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AN EXPLORATION REPORT  
ON THE  
VIC CLAIM GROUP  
TASEKO LAKE AREA, B.C.  
FOR  
COP-EX MINING CORPORATION LIMITED  
BY  
R.D. WESTERVELT, M.Sc., P. ENG

23 July 1976

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23 July 1976.

The President,  
Cop-Ex Mining Corporation Limited,  
2560 - 700 West Georgia Street,  
Vancouver, B.C.

Dear Sir;

Re: Vic Claim Group  
Taseko Lake Area, B.C.

At your request, I have reviewed the available information on the Vic gold property situated near Taseko Lake, B.C. The date reviewed has included the old published government references, private company records, and summary reports by L.J. Manning and Associates and G. von Rosen, P. Eng covering the recent property work completed by Nemco and New Pyramid during 1974-75.

In summary, the exploration work completed to date has outlined a favourable gold-bearing fault structure extending southwesterly through the Vic claims. The structure, up to 20 feet in width, is remarkably strong and persistent having been traced over a continuous strike length of 3,200 feet and through a vertical range of 2,400 feet.

The gold values occur within a system of imbricate quartz-sulphide fissure veins within the fault structure. Vein widths from 1" to 7 feet have been reported from scattered exposures throughout the length of the zone with assays ranging from trace up to 14 oz. Au, 13 oz Ag., and 10% copper. The over-all distribution, extent, and continuity of the higher grade gold sections have yet to be established. The fault outcrops on an extremely steep and rugged mountain side - the hazardous field conditions and intermittent snow and rubble cover have precluded any comprehensive surface sampling program along the structure.

The persistent strong structure with significant gold values provides an excellent exploration potential. The results to date well warrant further testing to determine whether any viable ore shoots are present. On the basis of the present information, three areas along the structure have been selected for immediate attention. An initial exploration program including further surface work and both underground and surface diamond drilling is recommended at an estimated cost of \$150,000.

Following herewith is my summary report for your consideration.

Property: The Vic claims comprise a single contiguous 12 claim block within the Clinton Mining Division with record data as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Vic 1-8 (incl.)	31918 - 31925 (incl.)	March 8, 1977
Vic 9-12 (incl.)	32145 - 32148 (incl.)	October 8, 1977

Location, Access, Physiography: As shown on the accompanying location map, the Vic claims are situated immediately west of the outlet of Lower Taseko Lake, 80 miles southwest of Williams Lake and 45 miles northwest of the Bralorne gold camp.

The claim area is reached by 120 mile gravel road from Williams Lake. From the west bank of the river, an access road was built in 1975 up the steep mountain side to within 1,000 feet of the lower adit on the Vic claims. At present, the river must be crossed by boat but it can be forded during periods of low water.

The claims extend southwesterly from the river (elevation 4,500') up the steep cliffs of "Vic Mountain" to the summit at 7,898 feet and then continue over the moderate west slope back down to 6,700 foot elevation.

The main fault structure is expressed as a steep, shear-walled gully up to 40 feet in depth trending southwesterly up the mountain side from the 5,000 foot level to the summit. The gully is locally filled to some depth with debris spalling from the cliffs above and, in the upper reaches, is semi-permanently filled with ice and snow.

History and Development: The property - originally known as the Vick Group, was initially staked in 1933. During the period 1935-37, two adits were driven to test gold bearing veins encountered in surface prospecting.

The lower adit (elevation 5,534) was driven some 370 feet along a major shear structure paralleling the fault of current interest but lying some 80 feet to the north. As evidenced by the recent sampling, this encountered only low values and was then turned southerly toward the southern fault structure. Work was terminated some 80 feet short of encountering the southern vein system.

The upper adit (elevation 5,792') was driven 126 feet to test the southern vein system but again only low values were found. Present evidence suggests this adit was terminated prematurely before encountering the high grade mineralization known on surface.

In 1939, the owner - C.E. Cartwright, reportedly ground sluiced the gully from the summit and uncovered 800 feet of vein material up to 7 feet in width. Samples along the strike of the vein for 800 feet are reported to have assayed 8.66 oz. Au - samples across the vein at several points along the strike graded 9.48 oz. Au.

Cartwright disappeared during World War II, the claims eventually lapsed, and the property remained virtually dormant until 1974.

Recent Exploration: In 1974, the main showing area was re-staked and Nemco Explorations and New Pyramid Gold Mines carried out preliminary exploration programs during 1974-75. Considerable effort was expended in locating and re-surveying the old adits and sampling the vein systems where feasible. Much of this work involved roping on the cliff faces and was quite hazardous due to the spalling of rocks from above.

Additional work included the new access road to within 1,000 feet of the lower adit and initial reconnaissance on the moderate back slope of the mountain west of the summit. Three short holes with a rock sampling drill were completed in the vicinity of a high grade surface showing above the upper adit.

The recent exploration work confirmed the widespread scattered gold values within the veins in the fault structure but cover was too extensive and conditions too hazardous to allow any comprehensive vein sampling program. No evidence of the ground sluiced area was found and it was concluded that this prime area of interest must underly the snow filled gully close to the summit.

The initial reconnaissance on the back slope indicated that both geochem and EM-16 methods could be utilized in tracing the extension of the fault structure for at least 1,400 feet southwesterly from the summit.

Geology: The regional geology is shown on GSC Map 29-1963 and a more detailed property map by Victor Dolmage is published in the 1935 Minister of Mines Annual Report.

The Vic claims are entirely underlain by a thick sequence of Cretaceous volcanics. In the immediate vicinity of the workings, these consist of andesites, tuffs, and massive flow-breccias striking northerly and dipping shallowly to the west into the mountain side. Through the main showing area, a branching series of diorite dykes are present trending southwesterly up the mountain. These dip steeply ( $75^{\circ}\text{SE}$  to  $80^{\circ}\text{NW}$ ) and vary in width from 20 to 100 feet.

Transecting the dyke swarm at a shallow angle, the fault zone of immediate interest strikes southwesterly up the mountain from the scree slope to the summit. This structure, with widths up to 25 feet, cuts both the volcanics and the diorites and dips vertically to  $75^{\circ}$  to the southeast. Several sub-parallel faults have been recognized but these appear to be less continuous and less well-defined.

Mineralization: Mineralization on the Vic property occurs within a system of steeply dipping, southwest trending quartz-sulphide fissure veins. Although scattered veins have been found over the entire property, the veins are most concentrated and best developed within the strong fault structure transecting the dyke swarm.

Vein widths from 1" up to 69" have been mapped along the fault but the continuity of individual exposures is difficult to trace due to the intermittent rubble and snow cover. As presently exposed, the veins consist of well ribboned quartz with local bands of chalcopyrite and pyrite paralleling the fissure walls. The adjacent rocks within the structure are well sheared and moderately to strongly silicified.

Both the earlier government report and the recent work by L.J. Manning and Associates have verified that the gold values are confined to the high sulphide sections. Quartz vein material with no sulphides has consistently graded only traces of gold and silver. A recent microscopic examination of a high-gold, heavy sulphide specimen at U.B.C. has identified electrum - a gold-silver alloy, as an important constituent of the high grade material.

Numerous high grade samples from 1.10 to 9.34 oz Au are noted in the government report and were confirmed by the more recent sampling. In most cases, these samples were obtained from surface where heavy sulphides were found as remnant exposures along the footwall of the fault structure. To determine grade, one of these showings immediately above the upper adit was tested with a rock geochem drill in 1975. The three holes completed all collared in heavy sulphides and graded 2.01 oz Au, 8.64 oz Ag, 1.54% Cu over 5'; 7.31 oz Au, 7.19 oz Ag, 3.96% Cu over 6'; and 2.62 oz Au, 4.74 oz Ag, 1.05% Cu over 4'. One section over 2' graded 14.52 oz Au, 12.26 oz Ag, and 9.95% Cu.

These holes were purposely drilled along strike and down dip to ascertain grade so their respective lengths are meaningless as to true width. However these grades and the other high grade exposures do clearly illustrate the intensity of mineralization which has developed at least locally along the structure.

The ore control of the higher grade sections has yet to be established. The government report notes that the veins are intimately associated with the dyke system and occur within both the dykes and the adjoining volcanics. The recent work by Manning and Associates has suggested the chemistry or physical characteristics of the respective volcanic units may have influenced the vein system development.

Conclusions and Recommendations: The work to date on the Vic claims has defined a persistent, strong fault structure with significant gold values scattered along its length. The current results well warrant further exploration to determine whether any viable ore shoots are present within this structure.

From the available data, three areas have been selected for immediate attention and work is recommended as follows:

A. The Summit East area - the ground sluiced area where Cartwright previously encountered the strong vein and high grade mineralization very probably is located in the steep gully along the fault immediately east of the summit. Over the past two years, this area has remained

buried in ice and snow and no direct examination has been possible. A program of snow removal is recommended to commence as soon as possible to ensure that this area is adequately exposed for examination this season.

Present information indicates this gully could be adequately cleared using powder and a portable slusher unit in combination with a calcium chloride sprinkler system. Adequate water supply could be obtained from a small lake some 900 feet below and 2,000 northwest of the summit.

B. The Summit West area - along the strike extension of the fault zone, two widely spaced, old trenches have exposed vein material on the relatively moderate back slope of Vic mountain. In the most southwesterly trench the vein is 69" wide - in the second trench a 12" width of vein material with sulphide reportedly assayed 0.68 oz. Au per ton.

Prior reconnaissance on this debris covered slope has indicated that both geochem and EM-16 can be used successfully to trace the continuation of the fault structure for at least 1,400 feet southwesterly from the summit. A picketed grid 2,000 feet in length with cross lines at 200' intervals is recommended to trace the southwesterly fault extension from the summit. Detailed geochem (Cu,Ag,Au) and EM profiling should be completed on this grid and a series of short BQ wire-line drill holes should be drilled at 45° and 60° angles to test the fault structure at 75' - 175' depths.

Dependent on the initial drill results on the grid and the results of the snow removal program in the gully, a long angle hole from the summit beneath the ground sluiced area might be warranted. A total drill footage of 2,500 feet should be allowed at the present time.

Both the Summit East and West areas can best be worked concurrently from a single camp to be established on the west slope of Vic mountain. To alleviate the expense of helicopter moving and supply, an access road should be constructed around the southern end of the mountain and up the moderate back slope to the camp and work area.

C. Upper Adit area - the high grade surface showings in the gully above the upper adit have yet to be adequately tested. I concur with the recommendations made in Gerhard von Rosen's report (November 14, 1975) that 1,000 feet of underground BQ wire-line drilling is warranted to test the showings above the adit level.

This upper adit work, being well down the steep eastern face of the mountain, will require a separate camp establishment.

Program Cost Estimate:

Summit Camp Area:

Access road	6,000 ✓
Establish camp	5,000 -
Picketed grid, geochem and geophysics	2,000 ✗

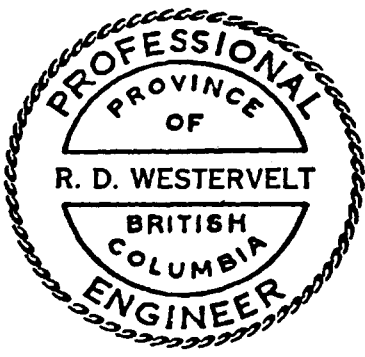
Snow removal-mapping and assaying	18,000	
BQ wire-line drilling-2,500'@\$20	50,000	
General supervision, assaying	7,000	
Engineering and reports	2,000	
Contingencies	9,000	
		\$ 99,000

3 holes 50' each

Upper Adit Area:

BQ wire line drilling-1,000' (as estimated in Nov. 14/75 report by G. Von Rosen, P. Eng.)	\$ 51,000	
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Total Estimated Program Cost (including contingencies)	<u>\$150,000</u>
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Respectfully submitted  
*R. D. Westervelt, P. Eng.*  
 R.D. Westervelt, M.Sc., P. Eng

Vancouver, B.C.  
 23 July 1976