

681095

OB depth  
 10' 20' 50'+  
 150'-200'

# Taseko Recent History

1982 - 60 units staked North by Buel

1982 - Aug 19 PD holes 200m x 200m  
 TESTING N & W of main  
 deposit PCBZ-12 good  
gold hole (DOL ZONE)  
 (AM Pan wells)

1982 6 DDH between Albert &  
 Renner zones soil Au As  
 + VLF targets  
low gold values related  
to pyrite str. NS trending  
 target pyrite very crumbly.

1981 1P ANOMALY MAPS  
 FISH L Hydrothermal  
 system, Extensions to  
 NE still open

1982 Albert & Renner zones  
 referred to as gold  
 showings. as defined by  
 79 & 80 PD.

1982 Dol gold zone in  
 PCBZ-12 confirmed but  
 of lower grade in DDH

Strip

Large Din  
Rotary PC

1981 Jan-Mar (Beth)

30,000' DD ON MAIN ZONE

3000' ON Albert & Renner  
Au Zones

May 1/81 comms took  
over

20/MM t<sub>m</sub> .014 Au  
.033 Ag  
.240 Cu

- System 3 km x 2 km  
opens to N & W

- Expressed by Cu Au Ag in  
soil + chargeability highs

Albert zone. (7.5 mmt)

Denial holes DDAS

85-90% Cu  
rec.

FL B1 26 3'/.008 (.00x)

" " 27 3'/.049, 3'/.029 (.00x)

" " 25 3'/.83, 3'/.054, 3'/.032 (.00x)

" " 28 3'/.028, 3'/.060, 3'/.058 (.00x)

F-82 20 .02, .02

? F-82 26 20-30% rec no assays.

Lenner zone Denial holes.

FL 81-22 3' - .039 - .018

" " -21 3'/.02, 3'/.68

sol zone Denial holes.

F 82 30 .046, .036, .092, .026, .022

F 82 28 13/12

It may be true that  
the entire deposit  
needs to be redrilled  
by some means other  
than diamond drilling

difficulty in penetrating the overburden. Hole FL-79-2 penetrated 61 m of overburden before it was abandoned due to machine limitations. The remaining holes encountered bedrock within 16 m of surface and a total of 848 m of rock was drilled and sampled. The sampled sections were assayed for copper and fire assayed for gold at Kamloops Research and Assay Laboratory Ltd. Logs of the drill chips which include copper and gold assays are appended to this report in Section D. The assay reports from Kamloops Research and Assay Laboratory Ltd. are also appended in this section. The drill hole locations are shown in drawing no. FL-79-3.

The assay results of the ten holes that penetrated bedrock are tabulated as hole averages in the list below:

<u>Hole No.</u>	<u>Intersection</u> m	<u>Assay Interval</u> m	<u>Au</u> oz/ton	<u>Cu</u> %
FL-79-5	16.8 - 91.4	74.6	.003	.02
FL-79-6	9.1 - 73.2	64.1	.03	.016
FL-79-7	6.1 - 103.6	97.5	.021	.03 ALBERT
FL-79-8	12.2 - 91.4	79.2	.029	.02 ALBERT
FL-79-9	7.6 - 91.4	83.8	Tr	.01
FL-79-10	3 - 106.7	103.7	Tr	.01
FL-79-11	12.2 - 106.7	94.5	Tr	.02
FL-79-12	6.1 - 91.4	85.3	Tr	.01
FL-79-13	6.1 - 91.4	85.3	Tr	.01
FL-79-14	6.1 - 88.4	82.3	.001	.01

Geology and Structure:

The 1979 percussion drilling program added considerably to the geological information east of the Fish Lake deposit. Percussion holes FL-79-11, 12 and 13 intersected metavolcanics indicating an eastern boundary for a portion of the Fish Lake

# 1979. Albert Zone

Beekmantown

FISH LAKE PROJECT  
1979/80 PERCUSSION DRILLING

Beekmantown Agreement 1979

ANOMALOUS INTERSECTIONS

Hole No.	Interval (metres)	Au oz/ton	Ag oz/ton	Cu %
30' OB FL-79-6	45.7 to 54.9 (9.2)	.180	1.66	.05
20' OB FL-79-7	39.6 to 64.0 (24.4)	.038	.93	.03
40' OB FL-79-8	15.2 to 33.5 (18.3)	.073	1.34	.03
10' OB FL-80-23	48.8 to 61.0 (12.2)	.104	1.21	.03
10' OB FL-80-33	57.9 to 70.1 (12.2)	.247	3.01	.71
Renner Zone	57.9 to 64.0 (6.1)	.46	2.81	1.37
		82.4	11.02	
<del>1981 PROGRAM</del>		Ave 45ft / .134 opt Au		

The 1981 exploration and development program will be aggressive and comprehensive and will include the following objectives:

- To bring indicated and inferred ore reserves, which total some 108 million tons, into a measured category by extensive large core diamond drilling. This drilling will include the deepening of existing holes to confirm reserves at depth and the completion of a more detailed drilling grid. This will require a first stage diamond drilling program of 15,000 feet followed immediately by a second stage program, assuming initial results are favorable, of a further 10,000 feet of drilling and engineering studies.
- To explore and drill the peripheral areas containing anomalous gold as indicated by the 1979/80 percussion drilling results. This will require 3,000 feet of diamond drilling and certain geophysical surveys.

The drilling program is scheduled to commence in mid-January, 1981 and will consist of two diamond drill rigs drilling on a twenty-four hour seven day week.

L. Ross

DOL ZONE 100' - .128 opt

Albert zone 100 m x 300 m

7.5 mm T. x .03 = 225,000 oz  
x .05 = 375,000 oz

## 1982-DOL ZONE.

3.

Hole No.	From To (metres)	Length (metres)	%Cu	oz/T Au
PC82-12	2.4 - 12.2	9.8	0.047	0.005
	12.2 - 21.3	9.1	0.147	0.295
	21.3 - 42.7	21.4	0.050	0.056
	42.7 - 91.5	48.8	0.018	0.013
	12.2 - 42.7	30.5	0.079	0.128
PC82-15	14.0 - 91.5	77.5	0.13	0.008
PC82-16	11.3 - 91.5	80.2	0.175	0.009
PC82-17	7.6 - 91.5	83.9	0.090	0.005

Holes PC82-15, 16 and 17 are collared west of the Main deposit. One hole shows that the zone of 0.15% copper (previously defined as the limit of the deposit), extends westwards of the Main deposit. This zone is also indicated by two prior holes (72-3, Q73-2) and is surrounded (see Figure 3) on three sides by lower grade mineralization; holes Q73-8 and Q73-7 (north), Q73-3 and PC82-15 (south), PD4 and PC82-17 (west). The zone is open to the southwest; there is a 400 m gap between hole PC4 and Q73-3. To the east the zone probably joins the Main deposit; PC82-14 drilled in that location was abandoned after 40 m of overburden. Grade and size cannot be estimated at this time as only three holes intersected this zone. These three holes are spaced approximately 200 m apart and are from 100 to 200 m away from adjoining lower grade holes. Logging of chips indicates that most rock encountered is quartz diorite, pervasively altered to epidote and chlorite with a persistent pyrite content (1 to 5%).

Hole PC82-12 intersected high gold values (see table, this page). The gold and copper values in the hole follow a regular downgrade trend from a high grade section (12.2 to 21.3 m) near the top. This trend suggests that down hole contamination is partly responsible for grades and lengths of mineralization. Follow up geophysics and diamond drilling were carried out in November 1982 and are discussed further in the report. Chips from hole 12 were largely composed of quartz and pyrite.

### DIAMOND DRILLING

#### 1. Albert and Renner Zones

Six BQ holes were drilled for a total of 324.8 m. The holes were targeted to intersect two VLF conductors; conductor I to the west and conductor J to the east (see Figure 21). The conductors were surveyed in 1981 and are located in the area between the Renner and Albert gold showings; this area has highly anomalous values of gold and arsenic in soils (See 1981 Fish Lake report). Holes were collared 25 m west of the VLF cross-overs and drilled at -45° to the east. Four holes (F82-20, 21, 22, 25) were drilled to intersect conductor I, and two holes (F82-23, 24) were drilled to intersect conductor J. Location of the holes is given on Figure 3. Sections of the holes can be found on Figures 12 and 13. Drill logs, with analytical results, are compiled in Appendix III.

All holes intersected medium grained quartz diorite porphyry with chlorite-epidote alteration of mafics and feldspars, and with variable amounts of disseminated pyrite and or magnetite. Overburden varies from 2.6 m in hole F82-21 to 14.3 m in hole F82-23; the other holes have 7 to 10 m of overburden. Overburden consists of boulder clay. Holes F82-20, 21, 25 intersected several zones of sericitization and/or argillic alteration. These zones have abundant pyrite seams, clay seams and

Quintana

SUMMARY

The Fish Lake Property 90 miles southwest of Williams Lake enjoys easy access, moderate climate, and gentle topography. Following recommendations of Livingstone and Wolfhard, drilling was conducted in 1973 to investigate westerly trends of alteration and mineralization into covered areas. While some expected trends did not become realized, the importance of a central core became of more interest as good recovery drilling was advanced.

Mineralization consists mainly of chalcopyrite in veinlets and disseminations in quartz-diorite porphyry and in hornfels accompanied by chlorite, sericite and biotite alteration. Gold accompanies copper and pyrite and mineralization grading 0.25% Cu. generally carries 0.015 oz/ ton Au.

Reserves have been estimated by setting up three trial pits with cutoff grades of 0.25, 0.20, and 0.15% Cu. The 0.25 trial indicated 32.9 million tons grading 0.304% Cu. and 0.016 oz/ton Au with a stripping ratio of 2.87 / 1. The 0.20 trial indicated 108 million tons grading 0.250% Cu. and 0.013 oz/ton Au with a stripping ratio of 1.62 / 1. The 0.15% Cu. trial, highly conjectural with regard to both grade and geometry is estimated to contain 320 million tons grading 0.209% Cu. and 0.011 oz/ton Au with a stripping ratio of 1.05 / 1.

Recommendations are made to spend an additional \$300,000 on the property in 1974, mainly for drilling a grid pattern of HQ holes in the vicinity of the core zone, secondly to investigate the large conjectural areas apparently within 0.15% Cu. cutoff, and thirdly to prospect covered areas to the southeast of the known mineralization.

*Pegasus looked  
at Fish Lake Data  
1987.*

### HISTORY

Hand trenching on two or more veins less than 1 foot wide containing copper and gold values, situated 1/2 mile east of the present area of interest is reported in the B.C. Minister of Mines Report, 1935. This zone, known as Albert's zone, and a number of other goossons in and near the area of Quintana's interest were explored by small pits and trenches in the 1930's. In 1960 prospectors for Phelps Dodge Corp. discovered indications of porphyry type copper mineralization near the present area of interest. Phelps Dodge conducted I.P. surveys, dug a number of trenches by hand and drilled at least 6 and possibly 10 short core holes in what is now understood to be the pyritic halo of the deposit, mostly northerly from the mineralization presently under consideration. The ground was allowed to lapse, and it was restaked by Taseko Mines Ltd. in 1966.

Taseko built a road into the property, did considerable trenching, and drilled 12 percussion holes. These holes suggested that better grade material might be found under cover south of the area tested by Phelps Dodge. Six BQ diamond drill holes each 400 - 600 feet, totalling 2254 feet were put in and they showed that large tonnages of material grading 0.25 - 0.30 % Cu existed on the property. They also demonstrated that the value of by-product gold was more than that normally associated with low grade disseminated copper.

Amax and other companies examined the property in 1969.

A report by G.A. Dirom for Taseko in 1969 indicated that conditions were generally favourable for finding economic mineralization. The presence of chalcocite was noted, and



the possibility of finding protected secondary enrichment under the Plateau lavas to the west was noted. Further geophysical surveys and drilling were recommended.

In 1970 the property was optioned by Nittetsu Mining Co. of Japan and they conducted I.P. surveys over limited areas near the Taseko 1969 holes. Four short BQ holes were drilled, one of which was abandoned in overburden. Their work added little to the advancement of the property.

A report by G.A. Dirom and R.H. Seraphim was made for Taseko in April 1972, and further work recommended. Seraphim noted that the broad valley bottom was still untested. Three holes were then drilled by Taseko (1972 - 1 to 3). Holes 72-1 and -3 placed limits on mineralization beneath the valley flat and hole 72-2, abandoned in overburden, demonstrated that valley fill could be at least 180 feet deep.

In 1972 Wayne Livingstone became aware of the porphyry controls of the deposit in conversation with a Cominco geologist. He brought the property to Quintana and independently suggested the potential for mineralization under the areas to the west covered by Tertiary volcanic rocks. This case was strongly presented by Wolfhard who made a study of the alteration in available Taseko drill cores.

batholith. The first four holes drilled encountered deep overburden and may indicate a buried fault scarp running east-west along the southern boundaries of both the Fish Lake deposit and the Albert zone. The degree of alteration, intensity of pyrite mineralization and silicification and the shattered nature of the core samples indicated the Albert zone is located on a major fault structure cutting quartz feldspar porphyry dykes and quartz diorite porphyry intrusives. The fault and dykes appear to be the eastern continuum of the major structure and dyke swarms that were mapped by Quintana in the Fish Lake deposit a kilometer to the west.

The highest gold values were associated with quartz feldspar porphyry dykes that had undergone strong alteration and quartz-pyrite flooding. The anomalous gold bearing zone as determined by percussion holes FL-79-6, 7 and 8 measures 300 m across but remains untested and undelineated in all directions. This zone has low copper values and high pyrite concentration indicating the gold may be tied up in the lattices of the pyrite. Metallurgical testing on the percussion pulps will be done this winter at Bethlehem Copper's Mine laboratory to determine the extractability of the gold. A general geology plan is appended in Section F in drawing no. FL-79-4.

Conclusions and Recommendations:

The fall percussion drilling program has partly drill tested a mineral zone trending eastward from the Fish Lake copper-gold deposit. The zone, called the Albert zone, may be coincident with the pyrite halo around the Fish Lake mineral deposit or it may be a separate pyrite and gold occurrence developed on similar structures to those that localized the Fish Lake porphyry deposit. Additional drilling, both percussion and diamond, will be necessary in 1980 to determine the grade and extent of the Albert gold zone.

NTS 920/5

November 28, 1984

OWNERS REPORTDIAMOND DRILLINGATFISH LAKE1984SUMMARY:

Five easterly oriented holes, each near 200m long, were drilled at Fish lake in August 1984. Drilling was done to test for north-south trending anisotropies in gold or copper grades, which would have been undetected by previous drilling that was either vertical or northerly oriented. The five holes effectively give a continuous east west section at 10,000N through the Main deposit. Comparison of gold and copper grades shows no significant differences between 1984 and previous drilling clearly demonstrating that no north-south trending anisotropies exist in gold or copper grades at Fish Lake.

INTRODUCTION:

Fish Lake is located southwest of Williams Lake (see Figure 1). The property is reached by gravel road via Hanceville (on Highway #20) to the Davidson Bridge on the Taseko River. From the Davidson Bridge 18 km of secondary gravel road reaches Fish Lake.

Extensive drilling has been done at Fish Lake from 1962 to 1982. In 1984, 1002.6 m of diamond drilling (NQ size) was completed in five holes all directed at -50 to -55° easterly and located on section 10,000N, effectively giving a continuous east-west section through the Main zone.

Drilling was done from August 15 to 31, 1984 by J.T. Thomas Drilling Ltd. of Smithers, B.C. The drill program was supervised by A. Roberts, technician. A.M. Pauwels, geologist logged the core in early September. All core is stored on the property, 1.5 km northwest of Fish Lake, together with core from previous years.

DRILLING:

Five 200 m long holes were drilled, all located on section 10,000N, directed from -50 to -55° to the east effectively giving a complete east west section through the Main deposit.

The drilling was done to probe for north-south trending anisotropies in copper and gold grades. Extensive previous drilling, all directed vertically or northerly would have been inadequate to detect such north-south trends. The five holes are described in the drill logs (Appendix I). Comparisons of gold and copper assays from 1973 and 1984 drilling are detailed in Table I. Very similar grades were found overall for both copper and gold. This clearly indicates that no north-south trending anisotropies in copper or gold grade exist in the main deposit. The core intersected is very similar in composition and alteration compared to core from adjacent holes.

Five higher grade (see Table III) gold assays (> 0.09 oz/T Au) were obtained over 1 to 3 m long core sections that contain quartz-carbonate-sericite-pyrite-chalcopyrite veins similar to veins containing gold in the DOL and ALBERT zones drilled in 1981 and 1982. The frequency of these intersections is the same as their frequency in 1973 drilling on section 10,000N. These veins in 1984 drilling measure 2 to 10 cm wide and detailed logging reveals that many more such veins are present in the core without giving rise to higher assays. It is believed that the higher assays only present the top part of a population of gold grades associated with such veins. The average of these gold grades,

averaged over 1 to 3 m core samples, could well fall in the range of 0.02 - 0.04 oz/T Au as was found in the DOL zone in 1982 drilling.

One extremely high assay (1.816 oz/T, from 187-190 m in hole 84-3) merits further discussion. This assay was repeatedly checked and found to be valid (Table II B). Duplicate pulps prepared from the same reject gave assays ranging from 0.12 to 0.191 oz/T Au. This is a strong indication that this very high assay is an extreme outlier value of a gold grade population of very much lower average grade. Close examination of the core shows that a 10 cm sericite-quartz vein is present in this core length. This assay interval has the highest grade by far of all + 3500 3m/10 feet core intervals obtained since 1973 and representing the Main deposit at Fish Lake. Less than 15 of all these samples have grades over 0.1 oz/T Au, all occurring near section 10,000N. The grade in this core interval towers even over this very small group of outlier assays.

CHECK ASSAYS:

Copper assays of all samples were done by Cominco's Exploration and Research Laboratory in Vancouver. Duplicate assays (27 samples) were done by Bondar Clegg of North Vancouver, and are illustrated in Table III. Excellent correspondence is found between the copper assays from both laboratories.


Gold assays were performed by Chemex Laboratories of North Vancouver. The duplicate samples (27) assayed by Bondar Clegg gave a very different picture. A triplicate check with X-Ray Assay Labs of Don Mills showed excellent correspondence with Bondar Cleggs' results. These triplicate assays are detailed in Table II. Results from both Bondar Clegg and X-Ray Labs have low correlation coefficients with results from Chemex Labs, this points towards an unsystematic difference between these results. A close inspection of Table III will reveal that 8 of the 27 assays by Chemex are very different from results by the other laboratories. These 8 samples have reported values close to double of what the other laboratories report. This could point towards a computational error on the part of Chemex. Subsequently all cores were reassayed by Bondar Clegg.

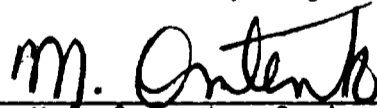
Results by Bondar Clegg are reported on the logs and are considered reliable. Assays reported by Chemex Labs, considered unreliable, are reported in Appendix II.

CONCLUSIONS:

Drilling at Fish Lake on section 10,000N with five easterly directed holes indicated very similar overall gold and copper values when compared with 1973 vertical drill holes.

It is concluded that no north south directed anisotropies in gold or copper grade occur at Fish Lake.

Report By:   
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M.J. Osatenko, Senior Geologist

Approved for  
Release By:   
G. Harden, Manager  
Exploration, Western District

MP/mm1

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# Renner Zone

silver assays are appended in Section E. The assay reports from Kamloops Research and Assay Laboratory Limited are appended in Section D. The drill hole locations are shown in drawing no. FL-80-4.

Significant gold-bearing sections were encountered in two holes, FL-80-23 on the Albert Zone and FL-80-33 near the Renner Zone. The assay results of the mineralized sections of these holes are tabulated below:-

<u>Hole No.</u>	<u>Intersection</u> m	<u>Assay Interval</u> m	<u>Au</u> oz/ton	<u>Ag</u> oz/ton	<u>Cu</u> %
FL-80-23	48.8 - 61.0	12.2	.104	.113	.03
1d of B FL-80-33	57.9 - 64.0	6.1	.46	1.54	1.37

Hole FL-80-23 is located midway between holes FL-79-6 and FL-79-8 both of which intersected comparable gold bearing zones at 45.7 and 15.2 m respectively. These zones all lie within a pyritized quartz diorite porphyry exhibiting strong quartz-sericite alteration and cut by felsic, quartz-feldspar porphyry dykes.

Hole FL-80-33 encountered massive pyrite mineralization with associated chalcopyrite in a siliceous zone between 57.9 and 64.0 metres.

## Geology

The 1980 percussion drilling program provided additional geological information on the area east of the Fish Lake deposit.

Drill Holes FL-80-18, 19, 20, 21 and 30 located to the southeast intersected metavolcanic rocks of the Cretaceous Kingsvale Group. These were cut by a quartz feldspar porphyry dyke at FL-80-21 and underlain at depth by quartz diorite at site FL-80-19.

Hole FL-80-31, the northeasternmost site, penetrated a barren, fine-grained quartz diorite similar to that exposed in massive outcrops near the Renner Zone