

1134 Subway Terminal Building
Los Angeles, California.
September 10, 1933.

Crown Reed Consolidated Gold Mines Co.

Gentlemen;

The object of this letter is to present for your information my observations on your Longstreet Mine which I have visited on several occasions for purposes of inspection and to verify reports by J.M. Butler, Consulting Engineer, and J.T. Shimmin, Metallurgical Engineer.

The property embraces 14 mining claims and 1 water Claim, approximately 300 acres situated in Longstreet Canyon, Nye County, Nevada, and is more fully described in the report of Mr. Butler, attached hereto, with accompanying map, and with reference is made for general description of location, topography, geology, mineralogy of the vein and mine and mill equipment erected on the property.

The distance from Los Angeles, by auto, to the mine is 470 miles, about two-thirds being over state highway to Tonopah, Nevada, and then 50 miles in a Northeasterly direction of which about 30 miles is over a state highway and 20 miles over a fair desert road, which can be made a very good road at small cost.

The general conditions and description of the property and equipment are substantially as reported by Messrs. Butler and Shimmin, and each inspection left one more favorably impressed with the mine. Especially is the geological favorable for the continuation of the ore bearing bodies to considerable depth. On a complete check-up of the tonnage and value of ore immediately available for milling, after allowing 25% for waste, and 10% loss in Metallurgy, both of which are conservative, there should be left something over 300,000 tons of ore exposed in the present workings of the gross recoverable value of \$9.00 per ton, a body of ore sufficient to run the 100 ton mill for several years.

In estimating the tonnage no allowance is made for the probable increased width and value of the ore between the 600 and 1000 foot level, and if the vein continued to widen, as indicated between those levels, it is highly probable that the present working body of ore will exceed 400,000 tons. And as there are several sections in the mine where the ore will assay from \$12 to \$30 per ton, it is quite possible that with careful mapping of the exposed ore, the mill head values could be materially increased and thereby earnings a very satisfactory profit from the start of milling operations.

If the management deemed it expedient to increase the present mill capacity to 200 tons per day, increased economy in mine and mill costs could thereby be effected, and even larger tonnage of lower grade ore made available.

under the exceptionally favorable economic conditions at the mine, by reason of gravity delivery of ore and water to the mine, it should not cost over \$3.25 per ton on the basis of 100 tons per day, and and if the mill capacity were increased to 200 tons per day the cost could be reduced to possibly \$2.80 per ton.

Estimating therefore the possible earnings of a mill treating 200 tons per day of \$9.00 per ton ore, amounting to \$1800. per day, and operating for 300 days each year would yield a gross for the year of \$540,000., which, after deducting charges of \$2.80 per ton would leave a net profit of \$372,000. for distribution. Besides the gold content of the ore which at the present time represents about 60% of its value, 40% is represented by silver, which for purposes of ore valuation is estimated at 25¢ per ounce; Therefore, it can be readily seen that as the silver price advances the mine will steadily increase in value, and if the price should advance to 50¢ per ounce, as is confidently predicted, such increased price over the present valuation will more than pay all mining and milling costs and thereby possibly double the estimated earnings based on present conditions and prices of silver.

The machinery and mill equipment is in excellent condition and certain changes, including an additional mill to ensure finer grinding, could start operating within 60 days and keep in continuous operation thereafter.

The cost of the additions and changes would amount to about \$30,000 which amount includes costs of all such additional equipment, housing and supplies, to place the mine and mill on full production. The labor, transportation and miscellaneous costs to provide for 90 days operations would amount to possibly \$30,000. more; so that a fund of \$60,000. will be necessary to inaugurate Mining and Milling operations to full capacity. Even after milling operations have been started it has frequently been found necessary to effect many changes to increase of 50% over the estimated costs, and if it should not be necessary to make such changes, such increase is always placed in a capital fund to provide against accidents, replacements, and purchase of larger stocks of supplies at lower costs.

The ore contains no refractory elements and can be treated profitably by fine grinding, sliming and the cyanide process or extraction which has been standardized for many years and in general practice at the present time.

The mine is developed by two crosscuts tunnels at a depth of 600 feet and 1000 feet, from the vein out-cropping, and raise to the surface connecting both tunnels. Also the vein has been drifted on to daylight on the East side of the hill, which drift is in ore the entire distance of 500 feet, and besides improving the ventilation of the mine, affords a cheap and convenient outlet for disposing of waste rock from workings above the 600 foot level. The ore exposed in the East drift is of excellent mill grade, samples taken across 5 feet for several hundred feet averaged \$9.80 per ton with occasional selected spots in the hanging wall side of the vein where the values were higher. This body of ore extends clear to the surface and represents a considerable tonnage of good mill grade value.

South and paralleling this vein about 250 feet distant, is another vein outcropping on the surface considerably larger than the one in which the workings occur. This vein is heavily mineralized and appears to have the same deep seated origin as the other. The 1000 ft. level Crosscut should be continued to this vein as soon as funds are conveniently available for that purpose, as the discovery of another large body of ore similar to the one already developed would place this mine in the rank of the major producers of the country.

It is also worthy of mention that an exceedingly strong and well mineralized dyke of porphyry occurs on the property having a different strike and dip from the developed vein. This dyke has an almost North and South strike, with a convergence towards the developed vein and will apparently intersect it at about 250 feet westerly of the brest on the 1000 ft. level. The dyke which carries considerable quartz can be explored cheaply by simply drifting in on it from the surface, or drifting Westerly in the 1000 ft. tunnel until it is intersected. The surface showing justifies the hope that a considerable body of good ore will result from the contact of these two mineralized bodies.

It is further deserving of mention that although part of the vein exposed in the 1000 ft. level has shown a slight decrease in value from the highly oxidized ore in the upper levels, it is clearly evident that the character of the ore has undergone a change from an oxidized condition to more definite sulphide forms, with resultant leaching of the primary values which frequently occurs in ores of this character. From a study of this ore on this horizon it is certain that a transition from oxidized to permanent sulphides has occurred, and that a secondary enrichment of the body of ore with slightly increased depth is a probability to be expected.

Taking into consideration the high and healthy location of the mine; its strong and well defined vein systems; their deep seated origin; large tonnage of development in ore to run the mill for several years; modern and excellent condition of the mine and mill equipment; and finally the exceptionally favorable economic conditions for mining and milling, this property presents an opportunity for capital investment that is rarely associated with mining ventures, and I recommend it to the favorable consideration of yourselves and those who become associated with you in an enterprise of exceptional merit.

Respectfully submitted

(Signed) John A. HASSELL,

Consulting Mining Engineer.