PE-114-7

PRELIMINARY REPORT, SLOCUM-GRUNTER (COX-BOLYAN) PROSPECT,
SLOCUM ARM, CHICHAGOF ISLAND, ALASKA,
July 7, 1936

Location and Accessibility:

The Slocum Grunter prospect is located back from the beach on the east shore of Slocum Arm four miles from its head at Island Cove, on the west coast of Chichagof Island. The showings are reached via trail from the lower camp on the beach 2000' to upper camp, El. 800', and approximately five to six hundred feet along the bank of a small creek entrenched in a steep walled ravine to the tunnel, El. 960'. Considerable work has been done recently on this trail and it is in good condition. A group of seven claims extending back from the beach is owned by Geo. Bolyan and Frank Cox. The discovery was made in 1925 and assessment work has been carried on at intervals since. A short report is contained in "Report on Cooperative Mining Investigations" by B. D. Stewart, 1931. This contains a short description of the deposit by J. G. Shepard who visited the property in 1926 as representative of the Territorial Mining Department.

Geology:

The general geology of Slocum Arm is contained in U. S. G. S. Bull. 692, "Mineral Resources of Alaska, 1917" under title "Geology and Mineral Resources of the West Coast of Chichagof Island" by R. M. Overbeck, pp. 91-136.

In this report the area containing these showings is mapped under undifferentiated metamorphic rocks of probably Mesozoic and older ages. Locally the country rock containing the deposits is referred to as schistose, platy or metamorphosed graywacke. The color varies from gray to light grayish green. It is schistose and has been altered by metamorphism. It is the belief of the writer that this formation was an intermediate rock between a graywacke and volcanic tuffs originally. The slate usually occurring with graywacke is lacking. The formation is classed as schistose tuffaceous beds with interbedded graywacke.

In Bull. 692, mentioned above, page 106, Overbeck states regarding the formation along the northeast shore:

> "The graywacke extends unbroken along the northeast side of Slocum Arm to a point within 4 miles of the head. A limestone bed, 15 to 25 feet thick, follows the graywacke and is followed in turn by Tuffaceous beds, flows, and the contorted green and gray schists. Graywacke occurs on Flat and Hidden Coves apparently interbedded with the tuffaceous beds and with the limestone. At one place it even seems to underlie the schist. The strikes and dips observed along this shore would indicate that the graywacke overlay the tuffs and flows."

Two parallel dikes approximately five or six hundred feet apart are the extent of the intrusives seen in this small section. The larger dike to the east has a micropegmatite character. The smaller dike which the ore deposits are associated with and contained in, appear of a dioritic origin that grades into what appears, from a hand specimen, to be an aplite. This later dike has a width 8' to 10' and it is sheared in the center along its strike. This shear shows strong action with well developed walls. It contains a small 10" quartz vein along the bed of the creek for a distance of a couple hundred feet. The dip of the dike and shear is nearly vertical. Distributed along the creek bed are quartz boulders which are speckled with gold. By following the dike up the ravine, it was found that the shear still persisted in the center of the dike, but the quartz vein was lacking. Small faults were evident two to three hundred feet apart cutting between the two dikes. A geologic map would no doubt be an aid in determining the origin of this deposit.

Showings:

Considerable of the surface showing of the vein in the creek bed has been covered with slide rock and debris. Approximately 100' below the surface outcroppings a tunnel has been driven on the east side of the creek cutting under and following the dike. This tunnel has a length of 550' and two short crosscuts. (Note accompanying sketch). Small minor lenses of a banded quartz occur along the shear or fault zone in the center of the dike and along the east wall.

No. 1 lense, which begins at a point 190 feet from the portal, has a length of 30 feet. The widest portion of the quartz is 14 inches alongside the quartz is nearly two feet of crushed dike material mixed with quartz.

No. 2 lense, beginning 290' from the portal is the largest of the four. Its length is 42 feet and its widest portion of quartz is 27". It contains a small amount of gouge on the walls of mixed crushed wall rock and quartz.

No. 3 lense beginning 364 feet from portal is the smallest with a total length of 16 feet. It has considerable gouge and crushed material on its walls and a quartz width of 12 inches at the widest portion.

No. 4 lense beginning 425 feet from the portal is the last lense exposed. This has a length of 25 feet and its greatest width is 16 inches. Part of this lense is stoped up two floors.

Mineralization:

Generally, the amount of mineralization contained in the quartz is classified as sparse. Only a small amount of pyrite shows in the ore in fine crystals. Visible gold is seen in some of the quartz boulders in the creek bed. This is distributed along the dark graphitic seams with some in the quartz. The quartz is milky white and contains numerous pieces of the greenish dike rock and numerous graphitic slickensided pieces of country rock. Calcite is evident and the quartz in places is a soft limy nature.

Three assays were taken in the tunnel (note accompanying sketch) by the writer. These are not encouraging, however, the owners report free gold showing in several spots in the lenses. Free gold is known to occur on the surface. To arrive at an average value per lense or lenses would necessitate channel sampling every five feet.

The owners intend to operate a small Gibson mill this season from ore stoped above to the surface from this tunnel.

(10.6, 8.8)

135°53' W
57°30' N
114

NOTED
FEB 21 139
B. D. STEWART
Commissioner of Mines

P6, A14

SUPPLEMENTARY REPORT OF COBOL MINES, INC.
(To be added to preliminary report of Slocum Grunter,)
July 7, 1936)
April 24, 1938 KK 114-9

This property prior to 1937 was known as the Slocum Grunter and since incorporation is known as the Cobol Mine. Last year operations were resumed and they consisted mainly of construction and the starting of the lower tunnel. The camp located on the beach has been enlarged from one to five buildings consisting of a living house, cook house, 20 by 20 feet, bunk house, tool house and compressor house. Two thousand feet of 2-inch pipe line was laid from the beach to the lower tunnel. Eleven hundred and fifty feet of rail tramway was built from the beach to hoist station two-thirds of the distance to the lower tunnel. From this hoist station 750 feet of aerial cable was installed, leading to the lower tunnel. A double drum hoist, driven by a Model T Ford engine, operates the tram line. Gasoline drums are used as buckets on the aerial tram and small trucks are used over the wooden tramway. A small blacksmith shop was constructed at the portal of the lower tunnel.

Further Development:

In the upper tunnel, elevation 960 feet (note sketch), a total of 10 feet of drift was driven and two stope rounds had been done since the visit by the writer in 1936. The lower tunnel, elevation over 600 feet, 350 feet vertically below and 1,000 feet horizontally south of the upper tunnel, was started last season with intermittent work during the winter. This tunnel has a total length of 479 feet 6 inches. The tunnel starts on the north side of a small ravine, a few feet north of the vein and was driven on a slight angle toward the vein, intersecting it at a point 386 feet from the portal. At this point the vein is enclosed in a shear zone in slate and graywacke and consists of 12 inches of crushed dike material, crushed quartz, soft gouge material, the latter graphitic, and crushed wall rocks. The total width of the shear zone is not exposed. Numerous veinlets of calcite and quartz are irregularly contained throughout the shear. The last 93 feet follows along the main shear or vein. Gold colors were reported panned from the gouge material and crushed quartz. The mineralization noted in the quartz and along the shear was slight. The following channel samples were taken:

Sample No.	Location	Description	Width	Ounces per ton Gold	Ounces per ton Silver
J.C.R. 341	461 feet from portal, roof	Mixed crushed quartz & gouge	8"	Nil	Nil
" 342	473 feet from portal, roof	" "	12"	0.03	Nil
" 343	386 feet from portal, intersection of drift and vein.	" "	12"	Trace	Nil

A distance of over 500 feet farther has to be driven on this vein to be vertically under the ore zone in the upper tunnel. One factor that is evident in this lower tunnel is the narrowness of the greenstone dike, which on the surface has a width varying from 8 to 10 feet, and in this lower tunnel its presence is noted as mainly crushed material of less than 12 inches in width.

Specimen T.D.M. 38 was obtained from this dike on the creek bed above the upper tunnel. Here the vein is contained wholly within the center of the dike. Under the microscope this dike was found to be porphyritic, with phenocrysts of plagioclase feldspar of near albite variety, quartz and altered and ragged crystals of hornblende. These phenocrysts are enclosed in a fine matrix groundmass of plagioclase feldspar and quartz. Minor amounts of alteration products are calcite, chlorite and a slight mineralization of iron pyrite. Since the phenocrysts in this dike rock are both plagioclase feldspar and altered hornblende, and since the groundmass consists of a finer crystallization of apparently the same feldspar and quartz, this latter fine grained groundmass throws the dike rock into the porphyrite classification, and since the hornblende characterizes the phenocrysts and adds the green color to the megascopic appearance, this dike is classified as a hornblende porphyrite. As the dike is followed north the mineralization changes to a lighter color with a larger crystallization, and no doubt grades into a diorite porphyry and this is no doubt nearer its parent magma.

Specimen No. T.D.M. 37 was taken from the quartz lense in the upper tunnel and consists mainly of vein quartz inclosed in the hornblende porphyrite dike. The largest percentage of the vein quartz consists of fair sized crystals, slightly fractured and having distinct crystal faces. It shows numerous bubble-like inclusion cavities, which accounts partly for its milky white nature. Only a small amount of fine crystals were noted. Chlorite and calcite were the only two other rock minerals noted in small percentages. The only metallic mineral noted was pyrite, with which the gold values are apparently associated.

Machinery:

The machinery on this property consists of a three-stage Gardner-Denver compressor which develops 235 pounds pressure. This is run by a Caterpillar Diesel, 80 H. P., V-belt drive. This unit uses three gallons of diesel oil per hour and also runs a 4.5 K. W. generator, 125 volts, for lights. A saw mill is operated by a Fordson tractor, and it is located alongside the tramway on the beach. There is a double drum hoist at the lower end of the aerial tram, formerly mentioned.

PE Sitka 114-7

TERRITORIAL DEPARTMENT OF MINES
Juneau Alaska
July 1936