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1976 PROPERTY REPORT

TITLE:		1976 PROGRAM, TEETA CREEK PROSPECT
AUTHOR:		W. B. LENNAN
DATE:		NOVEMBER, 1976
COMMODITIES:		Cu-Mo
LOCATION:	Area:	Northern Vancouver Island
	Mining Division:	Nanaimo
	Coordinates:	50°23'N. Lat., 127°31'40"W. Long.
	NTS:	92L/5E
OWNERSHIP:		CITIES SERVICE MINERALS CORPORATION
		Optioned from J. R. Billingsley
WORK DESCRIBED:		Detailed geologic mapping
		Rock geochemistry
		Magnetometer survey
		Diamond drilling

SUMMARY

The Teeta Creek Property is situated on north western Vancouver Island at latitude 50°23' longitude 127° 31'40". Access is via air or truck to Port Alice and by boat across Neroutsos Inlet to the mouth of Teeta Creek. A two mile hike upstream along a cat road is required to get to the campsite.

Cities Service Minerals Corporation optioned 41 claims from J. R. Billingsley. The claims extend from the mouth of Teeta Creek to some 3 miles upstream. The claims cover copper and molybedenum mineralization found along Teeta Creek and along the valley walls. Interest in the area was generated by the submission of the property by Billingsley for review. The review indicated an area of copper mineralization carrying greater than 0.20% Cu over a horizontal distance of 800'. This zone was established by the diamond drill holes that Newmont Mining drilled in 1968-1969.

Cities Service 1975 diamond drill program extended the mineralized zone intersected by Newmonts S-3 and S-4 D.D. Holes. Diamond drill hole 75-1 extended the zone from 800 ft. to 1200 ft. in length.

The reader should refer to the 1975 Report (A review of Previous Work and 1975 Diamond Drill Program - Teeta Creek Property) as this report will deal primarily with the 1976 work by Cities Service on the property.

Detailed geologic mapping and rock sampling for geochemical analysis was carried along the grid lines and creeks primarily between Line 12N and Line 28N. Mapping and sampling were also done along Teeta Creek from Line 12N to its mouth and also along a tributary creek that crosses the cat skid road at Line 4+60'N station 7+00E.

The mapping in the vicinity of the diamond drill holes proposed in the 1975 report, indicated that the favourable pale grey altered and purple biotized tuff and porphry units were present. The samples taken along Teeta Creek in the above units yielded discouraging results. Surface samples were taken above the highest grade mineralization that was found at depth in D. D. Hole 75-1. The results did not correlate. Surface leaching (shallow) appears to be more prevalent along the creek thus surpressing the geochemical expression of mineralized zones.

Mapping of a blocky fragmental tuff unit located by Newmont in 1968 was done to define its extent. The unit is designated "Fragmental Rocks" and coloured blue on figure #4 in the 1975 Teeta Creek Report. Newmont personnel felt that this unit covered mineralized rocks to the N. E. of the intersection of Line 12N and the baseline. The unit is plotted on the 1976 geologic map (fig. 3) and is called Unit 15.

The Fragmental Tuff "appears" to be fairly thick (100' - 300'?) and is best observed in a creek near the intersection of Line 12N and the Baseline, and a creek that crosses the Baseline at Line 21N. The unit is well shown along the canyon on Teeta Creek N. E. of Line 28N. where undulating

bedding is observed. The fragments vary in grain size from boulders to sandy grit.

The western contact of the fragmental tuff (Unit 15) and the mineralized pale grey altered, biotized quartz diorite intrusive falls in an area between Line 12N station 1E and Line 14N station 8W. Field observations and geochemical results confirm Newmont's suggestion that the tuff is virtually barren of mineralization and cuts off the mineralized units described above very abruptly.

The pale grey altered, biotized tuff and prophyries and dioritic intrusive have a copper content ranging from .03% Cu to .65% Cu. The copper content of the tuff (Unit 15) falls to .0010% Cu to .006% Cu. The Fragmental Tuff (Unit 15) thus restricts the potential for a "sizeable" mineralized target worthy of testing.

A detailed magnetometer survey was carried out along the grid lines from Line ON to Line 28N. There is a general correlation with Newmont's survey. The most prominent magnetic features are "lows" of 400 to 500 gammas relief, which corresponds to silicified and clay altered pale grey and biotized rocks found in D.D. Holes S-3, S-4 and 75-1. The "lows" also correspond to the best mineralized zones in D.D. Holes S-4 and 75-1. This is, however, contradicted where a large "low" located over the lower half of D.D. Hole 75-1 corresponds to an area of low-grade (less than .2% Cu) mineralization. Diamond drill hole S-3 which has a 120 ft. section of .36% Cu corresponds to a magnetic feature that is greater than 500 gammas in relief.

Magnetic features of 600 to 900 gammas relief corresponds to biotite and/or chlorite altered fine grained quartz dioritic rocks.

The two diamond drillholes proposed in the fall of 1975 were drilled during the summer of 1976. The hole locations were chosen on the basis of geology rather than the results of the geochemistry and magnetometer surveys due to the problems encountered and mentioned above. Results were discouraging, with the grades ranging from .01% Cu to .5%Cu. The best intervals were 50 ft. of .146% Cu and 50 ft. of .234% Cu in D.D. Hole 76-1. In D.D. Hole 76-2 20 ft. of .32% Cu and 50 ft. of .2.4% Cu were intersected. In D.D. Hole 76-1, 20 ft. of .0165% Mo and 110' of .0075% Mo. were intersected. No sections of significant molybdenum mineralization were found in D.D. Hole 76-2.

CONCLUSION

The geologic mapping indicated favourable units in the vicinity of the drill holes proposed in 1975. The favourable rock units are the pale grey altered rocks and purple biotized rocks (porphyries and tuffs). Mapping of a younger bedded fragmental tuff (Unit 15) located north east of Line 12N and the base line confirmed a statement in Newmont's 1968-1969 report that the tuff unit effectively cuts off the geologically and geochemically favourable pale grey altered, biotized porphyries and quartz diorite units. This tuff unit is found extensively along the Teeta Creek valley from an area N.E. of Line 28N to the mouth of the creek where it contacts andesite volcanics. Mineralization is for the most part, absent in this area.