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STATEMENT OF W. E. RENSHAW

relating to the combination of the
Gem Consolidated Groups of Properties
located at and near
Idaho Springs, Colorado

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The mining area within this combination of property includes within its boundaries the crossing or intersection of the two most powerful mineral dykes so far discovered in this section or district; one, usually referred to as the Gem dyke, having a strike northwest and southeast, and the other commonly known as the Sun and Moon dyke, having a strike northeast and southwest. Both of these dykes are powerful and have been mined on lodes in connection therewith at intervals along the strike for a distance of several miles.

Along each of the aforesaid dykes mines of very great consequence have been opened, several of which have each made a gross production of many millions of dollars at a very modest depth. Due to the rounded contour of the crest of Seaton Mountain, several adit tunnels have been started on the south side of said vein, but have never reached their main objective, which is the big Gem Vein. By surveys after allowing for the dip of the lodes formed by the said dykes, it was estimated that these various tunnels would need to be driven from two to three thousand feet to a point which would intersect and cut through said dykes and accompanying lodes, at a vertical depth of the surface somewhere between a thousand and eleven hundred feet, and at a stoping depth, due to the dip of the veins of from twelve hundred to fifteen hundred feet from the surface.

The keystone lode of this combined group is the Great Gem lode, and embraces within this group on the strike of the said lode, the following claims, namely; the Gem, Gem Extension, Main Trunk, West Santa Fe, Dove's Nest and West Dove's Nest, and by a limited amount of development work, has totaled a production, as near as can be estimated of about six million dollars. The Gem and the Gem Extension lodes having had the most extended development work done upon them, yielded the greater portion of the above amount, still leaving an unmined area in the latter lodes above the horizon of the Argo tunnel level, an amount far in excess of the said six million dollars, to say nothing of the vast area lying below the said Argo tunnel level, a depth of close to two thousand feet from the surface.

After an extended and most careful survey of all conditions surrounding this combination of properties, as a result, in order to enjoy the numerous advantages to be derived therefrom, it is the recommendation of the undersigned that the point at which the first operation should

center is on one of these partly projected tunnels referred to and located on the southwest slope of Seaton Mountain, alongside of a newly completed highway and about one mile from the city limits of Idaho Springs. By many of these locations can be enjoyed many most valuable advantages in the way of economy of operation, easy accessibility to the valuable area practically virgin under this combination of properties; also easy connection to the main Gem workings can be had as the level will project east from point of intersection of the said tunnel with the said Gem Vein; also the same may be said of the Dove's Nest on the Gem Vein, as the level is projected west from the point of said intersection, as maps of the mining district of the state covering this property would clearly indicate.

In connection with the most important projection of the tunnel operations, which is the opening up of the great Gem lode on its strike northwest and southeast, and that of the West accompanying the said Sun and Moon dykes on its strike northeast and southwest.

The most important of all naturally is the great Gem lode, which will be intersected in the Main Trunk claim at or near the crossing of two big dykes as herein referred to, and in addition thereto, there exists a high potential value in the ground lying south of the Gem lode in other veins known to exist, but which to date have not been developed.

The production possibilities of the major portion of this group of properties are practically as virgin as they were when the various claims were located, due to the fact that the said different tunnel operations, as herein referred to, have never been driven sufficiently to reach their objective. It is estimated that within 750 feet of further driving in each case, the Gem lode will be cut by either of these tunnels in the near vicinity of their crossing by the Sun and Moon and Gem dykes, within which the big Gem Vein occurs. Drifting operations can then be undertaken on both dykes in all four directions from points of intersection with the view of making ready for steady production and extended development of that part of the operation.

When the work was first started in this section, roads were very poor and steep, hauling and transportation of any kind was most expensive and mining operations were carried on by hand drilling. At the present time, an auto road traverses the mountain immediately in front of the portals of the said tunnel. The power lines which belong to this property cross at places most convenient for distribution, and generally speaking, conditions are decidedly more favorable at this time for successful operation than at any time since the original locations were made.

The proven geology on all sides of this combined property, coupled with the enormous production made therefrom, and all the property under one control and all connected, warrants, in my opinion, the prediction that from three to five hundred tons of milling ore, plus what smelting ore which might come with it in the mining, would be a reasonable expectancy from this property within such time as will be required to make ready to move the then exposed tonnage.

The character of the ore contained in this area, as far as developed and mined, consists chiefly of both lead and copper sulphides carrying gold, silver, lead and copper with some zinc occasionally in both sulphides. The milling ore ranges from \$12.00 to \$15.00 per ton gross, and concentrates from 3 to 4, to 1. The smelting ore and concentrates will show a value of from \$30.00 to \$60.00 a ton in normal operation. When the lead sulphide predominates the silver content usually increases, and when the copper or iron sulphide predominates, the gold content usually increases. The shipping ore of the different veins varies from 12 to six and eight feet in thickness. The larger shipping streaks occurring in the great Gem lode by reason of its magnitude, and also being the main artery or mother lode into which the smaller lodes converge along its strike, and which have proven great contributors to the mother lode thus far developed. The above does not take into consideration the high grade ores which are disclosed intermittently as the general operations are carried forward.

By reason of the shipping records of ore of this end of the county having been destroyed by fire, I can only approximate, from what records and knowledge I have at hand, the gross production of the properties as herein contained, which in my opinion, is most conservative and can be fully relied upon in fixing plans for future expectancy; therefore, an estimate of earnings for the first year cannot, with any degree of accuracy, be computed until after the proposed development work is done and the ore exposed, excepting only where there still remains unmined ore in sight in the various veins which naturally will occupy a little time and preparation to extract when ready to do so.

Therefore, in conclusion, I will make additional reference in a general way to conditions as they exist at the present time throughout the workings of the Gem and the Gem Extension claims especially, which is the eastern portion of this combination of property.

As hereinbefore cited, the Gem vein on these claims has been worked extensively, principally on the one wall, to a depth of fourteen hundred feet on the vein, most of which was done on the east side of the main Gem shaft, for the reason that the Gem claim is longer and contains more acreage than that of the Gem extension. Not

knowing the extent in width of the Gem Vein, when this work was done, only one wall was followed to the depth of 900 feet from the surface. About the time this depth was reached in the sinking of the main Gem shaft, the Argo tunnel in its progress had cut the Gem vein on its level, and following this, all efforts were applied to make connections with the said Argo tunnel directly beneath this point. Since that time no effort has been applied in the exploitation of the ground remaining unmined above the 900 foot level, plus from the said 900 foot level to the said Argo tunnel level; the larger portion of this area still remains untouched, and rather than take time to dissertate more fully upon said condition, will refer you to maps on hand which will clearly explain all.

In view of having in the future to recover the enormous tonnage yet remaining in these old workings above the 900-foot level of the main Gem shaft on both of the aforesaid claims, the mechanical equipment, buildings and other improvements have been left intact, to be used later on when it is advisable to take up this detail of proposed development campaign of the property in its entirety. Also, the mechanical equipment has been left in place on the Argo tunnel level to the said 900-foot level above, which latter point will be reached from below by a system of raises and sub-levels as the work goes forward.

The Main Trunk, Dove's Nest and West Dove's Nest, covering the great Gem Vein on the extreme west, will be developed from one of these tunnels herein referred to at its horizon. The objective being, after its intersection with the Great Gem Vein is made, to drive therefrom to the east to connect the main Gem shaft at or near the 1200-foot level of said shaft, and to the west from either of said tunnels referred to in connection with the Dove's Nest shaft, which is now down to but a modest depth in practically virgin territory throughout. This development will be on the vein and big tonnage can be expected from this work alone. In fact, it is my opinion that this level driving alone will supply more tonnage of ore than can be taken care of pending the installation of increased mill capacity to meet the needs.

Hoping the foregoing may give at least an idea of the magnitude of merit of this combination of property, I am

Most respectfully,

Signed W. E. Ranshaw