

BARNES HECKER MINE.

GENERAL

At the beginning of the year drifting had just been started again on the first level.

All work had been discontinued at this property, except pumping, between February and December 1921, when it was decided to do some work on the first level.

The work of pumping out the body of water known as North Lake commenced December 24th, 1921 and was completed during the early summer to a point where continuous pumping was unnecessary to keep the lake bottom clear. We have maintained a pumping plant here all the year and must continue to do so in order to care for the inflow of water from springs in bed and banks of the lake basin, together with the water from rainfalls and melting snows.

The flow of water in the mine has greatly decreased and is now less than 1000 gallons per minute, and no trouble from water is experienced in our development work.

In June month it was decided to go ahead with the development of this property, and drifting was started on the second level as well as the first level. We encountered ore in this second level drift in June month and continued in same for 480 feet. The ore body is about 30 feet wide.

Raising and drifting above the 3rd level was also started in June month.

We are handicapped in the opening of this property by the scarcity of men. We find it impossible to get good miners out this far from town.

The result of our development work thus far leads us to believe we have a large tonnage of low grade ore with areas containing lenses and bodies of merchantable ore. Just how large and how much tonnage of the latter will be available, must be determined by further development work.

BARNES HECKER MINE.

BARNES HECKER MINE.

GENERAL  
(CONTINUED)

During the year the following tonnage was taken from development work, Viz:

		AVERAGE ANALYSIS	
		IRON	PHOS
Non Bessemer Ore,	13,621 Tons	- 58.51	.092
Silica Ore,	<u>6,692</u> "	- 52.19	.090
Total,	20,313 Tons		

At the end of this year royalties accrued on ore amounting to 679,474 tons and every effort will be made from now on to mine as large a product as possible.

UNWATERING NORTH LAKE

This work was prosecuted without any great difficulty and but one accident occurred and that was when the scow holding the pump sunk to the bottom of the lake.

At first a pump was installed on the shore and a suction run down into the water. After the water was pumped part way down, it was decided to place the pump upon a scow and float it on the water over the deepest point in the lake. Spiles were driven to which the scow is now anchored.

The work of changing the discharge pipe to throw the water being pumped into the drainage ditch, in place of the present outlet, is now in progress.

ACCIDENTS

We are glad to be able to report that no fatal or serious accidents occurred at this property during the year.

BARNES HECKER MINE.

GENERAL SURFACE

No new work has been undertaken here during the year.

UNDERGROUND

FIRST LEVEL:

When operations were resumed on this level a large amount of water was making in the main level breast, and it was decided to start a new drift back in the footwall and drive East around this water area. This drift was driven East to the 8000' line, which was reached in August month. It was then turned South-east to enter the ore measures. A small dike was cut about 100 feet from the turn beyond which was about 20 feet of Jasper, after which excellent ore was encountered and the crosscut continued in same for 100 feet. A drift was turned East from this crosscut and two raises started in the ore, all of which have been disappointing. The drift East has been in mixed material for 200 feet and no clean ore has been cut. Several drill holes to the East show ore and this drift will be continued. Rich Jasper shows up in this territory and a good ore body should be found.

A raise started in the South end of the crosscut No. 4, shows about 40 feet of low grade ore, and a raise started in the drift East only shows 28 feet of merchantable ore. A sub cut just above the level followed the ore North-east for a distance of 160 feet.

Later on the water in the main South drift drained off to such an extent that operations were resumed here also, and the level extended to the East. This opening is in rock at the end of the year.

Three raises have been put up from this level. No. 3 on the West end went up a distance of 180 feet in ore. It has been decided to start mining at an elevation of 150 feet above this first main level and a sub has been cut at that elevation and drifting North and East is now underway to determine the shape of the ore body, when a study will be made as to the best system of mining to introduce.

BARNES HECKER MINE.

UNDERGROUND

FIRST LEVEL: Continued-

The second raise is up a distance of 100 feet in ore at the end of the year and no doubt will go as high as the first raise.

The raise on the East end of the level showed more or less mixed ore for about 60 feet and then was continued to 150 feet without finding any ore when it was stopped and exploring drifts driven. Ore to the West was encountered in two sub levels.

SECOND LEVEL:

The concrete dam on this level was blasted out and operations resumed in June month. Ore was entered, after passing the large water course, which had drained and the opening continued in ore for a distance of 480 feet. The ore is of good quality.

Development of this ore by raises was started and is being continued. The raise on the West end of this level was put through to the first level all in ore. The next raise East encountered the rock at a distance of 80 feet above the level, the third raise reached the rock at an elevation of 50 feet above the level. The fourth raise is still going up in ore at an elevation of 70 feet.

A raise was put up at the 8050' line, just above the level and a sub driven North which shows ore for 70 feet. A drift East has followed the contact with the Jasper for a distance of 100 feet.

The ore body here looks as though it takes the shape of two lenses going upwards to the East and West and converging into one ore body just above this main second level. More work will be necessary before we can fully determine the shape or extent of this ore area.

BARNES HECKER MINE.

UNDERGROUND

THIRD LEVEL:

A raise was put up 66 feet above this main 3rd level and a sub opened. A drift North from this raise, shows 70 feet of good ore. A drift South showed some mixed ore, which was followed West for about 100 feet.

A drift is now going East on this elevation and has followed the ore for a distance of 140 feet, where a large dike has just been encountered.

The raise is being continued above this sub and is now up a distance of 107 feet in ore and it looks as though it would continue through to the second level in good ore.

ORE IN SIGHT

An estimate of the tonnage in sight has been made, but additional development work will necessarily have to be made before we can get any accurate figures as to the tonnage that will be available.

From present development, we estimate 416,000 tons ore in sight, averaging Iron 58.50, Phosphorus .092.

MADE IN U.S.A.

MORRIS MINE

AVERAGE MINE ANALYSIS ON OUTPUT FOR YEAR 1922.

GRADE	IRON	PHOS.	SILICA
Morris Bessemer,	(No Production)		
Morris,	58.97	.070	7.25
Morrisville,	52.05	.072	17.16

AVERAGE ANALYSIS ON STRAIGHT CARGOES FOR YEAR 1922.

GRADE	Mine			Lake Erie	
	IRON	PHOS.	SILICA	IRON	MOIST
Morris Bessemer,	(No Shipments)				
Morris,	58.70	.073	-	58.58	11.11
Morrisville,	(All Mixed)				

ORE STATEMENT - DECEMBER 31ST, 1922.

	MORRIS BESSEMER	MORRIS	MORRISVILLE	TOTAL	TOTAL LAST YEAR
On hand January 1, 1922,	0	87,371	74,849	162,220	79,431
Output for Year,	0	109,227	17,398	126,625	98,772
Transferred,	0	12,082	24,479	36,561	3,495
Total, Shipments,	0	184,516	67,768	252,284	174,708
		118,858	8,117	126,975	12,488
Balance on Hand,		65,658	59,651	125,309	162,220
Decrease in Output,				5,213	
Decrease in Ore on Hand,				36,911	

- 1922 -- 1-4 Hour Shift, 6 days per week, Jan. 1st to June 4th, 1922.  
 1-8 Hour Shift, 6 days per week, June 5th to Dec. 31st, 1922.
- 1921 -- 2-8 Hour Shifts, 6 days per week, Jan. 1st to March 5th, 1921.  
 2-8 Hour Shifts, 5 days per week, March 5th to June 1st, 1921.  
 1-4 Hour Shift, 6 days per week, June 1st to Dec. 31st, 1921.

MADE IN U.S.A.

MORRIS MINE  
 SHIPMENTS FOR YEAR 1922.

GRADE	POCKET	STOCKPILE	TOTAL	TOTAL LAST YEAR
Morris Bessemer,	-	-	-	-
Morris,	52,335	66,523	118,858	7,868
Morrisville,	-	8,117	8,117	4,620
Total,	52,335	74,640	126,975	12,488
Total Last Year,	107	12,381	12,488	
Increase,	52,228	62,259	114,487	

*Diamond Brand*  
*MADE IN U.S.A.*

LLOYD MINE

AVERAGE MINE ANALYSIS ON OUTPUT FOR YEAR 1922.

GRADE	IRON	PHOS.	SILICA
Lloyd,	59.33	.124	5.91
Lloydale,	(No Production)		
Lloyd Silica,	52.71	.082	15.23

AVERAGE ANALYSIS ON STRAIGHT CARGOES FOR YEAR 1922.

GRADE	Mine			Lake Erie	
	IRON	PHOS.	SILICA	IRON	MOIST.
Lloyd,	57.98	.120	-	-	-
Lloydale,	(All Mixed)				
Lloyd Silica,	50.37	.077	18.51	-	-

ORE STATEMENT - DECEMBER 31ST, 1922.

	LLOYD	LLOYDDALE	LLOYD		TOTAL	TOTAL LAST YEAR
			SILICA	TOTAL		
On hand January 1, 1922,	90,270	73,992	42,871	207,133	146,738	
Output for Year,	89,902	-	5,452	95,354	110,262	
Transferred,	13,073	-	23,488	36,561	3,495	
Total,	193,245	73,992	71,811	339,048	260,495	
Shipments,	96,571	42,742	27,627	166,940	53,362	
Balance on Hand,	96,674	31,250	44,184	172,108	207,133	
Increase in Output,				18,158		
Decrease in Ore on Hand,				35,025		

1922 -- 1-4 Hour Shifts, 6 days per week, Jan. 1st to June 4th, 1922.  
 1-8 Hour Shift, 6 days per week, June 5th to Dec. 31st, 1922.

1921 -- 2-8 Hour Shifts, 6 days per week, Jan. 1st to March 5th, 1921.  
 2-8 Hour Shifts, 5 days per week, March 5th to June 1st, 1921.  
 1-4 Hour Shift, 6 days per week, June 1st to Dec. 31st, 1921.



LLOYD MINE

SHIPMENTS FOR YEAR 1922.

	GRADE	POCKET	STOCKPILE	TOTAL	TOTAL LAST YEAR
Lloyd,		69,617	26,954	96,571	38,582
Lloyddale,		-	42,742	42,742	-
Lloyd Silica,		8,597	19,030	27,627	14,780
	Total,	78,214	88,726	166,940	53,362
Total Last Year,		24,849	28,513	53,362	
Increase,		53,365	60,213	113,578	

BARNES-HECKER MINE

AVERAGE MINE ANALYSIS ON OUTPUT FOR YEAR 1922.

GRADE	IRON	PHOS.	SILICA
Barnes-Hecker,	58.51	.092	7.36
Barnes-Hecker Silica,	52.19	.090	16.18

AVERAGE ANALYSIS ON STRAIGHT CARGOES FOR YEAR 1922.

GRADE	Mine IRON	PHOS.	SILICA	Lake Erie IRON	MOIST.
Barnes-Hecker,	(No Shipments)				
Barnes-Hecker Silica,	(No Shipments)				

ORE STATEMENT - DECEMBER 31ST, 1922.

	BARNES-HECKER	BARNES-HECKER SILICA	TOTAL	TOTAL LAST YEAR
On hand January 1, 1922,	213	-	213	-
Output for Year,	13,621	6,692	20,313	-
Total, Shipments,	13,834	6,692	20,526	-
Balance on Hand,	13,834	6,692	20,526	-
Increase in Output,			20,313	
Increase in Ore on Hand,			20,526	

1922 -- 1-8 Hour Shift, 6 days per week, Jan. 1st to June 4th, 1922.  
 2-8 Hour Shifts, 6 days per week, June 5th to Dec. 31st, 1922.