

*Examined by  
J. 1935 & described  
in minor Am. Rep.  
F52-F54*

*Work done since then appears to be  
in #3 adit, in cut 120' more drifting  
stone, probably some more open-cut work,  
in adit.*

EL CAPITAN GROUP

005872

The El Capitan Group of six mineral claims (El Capitan, El Capitan No. 1, El Capitan No. 2, El Capitan No. 3, El Capitan No. 4 and Ace) is about five miles due north of the town of Youbou on the north shore of Cowichan Lake. The claims are reached by private logging road and trail from Youbou. The logging road crosses the Canadian National Railway one mile west of Youbou and follows the west bank of Cottonwood Creek for one mile. A fair trail continues up Cottonwood Creek about five miles to a small cirque lake at an elevation of 3,850 feet above sea level. Workings on the El Capitan claims are about 2,000 feet east of the lake on either side of a mountainous divide between Cottonwood Creek and Chemainus River. They include two short adits No. 1 and No. 2 at elevations of 4,550 and 4,500 feet above sea level on the east side of the divide, and one adit, No. 3, at 4,300 feet on the west side of the divide. The workings on the Ace mineral claims, 1,500

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feet north-west of the lake, include two short adits and several open cuts between elevations of 3,850 and 4,000 feet above sea level.

Steep bluffs, heather slopes and patches of alpine timber form the landscape near the workings. Snow covers the area for five or six months of the year.

As the workings lie within the Esquimalt and Nanaimo Railway Land Grant a royalty may be claimed by the railway company on ore shipped.

### Geology

The claims lie within an area of relatively flat lying flows which overlie the Sicker sediments. The flows are mainly porphyritic andesites containing phenocrysts of white-weathering feldspar up to 3 mm. long set in a dark green sphalerite ground-mass. They are generally massive but in places poorly developed columnar jointing is exposed and near flow contacts calcite amygdules are common.

El Capitan Claims

The adits on the El Capitan claims have been driven to explore an easterly striking steeply dipping shear zone containing sheared porphyritic andesite and oxidation products of iron and copper. The main shear zone follows the south wall of a hornblende porphyry dyke containing dark hornblende phenocrysts up to 3 mm. long in a light coloured aphanitic groundmass. The dyke which averages 10 feet wide, strikes about north 30° west, and dips steeply southward on the east side of the divide but on the west side of the divide the dip is vertical and steep northward. The shear zone can be traced on the steeply sloping surface for a distance equivalent to about 200 feet horizontally and about 200 feet vertically. The sheared and oxidized material is nowhere more than four feet wide but in places shearing shows on both sides of the dyke. Below No. 2 portal on the east slope of the divide, no oxidized material can be seen in the shear zone and a short distance east little or

no shearing can be seen on either side of the dyke. On the west side of the divide the dyke and shear zone are exposed to within a short distance of No. 3 adit, but below the adit, and for a short distance above it they are drift-covered. Of samples taken in what appeared to be the highest grade material the highest, from the face of No. 2 adit, assayed: Gold, 0.96 oz. per ton; silver, 0.6 oz. per ton, and most assayed less than half of this.

In No. 1 adit the shear zone, containing sheared andesite and rusty oxidized material is  $2\frac{1}{2}$  feet wide at the portal, 4 feet wide 25 feet from the portal and branches to two zones 6 to 8 inches wide near the face. Of four samples in No. 1 adit the highest taken 25 feet from the portal, across a width of 2 feet, assayed: Gold, 0.42 oz. per ton; silver, 0.3 oz. per ton.

No. 2 adit follows the same shear zone, the hornblende porphyry dyke forming the north wall of the adit. The shear zone varies in attitude and width and the oxide-bearing zones are discontinuous.

No. 3 adit on the west side of the divide was driven in the hope of encountering the shear zone found in No. 1 and No. 2 adits. The hornblende porphyry dyke and shear zone are not exposed in No. 3 adit but are reported to have been found some 20 feet north of the adit in two crosscuts now filled with waste rocks. The adit follows a continuous shear zone, parallel to the main shear zone and containing sheared andesite, but no rusty oxidized material. A little copper stain shows on the wall of the adit about 20 feet from the portal and a small chalcopyrite-bearing quartz stringer is exposed in the face.

#### Ace Claim

The workings on the Ace claim expose a more or less continuous shear zone striking north  $70^{\circ}$  northward. In the upper adit at an elevation of 3,975 feet above sea level, sheared porphyritic andesite containing porous iron oxides is exposed for

a distance of 60 feet. Two irregular quartz veinlets about six inches wide show in the face, and a few masses of quartz are exposed at intervals between the face and the portal. A sample taken across 2.5 feet in the face contained no gold or silver, and one taken about 20 feet from the face, across 2 feet, made up of heavily oxidized material assayed: Gold, 0.12 oz. per ton; silver, 0.60 oz. per ton.

Two open cuts and two short adits have been made in the hillside below the upper adit and expose several minor faults containing 6 to 8 inches of sheared andesite and local concentrations of iron oxides. In the lower of the two cuts some pyrite and pyrrhotite are disseminated through the andesite. The lowest adit at 3,850 feet elevation follows what is probably the same shear zone as the adits and open-cuts above. Only sheared andesite shows in this adit, but material on the waste dump, reported to have been taken from a small lens of sulphides near the portal contains

massive sulphides. These include pyrite, pyrrhotite, arsenopyrite, chalcopyrite, and probably cobalt sulphides as some samples are coated with erythrite. Two specimens were tested with a Geiger Counter but no radioactivity could be detected.

All samples taken on the Ace and El Capitan claims were analysed by means of the spectrograph. No base metals of economic value were detected except copper which was present in most samples, amounting to a fraction of 1%.