

# ASSESSMENT REPORTS

MAP No. 11 5-15 TYPE OF WORK: Geological

REPORT FILED UNDER	Cannaught No. 1		
DATE PERFORMED	1965	DATE FILED	11/21/65
LOCATION - LAT.	69° 10' N		
LONG.	140° 30' W	Sixty Mile Area, VT	
CLAIM Nos			
	Ben 45-38	Y15542-Y15545	
	Ben 1-44	Y15453-Y15494	
	Jack 1-4	87526-87529	
	Jack 3-8	Q369-Q372 (OVER)	
WORK DONE BY	Alan R. Archer		
WORK DONE FOR	Cannaught No. 1		
REMARKS	<p>Predominant rock type is granitic textured, quartz-biotite gneiss, part of Precambrian Yukon Gf. Mineralization primarily argentiferous galena and associated oxides in vein faults. Geological reconnaissance mapping, diurnal drilling, and geochemical svys recommended.</p>		

"APPENDIX A" to the Application of  
CONNAUGHT MINES LTD., executed on  
February 19th, 1969.

CONNAUGHT MINES LTD.

SIXTY MILE PROPERTY, YUKON

A.R. Archer

Jan. 24, 1969

ARCHER, CATIRO  
AND ASSOCIATES LTD.  
CONSULTING GEOLOGICAL ENGINEERS

CASCA BUILDING, WHITEHORSE, Y.T. 667-4113      BENTALL CENTRE, VANCOUVER, B.C. 622-1562 OR 622-1562

770 ONE BENTALL CENTRE  
505 BARRARD ST.  
VANCOUVER 1, B.C.

PRELIMINARY REPORT

for

CONNAUGHT MINES LTD.

SIXTY MILE AREA, YUKON TERRITORY

January 24, 1969

Alan R. Archer

Consultant

Vancouver, B.C.

## SUMMARY

Connaught Mines Ltd. owns a 116 claim silver-lead property in the Sixty Mile River area of the Yukon Territory. The property is accessible by 18 miles of tote road from Mile 49 on the Sixtymile Highway for a total of 390 miles from railhead at Whitehorse.

Bulldozer trenching during 1966 and 1968 has exposed three significant veins containing galena with a 1 to 1 silver to lead ratio. The best of these, the No. 1 vein, has semi-continuous mineralization over a two to three foot width and a 500 foot strike length. The vein exposures have yet to be mapped and sampled in detail. There is evidence of other silver-lead veins in this difficult to prospect overburden covered district.

A program of regional geochemical exploration to locate new areas for trenching plus detailed sampling followed by drilling to determine priority of underground development of the known showings is recommended for the 1969 summer season. Total cost of this program is estimated at \$150,000.

## INTRODUCTION

The purpose of this report is to summarize the work completed to date on property owned by Connaught Mines Ltd. in the Sixty Mile River area of the Yukon Territory. A recommended program of exploration for the 1969 summer season is outlined.

Information for this report is derived from the writer's personal knowledge of the Sixty Mile district and other Yukon silver-lead districts; from reports and maps supplied by Connaught Mines Ltd.; and from Geological Survey of Canada Map 13-1962. The writer has not personally examined the mineral showings described in this report.

## PROPERTY, LOCATION AND ACCESS

The property consists of 116 mineral claims arranged in a contiguous irregular westerly trending block about 3/4 of a mile wide and 8 miles long. The claims are registered at Dawson City, Yukon Territory as follows:

<u>Name</u>	<u>Grant No.</u>	<u>Expiry Date</u>
Ben 1-34	Y15453 - Y15486	Aug 5, 1969
Ben 37-44	Y15487 - Y15494	Aug 5, 1969
Ben 45-50	Y15592 - Y15597	Sept 3, 1969
Ben 51-58	Y15598 - Y15605	Sept 9, 1969

<u>Name</u>	<u>Grant No.</u>	<u>Expiry Date</u>
Jack 1-4	87526 - 87529	July 12, 1973
Jack 5-8	Q569 - Q572	July 18, 1969
CCL 1-4	87004 - 87007	Sept 2, 1972
CCL 5-8	87024 - 87027	Sept 2, 1972
CEL 1-8	87012 - 87019	Sept 2, 1972
CCL 1-4	87020 - 87023	Sept 2, 1972
CCL 5-8	87008 - 87011	Sept 2, 1972
Lou 1-4	76540 - 76543	Sept 2, 1972
Lou 25-40	87065 - 87080	Oct 1, 1972
Lou 41-48	87089 - 87096	Oct 1, 1972

The property is located 45 air miles west of Dawson City, near the Alaska-Yukon border, at latitude 63°55' and longitude 140°55'. Road access from Dawson City is possible via 18 miles of tote road south from mile 49 on the Sixtymile Highway. The property is therefore approximately 390 road miles from the White Pass and Yukon railhead at Whitehorse. Scheduled air service is available from Whitehorse to Dawson City daily in the summer and three times a week during the winter.

## HISTORY

Evidence of silver-lead mineralization in the area of the Sixty Mile River has been noted by gold placer miners since the late 1800's. Because the silver content of the galena found in the placer workings was low no active search for the source was made.

During the summer of 1965 the area was explored by J. Lerner and M. Chefkoi using a combination of soil geochemistry and float examination. Several anomalous areas were located, claims were staked and hand pits were dug exposing galena mineralization. The property was developed by Tottrup and Associates Ltd. during 1966 and by a newly formed subsidiary company, Connaught Mines Ltd., in 1968. Most of the development work has consisted of bulldozer trenching. During 1966 a 19.5 ton shipment of hand-cobbed galena was made to the Cominco Smelter at Trail, British Columbia.

## GEOLOGICAL SETTING

### General

The Sixty Mile area lies within the Yukon Plateau, an undulating uplifted peneplain about 4000 feet in

elevation lying between the mountain walls of the Coast Range (St. Elias Mountains) to the southwest and the Cordillera Ranges (Ogilvie Mountains) to the northeast. The area was unglaciated during the Pleistocene, one of the few such areas in Canada, and the drainage pattern shows typical steep walled V-shaped unglaciated valleys. There is little true outcrop and overburden cover consists of residual till from a few feet to over twenty feet thick. The area is permanently frozen to depths varying from a few feet on south slopes to several hundred feet on north slopes.

Most of the claims are staked on the plateau-like height of land immediately south of the Sixty Mile River drainage. Vegetation in the area consists of scrub spruce in the valleys thinning to buckbrush and alder on the slopes and grasses on the plateau.

The predominate rock type on the property is a granitic textured, quartz-biotite gneiss. Also found are quartzites, quartz-mica and mica schists. These rocks form part of an extensive metamorphic series, probably Precambrian in age, called the Yukon Group. Several small granitic stocks of undetermined age are found on and near the property.



### Mineralization

Mineralization is primarily argentiferous galena and associated oxides in highly weathered vein faults. This oxidation can be expected to extend several hundred feet down dip. Unoxidized vein material probably consists of galena and sphalerite in a gangue of siderite, quartz and pyrite. Veins generally strike northeast and dip steeply southeast.

No other definite pattern of vein occurrences or mineralization has been established to date.

The silver to lead ratio of the mineralized occurrences varies from 0.5 to 1 to 2 to 1 and averages 1 to 1. The galena shipment made in 1966 averaged 67.0 ounces silver per ton and 67.3% lead. The only significant impurity was minor arsenic and antimony.

### MINERAL SHOWINGS

Three separate veins have been explored in some detail by bulldozer trenching. These have been numbered veins 1 to 3 and their location is shown on the map in the appendix. A short description of each is as follows:

No. 1 Vein - This vein has been traced approximately 500 feet. It strikes N 46° E, dips almost vertical, and averages between 2 and 3 feet wide with a core of massive galena from several inches to several feet in width. Approximately 15 tons of the galena shipment to Trail was cobbled from this vein.

No. 2 Vein - This vein, striking N 48° E and dipping 46° southeast, has been exposed for 300 feet and is poorly mineralized. A zone of galena 1.2 feet wide was encountered at the eastern end of the trench and may be the start of a mineralized shoot.

No. 3 Vein - This vein, striking N 50° E and dipping steeply southeast, has been exposed for a length of 80 feet. It averages 3.5 feet wide and has a core from several inches to several feet wide of massive galena. A cross-cutting trench some 300 feet further southeast exposed galena in a vein 3.5 feet wide indicating possible continuous mineralization over a strike length of 380 feet.

The vein exposures have not yet been sampled or mapped in a systematic fashion. Assays of numerous galena specimens from the various exposures show an

average silver to lead ratio of 1 to 1.

A number of other areas on the property with galena float are known. In fact, evidence of silver-lead veins has been found well beyond the property over an area some 7 miles long and 6 miles wide.

#### CONCLUSIONS AND RECOMMENDATIONS

The Sixty Mile River area shows evidence of being a major Yukon silver-lead camp comparable to the Keno Hill camp in extent and to the Ketza River camp in grade. Further exploration is warranted and should be directed toward:

- (a) regional exploration to determine the extent of the silver-lead camp, followed by staking of the appropriate ground.
- (b) reconnaissance exploration of the claims to locate the most significant areas of silver-lead mineralization followed by bulldozer stripping.
- (c) detailed mapping and sampling of veins exposed by bulldozing followed by diamond drilling of the better exposures to determine priority of underground development.

The major regional and reconnaissance exploration tool should be silt and soil geochemistry using a hot acid extraction with lead as the indicator metal. The largest and most intense soil anomalies should be explored by trenching with a D7E bulldozer equipped with a Kelly ripper. The trenches on Veins 1 to 3 should be cleaned out and carefully mapped and sampled. The two best exposures so found should be drilled at 200 foot intervals to a depth of 150 feet below surface using NX wireline equipment and mud lubrication. An estimated budget for the above program, not including cost of additional staking is:

Labour and supervision .....	\$ 25,000.00
Camp overhead .....	10,000.00
Geochemical analyses and assaying .....	10,000.00
Bulldozer rental .....	50,000.00
Helicopter support .....	5,000.00
Diamond drilling (2000 feet) .....	40,000.00
Contingencies .....	10,000.00
TOTAL COST .....	\$150,000.00

Respectfully submitted,

ARCHER, CATIRO & ASSOCIATES LTD.



Alan R. Archer, B.A.Sc., P.Eng.

CLAIMS HELD BY CONNAUGHT MINES LIMITED  
SIXTY MILE AREA

Acquired From Sixty Mile Mining Co. Ltd.  
11933 - 106th Avenue, Edmonton, Alberta

LOU

76540  
76541  
76542  
76543

87065  
87066  
87067  
87068  
87069  
87070  
87071  
87072  
87073  
87074  
87075  
87076  
87077  
87078  
87079  
87080

CCL

87004  
87005  
87006  
87007  
87008  
87009  
87010  
87011

87020  
87021  
87022  
87023  
87024  
87025  
87026  
87027

JACK

87526  
87527  
87528  
87529

87654  
87655  
87656  
87657

CEL

87012  
87013  
87014  
87015  
87016  
87017  
87018  
87019

CLAIMS STAKED BY CONNAUGHT MINES LTD.  
1968

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CCL            87020  
                  87021  
                  87022  
                  87023  
                  87024  
                  87025  
                  87026  
                  87027

LOU            87089  
                  87090  
                  87091  
                  87092  
                  87093  
                  87094  
                  87095  
                  87096

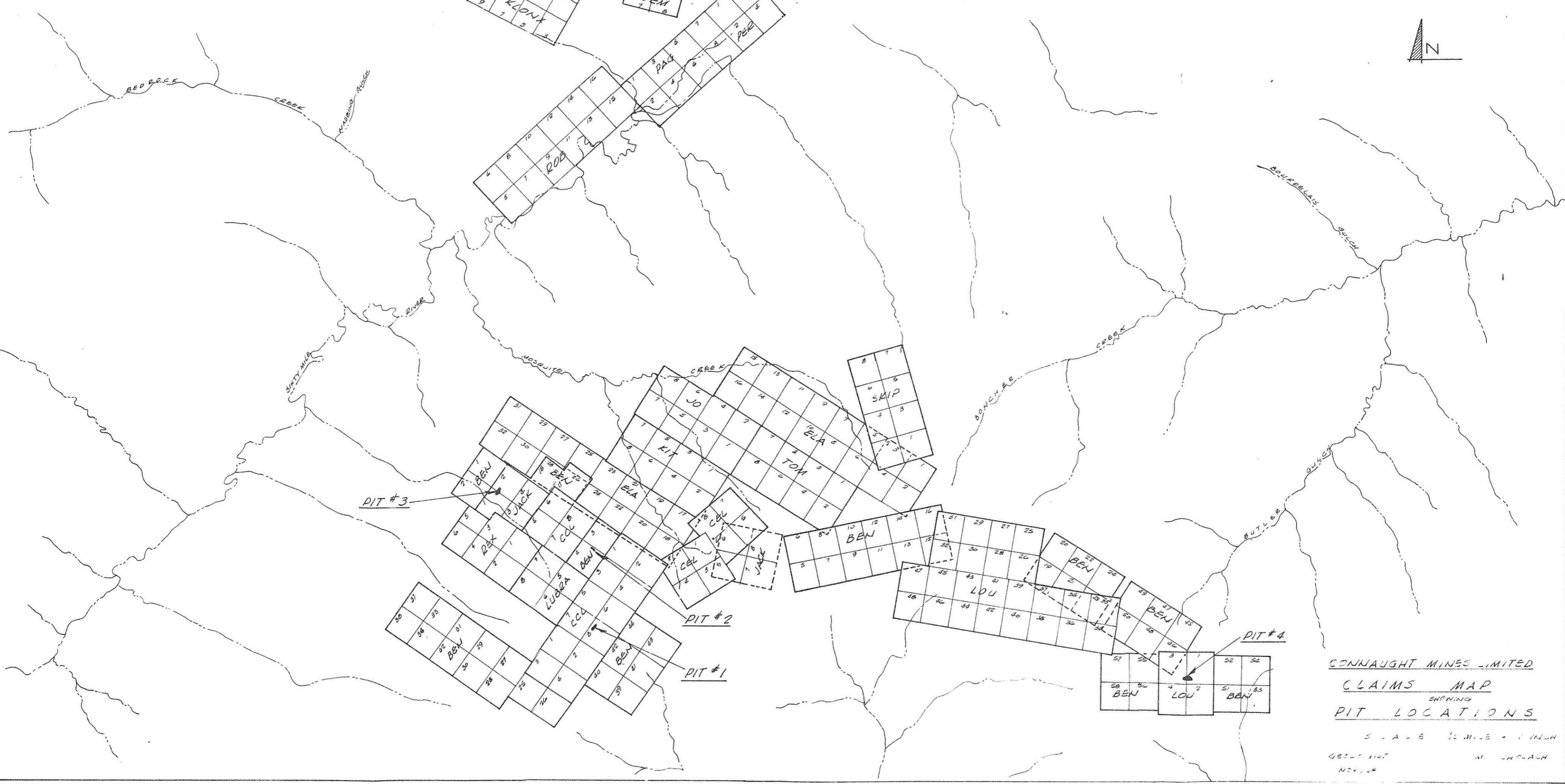
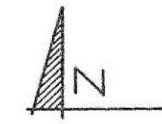
ASSESSMENT SCHEDULE

<u>Mineral Claim</u>	<u>Grant No.</u>	<u>Date Assessment Due</u>
Ben 45	Y 15592	September 3, 1969
46	Y 15593	"
47	Y 15594	"
48	Y 15595	"
49	Y 15596	"
50	Y 15597	"
51	Y 15598	September 9, 1969
52	Y 15599	"
53	Y 15600	"
54	Y 15601	"
55	Y 15602	"
56	Y 15603	"
57	Y 15604	"
58	Y 15605	"



ASSESSMENT SCHEDULE

<u>Mineral Claim</u>	<u>Grant No.</u>	<u>Date Assessment Due</u>
Ben 1	Y 15453	August 5, 1969
2	Y 15454	"
3	Y 15455	"
4	Y 15456	"
5	Y 15457	"
6	Y 15458	"
7	Y 15459	"
8	Y 15460	"
9	Y 15461	"
10	Y 15462	"
11	Y 15463	"
12	Y 15464	"
13	Y 15465	"
14	Y 15466	"
15	Y 15467	"
16	Y 15468	"
17	Y 15469	"
18	Y 15470	"
19	Y 15471	"
20	Y 15472	"
21	Y 15473	"
22	Y 15474	"
23	Y 15475	"
24	Y 15476	"
25	Y 15477	"
26	Y 15478	"
27	Y 15479	"
28	Y 15480	"
29	Y 15481	"
30	Y 15482	"
31	Y 15483	"
32	Y 15484	"
33	Y 15485	"
34	Y 15486	"
37	Y 15487	"
38	Y 15488	"
39	Y 15489	"
40	Y 15490	"
41	Y 15491	"
42	Y 15492	"
43	Y 15493	"
44	Y 15494	"



CONNAUGHT MINES LIMITED  
 CLAIMS MAP  
 SHOWING  
 PIT LOCATIONS

SCALE 1/2 MILE = 1 INCH  
 QUEBEC DIST. M. CHAMPLAIN  
 NOV. 1918