

THE DIFFICULTIES OF OPERATING A NEVADA GOLD MINE TODAY

by

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The Standard Cyaniding Company operates the Standard Mine, a low-grade gold property in sight of Highway 40 about 30 miles from Lovelock toward Winnemucca. The ore is mined by power shovel and cyanided by grinding to only $3/8$ th inch, with a total direct cost attained of \$1.24 in 1941 on 600 tons a day.

Mining operations ceased under Government edict in 1942, and only in recent months have been resumed again. The operating difficulties today may best be listed for discussion under three headings:

- 1 the high cost of supplies
- 2 labor problems
- 3 Federal laws as interpreted and enforced by executive bureaus of the government.

Of these three the increased cost of supplies is the least important at Standard.

The cost of electric power has not increased at all. Cyanide is just as cheap as pre-war. In fact cyanide today costs about 25% less than it did twenty-five years ago. The cost of all other supplies have increased about 40%, increasing our costs about 4¢ per ton over the pre-war cost for these same supplies.

There is no particular difficulty in getting anything we need, with the single exception of sheeting used in filtering both the pregnant solutions and the precipitate. Mrs. Hazen has kept us going by donating old bed sheets; however, she has just told me that the end is in sight. Another source must be tapped within three weeks.

Don't understand from this that we can order a motor of some certain specification and get it shipped right in. We can't operate in that wonderful manner. We have to order in plenty of time and then accept something a little different but still workable. The point is that we have not been seriously hampered by inability to get repair parts or suitable substitutes.

And quite swiftly we seem to be entering a buyer's market. Standard is operating on the assumption that we already have a buyer's market. Dealers who are on their toes acquiesce in this attitude. We shop around now and don't take things at any old price. Salesmen work our plant just as they did pre-war, and with nearly the same intensity.

We look forward hopefully to a decrease in the cost of lime and in grinding rods and liners, and in other supplies. We really believe that we are passing through the peak of the prices for these supplies and any change in the future will be for the better for us.

Labor

All during the war we were planning on starting up as soon as possible after the Government rescinded L-208. We knew that we would have to materially increase the hourly wage rate of mill men and miners; however, we have found that we had to increase the hourly rate by about 40%.

Paper given at the monthly luncheon meeting of the Northwestern Branch of the Nevada Section of the American Institute of Mining Engineers at Reno on February 6, 1947, where a general request was made that copies be sent to all the Nevada membership.

The mill started last September and we had a tough time getting good men. About one fifth of our pre-war employees returned, thank God. I don't quite know what we would have done without them. We recruited the rest of the crew from anyplace we were able to get them.

With one single exception the men supplied us by the U. S. E. S. were no good. We had a lot of trouble with drunks and fellows with the attitude, "If you don't like my work, so what?" We did manage to get a few good men who came to Standard rustling a job. Still about a third of our crew were of little value until a nearby tungsten property closed down. That was a God send to us, and it was a great pleasure to fire every drunk the next pay day.

Shortly after that, I heard myself telling one of the weaker sisters to either do a job right or go to the office for his time. I could hardly believe my ears. The job was done right.

Labor amounts to about 55% of our costs. This increase in hourly rate was a very serious item and we had to cut the number of jobs if we were going to open up operations; therefore, we considered every detail of our operations as it affected labor costs.

In the mill we discussed every titration, every dilution and every sample taken. Was it necessary? What did we do with the information when we got it? If we didn't have that information, how much money might we lose? Viewed in this manner we discovered that we could do without several titrations, dilutions and assays that we had formerly taken.

Then we considered every operation, as to who did it and why not somebody else? We doubled up the foreman and the welder. We doubled up the electrician and the mechanic's helper. We put in a lime feeder. We doubled the number of feeders under the mill ore bin and increased the size of the primary jaw crusher so that it can take any rock that will fall through a 23" slot. We widened the belts in the crusher plant. In all we were able to eliminate about two men from the small mill crew.

We spent a great deal of time and thought on our office records. We have to know every detail of our costs. We must have a set-up that will answer the requirements of the Income Tax, the Nevada Bullion tax, the F.O.A.B., the N. U. C., the Industrial Commission, the State Inspector of Mines, the U. S. G. S., and the U. S. Bureau of Mines, and the Wages and Hours Division acting under the Fair Employment Act of 1938. Every one of these reports is just a little different from any of the others.

The Treasury Department has ruled that the chemical portion of a cyanide plant is not a part of the mining enterprise as far as depletion is concerned. That part of the operation is instead an independent and unrelated manufacturing process and its cost may not be included in arriving at depletion allowance.

The Nevada law states that the value of a mine for assessment purposes is equal to the operating profit made during the calendar year by that mine plus \$500 for each patented claim. We consider this a fair way to evaluate a mine for assessment purposes. This assessment is colloquially called a "Bullion Tax" and at one time I thought it was an income tax. That is not the case, as it is simply a valuation method for the varying local taxation rates.

But the Operating profit for this tax valuation is determined by the income from the ore less the money spent on the property to make that recovery. For this purpose we may not enter the cost of attorneys, interest on borrowed money or the City office. No ~~mine~~ depletion can be charged, and depreciation can not exceed a certain percent of the assessed value of the equipment. Thus the "net proceeds" for National and State tax purposes vary greatly.

For the Bullion Tax we also have to segregate repair supplies and labor from operating supplies and labor. Our mill superintendent has to have available the repair cost of any pump or belt in his plant. We do not keep the operating cost of each piece of equipment. We do not segregate the labor and the power required by each machine. Suppose we did know that, what could we do about it? We keep no records that give only academic information, as we do something about every record we keep.

It finally dawned on us that we could keep a set of books so arranged that we would have all this information immediately available and do the work with a part time bookkeeper if only we eliminated the store room and charged out everything as a cost as soon as it arrived. The disadvantage of this is that the monthly costs fluctuate rather violently. When a car of cyanide arrives, it is all charged out that month. The same is true of grinding rods and rod mill liners.

We decided that we could smooth out these fluctuations by also carrying in our costs a parallel column giving the cumulative cost to date. Our advising accountant told us that there are only two people to be satisfied with our bookkeeping system. One is the management and the other the Federal income tax collector. For this latter, we would have to bring our inventory into the costs once a year but not at the end of each month as formerly; therefore, we set up our books on this system. We like it very much and we saved one man in the office. The books are now kept by our assayer's wife working about 35 hours a week.

Then our mining control came under scrutiny. It had required four men. Each month we had surveyed cross sections spaced at approximately 10 foot intervals and calculated the rock excavated in the approved engineering manner as used for Government work. This seemed now to be rather unnecessary accuracy. It would be done when the job is completed, but not needed each month; so now we survey the cross sections at 30 foot intervals each month.

We also formerly kept a man in the pit to tell the truck drivers whether they had ore or waste in their trucks. We eliminated this man and our engineer sets up flags marking the limit of the ore and the start of the waste. Massive ribs and horses of barren limestone are so evident that the shovel operator signals when he loads such rock and it goes to the dump. We are fortunate in having an engineer that is remarkably fast in surveying and mapping. Every drill hole is sampled and mapped and all other required maps and surveys are made with the help of a man from the mill two days a month. Altogether we eliminated three men from this department.

Altogether at mine and mill we eliminated 25% of the jobs and increased the pay by 40%. The final result is a labor cost only 5% greater than pre-war.

During the present winter months our water supply has dropped to 85 gpm, or 510 tons per day. We empty the sand tanks by sluicing and our tonnage dropped to 500 tons per day in spite of everything we could do. We felt that we could average 600 tons per day if only the boys would try harder to save water.

Our mill superintendent has unusual ability in handling men. Still he couldn't get the necessary results.

I first worked in a mill thirty-three years ago under a young engineer named Roy Hardy, at Fairview, Nevada. I tried our old way of raising the devil in general. I got a lot of action but even worse results.

Then we decided to pay a bonus of equal cents per hour based on tonnage. The tonnage jumped the next day and has held at 600 tons a day even with the smaller flow of water. I never even mention tonnage anymore. One day we had some trouble and a low tonnage was recorded on the belt weightometer and one of the boys said, "You gave us a licking today, but tomorrow we will give you hell."

The worst headache we have is of course the Federal Government. We shut down in 1942 because of order L-208. If our ore had been relatively high grade, say \$3.00 per ton, we might have operated during the war at less capacity; but with such a low grade rock as \$2.25 it is a case of either running at 40% over rated capacity or going broke.

And then, like fools, we got patriotic and sold our crushing equipment to producing mines of strategic metals during the war. I say fools because we thought the Federal Government would play fair with us. We thought that after the war it would release unneeded crushing equipment from the war babies it ran, such as at Manganese Ore near Las Vegas. I mention Manganese Ore because I was plant superintendent there and that crushing equipment would have been just exactly right for the Standard.

Well, after the war there was nothing doing. With new shovels and cats still crated covering acres and acres of land, we had to buy a new shovel and cat from the factory. With plants like Manganese Ore standing idle, probably never to be used again, we had to buy new crushers from the factory. We were delayed more than 6 months in starting because strikes made it impossible for the factories to meet their promised delivery dates. We never were able to get the large pan ore feeder needed and finally obtained and installed an extra large, extra heavy duty vibrating feeder. This vibrating feeder costs us nearly \$200 a month more to operate than a pan feeder would cost. In the mill alone we had to spend \$60,000 more to replace the equipment than we received from the mines producing strategic metals.

After a heart-breaking struggle we finally got the mill rolling last September 15th, six months late. Our operating cash reserve was practically gone.

We get mail officially every Thursday afternoon at five. Unofficially we get the mail about five times a week. Late one Saturday evening, October 5th, we received an unofficial mail and in it was a letter from the Acting Director of the Mint at Washington.

This letter said that he was cancelling our gold license as of October 31st unless he received in his office, on the following Monday, an affidavit under oath as to why we needed a gold license in our business.

This was very serious. It meant that we were threatened with having the mine shut down and the loss of all the half million dollars invested. Perhaps the most maddening thing about this letter was that this bureaucrat actually does have the authority to shut us down and ruin us. He has the power to do that and no liability or responsibility for his actions, other than possibly losing his job.

There is no telephone at the Standard mine. We believe that a telephone is not necessary as long as the mine office is our head office and we have no city office. Almost everybody who would telephone us wants something from us. A telephone permits the superintendent to be mentally lazy and neglect providing for his needs a long time in advance.

So in this particular case, I drove the 28 miles to Lovelock and telegraphed the office of one of our Nevada senators in Washington. Then I got an attorney and had the necessary affidavit drawn up and sworn to. I sent one copy to Washington by air mail and a copy by slow mail.

The next day I received an apology by telegraph from the acting Director of the Mint stating that our gold license had been filed in the wrong drawer.

This made the second time one of my plants has been threatened with ruin by some bureaucrat of the Mint. Both times I have found that the legislative branch of our government is the only protection we have against little men in positions of authority.

Last month we were visited by an inspector of the Wages and Hours and Public Contracts Divisions of the U. S. Department of Labor.

He found that everything was in order except in the case of the cook. We had contracted with a lady to cook and serve the meals at our boarding house for 20¢ per meal plus food for herself and husband. Her husband worked on the job for the mining contractor.

The Inspector said that no individual could legally contract any work that took more than 40 hours a week, except certain specialized workers. The contract merely determined the hourly rate on which the worker must be paid time and a half for all hours worked over 40 per week.

We changed the cook from a contract basis to a straight time basis. It was ruled that although the cook did the family washing in the kitchen, and visited and spent all her waking time there, she was at all times to be considered working for the company if she so much as had a pot of beans simmering on the automatic oil stove.

Our mining contractor had rented a small truck driven by it's owner for \$3.50 per hour. Regardless of the fact that this owner paid for the gas he used, paid for the tires and all repairs, the inspector stated that as an individual he has no legal right to contract his services as a driver and if the mining contractor worked this owner truck driver more than 40 hours a week, the owner had to be paid time and a half for all hours over 40 at the regular rate paid other truck drivers on this job. Our mining contractor simply let the poor chap go that owned his own truck.

The inspector ruled that our assayer could not work on a salary. He had to be paid time and a half for all time over 40 hours. Our assayer is a graduate of our Nevada University and he put up a terrible howl. Finally it was ruled that since the assayer had a B. S. degree from a University, he could properly be exempted under some ruling, and we still pay the assayer a salary.

It had been our plan to contract some underground development work this coming summer. You know the regular kind of contract in which the Company would pay \$10 per foot and provide certain equipment. The inspector ruled that this was not legal. No miner has a legal right under the labor laws to contract anything, in which his pay is measured by work done rather than by hours worked. Abiding by this, we of course will not contract this work. I am sorry. It would have been a fine chance for a couple of fellows to make some nice money this coming summer.

I had not realized that our right to work has been so circumscribed by the Federal Government. The inspector showed me bulletins issued by the United States Department of Labor explaining this law. He gave me a copy of interpretative Bulletin No. 4, illustrating all the crooked methods used by employers to get around this law.

The worst thing the Federal Government does is to confiscate our gold and force us to take some of its fancy engraved paper dollars for it. We all think of the price of things as going up. What really has happened is that the fellows in the executive branch of the Federal Government have printed so much paper money that it is becoming worth less and less in terms of labor or food or mining supplies. This has happened all over the World. But if these fellows in the Treasury would only let us export our gold, we could get a lot more American paper dollars for it than we can get from the United States Mint.

When the Government steps down from National to State level, we find a lot more real cooperation. The State doesn't kick us around as do the fellows running the Federal bureaus.

The Nevada Industrial Commission does one thing that seems unfair. If our list of employees and their wages doesn't reach Carson City by the 25th of the following month, our insurance lapses. It lapses in spite of the fact that everybody must maintain a balance there equal to twice the average monthly premiums. Of course, I understand that this method is taken to force an employer to get his payroll into Carson City by the 25th of each month. But just the same, it isn't fair to the insured employee nor to the overworked employer. Mind you, this is not a question of money, only of certain clerical work.

This practice is so contrary to the practice of private insurance companies. We can't insure with a private company because there aren't any in the State of Nevada. The fees charged an insurance company for doing this kind of insurance within the State is more than any company could afford considering our small population.

At the county level we have found nothing but helpful co-operation. Our plant is located in Pershing County, and as soon as our operations were shut down by the Federal order L-208, the assessed value of the plant was reduced 50%. The next year it was again cut in half and the third year that assessment was again halved. Our pay roll at Standard amounts to about \$10,000 a month, and while that is very small, it is still important to little places like Lovelock, the county seat. The county officials were doing everything in their power to nurse things along so that Standard could start up again when the war was ended.

The most serious obstacle to overcome before we could resume operations at Standard was to get the mining contracted at a price we could afford.

The construction company that contracted the work before the war didn't want our little job very badly when the war was ended and bid 55% more than they charged pre-war. If it was going to cost us that much to mine, Standard couldn't reopen.

For some years we had been in contact with a miner at Mercur, Utah, who had been doing this kind of excavating work for the mines there. He had or could get all the needed equipment except a power shovel and a "cat", which had been furnished him previously.

Finally we closed a contract with this mining contractor, for the same price as we paid in 1941. We arranged credit so that we could furnish him with a new 1-1/2 yd. Marion diesel powered shovel and a D-7 Cat and dozer and charge him a small sum per ton toward the purchase price.

He is able to do the work these days for the price charged, only because he is owner, superintendent, foreman, driller, roustabout and general manager. He is experienced and expert and men like to work for him. For years he has slept only 6 hours a night, but manages to average a working day of only 16 hours because of time taken out to eat.

He has solved his problems in the same way as the management.

The Standard Mine is operating today only because we have hold of a financial bear by the tail and can't let go. We would not operate today if we were able to keep the property without production until times get more propitious.