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PROPERTY EXAMINATION & EVALUATION
REPORT
DUNCAN 1-6 AND AVENUE 1-6
CLAIM GROUP
SHEET 105M-14
BEAUVETTE HILL, YUKON TERR.
BY
R.G. HILKER, P. ENG.
OCTOBER 15th, 1971

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P.O. Box 1566
WHITEHORSE, YUKON TERRITORY
"LAND OF THE MIDNIGHT SUN"

PROPERTY EXAMINATION & EVALUATION

REPORT

ON THE DUNCAN 1-6 (Y33073-Y33078)

AND

AVENUE 1-6 (Y33067-Y33072) CLAIM GROUP

BEAUVETTE HILL

LATITUDE 63° 58'

LONGITUDE 135° 06'

MAYO MINING DISTRICT, Y.T.

SHEET 105M-14

GALENA HILL - KENO HILL AREA

FOR

SILVER SPRING MINES LTD (N.P.L.)

VICTORIA, B.C.

BY

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OCTOBER 15th, 1971

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 Beauvette Hill Trench Plan
 Scale 1" = 40 feet

INTRODUCTION

A property examination and evaluation was conducted, on the request of Mr. Art Becker of Silver Springs Mines Ltd (N.P.P.), on the Beauvette Hill property located in the Keno Hill-Galena Hill area of the Yukon Territory. The company has several claim groups in the area, on which exploration work has been conducted in the past.

The first discovery of silver-lead veins in the area at Galena Creek was made about 1906 and small tonnages were high graded from 1913 to 1919. In 1919 a rich silver-lead discovery was made on Keno Hill and the consequent stampede to stake claims covered numerous mineral prospects. The first shipments of high grade lead-silver ore was made by the Keno Hill Limited Company in the winter of 1920-21 from Keno Hill.

In 1920 the Treadwell Yukon Company geologist Livingstone Wernecke acquired several of the discovered veins and commenced serious mining. Mining was suspended in the area in 1941 due to the war and the death of Mr. Wernecke.

From 1941 to 1946 the properties in the Galena Hill and Keno Hill areas were idle until the assets and claims of the Treadwell Yukon Company were sold to United Keno Hill Mines Limited. The area has produced silver-lead-zinc-cadmium since 1946 to the present.

It is significant to quote the following from Bulletin III - Geology, Geochemistry, and Origin Of The Lead - Zinc - Silver Deposits of the Keno Hill - Galena Hill Area, Y.T. by R.W. Boyle.

"The Keno Hill-Galena Hill Lodes are the richest silver deposits in Canada, and rank with the great Silver-lead deposits of the world. These deposits up to 1960 produced more than 110 million ounces of silver, 353 million pounds of lead, 164 million pounds of zinc, and 1.8 million pounds of cadmium. In value this production amounted to more than \$139 million, in addition to which about two million dollars worth of gold has been won from the placers of the area.

Despite the fact that the deposits of the Keno Hill-Galena Hill area have been known and exploited since the turn of the century, the mineralized belt is far from being exhausted. It will long remain one of Canada's principal sources of silver, as well as of lead, zinc, cadmium, and some gold and tungsten."

The property examination and evaluation was conducted on September 14th by R.G. Hilker, P. Eng. Approximately two hours were used to examine, sample and locate the tractor made trench on the Duncan 1 claim. The writer drove to the Silver Spring Mines Ltd. (N.P.L.) Campsite in the Elsa area from Whitehorse on September 13th. The return trip to Whitehorse from the Galena Hill area was on September the 15th.

Assaying, of the 6 samples that were collected from the trenches, Duncan 1 claim, was done by George Spalding - Assayer of the Whitehorse Assay Office. The 11 soil samples that were collected from within the trenches were checked for silver, lead and manganese by Chemex Labs Ltd, Vancouver, B.C. Sample inspection, report preparation, drafting, typing and duplication was done between the period of September 16th and October 15th in the office of R.G. Hilker Limited at Whitehorse.

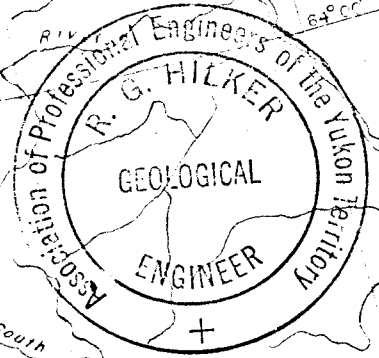
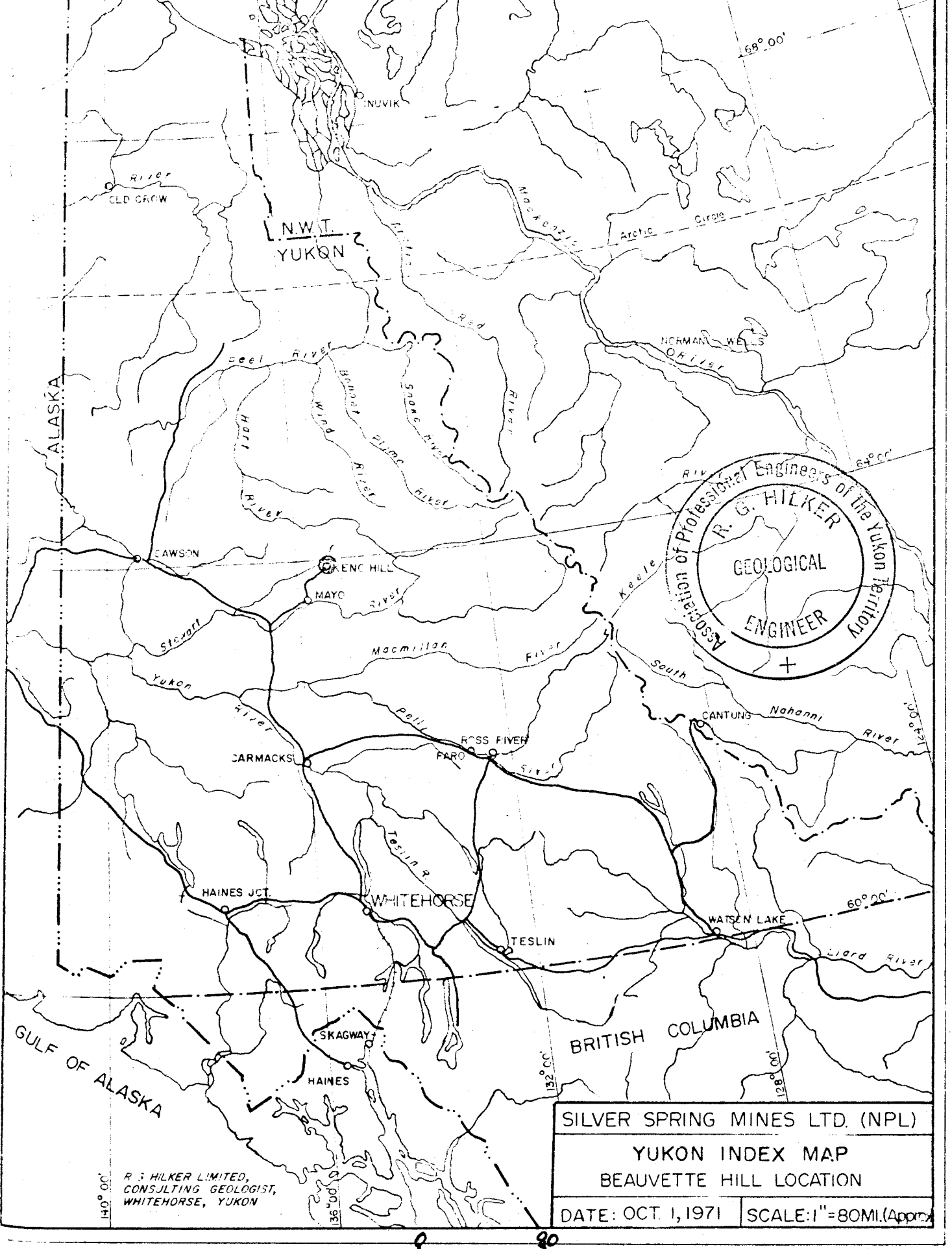
LOCATION & ACCESS

The Elsa Galena Hill and Keno Hill silver-lead mining area is located about 210 airmiles north of Whitehorse, the capital of the Yukon and the main transportation hub of the Territory. An excellent all-weather gravel road has been built between Whitehorse and Mayo - Elsa and Keno City (Mile 283). The Keno City road departs from the Alaska Highway at Mile 924 and is 283 miles long.

The Duncan 1-6 (Y33073-Y33078) and the Avenue 1-6 (Y33067-Y33072) claim group is located at approximately latitude 63° 58' and longitude 135°06', in the Mayo Mining District of the Yukon Territory. The claims were staked on Beauvette Hill and located on N.T.S. Sheet 105M-14, that is situated east of Keno Hill in the Central Yukon. Beauvette Hill is located south of the Keno Ladue River and west of Allan Creek.

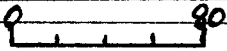
The Beauvette Hill area has road access from the Keno Summit road and then by a tractor or four wheeled drive truck type of road, to the Duncan-Avenue claim group. The Keno Summit road departs northeast from Keno City on the Whitehorse - Keno City Road. A tractor road has been built along the northside of Lightning Creek and then north to the plateau between Caribou and Beauvette Hills. The tractor road is approximately 8.5 miles long from the Keno Summit road to the Duncan claim trenching.

The Mayo area is serviced three times weekly on Monday, Thursday, and Friday by Great Northern Airways (1970) Ltd., "A" Division.



SILVER SPRING MINES LTD. (NPL)
 YUKON INDEX MAP
 BEAUVETTE HILL LOCATION
 DATE: OCT. 1, 1971 SCALE: 1"=80MI. (Approx)

R. G. HILKER LIMITED,
 CONSULTING GEOLOGIST,
 WHITEHORSE, YUKON



CLAIMS - Beauvette Hill

The Duncan 1-6 and Avenue 1-6 claim groups are located on Sheet 105M-14 in the Mayo Mining District, Y.T. The claims are situated on the west side of Beauvette Hill at approximately the 4500 foot elevation and are situated on a south facing slope. The claims are located about latitude 63°58' and longitude 135°06' on the N.T.S. sheet 105M-14.

The following claim data was searched at the Mayo Mining Records office on September 15th, 1971 by R.G. Hilker.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Grantee Registered Owner</u>	<u>Anniversary Date</u>
Duncan 1-6	Y33073-Y33078	Silver Spring Mines Ltd	November 27/71
Avenue 1-6	Y33067-Y33072	Silver Spring Mines Ltd	November 27/71

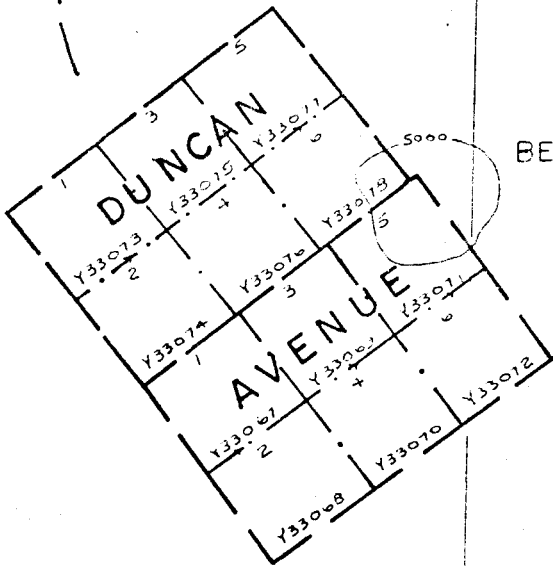
Silver Spring Mines Ltd., is the registered owner with 100% interest in the Duncan 1-6 and Avenue 1-6 claim group.

It was noted that the Duncan 1 & 2 claims did not have the correct claim tags attached to the posts. The Duncan 1 & 2 claim tags are listed in the records as Y33073 and Y33074 and the Duncan 1 & 2 claim posts had tags attached numbered Y33067 & Y33068. The location of the Duncan 1 & 2 posts are correct, as shown on the claim sheet 105M-4, the claim posts are located by the Alice #2 Fraction survey pin and monuments.

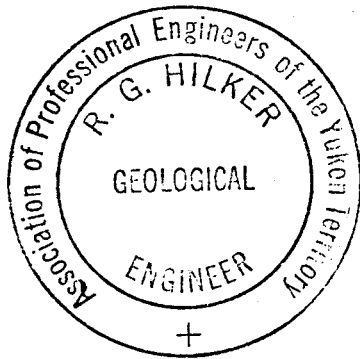


LADUE RIVER

63°58'

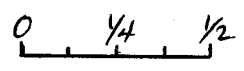


FAITH CREEK



R.G. HILKER LTD.
 CONSULTING GEOLOGIST
 WHITEHORSE, Y.T.

135°06'



NTS SHEET 105-M-14	
SILVER SPRING MINES LTD. (NPL)	
BEAUVETTE HILL	
CLAIM LOCATION	
DATE: OCT. 1, 1971	SCALE: 1" = 1/2 mile

GEOLOGY
PHYSIOGRAPHY AND TOPOGRAPHY

The Eastern Yukon Plateau is a area of plateau country lying between the Selwyn Mountains on the northeast, Pelly Mountains on the south, Tintina Valley on the southwest, and Ogilvie Mountains on the north. The Eastern Yukon Plateau comprises of three plateau areas, Pelly Plateau on the southeast, MacMillan Plateau in the central part, and the Stewart Plateau on the north.

The Galena Hill and Keno Hill silver-lead mining area, is located within the Stewart Plateau in the central part of the Yukon Territory. The Stewart Plateau is situated on the northeast side of the Tintina Valley, the valley is a feature of the major Tintina fault. The Ogilvie Mountains bound the Stewart Plateau to the northwest and the Wernecke and Hess Mountains border the plateau on the northeast. The MacMillan Plateau is located southeast of the Stewart Plateau, with the division at the MacMillan River.

The Stewart Plateau is a tablelands type of topography that has been formed by a network of deeply cut, broad valleys. The plateau contains long, connected ridges with even and narrow summits. This type of stream dissection is typical of unglaciated regions.

The principal mineral deposits in the area occur on three adjacent hills, Galena, Keno and Sourdough (see geology Sketch #4). Rambler Hill is located north of Keno Hill and the two areas are divided by the Keno River valley. Beauvette peak occurs on the east side of Keno Hill and is a part of the hill. Rambler Hill has an elevation in excess of 5000 feet and is gentle sloping on the top

part and covered by low willow bush two to three feet high. The lower part of Rambler Hill, from about the 4000 foot level to the valley floor at 2200 feet is covered with ten foot high willows, aspen, birch and spruce. Beauvette Hill is nearly flat on the west side of the 5000 foot peak and is covered with grass and two to three foot high willow shrubs. A fair amount of rock outcrop occurs on parts of Rambler - Beauvette Hills and in particular the gulches and cirques. Glacial overburden covers most of the area that is enclosed by the two claim groups on the two hills. The lower slopes are covered by till soil, rock debris, muck and muskeg in which aspen, birch, willows, spruce and other vegetation grow abundantly. The lower slopes were glaciated during Pleistocene time by east-west flowing ice sheets. After glaciation gravel, glacial till and debris were deposited on the slopes of the hills and valley floors 5 to 20 feet in thickness.

The Rambler Hill and Beauvette Hill area is in a region of permafrost conditions. The permafrost is irregularly distributed and the occurrence depends on elevation, hillside exposure, depth of overburden, amount of vegetation cover and the presence of flowing underground and surface water. The permafrost conditions and overburden cover directly affect geochemical exploration methods in the area.

GENERAL GEOLOGY - Galena - Keno Hills Area

The Galena Hill and Keno Hill area mainly contains Precambrian and/or Paleozoic aged sedimentary rock types (Unit 4-7). The older sedimentary assemblage is intruded by small stocks and dikes of Cretaceous aged intrusives (Unit 8-9-10)

The sedimentary assemblage of rocks are contained in the Yukon Group and are of the following rock types; quartzites, schists, argillites, slates and phyllites. The Yukon Group has been folded, faulted and metamorphosed to a varying amount of distortion. Abundant Cretaceous aged greenstone lenses and sills occur in the sedimentary strata. Intrusive granite stocks have intruded the sedimentary rocks southeast and northwest of Galena Hill. A few scattered quartz-feldspar porphyry and granite porphyry sills trend in a east-west direction across Galena Hill and Keno Hill. Small skarn zones have developed near the edges of the granite stocks when calcareous rocks are present in the Yukon Group sedimentary strata.

Beauvette Hill is a circular mountain feature roughly 2000 feet in diameter and is located east of Keno Summit, Minto Hill, Monument Hill and Caribou Hill. Beauvette Hill area contains mainly the Lower Schist Formation (Unit 1) rock types and is east of the main Central Quartzite Formation (Unit 2) quartzites. Abundant greenstone lenses and sills have intruded the sedimentary strata. Similiar Lower Schist Formation rock types occurs to the east of the claim group on Cobalt Hill.

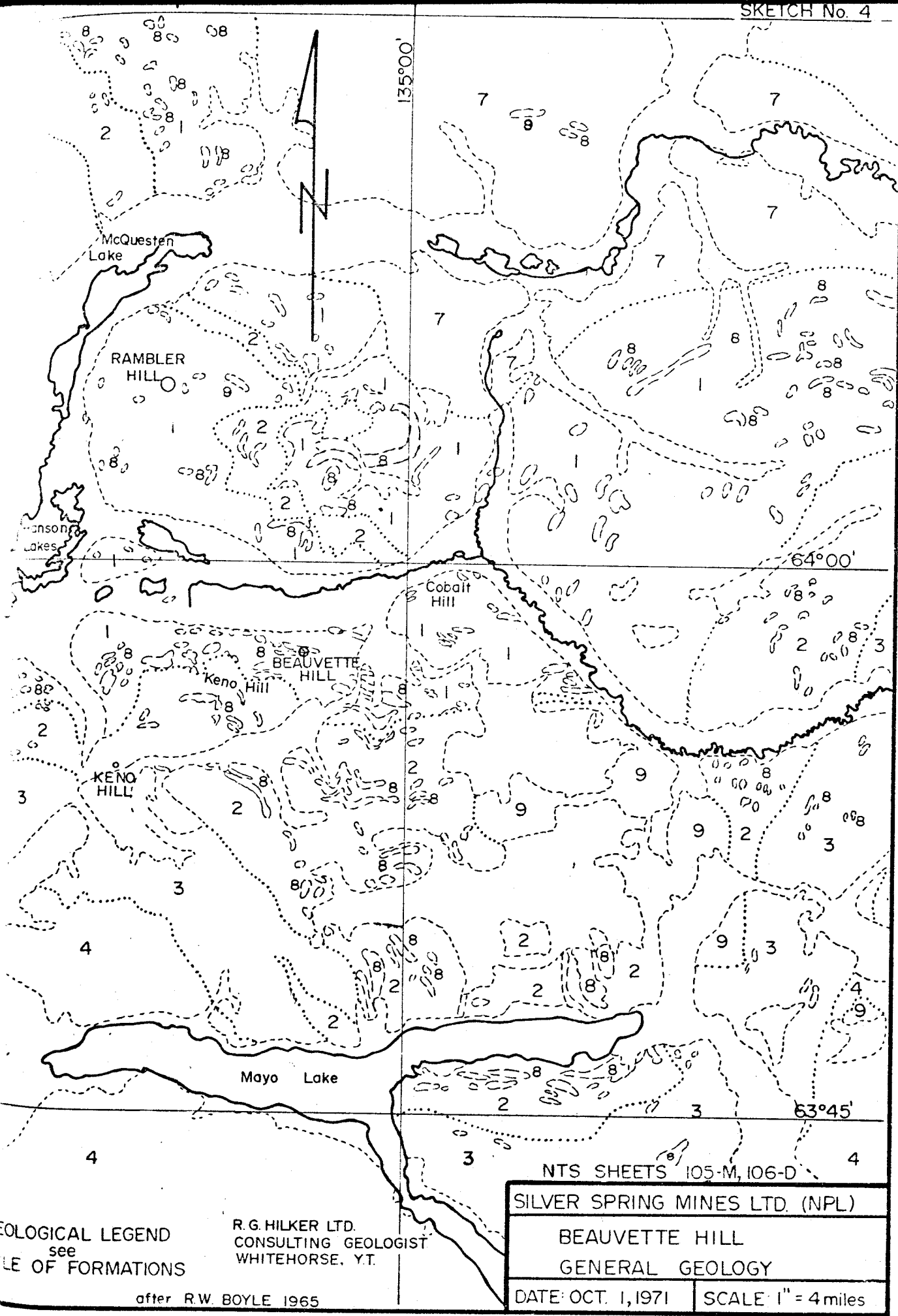
The lower part of the Yukon Group has been differentiated

into three formations, as the Central quartzite Formation has contained the most economic silver-lead vein systems and ore shoots to the present time. The Yukon Group Formations are referred to as:

- Unit 3 - Upper Schist Formation
- Unit 2 - Central Quartzite Formation
- Unit 1 - Lower Schist Formation

Most of the economic silver-lead vein production to date, has occurred in an east-west trending and gentle south dipping belt of Central Quartzite Formation rocks on Galena Hill and Keno Hill. The main economic mineralization in the area occurs in brecciated fault zones that strike northeast, dip steeply southeast and contain silver-lead lode type of deposits. The early faults, vein systems and ore shoots are contained within the Central Quartzite Formation and are offset by later faulting.

The plateau between Caribou Hill and Beauvette Hill is lacking in outcrops and is partially covered by glacial debris and abundant vegetation cover. The Geological Survey of Canada geology mapping indicates that the area contains rock types of the Lower Schist Formation (Unit 1) and a wide belt of Central Quartzite Formation (Unit 2) occurs two miles south of the peak of the Hill.



GEOLOGICAL LEGEND
see
TABLE OF FORMATIONS

after R.W. BOYLE 1965

R.G. HILKER LTD.
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

NTS SHEETS 105-M, 106-D	
SILVER SPRING MINES LTD. (NPL)	
BEAUVETTE HILL	
GENERAL GEOLOGY	
DATE: OCT. 1, 1971	SCALE: 1" = 4 miles

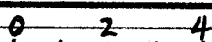


TABLE FORMATIONS

After R.W. Boyle

CENOZOIC

Quaternary

Q Glacial debris

MESOZOIC

Cretaceous (?)

10 Quartz - feldspar porphyry, granite porphyry.

9 Intrusives - granite, granodiorite, diorite.

8 Metamorphosed diorite and gabbro (greenstone).

PRECAMBRIAN and/or PALAEOZOIC

(Some units may be late Palaeozoic or early Mesozoic)

YUKON GROUP

7 Quartzite, slate, phyllite.

6 Slate, schist.

5 Quartzite, quartz - mica schist, slate.

4 Quartz - mica schist, pebbly quartzite, minor limestone.

Upper Schist Formation

3 Quartz - mica schist, graphitic schist, phyllitic quartzite, minor limestone.

Central Quartzite Formation

2 Thick and thin - bedded quartzite, cherty quartzite, graphitic schist, minor limestone, graphitic phyllite, argillite. Main formation for the occurrence of economic silver - lead veins.

Lower Schist Formation

1 Graphitic schist, thin-bedded quartzite, quartz-mica schist, phyllite, calcareous schist and quartzite.

REFERENCE TO PUBLISHED GEOLOGY AND GEOCHEMISTRY

1. Bulletin III - Geological Survey of Canada Geology, Geochemistry, And Origin Of The Lead - Zinc - Silver Deposits Of The Keno Hill - Galena Hill Area, Yukon Territory - 1965 By - R.W. Boyle.
2. Memoir 247 - Canada Department Of Mines And Resources - Geological Survey Physiography Of The Canadian Cordillera With Special Reference To The Area North Of The Fifty-Fifth Parallel - 1948 Reprinted in 1965 - By H.S. Bostock.
3. Geochemistry Reconnaissance Survey - Keno Hill Area, Yukon Territory
MAP 45-1965 - Lead Content
46-1965 - Silver Content
47-1965 - Zinc Content
48-1965 - Arsenic Content
49-1965 - Antimony Content
50-1965 - Copper Content
51-1965 - Molybdenum Content
52-1965 - Tungsten and Tin Content
53-1965 - Nickel Content
54-1965 - Cobalt Content
55-1965 - Manganese Content
4. Summary Report, 1921, Part A - Canada Department of Mines - Geological Survey. Silver - Lead Deposits of Davidson Mountains - Mayo District, Yukon: W.E. Cockfield. Map Publication No. 1937

CLAIM GEOLOGY

The Duncan 1-6 and Avenue 1-6 claim group is located on a south facing mountain tableland, at the 4500 foot level to the west of Beauvette Hill. The claim group is located between the peaks of Caribou Hill and Beauvette Hill and the area is covered with grass and small willow vegetation. The rock types underlying the claim group and adjacent area have been mapped by the Geological Survey of Canada and are contained within the Lower Schist Formation (Unit 1). The Lower Schist Formation contain the oldest rocks in the Precambrian and/or Palaeozoic aged Yukon Group. However, geology work in the area by Green & Roddick (1962) have suggested that the Yukon Group sequence is greatly interrupted by thrust faults and some of the rocks may be Late Palaeozoic or Early Mesozoic in age. The (Unit 1) rocks are an assemblage of the following types: thick and thin bedded quartzite, phyllite, graphitic schist, argillite, calcareous schist and quartz-sericite schist. The Central Quartzite Formation (Unit 2) rock types occur about 3 miles southwest of the claim group. Rock types in (Unit 2) are; thick-bedded cherty quartzite, thick and thin bedded quartzite, graphitic phyllite, graphitic schist and argillite. The rock types in the Lower Schist and Central Quartzite Formations are based on rock types that occur on Galena and Keno Hills. The Lower Schists Formation has been intruded by greenstone sills or lenses that are Cretaceous in age. The trench #1 and #3 was dug in a greenstone sill or lens and a highly jointed outcrop of greenstone occurs northwest of the trenching.

The Duncan 1-6 and Avenue 1-6 claim group is covered with glacial debris that consists of glacial clay and till, gravel and boulders. Three disconnected crawler tractor trenches were dug northeast of the number one post on the Duncan #1 claim (see Beauvette Hill Trenching Plan).

Trench #1 exposed minor siderite with wad and limonite oxidized mineralization, in a greenstone host rock. The mineralization had a strike of 33° and the dip along a fracture or joint plane varied between 42° and 53°. The greenstone in trench #1 contained thin platy (¼ - ½ inch thick) siderite -wad and limonite vein or veinlet material. The greenstone sills or lenses in the area of the claim group have been indicated to have a strike of approximately 315° on Geology Map 1147A - R.W. Boyle. A large outcrop of greenstone that was highly fractured and jointed was noted northwest of Trench #1. Four rock samples and 8 soil samples were collected for assaying in part or all of the following elements; silver, lead, zinc and manganese. The samples were collected along the length of trench #1, that exposed a vein like zone that contained mainly limonite and wad oxidized minerals. The vein zone was poorly developed and may have been between 6 inches and one foot in thickness. Adjacent and parallel vein siderite, wad and limonite occurs on joint or fracture planes in the greenstone with widths to ½ inch thick.

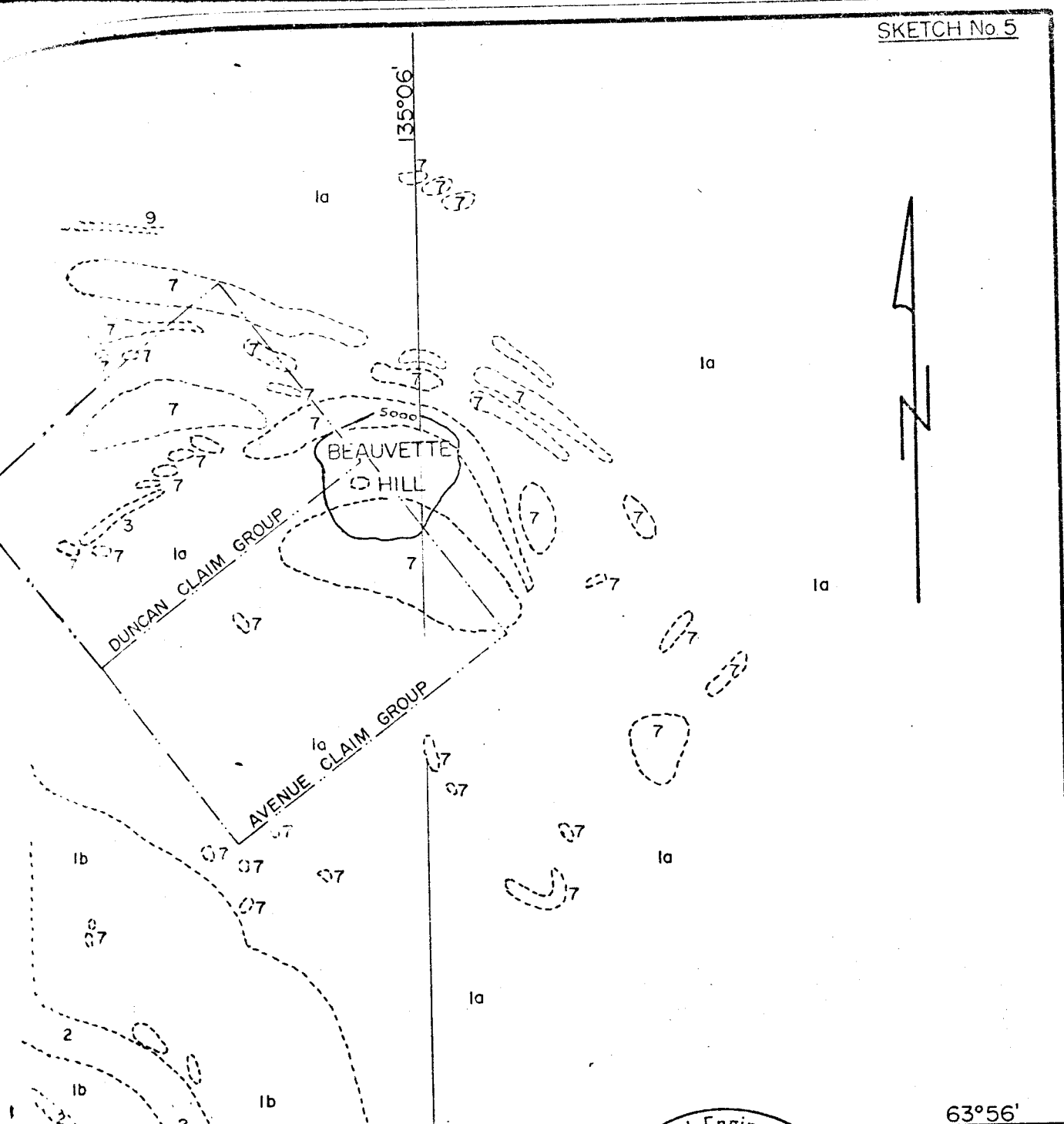
Trench #3 occurs in greenstone and was dug nearly perpendicular to Trench #1, to check for a continuation of the weak vein zone exposed in the first trench. The vein zone material, that consisted of

abundant was adhering to greenstone, occurs on the southwest wall of Trench #3. The trench requires further clean-up work, but did indicate an extension of the vein material from trench #1 to trench #3.

Trench #2 exposed graphitic schist on the northwest end of the trench and no other bedrock was uncovered. It appears as if the trench was dug parallel to the schist strike and is located on the southwest side of the greenstone sill or lens that Trench #1 & #2 occurs in.

Several outcrops of quartzite were noted on the west side of the access tractor road, that terminates at the trenches. The quartzite occurs near the Avenue claim line and the claim line is marked with red flagging attached to the short willow surface vegetation.

A good campsite is located on a water spring, about 800 feet south of the number one posts of the Duncan 1 & 2 claims.



GEOLOGICAL LEGEND

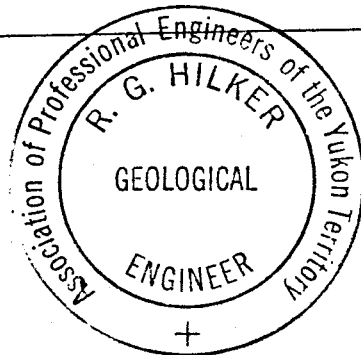
MESOZOIC

- 9 CRETACEOUS (?)
- 8 quartz-feldspar porphyry, rhyolite
- 8 white lamprophyre
- 7 porite, gabbro (greenstone)

PRECAMBRIAN OR PALAEOZOIC

- YUKON GROUP
- 6 graphitic schist, graphitic phyllite, thin-bedded quartzite, argillite, quartz-mica schist, limestone
- 5 quartz-sericite schist
- 4 Thick-bedded quartzite, thin-bedded quartzite, graphitic phyllite, graphitic schist, argillite
- 3 white to pale grey, thick-bedded cherty quartzite
- 2 quartz-sericite schist
- 1b thick-bedded quartzite, thin-bedded quartzite, phyllite, graphitic schist
- 1a graphitic schist, graphitic phyllite, thin-bedded quartzite, argillite, calcareous schist, slate

after R.W. BOYLE 1965



NTS SHEET 105-M-14

SILVER SPRING MINES LTD. (NPL)

BEAUVETTE HILL
CLAIM GEOLOGY

DATE: OCT. 1, 1971

SCALE: 1" = 2000'

CLAIM TABLE FORMATIONS

CENOZOIC

Quaternary
Pleistocene

Q Glacial till, rock debris, gravel.

MESOZOIC

Cretaceous

7 Greenstone - diorite, gabbro lenses and sills.

PRECAMBRAIN and/or PALAEOZOIC

YUKON GROUP

Upper Schist Formation

6 Graphitic schist, graphitic phyllite, thin - bedded quartzite, argillite, quartz-mica schist, limestone.

5 Quartz sericite schist.

Central Quartzite Formation

4 Thick and thin-bedded quartzite, graphitic phyllite, graphitic schist, argillite.

3 Thick-bedded cherty quartzite, white to pale grey colour.

Lower Schist Formation

2 Quartz-sericite schist.

1a 1b 1a - Graphitic schist, graphitic phyllite, thin bedded quartzite, calcareous schist, slate, may contain some unit 2.
1b - Thick and thin bedded quartzite phyllite, graphitic schist.

VZ Vein Zone - siderite, limonite, wad (pyrolusite, psilomelane, manganite).

ECONOMIC GEOLOGY

Occurrences

The structural controls of ore shoots, vein systems and transverse and longitudinal vein faults in the Galena and Keno Hill area have been reported, to be as follows.

1. Mineralized zones below schist cappings.
2. Vein fault junctions or intersections.

Thick-bedded quartzites are the most favorable host rocks for the above type of controls and greenstone host rock is the second most common rock type for economic deposition. Thin-bedded quartzites, phyllites and schists form part of the wallrocks in several economic deposits. It is reported by R.W. Boyle that only three ore shoots are wholly enclosed and therefore controlled by thin-bedded quartzites, phyllites and schists in the area.

Mineralization

The most economic supergene minerals present in the vein systems are limonite, wad, cerussite, smithsonite, anglesite, native silver, pyrargyrite (ruby silver), bindheimite and beudantite. The limonite is particularly rich in zinc, cadmium, copper, lead, tin, silver, gold, arsenic and antimony. The forementioned mineralization has developed in the oxidation zone by descending ground water.

Trench #1 - Weak Vein Zone

The highly oxidized weak vein zone appears to be a transverse fault that strikes oblique to the strike of the greenstone host rock. Oxidation of the supergene zone has produced abundant limonite and wad

that adheres to siderite. All vein faults, in the area can be expected to be oxidized from surface to 40-50 feet deep and to a maximum depth of 500 feet. Oxidation will depend on permafrost conditions, location of vein to slope and groundwater. Below the oxidation zone a zone of cementation usually occurs.

The oxidation material that occurs in the vein zone appears to pinch and swell and has a varying width that was noted to thin to $\frac{1}{4}$ - $\frac{1}{2}$ inch and in parts to be a maximum of 6 - 12 inches. The most common and recognizable minerals present in the oxidation zone was limonite, siderite and wad. The vein zone material also appears to be similar to fault gouge and is particular clayish when wet.

The six assay results had indicated no economic values of silver, lead or zinc and the manganese samples averaged 2.8% Mn content. The 11 soil sample determinations has indicated no anomalous lead, slightly above background silver content and anomalous manganese values. The silver values are not particular anomalous for a lead-silver producing area. The soil samples were taken in the trenches where visible oxidized manganese (wad) occurs and the high parts per million values are above normal background. Manganese can be considered to be a good indicator element for vein zones where rich silver-lead mineralization in the Galena Hill and Keno Hill area.

The vein zone in trench #1 was not definite nor possible to define and must be considered to be only a good indication of

a possible vein zone. The zone of interest in trench #1 has therefore only been referred to as a weak vein zone.

ASSAY DATA

A total of 6 rock samples were collected from the Duncan #1 trenches, that contained wad, limonite and siderite and were assayed by the Whitehorse Assay Office for silver, lead, zinc and manganese content. Eleven soil samples were gathered from the Duncan #1 trenches and were assayed for parts per million (P.P.M.) lead, silver and manganese by Chemex Labs Ltd. - Vancouver, B.C. The location of the rock samples and soil samples have been plotted on the Beauvette Hill Trench Plan that is in the pocket of this report. The soil samples were quite limonitic in composition and contained pulverized wad granules and were collected in areas where it appeared to be part of a vein zone.

The following is a brief composition description and assay determinations of the grab samples from the three trenches on the Duncan #1 claim.

Trench #1 (Samples #3501 - #3504 incl)

#3501 Station 3044, greenstone with manganese and limonite staining.
TR. oz/T Ag - 0.02% Pb - 0.01% Zn - 3.4% Mn.

#3502 Station 3044, footwall greenstone with limonite adhering to face, sample mainly wad from vein, strike 33° dip 42-53° southeast trench has siderite chunks 4-6 inches wide, clay contamination, vein undertermined width, possibly 1-2 feet wide and may be pinching and swelling.
TR oz/T Ag - 0.04% Pb - 0.01% Zn - 3.2% Mn.

#3503 Station 3046, some greenstone, wad and limonite.
0.02 oz/T Ag - 0.01% Pb - TR% Zn - 2.2% Mn.

#3504 Station 3048, siderite vein with some quartz, limonite, wad, vein width possibly one foot.
TR oz/T Ag - 0.02% Pb - 0.01% Zn - 2.0% Mn.

In addition to the six samples assayed soil sample #3041 - 3042 - 3043 - 3044 - 3045 - 3050 - 3046 - 3048 - 3047 were collected in trench #1 and lead, silver and manganese determinations were made.

The values are as follows

<u>Sample No</u>	<u>PPM Lead</u>	<u>PPM Silver</u>	<u>PPM Manganese</u>
3041	35	1.5	1760
3042	42	1.5	2665
3043	30	2.5	3140
3044	37	3.0	4450
3045	37	1.5	3900
3046	74	4.5	3320
3047	39	1.5	1570
3048	46	0.5	5175
3050	42	1.0	3900

Overburden cover adjacent to trench #1 is between 2-4 feet.

Trench # 3 (samples #3505 & 3506)

#3505 Station 3085, greenstone sill or lens as in trench #1, vein material extension from first trench, siderite on fracture faces, manganese staining, wad, limonite, vein width not apparent, lead grey metallic mineral that may be ankerite or arsenopyrite.
TR oz/T Ag - 0.01% Pb - 0.01% Zn - 3.9% Mn.

#3506 Station 3085, siderite, wad, limonite, greenstone, crystals of lead grey metallic mineral possibly ankerite or arsenopyrite.
0.02 oz/T Ag - 0.01% Pb - 0.01% Zn - 2.5% Mn.

One soil sample #3085 was collected on the west side of Trench #3 and the determination assayed 63 PPM lead, 1.0 PPM silver and 2520 PPM manganese. Overburden cover was 2-3 feet deep on the west side of the trench.

Trench #2

The trench appears to be dug nearly parallel to the strike of graphitic schist bedrock. If this is correct the trench may cut the vein material that strikes 33° in trench #1. Some limonite coloured clay material was noted in nearly the centre of the trench and a soil sample was collected. The sample #3049 contained 40 PPM lead, 1.5 PPM silver and 1070 PPM manganese. Bedrock was not exposed in the trench and the graphitic schist suggests that the trench is located in schist on the southwest side of the greenstone sill or lens. Overburden in the area of trench #2 exceeds six feet in depth and consists mainly of clay.

SUMMARY

The Duncan 1-6 and Avenue 1-6 claim group is underlain by rocks of the Lower Schist Formation, that are the oldest sequence in the Precambrian and/or Palaeozoic aged Yukon Group. There is a possibility, that due to thrust faulting, the sequence is Late Palaeozoic or Early Mesozoic in age. A greenstone sill or lens that is Cretaceous in age outcrops on the Duncan #1 claim and may strike in a northwest direction.

A manganese rich zone was exposed in trench #1 and may extend to trench #2 and trench #3. The zone strikes 33° and dips between $42-53^{\circ}$ southeast. Six rock samples and eleven soil samples indicated no economic silver, lead or zinc but the samples did contain anomalous manganese. Manganese is a good indicator element for tracing and delineating silver-lead surface oxidized vein zones.

It is noted that the Geological Survey of Canada - Keno Hill area geochemical survey maps that show lead-manganese-arsenic-zinc and silver content of springs and spring sediments in the Beauvette Hill area indicate no anomalous occurrences. However, the drainage system that was tested by the Geological Survey of Canada geochemical survey was in the north drainage system. The Duncan 1-6 and Avenue 1-6 claim groups are located on a gentle south sloping tableland with no drainage streams out of the area. The tableland area would therefore, be suitable for geochemical soil sampling techniques

of exploration.

The economic silver-lead veins on Galena and Keno Hills occur in the Middle Quartzite Formation of the Yukon Group. The greenstone lenses or sills throughout the area may vary from a few feet in thickness up to a maximum of 200-300 feet. From the experience of mining operators in the area, the vein systems pinch out when entirely within a schist host rock. Good vein zone widths usually are maintained when thick bedded quartzite or greenstone wallrock occurs on one or both walls of a vein zone.

RECOMMENDATIONS

The Duncan 1-6 and Avenue 1-6 claim group warrants surface exploration to check for the existance of silver-lead vein zones under the overburden cover. Because of the lack of streams and springs, in the area of the claim group, no spring or stream geochemistry was conducted in 1965 by the Geological Survey of Canada - Keno Hill Area geochemistry survey.

It is therefore, recommended that a geochemical soil sampling survey be conducted on the claim group and geological mapping and magnetics be done in conjunction with the survey.

WHITEHORSE ASSAY OFFICE

P.O. BOX 348, WHITEHORSE, YUKON

B.G. Hiltner Limited

GOLD OZ. PER TON	SILVER OZ. PER TON	Lead	Zinc	Manganese %			
	TR	.02	.01	3.4			
	TR	.01	.01	3.2			
	.02	.01	TR	2.2			
	TR	.02	.01	2.0			
	TR	.01	.01	3.9			
	.02	.01	.01	2.5			

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CERTIFICATE OF ANALYSIS

. Hilker Ltd.,
4008
ehorse, Yukon.

CERTIFICATE NO. 16621

INVOICE NO. 6187

DATE RECEIVED Sept. 21/71

DATE ANALYSED Sept. 24/71

"Silver Springs - Beavette Hill Project"

PPM Lead	PPM Silver	PPM Manganese
35	1.5	1760
42	1.5	2665
30	2.5	3140
37	3.0	4450
37	1.5	3900
74	4.5	3320
39	1.5	1570
46	0.5	5175
40	1.5	1070
42	1.0	3900
63	1.0	2520
20	< 0.5	470

MEMBER
CANADIAN TESTING
ASSOCIATION

Certified by *John W. Emery*