

HYDER DISTRICT

In the Hyder district the interest in prospecting was greater in the summer of 1937 than it had been for several years. In Canada the Premier mine is milling about 600 tons a day from property which it acquired by consolidation after working out its own large, high grade vein. The Big Missouri is getting ready for production by erecting a 250-ton concentrator underground. The opinion in Hyder is that one or possibly two more units will be added to the initial installation.

On the American side of the boundary the discovery by Larry Thornton of high grade ore on the Solo group, which is located 1-3/4 ¹²¹¹⁸⁻¹⁸ miles north of the end of the Texas Creek road, was the first discovery of high grade made in several years. Sam Swenning spent most of the summer prospecting on the south slope of International Mountain and on the southeast side of Through Glacier. Phillips and Goldberg did some prospecting on International Mountain on the ridge north of the Solo group. These two men and associates relocated the Hyder lead and did some development work on the Engineer claims. Assessment work was performed on the Homestake and Ibex groups and Frank Blasher did assessment work on some of the claims near the head of Texas Creek which he holds. The claims east of Salmon River in the Fish Creek area are being held by their locators.

Ibex Group (Texas Creek Mining Co.): *118-31

The Ibex group consists of two groups of claims - the Ibex, 6 claims, and the Silver Star, 2 claims. The Silver Star, so called in U. S. G. S. Bull. 807, p. 97, is now called the McVey. The claims are owned by Frank Riechenbach and James Hewitt and are located on the mountain-side above the Texas Creek road, 17 1/2 miles from Hyder.

The McVey vein is exposed in a dry creek bed 75 feet west of the Ibex trail at an elevation of 3050 feet. A fissure vein from 1 1/2 to 3 feet wide strikes N. 20° W. and dips 75° E. The walls are diorite and considerable movement in the plane of the vein is shown. The vein filling is quartz and is lightly mineralized with pyrite and galena. Three samples, Nos. 153, 154 and 155, were taken over a vertical range of 30 feet, the highest assay showing .34 ounces of silver.

Higher on the McVey claims at about 3400 feet elevation a brecciated zone containing quartz stringers, with widths from 9 to 18 inches, mineralized with galena and minor chalcopyrite is exposed. The general strike of the stringers is the same as the lower exposure on these claims. The walls are diorite, but the outcrop is less than 100 feet below the contact with argillite. Three samples, Nos. 156, 157 and 158 were taken across highly mineralized stringers. The highest assay showed 2.56 ounces of silver.

*The writer's barometer readings along Texas Creek appear to be about 300 feet lower than Buddington's, Bull. 807.

On Ibox No. 1 a vein from 9 to 18 inches wide, striking N. 5° W. and dipping 80° E., cuts across a steep gulch at elevation 3500. The vein is in argillite and is filled with a small amount of quartz, which is heavily mineralized with galena. The vein is exposed for about 75 feet on the strike and nearly the same distance vertically. It is displaced a few feet by a fault in the west side of the gulch and is cut and displaced a few feet by two dikes on the east side of the gulch. A drift has been run 20 feet on the vein on the east side of the gulch. Three samples, Nos. 159, 160 and 161, were taken across widths ranging from 9 to 18 inches and included the heavy sulphides, and the assays were as follows: Ag. 5.86 oz.; Au. .02, Ag. 12.26 oz.; Ag. 14.5 oz. The last assay gave the highest value, which was \$6.50.

A 130-foot tunnel, at an elevation of about 100 feet below this outcrop, did not tap the vein and was not visited by the writer. A showing on Ibox No. 3, several hundred feet farther up Ibox Creek, was not visited.

Silver Bell: K118-28

The Silver Bell group, consisting of 5 claims, lies on the slope to the north of the Texas Creek road, adjoins the Ibox group on the east, and is owned by Joe Connors. On Silver Bell No. 1 at 4000 feet elevation a vein varying in width from 2 to 20 inches was visible for 20 feet. Some earlier exposures had been covered by slide rock. The vein strikes N. 60° W., dips 45° N. and is cut by two small faults with a 2-foot displacement. A quartz filling occurs in a narrow brecciated zone between argillite and graywacke, and the quartz contains variable amounts of galena and chalcopyrite. Sample No. 162 was cut 19 inches wide and contained approximately 60% galena, assay showing 2.92 oz. silver. Sample 163 was taken 15 feet from No. 162 and was highly mineralized. It contained 60% galena and assayed 3.36 oz. silver.

On Silver Bell No. 2 at an elevation of 4100 feet a coarse grained porphyritic diorite dike 20 feet wide, with a strike N. 60° W. and vertical dip, is intrusive into argillite. On the south wall a quartz stringer with variable sulphide mineralization, principally galena, has an average width of 3 inches. Sample No. 164 contained 3 cuts across the stringer and contained an average sulphide content, assay value 3.36 oz. silver. The 1-inch quartz stringer on the north wall of the dike was not sampled.

It is reported by Connors that high grade float similar to the float found by Thornton on the Solo group has been found on this group of claims.

Homestake: KX 118-33

The Homestake group consisting of 7 claims and a fraction, is located on a good pack trail about $1\frac{1}{4}$ miles north of Mile 16 $\frac{1}{2}$ on the Texas Creek highway. A cabin is located at 2300 feet elevation. The owners are Gail Rosenstein and J. Duff.

A quartz vein containing spots highly mineralized with steel galena at elevation 3250 outcrops about 40 feet above the base of a cliff and a 20-foot crosscut and winze cut the vein about 20 feet below the outcrop. The vein strikes N. 15° E., dips 45° E., and has diorite on both the foot and hanging walls. The footwall is free, but quartz stringers extend a foot or more into the hanging, and the quartz filled portion of the vein averages about 3 feet wide. Some chalcopyrite and pyrite are visible in the vein. Sample No. 165, 2'8" wide, was taken on the north side of the crosscut and assayed gold .26 oz., silver .92 oz. Sample No. 166 across the same width on the north side assayed gold .04 oz., and silver 3.7 oz.

A 9 $\frac{1}{2}$ -ton hand sorted ore shipment was made from this vein to Selby in 1925 and the smelter paid \$83.72 per ton after deducting smelting loss and base charge. A copy of the smelter statement and plat of claims are attached to this report. Both were furnished by Mr. Rosenstein.

A tunnel to cut the vein in depth was started from the side of the ridge opposite to the crosscut. It is reported the crosscut is advanced 70 feet and 200 to 250 feet more drifting is necessary to cut the vein.

The vein shows mineralization for a distance of 100 feet on the strike, but it has not been prospected in depth and does not appear to warrant the \$10,000 in cash which Rosenstein is asking for the property.

Hyder Lead: KX 118-16

The Hyder Lead has been restaked by Frank Fisher, Goldberg, et al. and consists of a number of claims which were included in the old Hyder Lead group. The claims are on the south side of Texas Creek near Mile 21, the principal holdings being between small glaciers just north of Ferguson Glacier. Considerable work was done on this property by the old Hyder Lead Company and the veins and mineralization are described in considerable detail in U. S. G. S. Bull. 807, pp. 102-108. Two tunnels have been driven on the property since Buddington's visit in 1925, and these tunnels were examined and significant samples taken.

Copy

San Francisco Oct. 17, 19, 1925

RECEIVED OF

Carlson and Hewitt

American Smelting and Refining Co.
Selby Smelting Works

180 sacks gross 19140 #

Tare 170 18970

Moisture 1% 190

NET DRY WEIGHT 18780

Percentages and Prices Debit Credit

Gold .29 oza.	less 5% @20.	5.51
silver 22.87	" " @ .70 $\frac{3}{4}$	15.37
lead 50.0 $1\frac{1}{2}$ 48,5 %	" 10% @ 9.50 less $1\frac{1}{2}$ % = 8.00	69.84
Inslo. 24%		
Iron 6.3%	Base charge	7.00
Zinc .7%	Value per ton	83.72
Sulphur 12.5%		

Value of 18780 lbs. @ 82.72 per ton 78623

Freight at Selby 78.71

NET PROCEEDS 707.42

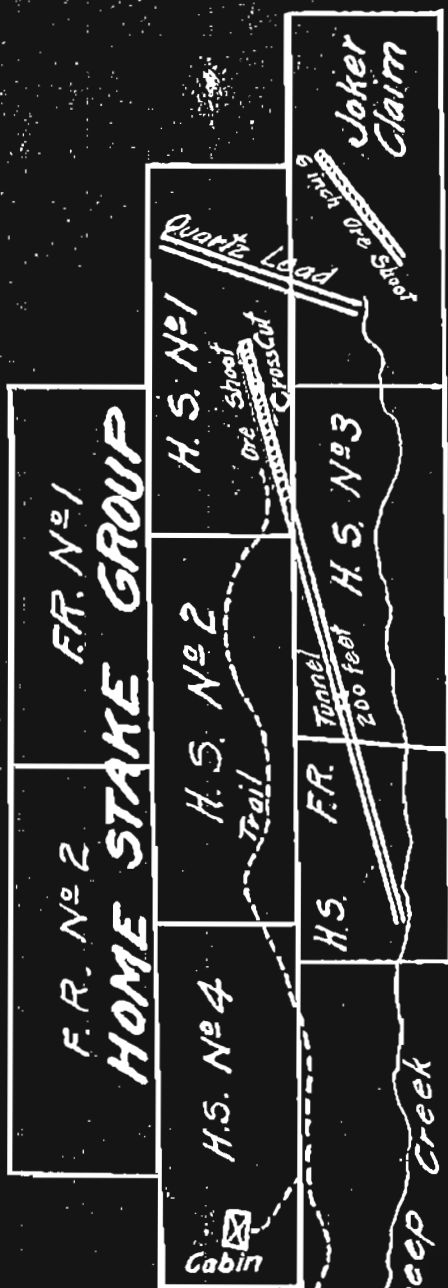
HOMESTAKE GROUP Yael Rosenstein Hyder owner.

The property lies on the south side of Texas Creek between two glaciers opposite Mile 21 on the highway. At an elevation of 3500 feet on the east side of the hogback between the glaciers a tunnel has been driven 120 feet on a sparsely mineralized quartz vein. The vein is in graywacke, strikes N. 55° W. and dips 65° N. It is offset to the south at the end of the tunnel and is also affected by a dip fault. At the fault three 25-foot drifts had been driven to locate the vein without success. The direction of faulting was determined, but the vein extension was not seen. The vein varies from 4 to 16 inches in width and carries small shoots of galena with minor pyrite. A sample across 6 inches, taken 100 feet from the portal and a 15-inch sample taken 85 feet from the portal, showed no silver or gold values.

Hyder Lead (Jo Jo Vein): 4 118 33

The Jo Jo vein is described by Buddington in Bull. 807, pp. 104-105. The writer covered most of the outcrops and found it visible along the strike for 250 feet and over a vertical elevation of 400 feet. The vein is offset by several faults of slight throw. White quartz is the principal fissure filling with small localized spots containing galena, pyrite and chalcopyrite. At elevation 3740 a 40-foot tunnel had been driven on the vein which averages 3½ feet wide, strikes N. 35° W. and dips 50° E. Samples were not taken in this tunnel as practically no mineralization was apparent. A 300-foot tunnel has been driven on the vein at elevation 3940 feet. The vein walls are in graywacke and the width varies from 8 inches to 4 feet with 30 inches as the average. Two slight faults are visible in the tunnel. Five samples were taken in the tunnel and three assays showed no value and returns have not been received on the other two.

A good sized camp building which was covered with corrugated iron is fast going to pieces. Rails which are in good condition are laid to the face in the upper tunnel and a good mine car and 3 H. P. gas engine are at the upper tunnel.



*H. G. Wilcox**MR 191-4
By: H. G. Wilcox*Solo Group: 118-18

The Solo group consists of 6 claims which lie on the westerly mountain slope above the junction of Chickamin and Texas glaciers with vein exposures ranging from 3800 to 4200 foot elevations. A good pack trail $3\frac{1}{2}$ miles in length connects the property with the end of the West Texas Creek road. A small, comfortable cabin large enough to accommodate four men is located at the end of the trail at an elevation of 4220 feet.

Plate 2, U. S. G. S. Bull. 807, shows the location of the property as prospect No. 44, "Silver King." On page 99 and 100 of the bulletin it is stated that this ground was first located by Angus Kennedy August 28, 1925 and a description of two outcrops is given. The property has been known by two or three different names since the original staking and the present owner is the Solo Mining Corp., of which Lawrence C. Thornton is the principal stockholder.

The two outcrops mentioned in bulletin 807 were examined. The strike and dip at the outcrops were approximately the same, strike N. 25° W., with a 25° dip to the NE. The outcrops are about 200 yards apart, but there is no vein visible between the outcrops. A 10-foot tunnel was driven at elevations 3900 feet on the upper outcrop which showed lightly mineralized quartz stringers cutting a light colored dike. Galena, sphalerite, pyrrhotite and pyrite were visible in the vein. A sample was not taken. The lower vein is 4 inches to 24 inches wide, and is exposed for 70 feet at elevation 3800 feet. The quartz occupies a fissure in argillite and is frozen on both walls. The vein is offset about 30 feet by a vertical fault. Galena is the major mineral, with minor sphalerite and chalcopryite. A sample taken across 2 feet where the vein was widened by intersection with a cross fracture assayed Au. .12, Ag. 5.62 ounces per ton. A sample taken across 10 inches, at a point 10 feet north of the above sample yielded no value in gold or silver. A parallel ledge outcrops on the face of a bluff about 50 feet below the sampled lead. Thornton reports they sampled this ledge by using rope slings, but the results were the same as obtained on the ledge at the top of the bluff. The upper outcrop is on Solo No. 1 and the lower showings on Solo No. 3 claim.

The principal work on the group of claims has been performed on Solo No2 claim. High grade float, containing free gold and a native gold-silver alloy, which appears to be electrum, judging by returns on several assays run on the ore by the assayer at the Premier, was found on the mountainside below the edge of an ice cap which covers the mountain above. For the past few years Thornton has been prospecting for the high grade ledge by running tunnels through the ice to the solid rock and then tunneling in the ice along the rock face. Thornton estimates he had driven over 6000 feet of tunnel in the ice before he discovered the high grade in place in April, 1937. In addition considerable exploratory work was accomplished by examining the rock where it was exposed in natural caves and rooms which exist under the ice.

At the time of the visit to this property on August 1, 1937, a 100-foot tunnel had been driven in the ice at elevation 4160 feet to the vein, and a 100-foot raise in the ice followed along the surface of the vein. About 60 feet more had to be driven in the ice and along the vein to reach the place where the high grade had been found in April. In clear ice the tunnel can be advanced 15 feet a day, but in ice containing rock fragments 5 feet is the average. The ice is mined with pick and shovel and a sled is used to haul the ice to the portal of the tunnel. The ice tunnels gradually close due to movement in the ice cap. A tunnel which parallels the ice face will be impassable in three weeks, but a tunnel driven at right angles to the ice face will be passable four to five weeks.

In April 70 pounds of high grade ore was taken from the vein and milled at Thorne Arm. Approximately \$630 was recovered from the 70 pounds. A letter from Thornton dated December 29, 1937 stated that 25 tons of ore was taken out this past summer with indicated assay values of \$400 per ton "Premier" sample to \$9.50 a ton, Thornton's sample. About 1000 pounds of high grade, approximate value \$2 per pound, was shipped to Tacoma for treatment.

The vein which contains the high grade is visible on the mountainside for 400 feet below the ice and had been sampled, but only low values were obtained and it was not known that the high grade was coming from this vein until the pocket was found last April.

The vein varies from $1\frac{1}{2}$ feet to 5 feet wide and consists of cemented brecciated material, the cementing material being calcite with a slightly lesser amount of quartz. The vein strikes N. 65° W. and dips 40° SW. It is transverse to the strike of the argillite and graywacke. The vein consists of two distinct parts or bands--on the hanging wall a band 8 to 18 inches wide of angular breccia, with only a small amount of cementing material, is darker colored than the main portion of the vein and is separated from the main portion by a plane showing movement. The main part of the vein contains cemented fragments that are more rounded than the hanging wall band. In most places both walls are free, but along some portions of the vein calcite and quartz stringers extend into the walls, more especially the footwall.

Two hundred and fifty feet below the ice tunnel three samples were taken across the vein. A sample taken across 18 inches of the hanging wall band, which showed no cementing material, gave no gold or silver values. The main part of the vein is 37 inches wide at this point. A sample taken across 15 inches next the hanging wall showed no cementing material and yielded no values. A sample across 2 feet on the footwall side, which showed calcite veining and very light sulphides, pyrite, gave a 70 cent assay in gold. A sample taken from a spot in the vein showing the highest sulphide content assayed 17.18 ounces in silver. A sample was taken across the vein where exposed in the ice

raise, 170 feet from the portal, where 20 inches assayed 3.28 ounces silver. A sample taken across a 1-foot width on the hanging wall band, 150 feet from the portal, assayed .22 ounces silver, and a sample across 9 inches gave no value. A chipped grab sample taken from one ton of broken rock blasted from the vein at a point 170 feet from the portal assayed 2.42 ounces silver.

The high grade ore is reported as being extremely spotty-- 100 pounds may show considerable free gold and the vein material adjacent may be practically barren.

Thornton is planning on starting operations below the ice cap by drifting on the vein.

Blazer Extension: KX 118-19

Frank Blazer holds three claims on the north slope above the Chickamin Glacier. The claims are about half a mile south of the Solo group and lie in general between 3600 and 4100 feet altitude. The country rock is mainly graywacke with some intercalated slate. At an elevation of 4000 feet on Extension No. 3, and at a point a few feet below the Solo trail a mineralized zone is exposed for 125 feet. A shattered zone 3 to 4 feet wide runs at a slight angle to the bedding which strikes N. 70° W. and this zone is lightly mineralized with galena, chalcopryite and pyrite. Two samples were taken across 30 and 18 inches. The first sample yielded no values and the second assayed 0.14 ounces silver.

On Blazer Extension No. 1 at an elevation of 3600 feet a shear zone 2 feet wide, parallel to the bedding, is exposed on a small creek bank. Small discontinuous, highly mineralized streaks occur in this zone and contain sphalerite, galena, chalcopryite and pyrite. A sample was taken across a 3-inch stringer, but no return was received on the sample.

Engineer Group: KX 118-23

The Engineer Group of five claims lies on the east side of Ferguson Glacier about a mile from the end of the ice. They were staked by Bervagua in 1924, but are now owned by Fisher, Goldberg and Phillips.

The vein, which ranges from 2 feet to 4 feet in width, lies in the granite near the contact and included blocks of graywacke form the vein walls in some places. The vein consists principally of quartz with lightly disseminated sulphides of chalcopryite, pyrite, galena and sphalerite. Heavily mineralized shoots, some consisting principally of chalcopryite and pyrite, and others composed chiefly of galena and pyrite, occur in the vein. These shoots are quite irregular and range in width from 5 inches to 30 feet, and in length up to 30 feet.

At elevation 3650 feet a drift was driven 24 feet on the vein, strike S. 45° E., dip 70° SW., and encountered a fault with a slight throw to the southeast. The vein was followed 23 feet farther and a fault with 27 foot throw to the southeast was encountered. This segment of the vein was followed for 20 feet before a fault was encountered. No work had been done beyond this point.

Near the portal of the tunnel a heavily mineralized shoot from 1 to 2 feet wide on the footwall side of the vein, which is 3½ feet wide, was stoped for about 20 feet above the tunnel. About 50 tons of the ore, which was heavily mineralized with chalcopyrite, was shipped to the smelter and was reported to have ran \$50 to the ton. A sample taken across 42 inches, 18 feet from the portal assayed .06 ounces in gold. Copper was not determined. A grab sample taken from broken material at the mouth of the tunnel which carried a high percentage of chalcopyrite assayed Au. .02 oz., Ag. .82 oz. Specimens taken from the ore and sent to the Vancouver, B. C. fair were awarded first prize for chalcopyrite ore in 1935 and second prize in 1936. The chalcopyrite occurs in pink quartz and makes a very attractive specimen.

Sixty feet above the tunnel the vein is exposed for 30 feet by stripping. A 2-foot sample taken across 2 feet of sparsely mineralized white quartz assayed .04 ounces gold. At a slightly higher elevation and 100 feet beyond the above sample the vein is exposed by trenching, the vein is 2 feet wide and a band 1 foot wide on the hanging wall is highly mineralized with galena and pyrite. A sample 2 feet wide taken across the full width of the vein assayed Au. .70 ounces, Ag. 6.40 ounces.

The vein is exposed 200 feet farther along the vein and at higher elevation, but these showings were not examined.

Bulletin 807, pp. 109-110, gives a good description of the Engineer outcrop. Seven assays taken on mineralized shoots showed gold to range from 0.04 to 0.64 ounces per ton, silver from 7.6 to 26 ounces per ton, and lead from 11.3 to 55.3 per cent.

While the samples taken by the writer were not sufficient to determine which mineral carried the gold, it appeared as though the pyrite-galena mineralization was higher in gold than the chalcopyrite-pyrite combination.

Keno Group: KX 118-22

The Keno group was staked in 1923 and has been restaked and is owned by Mr. Bingham of Hyder. The claims lie on the west side of Ferguson Glacier about 1½ miles above its foot.

*See letter to Rockman
from Benjamin (Bettow)
Oct 10, 1942 etc.*

A quartz vein in granodiorite has a strike of N. 50° W. and a nearly vertical dip. The width varies from 2 to 4 feet with an average width of 3 feet. According to bulletin 807, p. 108, the vein has been traced on the surface for 400 feet and a difference in altitude of 300 feet, and shows short mineralized shoots in the vein. At elevation 3500 feet a 140-foot drift has been driven on the vein. At the time the tunnel was started the portal was only a few feet above the surface of the glacier, at present the portal is about 300 feet above the surface of the ice.

In the drift most of the quartz is barren, only a small amount of disseminated pyrite being visible in a few places. A sample taken across 3 feet at the face of the drift assayed Au. 0.10 ounces. A lightly mineralized pyrite streak was included in this sample. A sample taken across 3 feet, 30 feet from the face, gave no values. A sample taken across 3 feet, 60 feet from the face and a 32-inch sample, 90 feet from the face gave no values in silver or gold.

Snowshoe: KX 118-20

The Snowshoe group, owned by Frank Blasher, comprises four claims which lie due north of Blasher's cabin near the end of the Government road on West Texas Creek at 3800 feet elevation. They are located on a steep mountainside at 3800 feet elevation and comprise ground formerly staked as the Silver King and Double Anchor. A few quartz stringers, lightly mineralized with principally pyrite occur in a shear zone in argillite. The zone strikes N. 70° E. and lies practically flat. Two tunnels, 35 and 40 feet in length and about 100 feet apart have been driven in this zone. The quartz stringers are irregular and their extent and direction is erratic. A sample taken across 3 feet at the face of the 40-foot tunnel assayed Ag. .10 oz. A sample across 8 inches, 40 feet north of No. 1 tunnel assayed Ag. .36 oz. A sample across 1 foot in the second tunnel gave no values.

Blasher: KX 118-19

The Blasher group consisting of 4 claims lies about one-quarter mile north of the end of the road at the head of Texas Creek and is owned by Frank Blasher. A fissured zone in quartzite 9 to 11 feet wide strikes N. 25° W. and dips 45° E. A 15-foot tunnel has been driven on the lead at 2580 feet elevation and the zone has been stripped on the surface for 200 feet. In the tunnel fractured zone is 10 feet wide, 18 inches of nearly solid quartz lies on the footwall, and the adjacent 8 feet is shattered and lightly mineralized. One sample was taken across the 18-inch quartz band and another across the 8-foot shattered zone, but neither sample showed any values. A sample taken across the 8-foot zone at the tunnel portal assayed Au. .02 oz. and Ag. .16 oz. An 8-inch mineralized stringer was exposed for 100 feet and 4 channels taken 25 feet apart were combined in one sample, and the assay values were Au. .08 and Ag. 2.5 oz.

Cathedral: 4118-62

The Cathedral group consists of three claims which lie on a point of land between Texas Glacier and Chickamin Glacier. This is the most southerly part of Boundary Mountain. The property lies between 3400 and 3800 feet elevations and is owned by Sam Swenning of Ketchikan. The country rock is graywacke and slate and it is cut in places by fractured zones which contain small quartz stringers that are frozen to the surrounding rock. Small mineralized shoots containing galena, sphalerite, pyrite and chalcopyrite occur in some of the quartz stringers.

On the south end of Cathedral No. 2 on the edge of the bluff above the Chickamin Glacier a small quartz stringer 2 to 5 inches wide containing heavy sphalerite is exposed. The strike is N. 40° W., dip 45° E. A sample across 3 inches assayed Au. .20 oz. Ag. 4.78 oz. On the ridge 500 feet north of this sample, on the south end of Cathedral No. 1 a 15-inch quartz stringer, strike N. 15° E., dip 45° S. occurs in the slate. The quartz is fairly well mineralized. Galena is the principal mineral with minor sphalerite and pyrite. A sample across 15 inches assayed Ag. .72 oz. About 50 feet north of the above sample the vein is the same width with a 1/2-inch stringer of galena on the hanging wall. The wall rock is graywacke. A sample across the 15 inches assayed Au. .06, Ag. 1.90 oz. Two hundred and fifty feet north of the first sample taken on this vein a high grade shoot containing galena and pyrite was sampled across 12 inches and assayed Au. .10, Ag. 3.64 oz. Another sample was taken 3 feet from the above sample across 18 inches of white quartz with lighter mineralization, assay value Au. .06, Ag. .92.

A vein cutting the face of the cliff above Chickamin Glacier 300 feet east of the vein from which the first sample on the group was taken averages about 10 inches in width and occurs in and along a dike. The vein strikes N. 15° E. and dips 50° E. A sample across 10 inches, which contained some sphalerite with minor galena, chalcopyrite and pyrite assayed Au. .02, Ag. 3.66. Another sample across a 10-inch width about 200 feet lower on the same vein gave no values. A sample of the heaviest mineralized material was taken at this point and assayed Au. .14, Ag. 14 oz.

The inaccessibility of these claims, with the small leads and low values would appear to make further work inadvisable.

Sam Swenning has some claims staked on the north side of Greenpoint Glacier. The property was staked to cover a molybdenite deposit which Swenning states occurs in small stringers in a fractured zone in the argillite. A specimen from the property bore out the stringer occurrence. A specimen sent to the Consolidated assayed 7% molybdenum.

Swenning reports uncovering a galena-pyrite zone 10 feet wide, which is nearly solid sulphide, on the same property. The assays on this material have been coming through the Ketchikan assay office. He has also sent some to the Consolidated for assay and he reports the gold value is very low, the silver runs 25 to 100 ounces per ton and the lead 40% to 50%. The Consolidated has indicated they would like to examine the property and option it if it looks favorable.

Swenning does not want any information about this property released as he has not done all of the prospecting and staking that he intends to do. He says he has given the impression in Hyder that he hasn't anything interesting as he doesn't want a group of claims staked around him.

Adanak: 12-1-20-68

The Adanak group consisting of two claims is owned by Pete Lowe of Hyder. The property is on the Fish Creek trail 2 miles from its junction with the Highway and adjoins the Mountain View claims on the north. This property was formerly known as the Lucky Boy Extension and was owned by John Coghlan of Vancouver. The mineralization occurs in small irregular quartz stringers in a fissured zone 2 or 3 feet wide which strikes N. 65° W. and dips 40° N. The country rock is argillite and quartzite. The stringers range from 2 inches to 12 inches in width and these stringers are locally mineralized with galena, chalcopyrite, sphalerite and pyrite. The fissured zone has been stripped for several feet on the bank of a creek a few hundred feet north of the Mountain View trail. At 750 feet elevation a 50-foot crosscut tunnel intersected the vein and the vein was drifted on for 130 feet. A sample taken of 3 inches of heavily mineralized stringer assayed Au. .08, Ag. 28.84 oz.

Three hundred and fifty feet higher in elevation, 300 yards up the hill, a 3-foot quartz vein is exposed by a 10-foot tunnel and two opencuts. No samples were taken, as all sample sacks had been filled when this showing was examined.

H.W.
1921

Last Chance (Fish Creek Group): 12120-67

The Last Chance group is located on Fish Creek and Skookum Creek about 4 miles by trail from the Salmon River highway, and joins the Mountain View Group on the west. The property was formerly known as the Fish Creek Group and is described by Buddington in U. S. G. S. Bull. 807 at pp. 68-71.

The three patented claims, Olympia, Nevada and Starboard Extension, Bull. 807, Plate 12, have been eliminated from the group. They were controlled by the British American Holding and Development Company, but now are owned by Dr. L. McMillan of Vancouver, B. C.

The group now known as the Last Chance comprises 20 claims and is made up of the balance of the Fish Creek group with the addition of adjoining claims known as the Liberty group. John Ronan, B. B. Smith and Sidney Anderson are the owners and are residents of Hyder.

Two types of mineral deposits occur in the group - quartz veins, mainly in the granodiorite, which contain mineralized shoots showing galena, sphalerite, pyrite and minor amounts of tetrahedrite and chalcopyrite; and lenticular replacement deposits, mainly in the Hazelton series near the granodiorite contact which contain pyrrhotite and minor chalcopyrite.

Adit No. 6, Plate 12, on the patented Olympia claim, is described on page 69 of Bull. 807. This tunnel is driven on the vein for a distance of 185 feet to a fault, which strikes N. 25° E. and dips steeply NW., and was continued beyond the slip for 18 feet. The slip has been followed to the NE. for 66 feet and to the SW. for 42 feet where a shattered vein with the same strike as the main drift was encountered. This vein was followed for 30 feet and appears to be the continuation of the main vein as shown on the fault face and by the change of strike of the main vein as it approaches the fault. The strike of the vein is N. 55° W. and the dip 50° N., but the strike swings to N. 35° W. as the vein approaches the fault. The vein averages about 15 inches in width and for about 75 feet from the portal and the principal vein filling is quartz. In the last 100 feet of the drift the vein contains only scattered bunches of quartz. A sample taken across 16 inches of white quartz 75 feet from the portal, which was fairly heavily mineralized, assayed .46 oz. Au. and 3.48 oz. Ag. A sample taken 100 feet from the portal across 12 inches of white quartz which contained only a very small amount of sulphides, assayed Au. .02 oz. and Ag. .36 oz. Ore was shipped from the two upper levels which have been driven on this vein. Assays as shown in Bull. 807, p. 70, are:

	Gold (oz. per ton)	Silver (oz. per ton)	Lead (per cent)
20 tons	.37	316.0	38.9
5 "	.15	110.4	32.5
5 "	.30	205.4	17.0
8 "	.27	299.96	26.0

The vein on the Olympia Extension is about 1,000 feet north of the vein on the patented Olympia claim and it has a strike of N. 55° W. and a dip of 60° N. The veins are practically parallel and have a corresponding dip. This vein is a quartz filled fissure vein in the diorite and it has been traced for about 500 feet by cutting and trenching. The vein averages about 36 inches wide, but varies from a stringer to 8 feet and it appears to pinch down to a narrow width at both ends of the outcrop. In some places the vein breaks free from both walls, but in the lower tunnel it breaks free from the hanging wall only and some replacement is visible in the footwall. The sulphides occurring in the quartz are: Galena, sphalerite, pyrite, tetrahedrite and chalcopyrite, and they occur in sufficient concentration at some points to constitute oreshoots.

On the east bank of Skookum Creek at an elevation of about 2,750 feet a tunnel was started on the vein and driven NW. for a distance of 100 feet. About 50 feet of the vein is exposed in the far end of the tunnel as the tunnel swings off the vein for the first 50 feet. A 40-foot raise on the vein at the end of the tunnel connects with a tunnel which is 110 feet long and this tunnel is connected with the surface at the northwest end by a 125-foot crosscut. The lower tunnel is about 100 feet below the outcrop. In the upper tunnel for a distance of 40 feet along the vein and 20 feet above the tunnel ore has been stoped and sorted material shipped to the Tacoma Smelter. A shipment of 64 tons was reported to have averaged \$90 to the ton. The last shipment of ore was made in 1935 and 22 tons are reported to have assayed \$50 a ton in gold, silver and copper.

Two samples taken in the footwall near the portal of the lower tunnel, which showed some mineralization, assayed \$0.51 in gold and silver across 18 inches and \$8.72 across 6 inches. A sample taken across 16 inches, 60 feet from the portal assayed Au. 0.70 oz., Ag. 1.92 oz. This sample showed moderate mineralization. A sample taken 80 feet from the portal was cut across 30 inches of vein material containing reticulating quartz veinlets and the assay gave Au. .12 oz., Ag. 4.06 oz. A grab sample taken from the dump of ore left as not being suitable for shipping assayed Au. .28 oz., Ag. 13.64 oz. Bull. 807, p. 70, lists assays of five samples taken from the Olympia Extension vein.

Two tunnels have been started as crosscuts to cut the Olympia Extension vein. A crosscut started on the west bank of Skookum Creek at an elevation about 300 feet below the upper tunnel has been driven 80 feet and it is reported the vein should be encountered 600 feet from the face. Another crosscut starting on the east side of Skookum Creek has been driven 275 feet toward the projected extension of the vein. Country rock mineralized with pyrite was encountered near the face of the tunnel, but the vein has not been out.

The cook house, bunk house blacksmith shop and compressor located on the Olympia Extension claim are in fair condition.

On the claim called Liberty No. 1 an irregular, lenticular, mineralized deposit has been exposed by trenching and stripping at an elevation of 2,900 feet. The deposit is about 120 feet long and 40 feet wide and its eastern margin is a few feet from the diorite intrusive and the larger axis is parallel to it. The deepest cut is 8 feet deep. Mineralization consists principally of pyrrhotite with minor pyrite and chalcopyrite. A minor amount of quartz is mixed with the sulphides. The mineralization is rather spotty, the sulphides forming massive bodies as well as being disseminated.

Three samples were taken across a 17-foot exposure near the center of the lense which strikes N. 20° W. The first sample was across 5 feet and it contained some massive pyrrhotite and chalcopyrite which was mixed with fine quartz particles. It assayed \$10.50 in gold and \$0.42 in silver. An adjoining sample was taken across a 7-foot zone which was lightly mineralized with pyrite. No gold or silver values were obtained. A sample taken across the adjoining 5 feet showed light pyrrhotite and chalcopyrite and assayed \$9.10 in gold and .09 in silver.

It is reported by the owners that the Britannia Mining Company took 34 samples across 40 feet and the average assay was \$8.27 in gold, silver and copper values. Copper was figured at 14¢ per pound. Similar mineralization occurs 1,000 feet south of this outcrop.

This appears to be the outcrop on the Summit claim described by Westgate in Bull. 807, p. 71.

Ridge Group:

The Ridge group, consisting of six claims, lies on both sides of Skookum Creek above the Liberty group which it joins. Sid Smith is the owner. Two mineralized showings at elevations of 3,150 and 3,230 feet are similar to the outcrop described on the Liberty No. 1 claim. The principal minerals are pyrrhotite and pyrite. A zone exposed for approximately 100 feet on Ridge claim No. 6 has a strike N. 60° W. A sample

was taken of rather massive pyrrhotite, but the assay return has not been received. The sample No. is 218. A sample taken of material lightly mineralized with pyrite and pyrrhotite assayed \$1.40 in gold. On Ridge claim No. 5 a 36-inch shear zone strikes N. 65° E. and dips 70° N. A sample taken across a 4-inch band mineralized with pyrite and galena assayed \$1.52 in gold and silver. A sample across 22 inches which included the 4-inch band assayed \$2.86 in gold and silver.

Titan Group: K+118-56

The Titan group consisting of 14 claims is located along the head of Fish Creek and extends up the mountain to the east. The claims are owned by the Titan Mining Company, of which Sam and Jack Fitzgerald are the principal owners.

A sheared zone in the diorite contains a vein which strikes N. 65° W. and dips 40° SW. The vein outcrops along a small creek and is exposed for 40 feet by an opencut at elevation 3,420. At elevation 3,320 a tunnel was driven to prospect the vein, but the vein was missed and was driven approximately 500 feet before it encountered what appears to be the vein. About 250 feet of underground crosscuts and drifts have driven off the main drift.

The vein is composed of reticulating quartz stringers and quartz stringers and quartz cemented breccia. Some of the quartz stringers are as much as 2 feet in width. The sulphides, consisting of sphalerite, galena, pyrite and chalcopyrite, are disseminated in the quartz and pyrite is visible in some of the included diorite. A sample taken in the opencut across 40 inches of lightly mineralized vein material assayed .04 oz. in gold. A sample taken in the opencut of a 6-inch heavily mineralized quartz stringer assayed .56 oz. gold and 1.66 oz. silver. A sample taken across 6 inches of white quartz in the face of the tunnel showed no values as did a sample taken across 2 feet which contained about half quartz and half included diorite. A sample taken across an 18-inch quartz stringer, 40 feet from the portal gave no gold or silver values. This vein has been traced for 200 yards and for a vertical distance of 275 feet. The higher outcrops were not seen on account of fog.

About 200 yards from the tunnel, below the cabin, at elevation 3,000 feet, a sample taken across a 3-foot pyritized zone in greenstone assayed .02 oz. in gold.

About 1/4 mile west of the tunnel at an elevation of 3,100 feet to 3,150 feet a mineralized zone consisting of lightly mineralized quartz stringers in greenstone is exposed in a creek bed. Pyrite is the principal sulphide with minor galena. A sample taken across a 30-inch silicified zone which contained about 1/3 quartz gave no assay values, as did a sample across 15 inches.

Excerpt from report by H. G. Wilcox - March 3, 1938

Snowshoe: K118-20

The Snowshoe group, owned by Frank Blasher, comprises four claims which lie due north of Blasher's cabin near the end of the Government road on West Texas Creek at 3800 feet elevation. They are located on a steep mountainside at 3800 feet elevation and comprise ground formerly staked as the Silver King and Double Anchor. A few quartz stringers, lightly mineralized with principally pyrite occur in a shear zone in argillite. The zone strikes N. 70° E. and lies practically flat. Two tunnels, 35 and 40 feet in length and about 100 feet apart have been driven in this zone. The quartz stringers are irregular and their extent and direction is erratic. A sample taken across 3 feet at the face of the 40-foot tunnel assayed Ag. .10 oz. A sample across 8 inches, 40 feet north of No. 1 tunnel assayed Ag. .36 oz. A sample across 1 foot in the second tunnel gave no values.

Blasher: K118-19

The Blasher group consisting of 4 claims lies about one-quarter mile north of the end of the road at the head of Texas Creek and is owned by Frank Blasher. A fissured zone in quartzite 9 to 11 feet wide strikes N. 25° W. and dips 45° E. A 15-foot tunnel has been driven on the lead at 2580 feet elevation and the zone has been stripped on the surface for 200 feet. In the tunnel fractured zone is 10 feet wide, 18 inches of nearly solid quartz lies on the footwall, and the adjacent 8 feet is shattered and lightly mineralized. One sample was taken across the 18-inch quartz band and another across the 8-foot shattered zone, but neither sample showed any values. A sample taken across the 8 foot zone at the tunnel portal assayed Au. .02 oz. and Ag. .16 oz. An 8-inch mineralized stringer was exposed for 100 feet and 4 channels taken 25 feet apart were combined in one sample, and the assay values were Au. .08 and Ag. 2.5 oz.