, horizontal loop and VLF electromagnetic surveys over an area 2km by 1 km; 9 separate anomalies were indicated. Overburden drilling was done in 57 percussion holes to test the bedrock surface in the anomalous areas. Diamond drilling in 1988, in hole 88-6, discovered the new "North Zone" mineralization.