(5.2.6.5)

PE120-3

55°22'
131°10'

PRELIMINARY REPORT OF OPERATIONS AND HOLDINGS, PE 120-56
EVIS MINING CORPORATION, THORNE ARM,
KETCHIKAN MINING DISTRICT,
May 30, 1936.

Location and Accessibility:

The property of the Evis Mining Corporation consists of two claims, the Goo Goo claim, and Goo Goo Extension claim No. 1. These claims extend back from the beach two claim lengths at the head of Thorne Arm on the northeast end. Thorne Arm is located on the southern shore of Revillagigedo Island. The property is located approximately 18 miles in a straight line southeast of Ketchikan. Small boats can land at a small dock at the present camp site at high tide. The water in this section of Thorne Arm is shallow and not navigable to large boats.

History:

This section was the scene of considerable activity prior to 1901. A 90-ton mill was operated on the Sea Level claim adjoining this property on the north. The ground held by the present claims was staked at that time and were called the Mother Lode and Golden Dream claims. A report of these claims and geology of this district is given in Prof. Paper No. 1, "Preliminary Report of Ketchikan Mining District, Alaska" by A. H. Brooks, 1901, pp. 64-68. A short tunnel was started and some opencuts were the amount of assessment work done. Later these claims were restaked and were called the Majestic and Goo Goo claims. A short report of these claims is given in U. S. G. S. Bull. 347, "Ketchikan and Wrangell Mining Districts, Alaska" by F. E. and C. W. Wright, page 147. A shaft was sunk to a depth of 20 feet on the Goo Goo claim and a 10' pit and a 10' tunnel was completed on the Majestic claim. From the old shaft on the Goo Goo claim $2,000 in gold was reported taken out. The Gastineau Mining Company of Juneau was reported as having had an option several years ago and did some work. Two tons of ore was taken out for a test run by this company and the property later was dropped. Several rock cuts are in evidence along the vein on the surface.

Assessment work has been intermittently done and prior to 1930 some activity was again resumed. This property was visited during this year by B. D. Stewart, Supervising Mining Engineer and a short report is given in "Report on Cooperative Mining Investigations for the Biennium Ending March 31, 1931," pp. 19-20. In 1934 three diamond drill

holes were drilled by Lynch Bros. of Seattle. Following this the Evis Mining Corporation was formed and development has been continuous to date. In 1935 the two claims were surveyed by F. A. Metcalf. The development on this prospect has been the most extensive of any prospect in the district this season.

Geology:

The geology of this section in which these claims are enclosed is exceedingly well given by Brooks in Prof. Paper No. 1, mentioned before. The following is taken from page 65 of this report:

"The salient features of the geology are not complex, though but little is known of details. The western b oundary of the Coast Range granite belt lies within a few miles of the upper end of Thorne Arm. To the west of the granite are the rocks of the Ketchikan series, which form the country rock of the upper half of the inlet. The sediments of this series are argillites, with some limestones. Both the phyllites and limestones are considerably altered, and, as this metamorphism increases as the granite is approached, the alteration may be assigned to the contact metamorphism as well as the mechanical deformation caused by the intrusion of this vast granite mass. A number of smaller granitic stocks occur within the sedimentary belt. Most of them are too small for representation on accompanying map (Pl. 11), but one at the entrance to Thorne Arm covers a considerable area.

The Ketchikan series is typically made up of argillaceous and calcareous sediments, but in the Thorne Arm region it includes large amounts of igneous rocks. These are for the most part greenstone-schists, occurring as intercalated bands which have suffered the same deformation as the sediments. In many cases the igneous and sedimentary rocks are so intimately associated that it would be impossible to define their separate areas even with the most detail work. The greenstone-schists are plainly igneous, and are chiefly altered diabasic rocks. Similar sheared greenstones also occur in belt, sometimes half a mile or more wide, in the Thorne Arm region. Massive dioritic rocks occur as more recent intrusions. These cut both the sediments and the greenstone-schists. Dikes of a bluish porphyritic rock form another series of intrusions, which are of great economic interest because of their intimate association with some of the orebodies. These dikes were found cutting the greenstone-schists which form the country rock on some of the claims at the upper end of Thorne Arm. In the hand specimen this rock shows rounded porphyritic

crystals in a bluish-gray groundmass. The more weathered varieties have a reddish color. The original character of this rock could not be determined, as it was only found in association with orebodies and where it had been permeated with ore-bearing solutions. In thin section the phenocrysts (porphyritic crystals) were found to be made up entirely of secondary minerals, chiefly quartz and calcite, with some muscovite. The groundmass (cement) consists essentially of a finer aggregate of the same minerals, together with various other secondary minerals, such as epidote and biotite. No specific determination of this rock could be made, but it is probably an altered aporhyolite."

The general strike of the sediments and bands of greenstone-schists is from nearly north to 20° west. This strike is cut by a series of fissures that strike 65 to 70° east. These fissures have been filled with silica and mineral bearing solutions. They appear to widen as the granite contact to the east is approached. Parallel to the fissure vein are pegmatite dikes. The fissures are classified as compound fissures, since usually two or more parallel veins are found only a few feet apart. Along the contacts of some of the sediments, lenses are formed. The fissure vein found on this property is of this type. It can be traced by opencuts for a distance of 1400 feet. Its width is given in "Report on Cooperative Mining Investigations" by B. D. Stewart as averaging 9 feet for a distance of 1,000 feet along its strike. Surface assays are reported from aforementioned report as follows: "The present owners state that sampling on the vein at five points of exposure at intervals along the strike indicate that the value of the average gold content of the vein is $4.85 per ton." (Old price) Movement along the vein is very evident with grooves and slickensides. Some of this movement has been subsequent to the vein deposition. This vein cuts through greenstone schists that range from hornblende schists to some that contain small garnets on the west, though highly schistose to nearly dense limeaceous beds interbedded with phyllites and altered schists which are highly metamorphosed, and the porphyry dikes mentioned in Prof. Paper No. 1 by Brooks as an altered aporhyolite into green crystalline schists on the east. The largest quartz showings and the areas of best values are limited to the areas of limeaceous b eds and bluish porphyry dikes.

Development Work:

The amount of development work completed on date of visit consisted of two tunnels, the Evis tunnel and Goo Goo tunnel, with a total length of 1400', three diamond drill holes, two old discovery shafts and numerous opencuts along the vein. Most of the opencuts had been cleaned out and sampled. H. Townsend had sampled the cuts and together with diamond drill results had recommended the underground work.

The diamond drill holes (note accompanying sketch) were drilled, two on the Goo Goo Extension claim and one on the Goo Goo claim. Hole No. 1 was drilled to a depth of 350' on a 55° dip. This hole was reported to have intersected the vein at a depth of 290 feet on the dip of the vein. Good values and visible gold were reported from the core of this hole. This hole is located nearly in the center of the Goo Goo claim. Hole No. 2 is located approximately 1100 feet west of No. 1 and is on the Goo Goo Extension claim. This hole was drilled 391 feet on a 55° dip and was reported to have intersected the vein. Results were not reported. No. 3 hole is located approximately 350 feet west of No. 2. This also was reported to have intersected the vein. It was drilled to a depth of 312' on a 58° dip. Again values were not reported.

Following the drilling the Goo Goo tunnel was started at an elevation of 104 feet on the east portion of the Goo Goo claim. Most of this tunnel was driven through greenstone-schists and the quartz on the vein was hit at a point 350' approximately from the portal. At a point 700' from the portal approximately a small fault was encountered. This fault strikes a few degrees east of north and dips 68° east. The displacement is 20' on the hanging wall to the north. A small high grade pocket was found next to this fault. The drift was continued on from the fault on the vein making a total length of 510 feet. Some quartz shows (note red on sketch), but was reported as of low grade.

Later the Evis tunnel was started on the Goo Goo Extension claim. The portal of this tunnel is located 300 feet back from the beach at an elevation of 60 feet. The Goo Goo tunnel is 44 feet higher and the highest outcrop between the tunnels is 205 feet. This tunnel on date of visit had a total length of 890 feet and mining was in progress at the face. The general strike of the tunnel is N. 63° E. This tunnel cuts greenstone-schists which in places are highly schistose. At a point 430 feet from the portal a small dike or metamorphosed limestone band was cut and quartz begins on the vein. The quartz continues to the face and varies from one foot to twelve feet in width. It appears irregular with tight to free walls. Numerous small stringers cut into the vein from various angles. Two small parallel quartz veins exist in the footwall. They are only a few inches in width,

but show movement, and spotty values were reported. Three short crosscuts were driven into the footwall which cut these veins. At a point 640' from the adit a raise was put through to the surface a distance of 108 feet. Good values were found near the surface in this raise. This raise is used as a ventilation raise.

Mineralization:

The mineralization as found along the vein is very unevenly distributed. The schisted walls in places are mineralized with pyrite and were reported to contain low gold values. The high grade values are confined to small pockets distributed along the vein. The quartz generally contains a low grade gold value. The ore minerals found in the quartz are free gold, pyrite in both fine and large crystals, chalcopyrite, sphalerite and galena. The fine pyrite crystals are mainly along the slips and places of movement, and it was reported to carry the highest gold values. The highest values are usually associated with the galena and sphalerite. The gangue minerals are quartz, calcite, sericite, chlorite and pieces of wall rock. The assays reported from the quartz vein in the tunnels ranged from one dollar to twenty dollars per ton. The surface assays from the cuts were reported as averaging higher than the average tunnel assay.

Machinery, etc.:

This corporation has installed a 80 H. P. diesel on the beach that operates a 10x12" single stage Ingersoll-Rand compressor. This furnishes power for the mine work. They have been operating a small 2-ton Gibson mill with a 18x20" Wilfley table. These are run by a 1½ H. P. gasoline engine. This mill is operated to test the free milling qualities of the ore and to mill the high grade ore found in the rich pockets. Electric lights for camp use is furnished along with water by the small hydro-electric plant built by the old Peerless Mining Company and now owned by Lyle and Company. This company owns the adjoining property to the south. Reports since were that this property and plant were taken over by the Evis Mining Corporation.

The camp consists of new combination bunk house, cook house and dry room, a small compressor house, assay office, and small mill building. Mr. Geo. E. Jackson is the company's representative with head offices in Tacoma, Washington.