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**May 1983**

*Prospectus  
June 17, 1983.*

# **BUTLER MOUNTAIN MINERALS CORP.**

## **LOLA - IDAHO - Y.P. CLAIMS**

NTS 105 B-1      Watson Lake M.D., Y.T.  
Lat. 60° 03' N      Long. 130° 25' W

## **Engineering Report**

by V. CUKOR, P. ENG.    ■    NVC ENGINEERING LTD.    ■    VANCOUVER, B.C.



BUTLER MOUNTAIN MINERALS CORP.

LOLA - Y. P. Claims  
Rancheria, Y.T. Area

1. INTRODUCTION

During the months of February and March 1983, the author prepared two separate reports, one for LOLA-IDAHO and one for Y.P. mineral claims. The reports were submitted to the office of the Superintendent of Brokers, together with the application for raising necessary funds for the recommended exploration program. The regulatory bodies made a request that the two reports were to be combined into a single report.

During 1981 and 1982, the author had some involvement in exploration of LOLA, X, L and POND claims, and part of the report concerning these claims is based on his personal knowledge. The author has also briefly visited the Y.P. mineral showings, but he has never conducted any work there, nor taken any samples. Therefore, the part of the report describing the Y.P. claims is based on printed material, and mainly the report of Barry Price M.Sc, F.G.A.C., dated April 1, 1980, which was prepared for Unity Gold Resources Inc. The Idaho claims were not visited by the author.

## 2. REVIEW

### 2.1 SUMMARY AND CONCLUSIONS

The western and central parts of the property are underlain by the granodiorite and monzonite of the Cassiar Batholith. In the eastern part, outcrop Paleozoic limestones and dolomites of the Atan Group. Along the intrusive-sedimentary contact, G.S.C. reported contact metamorphic bodies of marble and skarn.

The mineral showings appear on both the easternmost and westernmost parts of the property. The eastern showings appear on the Y.P. claims, of which the most important is a gossan approximately 500 meters long, containing occasional nodules of fresh galena and sphalerite. Numerous samples taken from this zone returned assays which varied greatly, this being attributed to erratic distribution of unoxidized nodules of sulfide minerals. Trenching to fresh material is absolutely necessary to evaluate this zone properly. The area of disseminated sulfides, which is shown on the map Figure 6 as "Low Grade Zone" could be very significant and needs further evaluation. The geological settings and mineral assemblage show strong resemblance to Silver Tip and Amy deposits; and this area should be explored with the utmost care.

On the west part, the showings are on the X, L, LOLA and POND claims, usually called in the report " LOLA GROUP ". There, the strong northeast-southwest striking

2. REVIEW (CONT'D)

2.1 SUMMARY AND CONCLUSIONS (Cont'd)

shear zone, cutting through intrusives, carries erratic but high grade silver-lead-zinc mineralization. Initial exploration uncovered sulfide veins over a length of several hundred feet on the crest of the ridge. However, subsequent EM-16 survey (1981 and 1982), after encountering a positive response over the showings, outlined the extension of the same conductive zone further east for a total length of over 1.5 kilometres. The better part of this length is in the area of deep overburden, and at yet another location, galena float was located in the conductor's close vicinity. A diamond drill hole spotted to intersect this EM-16 conductor in the area of extensive overburden intersected shear. Most of the core through the zone was lost and the recovered gouge assayed rather low but significant values in silver, lead and zinc.

The 1.5 kilometre long (and at least 300 metre deep) shear zone exhibits signs of intensive hydrothermal activity. Erratic but good grade sulfide veins were uncovered in one location, galena float at another and a drill hole between these two locations recovered silver-lead-zinc values in the gouge. This proves that a shear zone represents a favourable environment for searching for sulfide mineralization of geothermal origin.

2. REVIEW (CONT'D)

2.1 SUMMARY AND CONCLUSIONS (Cont'd)

Since the greater part of the shear zone's whole length is yet unexplored, it is the author's firm belief that further exploration has excellent potential to encounter mineable ore shoots.

Both the fringe of the intrusive and bordering limestones, dolomites and contact metamorphic rocks, which are covered by the IDAHO claims, should be considered a very favourable environment for development of hydrothermal, vein type silver-lead-zinc mineral deposits. In addition, the carbonate rocks should be searched for the replacement type bodies. The Y.P. showings are in this same geological setting, and the author has encountered other silver-lead hydrothermal veins in similar conditions elsewhere in the Cassiar Batholith area. Therefore, the author is of the opinion, that a grassroot exploration of the IDAHO claims is fully warranted.

2. REVIEW (CONT'D)

2.2 RECOMMENDATIONS

Further exploration on the property should be exercised in two stages. The first stage should consist of geological, geochemical and geophysical surveys, which should outline targets for the second stage, diamond drilling.

Three areas of exploration should be recognized:

I. Y.P. Showings, which were already partially explored, require detailed geological mapping, geochemical soil sampling and electromagnetic survey. For this purpose, 15 kilometres of transit surveyed grid should be constructed. Bulldozer trenching to fresh material should enable proper sampling and evaluation of showings. On recommendation of Glen E. White, P.Eng., pulse electromagnetic survey was selected as most suitable.

A minimum of 600 meters of B.Q. diamond drilling should be planned for the second stage of exploration.

II. LOLA Showings and the eastward extension of the shear zone was outlined by the fast and inexpensive EM-16 survey. A more sophisticated geophysical method is now necessary to outline the areas with possible sulfide accumulations within the shear zone, and to pinpoint targets for diamond drilling follow up. The horizontal loop pulse electromagnetic survey is probably the best method for this kind of deposit. In preparation for

2. REVIEW (CONT'D)

2.2 RECOMMENDATIONS (Cont'd)

the survey, a transit surveyed grid should be prepared. Geological mapping on a large scale plan should be carried out over all area of interest, together with a survey of all mineralized outcrops and surface and underground workings. In the northern part of LOLA claims some limited geochemical reconnaissance should be carried out as well. For the second stage, about 3,000 meters of diamond drilling should be planned pending the results received on completion of the first stage.

III. IDAHO, G.P., and newly located claims should be treated as grassroot exploration projects. Geological prospecting, EM-16 reconnaissance and geochemical soil and silt surveys are efficient and relatively inexpensive methods. If any positive results are encountered during these reconnaissance surveys, detailed geological mapping, extensive sampling and pulse electromagnetic survey should be conducted over any area of interest.

2. REVIEW (CONT'D)

2.3 COST ESTIMATE

Stage 1

Grid preparation, total 65 kilometers @ \$300	\$ 19,500
Soil sampling (mainly Idaho and Y.P.)	9,000
Geochemical assays, 1,600 samples @ \$10	16,000
Pulse electromagnetic survey (Lola and Y.P.)	72,500
Electromagnetic EM-16 survey (Idaho)	10,000
Geological mapping	39,000
Trenching, road repair, and bulldozing 50 hours @ \$100 (Y.P.)	5,000
Rock assays and Petrographic studies	6,000
Camp operation and rental	30,000
Transportation, travel, communications	15,000
Data compilation, maps, reports	16,000
Subtotal	238,000
Contingencies	30,000
TOTAL STAGE 1	<u>\$ 268,000</u>

Stage 2

Diamond drilling (3,000 m. Lola, 600 m. Y.P.) 3,600 meters @ \$100	\$ 360,000
Drill site preparation, roads, drill moves and trenching	84,000
Camp operation (Lola and Y.P.) and construction (Y.P.)	70,000
Supervision, core logging, sampling	30,000
Final reports, data compilation, maps, sections	17,000
Assays	4,000
Subtotal	565,000
Contingencies	85,000
TOTAL STAGE 2	<u>\$ 650,000</u>

### 3. PROPERTY

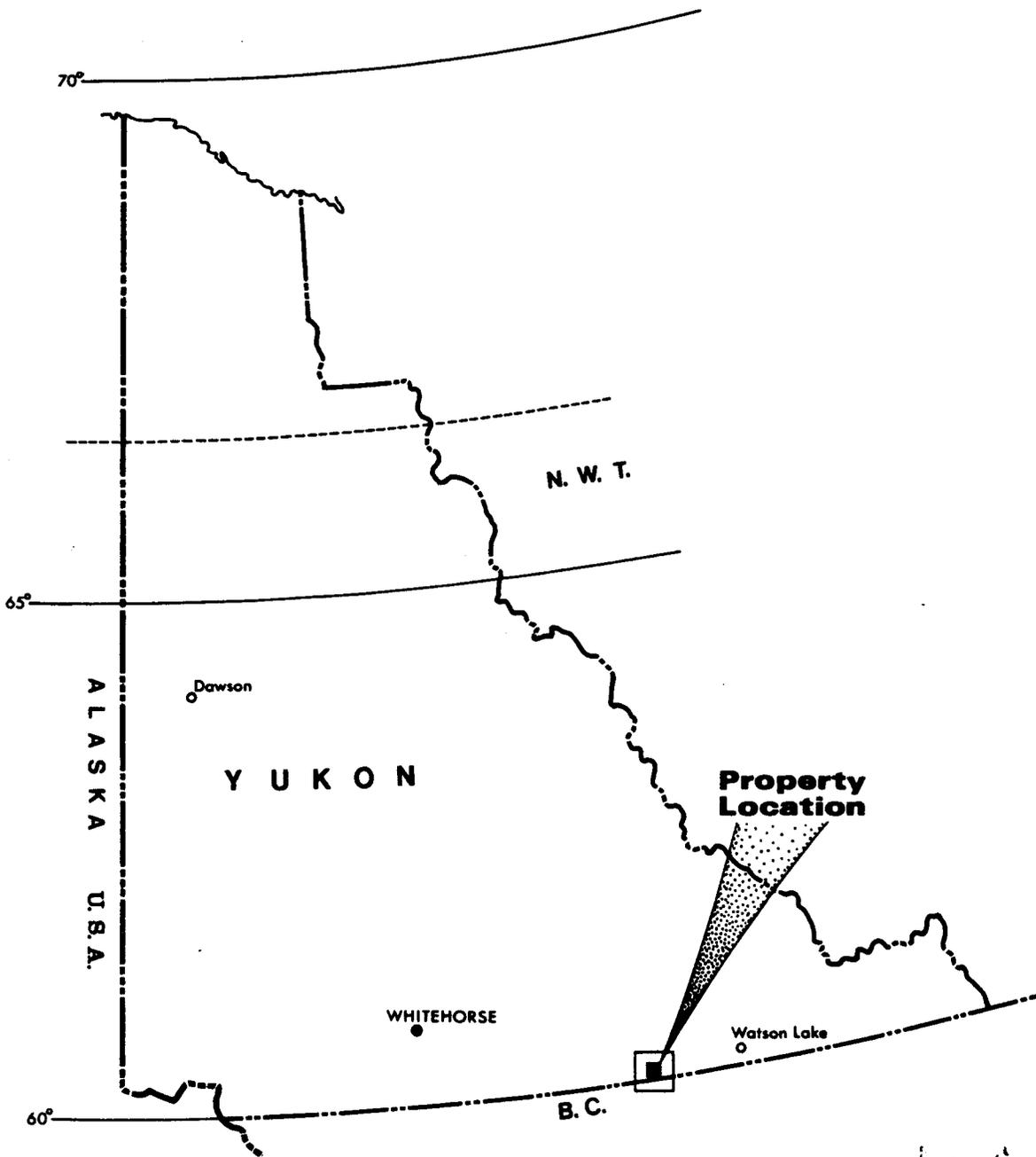
#### 3.1 LOCATION AND ACCESS

The Butler Mountain Mineral Corp. property is located approximately 7 kilometers southeast of the settlement of Rancheria, Yukon. The claims are at 105-B-1 NTS in the Watson Lake Mining District. The center of the property is at approximate latitude  $60^{\circ} 02' N$  and longitude  $130^{\circ} 25' W$ .

The access to the property is by Alaska Highway, from which two dirt roads run to the claims. One road turns off Alaska Highway at about Mile 704, and leads to the workings on LOLA, X, and L claims. The distance from the turnoff on the highway to the LOLA Camp is 7.2 kilometers. Access to the Y.P. claims is provided by the dirt Tootsie River Road, from which a 4 X 4 road reaches the showing area. The Tootsie River Road turns off the Alaska Highway at Mile 701. The Location Map, Figure 1, shows the property location.

#### 3.2 CLAIMS

Two separate claim groups comprise the Butler Mountain property. There are the LOLA group and the Y.P. group. The claims, grant numbers and recording dates are as follows:



*V. Cukor*

<b>BUTLER MOUNTAIN MINERALS CORP.</b>			
<b>LOLA-IDAHO-Y.P. CLAIMS</b>			
Location Map			
WATSON LAKE M.D., Y.T.		NTS 105 B-1	
V. CUKOR, P.Eng. - NVC ENGINEERING Ltd. - VANCOUVER, B.C.			
DATE:	May 1983	SCALE: 0 50 100 Miles	FIG. 1

3. PROPERTY (CONT'D)

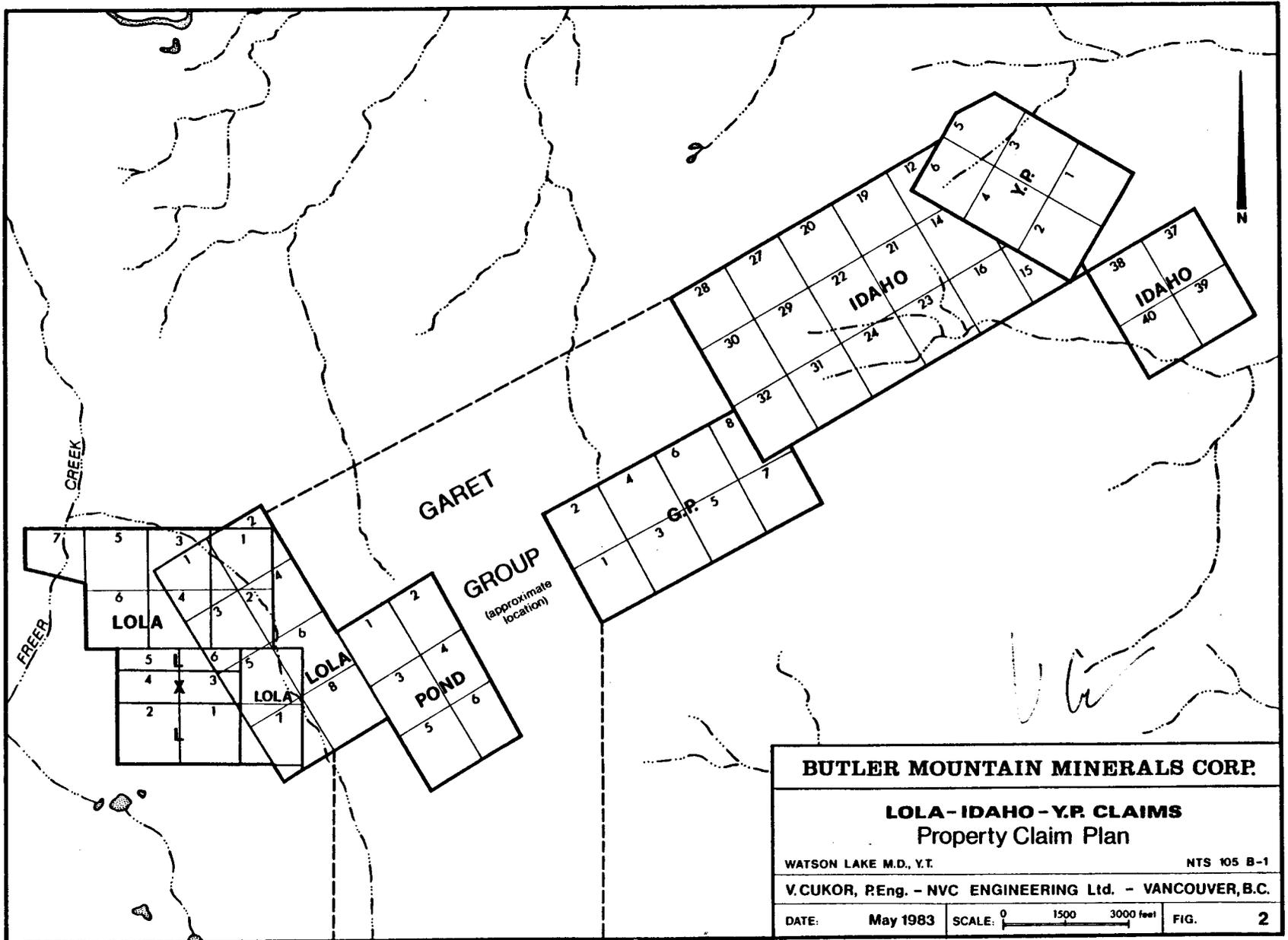
3.2 CLAIMS (Cont'd)

<u>CLAIM</u>	<u>GRANT NO.</u>	<u>RECORDING DATE</u>
<u>LOLA GROUP</u>		
Lola 1 and 2	Y42383 and 4	June 12, 1970
L 1 and 2	Y19983 and 4	Sept. 29, 1967
L 5 and 6	Y73862 and 3	July 26, 1973
X 3 and 4	YA35594 and 5	Sept. 29, 1978
Lola 1 - 8	YA66059 - 66	July 31, 1981
Lola 1 - 8	YA66051 - 58	July 31, 1981
Pond 1 - 6	YA68761 - 76	Aug. 2, 1982
<u>Y. P. GROUP</u>		
Idaho 12 - 16	YA46866 - 70	Jan. 31, 1980
Idaho 19 - 24	YA46873 - 78	Jan. 31, 1980
Idaho 27 - 32	YA46881 - 86	Jan. 31, 1980
Idaho 37 - 40	YA46891 - 94	Jan. 31, 1980
Y.P. 1 - 6	YA35662 - 67	Oct. 23, 1978
G.P. 1 - 8	YA68848 - 55	Aug. 17, 1982

The title transfer of the POND 1-6 claims to Butler Mountain is still in progress.

In addition to the above listed claims, a GARRET group, consisting of 36 claims is being staked and recorded on behalf of the company.

Originally 8 Y.P. claims were located and recorded, but subsequently claims 7 and 8 were lost to the Alaska Pipeline Right-of-Way. The claims were first optioned to Unity Gold Resources Inc., by R. K. Bailey and E. Pallard. Presently Butler Mountain Minerals Corp. holds the title to 100% of the property interest.



GARET  
 GROUP  
 (approximate location)

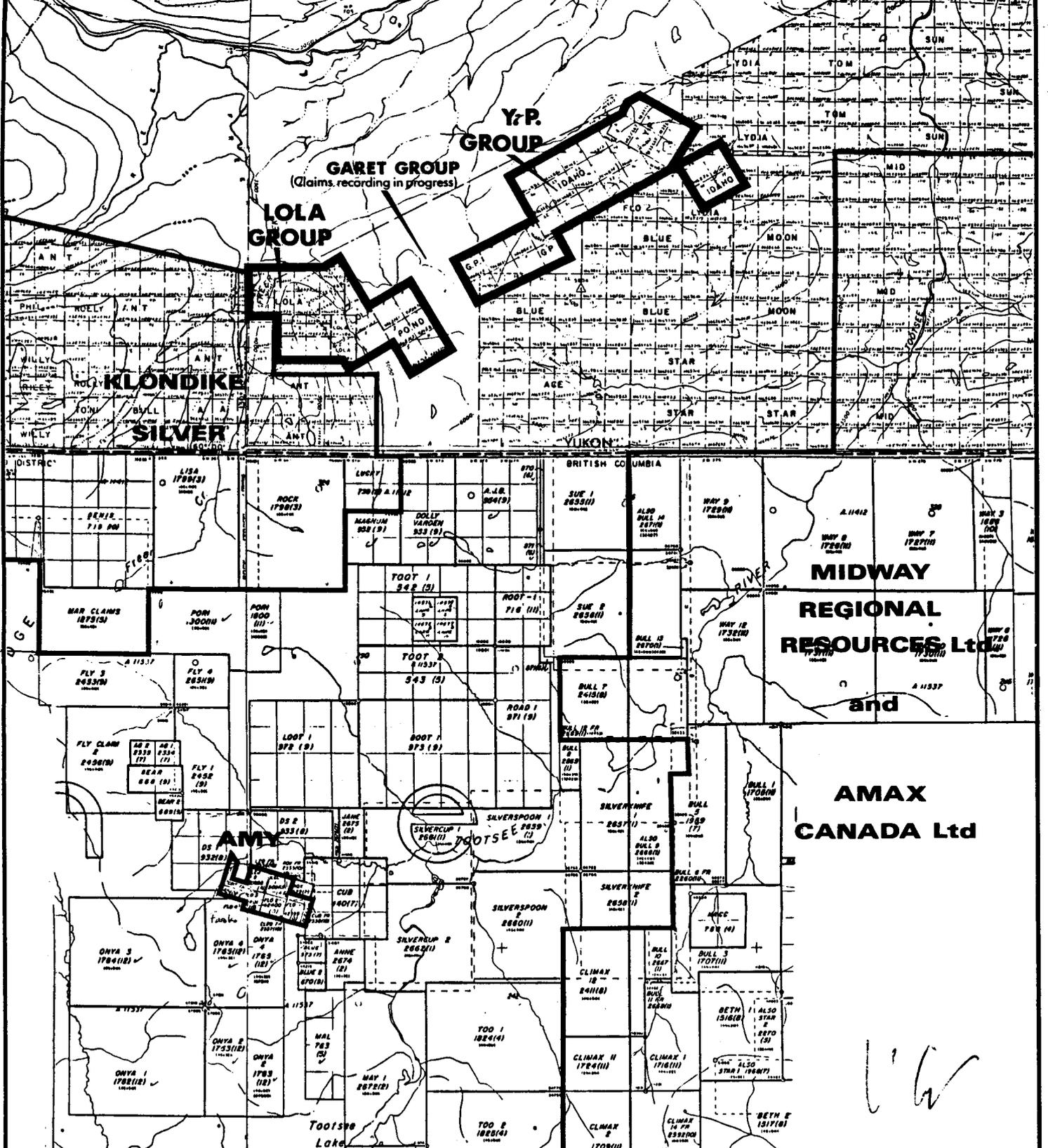
**BUTLER MOUNTAIN MINERALS CORP.**

**LOLA - IDAHO - Y.P. CLAIMS**  
 Property Claim Plan

WATSON LAKE M.D., Y.T. NTS 105 B-1

V. CUKOR, P.Eng. - NVC ENGINEERING Ltd. - VANCOUVER, B.C.

DATE: **May 1983** SCALE: 0 1500 3000 feet FIG. **2**



<b>BUTLER MOUNTAIN MINERALS CORP.</b>			
<b>LOLA - IDAHO - Y.P. CLAIMS</b>			
Tootsee River Area - Claim Map			
WATSON LAKE M.D., B.C.		NTS 105 B-1	
<b>V. CUKOR, P. Eng. - NVC ENGINEERING Ltd. - VANCOUVER, B.C.</b>			
DATE:	May 1983	SCALE:	0 1 2km
			FIG. 3

3. PROPERTY (CONT'D)

3.2 CLAIMS (Cont'd)

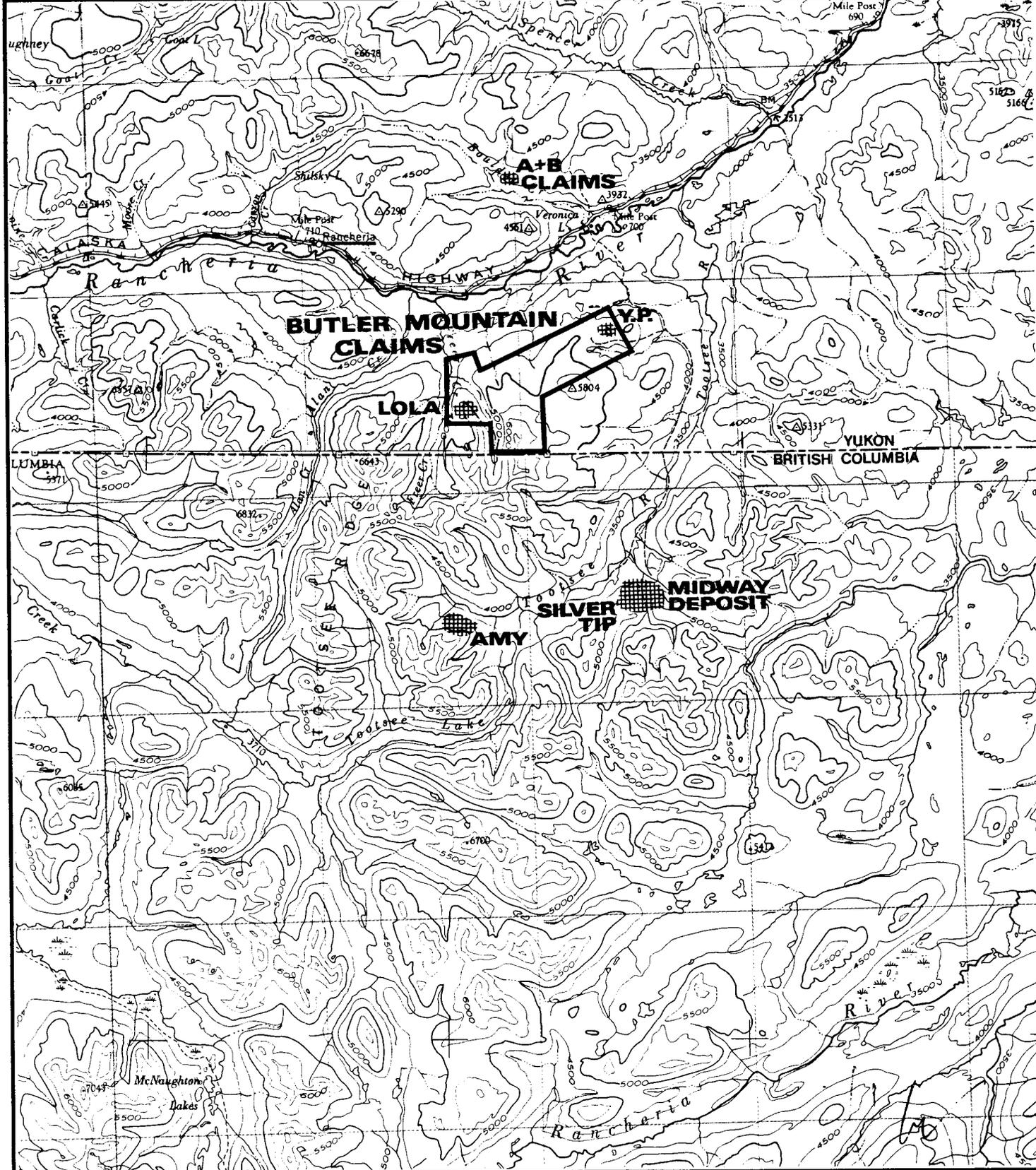
The approximate claim locations are shown on Figures 2 and 3. The Property Location Map (fig.2) also shows that a number of claims within the LOLA Group are overlapping, and the idea of abandoning and re-staking all claims west of the POND claims should be explored.

3.3 TOPOGRAPHY AND CLIMATE

The property lies at elevations between 4,000 and 5,800 feet above sea level. The claims cover moderately steep mountain slopes and the valley of a tributary of Freer Creek. Most of the property is above the timber line and is covered with low alpine growth. Timber, consisting mainly of black spruce and some jackpine, is found only in the creek valley. Swampy areas are thickly overgrown by scrub willows.

The climate of the property area is northern continental. It is characterized by long, cold winters and short, warm summers. Atmospheric precipitation is moderately high, of which a considerable amount falls as snow. The property is snowbound generally from the end of October, to the end of May.

Good quality timber and water for exploration and development purposes is plentiful on the property.



**LEGEND**

 Mineral showings area

Note: Butler Mountain claim boundary approximate

**BUTLER MOUNTAIN MINERALS CORP.**

**LOLA - IDAHO - Y.P. CLAIMS  
Topographical Map**

WATSON LAKE M.D., B.C.

NTS 105 B-1

V. CUKOR, P.Eng. - NVC ENGINEERING Ltd. - VANCOUVER, B.C.

DATE: May 1983

SCALE:  5 km

FIG. 4

4. OTHER MINERAL DEPOSITS IN THE AREA

The general Rancheria area was at one time or another subject to fairly extensive mining exploration for silver-lead-zinc, tungsten, asbestos, and copper. Several of the properties also have a history of limited production and small shipments of hand sorted high grade ore were made. The most recent significant discovery on the Midway property lead to the staking rush in the area, and sparked the activities and re-examination of the mineral showings in the vicinity, some of which were explored in the past. The more significant silver-lead-zinc occurrences close to the Butler Mountain property are:

MIDWAY PROJECT:

These claims straddle the Yukon-B.C. border, and at closest point, the MID claims are only 2 km. east of the IDAHO claims. Two mineral deposits are known on the property; explored jointly by Regional Resources Ltd. and Amax Canada Ltd.

I. Silvertip Showings, discovered in 1955, consist of veins of replacement type mineralization in Devonian Limestone overlain by Sylvester Group phylites. The deposit was explored by various geophysical methods, trenching, diamond drilling and underground workings by numerous companies: 1955-57 Conwest Explorations; 1958 Canex, Noranda Mines and Bralorne Mines;

4. OTHER MINERAL DEPOSITS IN THE AREA (CONT'D)

1960 Peerless Oil & Gas; 1961-63 Pegasus Exploration Ltd; 1967-68 Silverknife Mines Ltd.

Several gossan zones and galena floats were found on the surface; the largest zone from 15 - 65 feet wide and 700 feet long was reported to assay 5.7 oz/t Ag; 6.2% Pb; and 2.9% Zn. In the adit, one 38 foot zone assayed 13.84 oz/t and 15.4% Pb. This zone has not been re-tested yet by Regional Resources.

II. Midway Deposit, discovered close to the Silvertip showings, and drilled between 1980 and 1982, is a stratabound sulfide deposit hosted by shales and sandstones of the Lower Sylvester Group and carbonates of the McDame Group. Preliminary estimates of the geological reserves is reported as 3.5 million tons averaging 12 oz/t Ag; 12% Zn; and 6% Pb.

AMY DEPOSIT:

This deposit, located on the LEO and FLO claims, is about 10 kilometers south of the LOLA claims. It was discovered in 1948 by Hudson Bay Exploration. The sulfide mineralization, appearing as replacement in limestone near contact with argillite, was followed by trenching and diamond drilling for the length of over 550 feet. From 1964, Rancheria Mining Company conducted geochemical and magnetic surveys, and underground development, where assays averaged 27.4 oz/t Ag;

4. OTHER MINERAL DEPOSITS IN THE AREA (CONT'D)

7.5% Zn; and 7.5% Pb over a 5.9 foot width. During 1967, metallurgical investigation was carried out by Britton Research Ltd. Between 1972 and 1976 Fosco Mining Ltd. continued exploration and reported proven and indicated reserves of 86,000 tons averaging 12 oz/t Ag; 2% Pb; and 6% Zn. (1976 Canadian Mines Handbook). In 1980 Marbaco Resources Ltd. reported measured, drill indicated and inferred reserves totalling 140,000 tons.

MEISTER PROJECT

Located about 20 kilometers north of the Butler Mountain property. Regional Resources Ltd. optioned this property to Getty Canadian Metals Limited. It is reported, that stratiform silver-lead-zinc mineralization is comparable to the Faro District deposits. Samples from a 500 foot zone assayed 41.93% Zn; .08% Pb; and 5.2 oz/t Ag.

A & B CLAIMS

This deposit, located about 6 kilometers North-East of the Y.P. claims, was explored by Scurry Rainbow Oils Ltd. and then by Serem Ltd. On this property, silver-lead-zinc sulfides appear as stratiform bodies within limestone and phyllites of Cambrian or Devonian ages. The best drill hole intersection assayed 1.66 oz/t Ag; 1.47% Pb; and 8.32% Zn, over 39 feet. On the property, significant scheelite values were recorded.

4. OTHER MINERAL DEPOSITS IN THE AREA (CONT'D)

ANT CLAIMS

Klondike Silver is preparing to explore this property joining LOLA claims to the west. Several high grade silver-lead-zinc veins in Cassiar Batholith Intrusive are comparable to the showings on the LOLA claims.

( For location of these properties see Figures 3 and 4 )

5. PREVIOUS WORK ON THE PROPERTY

Both the LOLA-X-L, and the Y.P. showings were explored to a limited extent in the past.

The showings of the Y.P. claims have been known for a long time, but only sketchy information of the past results exists. Very much in evidence, however, is the extensive bulldozer trenching and the 4 x 4 road constructed to the showing area. In 1960, a shipment of hand sorted ore was made to smelter, but the grades are not known to the author.

During 1967, a geochemical soil survey was exercised, with samples assayed for lead only. The existing map shows some highly anomalous values (up to 2,700 ppm lead - reported by B. Price, 1980), but the map does not show the position of grid relation to any topographic landmarks or claim posts, and this work has to be repeated.

The showings on the LOLA group were found in the early 1950's by Dale Mountain Mine. The sulfide veins in the shear zone were outlined by geochemical soil sampling and electromagnetic survey, and then exposed intermittently on the top of the ridge over a strike length of several hundred feet by bulldozer trenching. Some diamond drilling was allegedly also conducted, but no records of this work were located by the author, and no drill core was left on the property. The results, however, were most likely positive, since a two hundred meter adit was excavated. No mineralization was encountered in the

5. PREVIOUS WORK ON THE PROPERTY (CONT'D)

adit, since the work was suspended before reaching the showing area, and the entire length of the adit itself was driven in the footwall of the shear zone.

In the late 1960's some high grade mineralization was extracted from the veins, and two shipments were reported, 9 tons in 1968, and 22 tons in 1970.

In 1981 the private company, Loann Silver Mines renewed the exploration on the property. A limited EM-16 survey was conducted by S. Presunka late in the season. It revealed the conductive zone coinciding with the shear zone and showings on the top of the ridge, and then extending eastward in the area covered with heavy overburden. One B.Q. diamond hole completed in that area intersected the shear zone with some mineralization in the poorly recovered core. In 1982, the EM-16 survey was expanded eastward, and a ground magnetic survey was conducted over this new part of the grid. The conductor found in 1981 was extended, and the total length reached over 1500 meters. During 1982, six diamond drill holes were drilled as well, but unfortunately drilling was conducted without professional guidance and most of this effort has been wasted.

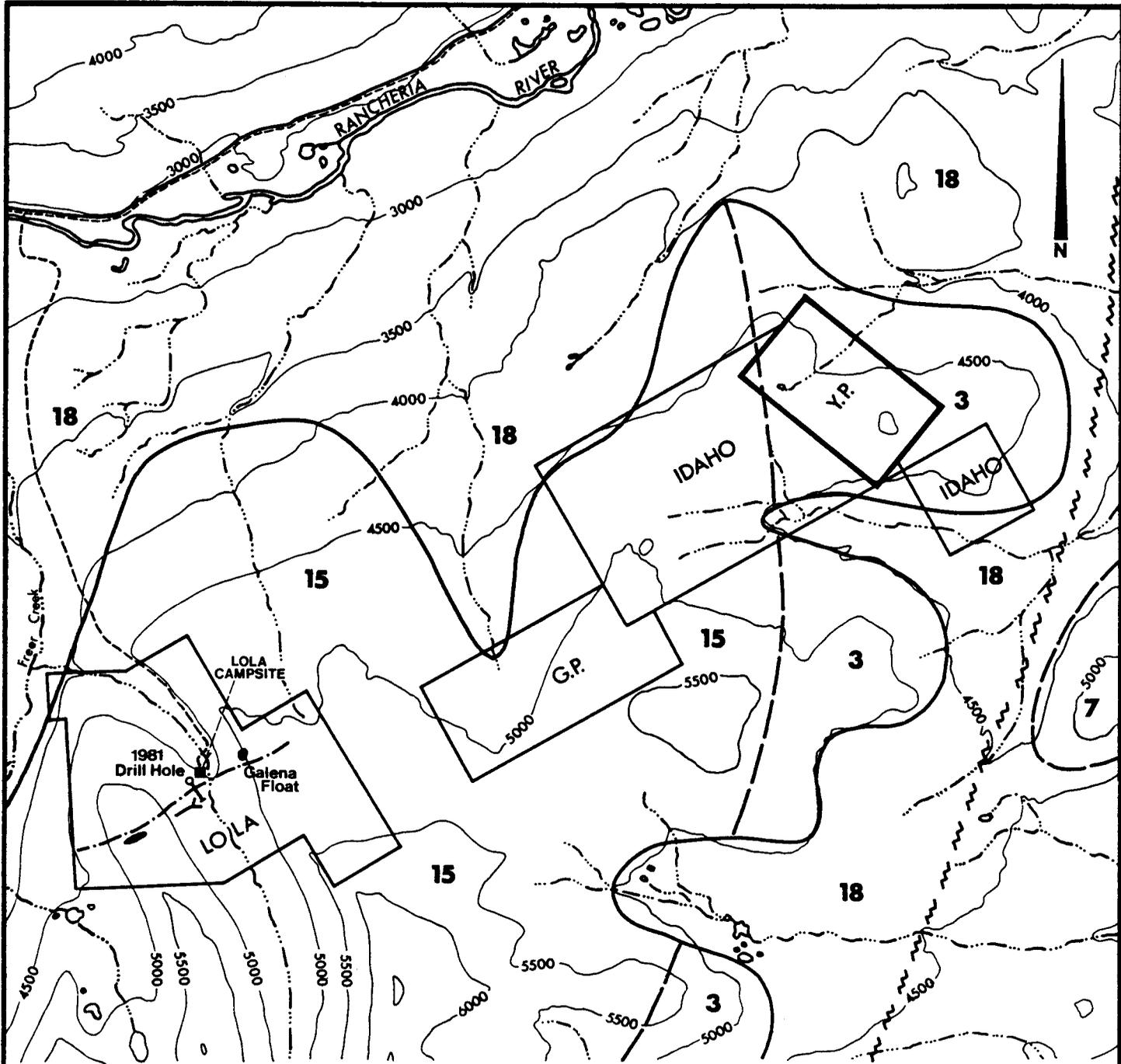
## 6. GEOLOGY

### 6.1 GENERAL GEOLOGY

The regional geology of the Rancheria area is shown on the 1 inch = 4 miles, G.S.C. Map 10-1960, Wolf Lake. The map was prepared by W. H. Poole, J. A. Roddick and L. H. Green. According to this map, most of the property area is underlain by the intrusive complex of the Cassiar Batholith, of Jurassic and/or Cretaceous age. These intrusive rocks are generally described as massive, pink to grey, biotite-quartz monzonite and grandiorite, locally sheared and altered. To the east these rocks are in contact with limestones and dolomites of Paleozoic Atan group. Along the contact with intrusives, these rocks are altered into marble and skarn. Further east, carbonates are in fault contact with Paleozoic clastic sediments. The whole area had a thick ice cover during the Pleistocene, which has left a thick cover of glacial till in topographic depressions. Figure 5 shows the geology as per G.S.C. Map 10-1960.

### 6.2 PROPERTY GEOLOGY

The property covers the area underlain by both, Cassiar Batholith intrusives and Cambrian carbonates of Atan group. The whole LOLA group together with G.P. and part of the IDAHO claims are within the intrusive. The most important structural element found so far in this area, is a shear zone striking northeast-southwest



**LEGEND**

- 18 GLACIAL TILL
- 15 CASSIAR BATHOLITH - BIOTITE QUARTZ MONZONITE and GRANODIORITE
- 7 GREENSTONE, CHLORITE SCHIST, ARGILLITE
- 3 LIMESTONE, MARBLE, SKARN
- FAULT
- MINERAL SHOWING
- EM-16 CONDUCTOR
- ADIT

Note: Geology by W.H.Poole, J.A.Roddick, GSC. Survey Map 10 - 1960

<b>BUTLER MOUNTAIN MINERALS CORP.</b>			
<b>LOLA - IDAHO - Y.P. CLAIMS</b>			
Geological Map			
WATSON LAKE M.D., Y.T.		NTS 105 B-1	
V.CUKOR, P.Eng. - NVC ENGINEERING Ltd. - VANCOUVER, B.C.			
DATE: May 1983	SCALE:	FIG. 5	

6. GEOLOGY (CONT'D)

6.2 PROPERTY GEOLOGY (Cont'd)

and dipping steeply to northwest. This fairly wide zone is characterized by intensively sheared rock, kaolinite gouge and locally, by the presence of a fair content of pale green chlorite. The zone responded well to the EM-16 survey, and on Figure 5, its approximate location coincides with the EM-16 conductor.

Along the zone, distinct features are numerous grey, moderately magnetic, lamprophyre dykes. Evidence of hydro-thermal deposition of fair to high grade silver-lead-zinc sulfides was found by exploration pits and trenches. At least one crossfault was identified by the electromagnetic survey and this displaced the shear zone by about 50 metres.

The geology of the Y.P. claims was given in the report by B. Price as follows:

"The property, covering three low hills, is underlain mainly by carbonates of the Cambrian Atan Group. As shown in figure the Cassiar batholith contact crosses the southwest part of the property. Mapping by Poole and Roddick et al (1960) indicates that the narrow panel of Cambrian rocks is terminated eastward by a strong regional north trending fault, and that an anticlinal axis trends through the property. The carbonate rocks strike north northeast and dip moderately (30 - 40°) north eastward. Christie reports that the carbonates are folded and schistose on the lower north slopes of the property.

The showings have been known for a long time, but few geological reports are available and complete re-mapping of the property must be done. In 1967 E. A. Tagseth completed a detailed

6. GEOLOGY (CONT'D)

6.2 PROPERTY GEOLOGY (Cont'd)

"geologic study of the claims, but the whereabouts of his report and maps are not known. In 1971 K. V. Christie examined the property and made extensive use of Tagseth's data. In 1974, the writer examined the property for Delphi Resources Ltd., the claims belonged to R. K. Bailey, Watson Lake at that time."

6.3 DESCRIPTION OF MINERAL SHOWINGS

The main types of silver-lead-zinc occurrences found in the area are:

- Stratabound mineralization in Cambrian to Middle Devonian deposits (Midway discovery zone)
- Vein-replacement type in carbonate sediments (Silver tip showings on Midway property and Amy deposits.)
- High grade veins in intrusives of Cassiar Batholith (Lola and Ant claim showings.)

Of these three, the two last types are found on the Butler Mountain property. The Y.P. claims contain several oxidized veins and gossan zones, which could be comparable with a Silver Tip occurrence. In his report, B. Price describes this showing as follows:

"It is reported by Christie, that some material was shipped from the property in the 1960's after hand cobbing. A number of vein occurrences of argentiferous galena are present on the property. These are described from east to west:

1. On the east face of the most easterly hill, a narrow, northerly-striking galena vein, partly oxidized, was uncovered by cat-trenching. A selected sample from the vein, approximately 6" wide, taken by the writer in 1974. No. 10613 assayed 5.78 oz/ton silver, 20.1% lead and

6. GEOLOGY (CONT'D)

6.3 DESCRIPTION OF MINERAL SHOWINGS (Cont'd)

"3.36% zinc. There did not appear to be any continuity on this vein structure, after extensive cat-trenching, and the veins on the opposite side of the hill are considered more important.

2. On the west side of the eastern most hill several large gossan zones have been trenched by bull-dozing. The original showing was a gossan zone 4 feet wide traced by A. Alföldy for 1,600 feet. Later trenching showed the gossan to vary in width, but at least 14 feet in the area seen by the writer. The material is a crumbly orange to chocolate brown gossan, partly boytryoidal, with only occasional pieces of solid galena. The gossan is believed by the writer to represent oxidized vein material, as at the Silver Tip and Amy (Fosco) properties resulting from decomposition of siderite gangue galena. Several samples of material taken by R. Bailey and others are:

<u>SAMPLE</u>	<u>DATE</u>	<u>WIDTH</u>	<u>Ag.</u> <u>oz/t</u>	<u>Pb</u> <u>%</u>	<u>Zn</u> <u>%</u>	<u>Au</u> <u>oz/t</u>
Bailey	9/3/74	14'	5.1	1.4	3.6	.02
Bailey	10/17/78	Grab	13.08	9.34		
Price	9/17/74	Grab/rust	.32	.19	.3	Tr.
Bailey	10/17/78	Iron	.44	.76		
Tagseth	1967	Galena	9.0	23.37		
Tagseth	1967	Siderite	.4	.2		

The wide variation is caused by (1) the erratic occurrence of nodules or pieces of argentiferous galena, (2) selective sampling of solid vs. earthy or crumbly gossan. Nevertheless, the material is strongly oxidized and thus assays are not representative of original unoxidized vein material. A 6" vein discovered by A. Alföldy, below similar cinderlike siderite and iron oxide assayed 31.6 oz/t silver, 46.31% lead and 4.38% zinc (#1306 - 1967). No systematic bulk samples across the entire width of the zone have been taken, and this should be done at several points along the length of the gossanous zone.

6. GEOLOGY (CONT'D)

6.3 DESCRIPTION OF MINERAL SHOWINGS (Cont'd)

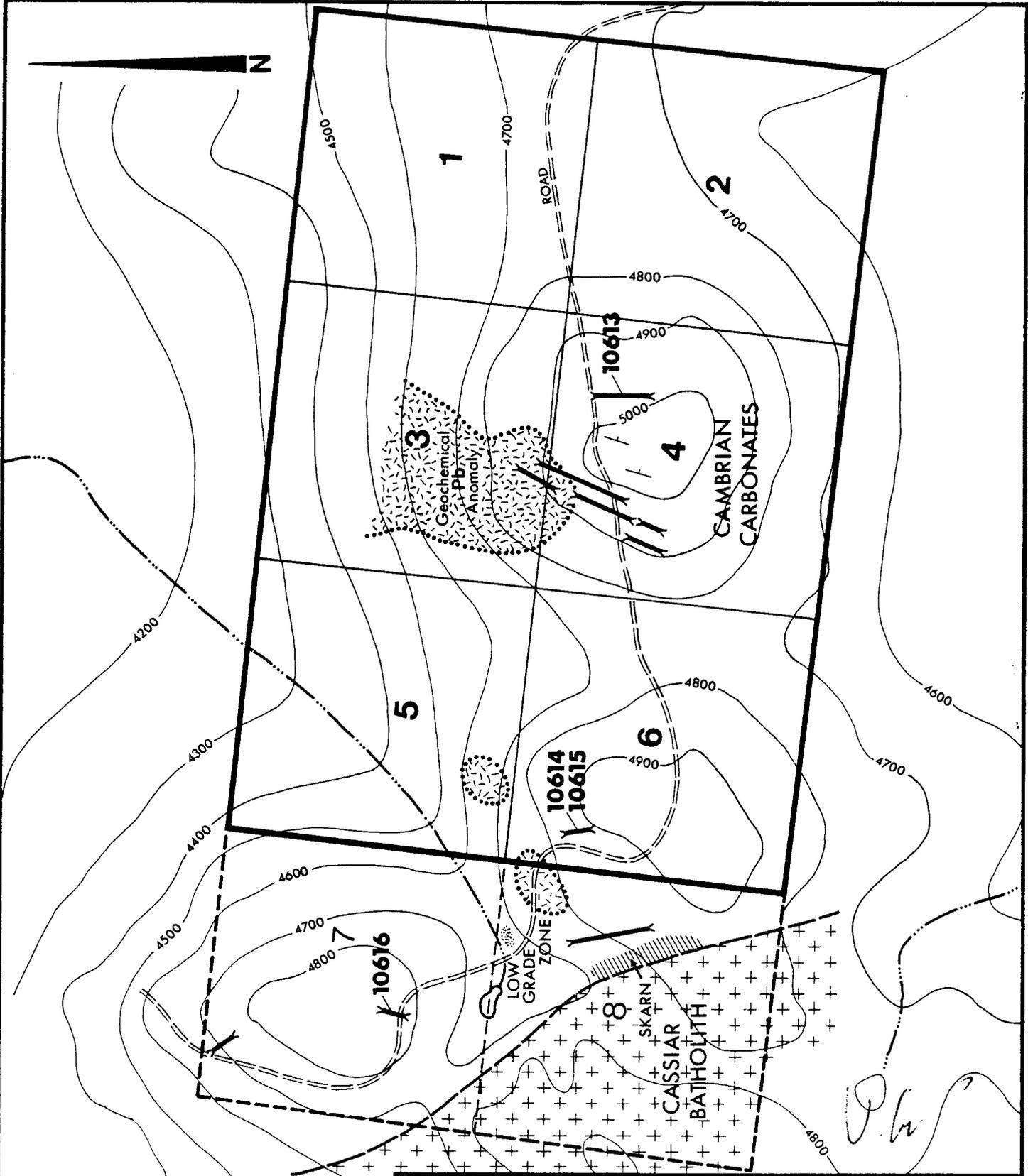
- "3. On the northerly slope of the central hill, a trench approximately 2 feet wide and 100 feet long is the site of which hand cobbing was done by early explorers of the property. Scattered pieces of fresh galena were found adjacent to the trench. A sample of this material assayed 27 oz/t silver, 0.02 oz/t gold and 83.86% lead. A piece of galena taken by the writer from the same location in 1974 assayed 26.12 oz/t silver, and 85% lead (#10614). A grab sample of wallrock from the trench assayed 0.22 oz/t silver, 0.47% lead and 0.13% zinc (#10615). Orientation and width of the original vein is not known and would have to be determined by further trenching and mapping.
4. Approximately 500 feet northwest and downhill from the 100 feet trench is a stripped area adjacent to a small lake. Disseminated sphalerite, pyrite and galena occur in re-crystallized dolomite. A grab sample of this material taken by the writer in 1974 (#10616) assayed 0.54 oz/t silver, 0.43% lead, and 0.7% zinc. There is a possibility of a wide zone of low grade material here and further stripping is warranted.
5. Approximately 500 feet north of the small lake, on the cat-road, is an oxidized zone with galena and sphalerite. A 4 foot chip sample of this material assayed 0.58 oz/t silver, 0.24% lead and 0.73% zinc. The zone may be a continuation of that noted in the previous paragraph.
6. Another small vein occurrence on the north west side of the western most hill on the property is trenched but was not sampled.
7. A skarn zone occurs near the quartz monzonite-carbonate contact due south of the small lake. The zone has been trenched, and small galena veins are reported by Christie (1971). The area should be sampled for tin and tungsten, as these occur in skarns elsewhere adjacent to the Cassiar batholith. "

6. GEOLOGY (CONT'D)

6.3 DESCRIPTION OF MINERAL SHOWINGS (Cont'd)

The geology, old workings and locations of described samples, are shown on Figure 6. The direction of the claim line, as shown on that map doesn't coincide with the government claim map, and will have to be adjusted after the field survey is completed.

On the LOLA Claims, the showings of silver-lead-zinc mineralization are found along the previously mentioned shear zone within the intrusive complex. The sulfide mineralization was in the past exposed intermittently on the surface over a length of about 400 metres. However, the length of the shear zone, as indicated by surface exposures and electromagnetic EM-16 survey (1981 and 1982), is over 1.5 kilometres, and the indicated depth, so far, is in excess of 300 metres. The western limits of the zone are still unknown. About 800 metres east from the mineralization exposed in the trenches, galena float was found over the same EM-16 conductor which elsewhere coincides with the shear zone. The diamond drill hole completed in 1981, spotted over the same conductor, intersected the shear between the two mentioned locations. Only minor galena fragments were found in poorly recovered gouge. Nevertheless, a 10 foot section assayed .01 oz/t Au., 5.6 oz/t Ag., 4.31% Pb., and 2.58% Zn., which should confirm the expectations that the mineralization is not confined to only a small portion of the shear zone.



<b>BUTLER MOUNTAIN MINERALS CORP.</b>		
<b>Y.P. MINERAL CLAIMS</b>		
Trenches and Sample Locations		
WATSON LAKE M.D., Y.T.	NTS 105 B-1	
V. CUKOR, P.Eng. - NVC ENGINEERING Ltd. - VANCOUVER, B.C.		
DATE: May 1983	SCALE: 0  500 feet	FIG. 6

Map after B. Price 1980

6. GEOLOGY (CONT'D)

6.3 DESCRIPTION OF MINERAL SHOWINGS (Cont'd)

The mineralization encountered on the showings consists of fine grained galena, sphalerite with various amounts of argentite, and occasionally, pyrite. Gangue minerals are quartz, iron oxides, chlorite and occasionally, graphite. Various amounts of kaolinite are also constantly present. Sulfide veins appear to be of very erratic nature, with reported widths varying from several inches to over several feet.

The author's samples, taken from the higher grade parts of the showings, run as follows:

<u>SAMPLE #</u>	<u>WIDTH</u>	<u>CHARACTER</u>	<u>Au.</u> <u>oz/t</u>	<u>Ag.</u> <u>oz/t</u>	<u>Pb.</u> <u>%</u>	<u>Zn.</u> <u>%</u>	<u>WO<sub>3</sub></u> <u>%</u>
0178	18"	chip	.030	60.56	15.67	18.37	Tr.
0179	12"	chip	.051	47.07	20.01	21.39	Tr.
0180		grab	.054	35.09	13.42	12.15	Tr.

The grab sample was taken from ore prepared for shipping.

Two shipments of hand picked ore were made in the past: nine tons in 1968 and twenty-two tons in 1970. W. A. Fowers, P. Eng. reported that the 1968 shipment averaged 103 oz/t Ag. and 56% Pb. There is no record available on the 1970 shipment. During 1981 and 1982, some ore was also mined, but it was not shipped. From the information obtained so far it seems the silver to lead ratio varies greatly from sample to sample.

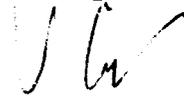
6. GEOLOGY (CONT'D)

6.3 DESCRIPTION OF MINERAL SHOWINGS (Cont'd)

Over the whole LOLA Group area, the shear zone should be considered a most favourable place for hydro-thermal activity, and in turn, for deposition of sulfide ore minerals. However, only a small portion of the zone was superficially explored so far by trenching and stripping. Therefore, there is a strong possibility that parts of the remainder of the unexplored zone contain mineral concentrations, and real potential does exist for discovery of mineable shoots of silver-lead-zinc ore. However, due to very limited knowledge about the characteristics of the zone, application of any numbers to a tonnage potential and/or potential grade would be, at this time, only poor speculation.

The area covered by the IDAHO Claims is completely unknown to the author. However, this area covers the fringe of the batholith and the contact zone with limestones and dolomites. It is also in close vicinity of the Y.P. silver-lead-zinc showings, which has a history of limited past production. Thus the area of the IDAHO Claims is geologically very attractive, and represents an excellent target for grassroot exploration.

Respectfully submitted,



V. Cukor, P. Eng.  
NVC ENGINEERING LTD.

May 1983

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CERTIFICATE

I, VLADIMIR CUKOR, of 2830 West 37th Avenue,  
Vancouver, British Columbia, DO HEREBY CERTIFY that:

1. I am a Consulting Geological Engineer with business address as above;
2. I graduated from the University of Zagreb, Yugoslavia in 1963 as a Graduated Geological Engineer;
3. I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia;
4. I have practiced my profession as a Geological Engineer for the past 20 years, both in Yugoslavia and in Canada;
5. I have personally examined and sampled the Lola mineral showings, and reviewed the information available to me.
6. I have no interest, direct or indirect, in Butler Mountain Minerals Corp., or in any of it's properties, nor do I expect to receive any.



V. Cukor, P. Eng.  
NVC ENGINEERING LTD.

May 23, 1983