(13471.2)
60°58'N
148°25'W

TERRITORY OF ALASKA
DEPARTMENT OF MINES
Anchorage, Alaska

November 7, 1945

Mr. B. D. Stewart
Commissioner of Mines
Juneau, Alaska

Dear Mr. Stewart:

A visit to the "Sweepstake Tunnel" on the southeast shore of Harriman Fiord, about two miles from the fiord head, was made on August 9, 1945.

Access to the fiord was by an extra run of the Prince William Sound mail boat the "Luck O' The Irish" of Valdez, Jim Dolan, the owner.

The general structure of the Harriman Fiord as observed, was of slates and graywacke. Minute stringers of quartz could be seen throughout the entire length of the fiord shore line and in other outcrops of the country rock not covered by vegetation. Larger stringers of quartz varying from a fraction of an inch up to a foot or more in width were also noted.

The only impressively wide stringer visited, was that on which the old Sweepstake Tunnel was driven about 1912.

A partial history is given in USGS Bulletin #592, pages 228, and 229.

> "The property of the Sweepstake Mining Company, on H arriman Fiord, is above timber line on the south side of the fiord, near its head, at an elevation of about 600 feet. The vein, known as the Imp, is said to have been discovered in July 1912, by Chris Pedersen and Ole Hanson. Development work began in November 1912, and ceased in February 1913. In August 1913, the developments consisted of a 150 foot tunnel and some stripping along the vein. The country rock comprises interbedded slates and graywackes, thin bedded in places, in others principally graywacke, cut by numerous dikes 6 to 48 inches thick. The vein fissure crosses oneof these dikes at the mouth of the tunnel. The vein is well exposed for about 150 feet. It strikes east and dips 85 degrees N. at its upper end, and striked S. 84 degrees W. and has a vertical dip at the lowest exposure. The width varies from 1 to 5 feet. The upper or east half of the outcrop averages 3 feet in width; the remainder of the vein ranges in width from 10 to 13 inches. The walls are free in some places and frozen in others. No gouge is visible. The quartz vein filling appears to stop at the dike, and irregular bunches and stringers of quartz cement

the shattered dike. The narrower parts of the vein are the more mineralized. Secondary banding parallel tothe walls is also prominent in the narrow part of the vein. Gold, arsenopyrite, pyrite, sphalerite, galena, chalcopyrite, stibnite, calcite, and quartz were observed in specimens taken from the outcrop and obtained from the tunnel dump."

Additional information reported is as follows:
USGS Bulletin 622, page 139-

"Ten feet of underground work is reported to have been done on the Harriman Fiord property of the Sweepstake Mining Co."

USGS Bulletin 662, page 189-

"**** is said to have erected a 2 stamp mill on its property."

USGS Bulletin 692, page 150-

"A new aerial tram and mill were erected in 1917 but were not operated."

At the time of this visit, the property was not being operated. It had recently been relocated by Dominick Vietti and Jim Dolan of Valdez, and George L. Johnson of Anchorage.

The only structures still standing were a frame building on the shore of the fiord and at the edge of the first stream northeast of the tunnel, and the combined mill and lower tram terminal building timber framework. The mill and tram building was in very bad shape and near collapse. The frame shack was dry inside, and could readily be used for living quarters.

The trail from the mill to the tunnel portal is direct but almost completely eradicated by heavy rains and the growth of vegetation. Timber grows sparsely in this section, although enough is available for construction on a small scale and for use in any preliminary mining operations.

The tunnel is open and clean for its full length except for pile of quartz at about 100 feet from the portal which is the remnants of a slab round blasted on the south side of the tunnel. The tunnel is generally along the vein on its north side but at places, it has covered the complete width of the vein. At about 120 feet from the portal, a fault strikes N. 65 degrees E. and dips 85 degrees SE. From this point in to the face of the tunnel, the vein as seen west of the fault has been faulted out or if the fault was pre-mineralization, the vein is reduced in size from about 16 inches at south side of the fault to about 1 inch at a point 20 feet further south of the fault. A sample was taken across the full width of the vein, 73 inches, at the crosscut which is about 84 feet from the portal. The results are shown by accompanying analysis.

Several large hand pieces of quartz later crushed and panned gave numerous colors of gold. The outcrop of the vein was traced for about 150 feet on the surface east from the portal of the tunnel. It varies in width from 2 to 4 feet, but averages about 3 feet. At two places on the outcrop, samples of the quartz were broken off. Later detrmination proved them to have flecks of free gold. The vein appears to terminate at a ravine but it was not determined whether a dike at this point was the terminating point of the vein or whether a fault known in the tunnel, was the cause of termination.

Specimens picked at random from the tunnel dump, and from the ore bin at the mill indicated that free gold was common to the quartz in this vein. The fact that the tunnel was driven to nearly its full length in the first few months after hte discovery of the vein tends to show that some worthwhile showings of value were found.

It has been reported that a trial shipment of ore was made to a smelter in the states but the results are not known.

The surface country hereabouts has only recently been exposed because of the recession of the glacier. Rocks are smooth, surface slopes are steep, and moss and other vegetation makes it very difficult to make way about the outcrops for the closer inspection necessary for a proper investigation of the possibilities of the area.

It is recommended that a thorough and detailed examination of this area be made. Such an examination would include the sampling of the vein in the tunnel and as exposed in the outcrop. The structural geology of the surface is important. Undoubtedly, several shallow trenches in a few key places, and merely the removal of moss and vegetation in others would permit this information to be acquired at small cost.

It is believed that most such so-called gash veins as this are spotty in values, and it may be determined that the average value of the vein material may warrant a due consideration of it for a small operating mine.

Many things favor a development in this location. Freight rates should be reasonable and accessibility would be easy by water, and as the water is salty, ice accumulation would not be factor. Numerous streams fed by melting glaciers and a heavy rainfall could furnish power. Although timber is thinly distributed, it may be found for many miles along the Harriman Fiord. The slopes to the water are steep in general, and would permit of cheap and easy logging.

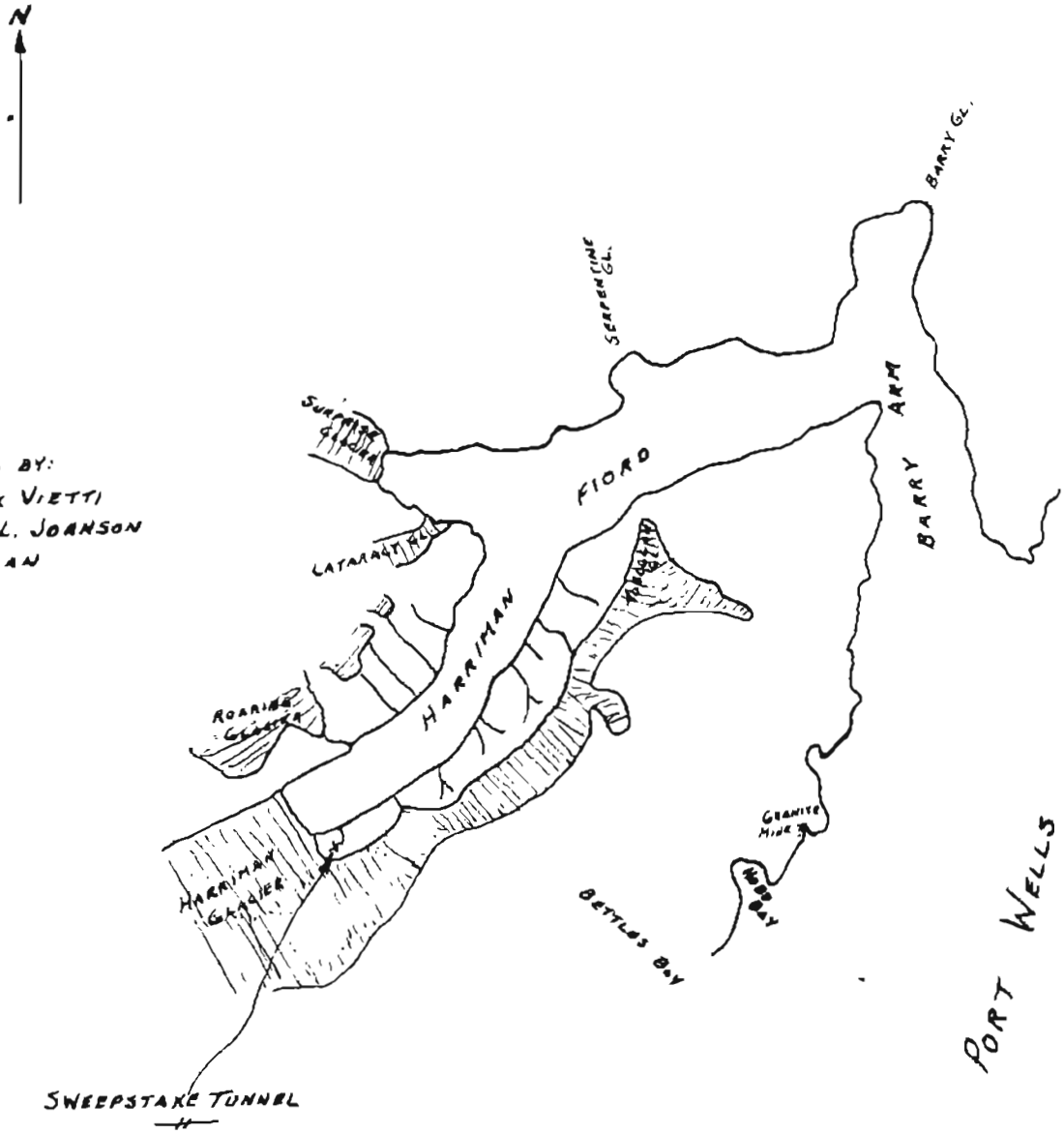
Although the one sample taken was of low value, the finding of so many colors in the outcrop and in the dumps all tend to indicate the worth of further exploratory work, mainly by the working out of structural details, and exploration of the vein at some reasonable depth below the present tunnel.

Respectfully submitted,

Harry L. Fridley

TERRITORY OF ALASKA
DEPARTMENT OF MINES

B. D. Stewart
Commissioner of Mines



RELOCATED BY:
DOMINICK VIETTI
GEORGE L. JOHNSON
JIM DOLAN

SWEEPSTAKE TUNNEL LOCATION

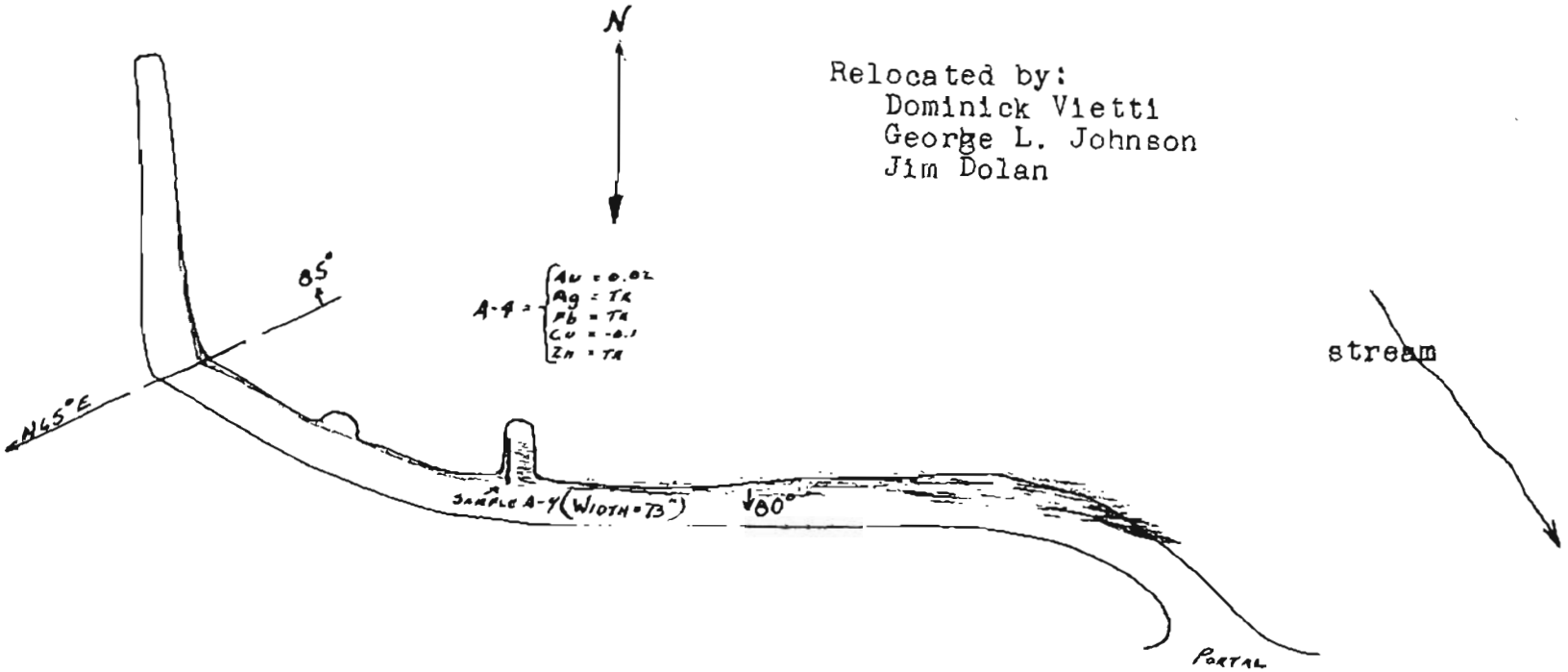
TRACED FROM U.S.C.&G.S. CHART #8551

SCALE - 1" = 4 MILES AUGUST 7, 1945

H.L.H.

TERRITORY OF ALASKA
DEPARTMENT OF MINES

B. D. Stewart
Commissioner of Mines



SWEEPSTAKE TUNNEL, HARRIMAN FIORD
PRINCE WILLIAM SOUND, ALASKA

****

scale- 1"-20'

August 9, 1945

by H. L. Fiedler
Associate Mining Engineer

TERRITORY OF ALASKA

DEPARTMENT OF MINES

ASSAY OFFICE

Anchorage, Alaska, September 22, 1945
& October 26, 1945

REPORT OF ASSAY

On samples received from Harry L. Fiedler

Address Department of Mines, Anchorage

Assay No.	Mark on Sample Owner's Description	OUNCES PER TON		Value Per Ton	PERCENTAGE OF		
		Gold	Silver		Pb	Cu	Zn
3336	A-4 Sweepstake Tunnel, Harriman Fiord, 84' from portal	0.02	trace	$ 0.70	trace	-0.1	trace

(signed) LEO H. SAARELA
Leo H. Saarela ASSAYER.