

(0.1, 14.1)

33°00'

54°13'

SUPPLEMENTARY REPORT TO PRELIMINARY REPORT OF N. & T.
GROUP OF CLAIMS, PRINCE OF WALES ISLAND, ALASKA
May 30, 1938.

KX 121-19
KX 122-23

JC Roedem
PE 122-1

The Nelson and Tift operations on the north side of McLean Arm, Prince of Wales Island near the entrance was visited. Four men were employed and engaged in mining and loading the sulphide ore on scows. From this lense of sulphide ore in limestone, the latter a fissure filling in granodiorite, a total of 1200 tons has been shipped. Last year the Anaconda Copper Company held an option on this group and was engaged in shipping ore. Most of the above tonnage was mined and shipped by this company. Since this company was faced with a large payment on the property and the orebody began to show signs of termination, the property was dropped. This season Nelson and Tift again started operating and are endeavoring to remove the remaining ore. Thus far this season two loaded scows, each holding approximately 50 tons, were ready for shipment. Recent assays of this shipment showed the ore averaging over \$50 in gold per ton.

The ore lense was found upon extraction to have had a length of 75 feet, averaged 30 feet in depth and 9 feet in width. It plunged on a 30° angle toward the east along its strike and dipped with the fissure 80° N. The present mining, on date of visit, was located on the bottom at the east end of the glory hole, 12 feet below high tide line. The ore at this point was occurring in massive bunches and appears to represent the bottom of the ore. The owners intend to build a cement dam across between the walls at high tide line to keep out water. After the completion of the dam a shaft is to be sunk on the remaining ore in the bottom.

In the fall of 1936, immediately after the option of this property by the Anaconda Copper Company, four diamond drill holes were put down on this fissure. These holes were reported as being 70 feet apart. The exact location of each hole is not known.

Hole No. 1 was drilled opposite the center of the orebody to a length of 90 feet on a 55° dip. This was reported as having cut 40 feet of limestone and no ore.

Hole No. 2 is located on the east end at the water's edge. This hole was reported as cutting 90 feet of limestone and no ore.

Hole No. 3 was located the farthest inland and drilled on the limestone to a depth of 90 feet, all in limestone.

Hole No. 4 was drilled on the west end of the ore to a depth of 50 feet. A little disseminated pyrite was noted and contained minor values.

The machinery on the property consists of a small compressor, air line, gasoline engine and jackhammer, using detachable bits, and other small equipment. The camp buildings consist of bunk house, cook house, office and powder magazine.

PRELIMINARY REPORT OF THE N. T. GROUP OF CLAIMS,
McLEAN ARM, KETCHIKAN MINING DISTRICT, ALASKA,
June 2, 1936.

Location:

The N. T. group of ten lode claims and a mill site is located along the north shore of McLean Arm from a point approximately one-half mile from the entrance and extending westerly. McLean Arm is located on the southeastern end of Prince of Wales Island. The claims extend along the shore line and the showing is located only a few feet from high tide mark. Fairly deep water extends up to the shore. However, this shore is exposed to storms from the southeast.

History:

The discovery of gold-bearing pyrite was made in the fall of 1935 by Nelson and Tift of Ketchikan, two trolling fishermen that had spent the season trolling in the waters off Prince of Wales Island. Assuming the nearly massive sulphides as ore, they sacked 2,156 pounds and shipped to the Tacoma Smelter. Returns from this shipment proved the assumption with returns of 0.73 ounces per ton gold and 0.05 ounces per ton silver. They returned in May with a small compressor, drills and other supplies, and started mining on the surface of this deposit. A 50-ton shipment was made a day prior to the visit of the writer. Reports since were to the effect that a net profit of \$900 was made on this shipment, and other shipments followed. Later the property was taken over by the Anaconda Copper Company and diamond drilling followed. Reports since were to the effect this option was dropped. The extent of this drilling and results are not known. An amended location survey was made of the property by F. A. Metcalf and a print is contained in this report.

Geology:

A short description of the general geology of McLean Arm is given in U. S. G. S. Bull. 662, "Mineral Resources of Alaska, 1916" under "Developments in the Ketchikan and Wrangell Districts," p. 66, by Theo. Chapin. The country rock on the north shore of McLean Arm is classified as a medium-grained dioritic rock, and it is a part of the batholith that occupies a large area in the south end of Prince of Wales Island. This diorite has been intruded into greenstone that exists on the south side of the Arm. Later porphyry dikes are reported as believed to have intruded both the diorite and greenstone.

The group of claims lie wholly within the diorite and several porphyritic dikes are in evidence along the shore line, striking in a nearly north and south direction. At the discovery, located at the central eastern end of N. T. lode claim, a large fissure strikes N. 76° W. and dips 82° N. This fissure is nearly 30 feet wide and extends through the group to the west, widening to widths of nearly a 100 feet on the western portion. This fissure is filled with limestone, a remnant of pre-existing overlying sediments. The limestone was deposited in this fissure prior to the intrusion of the porphyry dikes. This fact is evident at the ore deposit. Here a small porphyry greenish dike cuts the fissure at nearly right angles, and splits, part following along the footwall for a distance of 80 feet and ends. The other cuts across, trending on its normal north-south strike. Several large angular pieces of limestone are shown embedded in the dike and there are highly metamorphosed and replaced with mainly iron pyrite. Beginning along the contact of the dike and limestone, massive sulphides occur. These show a replacement of the limestone.

Showing:

Development work has been confined to a large opencut beginning 35 feet from high tide mark and 20 feet above. This cut is 40 feet long and from 2 to 6 feet deep. From this cut the ore was mined. This cut shows nearly massive sulphides over its entire length. The cut is from 6 to 8 feet in width and is not the full width of the ore-body. A 12-inch quartz vein is uncovered a few feet along the footwall between the sulphide and limestone.

No. 2 trench is located 30 feet west of No. 1 cut and shows 2 feet of nearly solid sulphide and 5 feet of mineralized limestone and quartz. This trench does not give the full width of the ore.

No. 3 trench was to a depth of 5 feet, but bedrock was not reached. Water was encountered and the gravel contains numerous sulphides which pan considerable fine gold.

This is the extent of the work done on the property. Further prospecting and development work is warranted along the fissure. Other dikes of apparently the same kind cut this fissure and there may be similar deposits of ore at the intersections. The fissure extends through the entire length of the claims. The small creeks that cut back from the beach line (note print of claim survey) occupy small fault ravines that are later than the filled fissure and caused displacement. The extent of the displacements could not be determined.

However, the last creek to the west must have displaced the fissure several hundred feet as the fissure again shows along the beach on the No. 6 N. T. lode on the west side of the creek. The exposure on the east side is near the head of the creek. The limestone in the fissure exposed on this claim is not mineralized.

Mineralization:

The orebody has not been uncovered to its fullest extremities in both length and width. The nearly massive sulphides extend from a point 35 feet from high tide west past No. 2 trench a distance of over 70 feet and how much further is unknown. Good values, as shown by assays, exist in the disseminated portions of the limestone on both sides of the massive sulphides. The minerals contained in the ore are gold, light colored pyrite, marcasite, small amounts of chalcopyrite and an occasional speck of bornite. The gangue minerals are quartz, calcite, epidote, wollastonite and other lime contact minerals. The orebody is classified as a replacement deposit and the extremities are confined to the limestone within the fissure walls. The diorite walls of the fissure appear to be unaltered and unmineralized.

Seven channel samples were taken, five in the opencut and two in No. 2 trench. The returns with descriptions are shown on accompanying assay sheet. These show good values, but the widths are not the extremities of the orebody and probably represent the best portions.

ASSAY SHEET TO ACCOMPANY GEOLOGICAL SKETCH,
N. T. LODE CLAIM, McLEAN ARM, KETCHIKAN MINING DISTRICT,
June 2, 1936.

Sample No.	Location	Description	Width	Oz. per ton	
				Gold	Silver
8	No. 1 rock cut, 24' from east end. Bottom.	Across massive sulphides, mainly pyrite. Ft. wall toward Hg. wall.	35"	0.80	0.20
9	Same as No. 8.	Across disseminated sulphide in limestone next to No. 8 to Hg.-wall.	43"	1.24	0.20
10	No. 2 trench, north end 2 feet down.	Across solid sulphides, Hg.-wall toward footwall.	24"	2.08	0.40
11	Same as No. 10.	Mineralized limestone with some quartz.	58"	0.12	0.10
12	West end of No. 1 rock cut 4' down.	Across mineralized quartz vein on Ft.-wall.	12"	1.06	0.20
13	Same as No. 12.	Across massive sulphides next to No. 12 toward Hg.-wall.	28"	0.92	0.20
14	Same as No. 12.	Across mineralized limestone, and mixed quartz.	61"	0.58	0.10