

PATRICK GRANITE

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Corvallis, Oregon, June 10th, 1921.

Mr. Elmer Patrick and Associates,  
Corvallis, Oregon

Gentlemen:

**PRESENTATION:**

According to your instructions I visited the Elmer Patrick Tract of 50 acres lying, 30 acres within the City Limits of Ashland, Oregon, and 20 acres more contiguous to it on the West side of Ashland Canyon, I spent the better part of June 9th in going all over the surface of the property. My conclusions, for your convenience, I have placed immediately following. After that I am giving the general summaries and details upon which I based these conclusions.

**CONCLUSIONS:**

I find there are two distinct propositions presented as a result of my examination.

**FIRST:** There is a large well defined outcrop of high quality granite rock, approaching what the geologists call the granodiorite variety, of bluish gray color of fine and medium grain, tough and dense quality and to the eye, at least, equal in every respect to the best imported New England granite, which is so extensively used for building and monuments. This is accessibly located with regard to cheap quarrying and delivery costs.

**SECOND:** There are also apparently several occurrences of quartz veinlets or stringers in a pegmatite formation, which lies entirely separate and distinct from the building granite. From the past records these quartz veins have been known as gold bearing, though on the day of my examination there was not sufficient time available to make a careful search.

Furthermore, owing to the action of the elements over a number of years, since the veinlets were disclosed by cross-cuts, trenches and pits, these latter were very nearly filled up with washed-in soil and vegetation. It is well to make plain at this point that, whatever may be the ultimate results of further developments in active gold operations, there is no likelihood of any conflicts ever occurring between these and any granite quarrying activities, for the two lie in well separated distinct formations.

**SUMMARIES:**

In discussing the summaries it will be clearest to deal with each one of the above propositions separately and in turn. I will, therefore, begin first with the granite proposition.

**GRANITE:** This outcrop of granite appears to be approximately 150 feet high, at least 250 feet in horizontal extent, on a steep hillside having a slope of approximately from 30 to 35 degrees from the horizontal. This area thus exposed by no means represents the entire amount of granite of building quality. It merely is that portion which is already exposed and does not require any stripping in order to lay it bare. There are other outcrops of small extent and also isolated boulders lying promiscuously scattered over the other portions of the tract. I consider all of this of unquestionable evidence to establish the existence of enormous quantities of that material that may be obtained merely by removing the vegetation and covering soil, in addition to the big bare outcrop above described.

The location of this, with regard to delivery to railroad, is very favorable. At a horizontal distance of approximately 900 feet towards the East and approximately 400 or 450 feet vertically below lies the accepted City highway known as Granite Street. From the granite outcrop to Granite Street a simple

double rope counter-balance aerial tramway, with a slope length of approximately 1,000 feet on about a 20 degree angle, would deliver the quarried material with great ease and low cost directly onto trucks for transportation of approximately 5/8 of a mile to the Southern Pacific Railroad siding.

As stated in the conclusions above, the granite appears to be of a granodiorite variety, which differs from the commonest form of gray granite in that the mineral known as hornblende occurs in greater percentage of composition than biotite mica. The hornblende is black, dense and very difficultly affected by atmospheric action, all of which is most desirable for permanence of color and durability of the stone. The biotite of the common granite is relatively soft and flaky and in a comparatively small number of years will yield to atmospheric changes. If present in large amounts this may result in causing a yellowish brown stain to appear on the stone, thereby reducing its value for either building or monumental purposes. I estimate roughly that the biggest exposure, as described in the preceding pages, contains over 3,000,000 cubic feet, assuming that no more were excavated than to carry the quarry forward on a level floor, starting at the bottom point of outcrop on the hillside and going forward merely to a point vertically under the highest exposed outcrop. This would leave a quarry working face approximately 250 feet long horizontally by 150 feet high vertically.

**GOLD QUARTZ:** The old prospect pits and cross-cut trenches have been so filled up in the last ten or twelve years it is impossible to draw definite conclusions now as to the veinlets of quartz which must have been unmistakably formerly exposed. This is a justifiable belief, because there remains on the surface now, lying scattered around the situation of the old pits and trenches, a multitude of fragments of quartz. A very large

percentage of these are well stained with iron oxide and would be considered by any gold miner to be a favorable indication of the possible presence of gold, in fact from the owner of the property I learned that a number of specimens of free gold have been found on the property, and that from the deepest pit was taken a sample of this quartz, which gave, after fire assay, a return value of \$10.00 in gold per ton of quartz.

The situation of these gold bearing quartz veinlets is much higher up on top of the ridge, than the exposed granite. Furthermore, the quartz veinlets seem to be entirely confined in their association to pegmatitic formations. I would explain that pegmatite is a form of igneous (volcanic origin) rock, composed principally of quartz and feldspar minerals. It was impossible, at the time of my examination, to determine if there was any recognizable connections between the occurrence of these quartz veinlets and the contact between the pegmatite and the surrounding granite rock. According to general geological information regarding the entire Ashland district it is considered that there have been a number of intrusions of granite rocks of different ages and varying compositions, to which the pegmatite rocks are of closely allied origin. It is not essentially necessary or certain that the gold bearing veinlets will be inevitably connected or closely related to the contact between the pegmatites and any particular one of the granite intrusions.

For the above reasons, I therefore consider with regard to the future developments of the gold bearing veinlets, that my examination is not conclusive. This, however, does not in any way mean that the conditions may not develop favorably in this direction. It is reasonable to hope for this,

as the property lies in close proximity to the Ashland and Shorty-Hope mines, both extensive producers in gold and reported to be in the prevailing granitic formations.

In closing this report I wish to express the pleasure I have enjoyed in going into this matter with you and your associates and my appreciation of the personal courtesies extended to me.

I shall be happy to answer any further questions in connection with this matter if you desire to bring them up by correspondence at a later date.

Very respectfully yours,

Signed J. H. Batcheller  
Mining Engineer  
Associate Professor-Mining Engineering  
Oregon School of Mines.