Sample submitted by N. S. Wagner

Sample received on Aug. 10, 1947

Analysis requested As reported

Analysis by: L. L. Hoagland

<table>
<thead>
<tr>
<th>Lab. No.</th>
<th>Sample Marked</th>
<th>Results of Analysis</th>
<th>Remarks</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Gold</td>
<td>Silver</td>
</tr>
<tr>
<td>P-6391</td>
<td>HB-203</td>
<td>Trace</td>
<td>2.00 oz.</td>
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<tr>
<td>P-6392</td>
<td>HB-204</td>
<td>0.02 oz.</td>
<td>4.10 oz.</td>
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<tr>
<td>P-6393</td>
<td>HB-205</td>
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<td>2.20 oz.</td>
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<tr>
<td>P-6394</td>
<td>HB-206</td>
<td>0.04 oz.</td>
<td>12.60 oz.</td>
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<tr>
<td>P-6395</td>
<td>HB-207</td>
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<td>5.00 oz.</td>
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<td>P-6396</td>
<td>HB-208</td>
<td>0.04 oz.</td>
<td>14.20 oz.</td>
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HB-205 #3—18" cut of vein from face of upper tunnel on Kingston lode.

HB-206 #4—Sample of relatively oxidized ore originating from first half of upper tunnel on Kingston lode. This ore was sacked for shipment and this sample is a cut from a 80 lb sample representing a handful from each of 60 100 lb. sacks. This sample crushed, mixed and quartered at the Baker Office.

HB-207 #5—Sample of relatively unoxidized ore originating from the last half of the upper tunnel on Kingston lode. This sample composed of 72 lbs. of fragments picked at close intervals from 2 dump piles estimated at a total weight of 5 tons. The sample crushed and quartered at the Baker Office.

HB-208 #6—Grab sample from shaft on Silver King.
PORTLAND CONSOLIDATED CLAIMS (Pb, Zn, Ag.)

Owner: Frank Klein, Baker, Oregon

Lessees: Wm Laing, Resigire Street, Boise, Idaho
Charles Sayko, 534 N. Berendo, Los Angeles, California

Location: T 9 S; R 34 E; Sections 33 and 34 and also T 10 S; R 34 E; Section 3 and 4. Although the Patent Map of 1895 assigns the property to the Greenhorn District, the property is actually situated within the bounds of the North Fork District in accordance with district boundaries as now recognized. The claims lie about 2 miles southwest of the Ben Harrison Mine and 1 mile northwest of the Tempest.

Area: The property is made up of 4 full sized patented lode claims named as follows: Tunnel Location Quartz Claim
Kingston Quartz Claim
Silver King Quartz Claim
Miners Dream Quartz Claim

These claims were patented by the Portland Mining Company, June 21, 1895. A copy of the patent plat accompanies this report.

History: Activity on the part of the original company was limited to surface cuts, trenches and one 75 foot tunnel on the Silver King claim. Prospect development work by the present lessees was accomplished during the summers of 1946 and 1947 and includes one 100 foot tunnel on the lower exposure on the Kingston vein, another upper tunnel of about 70 feet in length on the same ledge, and one cut on the same ledge at a still higher elevation. Two cuts of about 30
feet in length were made on the Silver King vein. Three and one half miles of access road was constructed to the claims from a point near the Vinegar Hill Lookout.

Geology: The Kingston, Tunnel and Silver King claims are situated on the southern flank of a large ridge. The Miners Dream claim is on the crest of this ridge. Elevations by aneroid range from around 7250 feet for the lowest workings to 7625 feet at a shaft on the Silver King claim near the crest of the ridge.

The ridge is comprised for the most part of a tuffaceous argillite. Petrographic examination indicates this argillite to be composed of about 80% andesine. There is enough carbonaceous material (estimated 5 to 10%) to give the rock a dark color. Other mineral constituents include chlorite, nontronite (?), pyrite, iron oxides and quartz, with most of the latter minerals appearing to be of secondary origin.

Granite occupies the southern fringe of the claims. This granite appears just about at the elevation of the lowest workings (about 7300 feet) and it constitutes the bedrock between this elevation and the creek to the south. The corresponding ridge across the creek to the south was not visited, but appears to be composed of this same granite. In other words, the claims are situated close to a large intrusive granitic mass. Spots of granitic material are encountered in some of the lower tunnels. From this it appears that the granite mass may underlie the argillite in the southern portions of the claims, with the granite-argillite contact being essentially flat or gently dipping at the general horizon of the lowest tunnels.

Examination of a sample of the granite cropping on this property
showed it to be an albite granite with minerals identified as follows: Plagioclase (30 - 40 %), hornblende (30 %), albite (10 - 30 %), quartz (10 %), magnetite (1 plus or minus, %) and mica (- %).

Homblendite is another rock type occurring on the property. This is to be seen in the lower elevations on the Silver King claim in the area of the granite-argillite contact. It is to be found for the most part as float with but a few small outcrops in place. The rock probably occurs as a dike or as a small lens-like mass although inadequate exposure makes this conclusion presumptive.

Two veins are exposed by the present workings. One of these is on the Kingston Lode claim and the other on the Silver King. They strike roughly parallel and about north 30° east. Dips are from vertical to 65° to the east. The veins occur in the argillite and, as most commonly seen on the claims, they are composed predominantly of sulphides. The most abundant of the metallic minerals is an iron sulphide. Galena and sphalerite (lead and zinc sulphides) rank as perhaps the next most abundant of the metallic minerals. These are irregularly distributed throughout the vein and occasionally occur in small, moderately concentrated bunches. Marmatite, an iron bearing variety of sphalerite, has been identified and minor quantities of chalcopyrite and bornite occur. On surface exposures the veins are sometimes fresh and hard, but more often they are profoundly oxidized.

Tunnels on the Kingston claim reveal vein conditions in the relatively fresh argillite and in the alterations zone bordering the granite contact. The upper tunnel is driven solely in argillite
at a point quite high on the hillside. Oxidation of the vein is great at the portal, in a surface cut above the portal, and for a penetration distance of about 35 feet in the tunnel. Beyond this point, and for a distance of about 35 feet to the face, the vein is unoxidized. The sulphide mineralization is strong and uniformly abundant throughout the exposed section of fresh vein material. Vein widths vary from 15 to 20 inches and the strike is N 30° E, with a dip of 64° to the southeast. The vein is well-defined and the wall rock alteration is negligible.

The lower Kingston tunnel is presumably driven on the same vein as is exposed in the upper tunnel. At least it is driven at a location on the hillside where the vein from the upper tunnel could be expected to occur on the basis of projection and the trace of float fragments of vein material on the hillside. In any event this tunnel follows a vein structure on a bearing that corresponds with that of the vein in the upper tunnel and it extends for a distance that would place the face approximately under the portal of the upper tunnel. However, the vein as exposed here differs from that exposed in the upper tunnel in that it is made up primarily of a matrix of altered wall rock with only ill-defined zones and bunches of quartz. Sulphide mineralization is spotty, much less abundant, and consists primarily of pyrite with only occasional clusters of galena.

The original tunnel on the Silver King is in highly decomposed, vertically sheared argillite—essentially on the granite contact. The vein is composed of much limonitic gouge and occasional bunches of white quartz. No unoxidized sulphides are in evidence. The vein is not always clean cut or clear, but in places attains
2 foot widths. Surface indications of the Silver King vein are meagre, but both old and recent trenches show vein matter at intervals to the top of the ridge.

**General Information:**

Access to the property is by a steep road up Vincent Creek from the Middle Fork of the John Day River below Bates, and by 3½ miles of reasonably level access road which takes off from the Vincent Creek road near the Vinegar Hill Lookout. These roads are open only during the summer months due to excess snowfall in the higher elevations. Timber is abundantly available in the general region surrounding the property, but the ridge on which the property itself occurs is barren.

**Economics:** At the time of this examination the lessees had sacked for shipment all of the relatively oxidized ore originating from the first half of the upper tunnel on the Kingston claim. The unoxidized ore taken from the last half of this tunnel was sorted and stacked at the portal. An 80 pound sample of the sacked ore consisting of a grab handful from each of 65 sacks was taken by the writer. A 72 pound sample consisting of chips taken at close intervals from the stacked piles of unoxidized ore was also taken. The assay results for these and other samples appear later in this report.

Subsequent to this examination the lessees hauled all the above mentioned sorted ore to the Buffalo Mine where it was milled. Information relative to the flow sheet of the present Buffalo Mill is not available, but it is reported that considerable difficulty and generally unsatisfactory results attended the milling of this ore. No data is available concerning the tonnage of ore milled or of the tailings assays, but a copy of the smelter
receipt for the concentrates shipped is included with the assay results. If the writers samples of the sacked and stacked ore be considered head assays, it is apparent that while a good gold concentrate was made, substantial milling losses were realized in connection with both lead and zinc.

In conclusion it can be stated that substantial, heavily mineralized and apparently persistent veins have been demonstrated to exist on this property. The ore revealed by the recent development, however, is definitely not of shipping grade, nor is the ore primarily a lead-silver ore as has been maintained by some. Whether or not ore shoots of greater lead-silver value of milling grade may occur on the property is problematical. Additional prospect development work and study of the occurrence would be needed to establish the point.

### Assay Results

**Sample Number HB 296**

80 pound sample of relatively oxidized ore originating from the first half of the upper tunnel on the Kingston lode. Sample consists of a grab handful from each of 65 sacks of the above ore.

- **Gold**: 0.04 oz./ton
- **Silver**: 12.60 oz./ton
- **Lead**: 9.30 %
- **Zinc**: 3.90 %
- **Copper**: 0.50 %

**Sample Number HB 297**

72 pound sample of relatively unoxidized, heavy sulphide ore originating from the last half of the upper tunnel on Kingston lode. Sample consists of chips gathered at close intervals from over stacked piles of the above ore.

- **Gold**: 0.02 oz./ton
- **Silver**: 5.00 oz./ton
- **Lead**: 3.55 %
- **Zinc**: 3.99 %
Copper------------------ 0.40 %

Copy of pertinent data from the smelter settlement for concentrates recovered from the milling of the above ore.

United States Smelting Refining & Mining Company
Salt Lake City, Utah September 25, 1947

Final Settlement - 9318-A
Purchased From: William Laing & Charles Sayko (Portland Consolidated Mine)
Shipment made thru Buffalo Mine

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<th>Ore</th>
<th>Crude Lot No. 1</th>
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<td>Sampled by Midvale</td>
<td>Received 9-9-47 Sampled 9-13-47 Assayed 9-15-47</td>
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Metal Quotations -- Gold 34.9125 -- Silver 90.00 -- Copper, N.Y. 21.10 Lead, N.Y. 15.00

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<th>Assays</th>
<th>Gold oz./ton</th>
<th>Silver oz./ton</th>
<th>Cu Wet %</th>
<th>Pb %</th>
<th>Insol %</th>
<th>Iron %</th>
<th>Zn %</th>
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Dry Weight - lbs 5126 - Payment for 2,563 tons @ $40.96/ton $104,58

Assay Results Continued

Sample Number HB 204 20" cut of oxidized ore from pit on Kingston lode above upper tunnel level.

Gold------------------ 0.02 oz/ton
Silver------------------ 4.40 oz/ton
Lead------------------ 4.95 %
Zinc------------------ Trace
Copper------------------ 0.20 %

Sample Number HB 208 Grab sample from shaft on Silver King

Gold------------------ 0.04 oz/ton
Silver------------------ 14.20 oz/ton
Lead------------------ Trace
Zinc------------------ Nil
Copper------------------ 0.70 %
Antimony------------------ Nil

Report by: N. S. Wagner
Date of Examination: August 7-9th, 1947
Date of Report: April 7, 1948
Informants: Messers Laing, Sayko, Klein.