

MEADOW AND FOWLER MINES

ANNUAL REPORT FOR 1922.

The mine and location premises have been policed throughout the year, the watchman being the only one steadily employed here. These properties were closed down on June 3rd., 1921, and the leases given up.

At the time of closing down, all mining timber, drills, small tools and pipe fittings were transferred to the Boeing Mine, together with all supplies that could be used at our other Mesaba properties. Only repair parts and material for the boilers, hoist, compressor, pumps and gasoline locomotives were left in the Meadow warehouse.

In November, we sold to Mr. David Silk of Duluth, the scrap at the Meadow-Fowler Mines. This included the boilers, underground cars and several old pumps, besides the miscellaneous material that had accumulated for several years. Mr. Silk started loading out the scrap about the middle of the month and had forwarded the last of eleven cars by December 6th.

An effort was made to sell the hoist and compressor, but no market was found and it was decided to store this equipment at the Wade Mine. A crew of six men, including Captain Wivell, started to dismantle the hoist and compressor on November 27th. This equipment, together with pipe, rail, three gasoline locomotives, four Cameron pumps, blacksmith and underground tools, the remaining warehouse supplies and lockers from the dry house, were sent to the Wade Mine for storage. Four cars were loaded out.

The sheet iron warehouse was torn down and the material shipped to the Wade. A part of this lumber and sheet iron will be used to provide a building for storing the material from the Meadow. This work was completed December 8th.

Everything of any value belonging to the Cleveland-Cliffs Iron Co. has now been removed from the Meadow-Fowler Mines, with the exception of the mine buildings and ten dwelling houses. We will try and dispose of these as soon as possible. The watchman will be released January 1st., 1923.

STOCKPILES

The original lease of the Meadow Mine states that all property, including stockpiles, must be removed within 90 days after cancellation. According to a supplementary agreement reached with the Fee Owners of the Meadow Mine, we were granted permission to allow our stockpiles to remain on their land after the ninety day period had expired, provided that 20,000 tons be shipped by September 1st., 1921, and the balance prior to September 15th, 1922.

The tonnage and average analyses of the Meadow-Fowler stockpiles as of January 1st., 1922, follows:

	<u>Tons</u>	<u>Fe.</u>	<u>Phos</u>	<u>Mn.</u>	<u>Sil.</u>
Meadow Stockpile-----	29,532	56.89	.072	1.95	9.61
Fowler "-----	<u>16,316</u>	<u>56.62</u>	<u>.059</u>	<u>1.66</u>	<u>10.92</u>
TOTAL AND AVERAGES-----	45,848	56.79	.067	1.85	10.08

Preliminary work for stockpile loading at the Meadow Mine was started on April 11th. Four cars of coal were received and unloaded on the stockpile ground, rather than from the coal dock. From this location the coal was supplied to the shovel in wheelbarrows instead of teaming. A No. 8 Cameron pump was installed in the shaft to supply water for the shovel and a steam and water line laid from the shovel to the pump.

The Wade Mine 70-ton Bucyrus shovel which was used for loading out part of the stockpile last season, was laid up here during the winter, and after a few minor repairs, was ready for this year's service.

Actual loading operations began on April 19th, but progressed very slowly, due to bad frost conditions in the pile. Approximately 9,000 tons had been loaded out by May 1st., when word was received to discontinue.

The "A" frame on the shovel failed on the afternoon of May 1st., just previous to receiving word to stop loading operations. This accident allowed the boom to drop and considerable damage was done to the swinging circle and various front braces. The broken parts were loaded onto a flat car and shipped to the Hill-Trumbull Mine for repairs. The repairs were made at once, and the shovel was put in shape for loading by the 23rd of May.

In the meantime a boat was due at Two Harbors for a cargo of Meadow ore, with only a part tonnage in dock. We were able to secure a shovel from the Miller Mine at Aurora. This shovel was used on May 15th, 16th and 17th, loading out approximately 3,000 tons needed to make the cargo.

Stockpile loading was resumed again on June 19th and continued to July 20th, when both the Meadow and Fowler piles were loaded out. It was necessary to do a considerable amount of hand cleaning over the bottom of the stocking ground, on account of the frozen condition of the ore, during the early part of the season. Three to five men followed behind the shovel cuts. Quite a tonnage was recovered from this work.

Upon completion of loading operations here the shovel was shipped to the Boeing Mine for stockpile work.

The shipments from the Meadow Mine for the season of 1922 amounted to 60,098 tons, made up of 39,538 tons of Meadow ore and 20,560 tons of Fowler ore.

The tonnage and average analysis of the season's shipments follows:

	<u>Tons</u>	<u>Fe.</u>	<u>Phos</u>	<u>Mn.</u>	<u>Sil.</u>
Meadow-----	39,538	56.72	.073	2.01	9.68
Fowler-----	<u>20,560</u>	<u>56.35</u>	<u>.052</u>	<u>1.10</u>	<u>11.79</u>
TOTAL & AVERAGES--	60,098	56.59	.066	1.70	10.40

According to our skip tally records, we show an overrun of 10,006 tons of Meadow and 4,244 tons of Fowler ore. This is a much larger tonnage than we had anticipated, as compared with our estimate of 5,000 tons of Meadow ore. We were quite sure the Meadow pile would develop an overrun, but we were not positive with regard to the Fowler, as it had never shown one in the past. The large overruns were partly due to the fact that the piles had not been cleaned up in several years.

The analysis of the seven cargoes shipped during the season checked very closely with the stockpiles in making.

Following are the cargoes of Meadow-Fowler ore shipped during the season of 1922 and the analyses, as obtained from the Mine and by Lower Lake Chemists' sampling:

"A.S. UPSON"-----	5/10/22----- 6,279 Tons.					
	<u>Fe.</u>	<u>Phos</u>	<u>Mn.</u>	<u>Sil.</u>	<u>Mois.</u>	<u>Fe.Nat.</u>
Mine-----	56.77	.065	1.51	11.33	-----	-----
Cremer & Case-----	56.50	---	---	---	12.53	49.42

<u>"A. S. UPSON"</u>		-5/18/22-					6,339 Tons.
	<u>Fe.</u>	<u>Phos</u>	<u>Mn.</u>	<u>Sil.</u>	<u>Mois.</u>	<u>Fe. Nat.</u>	
Mine-----	56.62	.067	1.70	10.89	-----	-----	
Crowell & Murray-----	56.00	---	----	----	11.59	49.51	
<u>"W. G. MATHER"</u>		-6/26/22-					10,506 Tons.
Mine-----	55.56	.059	1.47	12.20	-----	-----	
Oscar Textor-----	55.55	---	----	----	11.54	49.14	
<u>"PONTIAC"</u>		-7/5/22-					11,805 Tons.
Mine-----	58.10	.066	1.51	8.31	-----	-----	
Cremer & Case-----	56.90	---	----	----	11.16	50.55	
<u>"SHEADLE"</u>		-7/10/22-					10,147 Tons.
Mine-----	56.52	.055	1.75	10.18	-----	-----	
Crowell & Murray-----	56.45	---	----	----	11.14	50.16	
<u>"MICHIGAN"</u>		-7/17/22-					10,037 Tons.
Mine-----	56.56	.068	1.97	9.99	-----	-----	
Oscar Textor-----	56.00	---	----	----	10.35	50.20	
<u>"WOLF"</u>		-7/22/22-					4,984 Tons.
Mine-----	56.03	.070	2.20	9.99	-----	-----	
Oscar Textor-----	55.05	---	----	----	9.74	49.69	

MEADOW-FOWLER MINE

AVERAGE MINE ANALYSIS ON OUTPUT FOR YEAR 1922.

GRADE	IRON	PHOS.	SILICA	MANG.
Meadow,				(No Production)
Fowler,				(No Production)

AVERAGE ANALYSIS ON STRAIGHT CARGOES FOR YEAR 1922.

GRADE	IRON	PHOS.	SILICA	MANG.
Meadow,				(All Mixed)
Fowler,				(All Mixed)

ORE STATEMENT - DECEMBER 31ST, 1922.

	MEADOW	FOWLER	TOTAL	TOTAL LAST YEAR
On hand January 1, 1922,	29,532	16,316	45,848	31,405
Output for Year,	-	-	-	34,671
Stockpile Overrun,	10,006	4,244	14,250	-
Total, Shipments,	39,538	20,560	60,098	66,076
	39,538	20,560	60,098	20,228
Balance on Hand,	-	-	-	45,848
Decrease in Output,			20,421	
Decrease in Ore on Hand,			45,848	

1922 -- Mine Idle during Year.

1921 -- 2-8 Hour Shifts, Jan. 1st to June 4th, 1921.
Mine closed June 3rd, 1921.

MEADOW-FOWLER MINE
 SHIPMENTS FOR YEAR 1922.

	GRADE	POCKET	STOCKPILE	TOTAL	TOTAL LAST YEAR
Meadow,		-	39,538	39,538	9,573
Fowler,		-	20,560	20,560	10,655
Total,		-	60,098	60,098	20,228
Total Last Year,		-	20,228	20,228	
Increase,			39,870	39,870	

MEADOW MINE

COMPARATIVE MINING COST FOR YEAR

	1 9 2 2	1 9 2 1	INCREASE	DECREASE
PRODUCT	14,250	34,671		
Underground Costs		1.967		
Surface Costs		.273		
General Mine Accounts		.156		
Cost of Production		2.396		
Taxes		.144		
Central Office		.077		
Contingent Expense		.009		
Idle Expense		.461		
Cost Adjustment		.060		
Cost on Stockpile		3.147		
Loading & Shipping		.055		
Total Cost on Cars		3.202		
No. Days Operating		130		
No. Shifts & Hours		2-8hr		
Avg. Daily Product		267		
<u>COST OF PRODUCTION</u>				
Labor		1.617		
Supplies		.779		
Total		2.396		

NOTE: Mine abandoned May 31, 1921.
 Not operated 1922; Lease surrendered 1921.
 14,250 tons is Stockpile OverRun.

MEADOW MINE

COMPARATIVE WAGES AND PRODUCT

	1 9 2 2	19 2 1		
Product	14,250	34,671		
No.Shifts & Hours		2-8hr		
AVG.NO.MEN WORKING				
Surface	3	10		
Underground		22		
Total	3	32		
AVG.WAGES PER DAY				
Surface	4.20	5.07		
Underground		6.21		
Total	4.20	5.84		
WAGES PER MO. OF 25 DAYS				
Surface		126.75		
Underground		155.25		
Total		146.00		
PRODUCT PER MAN PER DAY				
Surface		10.70		
Underground		5.10		
Total		3.46		
LABOR COST PER TON				
Surface		.473		
Underground		1.216		
Total		1.689		
AVG.PRODUCT BRK'G & TRM'G		7.63		
" WAGES CONTRACT MINERS		6.69		
" " " TRAMMERS		6.69		
" " "		6.69		
TOTAL NO. OF DAYS				
Surface	1056 $\frac{1}{4}$	3239- $\frac{3}{4}$		
Underground		6792		
Total	1056 $\frac{1}{4}$	10031- $\frac{3}{4}$		
AMOUNT FOR LABOR				
Surface	4434.22	16409.81		
Underground		42150.74		
Total	4434.22	58560.55		

PROPORTION SURFACE TO UNDERGROUND MEN:

1921 - 1 to 2.2
 1920 - 1 to 2.3
 1919 - 1 to 1.84
 1918 - 1 to 2.31

Mine abandoned May 31,1921.
 Lease surrendered 1921.
 Product is stockpile overrun.