

Mr. M. M. Duncan, Vice-Pres. & Gen. Mgr.,
Ishpeming, Michigan.

Dear Sir:

I beg to submit the following report of the work done in the
Gwinn District for the year ending December 31st, 1919.

The various subjects have been taken up under the following heads:

GENERAL REMARKS
AUSTIN MINE
STEPHENSON MINE
PRINCETON MINE
GWINN MINE
JOPLING MINE
FRANCIS MINE
GARDNER AND MACKINAW MINES
GENERAL SURFACE
ANALYSIS OF COST SHEETS
ANALYSIS OF NEW CONSTRUCTION

- - -

The product of the several producing mines for the year was as follows:

| | | |
|-------------------------|----------------|------|
| PRINCETON MINE, | 193,228 | tons |
| GWINN " | 137,847 | " |
| FRANCIS " | 80,528 | " |
| GARDNER " | 19,158 | " |
| MACKINAW " | 50,168 | " |
| AUSTIN " | 14,896 | " |
| STEPHENSON " | <u>2,402</u> | " |
| TOTAL, | 498,227 | " |
| Total Product for 1918, | <u>347,688</u> | " |
| INCREASE, | 150,539 | " |

The Princeton and Gwinn Mines produced two-thirds of the ore mined in the district in 1919. The product from the Francis Mine is practically double that of the previous year, and there has been some product also from both the Mackinaw and Gardner Mines, which went on an operating basis July 1st, 1919.

Development work was continued throughout the year at the Jopling Mine, and some ore was developed on the 543' and 573' sub-levels. This ore, however, was so close to surface, and there was so much water coming in, that it was not considered that it was available for mining. At the close of the year preparations were being made for diamond drilling on the Jopling property, to explore a stretch of ground 918 feet below surface, in which there had never been any diamond drilling done. The work of unwatering the Stephenson and Austin Mines was continued throughout part of the year. The Austin Mine was unwatered early in August, and the Stephenson Mine in October. The work of re-opening the Austin has been completed and this mine operated practically at capacity during the month of December. Work was stopped here the last of December, and the men will start working at the Stephenson on January 2nd, 1920. The work of preparing the Stephenson Mine for resumption of operations is being pushed and there was a small amount of ore hoisted during the latter part of December. It will require some time to complete the work of cleaning up, re-timbering levels and sub-

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levels, but it is only a matter of a few months until this mine is again in full operation.

There has not been an appreciable shortage of labor during the year, although at times there has been a shortage, especially at the Gardner-Mackinaw Mines. The curtailing of operations at mines in other districts released considerable labor the latter part of the year, and all the mines in this district have been full-handed for the past several months. Owing to the resumption of operations at the Stephenson Mine there is now a shortage of fully 100 miners, and this number can be given employment at the Stephenson Mine within the next several weeks.

On January 1st, 1919, there were 618 men employed in the district. On December 31st, there were 739, the increase for the year being 121.

Building operations of the company during 1919 were confined to the erection of two double houses in Gwinn and the completion of the seven double houses, the erection of which was started in 1918 at the Gardner-Mackinaw Location. Three houses were built in Gwinn on lots which had been sold, and a new store building was started, which it is expected will cost \$10,000.00.

Practically all of the men who enlisted and were drafted in the army and navy have returned to the district, and have been given employment.

During the summer and early in the fall a number of young men in the district left for manufacturing points in the lower peninsula, where they obtained employment in the factories. A few of them have returned, but the majority of them report good positions at high wages.

The influenza epidemic, which started the last of November, 1918, and continued during December, terminated about the 20th of January, 1919, and there were no further cases during the winter. Two mild cases were reported in November, but thus far there has been no re-occurrence of last years epidemic.

Practically all houses in the locations are now occupied. The re-opening of the Stephenson Mine will bring considerable additional men into the district and more houses are needed. I have recommended that fifteen single houses be built in Gwinn in 1920, and it is a question whether this number will be sufficient to provide for the additional employes needed.

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