

Simmons' Report

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DEADWOOD, D. T.,
APRIL 4th, 1879.

GEN'L J. W. GASHWILER, *San Francisco, Cal.:*

Dear Sir: In compliance with your telegraphic request of the 29th ultimo, I proceeded with Superintendent Rigby to measure the extent of the late developments of the ore body in the Caledonia Mine, and to make a thorough inspection thereof. Mr. Rigby's full and detailed report with accompanying maps and diagrams will supply all the required information; which report is careful, fair and exceedingly conservative.

The Grand Prize tunnel, 250 feet in length, opens the mine to what is called the 70-foot level-being 70 feet below the surface level-the winze from the surface level follows the inclination of the foot or west wall down 70 feet in ore connecting the two levels. The surface level, so called, shows a large body of fair milling ore from the top of the winze to the surface or apex of the lode, and extending along the course of the vein about 100 feet, as far as the drifts have been run. Developments on the 70-foot level disclose a large and strong vein and an immense body of ore explored 313 feet northerly and southerly along the course of the vein, on and near the foot wall, with a number of easterly drifts and cross cuts, the longest of which are 41, 44, and 50 feet, without any indications of the east wall. All of the farthest penetrations east being in ore, in fact the whole east side of the chamber near the winze and tunnel connections therewith is in excellent, high grade ore. All of the openings on this level are in ore. After thorough prospecting I was unable to find any waste worthy of note, or any ore that would not yield a fair profit with proper mill facilities. Extending through the ore body northerly and southerly about 25 feet from the foot wall, is a very rich streak of chloritic ore, having an average width of about 15 feet, undoubtedly the highest grade continuous ore vein yet found in the Hills, many very fine, rich specimens having been taken from it, weighing from a few ounces to several hundred pounds. In the extreme south drift this ore is widening rapidly to the eastward, presenting every appearance of opening into a large wide chamber of this character of ore. If milled separately it would yield from \$30 to \$50 per ton. Mr. Rigby has been able to obtain sufficient ore for the twenty stamps from the single prospect drifts and shafts being run; much of it has been taken from the surface level inferior in grade to that on the 70-foot level. Therefore, the whole amount of ore milled from the mine – 5139 tons, which has yielded \$39,568.79, or at the rate of \$7.69 per ton – is below the average of what the whole will yield hereafter. Mr. Rigby's estimate of the reserves embraces only so far as the actual explorations have extended, and what is properly considered "in sight," with a very liberal deduction therefrom. No account is taken of the blind lode 14 feet in width, which milled \$6.00, or the discovery lode 8 feet in width, which milled \$5.00 per ton, both of which were cut by the Grand Prize tunnel, and are of no inconsiderable importance. The reserves are being added to daily by

the continuation of the north and south drifts, and cross drifts in the direction of the east wall. Also the winze being sunk below the 70-foot level to connect with the lower or Caledonia tunnel is down 20 feet in excellent ore. The Caledonia tunnel has been driven 443 feet in the west country and 130 feet further will bring it to the lode, thus opening it 100 feet below the 70-foot level. The tunnels are excellently located, timbered substantially with double tracks for tramways, in fact all the property and improvements connected with the mine are convenient and first-class.

The lode presents remarkably strong features for its permanency and continuance, and has a great prospective value. Any present estimate of its value should not be based alone on the present ore reserves, which undoubtedly will be increased within the next few months three or four fold, but should also take into account its general character, location and surroundings, and position with reference to the great parallel mines Homestake, Father De Smet, and others, which are now yielding so largely in dividends.

Very Respectfully, &c.,
A. J. SIMMONS.