

TERRITORY OF ALASKA
DEPARTMENT OF MINES

JUNEAU, ALASKA
P. O. Box 2483,
Anchorage, Alaska.

September 29, 1940.

NOTED

OCT 7 - 10

B. D. STEWART
Commissioner of Mines

MR 85-411
Mr. B. D. Stewart,
Commissioner of Mines,
Territorial Department of Mines,
Juneau, Alaska.

Dear Mr. Stewart:

In reply to your telegram of the 27th I am herewith submitting reports on the various mines in the Willow Creek District that I have been able to inspect. Weather conditions throughout the month of September have been very unfavorable to return to the Willow Creek District and it is with regrets that I cannot give you a report on the entire district. Early in the month the roads to the district were blocked or made impassible with snow which continued falling for a period of time. This snow went off with a rain, halting all railroad transportation, Ship Creek overflowed and washed out the Palmer highway which is still impassible, a three mile slide beyond Eklutna closed the road there and it has been closed for approximately two weeks. Transportation from Palmer up is stopped due to high water and slides at the present time. Constant rain and fog have prevented reaching the district by plane transportation.

Lucky Shot Mine.

This mine is on a sound foundation with ample ore to operate for the next several years. The new manager A.W. Freakes is apparently very conscientious regarding the safe operation of the mine and has the mine in first class condition. I would not anticipate any infractions of the mining laws at this property. At the present time the company proposes to pull the filling from the old stopes and mill that together with tailing piles on the outside plus continuing with their present underground operations. A new 20 ton mill has just been installed increasing the mill capacity to 65 tons per day.

Grubstake Mine Inc.

This mine was taken over by G.E. Rockefeller and partners last spring. They have a new mill powered by a FM deisel engine, and the flow sheet is as follows: - 12 ton ball mill, mineral jig, amalgamation plates, rake classifier, overflow to Gibson Impact amalgamator, coarse materiel to small ball mill, amalgamation plates, to classifier. 12 to 14 tons is total capacity. Financial position probably very weak. Underground operations includes three drifts none of which are more than 25 feet below the surface at the any point. These drift were driven by the former owner and the lower one on

1285-83
85-110

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Grubstake Mine Inc.

which mining operations were carried out was driven on a dike. This dike is not present in either the face or the floor of the tunnel. Portions of it were visible on the sides of the stopes and it carried copper and lead. It has either pinched out or has been displaced by faulting. Conditions in the tunnel prevented determining which took place. The ore, or material, being milled is material which has washed into the stope which is open to the surface. Proposed development at the present time includes driving the drift a distance of 800 - 1000 feet to cut another basic dike which reportedly outcrops at the ridge of the hill. Country rock is a mica schist with numerous small veins of quartz varying from 1/16 inch to 2 inches in thickness. It is my personal belief that the gold values occurring at this property are derived from the latter source and have been collected at the outcrop of the dike through the normal process of weathering and concentration by surface waters. The dike outcrop forming a ridge or gully depending on immediate local conditions. Through surface mining local enrichments may be encountered which will make it profitable to operate on a small scale. I do not advise underground exploration work of any kind. One month surface exploration should determine if sufficient values are at the surface to continue operations. In general it is a bad bet. Will not operate during the colder months of this year.

Rapp and Till:

This operation consisting of the reworking of stamp mill tailings from the Gold Bullion Mine under the supervision of F. A. Rapp is on a sound basis. The tailings are taken up by hand, loaded into a mine car and treated by cyaniding. The tailings average 10 to 12 dollars per ton. The operations will cease by the first of July 1941 due to exhaustion of the tailings pile.

Old Prospectors Mine.

This prospect is located on Upper Craigie Creek a little above the Rapp and Till Operations. It was first leased by H. A. Drake and is now controlled by Mrs. H. A. Drake the change being occasioned by the death of Mr. Drake. Underground operations consist of one drift approximately 210 feet long. This drift cuts a nine inch vein about 170 feet from the portal. The prospect is idle at the present time. A sketch has been made of this property and is enclosed for your information. There is evidence of considerable faulting which is very apparent on the sketch. Assays of the vein were not made available to me. Below the portal of the tunnel a vein (9") occurs in the bottom of a stream which carries visible gold. Farther down the hill along the trail is a basic dike, apparently in place but may be in slide rock, which carries copper and molybdenum. The property is worthy of additional exploration, but the operator should be prepared to expend in the neighborhood of 150,000 dollars due to the spotty nature of the Willow Creek deposits and the fact that new development must be done as there is very little ore indicated above the drift. The vein in the creek bottom should not be passed by as it too looks very favorable, may be the same vein displaced by faulting.

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Milo Kelly Mine:

K+ 85-94
85-108

This mine is located at the head of Willow Creek, is in the development stage, owned by and operated under the supervision of Milo Kelly. Mr. Kelly reported five different veins outcropping on the property. The mine is opened by one level, approximately 225 feet of drifting has been done on the vein. One lense of ore has been encountered and partially stoped. The heading was in a fault at the time the property was visited. There seems to be some reluctance to raise on the vein which I recommended and leads to the belief that the vein may apex on Independence property. Not knowing where the property lines are I cannot vouch for this. All activity in the mine at the time was directed toward extending the drift. The mine is in good condition, there being no raises, crosscuts and very little stoping. Reports reached me in other camps that negotiations were under way to sell the property to outside interests. Mine equipment consists of jackhammers and a DG compressor. Mill machinery consists of an El Dorado mill and amalgamation plates with a total capacity of 15 tons.

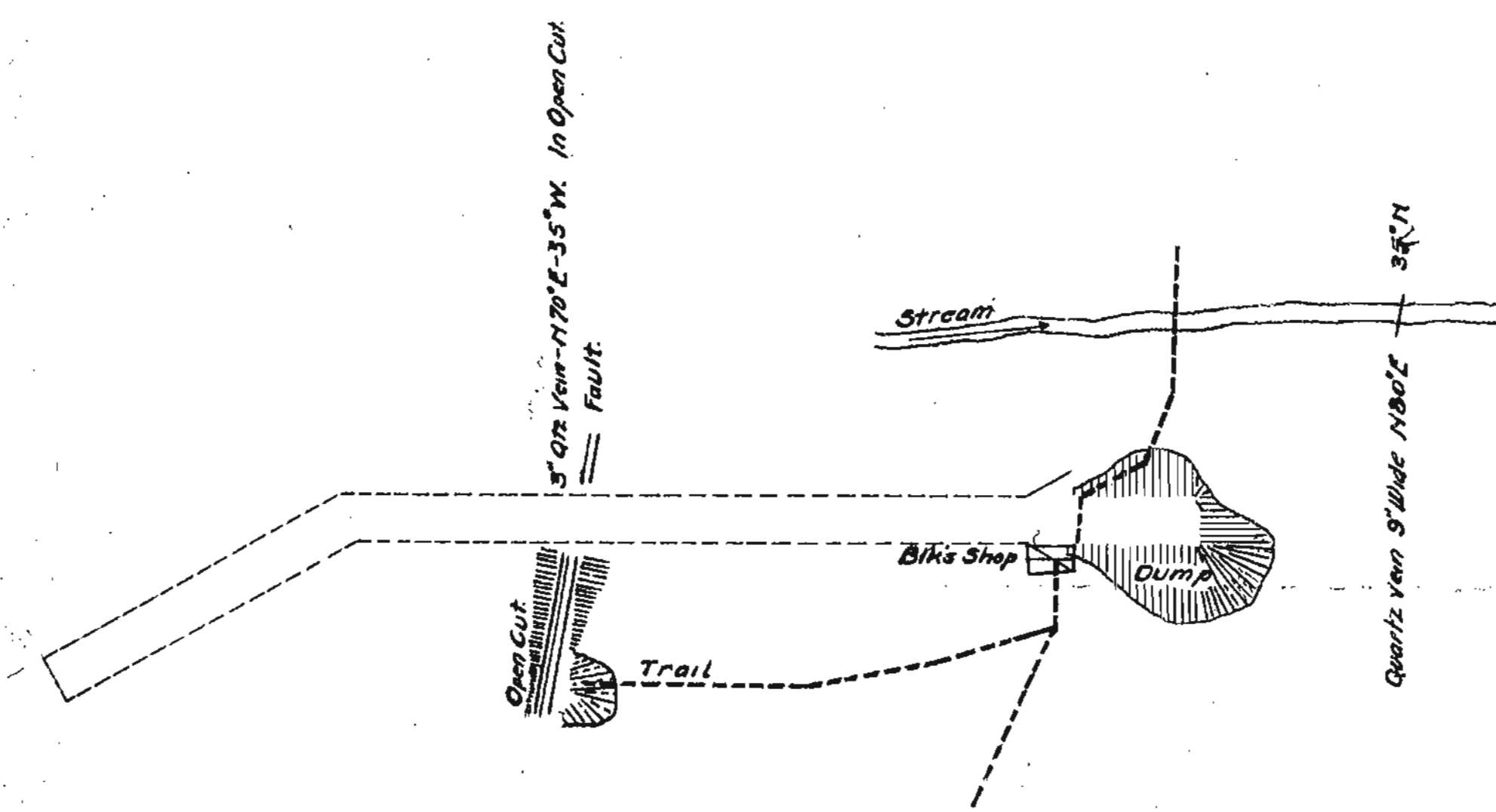
New Bullion Mine:

K+ 85-109

This mine is located at the head of Craigie Creek. The mine is owned by the New Bullion Mining Company which consists of G.S. Harning and Seattle interests. The mine is in the development stage and it is questionable whether it will develop into a profitable operation. The vein is flat, thin and steep faulting is very conspicuous in the limited amount of development. Indications on the surface show that extensive faulting will be encountered in the near future. Needless to say in such a deposit high operating costs will prevail unless the formation changes to a considerable extent and there is no indication that this will occur. Mine equipment consists of Cochise drifters and Denver Gardner compressor. Mill equipment consists of a crusher, Denver rolls and amalgamator powered by a Hercules gas engine. A 24" basic quartz dike, with copper stains crosses the property and apparently has no effect on the values in the auriferous veins. Sufficient development work has not been done to determine the relationship between the two intrusions. This property is operated during the summer months only. The road to the property is in bad shape, not being passable at the time I was there in the middle of August.

Yours very truly,

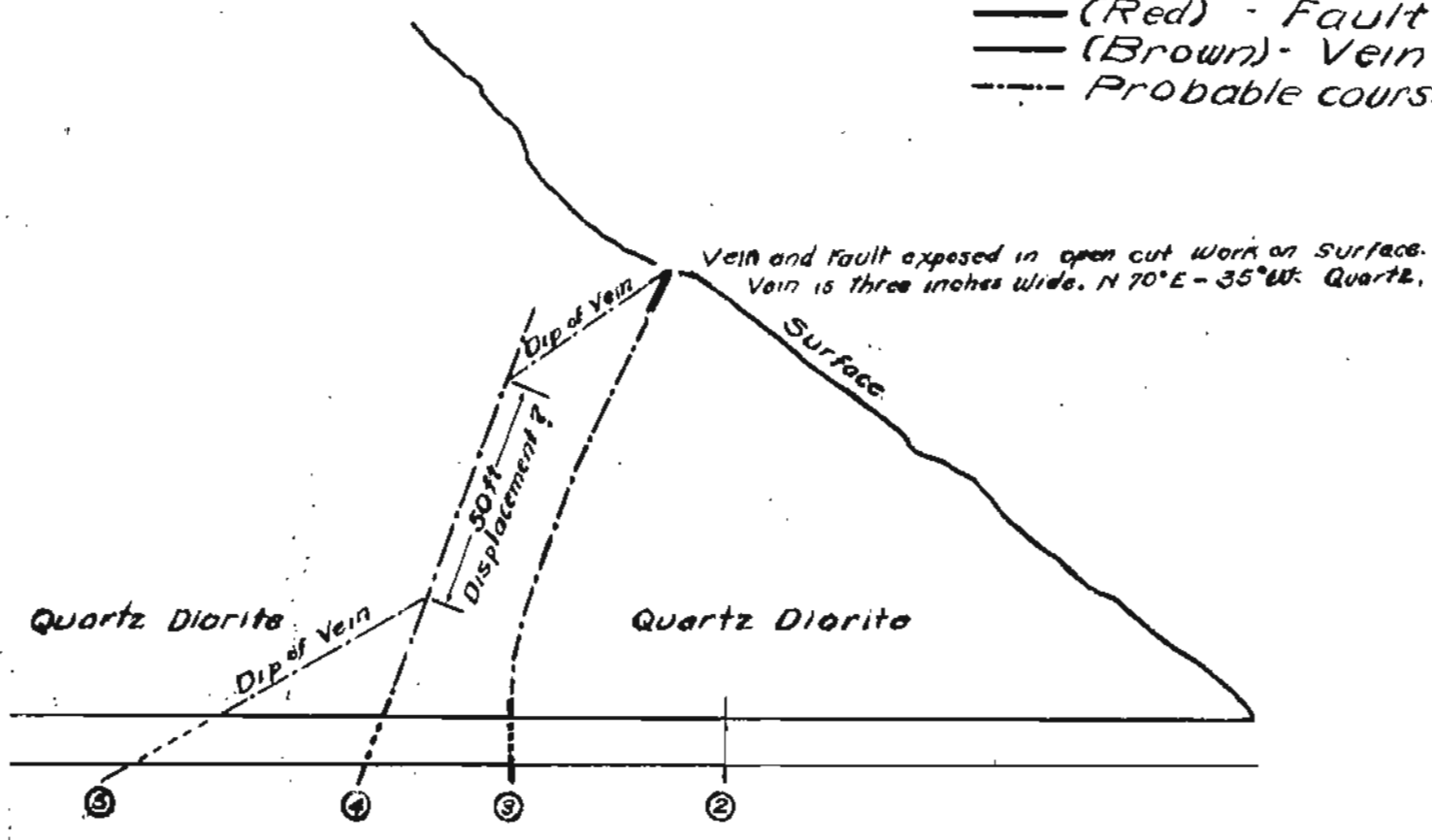

George E. Zeigler.



SURFACE

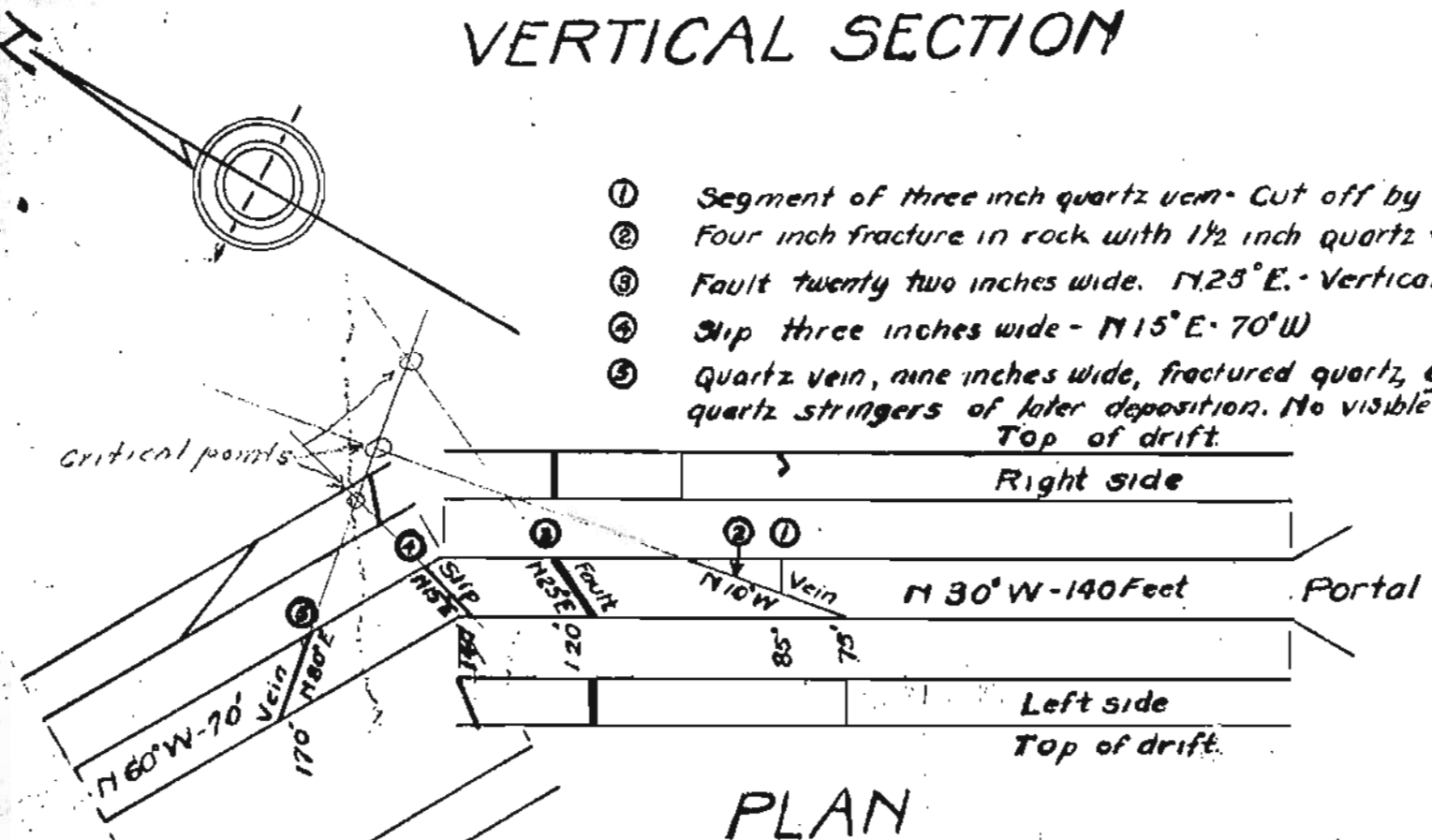
LEGEND

- (Red) - Fault
- (Brown) - Vein
- - - Probable course of fault or vein



VERTICAL SECTION

- ① Segment of three inch quartz vein - Cut off by fracture ②. Exposed on Pt. Wall
- ② Four inch fracture in rock with 1/2 inch quartz vein. N10°W - Vertical.
- ③ Fault twenty two inches wide. N25°E - Vertical.
- ④ Slip three inches wide - N15°E - 70°W
- ⑤ Quartz vein, nine inches wide, fractured quartz, gouge material and solid quartz stringers of later deposition. No visible mineralization. N80°E - 30°N Top of drift.



PLAN

OLD PROSPECTOR MINE
 WILLOW CREEK DISTRICT
 Owned by Mrs. H.A. Drake
 Scale 1" = 30'
 G.E. Zeigler. 8-17/40