PE-112-6

PRELIMINARY REPORT OF GOLD KING GROUP, ACKE BAY, PE 112-53
JUNEAU GOLD BELT, ALASKA
May 24, 1937.

Location and Accessibility:

This group of five claims is located 13 miles north of Juneau, Alaska via Glacier Highway, and 1½ miles back. The property may be reached by following the present ski trail at Mile 13. This trail was formerly a road across the northern end of the property.

The group is staked in a rectangular shape 600 feet wide and five claim lengths long, following the strike of the formation in a northwesterly direction.

Owners:

The owners of this group are John Berg, A. Zenger and C. Tripp of Juneau, Alaska.

History and Development:

The discovery on this property was made by Tom Dull and Tom Stevens in 1908. J. Berg became interested with the above and a group of claims called the Yellowstone group were staked. Work began in the vicinity of tunnel No. 1 on the present Gold King claim No. 1. This consisted of sluicing the top of the discovery which consisted of considerable quartz showings and mineralized rock areas. A few ounces of gold was recovered. Several opencuts revealed several irregular masses of quartz. This property became known as the Dull & Stevens prospect. This prospect is described in U. S. G. S. Bull. 502, "The Eagle River Region," by Adolph Knopf, p. 58, as:

> "The deposit in its maximum dimensions measures 120 by 200 feet and consists of irregular masses of quartz and bedrock. It lies near the contact of clay slates and augite melaphyre breccias; the slates are considerably shattered and schisted, but where apparently undisturbed they trend N. 30° W. and dip 60° N. The main body of quartz is in the beds of volcanic breccia immediately beneath the slates."

Later other discoveries of quartz outcrops were made, as shown on plate No. 2, and some trenching was done. Located 350 feet east of tunnel No. 4, plate 2, fourteen ounces of gold was panned from a small pocket along a quartz vein.

This property was optioned to the Alaska Treadwell Gold Mining Company in the fall of 1917. This company worked on the property until March, 1918, and did considerable trenching and drove Nos. 2 and 3 tunnels. Later tunnels Nos. 1 and 4 were driven by the owners.

This property was restaked by the present owners in 1933, however, no development work has been accomplished since.

No. 1 tunnel, located on the Gold King No. 1 claim and three-fourths of a mile north of Auke Lake at an elevation of 205 feet, has a length of 110 feet, with two crosscuts approximately 20 feet each way off the tunnel on the contact of slate and melaphyre.

Tunnel No. 2, located on the south side of the creek, Plate No. 2, and on Gold King No. 2 claim, at an elevation of 635 feet, has a length of 120 feet and a crosscut 79 feet to the east.

Tunnel No. 3, located across the creek from tunnel No. 2 a distance of 60 feet and extending northwest, has a length of 182 feet and a crosscut 80 feet to the southwest and a 35-foot crosscut to the east.

Tunnel No. 4, located a few feet below the old road on Gold King claim No. 4 at an elevation of 795 feet, has a length of 110 feet and a crosscut following the augite melaphyre-slate contact for a distance of 34 feet. These tunnels and the numerous cuts and strippings show irregular veins and masses of quartz and total the development work on this group.

Geology and Showings:

The showings on this group are confined to extensive sill of augite melaphyre which is enclosed in slate and extends from Auke Bay in a general N. 30° W. strike several miles north. Its width varies from several feet to a few hundred feet. Along its margin brecciated areas occur and through the narrow portions the lava and breccias are cross fractured. Both the brecciated areas and fractures are filled and cemented with quartz. The slate also has been subject to considerable deformation and contain stringer zones and veins and especially along the walls of this sill. As a result numerous stringers, veins and masses of quartz have been found, and occasionally spots with values were encountered. The veins appear to be rather irregular, rather small in size, and spotty in values. The stringer lodes appear mainly as schist belts along the sill, containing considerable quartz, but are apparently very low in gold values. The quartz masses are small and completely lacking in good structure and also low in gold values.

In the vicinity of No. 1 tunnel the surface showings are well described in U. S. G. S. Bull. 502.* The tunnel driven below the extensive quartz outcrop shows only a brecciated and schisted zone which contains only small quartz stringers. The augite melaphyre contact was intercepted 60 feet from the portal and a narrow schist zone contains quartz mineralized stringers. The extension of the tunnel is into massive melaphyre which contains an occasional small quartz stringer.

Assays from samples taken at 10-foot intervals in the tunnel (note assay sheet) gave only traces of gold and silver. Surface samples were not taken due to the weathered and filled condition of the cuts.

Tunnel No. 2 lies wholly in the melaphyre and four small quartz veins were cut. The largest was followed by the east crosscut and ranges from 4 to 20 inches in width. This same vein outcrops in a long cut a few feet above the tunnel with a quartz width up to three feet. This vein was sampled in the tunnel at 10-foot intervals and results (note assay sheet) were very low in gold and silver.

Tunnel No. 3, across the creek from No. 2, has two crosscuts which follow the vein that outcrops in the long cut on the surface, while the tunnel drift follows the footwall contact of the slate and graywacke-augite melaphyre sill. The portal section of the tunnel is in melaphyre and this cuts across the contact into graywacke and ends in slate following a quartz vein that averages 18 inches to 4 feet for a distance of 80 feet. The cross vein in the crosscuts cuts across from the melaphyre into the slate and graywacke to the west. Small quartz veins occur in the melaphyre near the portal with the largest having a width of 12 inches.

The contact vein and the cross vein were sampled at 10-foot intervals in the tunnel. Results were very low, ranging from a trace to .29 oz. gold per ton. Three samples were taken from the cut on the surface of the cross vein and the results ranged from a trace to 1.34 oz. gold per ton.

Tunnel No. 4 is located on the footwall side of the lava sill and cuts across the contact. The crosscut follows the contact in which a quartz vein is exposed a distance of 34 feet and has a width from 12 to 18 inches. The vein and contact both strike N. 30° W. and dips 42° E. Channel samples from this vein at 10-foot intervals gave results from 0.03 to .11 oz. per ton in gold.

Located southeast of No. 4 tunnel a small knoll outcrops showing the contact and about which several trenches have been dug. Several irregular veins are present in the trenches and a large mass of quartz

*Op. cit., p. 1.

exists on the top of the knoll. The quartz in this vicinity contains more mineralization than elsewhere and free gold can be seen in an occasional piece. No samples were taken, but apparently good values could be obtained in spots.

The hanging wall of this sill is not exposed in this upper section, but veins are found in the slate formation 300 feet east of tunnel No. 4. These also contain spotty values and show free gold. The irregularity of the vein, masses and small stringer zones, together with wide distribution and low values, makes for a very difficult problem in regards to mining and possibilities.

Mineralization:

The mineralization is sparsely distributed being very much of the same kind and nature throughout all the showings of the group. It is more or less intense in spots and the gangue minerals vary as to the formations. The quartz is a white to milky white variety and contains sparse mineralization. Free gold was noted in the quartz at occasional spots. It occurs in veins, masses, gash veins, veinlets and filled fractures. In the quartz masses, it has a vuggy nature with well developed crystals, indicating a slow growth. In the schisted portions of the slate and melaphyre and the brecciated areas, the mineralization is most intense. ~~in the enclosing formations~~. Pyrite is the predominating sulp hide. It has a fine nature and contains a bright very pale yellow to metallic luster. Arsenopyrite occurs sparsely in small masses and individual crystals of small to medium large size. The gold values appear to be associated with this mineral. Occasionally gold can be panned from the partly oxidized arsenopyrite crystals. However, some gold occurs free in the quartz and a small amount is associated with the pyrite.

Besides quartz other gangue minerals are calcite, sericite, chlorite and altered pieces of melaphyre, slate and graywacke.

Machinery:

The tunnel work on this property was done by hand methods. No machinery is on the property. However, parts of an old Nissen stamp mill including bull wheel, turn tables, stems, dies, shoes, two stamps and mortars are distributed alongside the trail leading to the property. These were reported hauled in 1920, but their present ownership is unknown.

Timber and Water Power:

Plenty of medium to large timber is available on the property and sufficient water for milling purposes only, is present if conditions should warrant a mill.

ASSAY SHEET

Sample No.	Location	Description	Width	Ounces per ton Gold	Ounces per ton Silver
135	Tunnel No. 1, Plate No. 1, face.	Stringer zone in melaphyre, mineralized.	4'	Trace	Trace
136	Same. 10' back from face across top.	Same.	3'6"	"	"
137	Same. 20' back from face across top.	Same.	3'6"	"	"
138	Same. 30' back from face, intersection of crosscuts across top	Quartz vein on intersection and stringer zone on contact	9'6"	"	"
139	Same. North crosscut 5' north of intersection across contact.	Mineralized quartz, slate and melaphyre.	5'8"	"	"
140	Same. North crosscut 3' back from face, back of drift.	Same	6'	"	"
141	Same. 10' east of intersection, top to bottom of drift.	Stringer zone in slate.	6'8"	"	"
142	Same. 20' east of intersection, top to bottom of drift.	Same.	6'2"	"	0.2
143	Same. 30' east of intersection, top to bottom.	Same	5'6"	"	0.2

Sample No.	Location	Description	Width	Ounces per ton Gold	Silver
144	Same. 40' east of intersection, 30' west of portal, top to bottom.	Same.	6'	Trace	0.2
145	Same. 50' east of intersection, 20' west of portal.	Same.	6'	Trace	0.2
146	Same. 60' east of intersection, 10' west of portal.	Same.	6'	Trace	0.2
147	Tunnel No. 2, Plate No. 2, face of east crosscut, top.	Quartz vein in augite melaphyre.	20"	Trace	Trace
148	Same. 10' back from face, top.	Same.	17"	Trace	Trace
149	Same. 20' back from face, top.	Same.	14"	Trace	0.1
150	Same. 30' back from face, top.	Same.	8"	0.02	Trace
151	Same. 40' back from face, top.	Same.	6"	Trace	Trace
152	Same. 50' back from face, top.	Same.	6"	Trace	0.2
153	Same. 60' back from face, top.	Same.	14"	0.03	Trace
154	Same. 70' back from face, top.	Same.	16"	Trace	Trace

Sample No.	Location	Description	Width	Ounces per ton Gold	Silver
155	Same. Intersection crosscut & drift, west wall tunnel, 4' down from top.	Same.	16"	Trace	Trace
156	Same. Portal east side of cut.	Across quartz stringers in melaphyre.	22"	0.03	0.4
157	Tunnel No. 3, Plate No. 2, east crosscut, 8' back from face, top.	Across quartz vein in melaphyre.	11"	0.02	0.1
158	Same. 18' back from face, top.	Same.	12"	0.09	0.2
159	Same. 28' back from face, top.	Same.	27"	Trace	0.2
160	Same. 38' back from face, top.	Same.	3'	0.02	0.2
161	Same. 48' back from face, top.	Same.	2'9"	0.06	0.4
162	Same. Intersection of crosscut and drift, west side, top.	Same.	30"	0.04	Trace
163	Same. 20' SW. of intersection, top of crosscut.	Stringer zone.	58"	0.04	0.2
164	Same. Face of drift, end of tunnel, north, top.	Quartz vein.	25"	0.04	Trace
165	Same. 10' back from face, top.	Same	24"	0.29	0.14

Sample No.	Location	Description	Width	Ounces per ton Gold	Silver
166	Same. 20' back from face, top.	Same and stringers.	4'3"	0.06	Trace
167	Same. 30' back from face, top.	Same.	26"	Trace	Trace
168	Same. 40' back from face, top.	Same.	29"	Trace	0.4
169	Same. 50' back from face.	Same.	38"	Trace	0.4
170	Same. 60' back from face, top.	Same.	31"	Trace	0.4
171	20' back from face, top.	Same.	17"	0.06	Trace
172	Same. 25' north of portal, west side.	Across small quartz vein.	12"	Trace	Trace
173	Opencut above No. 3 tunnel, east end of cut.	Across vein outcrop.	4'9"	Trace	Trace
174	Same. 20' west of sample No. 173.	Same.	2'4"	0.08	0.4
175	Same. 10' west of sample No. 174.	Same.	1'8"	1.34	0.4
176	Tunnel No. 4, 15' west of intersection of drift and crosscut S. wall.	Quartz stringer.	6"	0.04	Trace

Sample No.	Location	Description	Width	Ounces per ton Gold	Silver
177	Same. 5' west of intersection, N. wall.	Quartz stringers.	18"	0.11	0.2
178	Same. NW. crosscut, face.	Across contact vein, quartz.	9"	0.02	Trace
179	Same. 10' back from face, top.	Same.	12"	0.21	0.4
180	Same. 20' back from face, top.	Same.	14"	0.03	0.2
181	Same. 30' back from face, top.	Same	15"	0.07	0.4