GEOLOGICAL & GEOCHEMICAL SURVEYS

ON THE

FRENCH PEAK SILVER PROPERTY

Silverado Group: Silverado, Eldorado, Mag Hi, FP-1, 3, 4, 6

Tsezakwa Group: Silver Iron, FP-2, 5

Omineca Mining Division 93M/7W

126° 485′ w 55° 21' N 198'



OWNER & OPERATOR: Silverado Mines Ltd.

AUTHOR: A.M. Homenuke, P. Eng. (Geol.)

SUBMITTED: October 2, 1986

> GEOLOGICAL BRANCH ESSMENT REPORT

Tri-con *Mining Ltd.*

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I. INTRODUCTORY NOTES

LOCATION AND ACCESS

The claims are located southeast of French Peak, 10 km. (6 mi.) west of the north end of Babine Lake and 65 km (40 mi.) northeast of Smithers, B.C., in the Omineca Mining Division (Fig. 1).

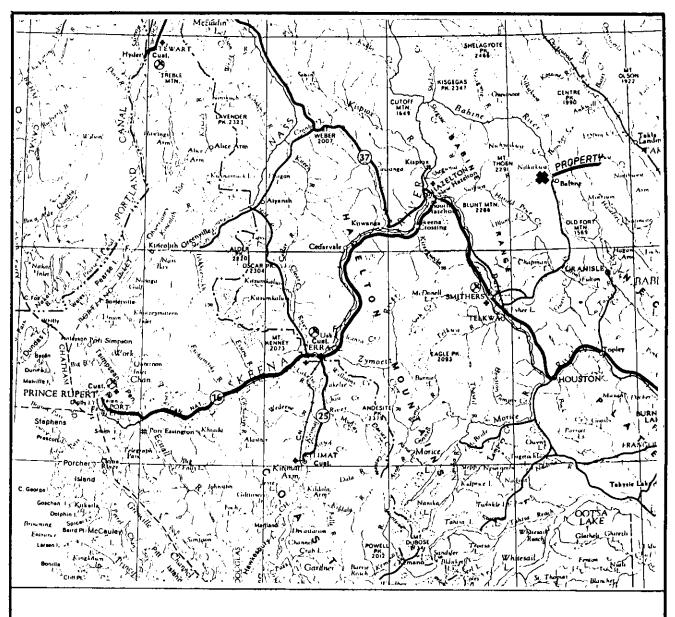
The property is reached by gravel roads from Smithers along the route to Smithers Landing, the Nilkitkwa Forest Access Road and a mine road constructed in 1976, a total distance of 120 km. (75 mi.).

PHYSICAL FEATURES

Elevation on the property ranges between 975 metres and 1,200 metres (3,200 - 5,600 ft.). On the north and south the terrain is mountainous with more moderate slopes towards Tsezakwa Creek which flows easterly across the centre part.

Outcrop is generally scarce, with the major exposures being in creek banks and topographic highs. Further exposures have been provided by trenching.

Rainfall is relatively low, but snowfall exceeds 1.5 metres most years and lasts from late October until May.





SILVERADO MINES LTD.

FRENCH PEAK SILVER PROPERTY OMINECA MINING DIVISION, B.C.

LOCATION MAP

FIGURE 1

Vegetation consists mainly of sub-alpine fir, with spruce in flatter areas and poplar and alder near the main creeks. Old burnt areas are presently covered with a dense regrowth.

CLAIMS AND OWNERSHIP

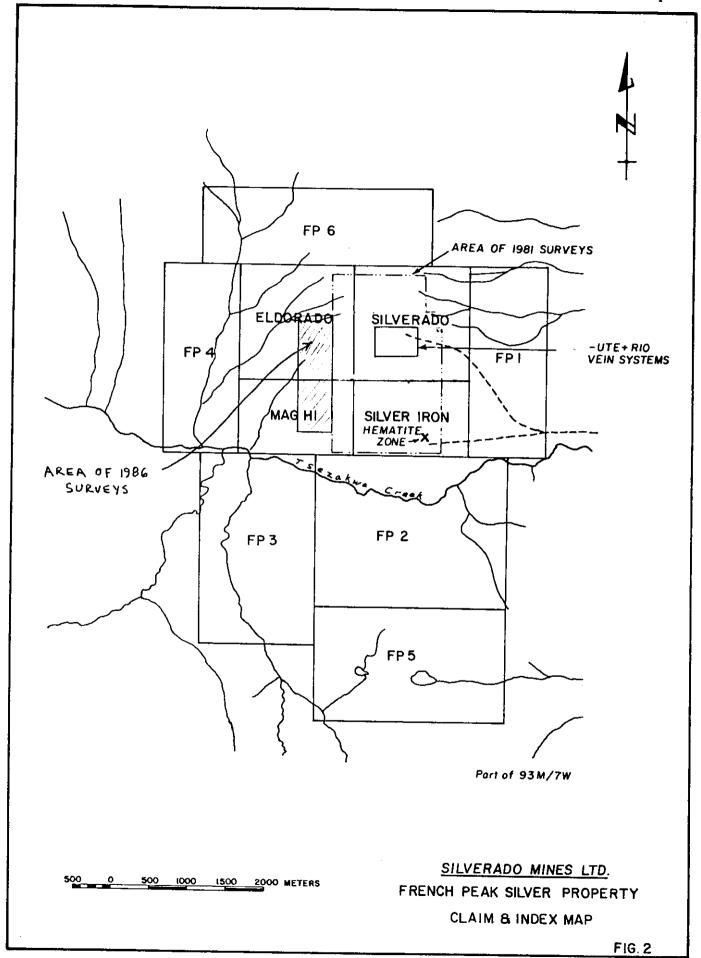
The French Peak Silver Property consists of 10 claims, totalling 112 units. The property was expanded from 30 to 112 units in the Fall of 1983. The following table lists the claim data.

Table 1 - Claims

NAME	RECORD#	UNITS	RECORD DATE	YEAR OF LOCATION
Silverado	298	9	May 26	1976
Eldorado	299	9	May 26	1976
Mag Hi	348	6	July 9	1976
Silver Iron	349	6	July 9	1976
FP-1	5862	10	Oct 6	1983
FP-2	5863	20	Oct 6	1983
FP-3	5864	15	Oct 6	1983
FP-4	5865	10	Oct 6	1983
FP-5	5866	15	Oct 6	1983
FP-6	5867	12	Oct 6	1983

The claims are shown on Fig. 2 and were regrouped in 1984 as follows:

Silverado Group - Silverado, Eldorado, Mag Hi, FP-1 FP-3, FP-4, FP-6 Tsezakwa Group - Silver Iron, FP-2, FP-5 These claims are owned by Silverado Mines Ltd.



HISTORY

The first mineralization was discovered by a Rio Tinto exploration party in 1955. In 1956, they explored the area of the Ute and Rio Vein Systems with trenching, 1722 feet of diamond drilling in 12 holes, mapping and surface sampling.

Sometime in the 1960's, cat trenching to the south led to the discovery of the Hematite Zone.

In 1964, S. Homenuke and H. Gilleland leased the property and shipped a total of 24 tons of hand-sorted ore. In 1974, S. Homenuke and J. Sargent, having purchased the property, shipped a further 28.4 tons. The 52.4 total tons yielded over 10,500 ounces of silver, plus copper, lead, zinc and gold.

Renniks Resources Ltd. optioned the property in 1974 and carried out a program of mapping, sampling, trenching and electromagnetic surveying (Hogan & Homenuke, 1975). Renniks allowed the option to lapse, due to commitments elsewhere. In 1976, Silverado Mines Ltd. optioned the

property and commenced a drilling program recommended by M.K. Lorimer, P. Eng. (1976A). Thirty (30) holes were drilled, totalling 2,646 feet. Lorimer (1976b) reported on the progress of this drilling. Work also included construction of an access road, trenching, detailed mapping and magnetometer surveying and minor reconnaissance. All work to the end of 1976 was summarized by the writer (Homenuke, 1977).

From 1977 to 1980, the property was optioned from Silverado to Mohawk Oil Co. Ltd. To cover assessment requirements, some linecutting and a petrographic study (Homenuke, 1979) were done. In 1980, by agreement, Mohawk was required to have the property in production, at least on a limited basis. To this end, metallurgical testing (Dawson, 1980; McElroy, 1980), a preliminary environmental analysis (Jenkins, 1980), and a preliminary feasibility analysis (Homenuke, 1980) were done. The project had reached the point of initial government permit applications when Mohawk, due to other commitments, returned the property to Silverado.

During the 1981 field season, Silverado, through Tri-Con Mining Ltd., and under the writer's direction, carried out a program of geochemical sampling and geophysical surveying (Homenuke, 1981a). Following interpretation of this data an updated compilation report was prepared (Homenuke, 1981b).

In 1983, a diamond drill hole and backhoe trenching were completed. In 1984, follow-up geochemistry photo interpretation and backhoe trenching were done, and in 1985 several more holes were drilled.

GEOLOGY

Over the past few years, the geology of the French Peak area has been variously interpreted. The most recently published information is on G.S.C. Open File Map No. 720 (Richards, 1980). French Peak is shown to be underlain by Hazelton Volcanics of Jurassic Age on the southeast, by Brian Boru volcanics of Cretaceous Age on the northeast, by Bowser Group sediments of Upper Jurassic to Lower Cretaceous Age in the northwest, and by Bulkley Instrusions of Late Cretaceous Age in the central part. The Babine Graben, with its porphyry copper deposits, lies a few kilometers to the east.

The primary deformation is by block faulting, oriented northerly, westerly and northwesterly. Four of the five known sulfide mineral occurrences in the area are along one of the northwesterly trending faults. These include the Ute and Rio Vein Systems and the Hematite Zone of the French Peak Silver Property, and an occurrence of silver-bearing

veins in sediments on the northwest slope of French Peak (Richards, 1965; Baker, 1974). The fifth occurrence is located near the top of French Peak and consists of chalcopyrite, sphalerite, galena, and tetrahedrite in a multi-phase porphyry intrusion (G.E.M., 1971). Several other porphyry-type occurrences have been noted in the general area (G.E.M., various).

ECONOMIC ASSESSMENT

The production record and drilling results indicate that the French Peak Silver Property has potential as a high-grade silver producer. Some of the drilling and mapping indicates possibilities for larger tonnage, lower grade mineralized zones.

PRESENT WORK AND DISTRIBUTION

During the 1986 field season, previous geochemical surveys were expanded. A total of 108 samples were taken on the Eldorado and Mag Hi claims. Geological mapping was undertaken over the same area as well as reconnaissance work on adjoining areas. Air photos were used to assist interpretation of the results.

I. INTRODUCTORY NOTES

LOCATION AND ACCESS

The claims are located southeast of French Peak, 10 km. (6 mi.) west of the north end of Babine Lake and 65 km (40 mi.) northeast of Smithers, B.C., in the Omineca Mining Division (Fig. 1).

The property is reached by gravel roads from Smithers along the route to Smithers Landing, the Nilkitkwa Forest Access Road and a mine road constructed in 1976, a total distance of 120 km. (75 mi.).

PHYSICAL FEATURES

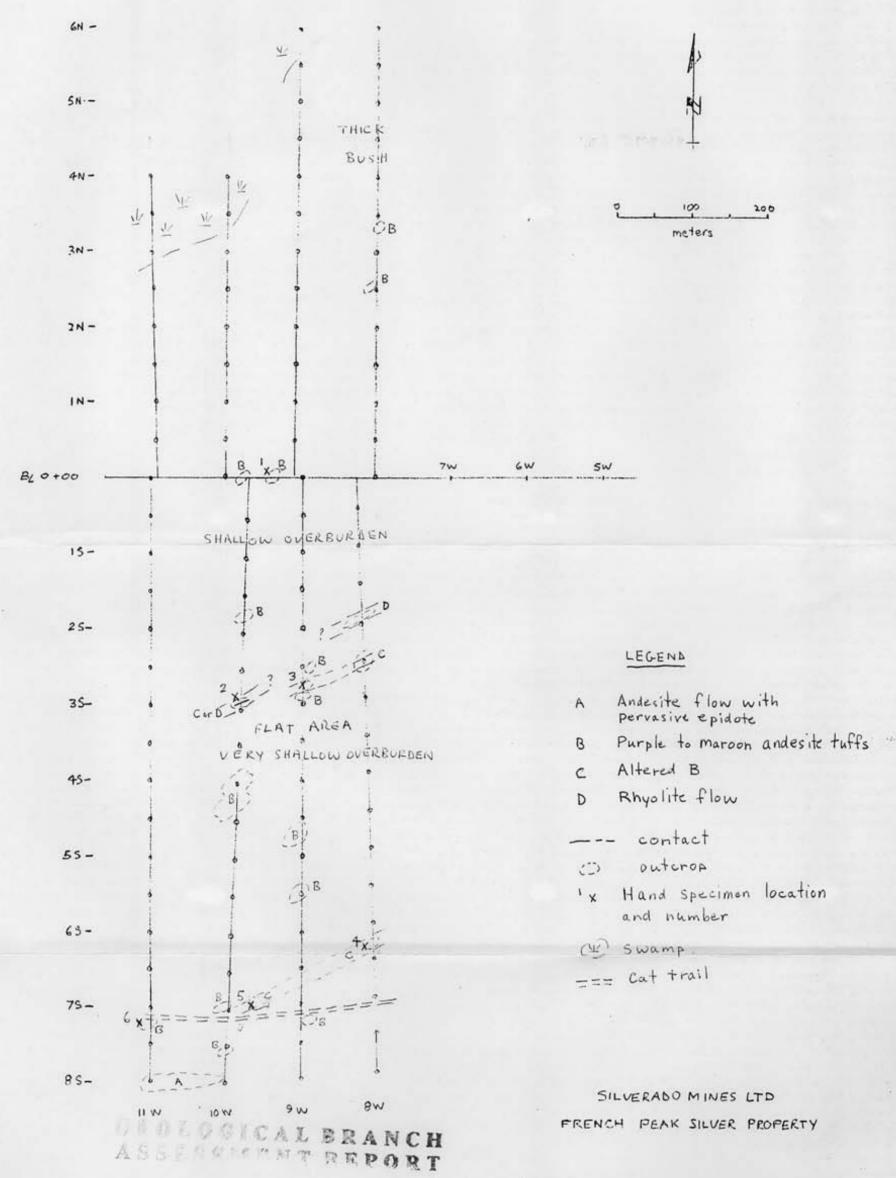
Elevation on the property ranges between 975 metres and 1,200 metres (3,200 - 5,600 ft.). On the north and south the terrain is mountainous with more moderate slopes towards Tsezakwa Creek which flows easterly across the centre part.

Outcrop is generally scarce, with the major exposures being in creek banks and topographic highs. Further exposures have been provided by trenching.

Rainfall is relatively low, but snowfall exceeds 1.5 metres most years and lasts from late October until May.

LEGEND FOR FIG. 3A

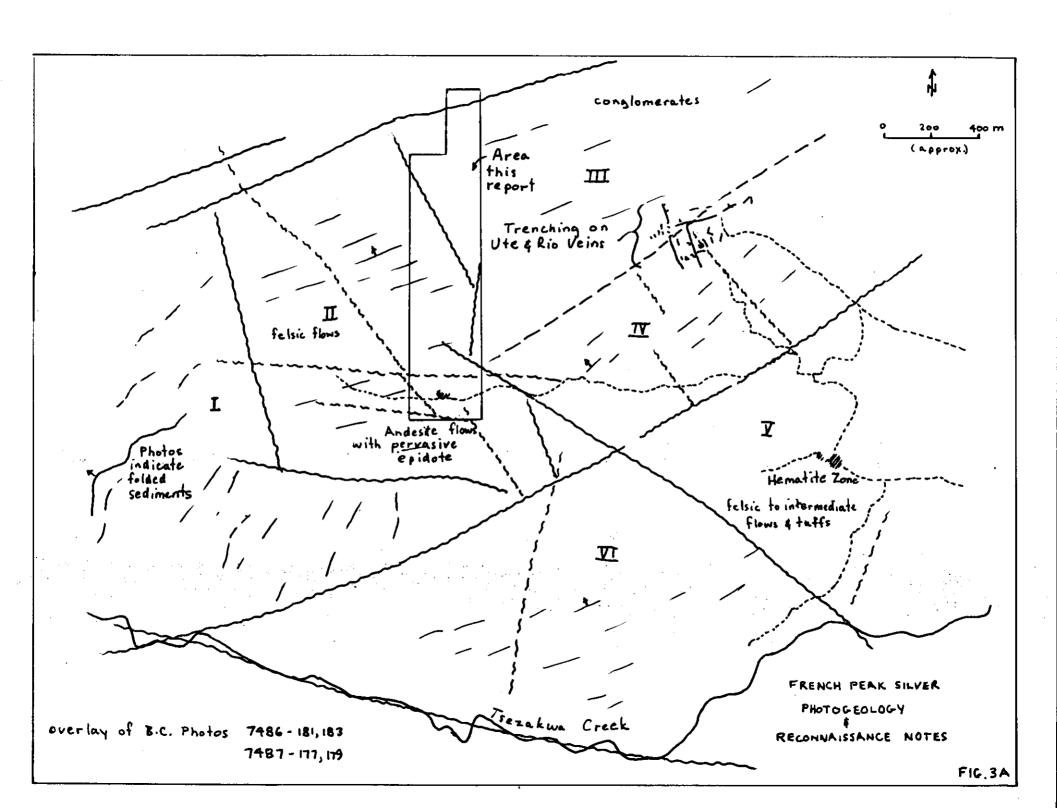
Block	boundary	fault	~~~	-					
Block	boundary	contact							
0ther	faults		~ ·	-					
Lithol	logic line	eament (a	rrow	shows	general	dip	of	block)	
Block	identific	ation	IY						
Roads	and trail	l s		_					



Prepared by: A. Homenuke, P. Enq.

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Sept. 1986 FIG. 3



six blocks with different surfical expressions. Block II was described above. Block III and IV were determined by previous work and may be in depositional contact. Block IV has strong internal northwest fault pattern which is partially growth faults. Not enough information is available to determine the internal pattern of other blocks. Block I appears to be folded sediments and may correlate with Block III which is primarily subaerial to submarine volcaniclastics. Block V, and possibly Block VI, may be depositionally continuous with Block IV and are primarily submarine flows and tuffs.

Block I and III may be part of the Skeena Group, while Blocks IV, V and VI are probably Hazelton Group. The affiliation of Block II is uncertain.

The attitude of the formations, major fault locations and Group affilitions is in some disagreement with available regional geology. As economic mineralization appears to be primarily related to the Hazelton Group, it will be important to continue geologic mapping of the property to assist in defining exploration targets and developing a model for mineralization.

III. GEOCHEMICAL SURVEY

PROCEDURE

108 soil samples were taken from the "B" horizon at 50-metre intervals on lines 100 meters apart. The gridded area is approximately 500 meters west of the Ute and Rio Vein Systems. the samples were placed in kraft envelopes and delivered to Acme Labs in Vancouver, B.C. At the lab they were dried at 60° C and sieved to -80 mesh. 0.5 gram of sample was digested in hot aqua regia for one hour, then diluted to 10 ml. with water. Analysis was by ICP for copper, lead, zinc, silver, arsenic, and a 10 gram sample was run for gold on atomic absorption. The results are shown on Figs 4-9.

DISCUSSION OF RESULTS

The results of this soil surrvey were generally lower than previous surveys on the adjoining area to the east around the known mineralization. A few multi-element anomalous samples were encountered along the eastern margin of the grid. This supports the geologic premise that the area is divided into fault blocks as these samples would be in the block that contains the known mineralization.

There is a zinc-arsenic-lead anomaly which trends across the south margin of the grid and appears to be related to a possibly fault-controlled altered zone. This area requires further investigation.

IV. CONCLUSION

The geological mapping and soil sampling have indicated that the area may be underlain by discrete fault blocks, some of which may be more conducive to mineralization than others. There is sugnificant disagreement between property mapping and available regional geology. Further mapping should be done to enhance interpretation and formation of a genetic model.

Respectfully submitted, TRI-CON MINING LTD.

A.M. Homenuke, P. Eng. Senior Vice-President

COST STATEMENT

GEOLOGICAL & GEOCHEMICAL SURVEYS JUNE 23 - 27, 1986

Geologist (J.W. Murton, P. Eng.) 4 days @ \$250	\$1,000
Sampler 4 days @ \$200	800
Vehicle 4 days @ \$65	260
Room and Board 8 man-days @ \$40	320
Analysis 108 samples for Cu, Pb, Zn, As, Ag, Au	
0 \$10.75	1,161
Rept., Maps, interp. A.M. Homenuke, P. Eng.	
1 1 / 2 days @ \$400	600
Secretarial, misc. supplies copying	150
TOTAL	\$4,291
	=====

REFERENCES

- Homenuke, A.M., 1977, Compilation Report on the French Peak Silver Property (Private Report)
 - 1979, Petrographics Study, French Peak Silver Property (Assessment Report)
 - 1981, Geochemical and Electromagnetic survey in the French Peak Silver Property (Assessment Report)
 - 1985a, Photo interpretation, geochemical survey and trenching on the French Peak Silver Property (Assessment Report)
 - 1985b, 1985 Diamond Drilling Program on the French Peak Silver Property (Assessment Report)
- Richards, T.A., 1980, Geology of Hazelton Map Area, Geol. Sur. of Canada, Open File 72C (Map)

CERTIFICATE OF QUALIFICATION

- 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 mining exploration for 17 years and am presently employed by Tri-Con Mining Ltd. of #2580 1066 West Hastings Street, Vancouver, British Columbia.
- 5. THAT I presently reside at 29825 Harris Road, Mt. Lehman, British Columbia.
- 6. THAT this Report is based on work supervised or conducted by myself.

DATED at Vancouver, British Columbia, this 2nd day of October, 1986.

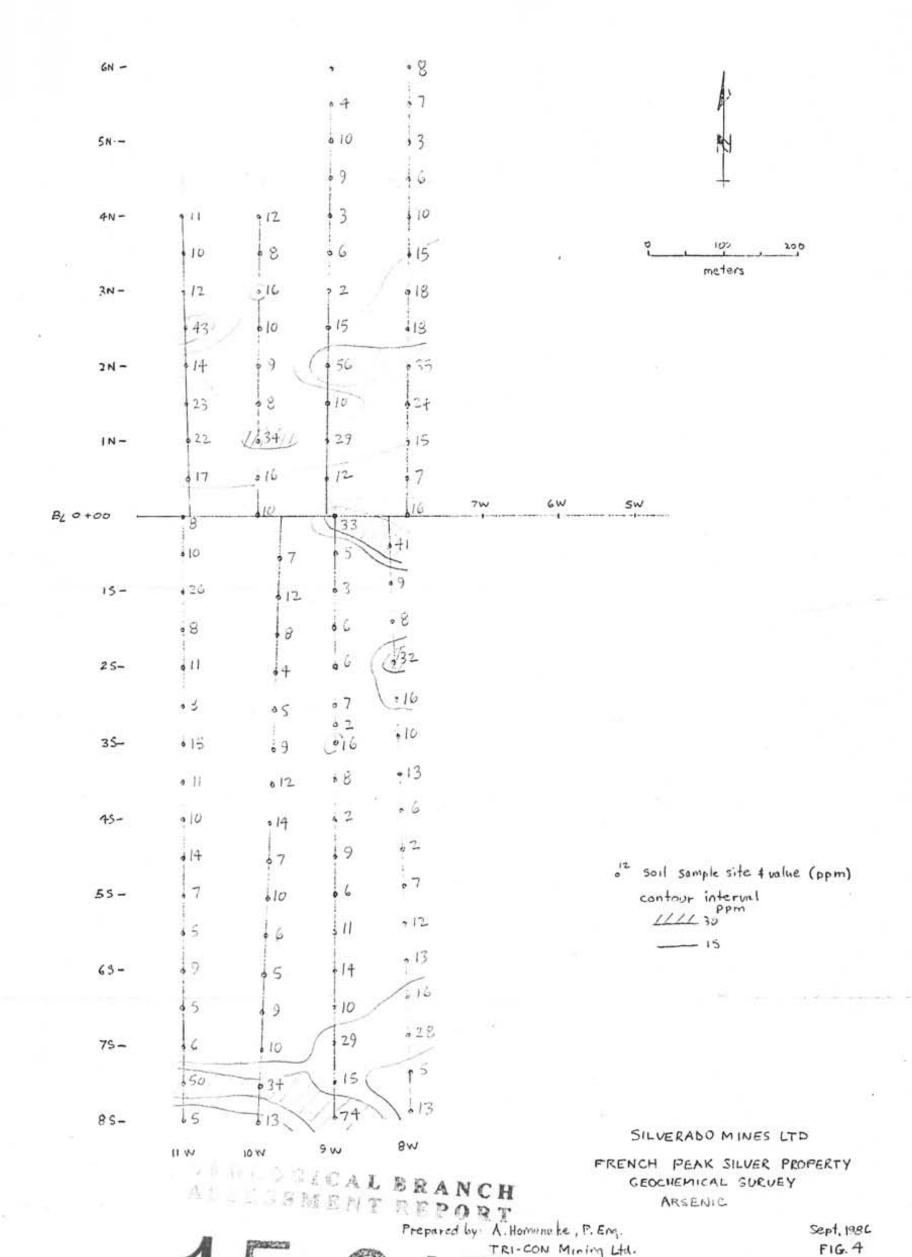
A.M. HOMENUKE, P. Eng. Geological Engineer

A P P E N D I X I
HAND SPECIMEN DESCRIPTION

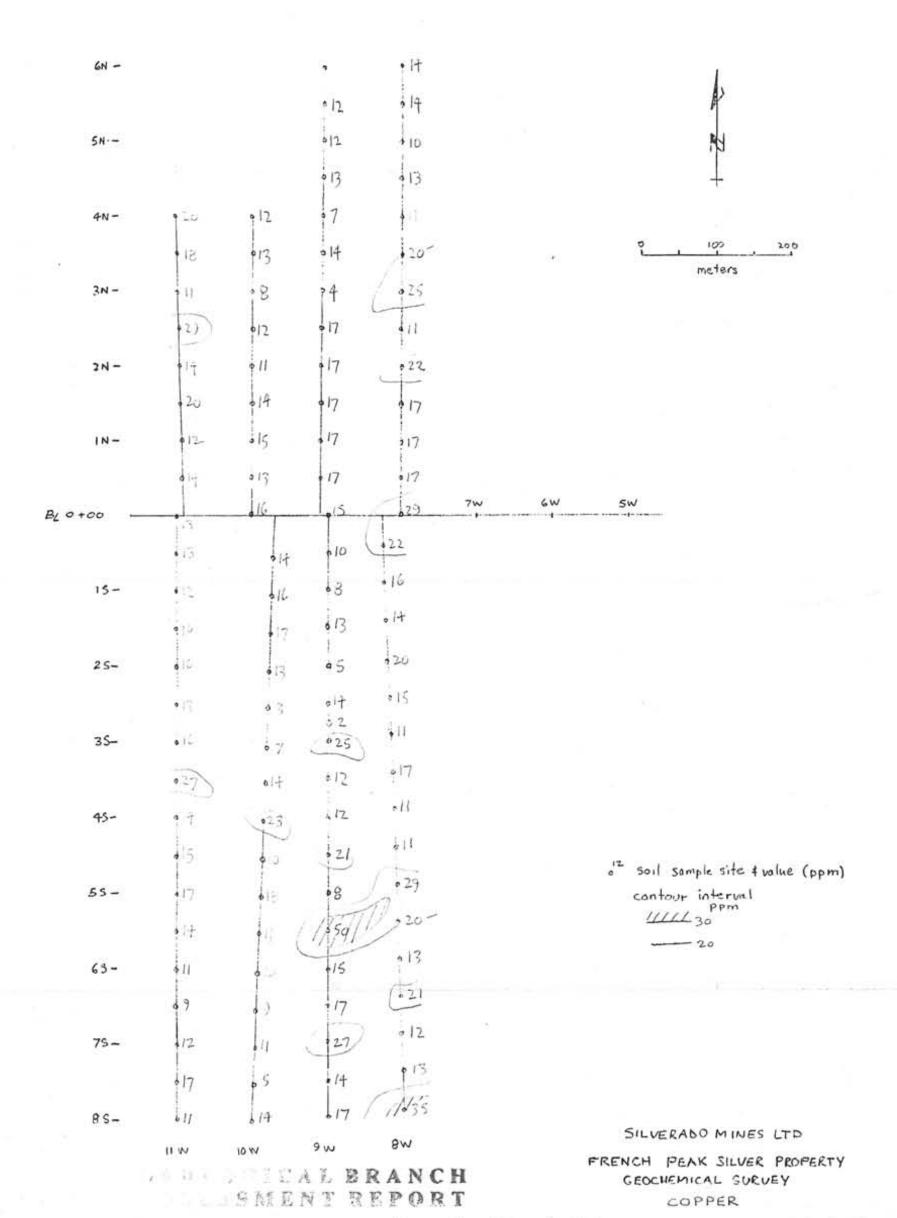
HAND SPECIMEN DESCRIPTIONS (See Fig. 3 for locations)

- Andesite tuff Purple fine med. grained crystal tuff, weak argil. alt., trace secondary biotite mostly altered plagioclase crystals.
- 2. Rhyolite flow Tan with mauve blotches, lighter on weathered surface, quartz eyes, 1% dissem. specular hematite, weak manganese stain.
- Highly altered, quartz eyes, kaolin, limon, 1 cm. vein, siderite, limon, oxidized sulfides (Pb)
- 4. Andesite or Dacite tuff Pale mauve, bleached, kaolinized, med.
 grained crystal tuff, limonite after pyrite
 or mafics, relict hornblende.
- 5. Dacite tuff Highly altered cystal tuff, 1% dissem. pyrite kaolinized, limonitic.
- 6. Andesite tuff Dark, purple gray, lithic tuff, weak argillic alteration, secondary calcite.

A P P E N D I X II
GEOCHEMICAL MAPS



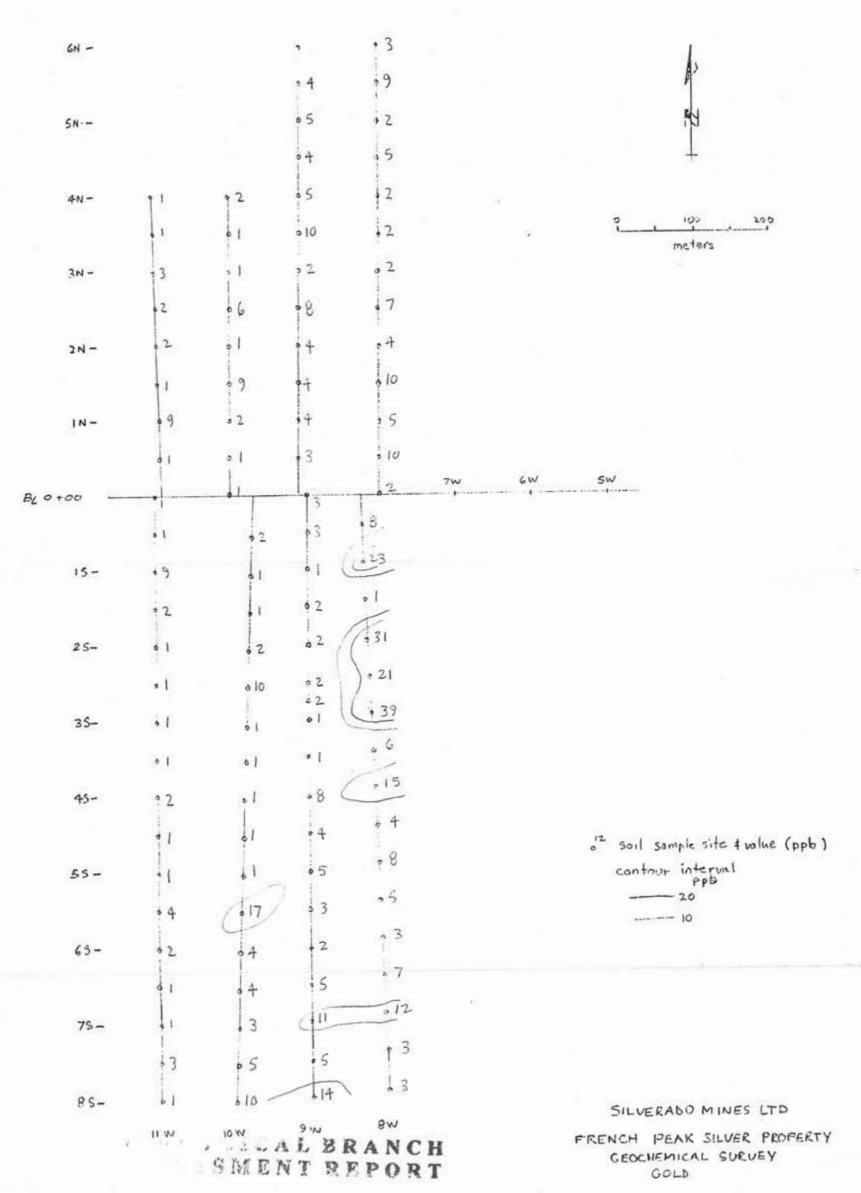
Sept. 1986 TRI-CON Mining Ltd. FIG. 4



Prepared by: A. Homanuke, P. Eng.
TRI-CON Mining Ltd.

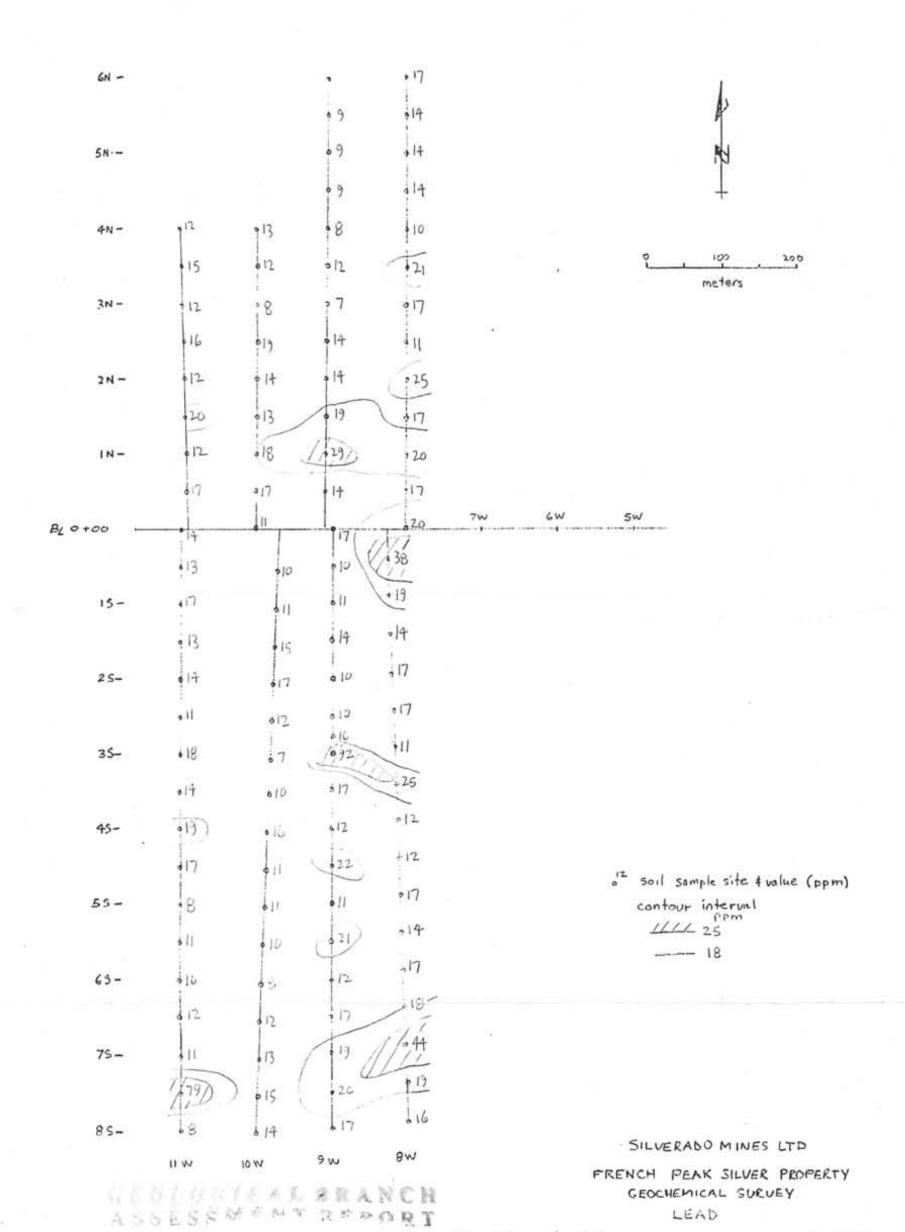
Sept, 1980 FIG. 5

15,243



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TRI-CON Mining Ltd.

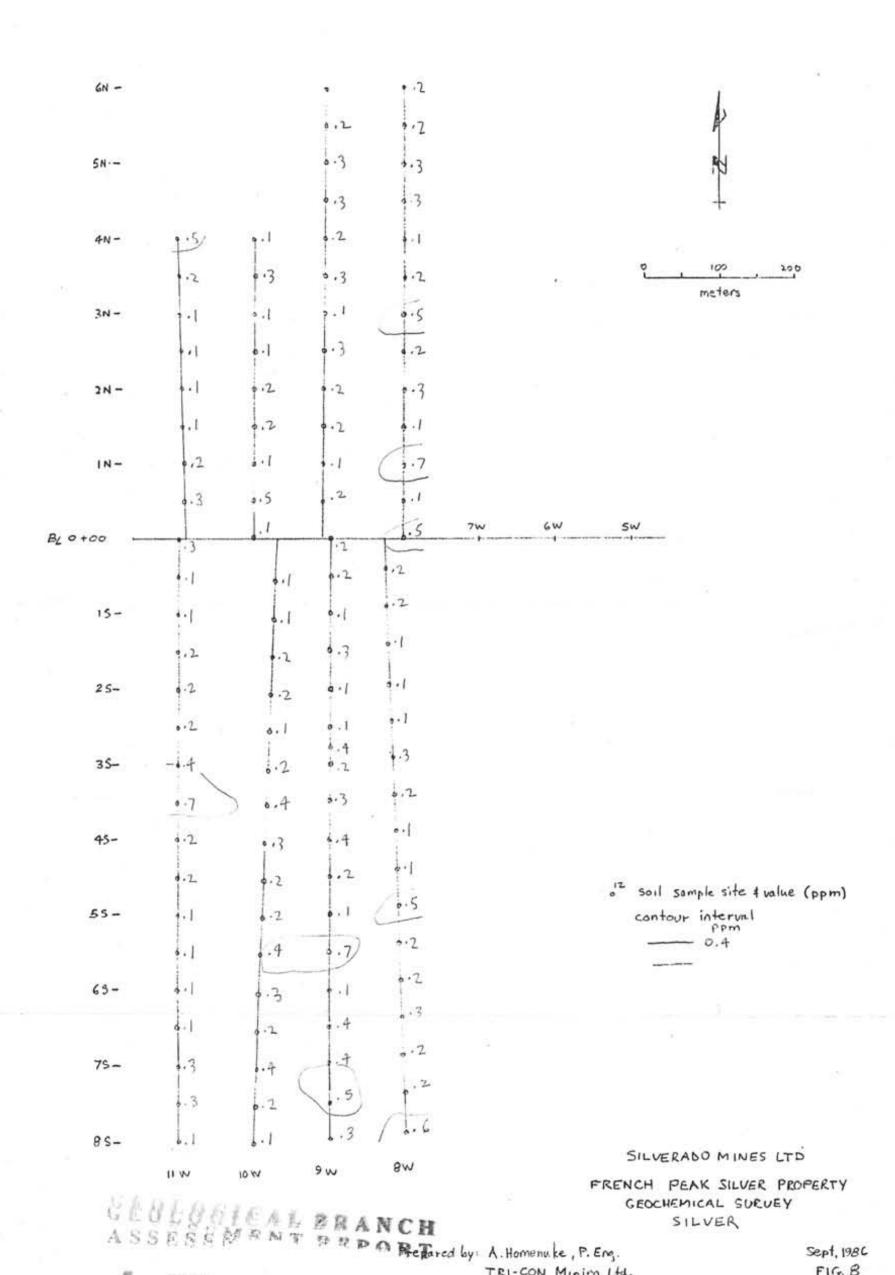
Sept. 1986 FIG. 6



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FIG. 8



GEOLOGICAL BRANCH

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GEOCHEMICAL SURVEY

ZINC

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Sept. 1986 FIG. 9