Mr. F. A. Harmon, Vice-President,
Red Boy Mining & Development Company,
Baker, Oregon.

Dear Sir:—

In accordance with your request, our field party has spent several days in an inspection of the Red Boy mine.

The work taken up was

First

An examination of the underground workings, with a view to recommending development work on possible shoots of ore where exposed on one side;

Second

An examination of the surface to discover if possible the northern extension of the Concord vein;

Third

A similar examination to discover the northern extension of the Blaine vein.

UNDERGROUND WORKINGS.

In making a study of the underground workings, attention was directed almost entirely to the Blacksmith level, the Blaine drift on the Concord level, and the northern part of the Red Boy drift. Sampling in the Red Boy vein in the backs of the stopes disclosed the fact that no ore remains exposed in this vein. This fact is also confirmed in the report of Mr. Jno. C. May of April 1, 1912.

Samples were also taken in the Blaine drift on the Concord level with widths and values as shown on the tracing.
accompanying this letter. Likewise samples were taken ninety feet below on the Blacksmith level on the south drift on the Blaine vein with widths and values as shown on the tracing.

After carefully studying the report of Mr. May and comparing the widths and assay values in all of the workings sampled by him and after securing results of our own sampling and assaying, I have decided that it would not be advisable at this time to recommend a development campaign in the old workings, not even to drive under on the Blacksmith level the short shoot of ore found in bottom of the Blaine drift.
Possibly at a later time, provided considerable ore has been blocked out, at other places on the property and with a crew of men regularly employed and a power plant in steady operation, a further development at favorable points in the old workings would be advisable. Under that circumstance assayers and engineers would be regularly employed, and whatever ore were discovered could become a part of a regular mill supply. Under the present circumstances with only a few men and a mine foreman employed, whatever ore is found cannot be assayed daily or be delivered to the mill.

**CONCORD VEIN OUTCROP.**

By referring to the tracing it will be seen that
several open cuts were made upon the surface of the Concord claim. In preparing these places for sampling two miners were employed for several days. The vein is a strong one, with a maximum width of more than nine feet. The values, however, were low. The highest value obtained was 2.40. In view of the fact that only a small crew is to be employed, I would not recommend that the development at this point be done at this time.

OUTCROP OF THE BLAINE VEIN.

A study of the surface on the Blaine claim disclosed several outcrops of a vein, which presumably is the Blaine vein. Its strike and dip would so indicate. At six points open cuts were made and samples taken with the results as shown on the tracing. The inspection of the surface would indicate that the May Queen vein is the extension of the Blaine vein. If the vein in the Blaine drift, the outcrops found on the surface of the Blaine claim, and the May Queen vein are one and the same, it is the strongest vein on the property. I have been led to believe that this is the case. By referring to the tracing it will be seen that the samples taken on the surface of the Blaine claim are in two groups--three open cuts near the south end of the claim and three toward the north end. By observing the dip indicated at one point underground as 78 degrees to the
east, it will be seen that these outcrops would indicate that the northern part of the Blaine drift cannot be on the vein. With this fact in mind two men have started a crosscut at the point indicated in red, in order to pick up the Blaine vein on the Blacksmith level in order to drift under these outcrops over 400 feet above.

The three cuts on the northern part of the claim are upon the crest of the ridge to the south of Mill Creek—the middle one at the apex and the northern one thirty-five feet down the slope towards Mill Creek.

I have been reliably informed that with the exception of a small part of the outcrop of the Red Boy vein, no rich shoots of ore reach the surface on the Red Boy property. With this statement in mind and considering the strength of the Blaine vein and further considering the fact that there is about 1700 feet upon this vein which has not been prospected or developed, I recommend that drifting be done under these two outcrops. I recommend that the southern outcrop be developed at this time by drifting on the vein upon the Blacksmith level, as indicated on the tracing. On the northern end I recommend that the vein be traced by surface work down the slope towards Mill Creek to a vertical depth under the open cuts of 100 feet or more.
Harmon-5.

drift in on the vein south under the outcrops should determine whether a shoot of ore exists at this point or not. This could probably be best done under contract.

In making the above recommendations, I do so without any reservation, because I know that the conditions of the property are fully understood by you and that you will not underestimate the element of risk involved in the suggested expenditure.

I look upon the suggested prospecting of the Blaine vein as a fair, sporting chance to discover a shoot of ore.

I wish to express appreciation of the co-operation of Mr. Sheedy in doing this work. His practical knowledge of the property and good judgment have been invaluable. He has done much work in catching up bad ground, retimbering the drifts, and cleaning out the various workings, so that the mine is generally accessible for inspection.

Yours truly,

[Signature]

AMS/B

Engineer for the Bureau.