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May 26, 1937.

Rt 112-17

Mr. Norman Banfield,

Juneau, Alaska.

Dear Mr. Banfield:

Following our conversation of yesterday I have prepared lists of all references contained in reports issued by the U. S. Geological Survey relating to past operations and conditions at the Jualin mine, subsequent to the year 1914. A copy of this list is enclosed.

I have also extracted from all reports published by the Territorial and Federal Mine Inspectors any items that relate to the Jualin property which have appeared since the year 1914. Copies of these extracts are also enclosed. The reports from which these extracts have been made are no longer available for distribution, but are on file at many public libraries.

The bulletins of the Geological Survey which I have listed may be obtained from the Superintendent of Documents, Washington, D. C. unless they are out of print. In the latter case they may be consulted at most large public libraries.

It is hoped that this material may be of service to your correspondents who are interested in arranging for resumption of operations at Jualin.

Very truly yours,

B. D. Stewart,  
Commissioner of Mines.

LIST OF REFERENCES TO JUALIN MINE OPERATIONS  
IN GEOLOGICAL SURVEY PUBLICATIONS, 1914 TO 1935.

<u>Number of Bulletin</u>	<u>Year</u>	<u>Page</u>	<u>Remarks</u>
622	1914	102	Describes development work and new equipment.
✓ 642	1915	77	Describes extent of workings and mentions discovery of new lode called "Unknown Vein" on 160 ft. level. Also erection of new power plant.
✓ 662	1916	81-82	Describes sizes and extent of veins as revealed by new workings; power facilities; and control of water.
692	1917	29	Mentions shutdown in October.
722	1920	36	Notes suspension of development work in February, 1920, and reports burning of mill.
✓ 755	1922	24-25	Records resumption of operations, and gives production and grade of ore mined during 1915-1917.
824	1929	16	Mentions rumors of resumption of operations.
✓ 714	1919	107-8	<i>Description of mine and operations by D. J. P. Meritt, Jr.</i>

*✓ - 714 - 1919 - 107-8 - Description of mine and operations by D. J. P. Meritt, Jr.*

*✓ - 714 - 1919 - 107-8 - Description of mine and operations by D. J. P. Meritt, Jr.*

"The Jualin Mine, situated on Berners Bay, was operated throughout the year, an average of 36 men being employed in the mine and mill. The ore consists of gold-bearing quartz in a diorite formation. The approximate strike of the vein is N. 40° W., the dip 60° to 90° NE., with an average width of about four feet.

The method of ore extraction is back-stoping, using stulls for support. Water Leyner and Waugh machine drills are used. The ore is trammed to the shaft and hoisted in mine cage in cars. From the collar of the shaft the cars are pushed to the mill, hand power being used. At the mill the ore is treated by 10 stamps and run over amalgam plates.

Considerable water is encountered in the lower workings, a centrifugal turbine, direct-connected, electric pump, situated on the lower level, is used to handle the water, which has an average flow of 700 gallons per minute. Power is furnished by a water wheel in the open season and semi-Diesel fuel oil engines hot bulb ignition, during the cold weather. The power plant is situated one and one-half miles below the mine.

An average ore extraction of 33 tons a day was made, 830 feet of development work done and 1227 feet of diamond drill holes bored during 1917.

The property is operated by the Jualin-Alaska Mines Company."

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From "Annual Report of the Territorial Mine Inspector to the Governor of Alaska, 1920," by B. D. Stewart, page 20:

"In the latter district (Berners Bay) the Jualin Mine, under option to Belgian capitalists, was operated for a portion of the past year, but was forced to close down owing to the prohibitive exchange rates which made the attempt to supply funds from a foreign source disastrous. An unfortunate circumstance also was the loss of their ten-stamp mill by fire. With the return of more favorable operating conditions and improvement in the international situation affecting foreign exchange rates this meritorious property will undoubtedly be operated again.

Much credit is due the Belgian Company for their persistent efforts in endeavoring to continue work on the Jualin property under the almost overwhelming handicaps brought about by war conditions."

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From "Annual Report of the Territorial Mine Inspector to the Governor of Alaska, 1921, by B. D. Stewart, page 49:

"The Comet, Kensington and Jualin mines in the Berners Bay region have all been idle during the year. It is reported, however, that preparations are being made looking toward resumption of work on the Jualin property in the near future."

From "Annual Report of the Mine Inspector to the Governor of Alaska, 1922, by B. D. Stewart, page 67:

"A reorganization of the Jualin-Alaska Mines Company, was effected near the close of the year and a new company was formed, known as the Jualin-Berners Mining Company. This company has resumed the work of continuing the driving the 7,000-foot adit tunnel. The tunnel was approximately one-half completed when work upon it was suspended in 1920. A crew of 45 men is employed at the present time."

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From "Annual Report of the Mine Inspector to the Governor of Alaska, 1923, by B. D. Stewart, page 61:

"A crew of 30 men was employed by the Jualin-Berners Mining Company from January first to June 30, 1923, in extending the drainage and development adit at the Jualin mine. Progress effected amounted to a total of 1,300 feet. The property has been idle since the completion of this work."

MISCELLANEOUS REFERENCES TO OPERATIONS AT JUALIN MINE

From "Report of Mine Inspector for the Territory of Alaska to the Secretary of the Interior for the year 1914," by Sumner S. Smith, page 19:

"The Algonican Development Company is developing (under bond) the Jualin Mine on Johnson Creek, about 7 miles from Berners Bay.

Three veins in diorite have been opened by an adit. The approximate strike of the veins is N. 40° W., the dip is 60° to 90° NE., and the average width 5 feet. A winze was continued during 1913 to a depth of over 300 feet, but this work has been discontinued until heavier pumping machinery can be put in.

A horse tram was built between the mine and the bay, and a compressor plant erected at the mine. The property is equipped with a 10-stamp mill."

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From "Report of William Maloney, Territorial Mine Inspector, to the Governor of Alaska, for the year 1915, page 12:

"In the Berners Bay region, at the Jualin Mine, a new power plant is nearly completed. Hydro-electric power is to be used, supplemented by an oil-burning plant."

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From "Report of William Maloney, Territorial Mine Inspector, to the Governor of Alaska, for the year 1916, page 15:

"The mine of the Alaska Jualin Gold Mining Company, north of Juneau, was operated throughout the year. Operations during the winter months were made possible by the installation of four 150-horsepower fuel-oil semi-diesel engines, hot bulb ignition. The engines are coupled to the generator during the cold, winter months when the water is too low to furnish power to drive the generator with the water wheel. When the water becomes plentiful the engines are discontinued and the water wheel attached. This mine is in the Berners Bay region."

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From "Report of the Territorial Mine Inspector to the Governor of Alaska for the year 1917 (Wm. Maloney), page 17: