MR-191-02

HYDER DISTRICT -1927-

Mining in the Hyder district was more than ordinarily active during 1927. The Riverside Mine continued operation of both mine and yet 118-44 mill during the major portion of the year. Operation of the mill was discontinued late in the fall due to the depletion of ore reserves. Development work at the mine continues, A showing ten feet wide was opened on the main vein consisting of mixed scheelite and barite containing gold-bearing minerals.

The Mountain View Mining Company vigorously prosecuted $\mu \times 120^{-6}$ development at their property on Skookum Greek. Work consisted of exploratory drifting on the Skookum Greek wein with promising remults and surface trenching on different exposures over a widespread area. The main tunnel had been advanced a distance of 1400 feet from the portal by the end of August. Free gold was encountered in a metamorphic contact rock at a distance of 1380 feet. About 350 feet remains to be driven before the grey copper vein, which is the main objective, is reached. Several shoots of commercial ore of narrow widths have been encountered in the drifting.

The Adnac Mining Company, holding ground on Fish Creek ad- $\mu_{X,L}/20-69$ jacent to the Mountain View ground, had three men at work sinking a winze on a fissure vein. The vein had a width of 30 inches, 18 inches of which is commercial galena am. A depth of 30 feet had bean reached in the winze at the end of August. The American Mining and Milling Company, formerly known as the Fish Creek Mining Company, advanced their tunnel a distance of $l^{A_{k}} l^{A_{k}} l^{A_{k}}$ 50 fee%, This ~ e is & e m to explore %I@ground beneath a surface showing of heavy pyrrhotite ore.

Assessment work was done at the Titan, Stoner, LeRoi and other groups of claims in the upper Fish Creek region.

The Daly Alaska property was idle, being in litigation. 19.50 Assessment work was done on the Brighdier claim near the 16.45 Salmon River bridge at Nine Mile.

Texas Creek:

At many of the Texas Creek properties work early in the summer was confined to the building of trails. This initial expenditure has eaten heavily into the funds of the prospectors.

96 Groups

The 96 group is located about half way between the Salmon River bridge and the cable crossing. Hay Snyder, the owner, was engaged during the summer in stripping a showing of one containing zinc and $\frac{1}{12}$ pyrite. This showing is about 300 feet above the 96 cabin.

Cantui

The Cantu was idle during the summer, although reports of a pending sale to Los Angeles capital were runored. $\eta_{\theta} \mathcal{A}^{\psi}$

MeVey:

Assessment work was done on the LeVey prospect located two miles above the cable crossing. We 2^5

-2-

Homestake: 14+118-33

Carlson started the driving of a tunnel from the south guich to tap the Homestake showings at depth. This tunnel when completed will be about 500 feet long and will enable the working of the property far longer periods of the year. A small shipment of ore was made from this property previously, the ore being packed by horses from the upper showing.

N₁ - c

Silver Coint Kt 118-34

Assessment work was done on the Silver Coin claim which lies north of the Homestake showing.

Ibex: Kx118-31

The Iber was idle during the year.

Comors: K+118-28

Joe Connors continued stripping and opencutting on his showings. These showings lay well up on the mountainside midway between Ibex Gulch and the Government cabin. Several of the showings expose steel galena in widths of 18 and 20 inches.

Hummel: K+ 116-21

Harry Hummel was busy cutting horse trail to his claimewhich are west of the Connors showings.

Sunset and Double Anchor:

Assessment work had not yet been done on the Sunset and Double Anchor claims and they were as reported last year. $u^{k-2^{O}}$

Terrs Discovery: KX118-29

Malcolm Smith extended the tunnel on the Texas discovery a distance of 30 feet.

Marietta: W118-18

Lemons and Thornton cut two miles of horse trail from their cabin, near the Chickamin Glacier, to the top of the ridge and packed a camp to that point. This work took them all season. Lake Claims: ## 118-15-

Malcolm Smith did the assessment work on the Lake claims. Dugaste Claims: KX 118-13

The Dugaste claims, which adjoin the Lake claims near the Chickamin Glacier, were sold to Ketchikan interests. They were surveyed during the summer.

Edelweiss: KX 11 8-10

Frank Blasher was engaged in cutting horse trail from the Chickamin Glacier to his property on Banded Mountain. He plans to remain doing assessment work as long as weather conditions permit. Boundary Claim:

Sam Swenning did assessment work on his Boundary Survey claim on International Hountain. Two leads of galena-zinc ore were exposed. Engineer Group: 145118-23

Dominic Bevacque and associates were busy during the summer developing their quartz-galena lead on Domonic Mountain. They drove about 50 feet of tunnel. Kene Group: 12+118-22

Owners of the Keno group advanced the tunnel about 40 feet during the summer.

Hyder Lead: KA 118-16

223

At the Hyder Lead property, two sheet iron buildings were erected at the showings and the claims were surveyed.

Considerable prospecting was done and some showings were found at different localities all of which have not yet been recorded.

Chickamin Area

problem During the summer, some interest was shown in the Chickamin area. Schomberg and Andrews have both located claims near the foot of the glacier. This region is in a sedimentary formation, the granite contact crossing the Chickamin River about two miles below the ice. The best ingress to the district is by way of Hyder, Texas Creek and thence across the glacier. Harry Reid and A. C. Settrington of Hyder spent two weeks prospecting on the Leduc River. They report no difficulty in lining up the river and were impressed with the possibility of the regions. A small amount of work was done on some quartz veins sparsely mineralized with molybdemum and pyrite which occur on the north bank of the Chickamin River about two miles above the mouth. Harry Reid has established a trading post a% this — _____m e

-5-

Hountain View Fish Greek

- Riversida
- Daly Alaska H
- 5
- 6
- Snyder Seith-Pergusen Dominic Bevacque 7
- 8 Keno

Chief Sminth

Myder Lead 9

- 10 Homestake
- These 11
- Conner 22
- Lake 15
- 14 Summit
- 15 Sunset 16 Morning Star
- 17 Marianta
- 18 Hecla

BRITISH COLUMBIA

Thum Creek

Teras GLaciet

GEOLOGICAL SKETCH of HYDER DISTRICT

from u.s.g.s. Bulletin 773 LEGEND

Breenstone

Glanitic Rocks

Sediments and Tuffs Glaciers

5 Miles

Jumbo 1.) to Davis 21 Gantu

Salmon

THE TEXAS DISCOVERY, HYDER PRECINCT, Oct., 1926.

> Examined by J. G. Shepard, U. S. Geological Survey.

About 4 miles west of the Texas Creek bridge, directly on the Texas Creek trail, is located a prospect belonging to Smith, Fergusen and Rosenstein. A comfortable log cabin has been built a short distance beyond the showing, on a wooded point.

The prospect consists of a quartz vein occupying a shear in granodiorite. A tunnel 20 feet long has been driven on the vein. In the breast; of the tunnel, the vein Is 2 inches wide at the top and 6 inches wide at the floor. An andesitic dike is appearing; in the face of the tunnel near the hanging wall and close Do %hefloor. The vein is becoming softer and is heavily mineralized with galena. High assays in gold are reported to have been obtained from the vein, with the values increasing as the drift advanced. A few hundred pounds of picked are is stacked near the mouth of the tunnel.

It is the intention of the owners to advance the drift 25 feet to determine the effect on the vein of the presence of the dike. SKETCH of Texas Déscovery Prospect Oct. 1926. by J.G.Shepard. Scale Iⁿ = 10^{1} U.S.G.S.

847



1:2

THE JUMBO GROUP, BANDED MOUNTAIN-HYDER PRECINCT.

> Examined by J. G. Shepard, U. S. G. S., October, 1926,

A group of claims known as the "Jumbo" bas been located by Frank Blasher and Harry Hummel an the southwest side of Banded Mountain. The claims are reached by traversing the Chickamin Glacier from the end of the Texas Creek trail to Banded Mountain. Thence following the mountain on the south side on the iae to a place about 3 miles from the eastern point of the mountain. At this point a trail sigsags up the hill side to the claims.

The showings consist of a series of bold mineralized quartz veins from 1 to 5 feet ride, in a zone about 200 feet in width. The country rock which is composed of graywacke, argillite and tuff is also mineralized. Some calcite is present. The predominant mineral is pyrite, with a subordinate dissemination of galena and splotches of chalcopyrite, The outcrops can be traced for a considerable distance. Other veins of the same character, than the ones sampled, were seem.

Some veins on the Davis ground, an adjoining group of claims, are reported to have returned high assay values in gold. These veins were not seen.



Showing Chickamin Glacier, Banded Mountain and location of Jumbo and Davis claims.

Sample I'wide tw.-.or gold perton tr.-.or silver perton

SKETCH of JUMBO SHOWINGS Banded Moontain-Hyder Precimet Oct, 1926 by J.G. Shepard, Scale I⁴=20¹ U.S.G.S.

1 1. 2

Sample I' Wide L' tr.-.oz gold Per tok (020-.02 Silver perton

Four ofte

12

15

PLAN

- M. BOW MAD

Sample 2'wide tr -. oz gold perton tr-. oz silver perton

sample 205' wide tr.-. az gold perton 0.20-. oz silver per.ton

sample 4 Wide tr.-.oz gold perton 0.70-.oz silver perton

sample 4'Mide tr-.oz gold per ton 120-.oz silver per ton

LEGEND Graywacke and tuff Mineralized guartz vein

> sample 2,5 wide tr-.oz gold per ton 430-.oz silver per ton

sample 2'ride - tra oz gold per ton 7 0.60-. oz silver per ton

The Sunset Claim. Texas Creek-Hyder Precinct.

> Examined by J. G. Shepard. Oct. 1926 TS.G.S.

A claim known as the "Sunset " has been located by Frank Slasher about I mile south of the Chickamin ice and a few hundred, ards east of the Texas Creek trail.

Several open cuts have been made on the vein over a distance of 300 feet. The vein varies from 3 to 5 feet in width and is a mineralized quartz fissure in greenstone tuff. Very little mineralization is apparent on the surface, which is much oxidized. In one cut at a depth of 8 feet below the surface, a width of 9 feet of mileralized vein is exposed. The pricipal mineral is pyrite, with subordinate amounts of galena, sphalerite end chalcopyrite. The strike of the vein is N. 350 W. mag. with a dip of 450 eest.

SKETCH

of SUNSET SHOWING Texas Greek=Hyder Precinct Oct. 1926 by J.G.Shepard Scale 1"=20' U.S.G.S.



Greenstone tuff Mineralizd guartz vein

sample 9'wide

0.06- .Oz gold per ton 0.10-.oz silver per ton

PLAN

N. 35° W. Mag

development. Pyrite is the predominant mineral with considerable tetrahedrite also present. Remarkably high values in silver have been obtained from this vein. A 40 foot crosscut was driven which intersected the vein 20 feet below the surface. Fifty feet of drift was driven along the vein to determine the strike, dip and continuity of ore. A short distance to the northwest of the tunnel, a winze was sunk for 35 feet for exploratory purposes. Throughout the exposures, the vein varies from 2 to 6 feet in width and shows sufficient ore of a grade to justify extensive development.

No work is being done an the Fish Creek reins at present.

This development will be accomplished by pushing forward the main adit tunnel a distance of 1,000 feet which rill intersect the north rein at a depth 300 feet below the surface. This work will be done during the winter of 1926. Supplies have already been stored at the camp.

Finances to carry on **development** work are advanced by the owners as **it becomes** necessary, no stock being offered for sale. The **property** is being well handled and no mill will be built until sufficient tonnage is developed to justify the expenditure. The Hyder Lead mines Uo. Texas Creek- Hyder Frecinct.

> ∴xamined by J. G. "hepard. Oct. 1926. U.S.G.».

The Hyder lead mines Co. now control the property theat was formerly held by the Texas Creek Constock Co.

A complete description of the property is given by A. S. buddington in U. S. Geological Survey pulletin 773.

During 1926 the property was in charge of R. G. mellen. A tunnel 85 feet long was driven in an attempt to undercut a teo foot mineralized vein, at a depth of about seventy five feet below the surface. No ore was encountered. The vein shows a surface exposure of two feet of heavy mineralization. Galena and pyrite being the predominant minerals. A sample across the surface exposure of this vein is indicated on the accompanying sketch.

The Joe-Joe vein was traced by stripping for several hundred feet in a northwesterly direction from the original discovery. Galena-Pyrite ore is exposed by so-e of the cuts although the major portion of the vein is a massive white quartz. The original Joe-Joe showing, which has a shape resembling a camels hump, was blasted across, About ore hundred tons of ore was scattered over the hillside. The cut exposed five feet of sulphide ore, a sample of which is indicated on the accompanying sketch. There is probably one thousand ton of ore of the grade indicated yet remaining in the bold outcrop.

Six men were employed at the property during the summer of 1926. Future plans are not known.

MISCELLANEOUS PROSPECTS, TEXAS CREEK, HYDER PRECINCT.

A number of prospects of promise hare been located during the past year, and previous to 1926, which were not visited on account of weather conditions and inability to find the showings.

The Homestake group, the property of Carlson and Hewitt, is located on a tributary of the west fork of Texas Creek, flowing from the east, about 8 miles north of the Salmon River bridge at Nine Mile. A description of this property is given by R. S. Buddington in U. S. Geological Survey Bulletin 773. The vein, which is a quartz fissure carrying galena and sphalerite, was cut by a tunnel 35 feet below the surface. During 1926 a small shipment of hand sorted ore was shipped to the smelter. This ore was of \$100 per ton value. It is reported that double the amount of ore shipped, of a \$50 per ton value was discarded as being of too low grade to ship under present transportation costs. Carlson and Hewitt are now driving a cross cut tunnel to cut the vein at a depth of 100 feet below the surface.

The Ibex group bas remained idle, except for the assessment work, since the Day Brothers suspended operations.

A new prospect has been discovered by Joe Connor about 2 miles north of the Iber group and at about the same elevation. This prospect is said to show 30 inches of solid galena for a distance of 100 feet. There was no one at the property at the time of the writer's visit and the exact location of the exposure was not found.

The double Anchor group is situated on the hillside east of the Texas Creek trail, a mile south of the Chickamin ice. The prospect is described as a wide mineralized zone carrying low values in gold, silver, and copper.

The Marietta group is owned by Thornton and Semons and is located on the east side of the north fork of the Chickamin Glacier **about** $2\frac{1}{2}$ miles from the Harietta cabin at the end of the Texas Creek trail. A number of large showings are said to exist on the property, one of which is a vein 30 inches ride of solid lead-zinc ore which has been traced for 150 feet. A sample said to be representative of the showing assayed:

0 2. p	er ton	Per	cent
Gold	Silver	Lead	Zinc
0.28	21.10	13.26	9.45

Specimens of country rock seen would indicate that the vein lies in dark quartzite and argillite. A large porphoritic dike is reported to have given assay returns of \$3 in gold.

The Hecla claim is owned by Frank Blasher and is located on the east side of the south fork of the Chickamin Glacier, 700 feet above the ice, about $2\frac{1}{2}$ miles from the moraine.

The showing is described as a lead-zinc stringer 14 inches wide, exposed for 50 feet. Two ton of ore was broken from the lead and hauled to the Texas Creek trail by double end sled. No other work has been done on the property. A sample reported to be representative of the showing assayed:

0 z. p	er ton	Per cent		
Gold	Silver	Lead	Zinc	Copper
0.01	54.60	10,35	27.20	4.15

Other showings are said to occur on the property.

THE MOUNTAIN VIEW MINE, HYDER PRECINCT.

Examined by J. G. Shepard, U. S. G. S.

The Mountain View property is situated at the junction of Fish and Skookum Creeks, about two miles by trail from the Salmon River road near five mile. The property consists of 8 claims, some of which are patented. It was originally located by John Hovland and subsequently sold by him to the Mountain View Mining Company. Arthur Moa is manager and superintendent. A description of the mineralization is given by A. S. Buddington in U. S. Geological Survey Bulletin 783-B.

Surface equipment consists of the following: A single wire serial tranway leading from the Fish Creek flats to the mine camp, powered by an oil engine operating lead and haul back lines. A combined cook and bunk house capable of accommodating twenty men. An engine room housing an Ingersoll Rand two drill air compressor and a drill sharpener. Several small camp buildings. Power for the compressor is furnished by water taken from Fish Creek. It is led to the water wheel by 700 feet of 16 inch wood pipe. The head is relatively small but can be easily increased to meet power requirements.

A relatively large amount of both surface and underground prospecting has been done during 1925-1926.

The main work has been done on a quartz fissure vein on Ho An aggregate of 500 feet of tunneling has been done on this 3 Claim. vein which has developed a mumber of short, narrow shoots of ore of an average value of \$15 per ton in gold, silver, and lead. The maximum depth below the surface attained by this tunnel is 100 feet. The oreshoots as exposed by the underground workings denote a marked improvement both in size and grade as compared to the surface exposures. About 2,000 tons of ore of a millable grade has been developed by this prospecting. The working breast of the tunnel at the time of visit was entering a **zone** of massive white quartz. The entire face of the drift was quartz with no wall showing on either side. This corresponds to surface exposures. No massive sulphide ore is known to exist in this area although low values in gold and silver hare been obtained at different intervals. The vein and branch strikes approximately N. 10 E. and dips 45° E., in a granodiorite country rock.

Fifteen hundred feet north of the main workings is a vein striking N. 50° W. and dipping 45° HE. This vein has been open cut for 400 feet along the strike and has about 120 feet of underground



THE RIVERSIDE MINE

At the Riverside Mine, operations have continued throughout the year, During the summer the property was taken over by an association represented by the Salmon River Bank of Hyder.

R. G. Mellin was placed in charge of the property and materially changed operations. Mining on the cross fracture vein from which most of the ore previously milled had come was suspended and operations were centered on the Lindeborg vein. Surface stripping was carried forward and ore was exposed for a distance of 150 feet showing a width of from 3 to 5 feet. Mining was confined to the shoot of ore previously developed by the old Lindeborg workings. About 2,000 tons of ore of a \$15 value remains to be mined in this shoot. It is the intention of the management to develop the ore exposed by recent stripping, during the winter of 1926. An aggregate of 22 men were employed at the property during the summer and fall of 1926. The crew will be reduced to 15 men during the winter.

THE FISH CREEK MINES CO.

The property of the Fish Creek Mines Company adjoins the Mountain View Property. An arrangement has been made for a tranway to be built by the association interested at the Riverside from the Fish Creek Company workings on Skookum Creek to the Riverside mill. This tranway will cost approximately \$30,000. John Havaland, a Hyder engineer, estimates that there is about 3,000 tons of mill ore available at the Fish Creek Mine at present.

The Edelwight Claim. Banded Io mtain-Hyder Precinct. ×+110-10

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Examined by J.G. Shepard. Oct. 1926. U.S.G.S.

5 deliveries

A claim known as the "Edelwight" has been located by Frank Blasheron the south side of Banded Mountain about 400 feet above the ice of the south fork of the Chickamin Glacier.

A cut has been .ade in a gulch, exposing a quartz vein 7 feet in width. h vein is quite decomposed and did not outcrop on the surface st this point. Country rock is an altered greenstone tuff. The vein strikes mag. Northsouth and dips 600 east. Fine grained galena is the ?redominant-mineral.



Traversing the Chickamin Glacier, Banded Mountain in the foreground. SKETCH of EDELWIGHT SHOWING Oct. 1926 Banded Mountain-Hyder Precinct by J.G.Shepard. Scale T = 10' 4.8.9.8.

LEGEND

Greenstone tuff

Mineralized quartz vein

sample 71 wide .or..or gold per ton 5.10-.or silver per ton 2.16-% lead

PLAN

The Dominick Bevacque Claims. ×+ 118-23 Texas Creek-Hyder Precinct,

Examined by J. G. Shepard. Oct. 1926. U.S.G.S.

A group of 5 claims known as "Dominicks" has been located on Dominick mountain, on the east side of Fergusen Glacier a short distance above the foot, at an elevation of 3800 feet. At present the property is reached by traversing the glacier for one quarter mils and ascending the mountain by switch back trail. A horse trail cam be easily constructed from the Texas creek trail to the property.

The vein, which is a quartz fissure from 2 to 4 feet wide, can be traced for over 600 feet. Dominick Bevacque, the locator, has driven two short tunnels, one 20 feet long on the north west exposure and one I5 feet long, a crosscut which has not yet reached the vein. An oreshoot 150 feet long has been stripped on the surface and is in shape for sampling. This oreshoot, which varies from 2 to 3.5 feet in width, is heavenly mineralized with steel galena and pyrite, the galena predominating. The vein strikes N 700 W. mag, and dips 600 N E. in quartz diorite, angling toward the contact between the granitic and sedimentary rocks, which is present higher on the mountain.



Dominick's Mountain, showing position and strike of vein.

at 3

The Lake Claim. Texas Creek-Hyder Precinct.

> Examined by J. G. Shepard. Oct. 1926. U.S.G.S.

The Lake Claim, located by Malcomb Smith and associates, is situated near the end of the Texas Creek trail at the Chickamin ice. The Marietta cabin is built on Lake ground,

The vein which is a quartz fissure strikes N.700W. sag. and dips 450 N. E. Country rock is a quartz diomite. Directly off' the trail a cut has been made, facing off the vein. The exposure shows 2 feet of mixed vein material, rather heavily mineralized on the footwall with galena and pyrite. Exposures have been made for 230 feet along the strike, In places the vein is obscured by the diorite flow. SKBTCH of LAKE SHOWING Texas Creek-Hyder Precinct by J.G.Shepard Seale I"-IO' Oct. 1926. U.S.R.S.

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LEGEND Mineralized guartz vein Quartz diorite

sample 2'wide 0.01-.oz gold per ton 0.90-.oz silver per ton

PLAN

NTO W. Mag

The Morning Star Claim. Texas Creek-Hyder Precinct, LKN 0.35

Examined by J. G Shepard. Oct. 1926 U.S.G.S.

Th e Morning Star Claim, located by Frank Blasher, 1s situated on the Texas Creek flat about one mile fros the Chickamin ice.

The vein, which is a quartz fissure, strikes N. 700W. and dips 40_0 N. E It is exposed in a small creek and shows a width of 2 feet, The quartz is mineralized with disseminated pyrite. The country rock is a quartz diorite.

SKETCH of MORNING STAR SHOWING Texas Creek-Hyder Precinct by J.G. Shepard Oct. 1926 4.5.6.5, Scale In =10!



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The Xeno Group. Fexas Creek-Hyder Precinct.

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Examined by JG. Shepard. Oct. 1926. U.S.G.S.

The Keno group comprises nine claims staked by Neil Stevens and associates at an elevation of 4000 feet on the mountain west of Forgusen glacier, about three miles from the Texas Creek trail.

Work has been confined to a quartz fissure vein in granodiorite, striking N. 70 W. mag. and dipping 80 N. E. A drift 70 feet long has been driven on the vein which shows a sparse mineralization of pyrite throughout. The vein varies from 2 yo 4 feet in width. Pits and open cuts have been made on the vein for several hundred feet above the tunnel. Massive galena is present in some of these cuts. The vein at surface has been oxidized to a depth of several feet. The left breast of the tunnel shows splotches of massive galena. A picked speciman gave assay values of 0.18.02 per ton gold, 11.60.02 per ton silver and 59.52 % lead.



SKETCH of KENO SHOWING Texas Creek-Hyder Precinct Oct. 1926 by J.G.Shepard Scale I<sup>N</sup>=20<sup>N</sup> u.s.g.s.





N.70 W. Ma

80°

#### LEGEND

0

Granodiorite Mineralized guartz vein

PLAN

> sample 30" wide 0.02-.oz gold per ton 0.30-.oz silver per ton

The " 96 " Group. Oct. 1926. Hyder Precinct.

Examined by J.G. Shepard. U.S. Geological Eurysy.

The "96" group of claims held by Way Snyder and associates is located near the Texas Creek trail about  $I_{\Xi}^{1}$  miles above the Salmon River bridge.

At an elevation of 600 ft., a crosscut tunnel was driven to intersect a quartz vien at a depth of 35 ft. below the surface. The vein was drifted on for 42 ft., 25 ft. of which showed ore. The vein is quartz, occupying a shearing in porphoritic diorite, and varies from a few inches to 3 ft. in width. Parts of the vein are heavily metallized with galena and sphalerite. In the south east breast of the drift, only the sheared material is present, with the indication of the return of quartz stringers.

The prospect is equipped with a confortable cabin and a black-smith structure. About 4 tons sf cobbled pure galena has been sorted and is stored in the blacksmith structure.

It is the intention of the owners to continue the south east drift, with the expectation of enc untering a second one shoot. SKETCH of "96" SHOWING. Oct. 1926. by J.G. Shepard. Scale I"=10' U.S.G.S.

PLAN AS

H. 70° M

sample 3' wide

- uk

.02-,02 gold per ton 3.70-.02 silver per ton 9.27- % lead 17.75- % zinc

#### LEGEND

Porphoritic Diorite Fractured Rock Mineralized Quartz THE HIDER DISTRICT, 1926

> By J. G. Shepard, U. S. Geological Survey.

During the year 1926, much prospecting and mine development was carried forward in the Hyder District. Individual properties and prospects will be dealt with in separate reports.

The outstanding feature of mineral development was the finding of new lodes in the country adjacent to the west fork of Texas Creek. About thirty prospectors were engaged in prospecting lodes which had been discovered previously, and during, the field season of 1926. A horse trail from the Salmon River bridge to the Chickamin Glacier was completed by the Forestry Service. This greatly aided the prospectors in their efforts. The cost of freightage from Hyder to the Chickamin Glacier is six cents per pound.

The country adjacent to the west fork of Texas Creek was formerly supposed to be a part of the coast batholith. Recent surveys show that the eastern contact swings sharply to the west near the head of Texas Creek. A large area was found to consist of tuffs, sediments and metamorphic rocks, with accompanying dikes. Data suggests that two general vein systems occur. One set striking N. 70° W. and dipping east (with variations) is the more prominent, being a bold quarts system, heavily metallized with shoots of galena. The other striking N. 35° W. and dipping northeast (with variations) carries chalcopyrite, sphalerite, galena and pyrite. The strikes given are magnetic, as they were taken. Much of the country yet remains to be prospected and doubtless mimerous other mineralized lodes will be found.

In the Salmon River Valley, work was carried on st the Lountain Bier, Riverside, and Cantu properties.

At the Mountain View, development consisted of both underground and surface prospecting. The results were **satisfactory** to the owners, who propose to continue work throughout the winter.

The Riverside continued mining operations and did considerable surface prospecting. The mill was operated throughout the year. The major portion of the ore milled came from the Lindeborg Vein, work on the cross-fracture having been suspended. At the Cantu property, trails were built and a small amount of diamond drilling was done by the Premier Company, who had an option on the property. Results were not satisfactory and the bond was released late in the fall. The property reverted to McDonald and Crownhclm, the locators.

The country west of the Salmon River valley has not as yet been explored sufficiently to determine accurately the precise geology. It has been assumed that the prevailing formation is granite. This may not be altogether correct, as what little data that can be obtained, would indicate that there are sedimentary and metamorphic rocks included. Fourteen miles west of Hyder, Cascade Creek empties into Portland Canal. Glacier Creek also discharges into Portland Canal, in this section. Both of these streams have valleys in excess of 15 miles in length. There are no trails and a reconnaissance is practically impossible, from the prospectors' standpoint, due to the brushy nature of the undergrowth.

Bear the mouth of Cascade Creek, is located a prospect, belonging to the Commonwealth Mining Company. Specimens of ore and surrounding rocks seen, would indicate that the orebody is of the contact metamorphic type, which is a form not present in the developed Hyder District,

The expense of constructing prospectors\* trails, from Portland Canal to the headwaters of each of these streams mentioned, would be warranted.



## The Riverside Mine.

Examined by J. G. Shepard. U.S.Bureau of Mines.

## Location:

The Riverside Mine is located at 7 mile on the Salmon River. It is directly adjacent to the Salmon River Valley road, and freighting to Hyder **is** carried on daily throughout the year.



Economic Geology:

The country rock is agranitic intrusive of the granc-dicrite type, in which quartz filled fissure veins occur. Two veins having different strikes and dips are being developed. The ore occurs as shoots of varying lengths within the veins The pricipal minerals are gold, silver galena, tetrahedrite, sphalerite, and pyrite. The ore shoots on the cross vein have a definite rake of 38 degrees south east. A net work of andesitic dikes intersect the veins but as all seem younger than the ore no economic significance can be attached to them. The Cross Vein strikes north IO degrees .east and dips 35 degrees east. This vein integects a brecciated zone some fifteen feet in width in which occurs the vein known as the Lindeborg. The Lindeborg Vein strikes north 60 degrees west and dips 60 degrees to the scuth. The Mine:

Mine workings are at present confined to the two veins mentioned. The principal workings are on the Cross Vein, which is a quartz filled fissure from 2 to 6 feet wide in which three small shoots of ore are known to occur. An inclined shaft has been sunk along the dip of the vein 210 feet below the

adit level.Drifts both east and west along the strike of the vein have been pushed forward. The present mill feed is being mined at 4I stope. This stope is on the 450 level and is in the shoot of ore to the south of th shaft. On the 550 level a raise is being driven in this same ore shoot preparatory to stoping. Levels are IOO feet apart along The dip of the vein.



On the Lindeberg Vein 300 feet of drift was originaly driven from the surface 70 feet above the adit level. This drift exposed an ore shoot 285 feet long of an aver-

age width of 3 feet. This shoot carries an average value of fifteen dollars per ton. A drift north west is being pushed formard on the adit level to under cut this shoot.

#### Summary:

Although a large tonnage of ore has not been blocked out, The work has Seen carried forward in a miner like manner and the aine should be able to produce ore sufficient to keep the mill in constant operation. The mine is operated two shifts The Mill:

The mill is of the dry crushing, net grinding, tabling, and oil floatation Type.

Initial crushing isdone by a Traylor gyratery crusher set to I inch ring. The product is then ground to 20 mesh by a 5'x 4' ball mill. This product is then tabled and the course galena seperated for shipment. An iron conceptrate is also made at this point and stacked for future treatcent. This concentrate carries about sixteen dollars per ten in gold. Tails from the tables go to waste and a large middlings cut is reground in a 5'x 4' ball mill. The product from this mill, along with the settled slines and undersizes from the screens and classifiers, is put through the floatation machines. The concentates are then \$ttled and filtered. Straight creosote is used for flotation oil.

Mill power is by electricity. The crusher is driver, by 3 25 H.P. motor and all grinding and concentrating machinery is driven by an I25 H.P. motor.

Between 35 and 50 tons of ore is treated daily, mill operating three shifts.

Summary:

|                 | H <b>eads</b> -<br>Bails- | 0 1<br>• IOcz. | silver<br>5.50 | 1ead<br>z. 7%  | value<br>\$15.20<br>I.94 | cost per<br>crude ore.                      | ton                     |
|-----------------|---------------------------|----------------|----------------|----------------|--------------------------|---------------------------------------------|-------------------------|
| Float.<br>Table | Conc<br>Conc              | .48<br>I.50    | 55.0<br>55.0   | 55.0%<br>75.0% | 141.60<br>198.00         | <pre>Tining_ frt. &amp;treat. rilling</pre> | \$3.00<br>1. <u>5</u> 0 |
|                 | Recover                   | y 88%          | ntrati         | on I2 tc       | ν T                      | overhead                                    | 1.00                    |
|                 | hauro c                   |                |                |                | · 1.                     | Total 💲                                     | 8.00                    |

Power Plant:

The power plant is housed in a spacious sheet ipon building with concrete floors and foundations. Three Fairbanks Morse semi-deisal gas engines agregating 300 H.P. two I20 K.W. generators and a Sullivan air compressor of 500cubic feet of Free air per minute capacity, a small one drill compressor and two 6 K.W. generators for lighting purposes, togather with supplimentary equipment a small a it is possible to install.

Blachsmith Shop:

A complete blacksmith shop equipped with an Ingersol Leyner drill sharpener is located near the adit portal. Sunk and Cook House:

A combined bunk house and dry room and a cook house are situated on the side hill near the adit portal. Accomodations are for fifty men.

Conclusions:

This property should be a small but constant producer.





Examination of the Daly - Alaska =he. Byder Precinct. March 1925. Examine

The Daly - Alaska Mine is situated in the Salmon River Valley about eleven miles from Hyder. As yet it is in a more or less for prospective stage although considerable development work has been done.

The country rock is a specie of the Bear River formation, a siliceous-schistosetuff, at this property. The ore minerals are tetrahedrite, **chalcopyrite**, and galena, with some native and ruby silver present, Silver is the principal valuable mineral.

The high grade **itreaks** are rather spotty and on account of the nature of the deposite ( quartz stringers in a brecciated zone ), no continuity can be traced for any considerable distance. Present development is confined to one level about seventy five Tunn feet **belove** the surface, on which some two thousand feet of drifting and **cross-cutting has** been done.

Examined by J.G.Shepard.

U.S.Bureau of Mines.

Tunnel Portal

At present the work being carried on is the **driving** of a cross-cut. The last thirty feet of this cross cut has been in a granite intrusive. The objective of this work is the prospecting and development of ground to the south and east of the present workings on which good surface showings wete discovered, Some two hundred and seventy feet remain to be driven before this ground is reached.

Ten men are employed at the present time and the cross-cut is being driven two shifts daily..

Power is generated by a twenty five horse power, Fairbanks Morse, **Bemi-deisal** engine, belt driving a I4 x **I**B Sullivan air compressor.

On March 7, about six or seven feet of **show** remined on the ground in th vicinity of this **mone**.



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REPORT ON MINING PROPERTIES IN THE HYDER DISTRICT BY J. G. SHEPARD, OCTOBER, 1926.

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Edelweiss Claim: A claim known as the "Edelweiss" has been located by Frank Blasher on the south side of Banded Mountain about 400 feet above the ice of the south fork of the Chickamin Glacier.

A cut has been made in a gulch, exposing a quartz vein 7 feet in width, The vein is quite decomposed. and did not outcrop on the surface at this point. Country rock is an altered. greenstone tuff. The vein strikes mag. north-south and dips 60° east. Fine grained galena is the predominant mineral.

The "96" Group: The "96" group of claims held by Ray Snyder and associates is located near the Texas Creek trail about  $1\frac{1}{2}$  miles above the Salmon River bridge.

At an elevation of 600 feet a crosscut tunnel was driven to intersect a quartz vein at a depth of 35 feet below the surface. The vein was drifted on for 42 feet, 25 feet of which showed ore, The vein is quartz, occupying a shearing in porphoritic diorite, and varies from a few inches to 3 feet in width. Parts of the vein are heavily metallized with galena and sphalerite. In the southeast breast of the drift, only the sheared material is present, with the indication of the return of quartz stringers,

The prospect is equipped with a comfortable cabin and a blacksmith structure. About 4 tons of cobbled pure galena, has been sorted and is stored in the blacksmith structure.

It is the intention of the owners to continue the southeast drift, with the expectation of encountering a second ore shoot.

Dominick Bevacque Claims: A group of 5 claims known as "Dominicks" has been located on Dominick mountain, on the east side of Fergusen Glacier a short distance above the foot, at an elevation of 3800 feet. At present the property is reached by traversing the glacier for one quarter mile and ascending the mountain by switch back trail. A horse trail can be easily constructed Prom the Texas Creek trail to the property,

The vein, which is a quartz fissure from 2 to 4 feet wide. can be traced for over 600 feet. Dominick Bevacque, the locator, has driven two short tunnels, one 20 feet long on the northwest exposure and one 15 feet; long, a crosscut which has not yet reached the vein.

An oreshoot 150 feet long has been stripped on the surface and is in shape for sampling. This oreshoot, which varies from 2 to 3.5 feet in width, is heavily mineralized with steel galena and pyrite, the galena predominating. The vein strikes N. 70° W. mag. and dips 60° NE. in quartz diorite, angling toward the contact between the granitic and sedimentary rocks, which is present higher on the mountain. <u>The Lake Claim</u>: The Lake Claim, located by Malcomb Smith

The Lake Claim: The Lake Claim, located by Malcomb Smith and associates, is situated near the end of the Texas Creek trail at the Chickamin ice. The Marietta cabin is built on Lake ground.

The vein which is a quartz fissure' strikes N.  $70^{\circ}$  W. mag. and dips 45 NE. Country rock is a quartz diorite. Directly off the trail a cut has been made, facing off the vein. The exposure shows 2 feet of mixed vein material rather heavily mineralized on the footwall with galena and pyrite. Exposures have been made for 200 feet along the strike. in places the vein is obscured by the diorite flow.

The Morning Star Claim<sup>1/+</sup> The Morning Star Claim, located by Prank Slasher, is situated on the Texas Creek flat about one mile from the Chickamin ice,

The vein, which is a quartz fissure, strikes N.  $70^{\circ}$  W. and dips  $40^{\circ}$  N.E. It is exposed in a small creek and shows a width of 2 feet, The quartz is mineralized with disseminated pyrite. The country rock is a quartz diorite.

The Keno Group: The Keno group comprises nine claims staked by Neil Stevens and associates at an elevation of 4,000 feet on the mountain west of Fergusen glacier, about three miles from the Texas Creek trail.

Work has been confined to a quartz fissure vein in granodiorite, striking N. 70 W. mag. and dipping 80 NE. A drift 70 feet long has been driven on the vein which shows a sparse mineralization of pyrite throughout. The vein varies from 2 to 4 feet in width. Pits and opencuts have been made on the vein for several hundred feet above the tunnel. Massive galena is present in some of these cuts, The vein at surface has been oxidized to a depth of several feet. The left breast of the tunnel shows splotches of massive galena. A picked specimen gave assay values of 0.18 oz. per ton gold, 11.60 oa. per ton silver and 59.52% lead.

## K+118-29

The Texas Discovery: About 4 miles west of the Texas Creek bridge, directly on the Texas Creek trail, is located a prospect belonging to Smith, Fergusen and Rosenstein. A comfortable log cabin has been built a short distance beyond the showing, on a wooded point.

The prospect consists of a quartz vein occupying a shear in granodiorite. A tunnel 20 feet long has been driven on the vein. In the beast of the tunnel, the vein is 2 inches wide at the top and 6 inches wide at the floor. An andesitic dike is appearing in the face of the tunnel near the hanging wall and close to the floor. The vein is becoming softer and is heavily mineralized with galena. High assays in gold are reported to have been obtained from the vein, with the values increasing as the drift advanced. A few hundred pounds of picked ore, is stacked near the mouth of the tunnel.

It is the intention of the owners to advance the drift 25 feet to determine the effect on the vein of the presence of the dike.

The Jumbo Group:<sup>14,118-11</sup> has been located by Frank Blasher and Harry Hummel on the southwest side of Banded Mountain. The claims are reached by traversing the Chickamin Glacier Prom the end of the Texas Creek trail to Handed Mountain. Thence following the mountain on the south side on the ice to a place about; 3 miles from the eastern point of the mountain. At this point a trail zigzags up the hillside to the claims.

The showings consist of a series of bold mineralized quartz veins from 1 to 5 feet wide, in a zone about 200 feet in width. The country rock which is composed of graywacke, argillite and tuff is also mineralized, Some calcite is present. The predominant mineral is pyrite, with a subordinate dissemination of galena and splotches of chalcopyrite, The outcrops can be traced for a considerable distance. Other veins of the same character, than the ones sampled, were seen.

some veins on the Davis ground, an adjoining group of claims, are reported to have returned high assay values in gold. These veins were not seen.

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The Sunset Claim: a claim known as the "Sunset" has been located by Frank Blasher about 1 mile south of the Chickamin ice and a few hundred yards east, of the Texas Cree!; trail.

Several opencuts have been made on the vein over a distance of 300 feet. The vein varies from 3 to 9 feet in width and is a mineralized quartz fissure in greenstone tuff. Very little mineralization is apparent on the surface, which is much oxidized. in one cut at a depth of 8 feet below the surface, a width of 9 feet of mineralized vein is exposed. The principal mineral is pyrite, with subordinate amounts of galena, sphalerite and chalcopyrite. The strike of the vein is N.  $35^{\circ}$  W. mag. with a dip of 450 east. The Hyder Lead Mines Company: The Hyder Lead Mines Company now.controls the property that was formerly held by the Texas Creek Comstock Company.

A complete description of the property is given by A. S. Bud-dington in U. S. Geological Survey Bulletin 773.

During 1926 the property was in charge of R. G. Mellin. A tunnel 85 feet long was driven in an attempt to undercut a twofoot mineralized vein, at a depth of about 75 feet below the surface. No ore was encountered. The vein shows a surface exposure of two feet of heavy mineralization. Galena and pyrite being the predominant minerals. A sample across the surface exposure of this vein is indicated on the accompanying sketch.

The Joe-Joe vein was traced by stripping for several hundred feet in a northwesterly direction from the original discovery, Galenapyrite ore is exposed by some of the cuts although the major portion of the vein is a massive white quartz. The original Joe-Joe showing, which has a shape resembling a camel's hump, was blasted across. About one hundred tons of ore was scattered over the hillside, The cut exposed five feet sf sulphide ore, a sample of which is indicated on the accompanying sketch. There is probably one thousand ton of ore of the grade indicated get remaining in the **bold** outcrop.

Six men mere employed at the property during the summer of 1926. Future plans are not known.

<u>Miscellaneous Prospects</u>, Texas Creek: A number of prospects of promise have been located during the past year, and previous to 1926, which were not visited on account of weather conditions and inability to find the showings. 35

Phe Homestake group, the property of Carlson and Hewitt, is located on a tributary of the west fork of Texas Creek, flowing from the east, about 6 miles north of the Salmon River bridge at Nine Mile. A description of this property is given by A. S. Buddington in U. 5. Geological Survey Bulletin 773. The vein, which is a quartz fissure carrying galena and sphalerite, was cut by a tunnel 35 feet below the surface. During 1926 a small shipment of hand sorted ore was shipped to the smelter. This ore was of \$100 per ton value. It is reported that double the amount of ore skipped, of a \$50 per ton value was discarded as being of too low grade to ship under present transportation costs. Carlson and Hewitt are now driving a crosscut tunnel to cut the vein at a depth of 100 feet below the surface.

The Ibex group has remained idle, except for the assessment work, since the Day Brothers suspended operations.

A new prospect has been discovered by Joe Connor about  $2^{\mu \gamma \mu \beta \cdot 2\beta}$  th of the Ibex group and at the last miles north of the Ibex group and at about the same elevation. This prospect is said to show 34 inches of solid galena for a distance of 100 feet. There was no one at the property at the time of the writer's visit and the exact location of the exposure was not found.

The Double Anchor group is situated on the hillside east of the Texas Creek trail, a mile south of the Chickamin ice. The prospect is described as a wide mineralized zone carrying low values in gold, silver, and copper.

12118-18

The Marietta group is owned by Thornton and Lemons and is located on the east side of the north fork of the Chickamin Glacier about  $2\frac{1}{2}$  miles from the Marietta cabin at the end of the Texas Creek trail. A number of large showings are said to exist on the property, one of which is a vein 30 inches wide of solid lead-zinc ore which has been traced for 150 feet. A sample said to be representative of the showing assayed:

| 0z.  | per ton | Per   | cent |
|------|---------|-------|------|
| Gold | Silver  | Lead  | Zinc |
| 0.28 | 21.10   | 13.26 | 9.45 |

Specimens of country rock seen would indicate that the vein lies in dark quartzite and argillite. A large porphoritic dike is reported to have given assay returns of \$3 in gold.

The Hecla claim is owned by Frank Slasher and is located on the east side of the south fork of the Chickamin Glacier, 700 feet above the ice, about  $2\frac{1}{2}$  miles from the moraine.

The showing is described as a lead-zinc stringer 14 inches wide, exposed for 50 feet. Two ton of ore was broken from the lead and hauled to the Texas Creek trail by double end sled. No other work has been done on the property. A sample reported to be representative of the showing assayed:

| Oa.  | per ton | Per   | cent  |        |
|------|---------|-------|-------|--------|
| Gold | Silver  | Lead  | Zinc  | Copper |
| 0.01 | 54.60   | 10.35 | 27.20 | 4.15   |

Other showings are said to occur on the property.

The Mountain View Mine: The Mountain View property is situated at the junction of Fish and Skookum Creeks, about two miles by trail from the Salmon River road near Sive Mile. The property consists of 8 claims, some of which are patented. It was o iginally located by John Hovland and subsequently sold by him to the Mountain View Hining Company. Arthur Moa is manager and superintendent; A description of the mineralization is given by A. S. Buddington in U. S. Geological Survey Bulletin 783-B.

Surface equipment consists of the following: A single wire aerial tramway leading from the Fish Creek flats to the mine camp, powered by an oil engine operating lead and haul back lines; a combined cook and bunk house capable of accommodating twenty men; an engine room housing an Ingersoll Rand two drill air compressor and a drill sharpener; and several small camp buildings. Power for tire compressor is furnished by water taken from Fish Creek. it is led to the water wheel by 700 feet of 16-inch wood pipe. The head is relatively small, but can be easily increased to meet power requirements.

A relatively large amount of both s rface and underground prospecting has been done during 1925-1926.

The main work has been done on a quartz fissure vein on No. 3 Claim. An aggregate of 500 feet of tunneling has been done on this vein which has developed a number of short, narrow shoots of ore of an average value of 15 per ton in gold, silver, and lead. The maximum depth below the surface attained by this tunnel is 100 feet. The oreshoots as exposed by the underground workings denote a marked improvement both in size and grade as compared to the surface exposures. About 2,000 tons of ore of a millable grade has been developed by this prospecting. The working breast of the tunnel at the time of visit was entering a zone of massive white quartz. The entire face of the drift was quartz with no wall showing on either side. This corresponds to surface exposures. No massive sulphide ore is known to exist in this area although low values in gold and silver have been obtained at different intervals. The vein and branch strikes approximately N. 10 E. and dips  $45^{\circ}$  E., in a granodiorite country rock.

Pifteen hundred feet north of the main workings is a vein striking N.  $50^{\circ}$  d. and dipping  $45^{\circ}$  NE. This vein has been opencut for 400 feet along the strike and has about 120 feet of underground development. Pyrite is the predominant mineral with considerable

-6-

tetrahedrite also present, Remarkably high values In silver have been obtained from this vein. A 40-foot crosscut was driven which intersected the vein 20 feet below the surface. Fifty feet of drift was driven along the vein to determine the strike, dip and continuity of ore. A short distance to the northwest of the tunnel, a winze was sunk for 35 feet for exploratory purposes. Throughout the exposures, the vein varies from 2 to 6 feet in width and shows sufficient ore of a grade to justify extensive development. This development will be accomplished by pushing forward the main adit tunnel *a* distance of 1,000 feet which will intersect the north vein at a depth 300 feet below the surface. This work will be done during the winter of 1926. Supplies have already been stored at the camp.

Finances to carry on development work are advanced by the owners as it becomes necessary, no stock being offered for sale. The property is being well handled and no mill will be built until sufficient tonnage is developed to justify the expenditure.

No work is 'being done on the Fish Creek veins at present.

The Xiverside Mine: At the Riverside Mine, operations have continued throughout the year. During the summer the property was taken over by an association represented by the Salmon River Bank of Hyder.

R. G. Mellin was placed in charge of the property and materially changed operations. Mining on the cross fracture vein from which most; of the ore previously willed had come was suspended and operations were centered on the Lindeborg vein. Surface stripping was carried forward and ore was exposed for a distance of 150 feet showing a width of from 3 to 5 feet. Mining was confined to the shoot of ore previously developed by the old Lindeborg workings. About 2,000 tons of ore of a \$15 value remains to be mined in this shoot. It is the intention of the management to develop the ore exposed by recent stripping, during the winter of 1926. An aggregate of 22 men were employed at the property during the summer and fall of 1926. The crew will be reduced to 15 men during the winter.

Kt120-63

The Fish Creek Mines Company: The property of the Fish Creek Mines Company adjoins the Mountain View Property. An arrangement has been made for a tramway to be built by the association interested at the Riverside from the Fish Creek Company workings on Skookum Creek to the Riverside mill. This tramway will cost approximately \$50,000. John Hovland, a Hyder engineer, estimates that there is about 3,000 tons of mill ore available at the Fish Creek Mine at present.

## SKETCH

of MORNING STAR SHOWING Texas Creek-Hyler Precinct by J.G. Shepard Oct. 1926 U.S. G.S. Scale I<sup>#</sup>=10!

LEGEND Quertz diorite Nimeralized vein

PLAN

N TO'W. M.

Sample 2'side tr.-, or gold per ton Tr.-, or silver per ton

## SKETCH of KENO SHOWING Texas Creek-Hyder Precinct Oct. 1926 by J.G.Shepard Scale I<sup>4</sup>=20<sup>4</sup> U.S.S.S.



## LEGEND

Granodierite Mineralized quarty vein

TPLAN

sample 30" wide 0.0Z-, oz gold per ten 0.30-, oz eilver per ten SKETCH of SUNSET SHOWING Texas Greek=Hyder Precinct Oct, 1926 by J.G.Shepard Scale 1"=20' U.B.S.S.



#### LEGHND

Greenstone tuff Mineralizd guartz vein

sample 9'wide

0.06- .Oz gold per ton 0.10-.oz silver per ton

PLAN

## SKETCH

OF DOMINICK BEVACQUE LODE Texas Creek-Hyder Precinct by J. G.Bkepard, Oct. 1926 4.8.9.68

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Bample 2'wide C tr. oz gold per ton a ser oz ellver per ton

> LELEND Cuarte, diorthe Minoralized quarte wein Stripped oreshoot

> > 1000

Gample 30" wide < 0.02-.02 gold per ton 3.60-.05 silver per ton 16.96-% lead PLAN

WHEPLE 2 Wide off.or gold perton 1070 . or silter perton 21.04. % lead

2000

Sample I'wide tr...on gold per ton tr...oz silver per ton

SKETCH of JUMBO SHOWINGS Banded Moents in-Hyder Precinct Oct. 1926 by J.G. Shepard, Scale I<sup>4</sup>=20<sup>1</sup> U.S.G.S.

Sample I' Vide

Note off

12

PLAN

N. SOW. R.

50° W.

Sample 2'wide er -. or gold perton tr-. or silver perton

I sample 2.5" wide tr.-. az gold petton 0.20-. oz silver pettok

sample 4 mide to -. or gold per ton 0.70-, on silver per ton

sample 4'Mide tr-.oz gold per ton 120-.oz silver per ton

LEGEND Graywacke and toff Mineralized guartz vein

> Sample 2,5' mide tr.-.oz gold per ton 430-.oz silver per ton

sample 2'ride - the or gold per ton 7 0.60- or silver per ton

Bernet States and States

SKETCH of LAKE SHOWING Texas Creek-Hyder Precinct by J.G.Shepard Scale 1"-Jo' Oct. 1926. 4.8.8.5.



Mineralized guartz voin Quartz diorite

PLAN

sample 2'wide o.pl..oz gold per ton p.90..oz silver per ton SKETCH of EDELWIGHT SHOWING Oct. 1926 Banded Mountain-Hyder Precinct by J.G.Shepard. Scale T=IO' 405.g.s.



#### SKETCH of "96" SHOWING Oat, 1926. by J.G. Shepard. Scale 1"=10' U.S.G.S.

PLAN

sample 3' wide

02 :, 02 gold per ton 3 70- .02 silver per ton 9.27- % legd 17.75- % sinc

#### LEGEND

- di - 1

Porphoritic Diorite

Fractured Rock Mineralized Quartz SKETCH of Texes Descovery Prespect Oct. 1925. by J. G. Shepard. Scale  $I^{n} = 10^{1}$  U. S. G. S.

