

Mar. 31, 1941

MILL

Following are statistics for mill operation for the year:

Tons hoisted	121,781
Tons waste sorted	16,037
Tons milled	105,875
Tons milled, daily average.....	290
Heads	0.5114 Oz. Gold per Ton
Tailings	0.0145 Oz. Gold per Ton
Recovery of gold.....	97.16 Per Cent.
Total gold produced.....	52,602.881 Oz.
Total silver produced.....	9,068.93 Oz.

OUTSIDE EXPLORATION

The search for outside properties was continued during the year in both the eastern and western mining sections of Canada, and work has been done on a few of the properties brought to our attention and examined by our engineers. Aside from maintaining a small staff of field engineers, the Company has continued to finance a certain amount of prospecting in the field. In the East, one prospecting party was financed entirely by the Company and the expense of a second party was shared with eastern associates. Some prospecting has also been done in the West. While no new mines have been discovered to date, results have been sufficiently encouraging to justify continuing our prospecting activities during the coming year.

Our engineers examined ninety-nine of the properties brought to the attention of the Company during the year ended March 31, 1941. Two of these properties, the P.D.Q. group and the Black Panther group, situated on Vancouver Island, have been retained and development work will be continued on them.

The Musketeer and Sherwood properties acquired prior to the current year are still under development, and further work on them is planned for this season.

Results obtained to date, on the four properties mentioned, are summarized below:—

092F 060 **Musketeer Mines Limited.** The Musketeer property on the West Coast of Vancouver Island, financed jointly by Pioneer Gold Mines of B. C. Limited and eastern associates, has been under development for more than two years. Tonnage indicated by drifting on two veins on the 1,000 and 700 foot levels is about 30,000 tons with an indicated grade of approximately 0.40 oz. per ton over a mining width of 3 feet. This estimate does not include ore below the 700 foot or bottom level. Other veins, within reach of present underground workings, offer possibilities of increasing the reserves above the adit level, but no serious work has been done on these veins as yet. Consideration is being given to construction of a mill during the coming season.

092F 060 **Sherwood Group.** On the Sherwood property in the Great Central Lake section of Vancouver Island, 1,827 feet of underground work was completed by the end of the calendar year and an additional 164 feet added by March 31st, 1941. Crosscutting accounts for 632 feet of this work, while drifting on the Nos. 1, 3 and 7 levels at elevations of 4,400 feet, 4,200 feet and 3,700 feet, respectively, makes up the balance.

The first 185 feet of drift on the No. 1 level, driven approximately 100 feet below the apex of the vein, averaged 1.26 oz. per ton (.97 oz. cut) over a width of 30 inches. The portal of No. 3 level is likewise in ore, the first 254 feet of drift on the vein running 1.36 oz. per ton (1.13 cut) over a width of 15 inches. To date, ore has not been found on 7 level, but further work will be necessary before possibilities of finding ore on this level has been exhausted.

092F 070 **P. D. Q. Group.** The "P. D. Q." group, adjoining the Sherwood, was acquired by the Company during the year. Two parallel veins approximately 1,000 feet apart have been discovered and open-cut at intervals. One ore shoot has been found on each vein with additional lengths of interesting values. On No. 1 vein values of 1.09 oz. per ton over a width of 12 inches have been indicated for a length of 177 feet with 77 feet of this running 1.25 oz. over 11 inches. The 340 feet of vein open-cut on the No. 2 vein averaged .83 oz. over 13 inches with a 90 foot section averaging 1.37 oz. over an average width of 16 inches.

Underground work is planned for the No. 2 vein this coming year, and further prospecting will be done for other veins.

PROPERTY FILE

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within the mine but certain structural features and the spotty distribution of values caution one against expecting too much. A good deal more length of ore per level would have to be found, with a better average grade, before it would add materially to the expectations of the mine.

Work on the "J" vein was distributed between 25 and 29 levels to develop known ore shoots. Values on 29 level are not commercial.

Ore Reserves. The ore reserves as at March 31st, 1942, are estimated at 276,503 tons with an average gold content of 0.418 oz. per ton. A year ago the reserve estimates were 369,130 tons averaging 0.415 oz. per ton. Tonnage mined amounted to 126,407 tons: an additional 21,359 tons of low grade material, not commercial under existing conditions, has been taken out of the reserves this year. Actual ore developed, therefore, amounted to 55,109 tons.

MILL

The mill continues to be operated as efficiently as in the past, thanks to the careful supervision of the Mill Superintendent and his staff.

A summary of operating results for the year follows:

Tons hoisted	126,407
Tons waste sorted	16,032
Tons ore milled	110,405
Tons milled, daily average.....	302.5
Heads oz. Au. per ton.....	0.483
Tailings oz. Au. per ton	0.134 0.0134
Recovery of gold.....	97.21%
Total gold produced.....	51,829.22 Oz.
Total silver produced	9,368.58 Oz.

During the past year the possibility of producing tungsten from mill feed was investigated at the plant. A small dark room was arranged over a section of the picking belt and attempts made to pick out scheelite from mine run, with the aid of an ultra-violet lamp. The results are not encouraging. At the present time the Mill Superintendent and staff are investigating the possibility of recovering a tungsten concentrate from general mill tailings.

OUTSIDE EXPLORATION

Due to restrictions on supplies and to the present high rate of taxation, it is not possible to bring gold mines into production. Faced with this fact, it was necessary for the Company to abandon properties on which terms of the option agreements called for expenditures or a course of action which was deemed to be unsound under existing conditions. Of the properties mentioned in last year's report, the Company has retained its interest in the Musketeer Mines Ltd. and the P.D.Q. group of mineral claims.

Musketeer Mines Limited. A twenty-five ton mill was erected on the property during the latter part of 1941 and milling operations started in January of this year. Tuning up operation and water shortage restricted operation during the first two months, but over the four-month period the operation has carried itself and a small profit was apparently realized in April.

P.D.Q. Group. Close to 700 feet of underground work was done by hand in five shallow tunnels, on the P.D.Q. ground.

The Number One vein was found to be non-commercial but underground results on the Number Two vein checked fairly well with the surface. The ground is worth further prospecting after the war.

The exploration department has never confined its attention to gold prospects but our experience has been that very few new discoveries of the base metals, or of the so-called strategic minerals, have been made in recent years. Older prospects have been worked over many times and those offering possibilities of successful development at existing prices have been tested out. While still examining the more interesting properties brought to our attention, the Company is placing more emphasis on actual prospecting for new discoveries. In some instances the parties are financed by Pioneer alone, while in other instances the expense is shared by other companies.