PRELIMINARY REPORT OF HUSKY GROUP,
CANYON CREEK, EAGLE RIVER DISTRICT, JUNEAU GOLD BELT,
July 14, 1936.

Location and Accessibility:

The Husky Group of four claims lies five and one-half miles due north of the end of the road at Eagle River landing. By trail the distance is slightly over eight and half miles from the above point. To reach this property the Eagle River-Yankee Basin trail is followed to the cabin in Yankee Basin a distance of seven and a half miles. This trail has been completely reconditioned this season by the Forest Service and it is suitable for pack horses to this cabin. From the cabin north over a summit elevation of 2040' and a distance over a mile, the trail leads to the showings located on the north slope at the head of Canyon Creek. This trail is too steep for pack horses. Supplies were packed on packboards from the cabin to the operations this season. Horses were used over the trail to the cabin from Eagle River.

Owner:

The Husky Group is owned by Victor Spaulding of Juneau, Alaska. Last year the property was leased to K. Aschenbrenner and H. E. Young for a period of five years. This group contains the old showings and workings of the old E. Pluribus Unum and Black Chief prospects. These were staked and the amount of development work was done prior to 1909, at which time these prospects were visited by Adolph Knopf of the U. S. Geological Survey. A short description is given in his report, Bull. 502, "The Eagle River Region, Alaska," pp. 50-51.

Geology:

The formations in which these showings are inclosed are mainly graywacke and slate and classified as Berners formation of upper Jurassic or lower Cretaceous age. The slates vary from gray to black clay slates with a schistose structure. Considerable foliation and minor folding is evident in some of the slate bands. Stringer lodes of various lengths and widths are evident in many places in the formation in this region. The E Pluribus Unum lode is a stringer lode that varies in width twenty to forty feet. This zone can be traced from the showings on the steep slope south four thousand feet. In the center of this stringer zone, a fissure vein of later origin has developed. This vein consists mainly of quartz and it has an average width of two to four feet. It contains higher gold values than the silicified stringer zone walls. Along the walls of the fissure later horizontal movement has developed which has been sufficient to form small open spaces which have in turn been filled with silica and mineral solutions. These small lenses represent the high grade ore and contain a lower temperature type of mineralization.

Such is the small high grade lense above No. 2 tunnel which was being mined on the date of visit. This lense has an exposed length of 26 feet and its greatest width in the center is 18 inches. Assays vary across this lense from $100 to $300 per ton in gold. The three stages of ore development each with its limitations, modes of occurrence and corresponding values is evident in the showings of this lode. The three types of ore deposition represent:

1. Stringer lode type
2. Fissure vein type developed within and later than the stringer lode
3. High grade lenticular type formed along the walls of the fissure by horizontal movement.

To any one making a study of the ore deposits of this region or to any one prospecting, it is well to bear these three types in mind with a view to searching for more of these high grade lenses and fissure veins along the several parallel stringer lodes in the slate and graywacke formation of this region. Also in the greenstone bordering the slate and graywacke on the west a short high grade lense was discovered on the Rex claim in the Yankee Basin to the south. $3,000 was reported taken from this small vein, U. S. G. S. Bull. 287, "The Juneau Gold Belt, Alaska" by A. C. Spencer, pp. 131-132. Portions of the stringer lodes themselves are well mineralized and may contain sufficient values to constitute ore if they were systematically prospected, opened up and sampled.

Development:

The development work, most of which was done prior to 1909, consists of two tunnels and several rock cuts and trenches along the strike of the E. Pluribus Unum lode. No. 1 tunnel is situated at an elevation of 1700' on the steep slope five to six hundred feet south of Canyon Creek near its head. The tunnel is over 200' in length with 75' of crosscuts and it contains one 60' raise through to No. 2 tunnel above and a short raise up 30' on a 45° incline. This tunnel was driven to undercut the high grade lense of ore above. The stringer zone was encountered but the lense was not.

No. 2 tunnel crosscuts the lode for a distance of 40' and turns following the lode for a distance of 10'. This tunnel work was done later than 1909. It was not extended far enough to encounter the lense above. Three channel samples were taken along the south side across portions of this zone. (Note accompanying sketch). Sample No. 37 contained the greatest amount of quartz and represents the fissure vein portion of the lode and shows the best value. The opencut above No. 2 tunnel is the scene of the present mining. The high grade lense has been mined to a depth of 14' below the surface and for a distance of 26'. It varies in width on each end from a couple of inches to 18". The vein has a strike N. 56° W. and dips 61° SW. The dip along the vein is variable. Approximately 15 tons of this high grade ore has been mined and milled to date.

Mineralization:

The mineralization of the small veinlets in the stringer zone contain variable amounts of pyrite and occasionally a crystal of galena and arsenopyrite. The same is true of the quartz of the fissure vein with greater amounts of arsenopyrite and pyrite. In the high grade lense this mineralization occurs in greater amounts with additional higher gold values. In the ore of this lense a fine bluish mineral was seen that appeared softer than galena and nearly the same color. This was particularly noted on the small concentrating table that was in operation. This blue concentrate overrode the riffles of the table and to determine, a sample of concentrate was sent to the Geological Survey at College, Alaska for a qualitative analysis. The following reply was received:

"A qualitative analysis was run on your sample of concentrate. the following significant metals were found present: Lead, arsenic, antimony and iron. Under the microscope the concentrate revealed no flakes or flat particles which would eliminate graphite or molybdenite. As no copper was found, the minerals of this metal were eliminated.

"From the qualitative analysis, there are approximately equal amounts of antimony and arsenic present. From the known minerals pyrite, arsenopyrite, and galena, the antimony is unaccounted for. Therefore, I would say that the unknown fine bluish metal (?) which you mention as going over the side of the concentrating table is the mineral stibnite. A known sample of stibnite when crushed and panned appears the same as the bluish concentrate from your sample.

(Signed) Wm. T. Burns,
Asst. Anal. Chemist,
Sept. 24, 1936."

This mineral stibnite is apparently lacking in the other quartz of the fissure vein and stringers of the lode and shows the lense to be of a later and formed under cooler temperatures than the other quartz. The occurrence of this mineral along the Juneau Gold Belt is exceedingly rare.

Machinery:

Last year a two-ton Gibson mill was erected at the mouth of No. 2 tunnel. This mill is run by a 1½ H. P. Fairbanks-Morse gasoline engine which also operates a 3-ton capacity Wilfley table. The ore from the high grade lense was lowered in buckets over an aerial cable and fed to the mill by hand. Last year a few ounces of gold was recovered and 1456 pounds of concentrates were shipped to the smelter at

Tacoma which netted $716 for the amount. This year eight ounces of gold has been recovered from amalgam and concentrates on hand of approximately 1,000 pounds. A sample of the heads, plates, and tailing was taken during the operations of the mill on the date of visit. The results are:

Sample No.	Description	Oz. Per Ton	
		Gold	Silver
39	Battery (Heads)	2.82	1.4
40	Plate Sample	1.20	0.1
41	Tailing Sample	0.78	Trace

This shows a large percentage loss in the tailings.

Black Chief Lode:

The Black Chief showing, which is located 600' east of the E. Pluribus Unum, represents another parallel stringer lode in graywacke and slate formation. This shear zone ranges from a few feet to 20 feet in width in highly metamorphosed slate and is exposed in the bed of a small creek. The formation strikes N. 56° W. and dips 70° NE. The shear zone which contains reticulated quartz stringers and quartz bunches, strikes N. 47° W. and dips 78° SW. cutting the formation at a very slight angle and making a zone of crushed material of wall rock and quartz.

The tunnel, elevation 1700', has a length of 300' and cuts the zone. Small quartz stringers and bunches of quartz extend across a width of 10 feet. The quartz contains abundant amounts of calcite, chlorite and a little pyrite. This tunnel was driven to undercut a bunch of impure quartz that outcrops 150' south and 60' above in the bed of the creek. This quartz varies from 3 to 4' in width and extends several feet along the stream bed. Bunches of heavy mineralization of pyrite, arsenopyrite, galena and sphalerite occur in masses in the quartz. This bunch or vein was not encountered in the tunnel. The mineralization is apparently of a more basic nature than that of the E. Pluribus Unum. The shear zone extends further up the creek with various amounts of mineralization in the crumpled and crushed slates.