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• Report on Mountain Meadow Group, East of East Arrow Park and S.E. of Upper Arrow Lake on headwaters of Mineral Creek, branch of Caribou Creek in Burton area. Slokan-Kaslo Mining Division.

INTRODUCTION

This report is on 10 mineral claims which are located S.E. of Upper Arrow Lakes on the headwaters of Mineral Creek, in the Burton Area, Kaslo-Slokan Mining Division and is prepared at the request of Mr. C.A. Marshall, 2102 - 23rd Avenue, Vernon, B.C.

This report is based on the personal visit to the property and examination of underground workings and surface showings and sampling done, on July/6th, 1971 by the writer. Also on information provided by Mr. C.A. Marshall and the study of a report by Mr. J.A. Mitchell, P. Eng. This study was to lay out a work program.

PROPERTY AND OWNERSHIP

The property consists of 10 Mineral Claims of which 5 are Mineral Leases and belong to Mr. C.A. Marshall of Vernon, B.C. and Mr. Walter Isaacs of Burton, B.C. and the other 5 mineral claims are located in the first week of July 1, 1971, belong to Mr. C.A. Marshall. The writer has been informed that Mr. Isaacs is a partner of Mr. Marshall and that Mr. Marshall is fully authorized to negotiate any deal on this property. The Mineral Claims and Leases are as follows:

<u>Leases</u>	<u>Lot Number</u>	<u>Rental Period</u>
Mountain Meadow	3604	January 30/72
Meadow Queen	3605	January 30/72
Meadow	5862	January 30/72

Lessee: C.A. Marshall, Vernon, B.C.

Skylark
Shakespeare

5719
5720

November 1/71
November 1/71

* Lessee: Walter Isaacs, Burton, B.C.

Located Mineral Claims:

<u>Name</u>	<u>Tag Numbers</u>	<u>Record No.</u>	<u>Expiry Date</u>
Star #1	800575	16165	July 2/72
Star #2	800574	16166	July 2/72
Star #3	800577	16167	July 2/72
Star #4	800578	16168	July 2/72
Star #5	967354	16169	July 2/72

The Star Group was located and recorded in the Mining Recording Office at Kaslo, B.C. on July 2, 1971 by Mr. Walter Isaacs, agent for C.A. Marshall of Vernon, B.C. All these claims are located in accordance with the Mineral Act of the Province of British Columbia.

LOCATION AND ACCESSIBILITY

The property is located 8 miles by air or 13 miles by road, N.E. of Burton, B.C. and East of East Arrow Park, B.C., near the headwaters of Mineral Creek on Mountain Meadow Mountain with elevation of approximately 6000 ft., in the Kaslo-Slocan Mining Division of B.C. These claims are quite accessible by a fair gravel road and it is usually best to use a 4-wheel drive vehicle, from where the Rodd Creek Road leaves the main Caribou Creek Road. This road was built and maintained by The B.C. Forestry Branch and various logging companies. The road to the property leaves the main Caribou Creek road, approximately 6 miles from the town of Burton. A shorter but slightly steeper route could be obtained by following the road to the Promistora Mine Group, about 1½ miles south of the Mountain Meadow Group and would mean building about 2 miles of new road along the existing trail.

TOPOGRAPHY, VEGETATION and CLIMATE

The property is located about 6000 feet elevation from sea level on the Mountain Meadow Plateau. In the immediate vicinity of the workings the ground is flat to a moderate slope which steepens below the workings. There are no cliffs but steep mountain slopes are to the west. There is no evidence of any snow slides in this area.

The growth of a coniferous forest of fir, cedar, and spruce is not very heavy on the flat but it is heavily treed on the slopes. The snow fall is fairly heavy at this elevation and the temperature varies from below zero in the winter to the 80's to 90's in the summer. The rainfall is sufficient to support vegetation and a supply of water from the old underground workings is available for diamond drilling.

PROGRAM

During the visit to the property on July 16, 1971, the following program was conducted:-

- (1) The underground old workings and surface showings were examined.
- (2) Two chip samples were collected from the south cross-cut in the old workings and one channel sample was taken on the surface showing at approximately 200 feet north of the adit and shipped to Loring Laboratories Ltd., Calgary, Alberta for assaying.
- (3) A traverse was taken in order to study the general geology of the area and surface showings.
- (4) E.M. (16 Romka) and magnetometer survey was conducted by ELC Geophysics Ltd. of Vancouver, B.C. on about 4.2 line miles during July 29, 1971 to August 25, 1971.

HISTORY and PREVIOUS WORK

A short adit of 50 feet and two drifts of 100 feet and 50 feet to the north and south of the adit have been driven around the turn of the century. A favorable report appears to have been written around 1900 and it was

reported that 80 tons of silver-lead ore was stockpiled. There is little evidence of this stockpile to-day and no particular record of any shipments, except one ton of ore shipped to C.M.&S., now Cominco, in 1917, as indicated by a letter dated December 31, 1970 from Mr. W. S. Siddal to Mr. Marshall.

The assay on this shipment was as follows:

Gold 0.17 oz./ton Silver 3.0 oz./ton Copper 5.95% Zinc 3.1%

(There seems to be some doubt regarding the silver content as there have not been any assays recorded that low in value of samples taken and it is felt that hand picked ore would possibly have been higher; however, there is no way to contradict these results). There was also a bulk shipment of ore shipped to Eastern Canada during the early 1950's by the Promistora Gold Mines by the McLeod Bros., but the writer has no recorded records of this and can only go on what was given to him verbally. The McLeod Bros. are both deceased so there is no way of checking this further. This would indicate that this is where part of the stockpile of ore went as recorded earlier in this report.

Mr. J. A. Mitchell took 6 samples from underground and surface showings on October 20th, 1967 which assays as follows: -

<u>Sample #</u>	<u>Au/03 ton</u>	<u>Ag 03/ton</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Width</u>
4733 (Chip)	0.07	9.2	0.65	3.51	3.3'
4734 (Chip)	0.01	0.30	-	-	2.5'
4735 (Chip)	0.62	0.60	-	-	1.5'
4736 (Chip)	0.52	1.0	-	-	4"
4737 (Grab)	0.01	1.5	-	-	
4738 (Grab)	0.06	4.9	6.93	2.05	

Four grab samples were taken from underground and the mine dump on August 17th, 1970 by Mr. C. A. Marshall and Mr. Walter Isaacs. All these samples were mixed together and one representative sample was sent for assaying which assayed as follows: -

<u>Au 03/ton</u>	<u>Ag 03/ton</u>	<u>Pb%</u>
0.08	11.5	21.17

During the period of 1968 to 1970, about 800 feet of bulldozing was also done and the vein was traced up to 700 feet north of the adit.

GEOLOGY

The property overlies both Biotite Granite, a part of the Nelson Batholith of Cretaceous and/or Jurassic Age and argillaceous and limey sediments of the Slocan Series of Triassic or lower Jurassic Age. The Slocan series consist of argillite, shale, silt stone (which are slightly calcareous) and limestone. These formations run in an easterly-westerly direction and dip 38° to 42° northerly. The argillite is silicified and very closely jointed and fractured. The Nelson Batholith consists of granite which is fine to medium crystalline and consists of quartz, feldspar, biotite and hornblends. The granite is intersected by a locally strong and well fractured quartz vein which mineralized by galena, sphalerite, argentite, minor chalcopyrite, pyrite, and pyrrhotite and shows the yellowish oxide of cadmium. This type of vein has been traced up to 880 feet towards the north at the surface by stripping.

This vein varies in thickness from a few inches to about four feet. It strikes north-south and dips 42° E. This dip is variable along strike. The vein seems to be plunging towards south for it could not be seen on the surface south of the workings and was not intersected by the south crosscut. This

could be due to faulting, which might have downthrown the vein towards south. A shaft was sunk on the vein and then a crosscut was driven to intersect this shaft. The shaft was sunk where mineralization and vein appeared to be the strongest. The north and south drifts were driven along the vein, approximately 60 feet to the south and 100 feet to the north. The south drift could be inspected and two channel samples were taken at about 25 feet and 35 feet from the adit. The north drift could not be examined due to the condition of the hanging wall but the vein seemed to continue up to the end of the north drift. The thickness of the vein appeared to vary from 4 feet to 1½ feet. One surface sample was taken at about 200 feet north of the adit in a trench. The samples were assayed by Loring Laboratories Ltd., Calgary, Alberta. The property was sampled and assayed for the first time for cadmium at the suggestion of the writer. The sample ran as follows: -

<u>Area of Sample</u>	<u>Au 03/ton</u>	<u>Ag 03/ton</u>	<u>Cd%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Width</u>
Surface Sample	.040	Trace	.02	2.80	0.26	1.5'
Channel #1	.040	6.42	.16	12.97	3.59	2.5'
Channel #2	.100	8.64	.07	13.13	1.45	3.0'

A shaft was sunk at about 880 feet north of the adit and ore was noticed in the dump. There is a good possibility of further extension of the vein and these showings could be the continuity of the main vein which could be proved by geological mapping.

EVALUATION OF EM. (RONKA) and MAGNETOMETER SURVEY: -

The geophysical survey was conducted with a type EM 16 Ronka instrument operating on 18.6 KMZ from the U. S. Navy Station NPO in Arlington, Washington.

The survey was also conducted with a type 100N Vertical Field Fluxgate Magnetometer made by Sabre Electronics of Vancouver. These surveys were conducted by ELC Geophysics Ltd., Vancouver, B. C. on about 4.2 line miles

during July 29th, 1971 to August 25th, 1971.

A north-south running base line of 1700' length was established with the grid lines east and west at 100' spacing on the south half of the survey, and 200' spacing on the north half of the survey area.

The results of both surveys are plotted in profile form. The interpretation of the EM results are based on change of amplitudes, polarity and phase relations of the vertical and horizontal components.

The interpretation of the magnetometer results are based on profile amplitude and configuration relative to adjoining lines to there by form. Linear anomalies.

The EM linear feature to the west of the base line is the maximum point of the gradient of the two components, wherein the vertical component shows an increase and the horizontal a decrease. This linear anamalous zone appears to follow very closely to the foot wall of a known quartz vein mineralized by galena, sphalerite, and other sulphides. The linear feature extends north and south up to 1200'. This E.M. linear feature coincides with linear magnetic anomaly which follows closely to the hanging wall side of the known quartz vein extending north and south.

There are other E.M. and magnetic linear features noticed in the survey area which could be explained by detail geological investigations.

CONCLUSION

It is concluded from the present studies that:

- (1) The geology is favorable for the vein type of mineralization.
- (2) The E.M. linear texture and linear magnetic anomaly follows closely to the hanging wall side of the known mineralized quartz vein and extending north and south which can be tested by trenching and diamond drilling.
- (3) There are other E.M. and linear magnetic anomalies noticed in the area which should also be examined geologically and by trenching.

(4) The E.M. conductor also suggests that the angle of the dip of the vein is steeper in the south than in the north part of the adit.

The assay results are also encouraging, therefore further exploration work is warranted.

RECOMMENDATIONS

As a result of the above studies it is recommended that a further exploration program should be undertaken on the property.

(1) The base line should be extended to 4,000 feet and grid lines should be cut 1,000 feet on either side of the base line and at right angles to it at intervals of 400 feet with stations at 100 foot intervals on each line.

(2) Detailed surface and underground geological mapping, aerial photogeology should be completed.

(3) Soil sampling at the grid lines, also 500 feet to 600 feet depth penetration E.M. survey might be undertaken to determine the further extension of the ore body.

(4) E.M. magnetic and Geochemical Anomalies in co-relationship with geological data can be tested by diamond drilling.

(5) The vein should be traced by bulldozing and stripping.

(6) The present underground workings should be rehabilitated.

(7) Underground geological mapping and a transit survey should be completed.

(8) Underground channel sampling should be done and spectrographic analysis of the samples should be undertaken.

The implementation of the first phase should be undertaken first and the second phase depends on the success of the first phase.

Respectfully submitted,

G. C. Singhai

G.C. SINGHAI, P. Eng.

ESTIMATED COST OF PROGRAM

Phase I

(1) 5-line miles of line cutting @ \$125.00 per mile	\$ 625.00
(2) Soil sampline and analysis 250 samples @ \$3.50 per sample	875.00
(3) E.M. Survey to 5-line miles	3,000.00
(4) Geology mapping - Engineering supervision, transportation, etc.	3,500.00
(5) Bulldozing and trenching	2,000.00
(6) Diamond drilling of 400 feet @ \$8.00 per foot	3,200.00
(7) Assaying - sampling	500.00
	<hr/>
	\$13,700.00
Contingencies	1,300.00
	<hr/>
	<u>\$15,000.00</u>

CERTIFICATION

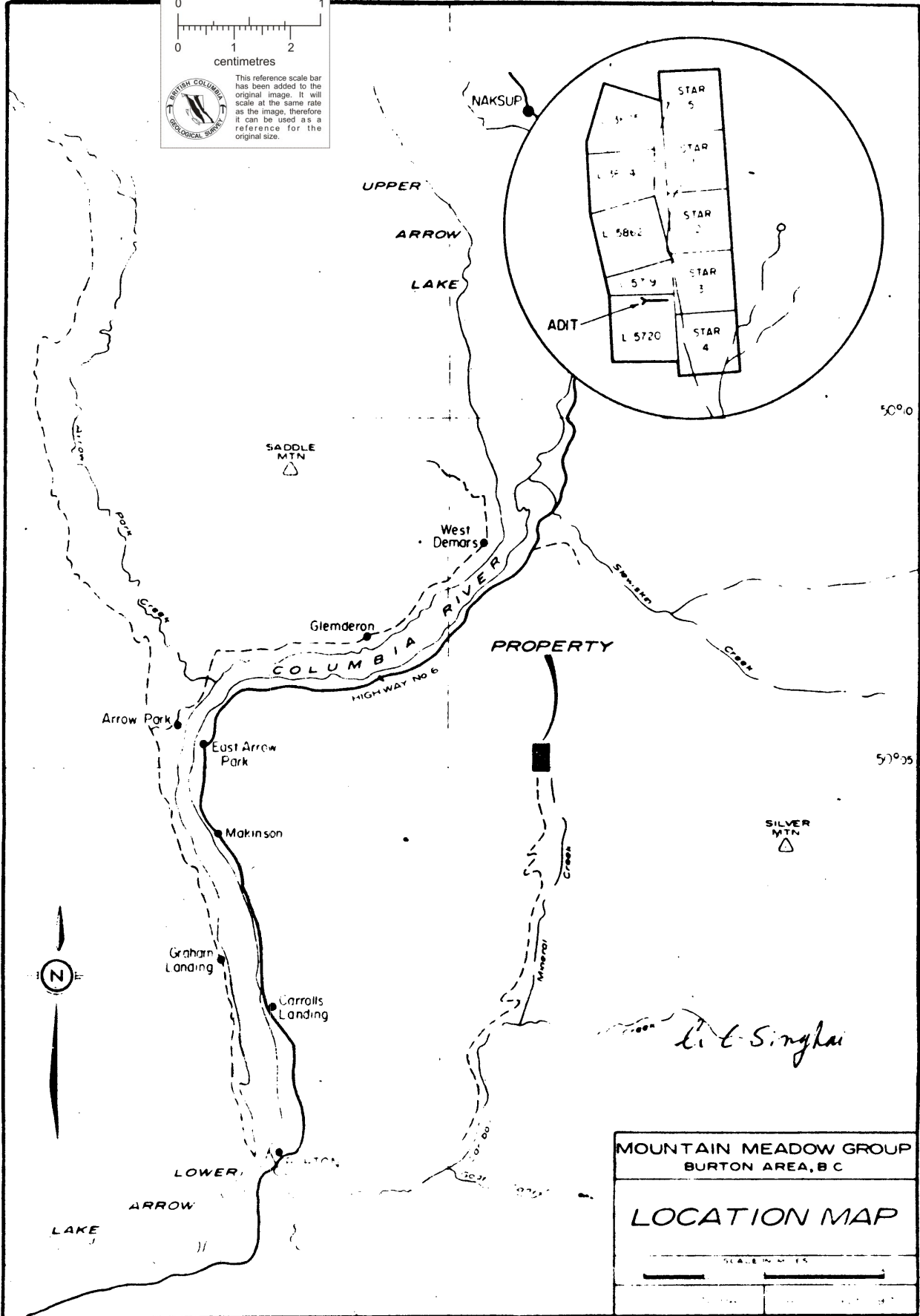
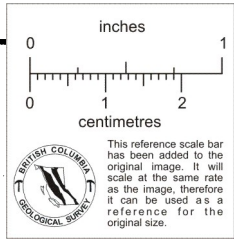
I, Gyan Chand Singhai of 875A No. 2 Road, Richmond, B.C., do hereby certify that:

1. I am a member of the Association of Professional Engineers of British Columbia since 1969, and member of the Canadian Institute of Mining and Metallurgy.
2. I am a Post Graduate in Applied Geology from the University of Saugor, Sagar, Madhya Pradesh, India, and have been practising my profession since that time.
3. I was teaching in the University of Saugor, Sagar and Ravishankar University, Raipur in India and practised my profession in India, Canada and the West Indies.
4. This report is based as a result of a personal examination of the property made by me on July 16th, 1971 and supplemented by the information contained in previous reports by Mr. J.A. Mitchell, P. Eng. Dated, written and verbal information given by Mr. C.A. Marshall.
5. I have no interest either directly or indirectly in the property described herein or any other properties or in the securities of Mr. C.A. Marshall except my wages.
6. This report may be used for the purpose of a prospectus if so desired.

G.C. Singhai

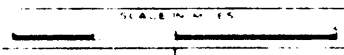
Dated at 875A No. 2 Road
September 7, 1971

G.C. Singhai, M. Tech; P. Eng.



MOUNTAIN MEADOW GROUP
BURTON AREA, B.C.

LOCATION MAP



SCALE IN METRES