

Development.—There was done 1,891 ft. of drifting, crosscutting and raising at an average cost of \$13.68 per ft.

In view of the poor results obtained and on a resurvey of the mine being made, it was resolved to have recourse to diamond drilling with a view to ascertaining whether or not the main vein had forked, and if a more important, or possibly chief branch, existed to the north of Level 9. There was accordingly drilled 998.5 ft., at an average cost of \$1.71 per ft. The results, though not finally conclusive, have indicated the existence of a northerly vein, which will be the subject of further exploration.

The Board much regrets that the hopes expressed at the meeting last year have not been justified by results. At that time all the working faces had much improved in grade, and it only required adequate ventilation to proceed with satisfactory and profitable extraction of the ore bodies. Unfortunately subsequent work proved disappointing with a marked falling off in grade at every point. As a consequence of this it became necessary to shut down the mill for some months until development and exploration had opened up fresh ore. The result of this work and systematic diamond drilling has been the discovery of new ore and the partial resumption of milling, and present indications are once more favorable.

The meeting was presided over by Lord Ernest Hamilton, chairman of the company, who after reviewing the year's operations and results moved the adoption of the report and balance sheet, which was done, following an address by Mr. Chas. H. Stewart, of Alex. Hill & Stewart, managers and consulting engineers for the company, who visited the company's mine and concentrating mill near Silvertown, B.C., last November. Mr. Stewart informed the shareholders that though the fiscal period ended September 30, 1913, had been an unsuccessful year, the five months subsequent to the closing of that year's accounts had been successful. His belief was that they would continue to make profits. Since November they had made a profit of \$15,500, and they were now milling ore at the rate of 2,200 tons a month. This was about half the rate of the successful year they had reviewed at their last meeting. Recent development work done in the Van-Roi mine had been with the object of finding new ore supplies, but they had not yet stopped ore they had found. Their policy was to limit, as far as possible, fluctuation in production, so as to keep up a regular supply of ore for the concentrating mill. Their greatest commercial recoveries were made when they got silver value with the lead concentrate rather than with the zinc, consequently it was economical to hold back high grade ore in lead in order to help the ores that were deficient in that metal. They had been developing high grade lead ore on the 900 ft. level, where for 132 ft. the ore averaged 36 oz. of silver to the ton, with 7.5 per cent. lead. That ore shoot had not been stopped, and it certainly ensured further considerable supplies of ore; but it did more—it showed that in the deepest level of the mine they were getting ore just as good as they had found in the upper levels.

Part of the chairman's comment was: "Those of you who follow closely the fortunes of the Van-Roi mine will have noticed that the last monthly returns show a steady and progressive improvement, and there is every reason to believe that the improvement will continue to be maintained. It is a hopeful feature that our property is of considerable extent. The chief trouble is that there does not appear to be any regular

fixed rule to assist mining engineers in forming an exact estimate as to where the ore bodies may be looked for.

GEOLOGICAL SURVEY PUBLICATIONS.

In this issue we reprint extracts from reports on Geology and Mineral Resources of the Tulameen District, B.C., by Charles Camsell, and Bathurst District, Nova Scotia, by G. A. Young. The complete reports, known as memoirs No. 26 and 18, respectively, can be obtained on application to the Geological Survey.

COAL-DUST INVESTIGATIONS.

Mr. J. Taffanel, mining engineer, former French Inspector of Mines and now the distinguished Director of the French Mine Experiment Station at Lievin, is paying a visit to the United States. He is known internationally for his original investigations of coal-dust explosions and means of prevention. He is a guest of the United States Bureau of Mines, while collaborating with Chief Mining Engineer, George S. Rice, and other of the bureau's staff in especial experiments at the bureau's experimental mine near Bruceton, Pennsylvania. Mr. Taffanel arrived in New York from France on April 12, and proceeded immediately to Pittsburgh, where he has been busily engaged in the tests and in studying the records of past tests at the experimental mine, the final object of which is to diminish the danger of coal-dust explosions. While fire-damp is a serious menace, its effects if ignited, would be local if dry coal-dust was not present to extend the explosion throughout the mine.

Mr. Taffanel's studies at Pittsburgh and Bruceton were interrupted by the news of the disaster at the Eccles Mine, West Virginia, to which he went with Mr. Rice for an investigation. This is not Mr. Taffanel's first investigation of an American mine disaster. In 1907, on behalf of the French Association of Coal Operators, which has established the Lievin Station as a result of the great Courrieres disaster of 1906, he came over to investigate the terrible Monongah disaster with 356 victims, and while here investigated the Darr Mine and Naomi Mine explosions. He has also investigated the large British mine disasters of recent years, including Hulton and West Hanley Collieries and the recent great disaster at the Universal Colliery at Senghenidd, South Wales.

Besides the explosion investigations, Mr. Taffanel carries on at the Lievin Station, tests of safety lamps, explosives and mine-rescue apparatus and he has an organized crew of rescue men ready to visit any mine disaster in Northern France.

In response to inquiry, Mr. Taffanel said, "I came to this country with the purpose of studying in collaboration with the Bureau of Mines and the Chief Mining Engineer, Mr. Rice, some questions concerning the danger of coal dust and the means of prevention of this danger.

"I began the experiment on this subject in 1907, when the Coal Mine Owners' Association of France decided, some months after the Courrieres disaster, to organize the experimental station at Lievin. I have made up to now more than 1,400 explosions in the experimental gallery and collected a considerable amount of data concerning the relative danger of many coal dusts or coal and stone-dust mixtures. Although they are pursued on a big scale, in a gallery 1,200 ft. long, the experiments at Lievin do not realize exactly the condition of the mine, and the results must be checked