

NAME OF PROPERTY WINGDAM (MELVIN) (SANDERSON)

LOCATION

Lat. 53°03' Long. 121°57'30"

Mining Division	Cariboo	District	CARIBOO
County		Township or Parish	
Lot		Concession or Range	
Sec.	Tp.	R.	

OWNER OR OPERATOR AND ADDRESS

Wingdam & Lightning Creek Mining Co. Ltd.,
204, 569 Howe St.,
Vancouver, B.C.

DESCRIPTION OF DEPOSIT

The formation consists of Precambrian quartzite, sericite schist, argillite and limestone overlain by Mesozoic shale, argillite and greenstone; the contact occurs about 1½ miles downstream from Wingdam. Numerous gold-bearing quartz veins have been found throughout the Precambrian Formation. These veins range from a few inches to 10 feet wide, are only sparsely mineralized with pyrite and galena and have very low values in gold.

This section of the old channel of Lightning Creek is buried under a varying succession of gravels, clays and silts. Drilling and the underground workings of the Melvin mine show the gold-bearing gravels to be lying on the bedrock to a depth of 6 feet, to vary in width from 40 to 140 feet and to be at a uniform depth of 165 feet below the present creek bed. The Sanderson mine was not on bedrock but developed a gold bearing gravel under boulder clay at a depth of 125 feet.

Old records show that some of the drill holes returned exceptionally high gold values and the average value of the gold in all of the holes was about \$42. The property has proven to be difficult to work due to the depth at which the deposit lies and the excessive flow of underground water encountered.

Associated minerals or products of value

HISTORY OF EXPLORATION AND DEVELOPMENT

The property consists of 20 miles of placer leases on Lightning Creek, extending upstream from near its junction with the Cottonwood River. Included in these leases are the Melvin (Jones) and Sanderson mines about a mile upstream from Wingdam and it is in this section that most of the development work has been done.

Gold was discovered in shallow gravels farther upstream in 1861 but it was not until the Lightning Creek Gold Gravels & Drainage Co. Ltd. acquired control of the placer leases on lower Lightning Creek in 1896 that any attempt was made to work the deep deposits. From then until 1921 various attempts were made at underground mining. The Melvin shaft was sunk in the rim-rock to a depth of 125' and a tunnel run 200 feet but the workings were flooded when the tunnel broke into the channel. Drilling was begun to find the depth of the old channel and 35 holes were eventually put down, giving 6 cross-sections of the creek over a one mile length. Farther upstream the Sanderson shaft was sunk to a depth of 125 feet and a 200 foot drift was driven to intersect the old channel but the workings were flooded out. In 1919 an attempt was made to sink a shaft in the creek gravels but it caved under the high water pressure. All work ceased in 1920.

In 1929 the company name was changed to Lightning Creek Gold Mines Ltd. The company was reorganized in 1930 under the name of Consolidated Gold Alluvials of British Columbia Ltd. The Sanderson shaft was unwatered and the false bedrock at a depth of 125 feet was extensively followed upstream by about 3,500 feet of tunnel. At the same time the Melvin shaft was deepened to 280 feet. From the bottom of the shaft, which is 60 feet below the bottom of the channel, drifts were run for 1,500 feet upstream and 1,600 feet downstream and at regular intervals 4" holes were drilled up into the channel to drain the water from the overlying gravel. By the following year the water had been lowered to a point where it was possible to raise up from the main drift, break into the channel and start mining the gravel. During 1937 the Melvin and Sanderson workings were connected by a raise from the Melvin shaft. A second raise was put up into the channel but during 1938 one of the working faces encountered a weak section in the gravels and a heavy flow of water and clay broke through and flooded the Melvin workings. The Sanderson operation was closed in 1939 when exploratory drifts failed to find pay-gravels. By this time the working area was reported to cover 20 acres.

In 1961 the Wingdam & Lightning Creek Mining Co. Ltd. began to pump out the Melvin shaft but the waters of Lightning Creek were still flowing into the old workings. A special cement grout was injected into the raise by means of a drill hole from the surface. This was completed in July and the shaft was dewatered. By the spring of 1962 it became evident that the grouting had not been entirely successful so 6 additional holes were drilled in and around the raise and cement grouting pumped in under high pressure. By the end of 1962 it appeared that an effective seal had been made in this area. (p.t.o.)

HISTORY OF PRODUCTION

Production figures are incomplete. Prior to 1937 the Sanderson mine was reported to have produced 47,777 cubic yards of gravel having a value of \$210,482. During 1937, 52,180 cubic yards of gravel were reported to have been extracted from the Sanderson workings and 1,821 cubic yards from the Melvin.

But 27,277, 307m

Shipping point	Distance from mine
Material shipped	Carrier
Destination	

MAP REFERENCES

Map 335A, Willow River Sheet, B.C., (Geol.), Sc. 1":1 mile.
 93 H/4 W, Wells, B.C., (Topo.), Sc. 1:50,000.
 93 G/1 E, Cottonwood, B.C., (Topo.), Sc. 1:50,000.
 Map 49-1960, Prince George, B.C., (Geol.), Sc. 1":4 miles.

REMARKS

REFERENCES

Tremaine, C.W.S.; Deep-Level Mining on Lightning Creek; Western Miner & Oil Review, pp. 46-49, July 1961.

Annual Reports, Dept. of Mines, B.C.; 1898, p. 979; 1899, p. 625; 1900, p. 736; 1901, p. 963; 1902, p. 125; 1923, pp. 122-124; 1935, pp. C12-C16; 1936, p. C39; 1937, p. C35; 1938, pp. C42, C43; 1939, p. 107; 1961, p. 131; 1962, p. 140.

Cockfield, W.E.; Willow River Map-Area, Cariboo District, B.C.; Summary Report 1933, Pt. A, pp. 51-52.

MacKay, B.R.; Cariboo Gold Fields, B.C.; Summary Report 1918, Pt. B, p. 48.

Mineral Resources Branch; Corporation Files: "Lightning Creek Gold Gravels & Drainage Co."; "Consolidated Gold Alluvials of B.C. Ltd."; "Wingdam & Lightning Creek Mining Co.".

Mines Branch Investigations in Ore Dressing and Metallurgy, 1935, No. 771, pp. 226-227, Ottawa.

GLM 1973, 528

607 193
MAR 1973

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

During 1963 the main haulageway, in bedrock below the stream bed, was extended downstream. From the downstream end a crosscut was driven out to the rimrock and a ventilation raise put through to the surface. Three raises, numbers 2, 3 & 4 were put up into the overlying gravel, number 4 raise being the most westerly of the three which are approximately 750 feet apart. Drifting upstream and down from these raises was begun and the first production from this operation was in February 1964. In September 1964 a flow of silt and water under high pressure flooded out the workings; the break through continued through to the surface where a depression over 100 feet in diameter and 50 feet deep was formed over the area of No. 4 raise.

Vigor Explorations Ltd. 1966

*SR and Developments Feb. 1975
 Central Gold Resources Corp. 1975*

BLI 93 H-12