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Anaconda Copper Mining Company

GEOLOGICAL DEPARTMENT

Report on

WALKER MINE

Plumas County, California

By

H. A. Geisendorfer
August 7, 1937

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WALKER MINING COMPANY
Walkermine
Plumas County, Calif.

August 7, 1937.

Mr. J. O. Elton, Vice President,
Walker Mining Company,
918 Kearns Building,
Salt Lake City, Utah.

Dear Sir:-

As per your letter of July 20th, I have inspected the Mine, Mill, and Camp Facilities, and herein present my findings and recommendations.

THE MINE

This department is getting more spread out and harder to supervise as the workings become more extensive, spaced as they are in their respective orebodies for a distance of a mile and a half both above and below the main haulage level. Though the crews are large compared with past operations, the working places are so many that they are not over-manned.

The personnel of the crew I believe is above the average, mostly young men, many of them no doubt lacking in underground experience but efficiency is on the increase.

In 1082 Winze on July 9th the crew was increased by three pumpmen, whose sole duty is to keep the pumps running, and 28 feet advance was made for the last half of July, and for the same time, in 1017 Drift North and in a crosscut off this drift, 136 feet advance was made in 31 working shifts or almost 4.4 feet advance per shift which is commendable for this ground. Development advances increased from 452 feet in March, 607 feet for April, 680 for May, 1027 for June and 1150 feet for July.

In the Piute, the stopes north of 645 Stopes have been finished up to the oxidized zone near the surface, but there is probably 40,000 or 50,000 tons of broken ore remaining in these stopes as of August 1st. 635 and 645 Stopes are still active and besides the broken ore in these stopes, there is still about 50,000 tons to be broken. There is also about 100,000 tons of recoverable ore in pillars in this orebody above the 7th level. Development on the ore is progressing both north and south of the shaft on the 8th and 9th levels and stope preparation is in progress. Since the dip of the ore below the 7th level is 32 to 38 degrees, slushing will be necessary. And since the north portion of this orebody is underlain by a very soft putty-like gouge that squeezes out under pressure, individual stopes must be small, and pillar raises avoided, unless put up through the ore, well away from the footwall gouge.

In the 712 orebody, a small production is still coming from high grade stopes on the upper levels, though they are much less extensive than the stopes between the 5th and 7th levels. The 10th level is nearing its objective under this orebody, but is still in the metamorphosed

igneous rock that carries blebs and zones of epidote, and in which, on the upper levels, very little ore has been found.

In the 517 Orebody, two raises 100 feet apart, driven from the 5th level, have proven the ore of good grade to extend to the horizon of the fourth level.

The North Orebody above the 7th level is nearly worked out except for pillars, but a footwall block recently developed is being rapidly opened up. This block now being opened in 720A Stope is very large, 40 to 50 feet wide and about 600 feet long, breaks and mills easy and though low in copper is better than average in gold and silver content. This should supply a large tonnage of easily accessible mill ore. Instead of pillar raises, our standard cribbed manways spaced 100 feet apart should be used for servicing the stope for economies sake. Below the 7th level, 1020 and 1030 Stopes were pretty badly broken up by faulting, and are about finished but 1040 Stope, and 920 and 930 Stopes promise to be large and profitable. Ore has not been found as yet on the 10th level under the northern portion of this orebody. It is either cut off by faulting or displaced by the same agency and not yet picked up.

Central Orebody - 880 Stope is finished, but still contains considerable broken ore. 1041B Raise is being driven to the 9th level about 50 feet south of 706A Winze. No other work is in progress at this time, except 1032 Winze which is a continuation of 706A Winze below the 10th level. Considerable stoping ground remains below the 7th level, in the south end of this orebody.

South Orebody - Stoping is in progress in 775 Stope where quite a large tonnage of low grade ore is prepared for stoping. 768D Raise is being driven to the 5th level near the center of this orebody. Below the 7th level in this area is a large area yet to be developed.

DEVELOPMENT RECOMMENDATIONS

Piute Orebody - Continue developing ore north and south on 8th and 9th levels. Also develop north and south on the footwall vein that follows down on or near footwall, of the shaft. Develop first on the 8th level if convenient for operation, or on the 9th or 10th level as may be designated by the Geological Department. I think, however, development on one level at a time to be sufficient.

712 Orebody - Drive south on the 4th level on ore at the turn of 450B Drift North, to prospect the extensive country to the south, partly above 705D Stope. Continue development in the north end of 712 Orebody on the 3d and 4th level. Continue development in 1017 Drift North, and crosscut to the footwall. A short hole diamond drill, to spot the ore, the work to be done either by contract or with a purchased drill would likely save much development expense.

517 Orebody should be further developed on the 4th level, 6th level, and sub-level, the detail worked out by Geological Department. Two raises, 100 feet apart on the 5th level - one of which has reached the horizon of the 4th level - develop 26,000 tons of ore averaging 2.36% copper and simplify future development.

Long Shot Development between North and 712 Orebodies - Drive Crosscut West on 7th level to the fringe of the granite indicated in Drill Hole No.13 and explore around the fringe of this granite. The distance is roughly 600 feet. The ore in 517 Orebody is headed in this direction. The granite is a mineralizer assaying 3 pounds to 4 pounds per ton of copper.

North Orebody - Develop the big country to the north over 560 Stopes on 2d, 3d, and 4th levels, the procedure to be directed by the Geological Department. Develop the 8th level under the North Orebody as soon as practicable. Crosscut or Diamond Drill in 1017 Drift North under 760 Stopes. I believe the ore, unless cut off by faulting to be in the footwall of this drift. Develop the footwall block on 9th and 10th levels under 761C Drift North, detail to be worked out by Geological Department. The 9th level is now partly in this block.

Central Orebody - Crosscut to hanging wall on 900 sub-level about 50 feet north of 706A Winze to prospect the streak of ore going off to hanging on 9th level Station. Continue 1082 Winze to the 12th level, the 13th level, and on to the 14th level, and develop on the highest level on which the vein comes in on hanging wall of the fault, and on each level below. When 12th level is reached, go deep enough for sump and pocket. Crosscut to hanging, cut hoist station, pump station, and sump, and move auxiliary hoist down to this level for further sinking, levels to be 180 feet apart vertically.

South Orebody - Footwall vein- Drive 820 Drift ahead under 790A and 775 Stopes and later drive 901 Drift North also under these stopes. Hanging wall vein - Drive 981A Drift North and 833 Drift North ahead following the ore if possible.

THE MILL has been running very satisfactorily and making good recovery. Of the new equipment, one line of eight Fagergren machines have been installed and are in operation, the Simonds Cone Crusher is in place, and all machinery is on the ground except the motor to drive the Simonds crusher, and the steel for screen hangers and the steel to extend the conveyor to the Simonds crusher.

SAWMILL Lumber cut to August totals 736,780 board feet. The lumber is good mining grade - red fir and the cut averages about 20,000 board feet per day.

TAILING DISPOSAL Put in sand box and run sands into Dolly Gulch below Gulch By-Pass and slimes through tailing flume to south end of tailing basin. This procedure to prevent filling the settling basin above the dam, and to prevent the sands from filling up and overflowing the by-pass level.

THE CONCESSIONS These were inspected and found clean and well operated. The Boarding House was clean, and mess and service very good. There is some agitation for a reduction of board but I believe this is confined to a very few who are looking for something to agitate. It could only result in a lower standard for meals and service which is undesirable. Better let the agitators hunt other fields more to their liking. The Dormitories were inspected, the rooms were found to be clean and well cared for. Additional bedding may be needed before winter. No. 3 Dormitory is rather crowded due to summer peak.

The Change Rooms are well kept and clean. No.1, and No.2, are ample and not crowded but No. 3, the smallest of all, is so congested, many of the men go to their rooms without washing and changing. This is due to the fact that there are about 200 families in camp, and very many of these family men go to this dormitory to wash and change before going home. I suggest that a suitable fire-proof change room be built near the portal of the tunnel to relieve this congestion. This move also would be a safety measure to safeguard the health of the men from exposure when leaving the mine.

The Rustling List is quite a problem. Feeding and housing them - about 40 men - falls on the Boarding House. I recommend that rustling cards be issued giving date, age, dependents, trade or occupation and last place of employment. If the man does not get a rustling card he knows there is no use to stay in camp.

The Pool Hall seems well patronized and well run. It closes promptly at ten every night. The men in charge refuse to sell liquor to men who show signs of over indulgence. There is a heavy traffic of cars between the mine and Portola, afternoons and evenings and some of the men coming from Portola show signs of over indulgence. No bottled liquor is sold in camp on pay day nor on the two succeeding days. If the controlled sale of liquor is prohibited in camp it will still be brought in from the outside in quantity, and my experience has been that it will be worse than at present. Since the habitual booze hound is a potential silicosis hazard - our only silicosis cases in the past have belonged to this class - he should be eliminated. I therefore recommend that the camp rule which has been in force for many years be revived. This rule applies to men and bosses alike, and is to the effect that a man who loses a shift from drink or who enters or attempts to enter the mine under the influence of liquor, automatically discharges himself and is not subject to re-hire before the succeeding month. The habituals should not be re-hired. If a man wants to go on a party he should get a leave of absence from his boss and get out of camp.

Since the camp has grown to its present size and times being what they are, I recommend a two cell jail be constructed, the design to be okayed by the Sheriff of the County.

The Store is well run and prices are reasonable. It has been enlarged by an addition, 30 feet x 42 feet, and in the end space, 15 feet x 42 feet, has been installed a modern tiled Soda Fountain.

Sports - Softball is played on the commons every evening, and Horse Shoe Pitching and other outdoor games are in vogue.

The Camp has been kept well cleaned up and in order.

I took Mr. Bayer over the end lines of the Piute and other claims so he can locate himself if necessary. Camp water lines and springs were also gone over.

Yours very truly,

(s) H. A. Geisendorfer.