

Location/Identification

MINFILE Number:	082FSW072	National Mineral Inventory Number:	082F6 Au11
Name(s):	<u>TAMARAC (L.3802)</u> TAMARACK, POWELL, GRANBY, PHAROAH FR. (L.15180), RACATAM (L.3803), KING SOLOMON FR. (L.12269), RAINBOW (L.12267), EVANGELINE (L.12271), QUEEN OF SHEBA FR. (L.15181), DINNER BUCKET (L.3806), PILOT FR. (L.3452)		
Status:	Past Producer	Mining Division:	Nelson
Mining Method	Underground	Electoral District:	Nelson-Creston
Regions:	British Columbia	Forest District:	Arrow Boundary Forest District
BCGS Map:	082F034		
NTS Map:	082F06E, 082F06W	UTM Zone:	11 (NAD 83)
Latitude:	49 18 55 N	Northing:	5462526
Longitude:	117 12 34 W	Easting:	484778
Elevation:	1418 metres		
Location Accuracy:	Within 500M		
Comments:	Adit and tailings dump containing mineralized boulders (Assessment Report 9113).		

Mineral Occurrence

Commodities:	Gold, Silver		
Minerals	Significant:	Pyrite, Gold, Arsenopyrite	
	Associated:	Quartz	
	Alteration:	Limonite	
	Alteration Comments:	Possible limonite as indicated by "brown alteration".	
	Alteration Type:	Oxidation	
	Mineralization Age:	Unknown	
Deposit	Character:	Vein, Disseminated	
	Classification:	Hydrothermal, Epigenetic	
	Type:	I01: Au-quartz veins	
	Shape:	Irregular	Modifier: Fractured, Sheared
			Strike/Dip: 005/30W
	Comments:	The Tamarac vein strikes 005 degrees, dips 30 degrees north and is hosted in northeast trending secondary faults of a 40 metre wide northwest trending dextral shear zone.	

Host Rock

Dominant Host Rock:	Plutonic		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Lower Jurassic	Rossland	Elise	-----
Jurassic	-----	-----	Nelson Intrusions
Isotopic Age	Dating Method	Material Dated	
-----	-----	-----	
-----	-----	-----	
Lithology:	Schistose Albite Porphyritic Granite, Feldspar Porphyritic Granite, Schistose Granite, Lamprophyre Dike, Gouge, Augite Basalt Flow, Flow Breccia		
Comments:	Unit Je4 and Je1 of the Elise Formation (Open File 1989-11).		

Geological Setting

Tectonic Belt:	Omineca	Physiographic Area:	Selkirk Mountains
-----------------------	---------	----------------------------	-------------------

Terrane: Quesnel, Plutonic Rocks

Metamorphic Type: Regional

Grade: Greenschist

Inventory

Ore Zone: TAMARAC **Year:** 1989
Category: Inferred **Report On:** Y
Quantity: 440,640 tonnes **NI 43-101:** N

Commodity	Grade
Gold	4.5000 grams per tonne

Comments: Possible.

Reference: Property File - Yukon Spirit Mines Ltd., Prospectus, Sept. 1989.

Ore Zone: TAMARAC **Year:** 1989
Category: Indicated **Report On:** Y
Quantity: 63,180 tonnes **NI 43-101:** N

Commodity	Grade
Gold	2.2500 grams per tonne

Comments: Probable.

Reference: Property File - Yukon Spirit Mines Ltd., Prospectus, Sept. 1989.

Ore Zone: TAMARAC **Year:** 1989
Category: Measured **Report On:** Y
Quantity: 55,890 tonnes **NI 43-101:** N

Commodity	Grade
Gold	5.1000 grams per tonne

Comments: A central high-grade portion of the vein is estimated to contain 30,000 tonnes grading 10.4 grams per tonne gold.

Reference: Property File - Yukon Spirit Mines Ltd., Prospectus, Sept. 1989.

Summary Production

	Metric	Imperial
Mined:	346 tonnes	381 tons
Milled:	0 tonnes	0 tons
Recovery		
Gold	8,040 grams	258 ounces
Silver	404 grams	13 ounces

Capsule Geology

The Tamarac deposit is located 5 kilometres northeast of Ymir on the southern slopes of Mt. Elise. The claims were staked in 1896. Production of approximately 232 tonnes has been reported for 1901, 1905, 1933 and 1959.

The mineralization is hosted in a major northwest trending, dextral shear zone within schistose-albite-porphyritic granite of the Middle to Late Jurassic Nelson Intrusions. Augite basalt flows and breccia flows of the Lower Jurassic Elise Formation, Rossland Group also occur in the area. Lamprophyre dykes cut both the schistose granitic rocks and the mineralized quartz veins.

The Tamarac fissure-vein forms a typical "S" shaped secondary shear or tension gash which strikes about 005 degrees and dips 30 degrees west. The vein parallels the Ymir-Goodenough veins (082FSW074) and is confined within the northwest trending shear (which is about 40 metres wide). The vein consists of quartz gangue with disseminated pyrite, arsenopyrite, and minor free gold. Ore shoots, with a northwest rake, have been identified at the bends in the vein where dilation has been greatest. Disseminated pyrite and arsenopyrite also occur within the wallrocks but gold values decrease with distance from the vein. Fault gouge is present on the hanging and footwall side of the vein.

Numerous quartz veins cut the pluton at surface. A vein striking 082 degrees is visible in the ceiling of a collapsed adit. At least three other gold bearing quartz veins occur in the mine area. These strike between 320 and 090 degrees and dip 40 to 60 degrees north.

Reserves for the Tamarac vein have been calculated as 440,640 tonnes possible grading 4.5 grams per tonne gold, 63,180 tonnes probable grading 2.25 grams per tonne gold and 55,890 tonnes proven grading 5.1 grams per tonne gold (Property File - Yukon Spirit Mines Ltd. Prospectus, Sept. 1989). A central higher grade portion of the Tamarac vein is estimated as containing 30,000 tonnes grading 10.4 grams per tonne (Property File - Yukon Spirit Mines Ltd. Prospectus, Sept. 1989).

A sample of a north striking vein, near the 1 Level raise, assayed 4.2 grams per tonne gold over 1 metre (Property File - Yukon Spirit Mines Ltd., Prospectus, Sept. 1989). A sample from an east striking vein at the Powell shaft assayed 4.182 grams per tonne gold over 0.15 metre (Property File - Yukon Spirit Mines Ltd. Prospectus, Sept. 1989).

Tamarac claim (lot 3802) is located at the 1372 metres elevation, 1.6 kilometres east of the Salmo River and 3.2 kilometres north of Ymir. The main claims are the Tamarac and Racatam.

Adjacent ground to the north has been variously held as the Plymott claim (Lot 2399); later Crown-granted as the Pharoah Fr. (Lot 15180), and the Lone Pine claim which was reportedly restaked in 1932 as the Pathfinder and later Crown-granted as the Rainbow Fr. (Lot 12267). The showings were staked in September 1896 by J. W. Handen. The Kenneth Mining and Development Company, Limited Liability began work on the property in 1897 and 5 claims, the Tamarac, Racatam, October, October Fr. and Dinner Bucket (Lots 3802- 3806 respectively) were Crown-granted to the company in 1899. Adjacent ground to the south and east was subsequently Crown-granted as the King Solomon Fr. (Lot 12269) and Queen of Sheba Fr. (Lot 15181). About 168 metres of development work was done in a crosscut and drift from which two mineralized vein segments were partially explored by raises and winzes. Tamarac Mines, Limited was incorporated in July 1900 to acquire the property and about 76 metres of underground work was carried out that year. A 1524-metre tramline to the railway was completed in 1901 and several small ore shipments to the Hall Smelter at Nelson were made before the tramline was destroyed by a forest fire in 1902. Underground development to that date totalled about 488 metres. Lessees shipped a small tonnage to the Boundary Falls Smelter in 1905 but the operation proved unprofitable.

By 1928 the property had been acquired by E.W. Widdowson of Nelson, and limited rehabilitation carried out. Late in 1932 A.T. Powell, of Nelson, optioned the property and began work in an old shaft on a separate vein about 37 metres north of the adit portal. The Pathfinder claim adjoining the Tamarac claim on the north, was staked in August 1932 by D.T. Graney, of Ymir, who drove a 34-metre crosscut adit. The claim was subsequently acquired by Powell, who carried out development work on the combined property from November 1932 until March 1933 when work ceased; several shipments of ore were made to the Tacoma Smelter in February and March. In 1935 Widdowson optioned the property to W.G. Wilkins and associates but little work was reported. Balsam Gold Mines, Limited optioned the property in the latter half of 1936 and intermittent work to early 1938 included rehabilitation of the workings, driving a new adit at a lower elevation, and 61 metres of diamond drilling. In 1958 rehabilitation work was begun by owners George Powell and Lewis Lunde, who incorporated Tamarac Mines Ltd. March 1959. In October of that year an option was given to Pacific Western Metals Ltd. Bulldozer stripping was reported and about 200 tons of ore carrying \$30.00 per ton in gold were crushed and beneficiated. Greenwood Explorations Ltd. optioned 9 Crown-granted from Tamarac Mines Ltd. in August 1979. Trenching, geological mapping, and a geochemical soil survey were carried out. Work during 1980 included diamond drilling in 1-8 holes. Proven, probable and possible reserves were estimated at 630,000 short tons grading 3.5 grams per tonne gold (Northern Miner, December 25, 1980).

Bibliography

EMPR AR 1897-531; 1899-597,897; 1900-846; *1901-1027; *1905-168,253; *1928-334; *1932-187; *1933-200,228; 1936-E45; 1937-E45; 1938-E38; 1958-37; *1959-A48,61
EMPR ASS RPT *9113
EMPR BC METAL MM01080
EMPR BULL 109
EMPR EXPL 1979-62; 1980-69
EMPR FIELDWORK 1980, pp. 149-158; 1981, pp. 28-32, pp. 176-186; 1987, pp. 19-30; 1988, pp. 33-43; 1989, pp. 247-249; 1990, pp. 291-300
EMPR OF 1988-1; *1989-11; 1991-16
EMPR PF (Wirlwind Resources Ltd., Prospectus, August 1988; *Yukon Spirit Mines Ltd., Prospectus, Sept. 1989)
EMPR MAP 7685G; RGS 1977; 8480G
EMR MIN BULL MR 223 B.C. 31
EMR MP CORPFILE (Balsam Gold Mines Ltd; Greenwood Explorations Ltd.)

GSC MAP 51-4A; 175A; 1090A; 1144A

GSC MEM *94, pp. 50,98; 191, p. 43; 308, p. 156

GSC OF 1195

CANMET IR Ore Dressing and Metallurgy #483, (1933) Rpt. 743, p. 1

GCNL #166,#181,#199,#237, 1979; #11,#91,#123,#137,#167,#203,*#241, 1980; #21, 1981

N MINER Dec. 25, 1980; Jan. 21, 1982

Burton, A. (1980): Report on Tamarac Mineral Property (in Greenwood Explorations Ltd., Statement of Material Facts, May 1, 1980)

Date Coded: 1985/07/24 **Coded By:** BC Geological Survey (BCGS) **Field Check:** N

Date Revised: 1991/03/22 **Revised By:** Dorthe E. Jakobsen(DEJ) **Field Check:** N