

AGENT'S ANNUAL REPORTS AND  
STATISTICS.

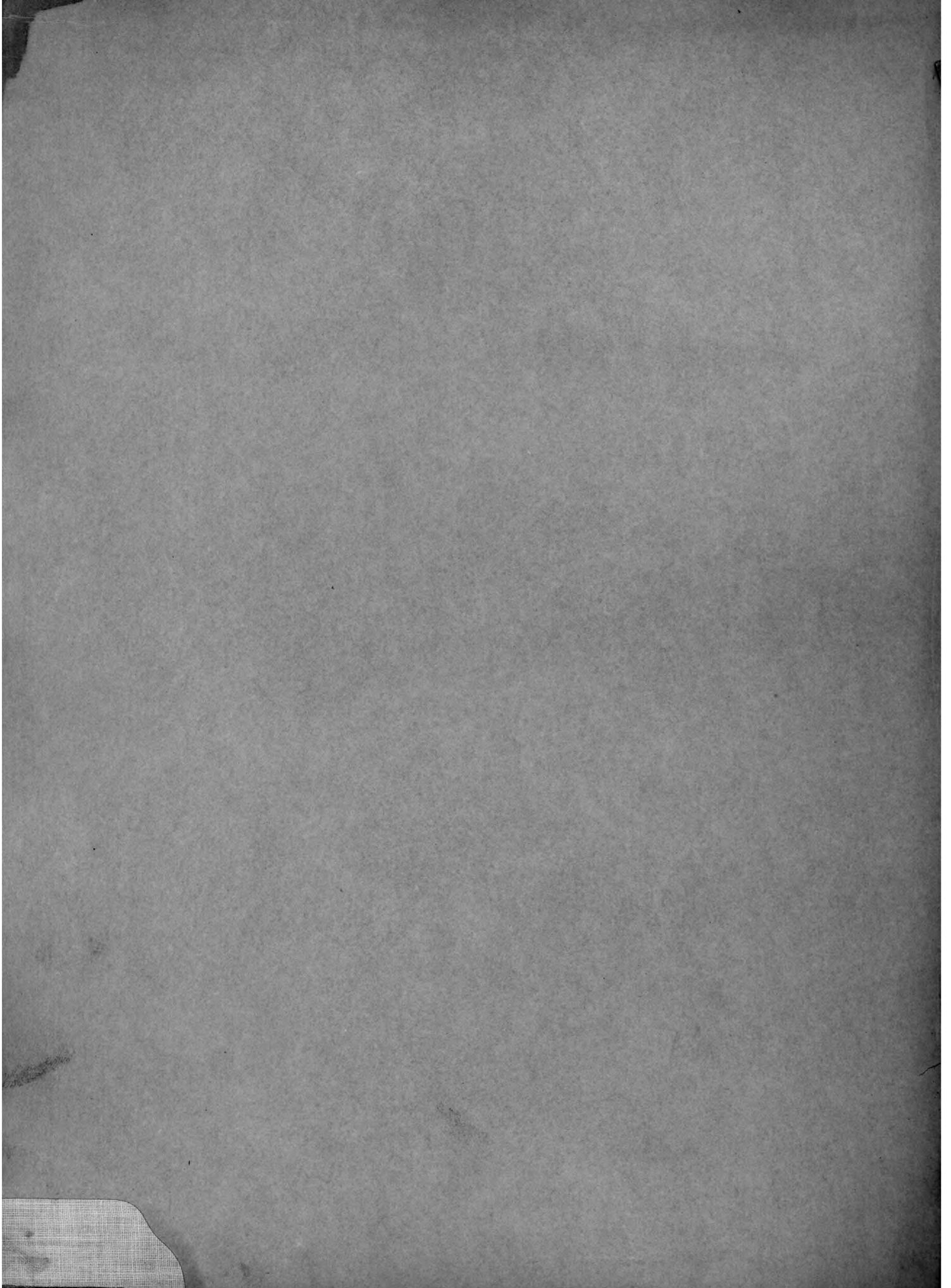
YEAR 1894.

MS 86-100  
2060

ANNUAL REPORTS AND STATISTICS  
DEPARTMENT OPERATIONS  
YEAR ENDING NOVEMBER 30, 1894

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2	" " Miscellaneous Data " " "	2	✓
3	" " Agent's Annual Report Iron Cliffs Co.	3	✓
4	" " Miscellaneous Data " " "	4	✓
5	" " " " Cleveland-Cliffs Iron Co.	5	✓
6	Furnace Dept. Manager's Report Cleveland-Cliffs Iron Co.	6	✓
7	Vessel " Operating Statistics Cleveland-Cliffs Iron Co.	7	✓





I N D E X

ANNUAL REPORT

CLEVELAND IRON MINING COMPANY

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CLEVELAND IRON MINING COMPANY.

Ishpeming, Michigan.

Report of Agent for year ending November 30th 1894.

W.G.Mather Esq.,

President, Cleveland Iron Mining Co.,  
Cleveland, Ohio.

Dear Sir:-

The detailed cost statements, copy of inventory and book of maps have been sent you. Following is report of the present condition of your property.

Moro Mine.

This mine was shut down in June 1892 and water has now raised to within 41 feet of the top of the shaft. The mine is 708 feet deep.

Shipped during present year,	212 tons.
In stock November 30th 1894,	8,898 "
In sight underground,	100,000 "

No. 3 Mine.

This mine was practically shut down in June 1892, only one scam having been worked since that time and this was stopped in September of 1893. The mine is 635 feet deep and water has now raised to 64 feet below the mine datum.

Shipped during present year,	9,131 tons. ✓
In stock November 30th 1894,	11,729 "
In sight underground,	150,000 "

RECEIVED

JAN 23 1895

Cleveland Hard Ore Mines.

Estimates of the amount of ore in sight in both # 3 Mine and Moro is based on amount of ground opened up and by comparison of output for previous years.

Of Incline and Saw Mill Mines an actual survey of the pillars was made and amount figured at 10 cubic feet to one ton.

Incline Mine.

Estimate of ore in Williams stock pile, from measurement of same and figured at 14 feet to the ton gives.

Bessemer,	2,600 tons.
Non Bessemer,	<u>5,710</u> "
Total,	8,310 "

Incline Mine.

	Bessemer,	Non Bessemer,	Total.
Produced in previous year,			21,242 tons.
" " present "	7,148	16,496	23,644 " ✓
In stock November 30th 1894	0	0	0 "
In pillars underground,	12,074	26,988	39,062 "
Shipped during the year,	10,267	26,373	36,640 "

We do not report any in stock although there are a couple of piles of ore still in stock, the amount called for by the books is cleaned up and what is left is excess. The mine was shut down on May 1st 1894, is 500 feet deep and the water has now raised to 64 feet below datum. This mine connects with No. 3 Mine and water was allowed to raise up to where work was going on in this pit and has not raised so very fast since the pump was stopped in April 1894.

A very full memorandum relative to each of the pillars left in this mine will be found in the map book.

Saw Mill Mine.

This mine has not worked for a good many years and no ore remains except in the pillars and in a few places in the roof. The ore is mostly of a very fine grade and estimate that we will get 6000 tons that will go about 68.00 % and .025 % and about, 4000 " " "

" " 65.00 % " .040 %, possibly some of this last will hardly go as bessemer as there is some green ore in the roof that may have to come down. A contract was let for taking all of this ore out and work commenced in December of this year, the price for the best grade is 80 cents and of the poorer grade is \$1.25 per ton on the R.R.Cars. X

*X note contract for particulars - The first 6000 tons of better ore is covered to get, hence lower price.*



The contractors to pay for everything and assume their own risk of accidents, not only for themselves but for their men. A small amount of water makes and is handled by a steam pump located in the mine and supplied with steam from the No. 3 Engine House.

Average number of men employed at the Hard Ore Mine, loading stock pile, on surface and in the shops has been for the year, 45

Shipments during present year,	Total,	45,983 tons.
Mined " " "	"	23,644 " ✓
In stock November 30th 1894.,	"	20,627 "
In sight underground,	"	299,062 "

Cleveland Hematite Mine.

*Mine was shut down July 1/93 & work again resumed July 20/94*

Produced during the seven months worked of 1893,	50,600 tons.
" " " ten " " " 1894,	64,668 "
Shipped during the present year, . . . . .	73,288 "
In stock November 30th 1894., . . . . .	94,615 "
In sight underground, . . . . .	50,000 "
Average men employed, . . . . .	98
Depth of the mine, . . . . .	1,008 feet

The last sinking gave us a lift of 181 feet.

In the West Deposit the ore has been mined out to within 75 feet of the bottom level, the deposit is small and by itself would not pay to work. The old west deposit proper petered out below the 819 foot level and but slight connection was made to this new lens that has taken its place. This deposit on the 1,000 foot level shows about 26 by 100 feet and would not pay to sink shaft for as it would require 450 feet

of drifting, by the shortest route, to reach this deposit. It is possible that we will sink on it a little if it is mined out before we get through with the main deposit.

The East or Main Ore Deposit, that we were unable to find on this bottom level a year ago, does not make down. We finished the hole going south, the one south east and drilled one south west and then gave it up and moved the drill up to the 819 foot level and put down short holes in the deposit itself. In all eighteen were drilled and so far as we were able to ascertain the ore does not go down further than 57 feet, and as this point was immediately over the drift, driven on 1,000 foot level, looking for it, we put up a vertical rise 125 feet through rock to the ore and by time rise had gotten there we had a winze sunk down to meet it. Since then have put up two inclined rises from top of this rock rise and now have three mills through which to spill the ore, it saves some wheeling and enables more men to work. The ore all goes down the vertical rise to the bottom level and have had very little trouble with it choking.

The 20 feet of ore above the 819 foot level, remaining a year ago, lasted until connection was made to this bottom level so that mining has gone on without intermission. The main deposit is now worked out to ten feet below the 819 foot level and unless some change occurs, that we do not expect, this ore will be all mined out by next June. The intention is to then pull out the pumps and abandon the property.

Cleveland Hematite.

Estimate of ore in sight is based on figure of 10,000 tons to each ten foot slice and have about fifty feet of ore yet to mine out.

The slice under the 819 foot level actually produced 17,500 tons but the deposit is getting smaller as we go down, is narrowing up from all sides.

At this mine we estimate a product of 50,000 tons of Bessemer Ore and at a cost of .75 per ton on cars, for 1895.

We did not check the amounts in the different stock piles with a survey, as it is quite unsatisfactory, unless a great deal of time is spent on it.

At this mine the only amounts to charge off, and charged off, are Depreciation of inventory, for which you have a special statement, and amounting to,

248.92

Improvement of Condenser,

154.62

\$ 403.54

Regarding the condenser, we tried connecting one of the condensers, formerly on Hard Ore Compressor, to the hoisting engine which was too small to do the work properly and thought to get more speed and also effect some economy. In practice we found that the water coming from the mine, and which was all we had to use, was so warm that vacuum did not form until bucket was about half way up and took so much more for same reason that we could not make a success of it. This 16" by 42" Corliss Engine is now brought out to the Lake for the Electric Power Plant and have put in a 20" by 30" plain slide valve engine that we had and which has enough more power to pull the bucket up considerable faster. *where from* MB.

X Come from old Nos. Engine house on Dam track, broke up old drums sent to Marquette a Scrap, Hoisting was sent.

*Closed down July 1/93*

Lake Mine.

*Resumed hoisting July 94*

Produced during seven months worked of 1893,	165,000 tons,
"    "    five    "    "    "    1894,	97,018 "
Shipped during present year,	90,803 "
In stock November 30th 1894,	12,945 "
In sight underground,	6,000,000 "
Average men employed,	204.

Very little work was done in the mine until July, were at work since December of last year with small force putting in curves on the second level and preparing for the Electric Tram, which was started in July of this year, but which did little work before August.

On the 1st level have done nothing except to put up the trolley wire, finish laying the track and completely bond the same. The contemplated connection around the west end of the mine has not yet been made.

On the 2nd level have, during the year, put in the following curves,  
2 curves at 10th room towards the east end of mine.

- 1 " " 3 " North Deposit, West side.
- 1 " " 13 " " " " "
- 2 " " 18 " " " " "
- 3 " " 21 " towards the west end of mine.
- 2 " " 13 " South Deposit, West side.
- 2 " " 0 " " " , south of shaft.

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At the 13th room south west, some 42 feet of drifting was done to avoid putting in two extra curves. At the plat, by shaft, on this second level a drift has been driven east 84 feet for storage of cars loaded with timber or extra cars not in use.

A reference to the map book will show the exact amount of mining done during the year in the following rooms , Second Level,

North Deposit.

East Side,- Rooms 1 to 4 inclusive, 6, 7 and 8. A rise has been put up in both 6 and 7.

West " Rooms 1 to 7 inclusive and 15 to 18 inclusive. An extra rise was put up in the 9th room.

South Deposit.

East " Rooms 1 to 8 inclusive. In room 6 a raise has been put up and in room 8 two raises were put up and nearly holed. In room 27, at east end, on first level, two sets high have been taken out to make room for pocket at bottom of the rise leading to surface.

West " Rooms 1 to 11 inclusive. In room 13 connection was made to the power drift and in room 14 a rise for connection to the power drift is nearly completed.

Third Level.

East Side,- Rooms 1, 2 and 6.

West " " 1 to 5 inclusive, the two deposits come together on this level. On south side of 7th room west the diamond drill hole, started in previous year, was finished to as far as the caving ground would allow it to go, 602 feet, and did not go far enough to cut the Lake Angeline formation.

There has been more or less crushing going on in the various rooms, throughout the mine, which has necessitated a heavy timbering expense to keep the mine safe and makes it necessary to fill certain of the rooms

as soon as possible. Except for the soft mud in old lake bottom, would not need to be so careful. Following is list of the rooms requiring filling and the necessary yards, figureing 14 yards to the set. A set is seven feet square and eight feet high and produces about 50 tons of ore, if ore is clean and of ordinary heft. *about. 12.7 cu' to the ton.*

Room	1 North West,	86 setts,	1,204 cubic yards.
"	2	"	"
"	3	"	"
"	4	"	"
"	5	"	"
"	6	"	"
"	7	"	"
"	8	"	"
"	9	"	"
"	10	"	"
"	11	"	"
"	12	"	"
"	13	"	"
"	14	"	"
"	15	"	"
"	16	"	"
"	17	"	"
"	18	"	"
"	2	East	"
"	3	"	"
"	4	"	"
"	6 South	"	"
Total,	22 Rooms,	2,906	40,684

The amount of stripping to remove from over the open pit at the east end of the mine is 60,000 yards and is more than will be immediately required in the mine and it is possible that we will waste some of the excess in the old lake bed, but before doing so, will want to explore the ground north of the pit by means of drift which will be driven close under the mud from near top of the rise now going up in the 27th room on north side. When we get the north foot wall can follow along it and then deposit this dirt where it wont have to be moved again and where it will serve as a dam to keep the surface water out of the open pit.

We expect to mine 200,000 tons from this open pit the coming summer at a cost of 55 cents per ton. This pit would extend east from the 24th room, and deposit measures on the 1st level an average width of 100 feet by 250 feet long and on the surface, basing estimate on surface test pits and diamond drill holes and what we know of the deposit down under, would put dimension at 180 by 350 feet and an average thickness of 140 feet. This would figure 229,000 cubic yards or 458,000 tons, at two tons to the yard. There will be some bunches of soap rock, and of jasper, but we think it will be safe to figure on 400,000 tons from here.

The 200,000 tons we expect to get from here during the summer will make a monthly production of 33,333 tons or 666 tons per shift, and should have no trouble in tramping it with electric motor to the main shaft and hoisting plant there could hoist double the quantity.

The quality of this ore it is impossible to make an exact estimate of as it does not run regular, we find on the first level in rooms under where this open pit will be, iron from 55 % to 64 % and phosphorous from .039 % to .902 %. The vertical drill holes from surface at this place showed from 55 % to 67 % in iron and from .029 % to .106 % phos. From a careful consideration of the data that we have, should say that we may be able to get 1/5 bessemer, or 40,000 tons.

The stripping figures 200 feet wide by 400 feet long and 22 feet thick, making 65,200 yards and on December there had been removed of this 5,200 yards, leaving still to get off 60,000 yards. We have been handling about 100 cars of 1 1/2 yards each per day with the little motor and expect to handle as many of the larger cars, holding two yards each, when the large motor is brought up and additional rises are up. Are now raising in north side of 27th room and are converting the east

compartment of the No. 2 Shaft into a mill, through which to run down stripping into the mine. We expect to have the place fully stripped by the opening of navigation. Detail of the estimated cost of this ore is as follows,

60,000 yards of stripping at 30 cents equals on 200,000 tons,	.09
Tramming and filling 40,000 yards of this underground at .15	.03
Breaking the ore in open pit when stripped, . . . . .	.19
Tramming the ore to No. 1 Shaft, . . . . .	.05
Hoisting and pumping, . . . . .	.06
Handling ore into R.R.Cars on surface, . . . . .	.01
General Expense, exclusive of taxes, . . . . .	.03
For raises and diamond drill work an amount of \$4,000.00 . . . . .	.02
Taxes apportioned to this mine of \$12,000.00 . . . . .	.06
Pumping water from the Lake Bed., . . . . .	<u>.01</u>
Total, . . . . .	.55

Estimate of amount and cost of the ore which we expect to get from the Lake Angeline Deposit next year is as follows, The drift on the second level had 310 feet to drive to the line on Dec. 1st and think we will get the ore 110 feet away from the line thus making 200 feet still to drive at a cost of \$10.00 or . . . . . 2,000.  
 250 feet of rising to do when ore is reached, at 3.00 .. . 750.  
 250 feet of drifting after ore is struck at \$5.00 . . . 1,250.  
 Making a cost on 20,000 we expect to get of .20 or, . . . \$4,000.

Cost of mining, . . . . .	.75
" " tramming, . . . . .	<u>.05</u>
Total, . . . . .	\$1.00



*Lake Mine* Rails.- We do not think it will be necessary, in view of the times  
, to buy any new rails for the Lake this year. Will make rails that we  
have answer, although the 30 pound section is a little light.  
We have a few of the 40 pound rails still left and they will help out  
some. We will have to get a few frogs and switches during the year, but  
not many, and will not get any more than we really need.

This ore will be of fine quality, the drill cores indicating an ore going at least as good as 66. % iron and .035 % phos.

The drift has been driven, since March 1894, a distance of 413 feet or 46 feet per month. Some of the distance was through very hard rank jasper but is now in soft diorite and will not likely meet any more bad ground before getting the ore.

A small amount of ore has been shown up since Dec 1st, east of the old end of the Lake. Was found by trench dug for pipe line from the dam. Had hoped it would make bigger, but it seems to be only a wash deposit, having a size of about 50 by 70 feet and a greatest thickness of 13 feet. It lies flat and is underlaid with paint rock, that rapidly turns into diorite in depth. The quality of the ore is most excellent and believe will average 67. % iron and not over .025 % phos.

Will be able to get all of this ore out during the winter and will team it on sleds down to the Lake Angeline tracks where it can be loaded up in the summer time. Expect to get this ore out for a cost of less than one dollar per ton.

Summary of Lake production for 1895.

*3 men of this showed the best*

160,000	tons	going	about	61.00 %	and	.090 %	, costing	.55
40,000	"	"	"	62.00 %	"	.045 %	"	.55
20,000	"	"	"	66.00 %	"	.035 %	"	1.00
<u>2,000</u>	"	"	"	67.00 %	"	.025 %	"	1.00
222,000	"							

## Lake Mine.

Estimate of ore in sight was figured from the maps, which are complete, and amount is arrived at more correctly than it was possible to get it at any of our other mines. *as to the ton*

In explanation of the items yet to charge off at this mine would state as follows,

**LAKE NEW BOILERS.** The four 6' by 16' tubular boilers not yet set up.

**NEW ENGINE HOUSE BUILDING.** Brick walls on sub foundation up to floor.

**EXCAVATION FOR COMPRESSOR AND BOILERS.** Was necessary in order to get the machinery in line and not get too far out on the lake and ore body with the buildings, to have gone out further would have cost more on account of higher foundation necessary due to the slope of the ground, the present foundation is all on the ledge.

**NEW TIMBER ROAD AND DRUMS.** To get the timber down in the mine more cheaply we had two of the old 6' drums in No.3 Engine House remodeled and set up on foundation built in shaft house, new timber skip built with door on bottom to open automatically, counterbalance made and the east compartment of shaft fixed for this skip and counterbalance. The loaded skip going down pulls up the balance and when timber in skip drops out the counterbalance returns it to the top. We used to use steam for this work. *MB*

**ELECTRIC POWER MACHINERY FOUNDATION.** Is brick foundation under the 16" by 42" Corliss Engine and under the 100 Kilowatt Generator. these forming the permanent power plant.

**ELECTRIC POWER MACHINERY.** The cost of new motor, new generator, the repairs made on the engine, shifting it from the Hematite and the

putting in of another engine in its place out there. New 16' belt wheel for the Corliss.

**ELECTRIC TRAM ROAD TRACKS.** Amount expended for laying tracks for power tram during the year.

**ELECTRIC TRAM ROAD WIRING.** The cost of cables, return wire, trolley wire and insulators.

**GENERAL FOUNDATION.** The main sub foundation on which the different foundations rest and built so as to get all of the machinery on one level. In csae of hoisting engine, built first, was necessary to get this high in order to clear the rail road cars with hoisting ropes, leading from the drum.

**RETAINING WALL.** Built alongside of the track and prevents crushing in of the engine and boiler house.

**ROCK POCKET IN MINE.** A pocket under the skip road at the first level in which it is proposed to waste the rock from the lower levels in the mine, particularly the bottom level where there is no place for stowing away the rock encountered in developement work. The rock to be trammed from this pocket to the rooms wanting filling.

The new Bessemer Ore pocket will hold about 300 tons, has three spouts ~~so~~ spaced as to load one large ore car without shifting it after once placed. Each of these spouts, as well as the other six on the other double pocket are fitted with air cylinders that lift the pocket fingers or bars. This does away with the labor of three men on each shift when working strong. During year we have set up the drum for MB letting out the dump sticks on the stock pile and it saves considerable time.

We are using 10 of the Corey cars and 20 of the cars made in our shop, on the underground haulage. The Corey Car was originally a side dump and have altered them to bottom dumps. They hold 2.45 tons each and cost \$190.00 Each of our new and better bottom dump cars hold 3.26 tons and cost \$126.29

#### Electric Trammimg.

The expense of .039 is instead of .29. The mine is hard one to tram by hand in, as distances are too great. The trammimg you may have noticed on cost sheet outside of electric trammimg is some that was done during the year before the power tram was started and also takes in the trammimg in the rooms themselves which is ordinarily put in with the mining, contracts requiring the ore to be put into the mills. Working this mine company account the past year we were able to seperate it and did so. It is a little high and is due to rock in the rooms that was trammed back and used for filling, the ore having to stand the whole amount.

As to time the work has been in progres would say that curves were started and some track laid in 1893. Commenced to put in wire the latter part of April 1894, the temporary machinery, the latter end of June month, was started up and trammimg commenced in earnest in July.

All of the electric machinery has come from the General Electric Co., and is of their make. The capacity of generators is usually spoken of in Kilowatts, ours being a 100 K- machine. Is equal to 133 H.P. but like all electric machinery can be greatly overloaded for a short time. We do not doubt but that our plant will call for as high as 200 H.P. in starting trains, our engine being large is of great advantage as it

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will keep up the speed and voltage and thus avoid heating of generator or motors.

This engine would cost new about \$2,000. without the band wheel. and it cost about one half this to have it completely overhauled and consider it better now than when new, as it has a second wrist plate on, and provision is made to now take up the wear of the various parts.

The length of tram of course varies with the rooms worked but should say that it has averaged about 1,200 feet the past summer. Believe the little motor would tram for this distance in 10 hours about 1,000 tons and the larger motor about 1,500 tons.

We did not keep track of all the stoppages and derailment, and towards the last they did not amount to much, as everything got to working smoother and low places in the track ballasted up.

On surface the engineer who looks after the other machinery also looks after the generator. No additional firemen are necessary, so that for on top no extra men are required although we have charged a proportion that we thought right, to the tramping. Underground we have a motorman and brakeman on the train. It takes from six to twelve men at the shutes to fill the cars, depending on the output, and it takes a skip tender on each shift to load the skips. These are all charged to the tramping.

The cost of Electric Power Tramm ing has been as follows,

Month.	Tons Trammed.	Cost per ton.
July,	18,448	.046
August,	24,653	.036
September,	15,836	.038
October,	7,620	.057
November,	<u>21,552</u>	<u>.029</u>
Total,	88,109	.039

Detail of Cost.

Shop labor and teaming,	.0005		
Wheeling coal in boiler house,	.0005		
Firemens labor,	.0006		
Engineers labor,	.0031		
Skip tenders dumping cars,	.0033		
Motormen,	.0069		
Loading cars at the shutes,	<u>.0168</u>	.0517	
Oil used,	.0006		
Supplies,	.0029		
Fuel,	<u>.0035</u>	<u>.0070</u>	<u>.039</u>

The temporary, experimental generator, borrowed for the purpose of trial and the obtaining of exact data previous to installing a permanent plant, is a 40 Kilowatt, 220 Volt, two pole, high speed, belted machine. It has power enough to drive the small 30 H.P. locomotive in good shape but has not got enough to run the 60 H.P. motor to its capacity. We have used the small motor on the first level for tramm ing the filling and the large one on the second level for ore. The generator

not having power enough to run more than one motor at a time it was necessary in October to let up almost entirely on the mining and get in filling, during this month, too, were changing temporary boiler plant and building retaining wall alongside track which also interfered with hoisting. In November we only hoisted on the night shift as it was necessary to get filling in, on at least one shift.

This small generator is being driven by the 10 by 20 engine that formerly run the Arc Light Dynamo, and on which we had to put a Nordberg Governor before it would work, on account of the great fluctuations of the load. For the new generator we have taken the 16" by 42" Corliss Engine that used to be at the Cleveland Hematite and have had it completely overhauled and an additional wrist plate put on for greater range of cut off. Engine pulley is 16 feet in diameter and the engine at 80 revolutions will easily develop an economical horse power of 200 with 125 pounds of steam. The new generator is a 4 pole, 100 Kilowatt, 220 Volt, slow speed, belted machine and with engine that we have will make an economical plant to operate. Both engine and generator foundations are completed and, as soon as the new Engine House is finished, will be connected up and take the place of the small plant now being used. Will then be able to run both motors at the one time, one on each level though for the present we will use them both on the top level so as to hurry up the stripping and filling.

We have made some tests with the little motor pulling seven of the small cars in a train, each car weighing light 2,750 pounds and holding 5,450 pounds of ore, making 57,400 pounds in train and find draw bar pull to be an average of 1,507 pounds or 52 1/2 pounds to the ton at a speed of 8 miles per hour; the locomotive developing 32 H.P., the



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output of the generator being 40 H.P. , 129 Amperes and 250 Volts, the Engine indicated 51.4 H.P.--

With the new cars weighing but little more, 3,000 pounds,.but each holding 3.26 tons of ore instead of 2.43 tons and the new heavier motor and generator and better engine we expect to do the tramming even cheaper. The mine is not one in which we could get along with hand tramming as it was very expensive, costing about .29 as against the power tramming of .039 . P.H.O

Following are some of the principal items of cost of the plant,

Overhauling engine,	1086.18		
Engine fly and band wheel,	<u>479.88</u>		1,566.06
Generator, 100 Kilowatt.	1950.00		
Motor, 60 Horse Power.	<u>3075.00</u>	5,025.00	
Copper 0 trolley and 00 return wire.	1993.86		
Copper rail bonds	189.53		
Copper insulated feeder cables,	419.00		
Isulators for trolley line,	<u>830.00</u>	<u>3,432.39</u>	8,457.39
40 pound steel T rail.	4139.46		
Switches and frogs.	<u>263.57</u>		<u>4,403.03</u>
			\$14,426.48

Would say that the road is a little more than a mile long on the first level and while a little less than a mile long on the second level at present, it will be over a mile when run in to the Lake Angeline Deposit. The road is put in the best possible condition and is practically level. On the second level a round circuit is made and eventually there will be a complete circuit of the first level. At present a short drift in south west part of the mine will have to be driven first. The electric haulage is certainly a great success.

14

### Drainage.

Last winter the water was allowed to accumulate in the bed of Lake Angeline and was pumped out in the spring and kept out in the summer, the same as during the previous year. We expect this winter to keep the pump going steadily and will not have so much water to contend with again. There has been a dam built this fall at the east end of the Lake and a 16" pipe line is being put in connecting this dam to the flume, on south shore of the lake, and will not have this inlet water to contend with any more. It will save some pumping expense and will avoid the danger of this water, possibly, getting into the mine.

The mud in lake bottom is some stiffer than a year ago and the surface is now covered with a dense growth of rank weeds and of young poplar trees and these may mat and solidify the top in time. As soon as the mud gets stiffer we think it may be practicable to open up another open pit towards north west side of mine and to find out more definitely we are now raising up in the 9th room to see what the condition is of both the ore body and of the mud.

We think there may be another place east of the Engine House that can some day be mined in an open pit but the mud is too thin at this particular spot to think much about it at the present time.

During the year we unplugged three of the old diamond drill holes and worked some rods up in them to the day light and found that the mud would not drain any water out of it, down them. Some years ago when these same drill holes were encountered underground they all spilled a large amount of water but at that time the Lake had not been pumped out.

In explanation of some of the items charged off in this years cost

1515  
would state as follows,

Temporary Boiler Plant, is old lot of four small boilers that have been moved south of engine house, and to which one additional boiler has been added, to make room for the permanent plant of four large modern boilers.

*Had to put this in to have one that was said about the del. to look on pumping filling while new plant was being installed*

New Ore Pocket, is one that has been put up south of the old pockets and is to handle the Bessemer Output that will come up later on, the expense includes the bridge connecting the new pocket to the old one, for the top tram cars to run on, and it has a forty two foot span, crossing three rail road tracks. It will still take about \$300.00 to complete it. NB

New Office Building, is small office constructed under the above pocket.

Electric Light Equipment, is a number of incandescent lamps placed in the mine, at the curves on both levels and at the pockets .

Electric Power House, is the small temporary shed enclosing the temporary generating plant.

Tram Road Drifting, is the necessary connecting drifts and curves for whatever power haulage was installed.

The above being sunk off under the head of New Construction.

Under the head of Improvement and sunk off is the following,

Extension of pumping plant to the 3rd level, putting in the pump and changing the pipes.

Putting lifting cylinders on pocket doors of the old pockets so as to save manual labor.

Small amount for timber mill equipment.

Permanent Drainage is sum set for us to eventually wipe out this expense with.

Following is estimate for completing the Permanent Machinery plant, the Permanent Pumping plant, south of the new boilers and on the mud, and of the Dam at the inlet end of Lake with the pipe line leading from same.

*MBX OR.* Permanent Machinery Plant.

New Engine House, Contract.			\$ 6,000.00 <sup>5100-</sup> <sub>5100,</sub>
Moving in new boilers and setting up,		200.00	
20,000 Fire Brick at 30.00	600.00		
75,000 Common Brick at 8.00	600.00		
Laying above brick " 3.00	285.00		
85 bbls lime " 1.00	<u>85.00</u>	1,570.00	
25,000 Common brick for floor, at 8.00	200.00		
30 barrels of Portland Cement " 3.00	90.00		
Laying floor,	<u>70.00</u>	360.00	
Base for new smoke stack,	100.00		
New Smoke stack, iron or steel.	400.00		
Flue for connection to boilers,	<u>350.00</u>	<u>850.00</u>	2,980.00
Pipe connections, valves and fittings,			1,120.00
Removing and putting in heater now at No. 3 Eng. House.			100.00
" " " " Compr. " " " " " "			150.00
Foundation for the Compressor,			850.00
Completing sub foundation for compressor and building,			1,200.00
Flooring over rock pocket north of engine house,			100.00
Tunnels for water west and for steam to the mill, east.			<u>500.00</u>
			13,000.00
Think can buy small motor, now being used for	1,600.00		
and can fix it up for,	<u>100.00</u>		1,700.00
For completion of Bessemer Ore Pocket,			<u>300.00</u>
Total,			\$ 15,000.00

Dams and Pipe Line.

Contract for two dams and laying 16" iron pipe,	900.00		
" " laying wooden pipe, (17")	<u>290.00</u>	1,190.00	
Building temporary house over the dam,	30.00		
Heating same until cement sets,	<u>100.00</u>	130.00	
3,100 feet of 16" cast iron pipe at #22.75 per ton or \$1.08 per foot, delivered.	3,349.94		
1,160 feet 17" wooden pipe at \$ 1.40 per foot.	1,624.00		
920 feet of 5" pipe " .40 " "	<u>368.00</u>	5,341.94	
6,000 pounds of pig lead at .0572	223.20		
200 " " Oakum " .0575	<u>11.50</u>	234.70	
Cast iron connection at flume,			20.00
Plank and earth dam at east end of old Lake bed.			<u>583.36</u>
Total.			\$ 7,500.00

Leah

MBK

Permanent Pumping Plant on the Mud.

Driving spiles and building on the same,	250.00
1,370 feet of 12" pipe and laying same,	1,712.00
Road across lake for steam and water pipes,	1,000.00
Steam pipes and expense of moving pumps,	<u>538.00</u>
Total,	\$ 3,500.00

Summary,

Permanent Machinery Plant,	\$ 15,000.00
" dam and pipe line, (Our 2/3 of,)	5,000.00
" pumping plant on the mud, (Our 2/3 of.)	<u>2,333.00</u>
Total,	\$22,333.00

Summary of all the mines of the Cleveland Iron Mining Co.

Produced during present year,	185,330 tons
Shipped " " "	210,074 " ✓
In stock November 30th 1894.	128,187 "
In sight underground,	6,349,062 "
Average men working,	347

Respectfully submitted,

*F. Mills*

Agent.

X Has not yet decided that the Lake Superior  
I. Co. will stand 1/2

FORMAN BASSETT HATCH CO. CLEVELAND O.

# CLEVELAND IRON MINING Co.,

ISHPEMING, MICHIGAN.

HARD ORE MINE  
LAKE " "  
HEMATITE " "

Jan'y 17 1895.

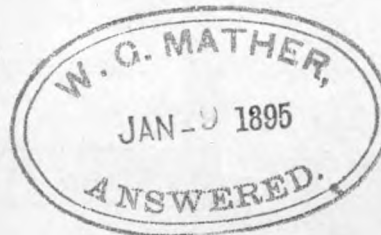
"Reports., "

RECEIVED  
JAN 19 1895

W.G.Mather Esq.,

President, C.C.I.Co.,

Cleveland, Ohio.



Dear Sir:-

Your letter of the 14th asking for additional information is noted. Are working at it and will send as soon as possible.

The ore in sight is estimated as follows,

At Salisbury an actual measurement of the pillars and of deposit left standing was made and figured up.

At the Lake Mine we figured from the maps, which are complete and are able to get the amount very accurately. *how many cu' to ton*

At the Cleveland Hematite we estimate about 10,000 tons to each 10 foot slice and have about fifty feet of ore still left. The slice under the 819 foot level actually produced 17,500 tons but the deposit is getting smaller as we go down, is narrowing up on all sides.

At the Cleveland Hard Ore, the Cliffs Shaft and the Foster, the estimates are based on the ground opened up and by comparison of previous years outputs

The estimates for Lake Mine you have, for the Salisbury we estimate,

*for 1895.*

# IRON CLIFFS COMPANY,

DEPARTMENT OF MINES AND MINERALS,  
ISHPEMING, MICHIGAN.

BARNUM MINE.  
CLIFFS SHAFT "  
SALISBURY "  
FOSTER "  
FITCH "

Feb 1 1895.

"Annual Reports."

W.G.Mather Esq.,

President, C.C.I.Co.,

Cleveland, Ohio.



Dear Sir:-

Your favor of the 26th duly received and should have been answered before.

CLEVELAND HEMATITE.- The 20" by 30" slide valve engine came from the old No. 1 Engine House, on Barn Track. We broke up the old drums at the same time and sent them to Marquette as scrap. The shafting was kept here as it may come in some time.

NEW TIMBER ROAD & DRUMS.- Are not sure how long it will take to pay for this equipment but the work was necessary to do. We havent the time with our ore skips to handle timber, if doing much, and the old drum and engine were in the way of the new machinery plant and engine house. We used to be at continual expense to keep the old drum going and it could not be thought of to keep them in or set them up again, once they were out. The new skip is large enough to hold about three times as much timber as the old skip and should be cheaper to handle in every way. The timber had to be pulled out of the old skip by man power at the different levels and with the new skip will be automatically dropped out through the bottom. There being a hinge on the bottom,

Feb 1 1895.

which is also provided with an automatic latch for opening.

It is just possible that we may have to put a small engine with friction clutch to move this skip in starting and in sending down light loads, as it works pretty stiff, requiring men to pull on the rope when getting under way. The expense for steam though would be nominal even if this has to be done, as engine would be disconnected most of the time. Have been altering the latch, which did not work just right, and will have skip working again this coming week. At present, hoisting the small amount that we do, there is no difficulty in getting down all the timber that we need with the main skips but we have the expense of pulling the timber out of the skips, the same as we had with the old one, and want to get the new one at work to save this cost and will have to have it working in good shape before spring, so as to not interfere with the working of the main skips,

Should think that a years operation would pay for this improvement, though it was not simply for this that it was put in, we had to have something and this was the cheapest way out of it.

NEW AIR CYLINDERS FOR POCKETS.- Would save two men on each shift with the small tonnage you mention, from 600 to 700 tons. Would save three men with a production of 1,200 tons. Am not sure but would save more when handling both Bessemer and Non Bessemer Ore.

ELECTRIC TRAM CARS.- The cost of slight alteration in the Corey cars was not kept track of in such a way as to enable us to say just what it amounted to but would estimate it at not over \$10.00 per car. I think that additional cars that we might build would not cost as much.

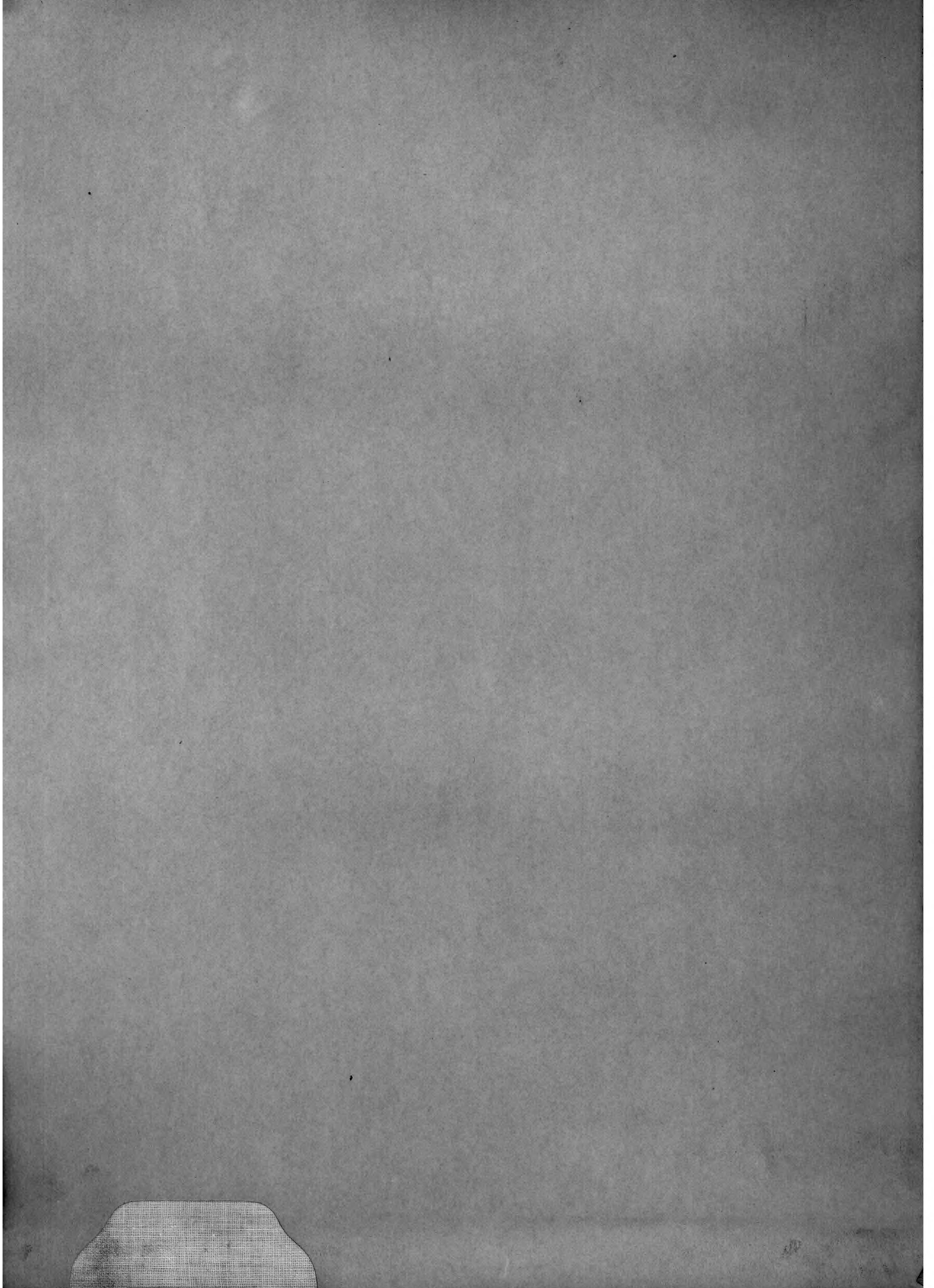


3 W.G.M.--

Feby 1 1895.

The men are used to the work now and could do it quicker. Another improvement, that would save some expense, would be to cast the three lugs, at each end of the car, in one piece. The car, we think, is ahead of anything in the iron ore districts, even if it was gotten up here.

We hope to be able to get through this year with the cars that we have and will not make any more if it can be avoided.



C.I.M.  
IndexCleveland Iron Mining Co.  
Index, Miscellaneous Data, 1894

- 1 Ore Shipped & Ore Due
- 2 Salaries & Perquisites
- 3 Weekly Mine Report
- 4 Summary of Labor Statements
- 5 Operating Electric Haulage, Lake Mine
- 6 Profit & Loss on Inventory
- 7 Repairs to Swellings not rented
- 8 Record of Diamond Drilling
- 9 Discounts deducted from Mine Equipment Accounts on Inventories
- 10 Accidents at the Different Mines
- 11 Lake Mine Timber Statement
- 12 Income Tax Statement

Cleveland Iron Mining Co.

Misc Data

1894

ORE SHIPPED AND ORE DUE.

# DAILY REPORT.

Ishpeming, Mich., 6 p.m. December 4<sup>th</sup> 1894

CLEVELAND IRON MINING CO.

*Litchfield* IRON CLIFFS CO.

CLEVELAND IRON MINING CO.										LITCHFIELD IRON CLIFFS CO.								
TONS SHIPPED	Bessemer	No. 1	Scotch	Fine	Fine Scotch	Lake	Lake Bessemer	Hematite	Total	Barnum	Cl. Shaft	Fitch No. 1	Fitch No. 2	Salisbury	Salisbury Bessemer	Foster	Total	TONS SHIPPED
Ashland Iron & Steel Co.,						3.255			3.255					7.696		3.094	10.790	Ashland Iron & Steel Co.,
Antrim Iron Co.,																		Antrim Iron Co.,
Detroit Iron Furnace Co.,																		Detroit Iron Furnace Co.,
Elk Rapids Iron Co.,		8.755				13.487			22.242							11.515	11.515	Elk Rapids Iron Co.,
Eureka Iron & Steel Co.,																		Eureka Iron & Steel Co.,
Excelsior Furnace,		358	1.275			5.441			7.074				662	3.014		1.092	4.768	Excelsior Furnace,
Gaylord Iron Co.,		2.662							2.662					1.902			1.902	Gaylord Iron Co.,
Illinois Steel Co.,	10.267					1.406			11.673		5.979			21.444	85.393		112.816	Illinois Steel Co.,
Martel Furnace Co.,																		Martel Furnace Co.,
Newberry Furnace Co.,																		Newberry Furnace Co.,
North-Western Iron Co.,						3.423			3.423									North-Western Iron Co.,
Peninsular Iron Co.,														4.650			4.650	Peninsular Iron Co.,
Pioneer Furnace,																		Pioneer Furnace,
Spring Lake Iron Co.,																		Spring Lake Iron Co.,
Union Iron Co.,			712						712					4.059			4.059	Union Iron Co.,
Vulcan Furnace Co.,																		Vulcan Furnace Co.,
Weston Furnace Co.,																		Weston Furnace Co.,
Toledo,						19.887			19.887					15.181			15.181	Toledo,
Sandusky,						8.633			8.633		4.724						4.724	Sandusky,
Lorain,																		Lorain,
Cleveland,		3.937	14.943		5.008	39.086			62.974					32.153	45.039		77.192	Cleveland,
Fairport,															6.163		6.163	Fairport,
Ashtabula,																		Ashtabula,
Erie,																		Erie,
Buffalo,																		Buffalo,
Total by Vessel and all Rail,	10.267	15.712	16.930		5.008	94.618			142.535		5.979	4.724	662	90.099	136.545	15.701	253.760	Total by Vessel and all Rail,
In Docks and Cars,			1.074			97			1.171									In Docks and Cars,
Total from Mines,	10.267	15.712	18.004		5.008	94.715			143.706		5.979	4.724	662	90.099	136.545	15.701	253.760	Total from Mines,
TONS DUE	Bessemer	No.	Scotch	Fine	Fine Scotch	Lake	Lake Bessemer	Hematite	Total	Barnum	Cl. Shaft	Fitch No. 1	Fitch No. 2	Salisbury	Salisbury Bessemer	Foster	Total	TONS DUE
Ashland Iron & Steel Co.,																		Ashland Iron & Steel Co.,
Antrim Iron Co.,																		Antrim Iron Co.,
Detroit Iron Co.,																		Detroit Iron Co.,
Elk Rapids Iron Co.,																		Elk Rapids Iron Co.,
Eureka Iron & Steel Co.,																		Eureka Iron & Steel Co.,
Excelsior Furnace,																		Excelsior Furnace,
Gaylord Iron Co.,																		Gaylord Iron Co.,
Illinois Steel Co.,																		Illinois Steel Co.,
Martel Furnace Co.,																		Martel Furnace Co.,
Newberry Furnace Co.,																		Newberry Furnace Co.,
North-Western Iron Co.,																		North-Western Iron Co.,
Peninsular Iron Co.,																		Peninsular Iron Co.,
Pioneer Furnace,																		Pioneer Furnace,
Spring Lake Iron Co.,																		Spring Lake Iron Co.,
Union Iron Co.,																		Union Iron Co.,
Vulcan Furnace Co.,																		Vulcan Furnace Co.,
Weston Furnace Co.,																		Weston Furnace Co.,
Toledo,																		Toledo,
Sandusky,																		Sandusky,
Lorain,																		Lorain,
Cleveland,																		Cleveland,
Fairport,																		Fairport,
Ashtabula,																		Ashtabula,
Erie,																		Erie,
Buffalo,																		Buffalo,
Total,																		Total,
SHIPMENTS																		SHIPMENTS
By C. & N. W. all Rail,		358	1.275			5.441			7.074					662	3.014		4.768	By C. & N. W. all Rail,
To " Dock,	7.901	12.692	11.415		4.128	31.002			67.138		5.979	4.724		34.803	85.393	11.515	142.242	To " Dock,
By D. S. S. & A. all Rail,						6.679			6.679					7.696		3.094	10.790	By D. S. S. & A. all Rail,
To " Dock,	2.366	2.662	5.314		880	51.593			62.815					44.586	51.202		95.788	To " Dock,

*Corrected*

ORE SHIPPED AND ORE DUE.

DAILY REPORT.

Ishpeming, Mich., 8 p.m. *Saturday Dec 11 1894*

CLEVELAND IRON MINING CO.

*Litchfield Silica* IRON CLIFFS CO.

CLEVELAND IRON MINING CO.										IRON CLIFFS CO.								TONS SHIPPED
TONS SHIPPED	Bessemer	No. 1	Scotch	Fine	Fine Scotch	Lake	Lake Bessemer	Hematite	Total	Barnum	Cl. Shaft	Fitch No. 1	Fitch No. 2	Salisbury	Salisbury Bessemer	Foster	Total	TONS SHIPPED
Ashland Iron & Steel Co.,						3347			3347					7696		3094	14790	Ashland Iron & Steel Co.,
Antrim Iron Co.,																		Antrim Iron Co.,
Detroit Iron Furnace Co.,						13487			13487								11515	Detroit Iron Furnace Co.,
Elk Rapids Iron Co.,		8755																Elk Rapids Iron Co.,
Eureka Iron & Steel Co.,																		Eureka Iron & Steel Co.,
Excelsior Furnace,		472	1183			5473			7078					746	3274	1092	5112	Excelsior Furnace,
Gaylord Iron Co.,		7662							2662					1902			1902	Gaylord Iron Co.,
Illinois Steel Co.,	10266					1406			11672		5978			24446	85337		112761	Illinois Steel Co.,
Martel Furnace Co.,																		Martel Furnace Co.,
Newberry Furnace Co.,																		Newberry Furnace Co.,
North-Western Iron Co.,						3473			3473									North-Western Iron Co.,
Peninsular Iron Co.,														4650			4650	Peninsular Iron Co.,
Pioneer Furnace,																		Pioneer Furnace,
Spring Lake Iron Co.,																		Spring Lake Iron Co.,
Union Iron Co.,			712						712							4059	4059	Union Iron Co.,
Vulcan Furnace Co.,																		Vulcan Furnace Co.,
Weston Furnace Co.,																		Weston Furnace Co.,
Toledo,						19888			19888					15180			15180	Toledo,
Sandusky,						8633			8633			4704					4704	Sandusky,
Lorain,																		Lorain,
Cleveland,		3937	13421			5008	39087		61453					32151	45037		77188	Cleveland,
Fairport,															6169		6169	Fairport,
Ashtabula,																		Ashtabula,
Erie,																		Erie,
Buffalo,																		Buffalo,
Total by Vessel and all Rail,	10266	15826	15316			5008	94694		14110		5978	4724		746	91358	136543	15701	254050
In Docks and Cars,							96		2692									In Docks and Cars,
Total from Mines,	10266	15826	17912			5008	94790		143802		5978	4724		746	91358	136543	15701	254050
TONS DUE	Bessemer	No. 1	Scotch	Fine	Fine Scotch	Lake	Lake Bessemer	Hematite	Total	Barnum	Cl. Shaft	Fitch No. 1	Fitch No. 2	Salisbury	Salisbury Bessemer	Foster	Total	TONS DUE
Ashland Iron & Steel Co.,																		Ashland Iron & Steel Co.,
Antrim Iron Co.,																		Antrim Iron Co.,
Detroit Iron Co.,																		Detroit Iron Co.,
Elk Rapids Iron Co.,																		Elk Rapids Iron Co.,
Eureka Iron & Steel Co.,																		Eureka Iron & Steel Co.,
Excelsior Furnace,																		Excelsior Furnace,
Gaylord Iron Co.,																		Gaylord Iron Co.,
Illinois Steel Co.,																		Illinois Steel Co.,
Martel Furnace Co.,																		Martel Furnace Co.,
Newberry Furnace Co.,																		Newberry Furnace Co.,
North-Western Iron Co.,																		North-Western Iron Co.,
Peninsular Iron Co.,																		Peninsular Iron Co.,
Pioneer Furnace,																		Pioneer Furnace,
Spring Lake Iron Co.,																		Spring Lake Iron Co.,
Union Iron Co.,																		Union Iron Co.,
Vulcan Furnace Co.,																		Vulcan Furnace Co.,
Weston Furnace Co.,																		Weston Furnace Co.,
Toledo,																		Toledo,
Sandusky,																		Sandusky,
Lorain,																		Lorain,
Cleveland,																		Cleveland,
Fairport,																		Fairport,
Ashtabula,																		Ashtabula,
Erie,																		Erie,
Buffalo,																		Buffalo,
Total,																		Total,
SHIPMENTS																		SHIPMENTS
By C. & N. W. all Rail,		472	1183			5473			7078					746	3274	1092	5112	By C. & N. W. all Rail,
To " Dock,	7901	12692	12007			4128	32670		69398		5978	4724		34656	85337	11515	142210	To " Dock,
By D. S. S. & A. all Rail,						6770			6770					7696		3094	10790	By D., S. S. & A. all Rail,
To " Dock,	2365	2662	4725			880	49927		60559					47732	51206		95938	To " Dock,

*207,050  
143,802  
59,750*

*Daily Mine Report*  
*Dec 4/94*

ORE SHIPPED AND ORE DUE.

DAILY REPORT.

Ishpeming, Mich., 6 p.m.

Saturday  
Dec 14 1894

CLEVELAND IRON MINING CO.

Litchfield Silica IRON CLIFFS CO.

CLEVELAND IRON MINING CO.										LITCHFIELD SILICA IRON CLIFFS CO.									
TONS SHIPPED	Bessemer	No. 1	Scotch	Fine	Fine Scotch	Lake	Lake Bessemer	Hematite	Total	Barnum	Ol. Shaft	Pitch No. 1	Pitch No. 2	Salisbury	Salisbury Bessemer	Foster	Total	TONS SHIPPED	
Ashland Iron & Steel Co.,						3347			3347					7696		3094	14790	Ashland Iron & Steel Co.,	
Antrim Iron Co.,																		Antrim Iron Co.,	
Detroit Iron Furnace Co.,																		Detroit Iron Furnace Co.,	
Elk Rapids Iron Co.,		8755				13487			79744								11515	11515	Elk Rapids Iron Co.,
Eureka Iron & Steel Co.,																			Eureka Iron & Steel Co.,
Excelsior Furnace,		477	1183			5473			7078					746	3274	1097	5117	Excelsior Furnace,	
Gaylord Iron Co.,		7667							2667					1907			1907	Gaylord Iron Co.,	
Illinois Steel Co.,	10266					1406			11672		5978			24446	85337		112761	Illinois Steel Co.,	
Martel Furnace Co.,																		Martel Furnace Co.,	
Newberry Furnace Co.,																		Newberry Furnace Co.,	
North-Western Iron Co.,						3473			3473									North-Western Iron Co.,	
Peninsular Iron Co.,														4650			4650	Peninsular Iron Co.,	
Pioneer Furnace,																		Pioneer Furnace,	
Spring Lake Iron Co.,																		Spring Lake Iron Co.,	
Union Iron Co.,			717						717						4059		4059	Union Iron Co.,	
Vulcan Furnace Co.,																		Vulcan Furnace Co.,	
Weston Furnace Co.,																		Weston Furnace Co.,	
Toledo,						19888			19888					15180			15180	Toledo,	
Sandusky,						8633			8633			4724					4724	Sandusky,	
Lorain,																		Lorain,	
Cleveland,		3937	13471			5008	39087		61453					32151	45037		77188	Cleveland,	
Fairport,															6169		6169	Fairport,	
Ashtabula,																		Ashtabula,	
Erie,																		Erie,	
Buffalo,																		Buffalo,	
Total by Vessel and all Rail,	10266	15826	15316			5008	94694		144110		5978	4724		746	91358	136543	15701	254050	
In Docks and Cars,			2596				96		2692										
Total from Mines,	10266	15826	17912			5008	94790		143802		5978	4724		746	91358	136543	15701	254050	
TONS DUE	Bessemer	No. 1	Scotch	Fine	Fine Scotch	Lake	Lake Bessemer	Hematite	Total	Barnum	Ol. Shaft	Pitch No. 1	Pitch No. 2	Salisbury	Salisbury Bessemer	Foster	Total	TONS DUE	
Ashland Iron & Steel Co.,																		Ashland Iron & Steel Co.,	
Antrim Iron Co.,																		Antrim Iron Co.,	
Detroit Iron Co.,																		Detroit Iron Co.,	
Elk Rapids Iron Co.,																		Elk Rapids Iron Co.,	
Eureka Iron & Steel Co.,																		Eureka Iron & Steel Co.,	
Excelsior Furnace,																		Excelsior Furnace,	
Gaylord Iron Co.,																		Gaylord Iron Co.,	
Illinois Steel Co.,																		Illinois Steel Co.,	
Martel Furnace Co.,																		Martel Furnace Co.,	
Newberry Furnace Co.,																		Newberry Furnace Co.,	
North-Western Iron Co.,																		North-Western Iron Co.,	
Peninsular Iron Co.,																		Peninsular Iron Co.,	
Pioneer Furnace,																		Pioneer Furnace,	
Spring Lake Iron Co.,																		Spring Lake Iron Co.,	
Union Iron Co.,																		Union Iron Co.,	
Vulcan Furnace Co.,																		Vulcan Furnace Co.,	
Weston Furnace Co.,																		Weston Furnace Co.,	
Toledo,																		Toledo,	
Sandusky,																		Sandusky,	
Lorain,																		Lorain,	
Cleveland,																		Cleveland,	
Fairport,																		Fairport,	
Ashtabula,																		Ashtabula,	
Erie,																		Erie,	
Buffalo,																		Buffalo,	
Total,																		Total,	
SHIPMENTS																		SHIPMENTS	
By C. & N. W. all Rail,		477	1183			5473			7078					746	3274	1097	5112	By C. & N. W. all Rail,	
To " Dock,	7901	12692	12007			4128	32670		69398		5978	4724		34656	85337	11515	142210	To " Dock,	
By D. S. S. & A. all Rail,						6770			6770					7696		3094	10790	By D. S. S. & A. all Rail,	
To " Dock,	2365	2667	4725			880	49927		60559					47473	51206		95938	To " Dock,	

2074 050  
143,802  
577,750

*Daily Mine Report*  
*Dec 4/94*



Statement of Salaries and Perquisites for the year ending Nov 30 1894.

Iron Cliffs Co

Cleveland Iron Mining Co

Superintendent		
Salary		2499 96
Rent	15 <sup>00</sup>	180 00
Chairman		147 20
Electric Light		55 08
Fuel		184 92
Station & Ice		17 24
<u>Total</u>		<u>3084 40</u>

Superintendent		
Salary		2499 96
Rent		180 00
Chairman		147 20
Electric Light		55 08
Fuel		184 92
Station & Ice		17 24
<u>Total</u>		<u>3084 40</u>

Mining Captains

Cliff Staff		
Rent for year	20 <sup>00</sup>	240 00
<u>Total</u>		<u>240 00</u>

Salisbury		
Salary		2256 00
Rent		180 00
Fuel & Oil		104 58
Station & Ice		18 35
<u>Total</u>		<u>2558 93</u>

Paid for Rent of office	12 <sup>00</sup>	150 00
" " " " President house	15 <sup>00</sup>	180 00
<u>Total</u>		<u>330 00</u>

2

Sabarus

Year Ending Nov. 30. 1894.



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land Iron Mining Co.

**MINED AND SHIPPED**

ending *Nov 30<sup>th</sup>* 189*4*

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Geo. A. Iron Mining Co. Summary of Labor Expend for year ending Nov 30<sup>th</sup> 1894.  
Mining Labor

	Hand Ore								Lade								Hemlock							
	No. Men	No. Days	Rate	Am't	Tons m'n per day	Cost per ton	R. & M. Product		No. Men	No. Days	Rate	Am't	Tons m'n per day	Cost per ton	Product	No. Men	No. Days	Rate	Am't	Tons m'n per day	Cost per ton	Product		
Dec 93	30	754	1.63	160963	3.18	.670	2400		31	778	1.61	125700			800	10	956	1.73	44316	-	-	250		
Jan 94	33	855	1.54	132376	3.04	.508	2600		33	826	1.61	133098			1300	31	810	1.24	100662	2.60	.479	2100		
Feb	30	778	1.49	109116	3.16	.474	2300		32	800	1.61	129225			1570	51	1260	1.42	178446	3.57	.396	4500		
Mar	28	714	1.53	109537	3.22	.476	2300		34	859	1.60	138100			1200	91	2297	1.46	335437	3.48	.419	8000		
April	18	473	1.61	68241	2.95	.546	1250		52	1287	1.55	200713			200	85	2075	1.49	309151	3.61	.412	7500		
May							10850		58	1463	1.54	225377			55	92	2265	1.38	313294	3.32	.416	7579		
June									91	2276	1.44	328003			3784	65	1559	1.31	205075	2.65	.495	4139		
July									248	6191	1.37	851789	2.98	.462	18448	88	1903	1.32	252647	2.81	.472	5345		
Aug									232	5799	1.39	807516	4.25	.327	24653	77	1858	1.39	258310	2.90	.478	5396		
Sept							3997		224	5605	1.39	779462	2.83	.492	15836	70	1593	1.49	237356	3.56	.419	5671		
Oct							4384		275	6871	1.36	934111	1.11	1.22	7670	76	1947	1.43	279431	3.72	.400	7250		
Nov	( 6	131	1.47	19274	Nov 11	San M)	4413		287	7174	1.38	986766	3.00	.46	21552	88	2006	1.39	280274	3.48	.400	6988		
R. & M. Excess							12794																	
Total	145	3605	1.66	599557	6.56	.254	23644		1597	39929	1.41	1563986	2.40	.581	97018	854	19879	1.41	2794399	3.26	.432	64668		

Total Labor

Dec 93	43	1104	1.60	214179	2.17	.892	2400		53	1343	1.61	217069			800	93	608	1.63	99156	-	-	250
Jan 94	44	1158	1.47	170275	2.25	.255	2600		56	1407	1.60	226464			1300	50	1325	1.29	172114	1.59	.819	2100
Feb	42	1012	1.42	144412	2.26	.678	2300		51	1279	1.60	204932			1570	73	1870	1.35	252755	2.41	.562	4500
Mar	42	1107	1.45	160948	2.07	.699	2300		56	1435	1.56	224829			1200	128	3319	1.37	453546	2.41	.567	8000
April	33	837	1.49	124696	1.49	.100	1250		96	2385	1.52	362289			200	121	2881	1.39	400076	2.60	.533	7500
May	20	557	1.24	69129					110	2770	1.48	410955			55	122	3083	1.29	400229	2.44	.531	7579
June	39	1033	1.20	124377					152	3802	1.45	550907			3784	103	2540	1.23	313272	1.63	.756	4139
July	70	1763	1.16	204846					331	8283	1.38	1144373	2.23	.620	18448	132	2937	1.29	381211	1.82	.711	5345
Aug	59	1795	1.19	212750					376	8160	1.38	1131008	3.02	.458	24653	113	2496	1.31	365589	1.93	.678	5396
Sept	51	1311	1.19	156262	3.04	.390	3997		330	8242	1.37	1130493	1.92	.714	15836	97	2294	1.36	311939	2.48	.550	5671
Oct	45	1227	1.15	141516	3.58	.323	4384		458	11574	1.33	1537337	66	202	7670	100	2652	1.34	355678	2.73	.490	7250
Nov	57	1409	1.29	167542	3.13	.379	4413		425	10577	1.34	1420765	2.03	.66	21552	116	2709	1.31	356207	2.58	.510	6988
Total	545	14313	1.32	1890932	1.65	.800	23644		2444	61207	1.39	8561421	1.58	.882	97018	1178	29014	1.33	3861792	2.23	.594	64668

105

RCM Make a minute that  
the annual report of Summary of Labor  
does not include Subst. Office force  
- M. S. S. S.

Does not include Subst. Office force, Surveyor or Master Mechanics.

Cleveland Iron Works Co  
Labor Statement  
for year ending Nov 30 94.

Cleveland Iron Mining Co.

Statement of Expenses of Operating Electric Haulage Lake Mine from July 1<sup>st</sup> to Nov 30<sup>th</sup> 1894

	July	August	September	October	November	Total
	Amount	Amount	Amount	Amount	Amount	Amount
	Cost per Ton	Cost per Ton	Cost per Ton	Cost per Ton	Cost per Ton	Cost per Ton
Engineers	5681	6543	5625	4200	5736	27785 .0031
Fireman	1009	1486	1127	586	1125	5333 .0006
Wheeling Coal Etc.	1128	1143	1023	716	800	4810 .0005
Motormen	14925	16625	15899	5025	8418	60892 .0069
Loading & Unloading Cars	43610	37304	22966	11747	32593	148220 .0168
Ship Benders	6025	6875	5500	4500	6125	29025 .0033
Shop Labor & Teaming	926	1244	250	700	864	3984 .0005
<b>Total</b>	<b>73304 .040</b>	<b>71220 .029</b>	<b>52390 .033</b>	<b>27474 .035</b>	<b>55661 .026</b>	<b>280049 .0317</b>
Supplies	2740	8164	1908	10826	2056	25694 .0029
Oil	588	1654	1644	744	840	5470 .0006
Fuel	8125	8125	4875	4875	4875	30875 .0035
<b>Total</b>	<b>11453 .006</b>	<b>17943 .007</b>	<b>8427 .005</b>	<b>16445 .022</b>	<b>7771 .003</b>	<b>62039 .0070</b>
<b>Grand Total</b>	<b>84757 .046</b>	<b>89163 .036</b>	<b>60817 .038</b>	<b>43919 .057</b>	<b>63432 .029</b>	<b>342088 .039</b>
<b>Product</b>	<b>18448</b>	<b>24653</b>	<b>15836</b>	<b>7620</b>	<b>21552</b>	<b>88109</b>

Comparative Trammimg cost for Lake Mine

1893. Bill floor trammimg .297  
 Stop trammimg, in room to mill over  
 bill floor drift, if we mined in 93 as  
 we are in 94 .077 374

1894 Bill floor trammimg. (Electric Haulage) .039  
 Stop trammimg .077 .116  
 Decrease in cost per ton for trammimg .258  
 Or 94 product of 88109 tons = \$22,732.12

Difference in cost of Stop trammimg between this report and Cost Sheet (.077 and Maintenance .007 Mining .109 or .116 is due to some ore being trammed from slope to shaft before motor was running.

Cost per ton for Trammimg at other Mines - By Hand -

Including Maintenance of Tracks & Cars	Year Ending	Year Ending
	1893	1894
Cliffs Shaft 7 Nov.	.288	
Dahisbury m .009 m .009	.116	.083
Foster 7 "	.136	
Lake	.297	.116
Hematite m .006 m .080	.273	.086
Electric Haulage		.039

Note. Cost of Trammimg at Hematite for 1893 shows .273 per ton. This includes the Labor of wheeling ore in sub-levels to the Chutes on the main levels from which the ore was trammed to the shaft. The cost per ton for wheeling was .153 " " " " trammimg " .120 .273 For 1894 the wheeling is done by contractors and is included in the cost of breaking ore.



Lake Mine.  
Report of Operating  
Electric Haulage.  
July 1<sup>st</sup> 94 to Nov. 30 1894.

Cleveland Iron Works Statement Analyzing Profit and Loss on Inventory accounts, November 30<sup>th</sup> 1894

Hand Over	Final Balance	Inventory	Increase	Decrease	Remarks
General Supplies	132390	119538		12852	Field Magnet <sup>\$100.00</sup> put in plant & difference on 145 <sup>lb</sup> Copper 20 <sup>lb</sup> <sup>\$29.00</sup>
Iron & Steel	287635	267649		19986	Adjustment of price on Bar, Taggot <sup>\$102.86</sup> of Tank Iron <sup>\$85.00</sup> Drilled Scrap <sup>\$12.00</sup>
Nails & Bolts	90555	90593	38		Profit on sales
Tools	57253	53112		4141	Adjustment of price only
Pipe & Fittings	175492	148694		26798	" " " " Conforming with other Mines <sup>\$158.26</sup> Black pipe <sup>\$109.62</sup>
Oil, Grease & Candles	225828	223681		2147	35 Gals Lard oil <sup>\$17.50</sup> old & thrown out, adjusting price on candle loss on sales
Machinery Supplies	514402	441378		73024	Adjustment of price only ✓
Building Material	47085	47921	836		Adjustment of price ✓
Explosives	35232	55395	20163		Profit on sales to R. J. Williams & why am I not shown on other slips
Miner Timber	4346	4334		12	Loss on sales
Fuel	355151	368298	13147		Profit on sales ✓
Barn	119368	114115		5253	Adjustment of price only ✓
Total Supplies	2044737	1934708	34184	144213	
differences				110029	
Diamond Drills	166561	128022		38539	Adjustment of price <sup>2/3</sup> of 10% reduction
Power Drills	127575	127575	00	00	No alteration in price from last year as drills were not used
Cars, Skips & Derrick	83433	102868	19435		Profit on sales to other Mines
Portable Machy	193201	179373		13828	10% reduction
Barn	84274	74510		9764	10% reduction
Total Equip	655044	612348	19435	62131	
Scrap		85610			Estimate of amount on hand
Grand Total	2699781	2632666	53619	206344	hereafter this price must be first submitted to Chief Office in detail

<u>Lake</u>					
General Supplies	85743	86483	740		Profit on sales
Iron & Steel	182319	169638		12681	Adjustment of price on steel Rail <sup>124.70</sup> Loss on sales <sup>2.11</sup>
Nails & Bolts	1204	1739	535		Profit on sales
Tools	25224	26178	954		Profit on sales
Pipe & Fittings	38158	38393	235		" " "
Oil, Grease & Candles	3880	4175	295		" " "
Machinery Supplies	223453	220558		2895	Profit on Sales <sup>74.55</sup> less adjustment of Rand Drill supplies <sup>103.50</sup>
Building Material	23776	24659	883		Profit on sales
Explosives	18114	19401	1287		" " "
Miner Timber	477514	472473		5041	Loss " "
Fuel	553572	553572	00	00	
Total Supplies	1632957	1617269	4929	20617	
differences				15688	
Portable Machy	656799	559890		96909	10% off <sup>622.10</sup> Loss on 2 Drums and 2 Steam Domes sold for Scrap <sup>347.11</sup>
Power Drills	461250	402368		58882	Adjustment of Price & 10% Dep on Drills <sup>\$390.82</sup> 10% on How <sup>\$36.00</sup> total loss on it <sup>\$426.82</sup>
Cars, Skips & Derrick	906251	869223		37028	Depreciation of Cars and Skips <sup>ND</sup>
Total Equip	2024300	1831481		192819	
Grand Total	3657257	3448750	4929	213436	

How much new sales

Cleveland Iron Mfg Co  
Analysis of Inventory acct

Nov 30 1894.

Cleveland Iron Mfg Co. Statement Analyzing Profit and Loss on Inventory accounts Nov 30<sup>th</sup> 1894

Item	Trial Balance	Inventory	Increase	Decrease	Notes
Hematite					
General Supplies	9723	9505		218	Loss on sales NO
Iron & Steel	28071	25431		2640	Adjusting price on steel-rail
Nails & Bolts	1510	2710	1200		Profit on sales
Tools	1751	2103	352		Profit on sales
Pipe & Fittings	22245	19572		2673	Adjusting price net loss \$26.73
Oil Grease & Candles	752	3354	2602		Profit on sales
Machinery Supplies	98858	90380		8478	Adjusting price \$80.40
Building Material	12783	9886		2897	Not charged out. Error of supply clerk
Explosives	4388	6352	1964		small percentage above cost charged to mine for powder
Mine Timber	148564	147886		678	Error in charging out sizes of timber
Fuel	529903	529903			
Barw	623	3435	2812		to much forage charged to teaming during year
Total Supplies	859171	850517	8930	17584	
difference					
Barw	30175	26932		3243	10% Decrease & 3 dump carts taken out
Portable Machy	71692	71596		96	to make Evin figures on cost
Power Drills	31500	28350		3150	10% Decrease only
Cars Ships & Derricks	26688	15475		11213	Duplicated articles taken out of Inv 193 <sup>2027</sup> loss on labor & Purchase 194 <sup>10% 286,4122</sup>
Total Equip	160055	142353		17702	
Scrap		1464			
Grand Total	1019226	994334	8930	35286	

What sales are made here

10% 286,4122  
56,20

Cleveland Iron Mfg Co  
Analysis of Inventory  
Nov 30<sup>th</sup> 1894.

Cleveland Iron Mining Co.  
 Statement of Repairs etc. of Dwellings not Rented year 1894

<u>J. P. Mills Residence</u>			
Reps of Barn		182	
" " Furnace		281	
" " Sink		2550	
" " Windows		257	
" " Water Line		1453	
" " Sewer		3392	
" " Building		3816	11931

<u>H. G. Mathers House &amp; Yard</u>			
Repairs to Building		17911	
Yard-Cleaning & Etc		2857	
Fuel- Coal and Wood		5160	
Water Rates		600	
Water Line Repairs		2186	
Ice		200	
Electric Light		9396	
Choreman		22500	
Telephone		5000	65810

Edward Iron & Co  
of dwellings not rented  
ending Nov 30 1894.

Cleveland Iron Mining Co. Record of Diamond Drilling for year ending Nov 30<sup>th</sup> 1894.

	Ladle Mine		Hematite Mine	
	Am't	Cost	Am't	Cost
No Feet Drilled underground			170 <sup>4</sup> / <sub>2</sub>	1440
" " " from Surface				
" " " Shaft Pipe sunk				
<u>Total Feet</u>			170 <sup>4</sup> / <sub>2</sub>	1440
No. days worked			83 <sup>1</sup> / <sub>2</sub>	571 <sup>3</sup> / <sub>4</sub>
No. Feet drilled per day per man			1.44	2.52
Cash for Labor	141591.175		99052.674	
" " Supplies	145921.712		66173.459	
" " Oil	- 35.000		1890.013	
" " Fuel	178751.488		57550.365	
<u>Total Cash</u>	466613.895		717665.511	
Barrel Carbon used			5 <sup>1</sup> / <sub>2</sub>	26 <sup>3</sup> / <sub>16</sub>
Feet drilled per Ht Carbon			21.9	5498
Cost per foot for Carbon			.776	.309



C. J. M. Co

Record of Diamond Drilling

Nov 30 1894.

Cleveland Iron Mining Co

Discounts deducted from Mine Equipment accounts on inventories of 1893 and 1894

	Nard On		Lake		Hematch	
	1893.	1894	1893	1894	1893	1894
Barn. Horses	50%	50%	%	%	50%	50%
Carts Wagons & Sleighs	70	70			70	70
Diamond Drill	80	80				
Portable Machinery	80.5	80	10.8	10	89.82	88.52
Power Drills	70	70	10.	10	50	50
Car Sumps & Derricks.	70	70	60.	15	70	70

Iron Cliffs Co.

	Cliff Staff		Salisbury		Foster	
	1893.	1894.	1893.	1894.	1893.	1894.
Barn. Horses	50%	50%	50%	50%	50%	
Carts Wagons & Sleighs	70	70	70	70	70	
Diamond Drill	80	80				
Portable Machinery	80	80	47.6	81.4	89.7	
Power Drills	55	55	50	55		
Car Sumps & Derricks	70	70	70	70	70	

Car Sumps and Derricks for Lake Mine. Discount for 1894 decreased on account of the new cars for electric haulage having been added this year.

Per Centage deducted from prices of 1893 inventory 10%.

7/13.

Manager decision as to share deductions must be made by Cleveland office

Elements of Mine

plant accounts

taxes 1893 and 1894.

## Cleveland Iron Mining Co.

### Report of Accidents at the different Mines Underground and Surface for year ending November 30 1894

Minor Accidents	Hard Ore Mine "R. J. Williams"						Lake Mine						Hematite Mine						Total	Per cent Each Class of Injuries																		
	Underground		Surface		Total		Underground		Surface		Total		Underground		Surface		Total																					
	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid																				
Fingers	1	5	332	1	5	332	4	115	91	1	5	532	5	123	4676	5	103	8178	5	103	8178	9	218	17322	2	13	8641	11	231	18186	.230							
Hands	3	78	6500	3	78	6500	4	52	4332	1	27	1800	5	79	6132	1	25	2082	1	16	1066	2	41	3148	5	77	6414	5	121	9366	10	198	15780	.208				
Arms				1	2	132				1	2	132	1	5	332				1	5	332				2	7	464				2	7	464	.041				
Feet	2	20	1666	2	20	1666	3	107	8682				3	107	8682	2	46	3832				2	46	3832	5	153	12514	2	20	1666	7	173	14180	.145				
Legs							3	86	6132				3	86	6132				1	5	416				1	5	416	3	86	6132	1	5	416	4	91	6548	.083	
Body							8	180	13696				8	180	13696	3	57	4750				3	57	4750	11	237	18446				11	237	18446	.230				
Eyes							2	11	916				2	11	916														2	11	916				2	11	916	.042
Head																																						
Total Minor Accidents			6	103	8498	6	103	8498	25	553	43034	2	35	23322	588	453	6612	236	19174	2	31	1482	14	257	20656	37	759	62208	10	159	12312	47	948	74520	779			
Fatal Accidents																			1	50000			1	50000				1	50000				1	50000				.021

Total amount paid for Minor and Fatal accidents which occurred during year 1894  
 Total amount paid for accidents which occurred in 1893, for which payments were made in 1894  
 Total amount paid out during the year

48748 124520 1.000  
 81264 135812  
 562212 260332

included in loss to company by accident, all lawyers fees for  
 coroners inquest and affidavits, and costs for burials

Recapitulation from Accident Report for the year ending November 30 1894-	Hard Ore Mine	Lake Mine	Hematite Mine	R. C. W.
Total Number Days worked during year	14313 1/2	61205 1/2	29010 1/2	known to have been statements compiled as to former mine before Nov. 11 95 either by clerks here or at mine -
Total Number Men Employed during year	545	2444	1178	
Average Number Men per Month	45	204	98	
Total Number Accidents during year	6	27	15	
Per cent of Accidents to Number of Men Employed	.011	.011	.013	
Number days paid from Benefit Funds	313	1642	257	
Average per day	.83%	.77%	.80%	
Total Amount paid during year	\$ 00980	\$ 127146	\$ 72156	

Statement Showing amount paid from Benefit and Suspense Funds. Number of Accidents and time lost each year, from December 1 1891 - Also credits to Benefit and Suspense Accounts November 30 1894	Hard Ore		Lake Mine		Hematite		Total							
	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid	Days Paid						
Dec. 1 1891 to Nov. 30 1892	48	1483	37	8566	47	1679	17	8346	18	539	91420	113	370164	8332
Dec. 1 1892 to Nov. 30 1893	14	798	6	3170	51	2494	19	5948	8	316	124432	73	360838	500
Dec. 1 1893 to Nov. 30 1894	8	313	6	0980	33	1642	12	7196	15	257	72156	56	221260	332
	70	2594	50	2716	131	5816	50	1490	41	1112	288008	242	952124	332
Credit to Benefit Fund	215	427			17	3131			59	277		44	7835	
" Suspense	215	427			17	3131			59	277		44	7835	

Notes: - Not shown in above statement  
 Accidents paid to total employees for 5 years back  
 Cost for time for money paid out to employees and  
 for legs lost by each man  
 & the money paid was paid to come to  
 employees' benefit

No. days work & equivalent time for 2  
 lost by the company for 5 years back  
 of accidents fatal & minor, caused by loss of  
 injured on himself, rats by stepping floor for  
 injured & same figured out in dollars cents  
 and lost to the family

Note: Benefit Fund - Amount Contributed by Employees.  
 Suspense Fund - Amount Contributed by Cleveland Iron Mining Co.

**Cleveland Iron Mining Co.**

*Accident Statement*

*Year ending November 30<sup>th</sup> 1894*

*01*

Lake Mine Timber Statement from July 1<sup>st</sup> to November 30<sup>th</sup> 1894

	Sets 4 Pcs		Cribbing 50cs		Lagging 1 Pcs		Ridges Blocking Prope and Ties	
	Amount	Rate per set	Amount	Rate per set	Amount	Rate per foot	Amount	Rate per foot
Labor Cutting Timber	30862	.108	2004	.036	4927	.000475	10116	.0052
Care of Machinery	17193	.06	1117	.026	2742	.000238	6602	.0034
Handling Timber	53044	.186	3444	.062	8470	.00075	17395	.0076
Expenses Operating Mills	10353	.037	673	.012	1653	.00017	3393	.0017
Total	111452	.390	7238	.131	17792	.002	37506	.019
Cost of Timber and Lagging	512519	1.797	41485	.751	103174	.010	64954	.034
Grand Total	623971	2.187	48723	.882	120966	.012	102460	.053
Number Sets and Feet	2852 Sets		552 Sets		103174 feet		19169 feet	

To Mill, and from Mill to Shaft,

Lead Mine  
Report of Timber Mill  
July 1<sup>st</sup> 94 to Nov 30 94.

Miss + Henry  
John + Helen

"Copy"

(Form No. 366.)

# INCOME TAX, 1894.

ANNUAL RETURN

OF

**NET PROFITS OR INCOME**

OF A CORPORATION,

For Assessment of Taxes for 1894,

By .....

of .....

President, or (.....) of

**Cleveland Iron Mining Co.**

of .....

in the ..... District, State

of .....

To .....

## NOTICE.

Pursuant to an Act of Congress of the United States, in effect August 28, 1894, you are required to make out a return for the corporation or association of which you are an officer or agent, according to the forms within, and deliver the same to me, at my office, on or before the first Monday of March, 1895.

Dated this ..... day of .....

1895, at my office at .....

..... Collector.



(Form No. 366.)

# UNITED STATES INTERNAL REVENUE.

## INCOME TAX OF CORPORATIONS, ETC., 1894.

### ACT OF AUGUST 28, 1894.

[EXTRACTS.]

AN ACT entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes."

*Be it enacted, etc.* \* \* \* SEC. 27. That from and after the first day of January, eighteen hundred and ninety-five, and until the first day of January, nineteen hundred, there shall be assessed, levied, collected, and paid annually upon the gains, profits, and income received in the preceding calendar year by every citizen of the United States, whether residing at home or abroad, and every person residing therein, whether said gains, profits, or income be derived from any kind of property, rents, interest, dividends, or salaries, or from any profession, trade, employment, or vocation carried on in the United States or elsewhere, or from any other source whatever, a tax of two per centum on the amount so derived over and above four thousand dollars; and a like tax shall be levied, collected, and paid annually upon the gains, profits, and income from all property owned and of every business, trade, or profession carried on in the United States by persons residing without the United States. And the tax herein provided for shall be assessed by the Commissioner of Internal Revenue and collected, and paid upon the gains, profits, and income for the year ending the thirty-first day of December next preceding the time for levying, collecting, and paying said tax.

SEC. 28. \* \* \* *Provided, also,* That in computing the income of any person, corporation, company, or association there shall not be included the amount received from any corporation, company, or association as dividends upon the stock of such corporation, company, or association if the tax of two per centum has been paid upon its net profits by said corporation, company, or association as required by this Act.

SEC. 30. The taxes on incomes herein imposed shall be due and payable on or before the first day of July in each year; and to any sum or sums annually due and unpaid after the first day of July as aforesaid, and for ten days after notice and demand thereof by the collector, there shall be levied, in addition thereto, the sum of five per centum on the amount of taxes unpaid, and interest at the rate of one per centum per month upon said tax from the time the same becomes due, as a penalty, except from the estates of deceased, insane, or insolvent persons.

SEC. 32. That there shall be assessed, levied, and collected, except as herein otherwise provided, a tax of two per centum annually on the net profits or income above actual operating and business expenses, including expenses for materials purchased for manufacture or bought for resale, losses, and interest on bonded and other indebtedness of all banks, banking institutions, trust companies, saving institutions, fire, marine, life, and other insurance companies, railroad, canal, turnpike, canal navigation, slack water, telephone, telegraph, express, electric light, gas, water, street railway companies, and all other corporations, companies, or associations doing business for profit in the United States, no matter how created or organized, but not including partnerships.

That said tax shall be paid on or before the first day of July in each year; and if the president or other chief officer of any corporation, company, or association, or in the case of any foreign corporation, company, or association, the resident manager or agent shall neglect or refuse to file with the collector of the internal-revenue district in which said corporation, company, or association shall be located or be engaged in business, a statement verified by his oath or affirmation, in such form as shall be prescribed by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, showing the amount of net profits or income received by said corporation, company, or association during the whole calendar year last preceding the date of filing said statement as hereinafter required, the corporation, company, or association making default shall forfeit as a penalty the sum of one thousand dollars and two per centum on the amount of taxes due, for each month until the same is paid, the payment of said penalty to be enforced as provided in other cases of neglect and refusal to make return of taxes under the internal-revenue laws.

The NET PROFITS or INCOME of all corporations, companies, or associations shall include the amounts paid to shareholders, or carried to the account of any fund, or used for construction, enlargement of plant, or any other expenditure or investment paid from the net annual profits made or acquired by said corporations, companies, or associations. \* \* \*

SEC. 35. That every corporation, company, or association doing business for profit shall make and render to the collector of its collection district, on or before the first Monday of March in every year, beginning with the year eighteen hundred and ninety-five, a full return, verified by oath or affirmation, in such form as the Commissioner of Internal Revenue may prescribe, of all the following matters for the whole calendar year last preceding the date of such return:

*First.* The gross profits of such corporation, company, or association, from all kinds of business of every name and nature.

*Second.* The expenses of such corporation, company, or association, exclusive of interest, annuities, or dividends.

*Third.* The net profits of such corporation, company, or association, without allowance for interest, annuities, or dividends.

*Fourth.* The amount paid on account of interest, annuities, and dividends, stated separately.

*Fifth.* The amount paid in salaries or four thousand dollars or less to each person employed.

*Sixth.* The amount paid in salaries of more than four thousand dollars to each person employed and the name and address of each of such persons, and the amount paid to each.

SEC. 36. That it shall be the duty of every corporation, company, or association doing business for profit to keep full, regular, and accurate books of account, upon which all its transactions shall be entered from day to day, in regular order, and whenever a collector or deputy collector of the district in which any corporation, company, or association is assessable shall believe that a true and correct return of the income of such corporation, company, or association has not been made, he shall make an affidavit of such belief and of the grounds on which it is founded, and file the same with the Commissioner of Internal Revenue, and if said Commissioner shall, on examination thereof, and after full hearing upon notice given to all the parties, conclude there is good ground for such belief he shall issue a request in writing to such corporation, company, or association to permit an inspection of the books of such corporation, company, or association to be made; and if such corporation, company, or association shall refuse to comply with such request, then the collector or deputy collector of the district shall make from such information as he can obtain an estimate of the amount of such income and then add fifty per centum thereto, which said assessment so made shall then be the lawful assessment of such income.

UNITED STATES INTERNAL REVENUE

Return by Banks, Banking Institutions, Trust Companies, Savings Institutions, Fire, Marine, Life, or other Insurance Companies, Railway Companies, and all other Corporations, Companies, or Associations doing business

Return to be made to the Collector of the district where the principal office or place of business is located, on or before

The Cleveland Iron Mining Co of Lebansing, in the County of Marquette, and \_\_\_\_\_ District of the State of Michigan, makes and renders the following return of all gains, profits, or income received by or accrued to said Company, from the first day of January, 1894, to the thirty-first day of December, 1894, both days inclusive, pursuant to the provisions of the Internal-Revenue Laws:

		Dollars.	Cts.
1	Gross receipts, credits, earnings, and gains from any business, or any interest therein, wherever carried on .....	590	98.656
2	From interest or coupons, due or paid on any bonds, or other evidences of indebtedness of any corporation, company, or association .....		
3	From dividends or interest on the stock, capital, or deposits of any corporation, company, or association .....		
4	From undivided profits of any corporation, company, or association .....		
5	From premium on bonds, stocks, notes, or coupons .....		
6	From commissions, or percentage .....		
*7	From interest on notes, bonds, or other securities of the United States, except such bonds of the United States the principal and interest of which are exempt from Federal taxation .....		
8	From interest received or accrued on all notes, bonds, mortgages, or other forms of indebtedness not included in the foregoing items .....	364	74
9	From profits realized within the year from sales of real estate purchased since December 31, 1893 .....		
10	From rents received or accrued .....	7	702.52
11	From all sources not above enumerated (specifying same), viz: <u>Dividend of Union Mine</u> .....		184064
TOTAL RECEIPTS, GAINS, AND INCOME .....		599	053.82
12 OPERATING AND BUSINESS EXPENSES:		Dollars.	Cts.
1	Interest paid or accrued within the year on bonded or other indebtedness .....	22	142.30
2	Losses actually sustained during the year .....		
3	State, county, municipal, or town taxes accrued during the year 1894 and actually paid .....	25	780.20
4	Salaries, compensation, or pay of officers or other persons employed during the year .....	170	562.18
5	Rents, or necessary repairs, but not including amount used for construction or enlargement of plant .....	16	4186
6	Actual losses on sales of real estate purchased since December 31, 1893 .....		
7	Cost price of material purchased for manufacture or resale, not increasing stock on hand Dec. 31, 1893 .....		
8	Other expenses not above enumerated, viz: <u>Quoting Expenses</u> .....	424	419.33
TOTAL OPERATING AND BUSINESS EXPENSES .....		644	545.87
13	Net <u>Loss</u> profits or income over operating and business expenses .....	45	492.05
14	Dividends and gains heretofore included in the statement of profits under paragraphs 3 and 4, received from corporations, companies, or associations, on which the tax of two per centum has once been paid by such corporation, etc .....		
AMOUNT OF NET PROFITS OR INCOME LIABLE TO TAX .....			none
TAX AT TWO PER CENTUM .....			
15	Amount paid in salaries, or other compensation, or pay of officers or other persons employed, not including salaries of more than four thousand dollars .....	170	562.18
16	Amount paid in salaries, or other compensation, or pay of officers or other persons employed, including only salaries of more than four thousand dollars .....		none
TOTAL SALARIES, ETC., PAID .....		170	562.18

4566 71  
7947 60  
7037 91  
532 00  
100477 76

NOTE.—The interest on all bonds of the United States should be returned as income by the person, corporation, company, or association owning or holding such bonds, except the interest on bonds of the funded loan of 1891 continued at two per cent, and the four per cent funded loan of 1907, and the five per cent loans of 1904, which is exempt.

UNITED STATES INTERNAL REVENUE.

Railroad, Canal, Turnpike, Canal Navigation, Slack Water, Telephone, Telegraph, Express, Electric Light, Gas, Water, Street for profit in the United States.—Sections 32, 34, and 35, Act of August 28, 1894.

the first Monday of March, 1895, and the tax to be paid to the Collector on or before the first day of July, 1895.

		Dollars.	Cts.
*17	Name and address of each person to whom a salary of more than four thousand dollars was paid, and the amount paid to such person :		
	NAME OF PERSON.		
	POST-OFFICE ADDRESS.		
	.....		
	.....		
	.....		
	.....		
	.....		
*	TOTAL.....		

Statement of all Interest, Annuities, and Dividends declared due or paid to shareholders, stockholders, policy holders, or Depositors by the Cleveland Iron Mining Co., from the first day of January, 1894, to the thirty-first day of December, 1894, both days inclusive, and of all undivided profits of said Company, on hand or added to any fund, and amount of net annual profits, or income, of said Company, used for construction, enlargement of plant, or any other expenditure or investment, paid from the net annual profits of said Company for said year, pursuant to the provisions of the Internal-Revenue Laws :

		Dollars.	Cts.
1	Dividends declared or paid on stock, capital, or deposits, etc.....		None
2	Annuities declared or paid on bonds, stock, capital, or policies.....		"
3	Interest paid on shares, stocks, capital, or deposits.....		"
	TOTAL INTEREST, ANNUITIES, AND DIVIDENDS.....		"
4	Undivided <sup>Loss</sup> profits, over dividends declared or paid, on hand or carried to the account of surplus or other fund.....	45	492.05
5	Amount of net profits or income used for construction.....		
6	Amount of net profits or income used for enlargement, betterment, or permanent improvement of plant.....		
7	Amount of net profits or income used for other expenditures, or investment.....		
	TOTAL NET PROFITS <sup>Loss</sup> .....	45	492.05

Question 1. Has the corporation, company, or association for which this return is made, kept full, regular, and accurate books of account, upon which all its transactions were entered from day to day for the full period covered by this return? Answer. Yes

Question 2. Is this return made exclusively from said books? Answer. Yes

Question 3. Have the full amounts set forth in this return as salaries of officers and pay to employes been actually paid within the year covered by this return to bona fide officers and employes of this corporation, company, or association for services actually rendered? Answer. Yes

Question 4. What are the particular items of losses included in the amount set opposite paragraph 2, under "Operating and Business Expenses" on page 2 of this return, and when did each occur?  
Answer. ....

STATE OF \_\_\_\_\_, COUNTY OF \_\_\_\_\_, ss:

I, \_\_\_\_\_, of the \_\_\_\_\_, do swear (or affirm), that the foregoing return contains a true, full, regular, and accurate account of all the gains, profits, and income received by or accrued to said \_\_\_\_\_, from the first day of January, 1894, to the thirty-first day of December, 1894, both days inclusive, and a true and complete statement of the net profits or income of said \_\_\_\_\_ for said year, and the true amount and kind of operating and business expenses thereof; and of all dividends, interest, or annuities declared due or paid by said \_\_\_\_\_; and of all undivided profits thereof; and the amount of net profits or income used for construction, enlargement of plant, or investment, as therein specified; and that the above questions have been fully and truthfully answered.

Sworn to and subscribed before me this 11<sup>th</sup> day of April, 1895.

signed by J. W. Morris, Deputy

\* In case there is not sufficient space to contain the names of persons under paragraph 17, a supplementary list should be made and securely attached to the return and made a part thereof, under said paragraph, and marked "Exhibit A to paragraph 17."  
† "President," "Cashier," "Secretary," as the case may be, of resident corporations, etc. "Resident Manager," or "Resident Agent," as the case may be, of foreign corporations, etc.  
In computing income for taxation nonresident corporations shall include in their annual returns the entire profits or income of such corporations derived from all business conducted in the United States, deducting the operating and business expenses incurred in conducting such business.

# ACT OF AUGUST 28, 1894.

## [EXTRACTS—Continued.]

AN ACT entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes."

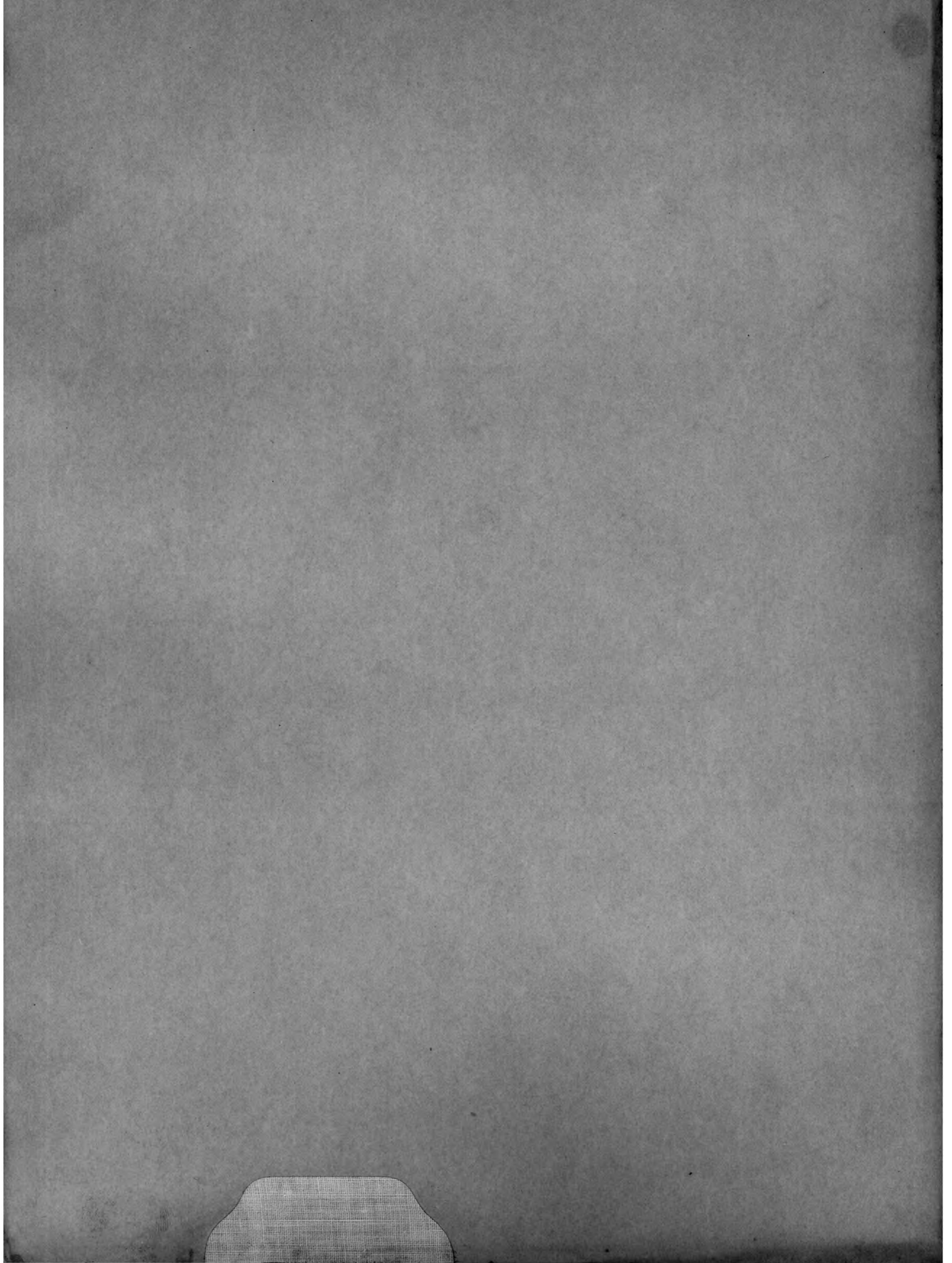
*Be it enacted, etc.* \* \* \* SEC. 34. That sections thirty-one hundred and sixty-seven, thirty-one hundred and seventy-two, thirty-one hundred and seventy-three, and thirty-one hundred and seventy-six of the Revised Statutes of the United States as amended are hereby amended so as to read as follows :

SEC. 3167. That it shall be unlawful for any collector, deputy collector, agent, clerk, or other officer or employe of the United States to divulge or to make known, etc. \* \* \*

SEC. 3172. That every collector shall, from time to time, cause his deputies to proceed through every part of his district and inquire after and concerning all persons therein who are liable to pay any internal revenue tax, and all persons owning or having the care and management of any objects liable to pay any tax, and to make a list of such persons and enumerate said objects.

SEC. 3173. That it shall be the duty of any person, partnership, firm, association, or corporation, made liable to any duty, special tax, or other tax imposed by law, when not otherwise provided for, in case of a special tax, on or before the thirty-first day of July in each year, in case of income tax on or before the first Monday of March in each year, and in other cases before the day on which the taxes accrue, to make a list or return, verified by oath or affirmation, to the collector or a deputy collector of the district where located, ~~in the manner and form prescribed by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury.~~ \* \* \* according to the forms and regulations to be prescribed by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury. \* \* \*

SEC. 3176. When any person, corporation, company, or association refuses or neglects to render any return or list required by law, or renders a false or fraudulent return or list, the collector or any deputy collector shall make, according to the best information which he can obtain, including that derived from the evidence elicited by the examination of the collector, and on his own view and information, such list or return, according to the form prescribed, of the income, property, and objects liable to tax owned or possessed or under the care or management of such person, or corporation, company, or association and the Commissioner of Internal Revenue shall assess all taxes not paid by stamps, including the amount, if any, due for special tax, income or other tax, and in case of any return of a false or fraudulent list or valuation intentionally he shall add one hundred per centum to such tax; and in case of a refusal or neglect, except in cases of sickness or absence, to make a list or return, or to verify the same as aforesaid, he shall add fifty per centum to such tax. In case of neglect occasioned by sickness or absence as aforesaid the collector may allow such further time for making and delivering such list or return as he may deem necessary, not exceeding thirty days. The amount so added to the tax shall be collected at the same time and in the same manner as the tax unless the neglect or falsity is discovered after the tax has been paid, in which case the amount so added shall be collected in the same manner as the tax; and the list or return so made and subscribed by such collector or deputy collector shall be held *prima facie* good and sufficient for all legal purposes.



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IRON CLIFFS COMPANY.

Department of Mines and Minerals.

Ishpeming, Michigan.

Report of Superintendent for year ending December 1st., 1894.

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I N D E X

ANNUAL REPORT

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IRON CLIFFS Co.,

Department of Mines and Minerals,

Ishpeming, Mich.

Report of Superintendent for year ending December 1st ., 1894.

W.G.Mather Esq.,

President, Iron Cliffs Co.,

Cleveland, Ohio.

Dear Sir:-

The closing statements have sent you, also the book of maps, which by comparison with last years book, will show the changes on each level, of the different mines, during the year. Following is a report on the present condition of the property.

Old Barnum Mine.

This mine was shut down on March 1st 1891 and amount of ore remaining is estimated at 30,000 tons. There is no ore on hand in stock pile. The mine is 362 feet deep and is dry, as the Lake Superior Hard Ore Mine is below it, and keeps it drained.

Cliffs Shaft Mine.

This mine stopped work July 1st 1893.

Shipped during present year,	8,987 tons Cliffs Shaft Ore.
Ore in stock December 1st 1894,	156,117 " " " "
" " " " " "	<u>20,755</u> " Barnum Ore.
Total in stock,	176,872 "
Amount of ore in sight,	500,000 "

The water has raised to within 44 feet of the top of A, and 42 feet of the top of B Shaft. The mine is 511 feet deep.



### Cliffs Shaft Mine.

Estimate of ore in sight is based on amount of ground opened up and by comparison of previous years outputs.

### Crushers.

The cost of .08 per ton for crushing is based on a 10 hour run of a single crusher breaking down to 3/4" an amount of 500 tons.

We have sent you an itemized statement of the crusher expense. No additional outlay is contemplated at this place except the keeping up of the plant.

The track built for the crushers is little over a quarter of a mile long and was graded by the C.&N.W.Ry., who also furnished the material. On account of the slight grade to it we had trouble in getting the cars down to the crusher and had either to put in a winch spool and use a rope or elevate the track to sufficient grade. We did the latter making grade one foot in a hundred and have no further trouble, it cost us \$ 516.36 to do this work.

Ore Crushing Plant.

Started to crush on June 19 1894 and, barring the breakdowns, have worked up to the close of navigation. In this time have crushed as follows,

Month.	Cliffs Shaft.	No. 1 Ore.	Scotch.	Bessemer.	Total.
June	1,673	1,274	167		3,114
July		2,723	1,675	795	5,193
August		2,569	1,287	596	4,452
Sept.		2,992	1,887	452	5,331
Oct.		2,803	3,410	2,313	8,526
Nov.	<u>2,919</u>	<u>638</u>	<u>1,388</u>	<u>3,865</u>	<u>8,810</u>
Total,	4,592	12,999	9,814	8,021	35,426

Cost of above crushing, exclusive of wearing parts and broken parts, but inclusive of the labor of putting these parts in, .1305

Cost of wearing parts per ton, .0195

Cost of broken parts, (not paid for yet.) *N.B. P.C.M.* .0589

Total cost per ton, .2089

When things were going at all regular, the cost of crushing would fall down to about .08 and with the new crusher, strengthened as she now is, we think that the cost can be held to between .08 and .10, though we hope to do it for less.

We have run crushers at a high speed thinking to make a more uniform product and get more output. With slow speed more flat slabs drop through, although it is easier on the crusher.

The two first crushers were bought of Hodge, of Houghton, and each weighed 47,000 pounds. As the parts broke they have been gradually strengthened until at the wind up of these crushers they must have weighed about, 55,000 pounds.