

CAN-EX RESOURCES LTD.

EM-16 & PROSPECTING REPORT

on the

CANADIAN QUEEN & BONNIE GROUPS

(Canadian Queen, Canadian Queen Fr.,
(Marwill No.1, Marwill No.2, Bonnie)

93M/5E

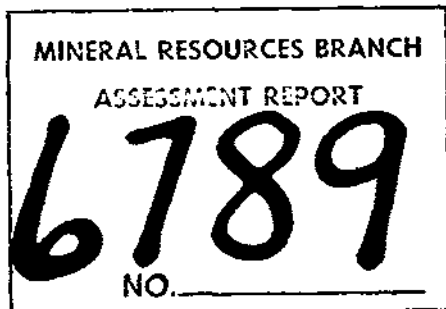
55°19'N 127°38'W

Registered Owner: A. Homenuke

Operator: Can-ex Resources Ltd.

Author: A. Homenuke, P.Eng.(Geol.)

Submitted: July 7, 1978



Alex Homenuke

PART 1 OF 2.

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MAPS

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PART I. INTRODUCTORY NOTESLocation and Access

The Canadian Queen and Bonnie Groups are located on Glenn Mountain adjoining the old Silver Standard Mine 10 km north of Hazelton (Fig. 1). Access is by good gravel road (Silver Standard Mine Road) from Two-mile, midway between New and Old Hazelton. Old mining and logging roads provide local four-wheel drive access.

Physical Features

The Canadian Queen Group is located on a steep northeasterly slope which levels out on the north end of the claims. Elevation ranges from 1600 feet (490 m) to 2000 feet (610 m). The Bonnie Group is located one mile (1.6 km) west of the above on a relatively gentle westerly slope between elevations of 1000 feet (305 m) and 1300 feet (400 m). There are local areas of more abrupt relief. This group is cut by two intermittently swampy creeks. The areas have been selectively logged for cedar poles, but the greater portion is openly forested with locally denser underbrush.

Claims

Canadian Queen Group			
Name	Lot No.	Record No.	Date of Record
Canadian Queen	2410	303(6)	June 3
Canadian Queen Fr.	2415	304(6)	"
Bonnie Group			
Marwill No. 1	6457	306(6)	"
Marwill No. 2	6456	307(6)	"
Bonnie	6454	305(6)	"

The claims are all reverted crown grants which were part of the Silver Standard Mines Ltd. holdings. Title is currently held by the writer. Can-ex Resources Ltd. and S. Homenuke share the costs of this program.

History

The claims of the Canadian Queen Group were located in 1910 and crown-granted in 1912. The Bonnie Group claims were staked in 1946-47 and were crown granted in 1951. Information on surveys carried out by Silver Standard Mines has yet to be obtained; physical evidence of work includes cut lines and cat trenches. The claims were allowed to lapse after the mine and mill shut down. They became reverted crown grants and were obtained by the present owner in 1976.

Economic Assessment

The claims were obtained due to their proximity to the Silver Standard Mine. At today's metal prices, the past production at this mine would have a value of nearly \$100,000,000. As the areas are mostly overburdened, it is felt that application of techniques that were not developed when the mine was in operation could lead to the discovery of further silver-base metal vein deposits.

Summary of Work Performed

Before initiating EM-16 surveys on the two claim groups, the writer obtained published information and copies of the legal surveys for correlation of data. The claims were prospected, partly during traversing to locate the claim posts and partly during the course of EM-16 surveying. It was also necessary to remove deadfalls from the road to the Canadian Queen Group. Grid lines were laid out by pace and compass and tied into the legal survey posts. The EM-16 survey totalled 4 km on the Bonnie Group and 1 km on the Canadian Queen Group. Notes were made on the nature of the topography during the survey. The work was divided as follows:

Marwill No. 1	0.6 km	EM-16 and grid	and prospecting
Marwill No. 2	1.5 km	"	"
Bonnie	1.9 km	"	"
Canadian Queen*			
Canadian Queen Fr.*)	1.0 km	"	"

* Identifiable claim posts were not located for these claims during the traversing. The locations of the work and claim boundaries are based on legal survey data and published reports and are believed to be of acceptable accuracy.

PART II. TECHNICAL DATA AND INTERPRETATION

Prospecting

A. Bonnie Group

The prospecting traverses included the grid lines and the courses shown on Fig. 2. No outcrops were found anywhere on the claims. A few angular fragments of a light-grey fine grained tuffaceous rock were noted on the northern part of Marwill No. 2. Several old cat trenches were located but bedrock was not reached in any of these. A 20 cm wide quartz vein was noted in a trench about 50 m east of the northeast corner of Marwill No. 2.

B. Canadian Queen Group

The Black Prince vein of the Silver Standard Mine appears, from assembled data, to extend partly onto the Canadian Queen Claim. If the vein extends under the overburden to the northeast, it would be present on the south central portion of the above-mentioned claim. As no claim posts were found for this group (they were crown-granted in 1912), it will be necessary to obtain more data, perhaps from Silver Standard

Mines Ltd. files, to determine the exact location of the vein in relation to the Canadian Queen Group. During the course of prospecting (Fig. 2), many outcrops of tuffs or tuffaceous sediments were noted. This rock is fine grained and light-grey with a light tan weathered surface. An outcrop of argillite was noted on a creek bank in the central part of the area. This rock contains conspicuous cubes of pyrite up to 7 mm. An outcrop of tuffs across this creek exhibited a few small stringers of quartz.

EM-16 Survey

A Geonics Ronka EM-16 VLF-type electromagnetic receiver was used for the survey. Installed crystals included Seattle, Wash. and Cutler, Maine.

Readings were taken at 50-foot (approx. 15 m) intervals along grid lines spaced 500 feet (approx. 150 m) apart. Only the in-phase readings were noted and recorded as percent grade. The receiver was tuned to the Seattle, Wash. transmitter. Nulls were very sharp ($\pm 1\%$). The lines were run east-west to cut across the northeasterly trend of the known veins in the area. The dip-angle profiles and the contoured data (Fraser Method) are plotted on Fig. 3.

The purpose of the survey was to identify conductive trends which might indicate further vein deposits. These areas would be followed up by other surveys to delineate potential trenching or drilling targets.

Geology of the Silver Standard Mine

For a complete description of the production history and geology of the Silver Standard Mine, the reader is referred to Kindle (1954). A brief summary of the geologic setting is included here for reference in interpretation of results.

The mine property consists of a series of parallel to subparallel veins striking northeast and dipping southeast. There are also several cross-veins dipping northeast. The host rocks are a series of sandy,

argillaceous and tuffaceous sediments. These rocks are in a series of northeast trending folds, often only a few hundred feet apart. There is also a broad fold striking northwest across the first series. Small granitic bodies intrude the sediments to the south of the main workings. Post-vein-structure faults trend northerly and dip 40° west. A complementary set of small normal faults, dipping steeply east, are post-vein structure, but pre-ore. Alteration zones are related to ore zones. The main ore minerals are tetrahedrite, galena and sphalerite with minor chalcopyrite and ruby silvers. Metals paid for by the smelter included lead, zinc, silver, gold and cadmium.

Some geologic features are shown on Fig. 2 and 3.

Discussion of Results

A. Canadian Queen Group

Two conductive trends appear on this group (Fig. 3). The westernmost ("A") is almost certainly related to the fault shown on the map. The conductor marked "B" is weaker and follows the same trend as the cross-veins and the major faults. It may also be related to pyritic argillite, an outcrop of which was noted along this trend. There is no apparent conductor which would indicate an extension of the Black Prince vein.

B. Bonnie Group

A general parallel pattern of major conductive trends is inferred on the Bonnie Group. These trends are most likely related to conductive horizons in the sediments with changes in strike being due to folding or faulting. The possibility that some of these trends reflect vein structures cannot be ruled out without further work.

There are three conductors which exhibit a narrower pattern that is parallel to the Silver Standard veins. These trends are marked "C", "D" and "E" on Fig. 3. The more abrupt response indicated over these three trends is of the type to be expected from a vein structure.

CONCLUSIONS

A. The Canadian Queen Group

1. Further EM-16 work is required on this group to test for smaller anomalies which may be related to vein structures. The line spacing should be reduced to 50 meters.

2. An attempt should be made to obtain information from Silver Standard Mines Ltd. regarding exact locations of claim posts, so that the relationship of the Black Prince vein to the Canadian Queen Group can be determined.

3. The results of this survey are inconclusive as to the potential for further veins on this claim group.

4. The area is amenable to standard geochemical soil survey methods and this type of survey would assist in evaluating the property.

B. The Bonnie Group

1. Three conductive trends were obtained on this group which exhibit the response to be expected from a vein structure. These are prime targets for further exploration.

2. A geochemical soil survey would assist in defining drill targets. The procedure would involve overburden drilling as the depth to bedrock is too great for conventional methods to be efficient.

C. General

1. Any information which could be obtained from Silver Standard would assist in further interpreting results.

2. Permission should be obtained to perform an orientation survey with the EM-16 over part, or preferably all of the Silver Standard holdings between the two claim groups. This survey would assist in discriminating between anomalies related to lithology and those which may represent vein structures.

REFERENCES

Kindle, E.D. (1954), Mineral Resources, Hazelton and Smithers Area,
Geol.Surv. of Canada, Mem. 223.

Smith, Alexander (1956), "Silver Standard Mine" in Structural Geology
of Canadian Ore Deposits, CIMM Spec.Pub.

CERTIFICATE OF QUALIFICATIONS

I, ALEXANDER M. HOMENUKE, DO HEREBY CERTIFY:

1. THAT I am a member in good standing of the Association of Professional Engineers of British Columbia.
2. THAT I received the Degree of Bachelor of Science in Geological Engineering from the Colorado School of Mines in 1974.
3. THAT I received a Diploma of Technology in Mining from the B.C. Institute of Technology in 1969.
4. THAT I have been employed in various aspects of mineral exploration for 10 years and am presently employed by Tri-Con Mining Ltd. of 213 - 475 Howe Street, Vancouver, B.C.
5. THAT I presently reside at #1 - 2025 Sandalwood Crescent, Abbotsford, B.C.
6. THAT this report is based on work supervised or conducted by myself.

Dated at Vancouver, B.C., this 7th day of July, 1978.



A.M. HOMENUKE, P. Eng.
Geological Engineer

ITEMIZED COST STATEMENT

On Property May 13 - 19, 1978		
A. Homenuke, P.Eng., 7 days at \$ 100/day		\$ 700.00
Travel Expenses for return trip from Abbotsford May 12 and May 20, 1978 and between Smithers (free accommodation) and the property May 13 - 19		
4 x 4 Truck Rental, 9 days at \$ 25/day		225.00
Gas		100.00
Report Preparation		
3 days at \$100/day		300.00
Secretarial, copying, etc.		75.00
	Total	<u>\$ 1,400.00</u>

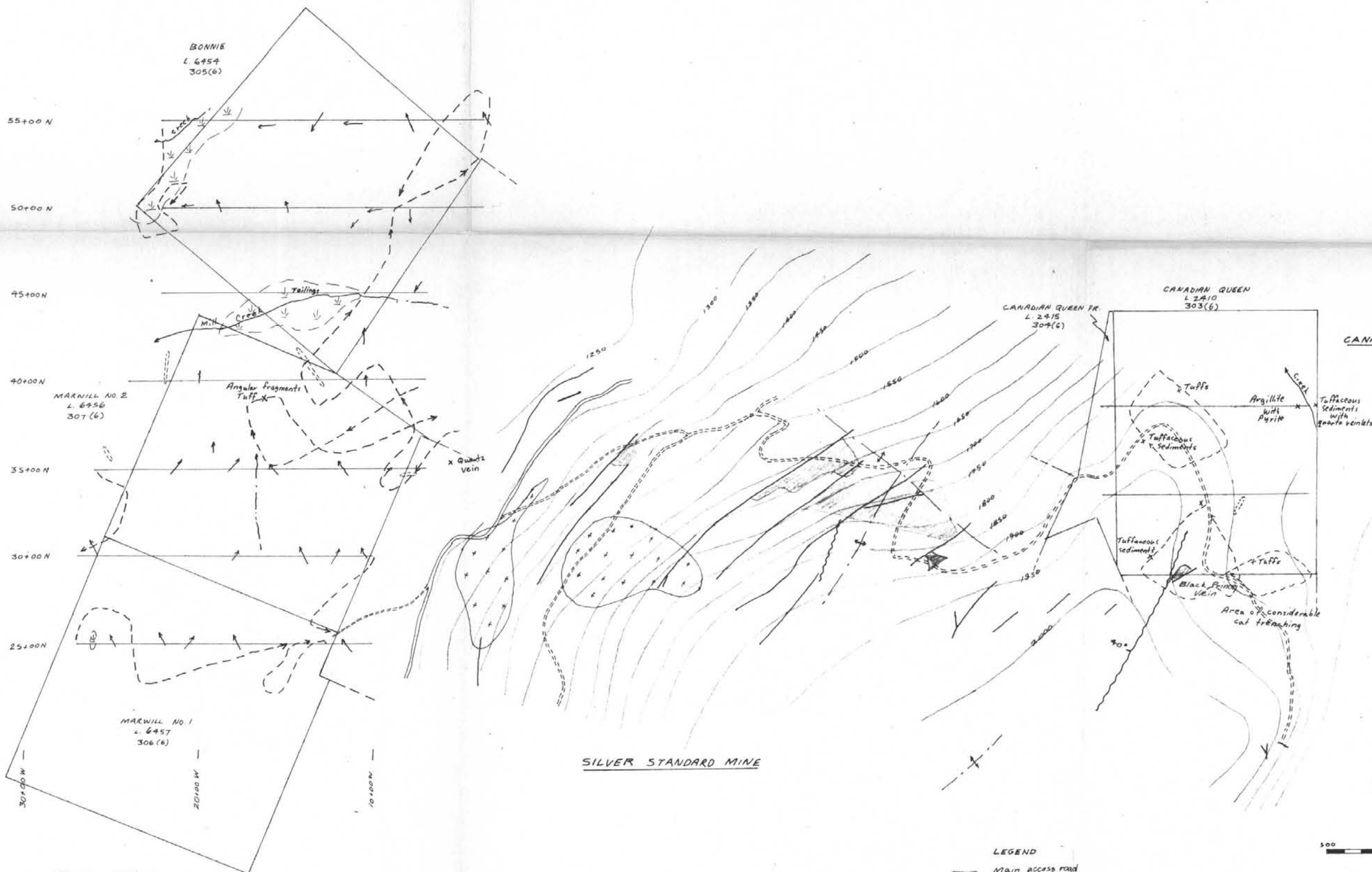
Apportionment of Costs

Canadian Queen Group

Prospecting	\$ 100.00		
Road Clearing	50.00		
1 km EM-16	100.00		
Travel	125.00		
Report	<u>125.00</u>		
	Total	\$ 500.00	Amount Claimed \$ 400.00

Bonnie Group

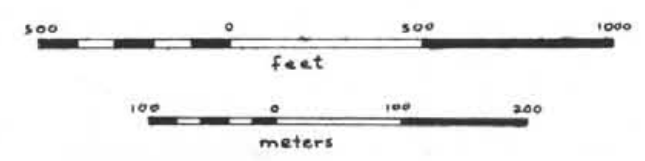
Prospecting	\$ 100.00		
4 km EM-16	350.00		
Travel	200.00		
Report	<u>250.00</u>		
	Total	\$ 900.00	Amount Claimed \$ 600.00



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
6789
NO.

PART 1 of 2

1350 Topographic contours interval (50 feet)



- GEOLOGY**
- Vein
 - ~ Fault
 - ↑ Anticlinal axis
 - (*) Granitic Intrusive
 - ▭ Slope (Plan)
 - x Outcrop

- LEGEND**
- Main access road
 - ==== 4x4 Road
 - Cat trench
 - Prospecting traverse
 - (S) Swamp
 - Direction of Slope

Note: Grid Lines were also prospected.

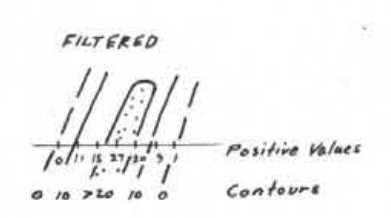
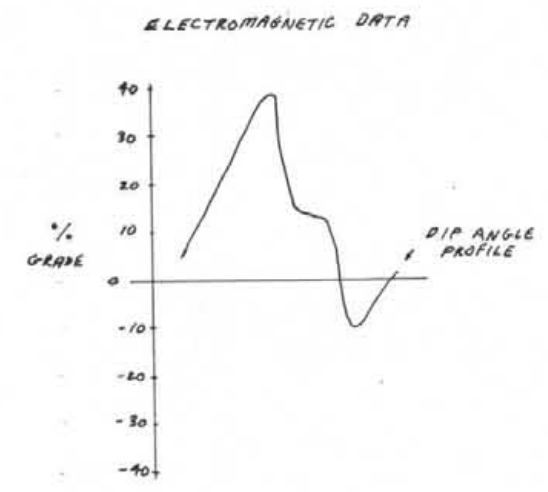
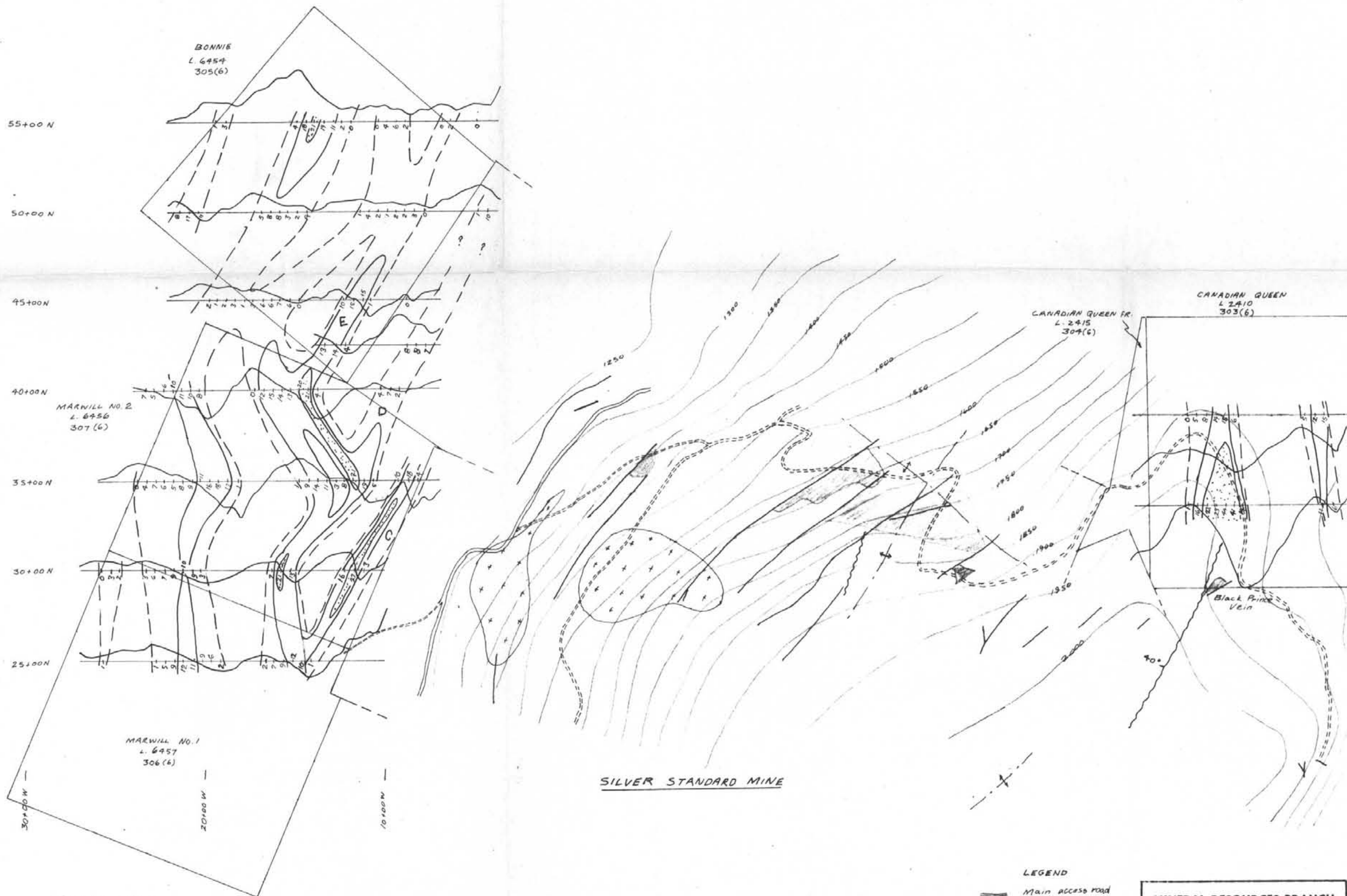
Base map prepared from BCLS Notes, Kindie, E.M., 1954, G.S.C. Memoir 223 & Smith, Alexander, 1956, "Silver Standard Mine", in Structural Geology of Canadian Ore Deposits, CIM Spec. Pub.



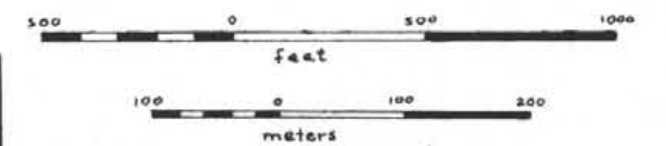
CAN-EX RESOURCES LTD.
CANADIAN QUEEN & BONNIE CLAIM GROUPS
OMINECA MINING DIVISION
PROSPECTING TRAVERSES & TOPOGRAPHIC NOTES

Prepared by: A.M. Homenuke, P.Eng.
July 7, 1978

FIG. 2



1350 Topographic contours interval (50 feet)



- GEOLOGY**
- Vein
 - ~ Fault
 - ⊕ Anticlinal axis
 - ⊙ Granite Intrusive
 - ⊞ Slope (Plan)

- LEGEND**
- Main access road
 - === 4x4 Road

FACE
TRANSMITTER (SEATTLE, WASH.)

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ASSESSMENT REPORT
6789
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PART 1 OF 2

Base map prepared from BCLS Notes, Kindie, E.M., 1954, G.S.C. Memoir 223. & Smith, Arkander, 1956, "Silver Standard Mine", in Structural Geology of Canadian Ore Deposits, CIM Spec. Pub.



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CLAIM GROUPS
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ELECTROMAGNETIC SURVEY
RONKA EM-16

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FIG. 3