



Main Photo is looking down from the Yankee Girl Mine 1934 Photo credit Corey Gould  
 Insert photo is looking east to the Yankee Girl Mill site Photo credit Fl. (Slako) Hodgins

# Ymir Yankee Girl Mines staked in 1899

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Little interest was evidenced in this district until the building of the railway in 1893 provided easy access and the discovery of the Ymir Mine in 1896 attracted attention. As a result, the Ymir Yankee Girl group of claims was staked in October 1899.

Discovery was made at an outcrop on the hillside, some 2500-ft. above the village of Ymir. This proved to be a branch vein 20-ft. long leading to two main veins, the Yankee Girl and the Spur.

In 1907 an American syndicate took over the property and subsequently extended the 50-ft drift and opened the present 400 and 540-ft levels. In 1908 the Syndicate, without recording any shipments in the meantime, dropped its lease, which was taken up by H.L. Rogers, who bonded the Yankee Girl group. Rogers shipped 2622 tons of ore, mainly from the uppermost stope in the mine, which is reported to have yielded 1.18 oz. of gold per ton. After further shipments amounting to 4738 tons, ownership of the property was transferred to the Hobson Silver Lead Co. Ltd.

During the years 1912 to 1919 the mine plant was enlarged and a 6000-ft. aerial tram was erected. Several thousand feet of development was done including the 4000 feet of drifting on the 1235-ft. adit level. During the period named 16,500 tons of ore were shipped averaging 0.82 oz. gold per ton, principally from the McDowell stope on the 1235-ft. level.

In 1919, a large operating company became interested and optioned the property for examination. The option was dropped on the grounds that the ore was of insufficiently high grade. It is interesting to note that the final report of that company shows: probable ore, 25,590 tons; possible ore, 63,700 tons. Nearly

twice the combined total has been shipped or milled since.

In 1926, F.R. Weekes, E.P. Crawford, W.T. McDowell and others formed the Yankee Girl Ltd. to operate the property under lease and bond. Their efforts produced 28,358 tons averaging 0.57 oz. of gold per ton. They shipped 1251 tons of ore that yielded 0.43 oz. of gold per ton. Weekes and Crawford again leased in 1932. With the help of the premium on gold, and in spite of low lead and zinc prices, their venture was sufficiently profitable to permit opening much new ore. Under their partnership lease, 32,433 tons averaging 0.57 oz. gold per ton were shipped.

The present company was formed in 1934. Shipments prior to August 1934 were 87,529 tons averaging 0.68 oz. gold per ton. Between August 1934 and July 1, 1937, 94,106 tons have been milled, averaging 0.34 oz. gold per ton. In all, 181,635 tons have been produced, averaging 0.50 oz. gold per ton. Prospecting and exploration are carried on by a combination of drifting, crosscutting, raising, winzing and diamond-drilling. The property has been developed through three adits, the 400-ft., 540-ft. and 1235-ft. levels. At the present time the 1235-ft. level is the main working and tramping level and the mine plant is located at its portal.

In rare instances where roof support is necessary, standard drift sets of round timber and lagging are used. All loading and upper-level tramping is done by hand, using flat-bottomed 16 or 20-cu. ft. cars that dump either end or side. Ore and waste from the 1360 and 1500-ft. levels is hoisted in a 1-ton self-dumping skip. Two 1-1/2 ton storage-battery locomotives are used in conjunction with cars of 1-1/2 tons capacity to transport ore and waste to the surface.

The mine is not unusually wet, normal drainage amounting to about 100 gallons per minute. During the spring breakup the

quantity is increased to three times the normal amount for a period of two months. Water flows to the surface in drainage ditches on the 540 and 1235-ft. levels. Ventilation in the mine is almost wholly natural, aided by compressed air exhausted from drills, pumps and hoists.

Ore brought to the surface is dumped into a bin of 100 tons capacity near the mine portal. This bin is constructed over the upper terminal of an aerial tramway which carries the ore by gravity to the mill. The length of the tram is 6000 ft. and the vertical drop between the upper terminal and the discharge bin is 1210 ft. Seven towers are required to support the tram cables. The longest single span is approximately in the center of the distance and is 2000 ft. long. An unusual feature of the tram is that the unloading bin is at the base of a steep hill while the cable anchors and lower terminal are some 500 ft. farther out across the Salmon River. This necessitates a hold-down tower on the hillside adjacent to the discharge point.

Total mining operation costs, including supervision, are about \$4.60 per ton, of which development accounts for \$0.76, stoping \$1.39, supervision \$0.24 and other mine expenses, \$2.21 per ton. The latter figure includes tramping, pumping, hoisting, supplies, maintenance, air, steel-sharpening and surveying. The average cost per ton milled is \$7.03 calculated over an 18-month period and the cost per ounce of gold produced is \$22.07, calculated over a three-month period.

The mill was built during the latter part of 1934. Originally designed to treat 100 tons, the actual capacity has exceeded this by 45 tons on a number of occasions. The normal daily capacity at the present time is 120 tons. A combination of flotation and cyanidation was selected. Briefly, the procedure consists in making two concentrates: a lead concentrate that is shipped to the smelter at Trail and a

zinc-iron concentrate which is cyanided. The tailing from the combined flotation concentration is discarded. Water for the milling operation is brought from the head-

waters of Bear Creek, a distance of 2 miles in 10-in. wood-stave and 4-in. iron pipe. Electric power is purchased from the West Kootenay Power and Light Company.



Mill Buildings at the Yankee Girl Mine 1934 Board of Trade photo 1934