

DOLMAGE, CAMPBELL & ASSOCIATES
CONSULTING GEOLOGICAL & MINING ENGINEERS
608 BANK OF CANADA BUILDING
VANCOUVER I.B.C.

Canol Mines Ltd.

014411

PROGRESS REPORT NO. 1, 1969

SEAGULL LAKE PROPERTY
Yukon

June 28, 1969

Douglas D. Campbell

Dolmage-Campbell & Associates Ltd.

Vancouver, Canada

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INTRODUCTION

On June 25, 1969 the writer, in company with Mr. A. Arseneault of Canol Mines Ltd., visited the Seagull Lake Property of Canol Mines Ltd. During the visit Mr. Douglas Parent of Canol Mines Ltd. reviewed the bulldozer trenching and diamond drilling done to date on the Cone deposit, east of Seagull Lake, and also accompanied the writer to the No. 2 Showings, west of Seagull Lake. Drill core from the Cone was examined and assay results obtained for the preparation of this progress report.

LOCATION: ($61^{\circ} 35' N$, $132^{\circ} 47' W$)

The Seagull Lake property of Canol Mines Ltd. is located about 25 miles southsouthwest of the village of Ross River, Y.T., and is connected to the Canol Road by 10 miles of tote road. From mile 100 on the Canol Road the distance to Ross River is 40 miles and to Whitehorse is 100 miles.

HISTORY:

Very little work has been done in the area prior to the staking of the property by Canol Mines Ltd. The area was prospected for placer gold early in this century and some reconnaissance was done by the Geological Survey in the thirties. The entire area was relatively dormant until the Canol Road, built during World War II, provided better access. Prospecting in 1963 uncovered mineralized showings on the property and some limited exploration work was carried out during the next season.

Interest in the Dynasty-Vangorda Creek area in recent years resulted in renewed prospecting along the Canol Road and in 1966 Canol Mines Ltd. staked, trenched and drilled the western portion of the present Seagull Lake claims. The most accessible principal showings, No. 1 and No. 6, were extensively trenched and drilled in 1968 but the results in obtaining large enough tonnages to be commercial were disappointing.

Late in 1968 the Cone Claims, 4 miles southeast of the original Canol claims, were obtained and the intervening ground was staked. Early in 1969 a camp was established on the Cone Claims and bulldozer trenching revealed a promising lead-zinc showing on Cone #7 M.C. which has since been explored by six diamond drill holes.

Exploratory drilling of the No. 2 Showing, on the claims to the west of Seagull Lake, on the mountain due west of No. 1 Showing, was recommended to be done this year and will be started as soon as the drilling of the Cone Showing is completed.

This report describes the results of the 1969 exploration to date and suggests procedures to be followed in the remainder of the season.

PROPERTY: Over 400 claims in one group are owned or held under option by Canol Mines Ltd. in the Seagull Lake area, most of them lying in a belt trending southsoutheast along the valley of the Seagull Fault. At the north end of this strip of claims lies the block of original Canol Mine's claims, west of Seagull Lake, and the Cone Property block, 5 miles to the southeast of the lake.

SUMMARY & RECOMMENDATIONS

The area of the property of Canol Mines Ltd. is underlain by Paleozoic formations that consist principally of phyllites of Upper Cambrian age and overlying dolomites of Silurian-Devonian age. Faulting, fracturing and folding are common in all formations. Exposures are poor except along the upper elevations of this mountainous region.

Possible ore occurrences on the property consist of veins and replacement bodies of silver-bearing galena, sphalerite and pyrite within the dolomites that underlie the upper portions of the mountains on the property. No deposits have been found in, or traced into, the underlying schistose phyllites. Exploration of No. 1 and 6 showings in 1968 revealed local high grade mineralization but in bodies of insufficient continuity and size to be commercial. Exploration of No. 2 showing, yet to be done, has more promise of success because the showing is at a higher elevation in the dolomites, well above the unfavourable phyllite horizon.

Drilling of six diamond drill holes in 1969 beneath the best showing on the Cone #7 M.C. has revealed a lack of continuity to depth of the excellent surface showing exposed in a bulldozer trench. This condition is the same as that encountered on the Canol No. 1 and No. 6 showings and is an unfortunately common characteristic of this type of mineralization in dolomitic rocks.

RECOMMENDATIONS:

It is recommended that the hole, (#7), being presently drilled on the Cone showings be completed and, if no encouraging results are obtained, the drill be moved immediately to the Canol No. 2 Showing, west of Seagull Lake, and a minimum of 9 holes be drilled beneath the trench exposure of that showing. Additional drilling will depend on the results of these first holes.

The drilling of No. 2 Showing should be completed as quickly as possible so that, if the results are successful, underground (adit) exploration can be started before winter.

Bulldozer stripping of the float and outcrop occurrences on the property should continue under the direction of a geologist. A reconnaissance geological map of the property should be compiled if time permits.

All of these recommendations, as well as the work done thus far in 1969, are included in the program for 1969 proposed by Dolmage-Campbell & Associates Ltd. in their report of Nov. 5, 1968, wherein a total expenditure of \$277,000. was estimated to complete this phase of exploration of the entire property.

GEOLOGICAL SETTING

The following description of the geology of the region and Canol property is extracted directly from the Nov. 5, 1968, report on the property by Dolmage-Campbell & Associates Ltd.:

REGIONAL GEOLOGY:

The Seagull Lake properties of Canol Mines Ltd. are underlain by a belt of folded and faulted Upper Cambrian-Devonian rocks which is bounded on the southwest by a broad belt of granitic and metamorphic rocks and on the northeast by an intensely deformed zone between the Porcupine Thrust and the Tintina Fault Zone.

The Paleozoic formations on the property consist of middle and upper Cambrian phyllites overlain by dolomites of Silurian to Devonian age. The phyllites form an extensive unit of unknown thickness, in part limy, dolomitic and locally metamorphosed to hornfels. In some areas, the phyllite is separated from the overlying dolomite by black slates, siltstones and locally by volcanic breccia totalling less than 700 feet. The overlying dolomite, varying in thickness from 1000 to 5000 feet, consists of three members; a basal member comprised of sandy and silty dolomites with lenses of massive grey dolomite; a middle member consisting of dolomitic sandstone and quartzite; and an upper member composed mainly of dark grey dolomite.

Major geological structures in the area trend northwest. The Tintina Fault, the dominant structure in the area and a major crustal break, lies 20 miles northeast of the Canol properties. The northern end of the Seagull Fault, a structure that has been traced for approximately 30 miles, cuts through the main Canol claim block. Thrust faulting along the base of the dolomitic unit is common and suggests that some of the dolomite exposures may be parts of folded thrust sheets.

Syenitic intrusive stocks usually associated with greenstones and meta-diorites crop out a few miles east of Seagull Lake.

PROPERTY GEOLOGY:

Detailed geological mapping of the property has not been carried out. However, in general, the land above the 5500 ft. elevation is underlain by Silurian-Devonian thick-bedded dolomites which lie unconformably on Cambrian phyllites and minor interbedded dolomite at lower elevations. Generally the phyllites occupy the valley bottoms where outcrops are less plentiful than the higher elevations. The overlying dolomites trend northwestwards in broad gentle folds.

Besides the northwest-striking Seagull Fault, numerous fault or fracture zones have been exposed by the 1969 trenching on the Cone #7 M.C. and others can be inferred from various topographical lineaments. The other known structures are the vein zones themselves, particularly No.'s 1, 2 and 6.

ORE OCCURRENCES

The property's mineralized structures appear to be either shear fractures related to regional fault zones or tension fractures related to folds in the host dolomite formations. Evidence to date from the explored zones indicates that the structures and mineralization related to fold-induced tension fractures are discontinuous and limited in tonnage potential. No. 2 Zone appears to be related to a strong fault or shear zone and may thus prove to have better continuity than the other zones explored to date.

The mineralization of all of the showings uncovered thus far consists of coarse crystalline galena and/or sphalerite intimately associated with quartz veins and stringers as well as local concentrations of pyrite. This sulphide mineralization is generally silver-bearing in a very roughly indicated ratio of 1 oz. Ag/ton to 2% Pb.

ZONES EXPLORED IN 1968: No. 3 and No. 6 vein zones both showed promising, rich galena mineralization on surface exposures, but further trenching and diamond drilling revealed that neither structure was continuous enough to comprise an ore shoot.

Drilling of No. 1 Zone, a galena-rich vein type, indicated a sulphide body of about 3000 tons in size, grading 20.3 oz. Ag/ton and 42.5% Pb. The body is not large enough to comprise ore by itself but could be mined profitably if production were established on some other ore zone on the property.

CONE NO. 7 SHOWING:

In a cirque valley on the east side of the mountain ridge that forms the east wall of the Seagull Lake valley a sulphide-rich gossan was stripped by bulldozer early in the Spring of 1969. The pattern of the trenches and the extent of the surface exposure of the showing are shown in Figure 69-3 accompanying this report. The width of the showing in the floor of the bulldozer trench is 59 feet but the true structural width is estimated to be about 25 feet. Surface sampling of this full width assayed:

.07 oz. Au/t., 10.9 oz. Ag/t., 16.8% Pb and 2.96% Zn.

The showing was explored at depth by four diamond drill holes, (CC 1-4 incl.), drilled from two set-ups, one on each side of the surface showing. The results of holes 1, 2 and 4, which pass directly under the surface showing at depths of 20-80 feet, are shown on the cross-section, Figure 69-4. Hole # CC-1 is the only one of the (four) holes that intersected significant sulphide mineralization. Very minor amounts of sulphides were intersected in the other three holes despite the fact that the holes were drilled at shallow depths and in several directions beneath the surface showings. The intersection in hole #CC-1, measured across 49 feet, from 40 ft. to 89 ft., assayed:

.05 oz. Au/t., 2.04 oz. Ag/t., 2.85% Pb, 2.97% Zn.

These values are critically less in silver and lead content than those in the surface showings and are not ore. More important however is the fact that hole CC-2, drilled 15-20 feet below CC-1, intersected only 2 feet of sulphide mineralization of no economic significance, and with no indication of a strong ore-bearing structure. Hole CC-3, drilled to pass directly through the sulphide showing in a westerly direction, intersected no significant mineralization.

It is evident from the drill results that the main sulphide showing trenched on Cone #7 M.C. is a shallow-dipping, isolated lense that is not of sufficient size to be economic, therefore no further drilling is recommended for it.

Due east of the main showing, in the lower trenches, (Fig. 69-3), several veins of sulphide mineralization have been exposed in a rock that appears to be intrusive in that it has a mottled crystalline texture and lies in a dike-like configuration apparently cross-cutting the surrounding formations. However, compositionally the rock could be either a very highly altered intrusive or a dolomite. In any case, it is evidently a favourable zone for sulphide vein occurrences because numerous showings were exposed by trenching along this formation. Drill hole No. CC-5, drilled beneath the southernmost of these showings, intersected no sulphide mineralization of any interest.

Because the veins exposed in the lowest trench to the east are numerous and relatively strong, and because they are also closer to a presumed fault that trends down the creekbed in the middle of the valley it was proposed that one hole, CC-7, be drilled to explore those showings. This hole is presently being drilled; if it intersects significant mineralization further drilling of the showing should continue, if not the drill should be moved to Canol No. 2 Showing, west of Seagull Lake, to explore that showing.

CANOL NO. 2 SHOWING:

No. 2 Vein strikes N 50° W across the crest of a mountain ridge about 1 mile southwest of No. 1 Vein. It appears to dip steeply to the east and is exposed as broken quartz in three trenches at an elevation of about 6400 feet. In the limited trench exposures the vein is apparently related to a fault zone that cuts massive dolomites and has fractured them for 50 feet on each side. Sampling of the rather poor trench exposures in late 1968 indicated a possible shoot, some 200 feet in length with a grade of: 8.6 oz. Ag/t. and 14.7 % Pb. The host fault structure can be traced by float for a length of 900 feet in the talus and the vein width appears to be 15-20 feet.

Because this is a strong structure with apparently promising width and fair grade it warrants exploration by drilling to determine its true grade and continuity. Because the zone strikes across the mountain ridge at right angles it can be readily explored by an adit further down the mountain this winter if the drill results are sufficiently encouraging. If such underground exploration were to begin before winter then the prerequisite drilling must begin before the end of July.

In the course of road building and prospecting on the property during 1968-69 numerous sulphide-bearing showings of float have been exposed besides the ones described above. As many of these as possible should be trenched by bulldozer this summer in order that the property be properly evaluated. Showings located high in the dolomite formation should be investigated first.

CONCLUSIONS

Trenching and drilling this season of the most promising showing on the Cone claims have revealed that it is an isolated replacement lense of sulphides in dolomitic rocks, with not apparent strong structural control or continuity. The results are not sufficiently encouraging to warrant further drill exploration of the showing although one hole is warranted beneath some fair surface showings east of the main showing.

Further exploration by bulldozer trenching should continue this season of all interesting sulphide float occurrences on the property, particularly those at high elevations, well above the unfavourable, low-lying phyllite formation.

The Canol No. 2 Showing has shown sufficient surficial indications of potentially profitable grade and tonnage to warrant further exploration by drilling. The gross value of the No. 2 Vein ore is approximately \$54./ton and the mining widths are about 17 feet; therefore if enough tonnage of such material can be developed on this and other veins to warrant the construction of a mill a profitable operation could be realized on the Canol property. In view of the fact that there is over 1000 feet of depth between the No. 2 Vein surface showings and the phyllite contact the tonnage potential on this vein is good. (No's. 1 and 6 Veins lie so close to the phyllite contact as to render their tonnage potential too limited to be economic.)

RECOMMENDATIONS:

It is recommended, on the basis of the writer's past and most recent examinations of the Canol property, that no further drilling be done at this time on the Cone Claims unless hole CC-7 returns significant sulphide intersections.

Drill investigation of Canol No. 2 Vein should begin as soon as possible in order that underground investigation of this deposit, if the results of the drilling warrant, can be started before winter. Six initial drill holes have been recommended for No. 2 Vein, drilled in three sets of 2 from set-ups in the top three bulldozer trenches. The holes in these sets should be inclined to intersect the zone at depths below the surface of 30 and 60 feet. Additional drilling should be contingent on the results of the first 6 holes.

The bulldozer trenching of all sulphide float occurrences not yet investigated should be pursued for the rest of the season.

The work done thus far in 1969 was included in the program recommended for the property in the Dolmage-Campbell & Associates Ltd. report of Nov. 5, 1968. The total cost of that program was estimated to be \$277,000. The work done thus far comprises about 25 percent of the recommended program.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Douglas D. Campbell".

Douglas D. Campbell, P.Eng., Ph.D.

DDC/jc

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CERTIFICATE

June 28, 1969

I, Douglas D. Campbell, with business and residential addresses in Vancouver, British Columbia, do hereby certify that:

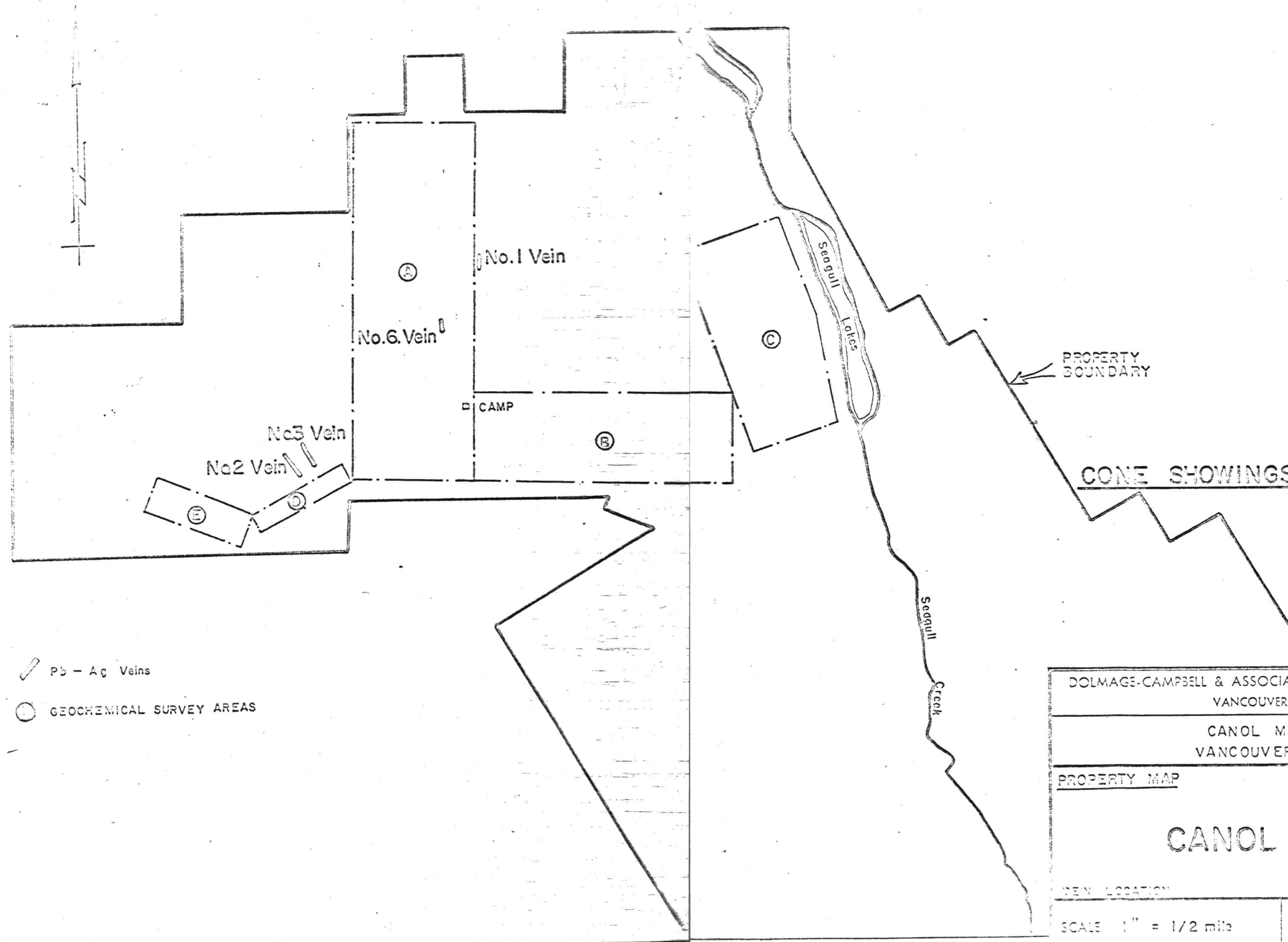
1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia, (B.A.Sc., Geological Engineering, 1946), and of the California Institute of Technology, (Ph.D., Economic Geology and Geophysics, 1955).
3. I am a registered Professional Engineer of the Province of British Columbia and of the Yukon Territory.
4. From 1946 until 1957 I was engaged in mining and mineral exploration in Canada and the United States as geologist for a number of companies. In 1957 I retired as chief geologist for Eldorado Mining & Refining Ltd. to begin private practice as a consulting engineer.
5. I have personally examined the property of Canol Mines Ltd. in detail several times in 1968 and most recently in June, 1969.
6. I have not received, nor do I expect to receive, any interest, directly or indirectly in the properties or securities of Canol Mines Ltd. or any associated company.

Respectfully submitted,



Douglas D. Campbell, P.Eng., Ph.D.

Vancouver, Canada.



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 VANCOUVER, CANADA

CANOL MINES LTD.
 VANCOUVER, CANADA

PROPERTY MAP

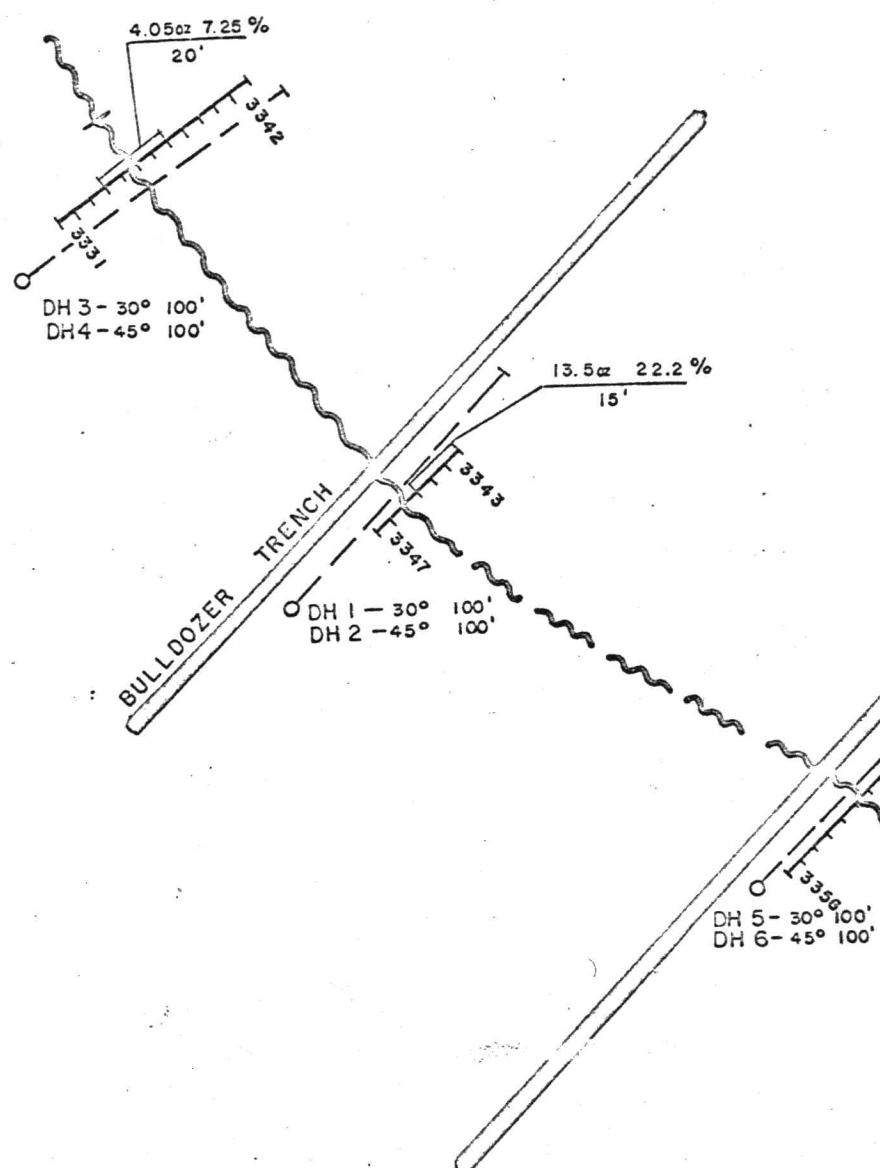
CANOL MINES

VEIN LOCATION

SCALE 1" = 1/2 mile

JULY 1, 1969

FIG. 69-1



SAMPLES		
No.	Ag/gt	Pb/gt
3331	.10	Tr
3332	Tr	Tr
3333	.15	.30
3334	4.30	8.70
3335	2.93	6.43
3336	4.40	7.13
3337	4.80	6.70
3338	1.20	2.03
3339	1.15	2.43
3340	1.30	2.33
3341	.03	Tr
3342	Tr	Tr
3343	26.10	41.83
3344	10.93	16.20
3345	3.55	3.43
3346	.20	.35
3347	.30	.32
3348	.30	.33
3349	1.90	1.90
3350	.90	1.40
3351	.05	.15
3352	.25	.20
3353	.40	Tr
3354	.30	.40
3355	.60	.54
3356	.90	3.20

LEGEND

- defined } FAULT
- probable } FAULT
- PROPOSED DRILL HOLE
- SAMPLE INTERVAL
- SAMPLE NUMBERS

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1969 PROPOSED DRILLING

No. 2 VEIN

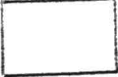






ASSAY VALUES

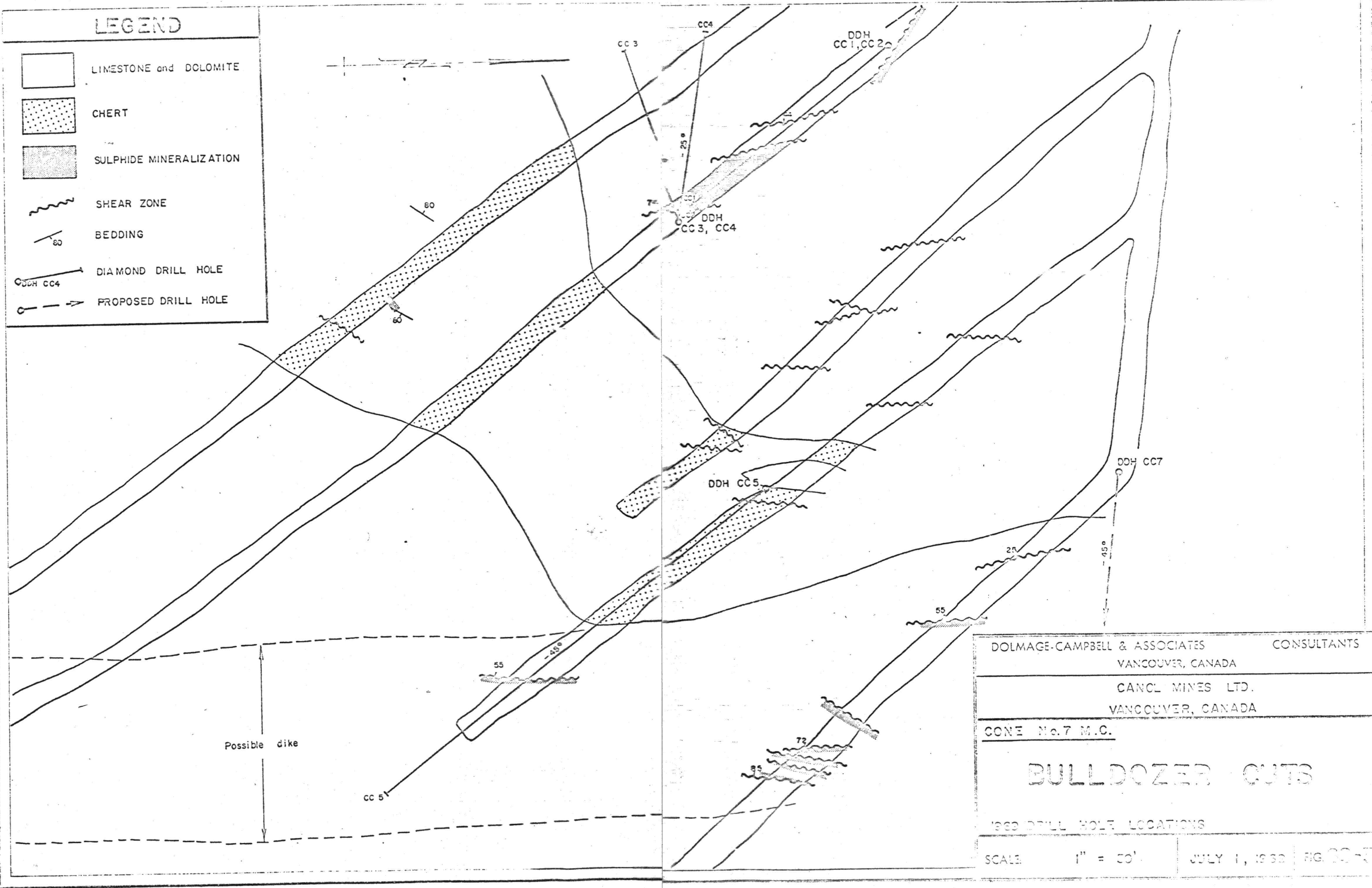
SCALE 1" = 50'

JULY 1, 1969

FIG. 20-2

LEGEND

-  LIMESTONE and DOLOMITE
-  CHERT
-  SULPHIDE MINERALIZATION
-  SHEAR ZONE
-  BEDDING
-  DIAMOND DRILL HOLE
-  PROPOSED DRILL HOLE



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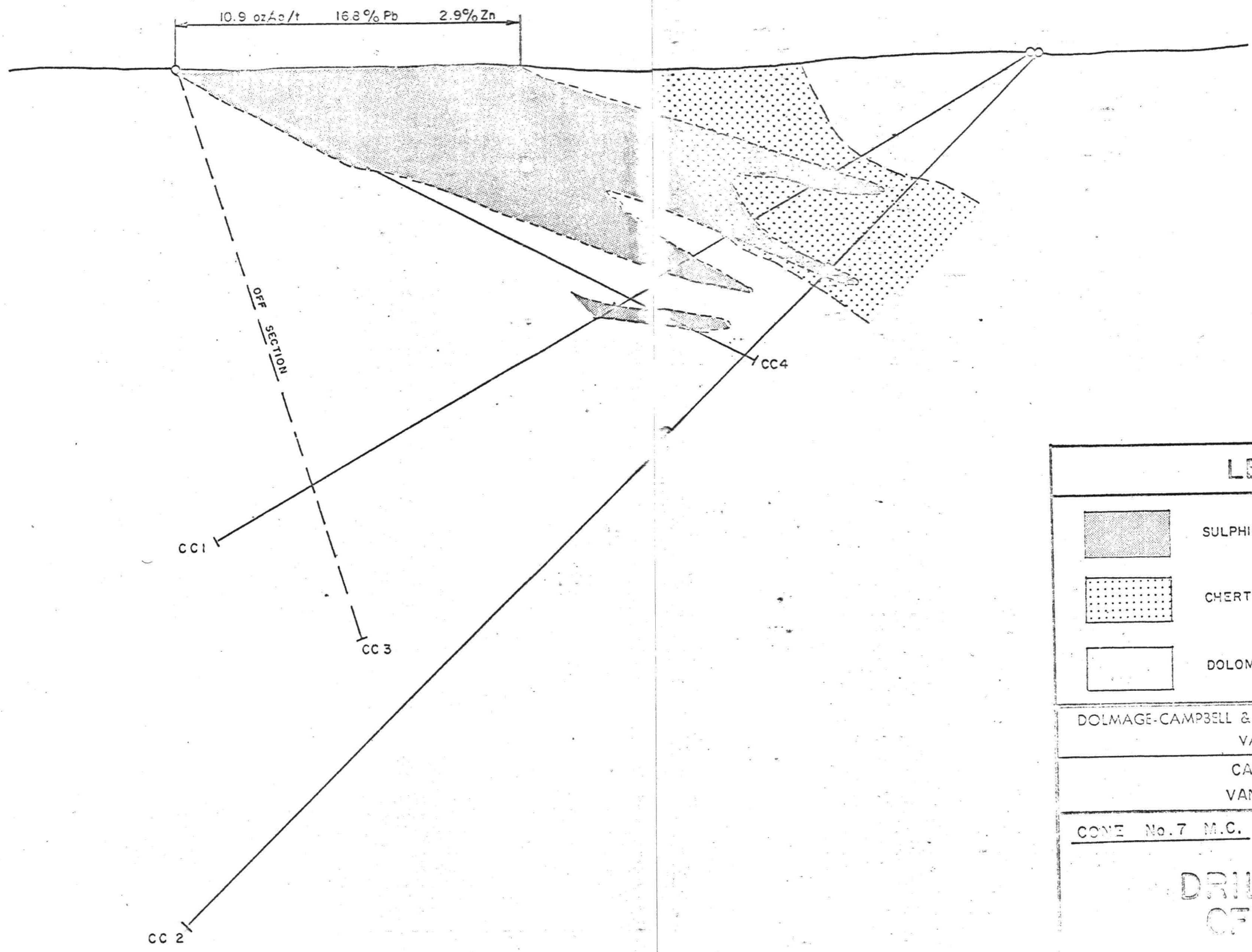
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CONE No. 7 M.C.

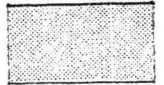
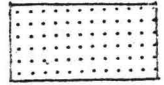
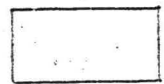
BULLDOZER CUTS

1969 DRILL HOLE LOCATIONS

SCALE 1" = 50' JULY 1, 1969 FIG. CC-7



LEGEND

-  SULPHIDE MINERALIZATION
-  CHERT
-  DOLOMITE

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CONE No. 7 M.C.

**DRILL SECTION
OF SHOWINGS**

SCALE 1" = 20'

JULY 1, 1962

FIG. 30-1