PE-095-18

TERRITORY OF ALASKA
DEPARTMENT OF MINES

PRELIMINARY PROPERTY EXAMINATION REPORT

FALLS CREEK MINING COMPANY AA 95-164

GOLD-QUARTZ PROPERTY

SEWARD PRECINCT, SEWARD QUADRANGLE

KENAI PENINSULA, ALASKA

By-

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SUMMARY

During the brief preliminary examination of the mine workings on the Skeen and Lechner section of the property one area was selected for checking dependability of sampling values recorded upon the old Assay Plan of the Company. With the seven samples taken at 5 foot intervals in south end of the No. 2 level giving Nil to Trace values in an area shown on the Company's map to average $20.00 per ton, it can only be concluded that, (1) all values shown on their map throughout the mine are open to question and that,(2) all accessible workings will have to be carefully and systemmatically resampled before anyone would be justified in considering undertaking operation of the property.

It should here be pointed out that during the 50 years since the discovery and location of the properties, none of the sporadic efforts to operate the property are known to have been profitable, and that the limited amount of underground workings combined with the few small stoped areas shows that only a few thousand tons of ore could have been mined and milled.

INTRODUCTION

At request of Dan Ross, Anchorage, a stockholder of the Falls Creek Mining Company and lessee of the property, a preliminary examination was made of the property August 31st, 1955. Time spent on the Skeen and Lechner section was limited to half day; with Falls Creek rising rapidly due to heavy rainfall, which continued for three days, the foot bridge washed out and water depth was too great to again ford with jeep during that period, and a thorough sampling and study of mine workings could not be made.

With no experienced miner present on the property familiar with ground conditions in the limited old mine workings on the California-Alaska property, which are located in bottom of the narrow valley and extend under the creek, the adit level only was examined.*

LOCATION AND ACCESSIBILITY

The property is located at approximate geographical coordinates Longtitude 149° 17' and Latitude 60° 26'.

Leaving the Seward Highway at Mile 22½, near Wolf Creek Lodge, the camp is reached over 4 miles of very steep and somewhat hazardous road, which has grades up to 30% that can only be negotiated with four wheel drive equipment or with tractors.

The deep winter snows and the snowslide hazard during late winter and spring months have made it impractical in the past to keep the road open for hauling of freight, or to be practical to attempt operations on a year around basis.

The camp is at about the 2100 foot elevation and mine workings on the old Skeen-Lechner claims at approximately the 3140 to 3260 elevation, which are served by a road about two miles in length, with numerous switchbacks of very steep grade. Only 4-wheel drive or tractor equipment can negotiate the 20 to 30% grades.

CLIMATE AND VEGETATION

Located 40 to 45 miles due west of Prince William Sound, which distance is largely covered by extensive ice fields, the area is one of heavy precipitation throughout most of the year, with deep snows during the winter and heavy rains frequent during summer and fall months. Sub-zero weather is not common during the winter.

*Refer to Map 3, attached.

Timberline in this vicinity is between the 1900 to 2000 level. With the steep open slopes of this "hanging" valley subjected to frequent snowslides, vegetation is largely limited to more or less protected "clumps" of alder and willow, and to moss and "low bush" cranberry and blueberry plants.

TIMBER AND WATER SUPPLY

Nearest timber for mining purposes lies below the 1900 elevation; there appears to be an abundance within 3 to 4 miles from the mine camp.

Stream flow in Falls Creek has a wide variation throughout the year. It is possible that there is sufficient during its low stages to develop sufficient power to supply requirements for a 50 ton per day milling and mining operation for greater part of the year. It was not determined whether stream flow measurements were kept in the past.

TOPOGRAPHY

The area is one of very steep slopes and rugged topography. Elevations range from about 2100 at camp and millsite in the narrow "U" shaped hanging-valley to maximum of 5670 feet on the ridge on north side and 4600 on the south side.

HISTORY AND OWNERSHIP

California-Alaska Claim Group

First gold-quartz discovery in Falls Creek area was made July 10, 1905, by F. P. Skeen and John Lechner on what came to be known as the California-Alaska Mining Company a few years later.*

The locators bonded the property to E. O. Ingalls on October 5, 1905, who assigned the property to C. D. Lane on October 30, 1905. Ninety feet of tunnel was driven and at 60 feet from portal a winze was sunk 20 feet. The property then reverted to original owners who held it until January 11, 1908, at which time it was deeded to the California-Alaska Mining Company. Under the new ownership the winze was extended to 40 foot depth and 140 feet of drifts were run from that point. This program was stopped due to lack of pumps to handle a heavy flow of water.*

In 1912 this working was dewatered and sampled but no development work was undertaken.*

Two arrastras were built in 1909 and run for a short time. In 1910 they were operated 2 to 3 weeks and $100.00 in gold was recovered. During 1911 the first stamp mill (2 stamps) on Kenai Peninsula was built and 90 tons of ore was reported to have been milled.

*U.S.G.S. Bul. 587, Pages 151 to 154.

Amount of gold recovered and grade of ore handled is not known. Thirty men are said to have been employed for a short time during the 1911 period. Power for the plant was supplied by Pelton water wheel under an 80 foot head.

In 1912 the mill was run for short time on ore from the Skeen-Lechner property. It is not known what gold was produced, tonnage milled, or average grade of ore mined.

The mine workings were in the valley floor, not far from the present camp building. It is not clear how much of this work was completed by present owners. (Refer to Map 3, attached.)

It was not determined what claims or how many of the 16 unpatented claims held by the Falls Creek Mining Company were included in the old California-Alaska Mining Company's property, but from map shown on page 152, U.S. Geological Survey Bulletin 587 they appear to have included the -

Falls	Falls No. 1	Columbia
Betty	Betty Extension	Mary
Bear	Bear No. 1	

Skeen-Lechner Claim Group

This claim group adjoins the California-Alaska property on the north-side slopes of the valley. Maps or other data showing names and number of claims are not available. The three (3) adit levels are within the 3140 to 3260 foot elevations, about 1000 feet above the valley camp-site.

Original discovery was made early in 1907 by F. P. Skeen and L. F. Shaw and the Portland and Betty No. 1 lode claims were located at that time. A second parallel vein was discovered in 1911 on the same ground. The claims were bonded to F. L. Ballaine and J. A. Nelson in May 1910 with little work done before the property was deeded over to others. Prior to this a cross-cut adit was driven 100 feet intersecting the vein (on what is now called the No. 2 Level) at 90 feet, and the vein was then drifted upon to the north until hitting a fault at about 80 feet.* Work stopped at that point, the bond dropped, and property reverted to original owners. On September 19, 1911 the property was deeded to the Skeen-Lechner Mining Company. By February 21, 1912, workings were extended to total of "190 feet of tunnels and 160 feet of drifts".**

*Refer to Map 1, attached.
**Refer to U.S.G.S. Bul. 587, Pages 154 to 156.

In 1912 No. 3 level was started and the second vein, discovered in 1911 and called the "B" vein, was intersected at about 20 feet.** It was drifted upon northerly for 80 feet to intersection of a fault; by October of that year a drift (cross-cut) was advanced 40 feet beyond the fault without picking up the vein.

A 40 ton stamp mill and aerial tramway were built in 1913 and about 1400 tons are said to have been milled. With only 50% of gold recovered the property was shut down. Amount of gold production and average grade of ore fed to the mill is not known. Total footage of mine workings at end of this period is said to have been about 2000 feet. (The present company's mine map shows a total of 1991 feet which indicates little work was done on this claim group since 1913).**

This property remained idle for many years, eventually being acquired by Mel Horner, who deeded the property to the Falls Creek Mining Company in 1939.*

Mining work done by the present company was limited in scope and confined to the following:- *

1940 One hundred fifty feet of drifting.

1941 Drift worked upon in previous year was extended 70 feet.

1942 Drifting was limited to 30 ft. and raising 25 ft. to drain upper levels.

1943 Drifting 30 feet. Mined and shipped 46 tons of ore. (Value not given.)

1944 No development or mining carried on. Work limited to preparations for new mill construction.

1945 Mill and camp construction only.

1946 Sixty five tons of ore were milled from lower workings. (California-Alaska Group?)

1947 Sixty tons of ore were milled and some drifts cleaned out. (California-Alaska Group?) Drifts were cleaned out in upper workings, and road built from camp to the old Skeen-Lechner mine area.

1948 Ninety five tons of ore were milled.

1949 Some development work done in Skeen-Lechner mine and 110 tons of ore milled from there from which $4200 was recovered for an average value of $38.18 per ton in gold.

*Data from Report by Wm. A. O'Neill, Consulting Mining Engr., Feb. 1950.
**Refer to Map 1, attached.

Work Done - Summary

Extent of mine workings on the Skeen-Lechner property of the company scales a total of 1991 feet. It is very likely that the map was not brought up to date at time work was suspended.

The Mine footage is divided as follows:-

Vein	Level	Cross-cuts	Drifts	Raises	Winzes	Totals
A	1	----	----	----	----	----
B	1	18'	204'	70'	5'	297'
A	2	122'	193'	125'	5'	445'
B	2	----	----	----	----	----
A	3	74'	38'	175'	----	287'
B	3	300'	422'	170'	70'	962'
	TOTALS	514'	857'	540'	80'	1991'

Map 3, attached, a company mine plan of the California-Alaska Workings, shows a total footage of 866 feet. Of this 360 feet is cross-cutting and 223 feet is drifting with 80 feet of the latter distance on the vein, all of which is on the lower drainage level. Sub-levels and raises above the drainage tunnel, as shown on the map, totals 283 feet. It is not clear how much of the foregoing was done by the present company.

From limited information available it would appear that total production from the two groups of claims, throughout history of the properties, has been around $20,000.00, of which the 25 to 30 ton mill built in 1945 accounted for about 60%.

Records of company shows production at $14,428.44 from 376 tons milled or shipped to smelter, with $38.37 average value per ton.

GEOLOGY

On the California-Alaska group the formation "consists of closely folded slate and graywacke striking.....N7°E and dipping 75° east. No igneous rocks are known to occur in the vicinity of the ore body.

"The vein occupies a nearly vertical fissure that strikes N51°E. Near face of tunnel the strike swings further east and dip changes to 75° SE. The vein varies in width from 8 inches to 4 feet".*

*U.S.G.S. Bul. 587, Pages 151 to 157.

The fissure is normally filled with quartz but in places is largely gouge. "Narrow quartz gash veins occur in the graywacke walls, which are in many places impregnated with arsenopyrite." In places "the vein fissure splits into three small fissures, 3 to 18 inches wide, and the graywacke has been shattered and recemented with numerous small quartz veins impregnated with considerable arsenopyrite." *

On the Skeen-Lechner group the "country rock surrounding the ore body is principally massive graywacke. About 20 feet west of upper vein (on surface) there is a graywacke-slate contact, striking N6°E and dipping 85°W." *

Several faults more or less at right angles displace the two veins on this property 40 to 70 feet, as shown on Map 1, attached.

Two veins occur on the Skeen-Lechner claims. "The upper vein, occupying a fissure in massive graywacke, strikes N15°W and dips 45°E..... In the tunnel the vein is well defined, varies in width from 20 to 45 inches, and shows 1 to 4 inches of gouge on both walls.....The lower vein lies about 90 feet southwest of the upper vein and has a strike of N45°W and dip of 65°NE. It measured 46 inches at point of original discovery near mouth of tunnel. In the lower tunnel width of vein varied from 1 foot to 4 feet, averaging about 2 feet. Gouge shows on both walls." *

"The fissure filling of these two veins is massive quartz, somewhat shattered and jointed. Faint indications of secondary banding are seen in some places." **

In south end of drift on No. 2 level, in area sampled, the strike of "A" vein (referred to above as the upper vein) was found to be N10°W which is the "true" bearing. The company's Mine Plan shows strike of the veins to be parallel, which is at variance to bearings given by U.S.G.S.

Mineralization

Sulfide minerals are reported to be more abundant in the California-Alaska Vein than in the two veins on the Skeen-Lechner property. In both cases, however, they are in small amount, occurring in disseminated form rather than in small "belbs" or lenses.

Arsenopyrite is the most common, with lesser amounts of galena, sphalerite, and pyrite.

*U.S.G.S. Bul. 587, Pages 151 to 157.
**U.S.G.S. Bul. 587, Page 156.

Free gold is reported found in narrow bluish quartz stringers in the California-Alaska vein closely associated with the fine sulfides, and less abundantly with the sulfides in the white quartz. On the Skeen-Lechner property the free gold is associated with the arsenopyrite and galena in the white quartz.

Most of the gold is intimately associated with the fine sulfides and doubtless is responsible for the past poor recoveries in milling, as it would require finer grinding than was practiced.

Original owners have reported gold values to run from $10.00 to $50.00 (at $20.67/.oz). Present owners Mine Plan (Map 1) shows sections averaging from $12.50 to $41.00/ton. Values are very spotty, and ore shoots are apparently very small.

Sampling

With flood condition in Falls Creek preventing return to the Skeen-Lechner mine workings, only two hours were spent sampling the south drift of No. 2 level, where the company's map shows a 106 foot section averaging $20.00 per ton. Results of this sampling are as follows:-

Sample Results

Sample No.	Width in.s	Au oz	Ag oz	Value	Description
1-MJ	52	nil	0.16	$0.14	No. 2 Level 63' so. of adit X-cut.White quartz,oxidized zone. No sulfides noted.
2-MJ	53	nil	0.26	0.23	No. 2 Level 58' so. of adit X-cut.Broken white quartz,oxidized zone.No sulfides noted.
3-MJ	52	nil	nil	nil	No. 2 Level 53' so. of adit X-cut.Broken white quartz,oxidized zone.No sulfides noted.
4-MJ	45	nil	nil	nil	No. 2 Lever 48' so. of adit X-cut.Broken white quartz, oxidized zone. No sulfides noted.
5-MJ	47	tr	0.16	0.14	No. 2 Level 43' so. of adit X-cut.Broken white quartz, oxidized zone. No sulfides noted.
6-MJ	15	nil	0.12	0.11	No. 2 Level 38' so. of adit X-cut. Broken white quartz,oxidized zone,with small stringers running into hanging-wall. No sulfides noted.
7-MJ	40	nil	0.10	0.09	No. 2 Level 33' so. of adit X-cut.Oxidized graywacke vein filling,no quartz. Numerous stringer gash veins. No sulfides noted.
8-MJ	Grab	1.30	0.74	60.17	Grab from small amount of fine ore remaining in mill ore bin.

From 11 samples taken by Wm. A. O'Neill, Consulting Mining Engineer, in late 1949, an average value of $61.40 per ton was obtained. These samples were reported taken from random points around walls of small stope on "B" Vein in No. 1 Level, with vein widths of 6 to 28 inches.

CONCLUSIONS

From results of the brief preliminary examination made of the property last year, and from results of past efforts to operate the property, it appears that underground development and exploration to date has not been successful in locating oreshoots of sufficient tonnage and grade to make a profitable operation.

High-grade oreshoots are apparently quite small and probably limited to sections of narrow vein width.

Sampling along a 30 foot drift length in a 106 foot section, on No. 2 level, which the company map reports averaged $20.00 per ton across 5 foot average width, shows no gold in the 7 samples taken, and raises doubt as to reliability of values shown on the assay plan. The mine, as a whole, should therefore be completely resampled systemmaticaly by experienced samplers, before a fair appraisal and evaluation of the property can be made. The steepness of the mountain slope, exposed to frequent snowslides, and the extreme grades on the road to the upper workings are expensive handicaps to operations. An aerial tramline would be the only solution (and was used in early days), but being exposed to snowslide hazard towers would be (and were) taken out periodically by slides on that slope.

The proposal to look for extension of the Skeen-Lechner veins on their projected strikes into a more protected area a 100 feet or less above the mill could probably best be done by diamond drilling rather than driving the proposed cross-cut. Stripping by tractor in that vicinity is considered, however, as the quickest and cheapest if the mountain slope is not too steep. There is no assurance that the vein (or veins) or fissure persists the mile or more from mine to mill area.

The California-Alaska vein was not studied, but past efforts to develop it apparently have also been discouraging.

RECOMMENDATIONS

From past record of the property and observations made during brief period of examination, no recommendations for reopening of property are felt justified with the gold price at its present level and the high costs facing the gold miner.

By- Martin W. Jasper

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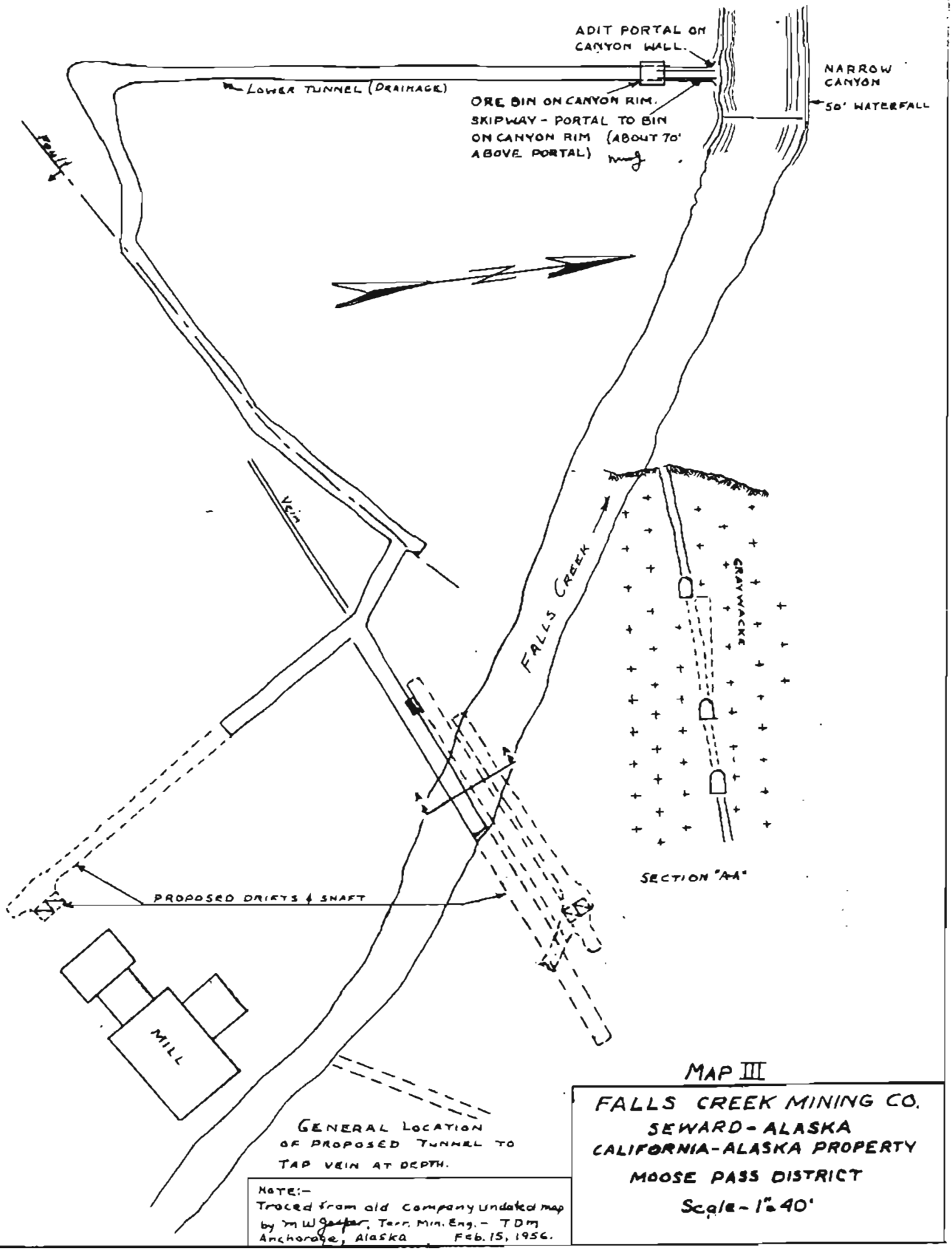
July 19, 1956



MAP III

FALLS CREEK MINING CO.
SEWARD - ALASKA
CALIFORNIA-ALASKA PROPERTY
MOOSE PASS DISTRICT
Scale - 1" = 40'

NOTE:-
Traced from old company undated map by M W Gaffer, Terr. Min. Eng. - T D M Anchorage, Alaska Feb. 15, 1956.