

INTRODUCTION

The CHUM claim group consists of 65 located federal claims. This assessment report deals with the 39 claims that were staked before Sept. 1, 1978, shown in Fig. 2.

The claim group is 8 mi. north of Hyder (Fig. 1). It is bounded on the east by the B.C. - Alaska border and on the west and southwest by the Virginia patents, the Daly Alaska patents, the TAU state claims and the Mineral Basin federal claims.

Access is via a foot trail from near Elevenmile on the Premier road or via a 4WD road to Skookum L. The terrain is variably steep and heavily vegetated with hemlock, spruce and underbrush consisting mainly of blueberry bushes and devil's club. The upper part of the property is at the tree line (about 3000 ft. elevation).

Current owner and operator is Houston Oil and Minerals Corp. of Denver. Economic assessment of the property is being carried out with the first step consisting of geological mapping at a scale of 1 " = 1000 ft. and locating and assay sampling previously known showings on the property. To facilitate access, pack trails constructed in the 1920's were relocated and brushed out.

GEOLOGY

General

A preliminary geological map of the property is presented as Fig. 3. Fig. 4 is a more detailed map of the Stoner workings.

The property is entirely underlain by volcanic and sedimentary

rocks of the Hazelton group. The Hazelton group is generally considered to be upper Jurassic in age in the type Hazelton area (R.V. Richards, 1974, Hazelton map area, Geological Survey of Canada, Annual Report 75, Section A), but in the Hyder area it may be upper Triassic, since the Texas Creek granodiorite has been dated at about 200 m.y. (J.G. Smith, 1977, Geology of the Ketchikan D-1 and Bradfield Canal A-1 quadrangles, Southeastern Alaska, U.S.G.S. Bulletin 145).

Eocene (about 50 m.y. Old) dikes of granodiorite emanating from the Hyder Quartz Monzonite intrusion criss-cross the property.

Except for the creek bottoms, outcrops are scarce, and no marker horizons have been defined. However, on a regional basis, units strike northerly and dip steeply west. On the property, the north-trending steeply dipping contact between andesitic fragmentals (Unit 1) and a sequence of mixed volcanic sediments and tuffs (Unit 2) cannot be traced continuously. In part this is due to poor outcrop in critical areas, but it is also likely that the contact is offset along NW trending faults that parallel Boundary Creek.

Metamorphic grade is greenschist facies.

Lithology

Unit 1

Rocks of Unit 1 are intermediate volcanics. Unit 1a consists of green andesitic fragmentals that are mainly tuffs, with some possible flows. Unit 1b consists of porphyritic andesite flows or sills, with some possible dikes. The main difference from Unit 1a is the presence of large (up to 2 Or 3 centimeters in diameter),

euohedral, zoned, sanidine crystals. Other smaller phenocrysts present are rounded quartz, euohedral hornblende and plagioclase. Unit 1c is light grey green dacitic fragmentals, usually either lapilli tuff or breccia. Unit 1d is felsic fragmentals, mainly siliceous tuff.

Unit 2

These are mixed sediments and volcanoclastics. Unit 2a consists of green andesitic to dacitic fragmentals, mainly tuff with some possible flows. The rocks are similar to Unit 1a, except for the lithologic association. Unit 2b is black shaley to silty tuff and lapilli tuff. Fragments are dacitic in composition and subangular and the unit is commonly well bedded. Unit 2c consists of felsic fragmentals, mainly pyritic quartz-sericite tuff, which is commonly interbedded with Unit 2b. Unit 2c is similar to Unit 1d, with the exception of the lithologic association. Unit 2d is a well-bedded graywacke-grit sequence.

Unit 3

Texas Creek Granodiorite is an equigranular hornblende granodiorite with potassium feldspar phenocrysts in a medium-grained, equigranular groundmass. Unit 3b is a chloritic, more mafic border facies or altered phase of the intrusion.

Unit Th

These are Tertiary (about 50 m.y. old) granodiorite dikes emanating from the Hyder Quartz Monzonite pluton described by Smith (J.G. Smith, 1977, Geology of the Ketchikan D-1 and Bradfield Canal A-1 quadrangles, S.E. Alaska, U.S.G.S. Bulletin 1425). The main constituents are feldspar, hornblende and quartz. The rock is leucocratic, medium to coarse grained and equigranular.

MINERALIZATION

The only known area of significant mineralization on the CHUM claim group is the Stoner showing. This showing lies at about 1450 ft. elevation on the northern branch of the Daly trail on CHUM 1006. There are two adits, a 12 ft. deep shaft and three trenches (Fig. 4). The host rock is a fine grained green andesitic tuff. Feldspar and hornblende porphyritic andesite were seen in the easternmost trench and the upper adit.

According to Buddington, 1929, Geology of the Hyder Vicinity, SE Alaska, U.S.G.S., Bulletin 807, massive sulfide mineralization was up to 7 ft. thick. Work subsequent to Buddington's visit extended significant but apparently discontinuous mineralization over 250 ft. in a series of trenches and adits. Semi-massive pyrite-sphalerite-galena-arsenopyrite occurs interstitially to a siliceous lapilli tuff or felsic volcanic breccia. Coarse grained pyrite with very fine grained $\frac{1}{4}$ - $\frac{1}{2}$ in. wispy bands of sphalerite and galena was also observed on the muck piles. Less commonly, semi-massive sulfides consisting of pyrite, euhedral arsenopyrite, pyrrhotite and chalcopryite (in decreasing order of abundance) occur in a white quartz matrix. In the trenches and adits the mineralization is discontinuous, patchy and may be fault controlled.

Five soil, 4 rock geochemistry and 8 assay samples were taken. These samples were analysed after Sept. 1, 1979 and results will be reported in the 1980 assessment report.