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SILVERADO MINES LTD.

FRENCH PEAK SILVER PROPERTY Omineca Mining Division, B.C. 55°20'N 126°48'W

COMPILATION REPORT - 1981

By: A.M. Homenuke, P.Eng. December 7, 1981

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SUMMARY

The French Peak Silver Property, located a few miles west of the north end of Babine Lake, was discovered by Rio Tinto Canadian Exploration in 1955 and is presently owned by Silverado Mines Ltd.

Three areas of silver mineralization have been found to date. The Ute Vein System has been exposed and sampled on surface for over 1,500 feet and has been extensively diamond drilled to a depth of 100 feet, with limited testing to 200 feet.

Hand-sorted ore, totalling 52.4 tons, was mined from a highgrade zone in the central part of the vein system. This ore was shipped to the Trail Smelter and yielded over 10,500 ounces of silver, plus copper, lead, zinc and gold. Drilling and sampling in this area have shown a drill-indicated probable reserve of 1,800 tons, averaging 20.5 ounces silver per ton. There are many other mineralized intersections along the vein, but the density is not sufficient for reserve calculations. The western section of the vein is geologically inferred to contain 50,000 tons, grading about 5 ounces silver per ton, plus minor lead, zinc, copper and gold. Although there are few samples, they are quite similar in grade and width, allowing the above inference. The Ute Vein System is open at both ends and at depth.

The Rio Vein System is conformable with the host tuff unit, and the down-dip projection (20°NW) intersects with the down-dip projection of the Ute Vein System (70°N). They should intersect at surface somewhere to the east on the Ute System. The intersection is a prime exploration target. A moderate amount of diamond drilling has outlined significant copper-silver-gold mineralization in the Rio Vein System. It is presently considered to be epigenetic, but the possibility of at least partial syngenetic origin has not been ruled out. This deposit is valuable as a model for further exploration of the property.

The Hematite Zone, so-called due to the occurrence of massive bands of specular hematite in a cat trench, has received limited attention. Chalcopyrite and silver-bearing tetrahedrite have been noted in a drill hole and a trench sample, respectively.

During the summer of 1981, electromagnetic (VLF-EM) and geochemical surveys were conducted over almost half the property, including the above-described zones. A considerable number of exploration targets were outlined, several showing higher geochemical responses than known mineralization.

Known deposits provide the following models:

- 1. Small, very high-grade silver veins.
- 2. Larger, but lower-grade, silver veins.
- 3. Disseminated silver-base metal mineralization in suitable volcanic host rocks.
- 4. Strata-controlled copper-silver-gold mineralization.

The geologic setting is favorable for additional models:

- 5. Epithermal-type silver (± gold) deposit.
- 6. Porphyry copper deposit (± silver and gold).
- 7. Porphyry related mineralization in surrounding structurally prepared and lithologically favorable volcanic rocks.
- 8. Stock work-breccia base metal-silver (gold) deposit.

In conclusion, the French Peak Silver Property warrants considerable further exploration for both small higher-grade silver deposits and larger lower-grade base metal-silver deposits.

> Respectfully submitted, TRI-CON MINING LTD.

A.M. HOMENUKE, P.Eng. Vice President Exploration and Development



FIGURE 1

TIOUR

INTRODUCTION

The writer managed exploration activity on the French Peak Silver Property during 1974-76 for Can-Ex Resources Ltd., Renniks Resources Ltd., and Aalenian Resources Ltd. (now Silverado Mines Ltd.). From 1977 to 1980, the property was optioned to Mohawk Oil Company Ltd. During that period, and the most recent program by Silverado in 1981, the writer conducted or directed all work on the property. Information on the work done in 1955-56 was obtained from files of Rio Tinto Canadian Exploration, the discoverors of the property.

PROPERTY AND TITLE

The French Peak Silver Property consists of 4 two-post claims and 4 larger claims, totalling 30 units (Fig. 2). The area covered is 750 hectares (1853 acres). The original 4 claims were optioned from Steve Homenuke and John Sargent in 1974 by Can-Ex Resources Ltd., Aalenian Resources Ltd. (Silverado) later optioned the claims from Can-Ex. The balance of the property was staked for Aalenian by the writer. The following table lists the claim data.

TABLE 1 CLAIMS

NAME	RECORD NO.	UNITS	DATE	LOCATION	ASSESS. DUE
Ute 5-8	104288-91	4	Sept. 17	1971	*
Silverado	298	9	May 26	1976	1984
Eldorado	299	9	May 26	1976	1984
Mag Hi	348	6	July 9	1976	1984
Silver Iron	349	6	July 9	1976	1984
	TOTA	L: 34			

DECODD

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NEVT

* Will be allowed to lapse and become part of the Silverado claim, after final property payment in 1982 (re: Mineral Act 17(1)).

Title to the claims is held by Silverado Mines Ltd. Can-Ex Resources holds a 40% interest in net operating profits.



LOCATION AND ACCESS

The Silver Group is located on the southeast slope 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).

Access is by gravel road 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 1,000 metres and 1,500 metres (3,300-4,800 ft.). Relief is moderate to the north and more abrupt to the south, as Tsezakwa Creek, the major drainage in the area is approached.

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.

Vegetation consists mainly of sub-alpine fir, with spruce in flatter areas and poplar and alder to the south. Old burnt areas are presently covered with a dense regrowth. Flat areas tend to be swampy.

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, 1,772 feet of diamond drilling in 12 holes, mapping and surface sampling.

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

In 1964 and 1965, 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, now owners of the property, shipped a further 28.4 tons. The 52.4 tons yielded over 10,500 ounces of silver, plus copper, lead, zinc and gold.

During 1974, Can-Ex Resources Ltd. (a private company), optioned the property from the owners. Renniks Resources Ltd. optioned the property from Can-Ex 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, Aalenian Resources Ltd. (Silverado) optioned the property from Can-Ex 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 and Gas 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 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 past few months, Silverado, through Tri-Con Mining Ltd., and under the writer's direction, carried out a program of geochemical sampling and geophysical surveying (Homenuke, 1981). In this report, the writer summarizes previous work, with some re-interpretation, including the above recent surveys.

REGIONAL 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 Biran 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 Intrusions of Late Cretaceous Age in the central part. The Babine Graben, with its prophyry copper deposits, lies a few kilometres 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).

PROPERTY GEOLOGY (Fig. 3)

GENERAL

The above-noted regional geology map indicates that the French Peak Silver Property is underlain by Hazelton Volcanics on the south half and Brian Boru Volcanics on the north half. Two of the major block faults are shown to intersect near the center of the claim block, however, the location of these, on a local scale, has yet to be determined. The main French Peak intrusive occurs 5 km. northwest of the property, while smaller outcroppings of the Bulkley Intrusions occur nearby to the south. A small Babine Intrusive is shown 4 km. northeast.

During the 1976 drill program, the writer mapped the area of the Ute and Rio Vein Systems (Homenuke, 1977). Drill core logs and a detailed magnetometer survey aided interpretation. The area is highly complex, both structurally and lithologically. It was possible to simplify interpretation by broadly grouping the rocks into only a few units. Some further interpretation was possible, following a petro-



graphic study of specimens of drill core (Homenuke, 1979). The following descriptions are limited to the area of the Ute and Rio Vein Systems, as there is only scattered information available on the balance of the property.

LITHOLOGY

The rocks in the area studied consist of a subaqueous to subaerial sequence of dacitic to andesitic flows and tuffs, with minor intravolcanic sediments. Highly altered feldspar porphyry dykes cut by some of the drill holes are the only known intrusions. The formations, in general, strike northeasterly with a moderate northwest dip. Whether they belong to the Hazelton or Brian Boru volcanics has not been positively determined. The following table summarizes the individual rock units.

TABLE II	Lithologic Map	-	Units	in	the	Area	of	the	Ute	and	Rio	Vein
			System	ns				_				

<u>Map Unit</u>	Name	Description
xxx	Feldspar Porphyry Dykes	Highly altered, pale green, intermineral, possibly dacite.
3	Upper Tuffs	Highly varied, pink to purple, ash to lithic tuffs; probably dacitic with minor felsic flows; laterally inconsistent, few centimetres to several metres thick; some sedi- mentary beds; predominantly subaerial discharge, subaqueous deposition; breccia zone of undetermined origin to the west.
2	Middle Andesite Flows & Tuffs	Light to dark green, purple flow tops; flows to northeast; tuffs to southwest.
14	Bedded Ash Tuff	A thin-bedded, consistent thickness, waterlain ash tuff unit; a black lapilli tuff marker bed occurs near the top and an iron-rich, conformable to semi-conformable band near the center; this band is increasingly hematitic to the southwest and in- creasingly pyritic to the northeast. It hosts the mineralization of the Rio Vein System.

TABLE II (Contd.)

Map Unit	Name	Description
1	Lower Tuffs	A complex of ash, lithic and lithic- crystal tuffs; probably dacitic; generally light tan to pale greenish- gray, appears to be subaqueous discharge and deposition. One drill hole inter- sected a small argillite unit bearing marcasite bands in slump structures.

STRUCTURE

The structure was defined or inferred from mapping, drilling and magnetometer survey. There are numerous normal (block) faults trending north to northwesterly, mineralized shear zones trending east to northeast, more difficult to recognize conformable shearing, and some thrust faults have been inferred in drill hole sections. The petrographic study indicated the presence of growth faulting.

ALTERATION

All of the pyroclastic rocks exhibit a pervasive and probably deuteric alteration, primarily argillic in nature. Adjacent to the mineralization zones, alteration is much more intense, with bleaching, pyritization, sericitization and silicification being most prominent. The alteration envelope ranges from less than a metre wide on the eastern part of the Ute Vein System to several tens of metres on the western part. The bedded ash tuff unit, hosting the Rio Vein System, is also heavily altered. Manganese staining is prominent on weathered surfaces in these areas.

MINERALIZATION

There are three known sulfide occurrences on the French Peak Silver Property. These are the Ute and Rio Vein Systems near the center of the claims, and the Hematite Zone about a kilometre to the southeast.

The Ute and Rio Vein Systems are exposed 100 metres apart and are probably mineralized by the same source. Recent polished section

studies showed five stages of mineralization separated by faulting. Stages 1 - 3 include pyrite, siderite and chalcopyrite-tetrahedrite. These are primarily present in northeasterly trending structures in both vein systems. Stages 4 and 5 have a much higher silver grade and include galena, tetrahedrite and quartz. They are present primarily in the easterly trending sections of the Ute Vein System, but also occur in minor amounts in other structural directions.

The Ute Vein System has been exposed on surface over a strike length of 475 metres (1,560 ft.). The system has been divided laterally into three sections, based on structure, lithology, character of mineralization and alteration. Changes in rock type along strike are present due to the relative altitudes of the vein-fault and the bedding; i.e., from east to west along the vein, one moves progressively higher in the lithologic section. A surface assay plan is shown on Fig. A-1, drill hole locations on Fig. 3, and a longitudinal section on Fig. A-2.

The eastern 200-metre section of the vein is characterized by a single fault averaging 0.3 metres (1 ft.), or less in width. Alteration extends only a few centimetres out from the vein. A major portion of this section is within the Middle Andesite Flows and Tuffs Unit which does not appear to be favorable to the formation of ore shoots. Three diamond drill holes (Figs. A-1 and A-2) by Rio Tinto provided little information on continuity of surface mineralization, which shows some narrow, but very high-grade pods of galena and tetrahedrite. The "best" mineralization is represented by 4 samples along 29 metres (95 fts.), ranging from 15 to 46 cm. (6"-18") wide, assaying from 16.7 to 123.2 ounces silver per ton. Further work is required to evaluate this section.

The central 130-metre section of the vein system has received the most attention to date. 52.4 tons of hand-sorted ore from an open cut averaged over 200 ounces silver per ton. Much of the diamond drilling was concentrated in the area of this cut. It appears, from surface mapping and drill sections, that the vein has formed a cymoid loop (________) with several mineralized fractures in the center. A characteristic of the central system is the presence of a hanging wall

and a footwall fault which, on surface, are 0.3 metres apart at the east end and widen to 5 metres apart near the center of the above loop.

The central section shows the most structural complexity, with block faults, a low angle fault and thrust faults complicating interpretation. At least some of these controlled ore mineral deposition. Proximity to the Upper Tuff - Middle Andesite contact also appears to be an ore control feature, as the width of mineralization decreases with depth. Feldspar porphyry dyke material is present in part of the vein structure and was emplaced between the chalcopyrite-tetrahedrite stage and the galena-tetrahedrite stage, i.e., intermineral dyke. The alteration envelope progressively widens from east to west. Further comments on this part of the vein will be made under "Production and Reserves". The drill hole sections are shown on Fig. A-2 to A-8.

The western 145-metre section of the vein system is intermittently exposed on surface, as overburden deepens to the west, and only 5 holes have been drilled to date (Fig. A-8 to A-10). This area is characterized by the presence of several splays or intersecting veins, by breccia zones with more disseminated sulfides and by the presence of widespread dendritic manganese staining. The main vein structure is relatively wide with two drill hole intersections (FP-76-27, FP-76-28), having a true width of 2.5 metres (8.2 ft.) and an average assay of 5.15 ounces silver per ton. This vein has not been tested downwards and the contact of Units 2 and 3 is at a depth of 60 metres (200 ft.) from surface. Silver values are also disseminated into the brecciated wallrock, and although assays are less than one ounce per ton, there are implications for larger tonnages. One of the splays also returned an assay of 0.15 ounces gold per ton across a true width of 0.53 metres (1.75 ft.). This area is worthy of further exploration.

The Ute Vein System remains open at depth and at both ends.

The Rio Vein System is exposed in a cat trench 125 metres (410 ft.) southerly from the open cut on the Ute Vein System. The vein consists mainly of massive bands of pyrite, with chalcopyrite and lesser tetrahedrite, galena, sphalerite and owyheeite (a silver sulfosalt), lying conformably in a bedded ash tuff member of the Lower Tuff Unit. The beds

strike northeasterly and dip about 20° to the northwest. The down-dip projection of this vein intersects the down-dip projection of the Ute Vein System near surface beyond the easternmost exposure, and at a depth from surface of about 150 metres (500 ft.) towards the western end.

Surface assays on the Rio Vein System are shown on Figs. B-1 The geology and drill hole locations are on Fig. 3. Although and B-2. the mineralization is conformable and the general appearance indicates a possible syngenetic origin, polished section studies have shown it to be epigenetic. This does not rule out the possibility that the sulfides may have been remobilized. Drill hole sections are shown on Figs. B-3 to B-6. The best assay averages are from the surface trench, FP-76-13 and FP-76-14 and are respectively 13.1, 15.5 and 12.5 ounces silver per ton across 1.3 metres (4.2 ft.), 0.6 metres (2 ft.) and 1.5 metres (5 ft.). These values are aligned in a northwesterly direction and indicate probable control by one of the block faults. Grades appear to diminish to the southwest. Fig. B-7 is a reconstructed plan of the drilling pattern and shows the above features. Information is limited to the northeast. Surface assays indicate the probable presence of a higher grade, steeplydipping, easterly-striking vein structure. Holes FP-76-18 and 19 (not shown on sections) indicated that the conformable pyritic band becomes hematitic to the southwest. No significant assays were encountered in these holes.

The Hematite Zone has received little attention to date. It is so named due to bands of massive, specular hematite exposed in a cat trench. A grab sample, by the writer, of sulfide-bearing, hematite-rich material from the trench dump returned an assay of 18.58 ounces per ton silver. A drill hole collared near the trench intersected 0.6 metres (2 ft.), which assayed as follows:

Gold	Silver	Copper	Lead	Zinc
0.003 oz./ton	0.32 oz./ton	0.95%	0.01%	0.02%

The mineralization was in a gangue of siderite, quartz, pyrite and hematite. The host rock is an altered tuff brecciated and healed by silica.

PRODUCTION AND RESERVES

The only production has been from an open cut on the Ute Vein System. Shipments of hand-sorted ore were made to the Trail Smelter by S. Homenuke in 1964; S. Homenuke and H. Gilleland in 1965; and S. Homenuke and J. Sargent in 1974. The results from the smelter schedules are summarized below:

TABLE III	FRENCH	I PEAK SILVE	R PROPERTY -	PRODUCTI	ON SUMMARY	
Year	Tons	Gold oz./ton	Silver oz./ton	Copper <u>%</u>	Lead <u>%</u>	Zinc
1964	2	0.08	390.45	?	13.70	1.6
1965	22	0.06	288.40	?	16.70	1.7
1974	28.4	0.07	120.50	4.85	14.10	1.8
Total:	52.4					
Av g. Gr	ade:	0.066	201.3	?	15.1	1.7

A random sample taken from the final hand-cobbed reject pile, estimated to contain 100 tons, assayed 33.3 ounces silver per ton.

The most detailed surface sampling and diamond drilling have been done in the area of this pit. The following table show the averages of surface sampling, before and after mining.

SURFACE SAMPLING BEFORE MINING - UTE VEIN, PIT AREA (RIO TINTO) TABLE IV

<u>Plan No</u> .	Width	Length*	Silver oz./ton	<u>Area (ft.²</u>)	Area x Ounces
15	50"	21'	1.2	87.5	105
16	81"	26'	80.9	175.5	14198
17	48"	21'	150.9	84.0	12676
18	36"	25'	60.5	75.0	4537
19	79"	33'	3.7	217.3	804
20	31"	30'	6.5	77.5	504
21	34"	14'	8.0	39.7	317
Tota	al Length:	170'		756.5 ft. ²	33141
Average Width:	4.45'	Average Grade:	43.8 oz	./ton	

15

43.8 oz./ton

TABLE V	(HOGAN & HOMENUKE)											
Plan No.	Width	Length*	Silver oz./ton	Area (ft.²)	Area x Ounces							
67	36"	6 '	0.6	18	10.8							
68	36"	20'	1.3	60	78							
69	36"	61'	12.7	183	2324.1							
70	72"	37'	11.7	222	2597.4							
107	4"	, 	280.6									
- 20"			0	zero grade as	signed to area							
71	72"		0.2	between samp	mples							
	96"	24 '	11.8	19 2	2273.3							
108	 8''		84.1									
-	20"		0	zero grade as	e assigned to area							
109	<u> 8''</u>		64.3	between samp	les							
	36"	22'	33.0	66	2178							
Tot	al Length:	170'		741 ft. ²	7561.6							
Average Width:	4.36'	Average Grade:	12.8 oz	./ton								

**** DTD 4004

* Weighted half the distance to the next sample.

The average of two grades from the tables is 28.5 ounces silver per ton. By cutting the very high grade sample (159 oz./ton) in Table III to the average (43.8 oz./ton), then re-averaging the result is 31.9 oz. per ton. The average from the two tables then becomes 22.5 ounces silver per ton.

By using the total area figures from the table, an average pit depth of 10 feet and a factor of 10 ft.³/ton, one calculates that 748.7 tons were removed during production. "Putting the ore back in the ground" then shows:

Production	52.4	tons	0	201.3	oz./ton
Rejects	100	tons	0	33.3	oz./ton
Balance	596.3	tons	0	0.0	oz./ton

. . . an average grade of 18.5 ounces silver per ton.

The following table shows reserve calculations from the diamond drill holes under the same area as the surface sampling. Hanging wall and footwall zones are averaged separately, assuming that some selectivity would be possible in mining. Drill hole sections are averaged first, then projected half the distance to the next section. True widths of intersections are used as shown on Fig. A-2. The average depth of the ore block is 45 feet.

TABLE VI RESERVE CALCULATIONS FROM DRILL HOLES - UTE VEIN, PIT AREA

(Factor 10 ft.³/ton)

Hole No.	Width	Ave.	Silver oz./ton	Ave.	Length	Area Ft. ²	<u>Area x Oun</u>	ces
FP - 76-6	16"	14.5"	19.4		50'	60.4	1773.2	
FP-76-7	13"		41.6	29.35				
FP-76-5	22''		1.7		46 '	84.3	143.4	
FP-76-3	27"		27.4		_			
FP-76-4	16"	21.5"	8.7	20.4	36'	64.5	1315.8	
FP-76-1	10"		20.4		15'	12.5	255.0	
FP-76-11	14"		15.9		12'	14	222.6	
FP-76-8	42"		5.6		<u> </u>	28	156.8	
				Totals:	167'	263.7	ft. ² 3866.8	ozft.²
Averages:	1.5	8 ft.	14.7 o	z./ton				

Hanging Wall Zone

14.7 oz./ton

1186.7 tons

TABLE VI (Contd.)

Footwall Zone

Hole No.	Width	Ave.	Silver oz./ton	Ave.	Length	Area Ft. ²	<u>Area x Ounces</u>
FP-76-3	52"		20.8				
FP-76-4	4"	28"	86.7	25.5	36'	84	2142
FP-76-1	33''		42.6		18'	49.5	2108.7
FP-76-11	2''		36.8		12'	2	73.6
				Totals:	66'	135.5	4324.3
Averages:	2.05	ft.	31.9 oz	./ton			

609.8 tons

Combined Hanging Wall and Footwall Zones <u>1796.5 tons @ 20.5 oz./ton</u>. This figure compares well with "Putting ore back in the ground" at 18.5 ounces silver per ton and the average of sampling before and after mining at 22.5 ounces silver per ton. The reserves are drill-indicated probable.

POTENTIAL

In addition to areas of known mineralization, which have not yet been fully explored, there are numerous exploration targets defined by electromagnetic and geochemical surveys completed in the 1981 field season, (Homenuke, 1981).

The electromagnetic survey consisted of 35 km. of lines run with a VLF "EM-16". The results were filtered by the Fraser Method and contoured. EM trends and disruptions of trends are shown on Fig. 4, along with a preliminary interpretation of the geochemical data.

The geochemical survey consisted of 747 soil samples taken at 50-metre intervals along the same lines as the electromagnetic survey. The samples were run by ICP analysis (induction-coupled plasma) for 26 elements, and maps were prepared by computer for 14 elements. Much of the data will be difficult to completely evaluate until some follow-up work has been done; however, a geochemical interpretation map (Fig. 5) has been



prepared which shows high trends in relation to known mineralization. Several target areas shown on the map are summarized in the table below and individually evaluated following that.

TABLE VIIExploration Targets, Based on Geochemical Response - French
Peak Silver Property

(x-weak, xx-moderate, xxx-strong, xxxx-strongest)

GEOCHEMICAL RESPONSE

Target Area	Cu	Pb	Zn	Ag	Sb	As	Mo	Fe	Mn	Total <u>x's*</u>
Ute Vein	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	26
Rio Vein	xxx	xxx	xxx	xxx	xx	xxx	xx	xx	xxx	24
Hematite	xxx	x	xx	xx	x	x	x	x	xx	14
1				- This	is tar	get at	depth -	· -		
2	xx	xxx	x	xx	xxx	xx	xxx	xxx	xxx	22
3	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxxx	xxx	28
4	xx	xxx	xx	xxx	xx	xx	x	xx	x	18
5	x	х	xx	xxx	x	xx	x	x	x	13
6	x	xxx	xxx	xxx	XX	XX	x	x	xxx	19
7	xxx	xxx	xxx	xxxx	xxxx	xxx	xxxx	xx	xxxx	30
8	xxx	xxx	xxxx	xxx	xx	xx	xxx	xxx	xxx	26
9	xxxx	x	xx	xx	x	x	x	xx	xxx	17
10	XXX	xxxx	xxx	xxx	XXX	xxx	xx	xxx	xxx	27
11	x	xx	x	x	xxx	xxxx	xxx	xx	xx	19
12	xx	xxx	xx	xx	xxx	x	x	x	XXX	18
13	xxx	x	xx	xx	xx	x	x	xx	xxx	17

* Provides a limited measure of rank.

DISCUSSION OF TARGETS

1. Ute Vein System - Targets 1, 2, 4, 5

A reserve calculation has already been made for part of the central section. Drill holes indicate the presence of similar mineraliza-



	0500 metres
_	0
15+00 s—	feet
	Grid is metric
_	
· · · · · · · · · · · · · · · · · · ·	
non ma Known mineralization	
Geochemical High Trends(Cu, Pb,Zn,Ag)	SILVERADO MINES LTD.
moderate	FRENCH PEAK SILVER PROPERTY
most intense	GEOCHEMICAL INTERPRETATION
2 Target Area (see report)	
	Prepared by: A. M. Homenuke, P. Eng. Oct. 1981
	TRI-CON MINING LTD. FIG. 5

tion across narrower widths in the rest of the section. Possible ore reserves are limited downward by the contact with andesite flows at 50 to 100 feet below surface. The andesite is unfavorable to mineralization. However, at a further 100-200 feet down-dip, the Ute Vein should intersect the Lower Tuff Unit and the shallow-dipping Rio Vein. This intersection is a prime target for deeper drilling (Target Area 1).

On the eastern section of the Ute Vein, the andesite surfaces and little room is provided for ore shoots, however, the Lower Tuffs are also closer to surface and the projected intersection of the Ute and Rio Veins, on surface, is shown as Target Area 2 and has a moderate geochemical response.

On the western section of the Ute Vein, there is minimal grade information. Three intersections on the main vein structure (there are several splays) are all over 5 feet wide. This section is 500 feet long and the andesite is down an average of 200 feet. This suggests a minimum of 50,000 tons (5 ft. x 500 ft. x 200 ft. \div 10 ft.³/ton). Although the grade of these intercepts is low (around 5 ounces silver per ton), the relatively large tonnage potential indicates that this area should be tested further. Again, there is depth potential below the andesite and the previously mentioned potential (see "Mineralization") for disseminated ore. Target Area 5 indicates a 300-foot westward extension. The geochemical response is weak, but the overburden is known to be deeper and may have lowered the values. Target Area 4 has a moderate geochemical response and indicates a 500-foot extension of known splays.

2. Rio Vein System - Targets 2, 3, 7, 10

The Rio Vein System is centered in a northeasterly geochemical trend, almost a mile long. Target Areas 3, 7 and 10 represent the strongest geochemical responses from the survey. Target Area 2, discussed above, is also on this trend. These areas follow the projected strike of the Lower Tuff Unit and, as the Rio Vein System is conformable with the Tuffs, implies the possibility of significant strata controlled mineralization.

3. Hematite Zone - Target Area 13

The Hematite Zone has a very weak geochemical response, partly due to deeper overburden. Silt samples from a stream flowing by the zone (Homenuke, 1977) showed a much stronger response. Little work has been done on the area, but it does appear to be a stratabound zone, similar in nature to the Rio Vein System. Target Area 13 is a nearby parallell trend with a moderate geochemical response over a much longer distance.

4. Other Zones Parallel to the Ute Vein System (Westerly Trend)

These include Target Areas 8, 9, part of 10, and 12. Area 8 is the most interesting as it is almost 2,000 feet long and intersects the northwesterly structural trend, which appears to partly control ore mineral deposition in the Ute and Rio Vein Systems.

5. Other Zones Parallel to the Rio Vein System (Lithologic Trend - Northeasterly)

The only numbered zone is Target Area 11. It showed the strongest response for arsenic and should be tested for gold. It is also coincident with an EM-16 conductor trend.

6. Target Area 6

No known mineralization follows this northwesterly trend, however, it appears to be an ore control structure and may be, in part, mineralized. There are several un-numbered trends parallel to this, which intersect with other target areas.

7. General Comment on Geochemical Response

A significant feature of the geochemical survey results (shown on Fig. 5) is the occurrence of a boron halo around the general area of anomalous values in copper, lead, zinc and silver. This area is about 3,000 feet in diameter and occurs over the intersection of two major regional faults (as mapped by Richards, 1980). This is the typical position of weakness at which many porphyry-type mineral deposits occur. Supporting the presence of an intrusive at depth is the occurrence of intermineral dykes in the vein systems.

CONCLUSIONS

- The Ute Vein System contains a small deposit of high-grade silver mineralization which may be mineable at higher silver prices.
- 2) Limited drilling and geological mapping have indicated that a considerable greater tonnage of undetermined grade may be present, especially at depth.
- 3) A geochemical survey indicated that there may be many more mineralized areas on the property, with some, like the Rio Vein System, being probably stratacontrolled. Three of these geochemical targets show a stronger response than any of the known mineralization.
- 4) Results, to date, indicate that the property merits considerable further exploration.

RECOMMENDATIONS

The following program is designed to test and, if on-going results warrant, bring the French Peak Silver Property to the point of a production decision as a relatively small, high-grade mine.

PHASE I

Follow-up exploration on Targets determined by 1981 Program

Backhoe Trenching	•	•	. :	\$ 3,000.00
Detailed geochemical sampling and profiling	•	•	•	2,500.00
Detailed EM-16 surveying	•	•	•	2,500.00
Other geophysical (induced polarization, magnetometer) - ALLOW	•	•	•	4,000.00

RECOMMENDATIONS - PHASE I (Contd.)

Geological investigations, surveying, base
map preparation \ldots
\$ 19,500.00
Diamond Drilling
lo further test the Ute vein System,
3 000 ft, @ $$25./ft$, $a = 2.000.00$
5,000 100 (120,200))))))))))))
Preliminary Drilling on new targets
2,000 ft. @ \$25./ft
\$125,000,00
· · · · · · · · · · · · · · · · · · ·
Camp and support costs 25,000.00
SUB TOTAL
Contingency @ 20%
TOTAL:

PHASE II

If the results of Phase I are encouraging, Phase II would consist of development diamond drilling, metallurgical testing, environmental studies, feasibility study, underground development and a pilot mill.

No budget can be estimated at this time. Also, if so desired, a similar budget could be proposed for testing the possibility of larger tonnage, lower-grade deposits.

Respectfully submitted, TRI-CON MINING LTD.

A.M. Homenuke, P.Eng., Vice President Exploration & Development

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 12 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, and on review of available literature.

7. AND THAT I have an interest in the French Peak Silver Property through ownership of shares of Silverado Mines Ltd. and Can-Ex Resources Ltd.

DATED at Vancouver, British Columbia, this 7th day of December, 1981.

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

REFERENCES

1.	BAKER, John F., 1974	Geochemical Report on the Sue Group of Mineral Claims, Assmt. Rep. 5188.
2.	DAWSON, H., 1980	Results of laboratory bulk sulfide flotation tests on French Peak silver ore sample (private company letter).
3.	HOGAN, J.W., 1975	Report on the Ute Claims, French Peak area (in part by A.M. Homenuke) for Renniks Resources Ltd.
4.	HOMENUKE, A.M., 1977	French Peak Silver Property, Compilation Report (private report to Aalenian Resources Ltd.).
	1979	French Peak Silver Property, Petrographic Study on core from 1976 drill program (Assmt. Rep.)
	1980	French Peak Silver Project, Proposed operating plan (prepared on behalf of Mohawk Oil Co. Ltd., for submission to the Government of British Columbia).
	1981	Geochemical and electromagnetic survey on the French Peak Silver Property (Assmt. Rep.).
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7.	McELROY, R.O., 1980	Flotation tests on a sample of French Peak silver ore, B.C. Research Project Report No. 204-499 (private report).
8.	RICHARDS, T.A., 1965	Geology and Mineralogy of the Red Group, unpublished B.Sc. Thesis, Univ. of British Columbia.
9.		Geology, Exploration and Mining in British Columbia (various annual volumes).

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UTE VEIN SYSTEM

APPENDIX "A"

 $\begin{array}{c} 1014 - \frac{77}{79} - \frac{27}{75} - \frac{26}{74} \\ 1024 - \frac{77}{79} - \frac{28}{76} \\ 76 \\ 76 \\ 79 \\ 1024 - \frac{77}{79} \\ 79 \\ 1024 - \frac{76}{79} \\ 79 \\ 102 \\ 100 \\$

				ASSAY N	ALUES								ASSAY N	VALUES			
Plan number	Width (inches)	Gold oz/ton	Silver oz /ton	Copper %	Lead %	Zinc %	Antimony %	Sample tag number	Plan number	Width (inches)	Gold oz/ton	Silver oz/ton	Copper %	Lead %	Zinc %	Antimony %	Sample tag
50	2"	-	4.66	-	-	-	-	14708	69	3"	0.05	137.30	-	13.60	-	2.58	28002
51	8"	-	19.58	-	-	-	-	14709		33"		1.35	-	-		-	28003
52	6"	-	123.23	-	-	-	0.88	14710		Total 36"	-	Ave 12.68	-	-	-	-	
53	6"	-	16.66	-	-	-	-	14711	17	12"	-	447.90	4.80	20.90	0.70		2537
I	18"	-	26.50	-	4.00	-	-	9101		36"	-	62.40	0.30	4.50	tr	-	2538
54	4"	-	0.98	-	-	-	-	14712		Total 48"	-	Ave 159.00	1.40	8.60	0.20	-	
2	18"	-	2.90	-	0.80	-		9102	18	36"	-	60.50	-	1.70	-	-	9109
55	8"	-	3.64	-	tr	-	-	14713	19	79"	-	3.70	0.05	0.50	tr	-	9121
3	32"	-	1.80	-	tr	-	-	9103	107	4"	-	280.60	-	-	-	-	5704
56	24"	-	0.20	-	-	-	-	14714	70	72"	0.02	11.66	-	0.79	-	-	28004
4	8"	0.07	249.60	3.00	51.50	tr	-	#1(1955)	71	72"	-	0.16	-	-	-	-	28005
57	9" x 55'	-	4.08	-	-	-	-	14715	20	31"	-	6.50	0.30	0.40	tr	-	9120
58	6" x 10'	-	13.68	-	-	-	-	14716	108	8"	-	84.10	-	-	-	-	5702
59	3"	-	0.31	-	-	-	-	14717	109	8"	-	64.30	-	-	-	-	5703
60	15"	-	8.58	-	_	-	-	14718	21	34"	-	8.00	tr	tr	tr	-	9119
5	13"	-	74.60	-	3.00	-	-	9104	22	57"	-	1.50	tr	tr	tr	-	9118
6	18"	-	24.90		7.80	-	-	9105	23	36"	-	1.50	0.15	0.50	tr	-	9117
61	18"	-	0.56		-	-		14719	72	10" x 18'	0.15	95.22	-	-	-	1.95	28006
7	25"	-	23.80	0.20	6.40	tr	-	9123	24	2 6"	-	51.50	-	12.60		-	9110
8	15"	-	3.00	-	0.30	-	-	9106	73	30"	0.01	6.08	-	-	-	0.25	28007
62	16"	0.03	24.06	-	3.05	-	-	14720	25	41"	-	4.00	0.40	1.60	0.20	-	9116
9	20"	-	114.00	1.60	17.70	0.10	-	9124	26	52"	-	12.70	0.50	7.80	0.50	-	9115
63	6"x 12'	0.03	29.80	-	8.30	-	-	14721	74	12"	0.01	24.79	-	-	-	0.40	28008
10	34"	-	5.20	-	1.70	-	-	9107	75	12"	-	0.86	-	-	-		28009
64	3"	-	13.09	-		-		14722	27	31"	-	48.50	1.10	4.40	0.30	-	9114
11	45"	-	7.80	-	5.70	-	-	9108	76	39"	-	0.65	-	-	-		28010
65	6"	0.06	195.88	-	20.00	-	3.64	14723	28	19"	-	23.20	1.10	10.00	0.50	_	9113
12	2 9"	-	35.10	0.90	5.30	0.20	-	9125	77	36"	-	0.48	-	-	-	-	28011
13	20"	-	17.50	0.90	5.60	tr	-	2 5 3 5	78	4"	-	60.08	-	-	-	-	28012
66	36"	-	2.10	-	-	-	-	14724	79	4"	-	7.85					28013
14	14"	-	1.90	0.30	tr	tr	-	2536	101	12"		3.06	-				28026
67	36"	-	0.56	-	-	-	-	14725	102	4"		0.61	-	-	-		28032
15	50"	-	1.20	0.10	0.70	tr	-	9122	103	4"	0.022	23.00	7.20		-		28029
68	36"	-	1.31	-	-	-		28001	104								20020
16	13"	0.015	3.33	0.30	0.93	1.57		>	(includes)OF	5) 84"	0.005	2.45	-				28030
	19"	0.065	329.40	9.26	4.21	5.36		From	105	4"	0.022	45.60					28031
	32"	0.005	3.66	0.30	0.57	1.08		RioTinto	106	3"	< 0.003	13.20			-		28033
	Total 64"	Ave 0.025	101.57	3.00	1.74	2.46	-	work									20000
	17"	0.001	1.88	0.23	0.50	0.15	-	sheet						-			
	Total 81"	Ave 0.020	8089	2.42	1.48	1.98)	-								

LEGEND TO ACCOMPANY DIAMOND DRILL HOLE SECTIONS

$\widehat{}$	DIAMOND DRILL HOLE	RT - RIO TINTO (1956)
	VEIN & PROJECTION	FP - 76 - SILVERADO(1976)
	CONTACT	. .
~~~~	FAULT	
<b>₋</b> ⊤∽⊺∽	THRUST FAULT	

# LITHOLOGY

FELDSTAR PORPHYRY DYKE BRECCIA UPPER DACITIC TUFFS MIDDLE ANDESITIC FLOWS & TUFFS IA WATERLAIN ASH TUFF LOWER DACITIC TUFFS

![](_page_35_Figure_0.jpeg)

![](_page_36_Figure_0.jpeg)

![](_page_37_Figure_0.jpeg)

![](_page_38_Figure_0.jpeg)

![](_page_39_Figure_0.jpeg)

![](_page_40_Figure_0.jpeg)

![](_page_41_Figure_0.jpeg)

![](_page_42_Figure_0.jpeg)

![](_page_43_Figure_0.jpeg)

![](_page_44_Figure_0.jpeg)

![](_page_45_Figure_0.jpeg)

# APPENDIX "B"

RIO VEIN SYSTEM (legend in Appendix "A")

![](_page_47_Figure_0.jpeg)

![](_page_48_Figure_0.jpeg)

# SAMPLING BY RIO TINTO - 1956

TAG NO.	MAP NO	WIDTH	Au oz / ton	Ag oz/ton	Си %	Pb %	Zn %					
9080	0	36"	-	1.0	tr	tr	tr					
9082	2	27"	-	19.4	0.25	tr	tr"}			-		
9081	3	26"	-	1.6	0.90	tr	tr 🖌 🗛	ve - 50" - 1	3.06 oz	Ag/ton		
9083	4	20"	0.04	10.7	3.3	1.1	tr)					
9084	5	25"	-	0.7	0.30	-t <b>r</b>	tr					
9085	6	25"	0.01	09	0.15	tr	tr					
9086	$\bigcirc$	12"	tr	0.4	tr	tr	05					
9087	8 .	22"	0.02	1.8	0.10	tr	tr					
9088	9	20"	-	0.5	tr	. tr	0.2					
	•	<u> W.G. S</u> T	EVENSO	N, 1981		-						
929	A	2.5'	0.002	2.10	-			I 0	I.	2 3	4 5 6	5
930	B	2.5'	0.034	5.95	-							5
931	c	1.0'	0.148	8.85	-					METRES		
932	D	1.0'	0.102	18.75	5.04		10	5	9		10	20
					· .	-				FEET		
								SIL	VERA	DO MINE	ES LTD.	
							FR	ENCH	PEAK	SILVE	R PROPE	RTY
		•						RIC	D VE	TIN SY	STEM	
							SUR	FACE S	AMPI	LING IN	CAT TR	ENCH

SEPT., 1981.

PREPARED BY : A.M. HOMENUKE, P.ENG.

TRI-CON MINING LTD.

FIG B-2

![](_page_49_Figure_0.jpeg)

![](_page_50_Figure_0.jpeg)

![](_page_51_Figure_0.jpeg)

![](_page_52_Figure_0.jpeg)

FP-76-15 "NO ASSAYS, POSSIBLY NOT DEEP ENOUGH.

![](_page_53_Figure_1.jpeg)