GEOCHEMICAL ASSESSMENT REPORT On the SILVER HOPE MINERAL CLAIMS



Omineca M.D. 93L / 1

Lat.54°10'N

Long.126°15'W

June, 2001

For Owner SCI-TEK Resources Ltd.

GEOLOGICAL SURVEY BRANCH

15

Nov. 2001 Delta,B.C.

S. Zastavnikovich, P.Geo.

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GEOCHEMICAL ASSESSMENT REPORT ON THE SILVER HOPE MINERAL CLAIMS

INTRODUCTION & DESCRIPTION

The whole of Silver Hope property consists of 27 contiguous 1-unit claims located 45 km southeast from Houston, central B.C., Fig.1. The work was done on claims Hope 1-8 described below, which lie directly south of adjoining Equity Silver Mine mining Lease No. 6. The complete list of the Silver Hope property mineral claims is provided in Appendix II.

Claims Status, (From BCDM Computerized Rec	cord Files)	1
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Tenure	Name	Owner	%	Мар	Work Rec.	Status		M.D.	Unit	Tag
385716	HOPE 1	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688389W
385717	HOPE 2	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688390N
385718	HOPE 3	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688391№
385719	HOPE 4	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688392N
385720	HOPE 5	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688393N
385721	HOPE 6	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688394N
385722	HOPE 7	137692	100	093L01W	20020415	Good Standing 20020415	15	Omíneca	1	688395N
385724	HOPE 8	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688396N
385721 385722 385724	HOPE 6 HOPE 7 HOPE 8	137692 137692 137692	100 100 100	093L01W 093L01W 093L01W	20020415 20020415 20020415	Good Standing 20020415 Good Standing 20020415 Good Standing 20020415	15 15 15	Omineca Omíneca Omineca	1 1 1	688394N 688395N 688396N

The Silver Hope property mineral claims are located on Map 93L/1W, Omineca MD., and are accessed by the 40 km long Equity Mine all-weather road from Houston, then 5 km south along the logging road which descends to the Buck Creek and Sam Goosly Lake valley. Old mining exploration branch-trails traverse the moderately forested south-facing slope to the southeastern edge of the property, Fig.2.

Between June 24 and July 1 of 2001 the writer, accompanied by geochemist/owner J.J. Barakso, journeyed from Vancouver to Houston to spend 4 field-days on June 26-28 and 30th conducting high-quality reconnaissance stream sediment sampling on and around the Silver Hope property, while J.J. Barakso focused on prospecting and supervising the soil sampling survey conducted on Hope 1-8 claims by prospector L.B. Warren and assistant R.B. Anderson of CJL Enterprises based out of Smithers.

The principal goal of the field work was to identify an anomalous multi-element signature suite in drainage samples for detection of the Equity Silver Mine-type copper-silver-gold mineralization, and to detect with soil sampling any extentions of the adjacent "Southern Tail" Zone mineralization onto the Silver Hope property.

Reconnaissance drainage and rock sample locations are presented on the claim locations Map, Fig.2, while the soil sampling grid and analytical results are inscribed on the 1:10,000 scale Maps, Fig.3 and Figs. 3a-g for Zn,Cu,Ag,As,Hg,Pb,Sb,Au values.



Along with the computer-generated maps, geologist C.F. Staargaard provided the notes on rock sample descriptions, Appendix I. Complete analytical results are presented in Appendix IV, and the analytical methods in Appendix V.

Correlation Tables 1-3 and element-pair soil grid maps, Figs. 4a-d overleaf, have been constructed by the writer to identify and illustrate the most significant pathfinder element suites for Equity-type copper-silver-(gold) mineralization that may be present on the Silver Hope mineral property, as discussed below.

GEOLOGY

In the BCMEMPR Paper 1979-1 Summary of Field Activities article "Preliminary Report on the Sam Goosly Copper-Silver Deposit" by D. G. Wetherell, A.J. Sinclair, and T.G. Schroeter, p.133-137, Ref. 1,the Southern Tail ore zone of Equity Mines is shown to be located on strike immediately to the NNE of the Hope 1 claim, Fig. 3. The following are direct excerpts on the local geology and mineralization from Ref. 1:

Local Geology

Volcanic Stratigraphy

Mesozoic strata at Sam Goosly are thought to be right-side-up (Church, 1969; Ney, et al., 1972, and Wojdak, 1974) describe three major units which, from bottom to top are:

- (1) A clastic sequence composed primarily of chert pebble and volcanic conglomerates, quartzites, plus minor tuffs and tuffaceous sediments.
- (II) A pyroclastic sequence containing lapilli, ash, and dust tuffs, plus local lenses of volcanic conglomerates and sandstones.
- (III) A sedimentary/volcanic sequence composed of volcanic conglomerates and sandstones, tuffs, and tuffaceous sediments, all generally well bedded.

Five subdivisions of the pyroclastic sequence (unit II) were defined. These are ... These five subdivisions, dacitic in composition (Church, 1969), are those described by Wojdak (1974), with the exception of unit 11b. Wojdak concluded that the breccia which contains much of the Main zone ore was a brecciated dacite and distinct from the dust tuffs of the Southern Tail zone. Examination of drill core which was not available to Wojdak indicates that breccia and dust tuff are stratigraphically continuous and therefore equivalent ... The Mesozoic strata are flanked and unconformably overlain by gently dipping (<35 degrees) andesitic flows of the Ootsa Group and basaltic lavas of the Endako Group (Church, 1969).

Intrusive Rocks / Stocks

Two stock-like intrusions crosscut Mesozoic stratigraphy.

A quartz monzonite stock with sparse copper-molybdenum mineralization cuts Mesozoic strata (300 to 600 metres) west of the ore zones. Ney, et al. (1972) report tetrahedrite veins within the south end of this stock and a lens of silver-bearing sulphide in a shear zone along the axis of the

stock. This stock has been dated by K/Ar methods at $56.2^{\pm}3$ Ma (Church, 1969) and 61.1 Ma with no error limits given (Ney, et al., 1972).

A gabbro-monzonite complex intrudes Mesozoic strata just east of the Main zone. This stock is thought to be post-mineral and contains magnetite and traces of disseminated pyrite (Wojdak, 1974). K/Ar ages of $48.8^{\pm}3$ Ma (Church, 1969) and 52.5 Ma with no error limits given (Ney, et al., 1972) have been reported.

Mineral Deposits

Ore minerals at Sam Goosly occur predominantly as veins and disseminations, with massive sulphides present as local patches within the Main zone. Main zone ores are fine grained, generally occurring as disseminations with a lesser abundance of veins. Southern Tail ores, on the other hand, are coarse grained and occur predominantly as veins with only local disseminated sulphides. The primary ore controls appear to be structural; sulphides are developed best in zones of intense fracturing and brecciation. The ores are generally restricted to a tabular fracture zone which roughtly parallels stratigraphy. However, copper-silver sulphides occur throughout the stratigraphic column and sulphide veins up to 5 metres in length cross bedding in outcrop and up to 3 metres along drill core.

The most abundanct sulphide is pyrite. Other major sulphides incude chalcopyrite, tetrahedrite, pyrrhorite (observed macroscopically only in the Main zone), arsenopyrite, and sphalerite. Magnetite and specular hematite are also common. On the basis of macroscopic vein relations and limited mineralographic study, a consistent vein paragenesis has been observed in both the Main and Southern Tail zones, which from oldest (1) to youngest (6) is*:

- 1. Chlorite veins; quartz veins
- 2. Chlorite veins and quartz veins, each with pyrite and/or magnetite
- 3. Chlorite veins with pyrite and/or specular hematite ([±] chalcopyrite); quartz-pyrite veins with tourmaline or specular hematite ([±]chalcopyrite); calcite-pyrite veins.
- 4. Copper sulphides [±] tourmaline
 - a) Tetrahedrite (⁺ later chalcopyrite), or
 - b) Chalcopyrite ([±] later tetrahedrite) [±] pyrrhorite
- 5. Galenda-bearing and sphalerite-bearing veins
- 6. Gypsum veins; calcite veins

*Arsenopyrite, identified in both zones, fits between stages 2 and 4 in the paragenetic sequence but its relationship to stage 3 is uncertain.

The consistency of paragenesis suggests that the two ore zones are related genetically. Examination of drill core shows that sulphides occur continuously between the Main and Southern Tail zones.

An epigenetic origin for the Sam Goosly ores is indicated by: local sulphide rim textures in coarse fragments suggesting a replacement origin; abundant sulphide veins that cut both clasts and rock matrix; the consistency of macroscopic vein paragenesis; and the presence of mineralizated dykes within the ore zones.

GEOCHEMISTRY

During the last week of June 2001 a reconnaissance-scale drainage sampling survey was conducted by the writer along the southern tributaries of upper Foxy Creek in the north, and along south-flowing tributaries of Buck Creek to the south of the area of the Equity Mine ore pits and the adjacent Silver Hope mineral claims, as presented on the claim and sample locations map, Fig.2, overleaf. The principal object of the high-quality field-sieved sediment sampling program was to identify any anomalous multi-element signatures as pathfinders for Equity Mine-type copper-silver-gold mineralization that may be present on the Silver Hope mineral property.

Concurrently, geochemist/owner J.J. Barakso prospected and collected mineralized and/or altered outcrop and float rock samples while supervising a reconnaissance-scale soil sampling survey on the property by prospector L.B.Warren and an assistant from CJL Enterprises of Smithers, conducted across the Hope 1-8 claims along three internal claim border lines, Fig.3. Some 63 soil samples were collected using mattocks at an average depth of 10 cm (5-20 cm), mostly from the B-Horizon, at 50 m. intervals on chain-and-compass lines 500 m. apart, as shown on the 1:10,000 scale sample location and topographic map, Fig.3, overleaf. The three 1 km-long soil sample lines were oriented east-west to intersect the projected strike of any southern extension to the adjacent South Tail ore zone of Equity Silver Mines.

The rock, sediment and soil samples were analyzed for fire-geochemical gold, mercury and for 31 trace-elements by ICP at Min-En Laboratories in Vancouver, using standard geochemical methods described in Appendix V. Complete analytical results are presented in Appendix IV. <u>Zinc, copper, silver, arsenic, mercury, lead, antimony</u> and gold values are inscribed directly on 1:10,000 scale soil grid maps, Fig.s 3a-h respectively, overleaf, while the rock sample descriptions are provided in Appendix I.

Rock Samples Geochemistry

As described in rock sample notes, Appendix I, and plotted on the sample location maps, Fig.s 2 and 3, a dozen mineralized and/or altered outcrop samples, where available, and float rock were collected by J.J. Barakso (HJ1-HJ12) on the Hope 1-8 claims, and another four by the writer in the immediate vicinity (HS1-HS4), in order to establish the anomalous trace-element pathfinders for Equity Mine-type of base and precious metals mineralization.

Even with the small suite of 16 rock samples it was possible by matching multi-element ICP geochemistry and rock sample descriptions to identify three distinct pathfinder trace-element signature suites for anomalous gold and copper values, as discussed below and illustrated in correlation Tables 1, 1a, overleaf.

 The strongest mineralization occurs in float sample HJ-11 with <u>2.1%Cu, 923ppbAu</u>, in massive pyrite-chalcopyrite-magnetite rock, Appendix I, which also has the most extensive suite of anomalous pathfinder trace-elements including <u>35ppmAg, 1715ppmAs, 100ppmBi,</u> <u>292ppmPb, >6.0%S, 45ppmSb, 300ppmW, 3891ppmZn, and >20%Fe,590ppmMn,20ppm Zr.</u>



This type of Cu-Au-Ag mineralization is most exclusively defined by the anomalous 0.9 correlation coefficients of the **copper-gold-silver-<u>arsenic-tungsten-zinc</u>** suite of elements, correlation Tables 1, 1a, which is likely to be indicative of higher temperature central-structure ore type origin.

- 2. The second type is Cu-Ag-(Au) mineralization present in quartz vein fragment samples HJ-3, 4 (trench) and HJ-10 (float), carrying up to 10% pyrite and visible traces of chalcopyrite, Appendix I, with up to 0.78%Cu, 89ppmAg, 96ppbAu which is anomalously associated with up to 280ppmAs, 367ppmCo, 337ppmCr, 178ppmNi and very strongly anomalous 3585ppmBi, 2340ppmPb, >6.0%S, 580ppmSb, plus up to 20%Fe. This pathfinder trace-element suite for high-silver copper-silver-(gold) mineralization of particularly anomalous bismuth-lead-antimony-arsenic as defined in column rx-2 in correlation Table 1a at the 0.7 level, is fittingly characteristic of lower temperature veins, relative to the type 1 high copper-gold mineralization described above.
- 3. The third type is weaker Cu-Au mineralization (lacking silver), best represented by bed rock sample HJ-8 (and HJ-6), described as 'Strongly quartz-sericite-pyrite altered ash tuff or fine grained intrusive. Minor partly oxidized quartz-pyrite veinlets with a trace of chalcopyrite. Strongly fractured, with abundant iron hydroxides.', which contain 0.2%Cu, 402ppbAu associated with highly anomalous 28ppmMo, 3150ppmP and weakly anomalous 150ppbHg, 45ppmAs, 15ppmBi, 56ppmPb, 2.7%S, 45ppmSb, plus 11%Fe, and 25ppbAu,811ppmCu plus highly anomalous 1250ppbHg, 474ppmPb, 145Sb, respectively. The very strong associations of both gold and copper with iron values at the 0.7-0.8 level in column rx-4, correlation Table 1a, point to anomalous hydromorphic accumulation of both gold and base metal values in secondary iron oxide minerals. This type of secondary mineralization is particularly indicated by anomalous molybdenum-mercury pathfinder suite, as well as by the complete separation of gold from silver values due to differential mobilization via oxidation over some lateral and vertical distance from the primary source mineralization present in Equity Mines' adjacent 'Southern Tail' structure, or in its southerly extensions onto the Silver Hope property.
- 4. The non-mineralized breccia sample HS-1, and it's highly oxidized rind HS-2, present a study in trace-element depletion/enrichment by oxidation. Thus while highly anomalous levels of Ca and Sr decrease to less anomalous values, and Mg stays about the same, Al,Cr,Li,Mn,Na,Nb,Ni,Sc,V,Y, increase to even more strongly anomalous levels with oxidation, and Hg, Al, Ba, Co, Fe, P, Zr rise from background to anomalous values in the oxidized rind, Appendices I and IV. In absence of diagnostic boron analysis for tourmaline breccia, the anomalous lithium values proxy for the likely pneumatolytic alteration.

The above identified variances in mineralization types and their characteristically associated pathfinder element suites, plus the effects of oxidation on trace-element accumulation or depletion, illustrate the geochemical complexity of primary and weathering mineralization processes, and the importance of relating geochemical interpretation of drainage and soil sample results to lithochemical analysis, as discussed below.

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SILVER HOPE ROCKS

CORRELATION TABLE 1

Silver	Hope	/ Eqi	uity							COF	RREL	ATI	<u>- NC</u>	<u>rab</u> l	.E														İ			
ROCKS	Au	Hg	Ag	AI	As	Ba	Bi	Са	00	Cr	Cu	Fe	κ	Li	Mg	Мп	Мо	Na	Nb	Ni	Р	Pb	S	Sb	Sc	Sr	Ti	V	w	Y	Zn	Zr
Hg	-0.1	1.0									-0.1			1																		
Ag	0.3	<u>-0</u> .2	1.0				<u> </u>				0.6						1					;									-	
	-0.2	0.2	-0.3	1.0							-0.3			:												-		- :		i i		
As	0.9	-0.1	0.4	-0.3	1.0						1.0			Ī								·							· ·			
Ba	-0.3	0.5	-0.5	0.6	-0.3	1.0					-0.4						• • •	-									 				-	
Bi	0.0	-0.2	0.9	-0.3	0.1	-0.4	_1.0	_			0.3	-									-	-			••••••••••••••••••••••••••••••••••••••		·····	- ·	1			
Ca	-0.1	0.0	-0.2	0.4	-0.1	0.0	-0.2	1.0			-0.2																	- :			+	
Co	-0.1	-0.2	0.3	-0.4	0.0	-0.4	0.4	-0.1	1.0		0.0													i				_ :				·
Cr	-0.3	0.0	0.0	0.4	-0.2	0.3	0.1	0.5	0.3	1.0	-0.2			:					-					· ·· · ·					· · · · · · · · ·	į		
Cu	0.9	-0.1	0.6	-0.3	1.0	-0,4	0.3	-0.2	0.0	-0.2	1.0																	•			1	
Fe	0.7	0.0	0.5	-0.3	0.6	-0.4	_0.3	-0.2	0.7	0.0	0.7	1.0															:	_ .		t	•••••	
ĸ	-0.2	0.1	-0.2	0.3	-0.2	0.3	-0.1	-0.2	-0.4	-0.4	-0.2	-0.3	1.0		1									; j		-					i 	
Li	-0.1	0.2	-0.1	0.8	-0.1	0.5	-0.1	0.5	-0.2	0.7	-0 .1	-0.1	0.1	1.0							;		•			<u>.</u>		••••		-	İ	
Mg	-0.2	0.1	-0.2	0.7	-0.2	0.4	-0.2	0.8	-0.1	0.7	-0.2	-0.2	-0.1	0.9	1.0				•••= •		- · · · ·								·	-	.	
Mn	0.1	0 .1	-0.2	0.7	0.1	0.3	-0.3	0.5	-0.2	0.5	0.1	0.0	-0.2	0.8	0.9	1.0		:			-											
Мо	0.2	0.4	-0.2	0.0	-0.1	0.0	-0.2	-0.2	-0.1	-0.3	-0 .1	0.1	0.1	-0.1	-0.2	-0.2	1.0				ł		 i					-				
Na	-0.3	0.1	-0.3	0.7	-0.3	0.5	-0.3	0.5	-0.2	0.5	-0.3	-0.4	0.0	0.5	0.6	0.5	-0.2	1.0			• • • •										-+	
Nb	-0.2	0.1	-0.2	0.6	-0.1	0.5	-0.2	0.6	-0.1	0.8	-0.2	-0.2	-0.3	0.8	0.9	0.7	-0.2	0.6	1.0	-						·		:	·	·	:	
Ni	-0.2	0,1	0.0	0.6	-0.1	0.4	0.0	0.6	0.2	0.9	-0.1	0.1	-0.3	0.8	0.9	0.7	-0.2	0.4	0.9	1.0											1.	
P	0.3	0.3	-0.3	0.3	-0.1	0.1	-0.3	0.1	-0.2	-0.1	-0.1	0.1	0.0	0.3	0.2	0.2	0.7	0.1	0.2	0.1	1.0											
Pb	0.1	0.0	0.9	-0.2	0.2	-0.3	_0.9	-0.2	0.2	0.0	0.4	0.3	0.0	- 0 .1	-0.2	-0.2	-0.1	-0.3	-0.2	-0.1	-0.2	1.0			•••			-		·		
S	0.5	-0.3	0.8	-0.5	0.5	-0.7	0.7	-0.2	0.6	0.0	0.6	0.8	-0.3	-0.2	-0.3	-0.2	-0.1	-0.5	-0.3	-0.1	-0.1	0.6	1.0					-				
Sb	0.0	0.0	0.9	-0.3	0.1	-0.4	0.9	-0.2	0.4	0.1	0.3	0.4	-0.1	-0.2	-0.3	-0.3	0.0	-0.4	-0.2	0.0	-0.2	0.9	0.7	1.0								
Sc	-0.2	0.2	-0.2	0.8	-0.2	0.5	-0.2	0.6	-0.1	0.8	-0.2	-0.1	-0.1	0.9	0.9	0.8	-0.1	0.6	0.9	0.9	0.3	-0.2	-0.3	-0.2	1.0					j	÷	
Sr	-0.2	0.1	-0.3	0.6	-0.2	0.2	-0.3	0.9	-0.2	0.6	-0.3	-0.3	-0.2	0.6	0.8	0.6	-0.2	0.8	0.7	0.6	0.1	-0.3	-0.4	-0.3	0.7	1.0	· · · · · · · · · · · · ·					
Ti	-0.2	-0.1	-0.2	0.3	-0.2	0.2	-0.1	0.3	-0.2	0.2	-0.2	-0.3	0.0	0.4	0.5	0.4	-0.3	0.3	0.5	0.2	0.3	-0.1	-0.1	-0.2	0.4	0.3	1.0	-	ľ	4		
<u>v</u>	-0.1	0.2	-0.2	0.8	-0.2	0.5	-0.2	0.5	-0.2	0.6	-0.2	-0.1	0.0	0.9	0.9	0.8	0.1	0.6	0.8	0.8	0.5	-0.2	-0.3	-0.3	0.9	0.6	0.5	1.0		· · ·		
<u>w</u>	0.9	-0.1	0.3	-0.3	1.0	-0.3	-0.1	-0.1	-0.1	-0.2	0.9	0.6	-0.2	-0.1	-0.1	0.2	-0.1	-0.2	-0.1	-0.1	0.0	0.0	0.4	-0.1	-0.2	-0.2	-0.2	-0.1	1.0			
Y	-0.2	0.1	-0.3	0.5	-0.2	0.6	-0.3	0.4	-0.2	0.5	-0.3	-0.3	-0.3	0.5	0.6	0.5	-0.1	0.7	0.8	0.5	0.3	-0.3	-0.5	-0.3	0.7	0.5	0.6	0.7	-0.2	1.0		
Zn	0.9	<u>-0</u> .1	0.3	-0.2	1.0	-0.3	-0.1	-0.1	-0.1	-0.2	0.9	0.6	-0.2	-0.1	-0.1	0.2	-0.1	-0.2	-0.1	-0.1	0.0	0.0	0.4	0.0	-0.2	-0.2	-0.2	-0.1	1.0	-0.2	1.0	
Zr	0.7	0.1	0.2	0.1	0.8	0.0	-0.1	0.2	0.1	0.3	0.7	0.6	-0.4	0.3	0.3	0.5	-0.1	0.2	0.3	0.4	0.1	0.0	0.4	-0.1	0.4	0.3	0.0	0.3	0.8	0.2	0.8	1.0
Co/Ni	0.1	-0.2	0.4	-0.6	0.1	-0.5	0.5	-0.3	0.9	0.1	0.2	0.6	-0.5	-0.4	-0.4	-0.4	0.1	-0.4	-0.3	-0.1	-0.1	0.3	0.8	0.5	-0.4	-0.3	-0.2	-0.4	0.0	-0.2	0.0	0.1

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Gold	Cor	relat	tions				Copper	Corre	elati	ons					
Gold	Rock	rx-1	IX-2	rx-4	NMsed Msed	Soil	Copper	Rock	rx-1	rx-2	rx-4	NMsed	M sed	Soil	Eq580soil
Cu	0.9	0.3	0.8	0.7	0.9	0.6	Cu	1.0	1.0	1.0	1.0	1.0	1.0	1.0	a 11
Ag	0.3	/0.1	0.7	-	0.6	0.6	Ag	0.6	0.9	1.0		0.9	100	0.6	0.2
S.	0.5	0.2	0.5	0.5	0.1	0.3	5	0.6	0.7	0.7	0.3	0,1	0.5		
РБ	1.0	0.1	0.7	0.0	0.9	0.5	Pb	0.4	0.9	1.0	0.2	1.0	0.8	0.3	0.2
Zn	0.9	0.0	0.3	0.0	0.8	0.2	Zn	0.9	0.5	0.5	0.0	0.8	0.4	0.4	0.3
Hg	-0.1	-0.1	-0.1	0.0	-0.1	0.6	Hg	-0.1	-0.1	-0.1	0.1	-0.2		0.6	0.2
8)	0.0	0.1	0,7	0.5	110	0.7	(3)	0.3	0.9	0.9	0.6	0,9	0.5	0.5	
Sb	0.0	0.1	0.7	0.2	0.9	0.5	So	0.3	0.9	0,9	0,3	0.9	0.8		
As	0.9	0.2	0.7	0.9	0.8	0.3	As	1.0	1.0	1.0	0,5	0.9	0.9	0.2	
P	0.3	0.7	-0.1	0.8	0.7	0.2	P	-0.1	0.0	-0.2	0.6	0.7	0.1	0.1	
W	0.9						Ŵ	0.9				-			
Mo	0.2	0.9	-0.1	0.9	1.0	0.7	Mo	-0.1	0.0	-0.1	0.7	1.0	0.9	0.2	
Cr	-0.3	-0.3	-0.1	-0.3	-0.3	0.1	Cr	-0.2	-0.1	0.0	-0.3	-0.5	0.3	0.1	
Co	-0.1	0.0	0.3	0.3	0.7	0.3	Co	0.0	0.2	0.2	0.2	0.7	0.3	0.4	
Ni	-0.2	-0.2	-0.1	-0.2	0.3	0.4	Ni	-0.1	-0.1	-0.1	-0.1	0.2	0.4	0.6	
Mn	0.1	-0.2	-0.4	-0.2	0.0	0.1	Mn	0.1	-0.3	-0.3	-0.2	0.0	0.1	0.2	
Fe	0.7	0.4	0.5	0.7	0.2	0.5	Fe	0.7	0.4	0.4	0.8	0.1	0.4	0.3	
Nb	-0.2	-0.2	-0.3	-0.2		-0.4	Nb	-0.2	-0.2	-0.2	-0.3		0.3	-0.4	
V	-0.1	0.1	-0.1	0,1	-0.4	-0.2	V	-0.2	-0.1	-0.1	0.2	-0.6	0.3	-0.3	
Zr	0.7	0.0	-0.1	0.0	0.0	0.1	Zr	0.7	0.0	-0.1	0.0	-0.1	-0.3	0.2	
Ti	-0.2	-0.2	0.0	-0.2		-0.5	Ti	-0.2	-0.2	-0.1	-0.2		-0.5	-0.4	
K.	0.2	0.0	0.3		0.1	0.2	К	-0.2	0.1	0.1	0.6	-0.3	-0.3	0.4	
Na	.0.3	-0.2	-0.4	-0.2	-0.7	-0.1	Na	0.3	-0.4	-0.3	-0.3	0.7	0.8	-0.1	
u	-0.1	-0.1	-0.1	-0.1	0.2	0.3	L	-0.1	-0.1	-0.1	0.1	0.2	0.1	0.4	
AI	-0.2	0.0	-0.2	0.0	-0.2	0.1	AI	-0.3	-0.2	-0.2	0.1	-0.2	-0.2	0.2	
La					0.5	0.3						0.3	0.4	0.6	
Y	-0.2	-0,1	-0.3	-0.1	0.4	0.3	Y	-0.3	-0.3	-0.3	-0.3	0.3	-0.4	0.6	
Sc	-0.2	-0.1	-0.2	-0.1	1.00	0.2	Sc	-0.2	-0.2	-0.2	-0.1	11-24		0.4	
Ba	0.3	-0.2	0.3	-0.3	-0.4	0.0	Ba	-0.4	-0.4	-0.4	-0.1	-0.5	-0.6	0.2	
Sr	-0.2	-0.2	-0,4	-0.2	-0.2	0.0	Sr	-0.3	-0.3	-0.3	-0.3	-0.3	-0.5	0.3	
Ca	-0.1	-0.2	-0.3	-0.2	0.2	0.2	Ca	-0.2	-0.2	-0.2	-0.2	0.1	-0.5	0,4	
Mg	-0.2	-0.2	-0.3	-0.2	-0.2	0.1	Mg	-0.2	-0.2	-0.2	-0.1	-0.2	-0.2	0.3	
rx-1	~	rocks	minus	# HJ11	1 (923 ppb Au,	2.1%Cu),	the most highl	y mine	ralized	samp	e (ma	ssive py-	cpy-ma	g.).	
rx-2	~	rocks i	minus t	#s HJ1	1 and HJ8 (40)	2ppb Au).	the two highes	t gold	values	+					
nx-4	-	rocks	minus I	# HJ11	and #s HJ3, 4	, 10, the	highest Ag-As-	Bi-Sb v	alues	quartz	vein s	amples.			
NMsed	~	Non-M	agneti	c Frac	tion sediments										
M sed	~	Magne	tic Fra	ction s	ediments (not	analyzed	for gold or mer	cury).							
Mised	-	Eleme	nt valu	es bek	ow detection th	roughout	for goid or mer	cury).							

S.Zastavnikovich, P.Geo.

Drainage Geochemistry

The limited recce-scale stream sediment sampling survey is based on field-sieved silt sampling with a perforated pan base in combination with a screen of chosen size. The field-sieved sampling method helps isolate lithic silt from organic debris, and to some extent from the lighter clay material, thus providing more homogenous sampling medium than is possible with the standard "grab" silt sampling surveys. Providing the sampling quality is maintained, the uniform material yields repeatable analytical values independent of seasonal variations and elimination of false anomalies, thus enhancing geochemical interpretability of the analytical results.

As indicated on the computer-generated drainage/topo sample locations map, Fig.2, overleaf, tributaries draining north-easterly into Foxy Creek and south into Buck Creek from the Equity Mines mining leases area (Main and South Tail Zones) were sampled in order to identify the pathfinder trace-element signatures for the Equity-type copper-silver-gold mineralization.

The thirteen drainage samples collected were separated into magnetic (M) and non-magnetic (NM) fractions at Min-En Laboratories in Vancouver, and both fractions analyzed for 31 elements by ICP, plus geochemical gold and mercury, in the NM fraction, Appendix IV. The most strongly anomalous gold and copper values of <u>244ppbAu</u>, <u>202ppmCu</u> are present in sample H-105 NM (non-magnetic fraction) from Bessamer Creek which drains south-westerly from the area of the Equity Mine leases and the Silver Hope property. The high Au, Cu values are associated with strongly anomalous arsenic, sulpher and zinc values in both fractions of up to <u>65ppmAs</u>, <u>0.2%S</u>, <u>203ppmZn</u>, indicative of type 1 mineralization as in rock sample HJ-11. The anomalous Ag,B,Cr,Ni,Pb,S,Sb, in one or both fractions are indicative of the type 2 mineralization as in rock samples HJ-3, 4,10 discussed above. Anomalous Mo, Fe values in both fractions suggest that at least part of the highly anomalous Au,

Anomalous Mo, Fe values in both fractions suggest that at least part of the highly anomalous Au, Cu values in the drainage sample H-105 are due to hydromorphic accumulation in Fe-hydroxide minerals of the type 3 variety as in rock sample HJ-8.

Finally, the strongly anomalous Cr, Fe, Nb, Mn values in the magnetic (M) fraction suggest presence of breccia, as in rock samples HS-1, 2.

The other anomalous gold value of <u>81ppbAu</u> in sample H-108 NM is present in Berzelius Creek, which drains to the north of the Equity Mines' Main Zone. No anomalous Ag, Bi, Cu, Mo, Sb, values are present in either fraction, but Zn values are strongly anomalous, particularly with <u>221ppm Zn</u> in the magnetic fraction. Anomalous calcium values in both fractions may indicate presence of remedially-introduced CaCo3 in the ongoing neutralization program at the Equity Silver Mines property, although trace-elements As, Cr, Fe, Nb, P, Pb, S, V, remain anomalous similar to the Bessamer Creek described above.

A very strongly anomalous mercury value of <u>1200ppb Hg</u> is present in sample H103NM, collected in the southeastern quadrant of the Silver Hope property. On the topographic map, Fig.2, lineaments trending easterly, northeasterly and northwesterly can be seen to intersect on the small sharp hill above the anomalous sample, thus providing likely conduits for this volatile element to escape from possible source mineralization at some depth, judging by the lack of any other accompanying pathfinders, Appendix IV.

Of the remaining drainages, samples H104 and H112 on the stream southeast of the property Fig.1, are weakly anomalous in Cu, Pb, Zn, while stream sediment sample H111 draining claims to the south is strongly anomalous in Mn likely indicating presence of a breccia zone.

To summarize, having detected an extensive suite of pathfinder trace-elements for Cu-Ag-Au mineralization in Bessamer Creek, it will be necessary to investigate all of it's eastern tributaries with high-quality field-sieved drainage samples in order to detect presence of mineralization on the Silver Hope property, as distinct from the anomalies in the main drainage caused by the Equity Mines's ore bodies and their mining activities.

In particular, the largest and most deeply incised eastern tributary named Superstition Creek, which is well protected from mining activity contamination by the main height of land to the north, Fig.3, requires high-quality stream sediment sampling at regular intervals throughout its length, as does the Buck Creek tributary to the east, to delineate any cross-cutting mineralization associated with southerly extensions of the Southern Tail ore zone and cross-cutting structures that may have been missed by previous investigators on the property, as well as to define the extent and orientation of the mercury drainage anomaly present to the east.

Soil Geochemistry

The ICP, generated multi-element results of the current reconnaissance-scale soil sampling survey of limited extent conducted on the Hope 1-8 claims are discussed and compared to an overlapping earlier detailed soil sampling grid survey conducted by Equity Silver Mines in 1982 over the old SG & T claims, of larger extent but a limited number of trace element analyses, Ref.2.

Recce-Scale 2001 Soil Sampling Survey

Three chain-and-compass 1km-long lines were soil sampled by L.A. Warren and partner at 50m. intervals along the three internal claim borders of the Hope 1-8 claims at 500m. apart, as shown on the sample locaton 1:10,000 scale topographic map, Fig.3 overleaf, for a total of 63 samples. The east-west oriented lines were designed by J.J. Barakso to intersect the southerly-trending strike extensions of the Equity Mines' Southern Tail ore body, situated just north of the Silver Hope property. The analytical values for the most significant pathfinder elements for the Equity-type mineralization, including Zn, Cu, Ag, As, Hg, Pb, Sb and Au, are plotted on the 1:10,000 scale topo maps and the anomalous values enhanced graphically, Fig.s 3a-h respectively.

In addition, since the two highest gold values of 45 and 42ppb Au are associated with the two highes iron values of 7.85 and 7.21% Fe respectively, Appendix IV, with significant correlation at the 0.5 level, Table 1a, it is likely that the most strongly anomalous gold values in soil samples are at least in part hydromorphic in nature. Their strong correlation with typical Equty-type mineralization pathfinders Cu, Ag, Pb, Hg, Bi, Sb, Mo, at the 0.6 – 7 level, Table 1a, indicates ultimate primary copper-silver-gold mineralization source.

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However, the relatively low correlation with the primary pathfinders Zn and As at only the 0.2 - 0.3 level, Table 1a, is likely indicative of differential leaching of anomalous, but glacially disturbed and/or transported, overburden.

Hence two trace-element/iron ratio maps have been constructed to compare the gold values in soils to their residual As/Fe ratio, Fig.4a, and the Cu/Fe to Zn/Fe ratio, Fig. 4b, in order to enhance the detrital component of the As, Cu, and Zn soil anomalies. While only weakly anomalous residual As values exist in the vicinity of the highest Au values located on Line 1S (-500m.), 250E and Line 2S (-1000m.), 300E, a stronger As/Fe anomaly is centred on Line 3S (-1500m.) at 50E, Map Fig.4a, but without anomalous gold values. Map Fig.4b indicates a strong residual Cu/Fe copper anomaly at 100E on Line 1S and a coincident Cu/Fe, Zn/Fe anomaly on Line 2S between 0B.L. and 150W, both of which may be local in origin, despite the anomalous nature of the glacially transported overburden.

The east-west oriented soil sample lines run for the most part directly downhill, Fig.3, thus complicating geochemical interpretation due to downslope overburden/soil creep. Soil sampling along the topographic contour on the Silver Hope property would be more effective for accurate geochemical interpretation, including detection of mineralized structures and their orientation.

Detailed 1982 Soil Sampling Survey (Equity Silver Mines), Ref.2

BCMEMPR Assessment Report No.10,727, titled 'Geochemical Survey on the SG & T Claims' by R.B. Pearse, B.Sc., Ref.2, includes analytical data for Cu, Ag, Zn, Pb, Hg trace-elements for some 580 soil samples collected in 1982 at 50m. intervals on lines 100m. apart over the western and central portions of the present Silver Hope mineral property.

The original hand-drawn values were copied by the writer from the associated photocopied geochemical maps, and statistical parameters calculated for comparison with the much smaller this year's soil sampling survey described above.

Based on .1 log frequency distribution graphs, the most useful anomalous intervals for each of the five analyzed elements have been determined by the writer to be as follows:

Cu ppm: 70_		120	200	300	500
Ag ppm: 0.7_		1.1	1.7	2.5	3.5
Zn ppm: 120_		170	260	400	600
Pb ppm: 50		75	105	145	200
Hg ppb: 50		90	150	240	400
*Assigned					
Strength:	5	7	8	10	12
*ass the Amore		ma Einefe	_		

*see the Anomaly Maps, Fig.s 5a-e.

Anomaly maps were constructed based on the assigned strength intervals as listed for each element. The three recce survey sampling Lines 1S, 2S and 3S correspond to lines 500N, 1000N and 1500N at 500E-1500E on the old sampling grid, Fig.s 5a-e, overleaf.

Because of the much larger extent and density of soil sampling on the old grid, several distinctly anomalous trends are evident in the older data vs. this year's recce soil sampling survey.

Anomaly maps for <u>copper</u> and <u>silver</u>, Figs.5a, b, indicate a clearly anomalous, one km-wide, swath cutting at about 153 ° SSE from the NW corner to the southern edge of the Silver Hope property.

This almost uniformly anomalous Cu-Ag trend can best be explained as glacially transported anomalous overburden originating from the high saddle immediately below and to the wast of the two Equity ore bodies, the Main and the Southern Tail zones.

The regional ice direction should be confirmed in published literature, but on local scale this direction fits very well with prominent topographic features, such as the main ridge on the west side of Bessemer Creek, Fig. 2.

Anomalous <u>zinc</u> and <u>mercury</u> are concentrated in the southern portion of the anomalous Cu-Ag swath, and selectively in the north, Fig.s 5c,e, while anomalous <u>lead</u> resides mainly in the north and the extreme southwestern corner of the old sampling grid, Fig.5d.

All five elements are variously anomalous in the area south of the Southern Tail zone, but only fieldwork can determine wheather the cause is local mineralization source or contamination through past roadbuilding, drilling, etc. activities.

In addition, all five elements are erratically anomalous to the east, beyond this year's recce soil sampling lines. These eastern anomalies lie at higher elevations and thus may be due to local mineralization sources on the Silver Hope property.

Extensive field-proofing of the old soil grid lines next field season, and correlation with topography, is required prior to further geochemical interpretation of the old soil sampling data.

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SILVER HOPE - '82 SOIL GRID







SILVER HOPE - '82 SOIL GRID

Fig. 5d





SILVER HOPE - '82 SOIL GRID





CONCLUSIONS

- Sampling of mineralized/altered outcrop/float rock on and near the Silver Hope mineral property has identified Cu-Ag-Au-As-W-Zn as the most significant pathfinders for hightemperature Cu-Ag-Au mineralization; Cu-Ag-Bi-Pb-Sb-Au for lower-temperature veins containing Cu-high Ag-low Au mineralization; plus Cu-Au-Mo-Hg-P for anomalous hydromorphic accumulations of Cu-Au (no Ag) values in secondary iron-oxide coatings in highly fractured zones, though considerable overlap exists in the anomalous multi-element suites for each type of mineralization.
- 2. Reconnaissance drainage sampling on and around the Silver Hope property has confirmed the presence of anomalous pathfinder suite of elements for Equity-type <u>copper-silver-gold</u> mineralization in the streams draining the Silver Hope property and it's vicinity.
- 3. A very strong stream sediment <u>mercury</u> anomaly has been located in the headwatwers of a stream flowing to the southeast of the property, which may well be indicative of presence of significant mineralization at some lateral distance and depth.
- 4. The limited recce-scale soil sampling on three lines 500m. apart, and their downhill orientation, did not provide sufficient differentiation for identification of the ultimate sources of the anomalous trace-element values.

The old 1982 data from the more extensive and detailed Equity soil sampling grid in the western and central area of the Silver Hope property indicates a one km.-wide south-southasterly swath of Cu-Ag anomalous soils, consitent with anomalous glacially-transported overburden originating in the high saddle just west of the two Equity Silver Mines orebodies, the Main and the Southern Tail zones.

Other stronger multi-element soil anomalies, both within and to the east of the anomalous glacial swath, may well be caused by local mineralization sources present on the Silver Hope property.

RECOMMENDATIONS

1. The uncontaminated eastern tributaries of Bessemer Creek, particularly the largest named Superstition Creek, and the stream flowing on the east side of the Silver Hope property, should be high-quality drainage sampled at regular intervals up to their headwaters to detect intersecting Cu-Ag-Au mineralization zones and cross-cutting Hg-anomalous structures. Any mineralized/altered bedrock/float encountered should be sampled for lithochemical comparison.

2. To distinguish detrital and hydromorphic pathfinder-element anomalies of local origin from those caused by glacially transported anomalous overburden it will be necessary to sample soils along the topographic contour using chain-and-compass plus GPS for control, instead of the traditionally convenient but less useful sampling along geophysical grids. The strongest of the five-element anomalies from the 1982 soil sampling survey should be re-located and checked for man-made contamination, then re-sampled to benefit from ICP multi-element analysis.

Three well chosen contours should be sampled at 50m. intervals across the property, and the anomalous portions followed-up with sampling of the in-between contours. To provide intersecting data, the two ridgetops on either side of Superstition Creek should be single-line soil sampled over their entire length.

3. For comprehensive geochemical interpretation all samples should be analyzed for 30+ elements by ICP to provide mineralization-, alteration-, lithology- and structure-related differentiated pathfinder suites of anomamlous trace-elements. Both magnetic and nonmagnetic fractions of the high-quality drainage samples should be analyzed for added clarity, since certain trace elements have affinity for one or the other fraction.

4. The most sound geochemical anomalies should be confirmed with appropriate geophysical methods for precision prior to drill hole siting.

REFERENCES CITED

- 1. Wetherell, D.G., Sinclair, A.J., Schroeter, T.G, BCMEMPR, Paper 1979-1, Geological Fieldwork 1978, Summary of Field Activities article "Preliminary Report on the Sam Goosly Copper-Silver Deposit" .p.133-137.
- 2. Pease, R.B., BCMEMPR Assessment Report # 10,727 titled 'Geochemical Survey on the SG & T Claims', for Equity Silver Mines Ltd., Oct. 1982.

CERTIFICATE

I, Sam Zastavnikovich, do hereby certify that:

- 1. I am a consulting geochemist with offices at 5063-56th Street, Delta, B.C., V4K 3C3, and am a 1969 graduate of the University of Alberta, with B. Ed. degree in Physical Sciences.
- 2. I have been continuously employed from 1969 to 1982, and seasonally since 1966, by Falconbridge Ltd. of Toronto and Vancouver as field geochemist working in Canada, U.S.A., the Carribean and S. America.
- 3. Since 1982 to present I have continuously practiced as a consulting geochemist in the mineral exploration industry.
- 4. I am a Fellow of the Association of Exploration Geochemists.
- 5. I am a member in good standing of the the Association of Professional Engineers and Geoscientists of British Columbia, Canada.
- 6. I have no direct nor indirect interest in the subject properties or the client company.
- 7. This report is based on my own fieldwork, supervision and observations on the property.

S. Zastavnikovich, P.Geo Consulting Geochemise CIEN

APPENDIX 1

Silver Hope Property Rock Sample Descriptions-2001

- **HJ-1** Brecciated chert or cherty tuff with light fragments in a darker matrix. Minor iron hydroxides on fractures. Common quartz-pyrite fracture fillings to 2-3 mm in width. Trace to 1% disseminated pyrite.
- **HJ-2** Fine grained, light to medium, massive gray tuff or subvolcanic intrusive. Moderate pervasive quartz-sericite-pyrite alteration. 10-15% finely disseminated pyrite.
- **HJ-3** Trench. Quartz vein fragment with about 10% coarse pyrite as blebs and streaks. Trace chalcopyrite.
- HJ-4 Trench. Similar to HJ-3 but includes a 1 cm wide streak or band of pyrite. Trace chalcopyrite.
- HJ-5 Massive, homogeneous, fine grained intermediate to felsic tuff, probably "dust tuff" in Equity Silver nomenclature. Weak pervasive sericitization. Mafics altered to chlorite and pyrite. 2-3% very finely disseminated pyrite with a probable trace of chalcopyrite. Minor iron hydroxides on fractures., weakly magnetic.
- HJ-6 Moderately to strongly quartz-sericite-pyrite altered medium grained intrusive, probably quartz monzonite. Minor quartz-pyrite veinlets up to 2mm wide. Difficult to estimate total pyrite content, probably 1-3%. Abundant fractures with iron hydroxides.
- HJ-7 Fine to medium grained, leucocratic felsic dyke. Possibly weakly sericitized. Numerous parallel fractures with minor iron hydroxides and boxworks after pyrite.
- HJ-8 Strongly quartz-sericite-pyrite altered ash tuff or fine grained intrusive. Minor partly oxidized, quartz-pyrite veinlets with a trace of chalcopyrite. Strongly fractured, with abundant iron hydroxides.
- HJ-9 Float. Massive, light gray, fine ash tuff, probably Equity Silvers' "dust tuff". Weak pervasive sericitization. Common hairline chlorite-pyrite filled fractures. Mafic minerals partly altered to chlorite and pyrite. Overall trace to 1% very finely disseminated pyrite.,weakly magnetic.
- **HJ-10** Float. Quartz vein fragment, possibly exhibiting weak ribboning and containing about 3% pyrite. Traces of an unknown grey metallic mineral. Specimen contains low As and Sb so it is not tetrahedrite. However, specimen contains relatively high Bi, Co and Cu.
- HJ-11 Float. Coarse grained massive pyrite-chalcopyrite-magnetite rock. Approximately 5% wispy chalcopyrite, 40% equant, granular aggregates of magnetite, 15% pyrite as small cubes and blebs. Remainder of rock appears to be quartz or a mixture of quartz and feklspar.
- **HJ-12** From soil line L3S, 3+65E location. Massive, greenish gray fine tuff, probably "dust tuff". Weak pervasive sericitization. Trace very finely disseminated pyrite.

APPENDIX I

Silver Hope Property Rock Sample Descriptions - 2001, cont.d

HS-1 Float. Brecciated, moderately chloritized biotitic intrusive. Carbonate fracture fillings and breccia matrix.

HS-2 Float. Oxidized outter rind of above rock sample HS-1. Rusty red weathering rind suggests that the carbonate contains some iron.

- **HS-3** Float. Sheared, moderately quartz-sericite-pyrite altered medium grained, quartzbearing intrusive. 5-7% disseminated pyrite.
- **HS-4** Float. Fine grained granodiorite with 5-7% finely disseminated magnetite, possibly after mafic minerals. Weak pervasive epidote/chorite alteration. One hairline quartz veinlet with a 1 cm wide epidote/chlorite envelope. Mafic minerals altered to chlorite.

				A	PPENDIX	<u>II</u>	 		<u> </u>	
	HOPE	PROPER	RTY .	CLAIMS	STATUS (FI		ute	r Record	l File	s)
										11
Tenure	Name	Owner	%	Мар	Work Rec.to	Status		M.D.	Units	Tag
385716	HOPE 1	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688389
385717	HOPE 2	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688390
385718	HOPE 3	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688391
385719	HOPE 4	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688392
385720	HOPE 5	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688393
385721	HOPE 6	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688394
385722	HOPE 7	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688395
385724	HOPE 8	137692	100	093L01W	20020415	Good Standing 20020415	15	Omineca	1	688396
387965	HOPE 9	100657	100	093L01W	20020625	Good Standing 20020625	15	Omineca	1	694409
387966	HOPE 10	100657	100	093L01W	20020625	Good Standing 20020625	15	Omineca	1	694410
387967	HOPE 11	100657	100	093L01W	20020625	Good Standing 20020625	15	Omineca	1	694411
387968	HOPE 12	100657	100	093L01W	20020625	Good Standing 20020625	15	Omineca	1	694412
387969	HOPE 13	100657	100	093L01W	20020625	Good Standing 20020625	15	Omineca	1	694413
387970	HOPE 14	100657	100	093L01W	20020625	Good Standing 20020625	15	Omineca	1	694414
388048	HOPE 15	100657	100	093L01W	20020627	Good Standing 20020627	15	Omineca	1	694415
388049	HOPE 16	100657	100	093L01W	20020627	Good Standing 20020627	15	Omineca	1	694416
388050	HOPE 17	100657	100	093L01W	20020627	Good Standing 20020627	15	Omineca,	1	6 944 17
388099	HOPE 18	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	694418
388100	HOPE 19	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	694419
388101	HOPE 20	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	694420
388102	HOPE 21	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	694421
388103	HOPE 22	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	6944221
388104	HOPE 23	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	6944231
388105	HOPE 24	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	694424
388106	HOPE 25	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	694425
388107	HOPE 26	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	<u>694426</u> 1
388108	HOPE 27	128313	100	093L01W	20020628	Good Standing 20020628	15	Omineca	1	6944271

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			APPENDIX III			
	 	Expendit	ures - Silver Hope Clai	ms, June 24-	July 3, 2001	
	ASSAYERS C	ANADA /	MIN EN LABS.	8282 Sherb	rooke St.Vancou	uve
filo	type	samles	analysis	\$/unit	amount	
11/02788	Rocks	16	nren	φ/um 5.25	94 00	
100210100	TOORS	1 1	Accev Cu Ph Zn Au	28.50	28.50	
		5	Assay Cu	20.00	45.00	
11/02781	Seds	13	Magnetic separation	9.00	104.00	
1V0278SJ	Soils	63	Drep.	1 80	113 40	
			·····			
	All samples	92		8.50	782.00	
	All samples	92	Geochem: Ha	7.00	644.00	
	ля запіріса	105	ICP: Agua regia leach	9.00	840.00	
		100	ICF. Aqua legia leach	0.00	1 2640.00	
	COT	7 00%		Sum,	404.002	
	0.51	7.00%		tatal	104.003	
			~ ~	iQiai,	2023.70	
Date	CJL Enterprise	es, Box 66	2, Smithers, B.C.	•	· · · · · · · · · · · · · · · · · · ·	
06/26-30	Prospecting, Line	cutting and	Soil sampling		:	
	L.B. Warren	3	days	350.00	1050.00	
<u>.</u>	R.B.Anderson	3	days	260.00	780.00	
	truck	3	days	75.00	225.00	
	mileage, km	660	km	0.25	165.00	
	supplies		bags,flag.,thread,etc.		50.00	
	GST	7.00%		r	158.90	
				total,	2428.90	
	Fieldwork / Tra	vel				
		days	••• •• ••• ••• •• ••• ••• ••• ••• •••	\$/day; \$/km.		
5/24-7/01	J. Barakso	6	Prospecting, Supervision	650.00	3900.00	
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	of Soil sampl. Survey Trave	el	*	
5/24-7/01	S.Zastavnikovich	6	Drainage sampling Survey,	400.00	2400.00	
			Prospecting, Travel		t	
5/24-7/01	Lodging, 2 men	6	Motels		650.84	
	Food, 2 men	6	Food/restaurants	· ···· ·· ··· ··	452.29	
	Transport, 2 men	6	4x4 Truck	50.00	300.00	
	······		gas		396.59	
		3010	Km mileage	0 10	301 00	
	Communication	6	Two-way radios	20.00	120.00	
	Field supplies		bags flag, thread etc.		35.00	
03-10	S Zastavnikovich	0.5	sample preparation	400.00	200.00	
	O.Lastavintonon	30	km sample delivery	0.00	6.00	
				total	8761 72	
1	Casakenstaal A					
	Geochemical A	ssesmen		P		
	C.Staargard		Kock sample Descriptions,	and		
	<u></u>	4 -	Computer Maps preparation	n in	430.00	-
	S.Zastavnikovich	4.5	Report prep. interpretation,	400.00	1800.00	
	<u> </u>		Report typing, reproduct.		288.39	
	Consulting		Mileage+parking, 4 trips	0.20/km	80.00	
		 		total,	2598.39	 נ
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				Expenditures	16614.77	

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SILVER HOPE - ROCKS/SED.S

APPENDIX IV

ASSAYERS MIN-EN LABs

SILVER	HOPE	Geoch	em	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ЮР	ЮР	ICP	IÇP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
1V0278	ppb	ppb	ppm	%	ppm	ppm	ppm	%	ppm _:	ppm	ppm	%	%	ppm j	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
ROCKS	Au	Hg	Ag	AI	As	Ba	Bi	Ca	Co	Cr	Cu	Fe	ĸ	La	<u>_Li</u>	Mg	Mn	Мо	Na	Nb	Ni	P	۴b	S	Sb	Sc	Sr	τi	v	w	Y	Zn	Zr
HJ-1	6	180	0.1	3.01	15	210	1	1.67	10	229	93	2.5	0.3	10	6	0.57	325	2	0.29	10	21	580	8	0.01	5	6	181	0.03	61	10	9	66	12
HJ-2	5	50	0.1	1.66	10	70	1	0.72	19	84	159	5.4	0.2	10	13	1.7	665	1	0.09	10	31	1740	10	3.9	5	4	59	0.21	92	10	4	75	7
нј-з	34	25	28.4	0.06	110	20	1100	0.0	184	337	2826	10	0	10	1	0.02	30	2	0.01	10	95	240	632	6.00	345	1	11	0.01	9	10	1	75	7
HJ-4	96	30	89.2	1.33	280	40	3585	0.1	55	172	7808	8.9	0.3	10	10	0.44	150	1	0.02	10	75	460	2340	6.00	580	4	1	0.05	61	10	1	148	7
HJ-5	78	45	0.1	2.68	1	210	10	0.2	14	157	1900	6.8	0.8	10	22	1.23	210	2	0.05	10	82	1000	26	1.05	10	7	3	0.09	112	10	2	31	6
HJ-6	25	1250	0.1	1.58	15	290	15	0.1	6	83	811	8.4	0.3	10	7	0.65	130	14	0.02	10	19	1390	474	0.15	145	3	20	0.01	57	10	2	123	8
HJ-7	11	65	0.1	0.26	10	60	15	0.0	1	216	56	1.0	0.2	10	1	0.03	20	4	0.01	10	6	130	58	0.05	10	1	16	0.01	8	10	1	11	2
HJ-8	402	150	0.1	2.01	45	80	15	0.2	34	55	1833	11	0.2	10	6	0.45	195	28	0.04	10	36	3150	56	2.75	45	6	23	0.01	114	10	4	54	9
HJ-9	10	75	0.1	1.88	1	310	1	0.1	8	109	160	3.5	0.4	10	6	0.46	120	4	0.05	10	53	510	1	0.3	5	3	16	0.01	64	10	3	14	4
HJ-10	47	35	25.6	0.08	55	20	1395	0.0	367	2 9 8	1317	20	0	10	1	0.02	15	2	0.01	10	178	270	296	6.00	200	1	1	0.01	14	10	1	17	12
HJ-11	923	40	34.8	0.4	1715	20	100	0.1	26	101	21000	20	0.1	10	5	0.24	590	1	0.01	10	37	760	292	6.00	45	1	1	0.01	39	330	1	3891	29
HJ-12	7	35	0.1	2.57	1	100	5	0.0	14	92	87	4.9	0.2	10	4	0.85	680	1	0.03	10	87	150	4	0.05	5	2	1	0.01	46	10	1	100	4
HS-1	7	80	0.1	2.8	1	70	1	11.8	36	416	104	4.6	0.1	10	27	4.62	925	1	0.17	50	346	920	2	0. 55	10	20	303	0.1	159	10	8	50	13
HS-2	5	445	0.1	4.36	1	480	1	2.1	49	622	124	6.7	0.1	10	45	4.5	1270	1	0.21	70	513	1390	4	0.25	10	30	139	0.12	253	10	17	79	18
HS-3	8	55	0.1	0.35	1	230	5	0.0	2	106	29	2.2	0.2	_10	1	0.03	15	2	0.08	10	5	110	10	1.2	5	1	22	0.01	3	10	2	11	5
HS-4	37	70	0.1	0.84	5	200	1	1.2	6	125	46	2.8	0	10	1	0.19	120	1	0 07	30	8	1210	16	0.1	5	2	30	0.19	87	10	16	65	5
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APPENDIX IV

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ASSAYERS MIN-EN LABs

SILVER	HOPE	Geoche	em IC	P 10	P ICP	ICP		ICP	ICP	ICP	ICP	ICP	ICP		P IC	P ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ЮP	ICP
(M)	%		opm 🥬	% рр	m ppm	ppm	%	ppm p	opm	ppm	%	%	ppm	nnqc	% pp	m ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ррт	ppm	ppm	ppm
SEDS.	Mag.		Ag /	AI /	ls Ba	Bi	Са	Co	Cr	Cu	Fe	ĸ	La	LI N	lg M	in Mo	Na	Nb	Ni	P	Pb	S	Sb	Sc	Sr	Ti	v	w	Y	Zn	Zr
H101m.	9		0.1 1.1	2	5 200	1	0.81	21	93	15	7.0	0.1	10	14 0.9	5 83	0 1	0.03	70	47	2240	12	0.01	5	4	51	0.24	208	10	13	152	16
H102m	7		0.1 1.1	7	0 210	1	0.73	19	84	16	6.4	0.1	10	14 0.9	7 69	5 1 ¹	0.03	70	41	2050	16	0.01	5	4	81	0.24	193	10	12	160	17
H103m	10		0.1 1.3	4	1 330	1	0.71	19	99	16	6.4	0.1	10	15 1.	4 41	0 1	0.03	60	45	1760	8	0.01	1	4	63	0.19	196	10	10	146	14
H104m,	11		0.1 1.1	2	5 150	5	0.78	20	125,	25	8.0	0.1	10	15 1.0	8, 59	15 1	0.02	80	59	2640	14	0.01	5	3	36	0.14	267	10	13	149	13
H105m	30		0.1 0.8	8	35 70	5	0.59	28	189	122	10	0.1	10	14 0.1	6 82	5 4	0.01	130	83	2220	36	0.05	15	2	13	0.12	356	10	9	203	11
H106m.	21		0.1 0.9	6	1 190	1	0.78	20	104	16	5.9	0.1	10	7 0.3	1 67	5 1	0.03	70	48	2360	8	0.01	1	4	77	0.25	204	10	15	153	22
H107m.	21	:	0.1 0.9	8	5 190	1	0.81	20	74	15	6.0	0.1	10	9 0	7 76	0 1	0.03	50	46	2320	8	0.01	1	4	112	0.23	170	10	14	134	17
H108m	30	-+	0.1 0.7	3	5 200	1	0.74	29	212	27	9.8	0.1	10	6 0.0	7 77	0 1	0.02	140	89	2280	20	0.05	5	5	62	0.34	369	10	15	221	28
H109m.	25		0.1 0.7	5	5 180	1	1.0 1	22	175	26	7.7	0.1	10	7 0.8	7 59	15 1	0.03	90	67	2590	12	0.05	1	5	80	0.22	276	10	16	188	23
H110m.	25		0.1 1.0	4	5 170	1	0.76	18	58	67	5.4	0.1	20	10 0.9	1 58	0 1	0.02	50	42	2590	14	0.01	5	4	39	0.19	168	10	15	149	22
H111m.	19		0.1 1.0	3	10 200	1	0.65	25	97	29	7.9	0.1	10	9 0.0	4 139	5 1	0.02	100	48	1710	12	0.01	1	4	32	0.33	272	10	11	182	17
H112m.	13		0.1 1.1	3	5 140	1	0.77	23	162	18	9.2	0.1	10	16 1.0	8 61	0 1	0.02	120	72	2390	16	0.01	5	3	29	0.2	327	10	12	149	13
H113m.	27		0.1 0.8	35	1 130	1	0.75	27	111	13	7.6	0.1	10	7 0.7	5 86	5 1	0.03	110	57	2260	8	0.01	1	5	40	0.36	298	10	14	170	25
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SILVER	HOPE	Geoche	∋m lC	РК	P ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP		P IC	PICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
SILVER (NM)	HOPE	Geoche ppb	em IC ppm T	PK %pp	P ICP	ICP ppm	ICP %	ICP ppm p	ICP ppm	ICP ppm	ICP %	ICP %	ICP ppm p	ICP IC	P IC % pp	P ICP m ppm	ICP %	ICP ppm	ICP ppm	ICP ppm	ICP ppm	ICP %	ICP ppm	ICP ppm	ICP ppm	ICP %	ICP ppm	ICP ppm	ICP ppm	ICP ppm	ICP ppm
SILVER (NM) 8EDS.	HOPE ppb Au	Geoche ppb I Hg	em IC ppm 5 Ag /	P 10 % pp Al /	PICP mppm As Ba	ICP ppm Bi	ICP % Ca	ICP ppm p Co	ICP ppm Cr	ICP ppm Cu	ICP % Fe	ICP % K	ICP ppm p La	ICP IC ppm Li N	P IC % pp	P ICP m ppm In Mo	ICP % Na	ICP ppm Nb	ICP ppm Ni	ICP ppm P	ICP ppm Pb	ICP % S	ICP ppm Sb	ICP opm Sc	ICP ppm Sr	ICP % Tì	ICP ppm V	ICP ppm W	ICP ppm Y	ICP ppm Zn	ICP ppm Zr
SILVER (NM) SEDS. H101nm	HOPE ppb Au 4	Geoche ppb Hg 95	em IC ppm 3 Ag 7 0.1 1.0	P 10 % pp Al /	PICP mppm As Ba	ICP ppm Bi 1	ICP % Ca 0.43	ICP ppm p Co 9	ICP ppm Cr 21	ICP ppm Cu 13	ICP % Fe 3.5	ICP % K 0.1	ICP ppm p La 10	ICP IC ppm Li N 12 0.1	P IC % pp 1g N 17 51	PICP mppm In Mo 0 1	ICP % Na 0.02	ICP ppm Nb 10	ICP ppm Ni 22	ICP ppm P 1220	ICP ppm Pb 14	ICP % S 0.01	ICP ppm Sb 1	ICP ppm Sc 3	ICP ppm Sr 44	ICP % Ti 0.0	ICP ppm V 60	ICP ppm W 10	ICP ppm Y 7	ICP ppm Zn 76	ICP ppm Zr 5
SILVER (NM) 8EDS. H101nm H102nm	HOPE ppb Au 4	Geoche ppb I Hg 95 115	em IC ppm 3 Ag 7 0.1 1.0 0.1 1.0	P 10 % pp Al / 08	P ICP m ppm As Ba 10 200 25 220	ICP ppm Bi 1	ICP % Ca 0.43 0.36	ICP ppm p Co 9 9	ICP ppm Cr 21 20	ICP ppm Cu 13 13	ICP % Fe 3.5 3.3	ICP % K 0.1	ICP ppm p La 10	ICP IC ppm Li N 12 0.9	P IC % pp g N 7 51	P ICP m ppm In Mo 0 1 0 2	ICP % Na 0.02 0.02	ICP ppm Nb 10	ICP ppm Ni 22 19	ICP ppm P 1220 960	ICР ppm РЬ 14 12	ICP % 0.01 0.01	ICP ppm Sb 1	ICP ppm Sc 3	ICP ppm Sr 44 78	ICP % Ti 0.0	ICP ppm V 60 57	ICP ppm W 10	ICP ppm Y 7 6	ICP ppm Zn 76 68	ICP ppm Zr 5
SILVER (NM) 8EDS. H101nm H102nm H103nm	HOPE ppb Au 4 5	Geoche ppb Hg 95 115 1200	em IC ppm 5 Ag 2 0.1 1.0 0.1 1.0 0.1 1.2	P 10 % pp Al / 08 25	P ICP m ppm As Ba 10 200 25 220 5 370	ICP ppm Bi 1 1	ICP % Ca 0.43 0.36 0.43	ICP ppm p Co 9 9 10	ICP ppm Cr 21 20 23	ICP ppm Cu 13 13 15	ICP % Fe 3.5 3.3 3.2	ICP % 0.1 0.1	ICP ppmr La 10 10	ICP IC ppm Li M 12 0.9 12 0.9	P IC % pp g N 7 51 1 54 9 25	P ICP m ppm In Mo 0 1 10 2 15 1	ICP % Na 0.02 0.02 0.02	ICP ppm Nb 10 10	ICP ppm Ni 22 19 23	ICP ppm P 1220 960 950	ICP ppm Pb 14 12 12	ICP % 0.01 0.01 0.01	ICP ppm Sb 1 1	ICP ppm Sc 3 3 3	ICP ppm Sr 44 78 64	ICP % Ti 0.0 0.0	ICP ppm V 60 57 53	ICP ppm W 10 10	ICP ppm Y 7 6 5	ICP ppm Zn 76 68 66	ICP ppm Zr 5 5
SILVER (NM) 8EDS. H101nm H102nm H103nm H104nm	HOPE ppb Au 4 5 6	Geoche ppb I Hg 95 115 1200 85	IC ppm 3 Ag A 0.1 1.0 0.1 1.0 0.1 1.2 0.1 1.2	P 10 % pp Al 1 08 25 17	P ICP m ppm As Ba 10 200 25 220 5 370 25 170	ICP ppm Bi 1 1 1	ICP % Ca 0.43 0.36 0.43 0.45	(CP ppm p Co 9 9 10 11	ICP ppm Cr 21 20 23 20	ICP ppm Cu 13 13 15 34	ICP % Fe 3.5 3.3 3.2 3.6	ICP % 0.1 0.1 0.1	ICP ppm r La 10 10 10	ICP IC pm Li M 12 0.9 12 0.9 12 0.9 12 0.9 12 0.9	P IC % pp g N 7 51 1 54 9 25 2 55	P ICP m ppm In Mo 0 1 0 2 55 1 50 1	ICP % Na 0.02 0.02 0.02 0.02	ICP ppm Nb 10 10 10	ICP ppm Ni 22 19 23 29	ICP ppm P 1220 960 950 1530	ICP ppm Pb 14 12 12 20	ICP % 0.01 0.01 0.01	ICP ppm Sb 1 1 5 5	ICP ppm Sc 3 3 3 3	ICP ppm Sr 44 78 64 39	ICP % Ti 0.0 0.0 0.0 0.0	ICP ppm V 60 57 53 53	ICP ppm W 10 10 10	ICP ppm Y 7 6 5 8	ICP ppm Zn 76 68 66 101	ICP ppm Zr 5 5 5
SILVER (NM) 8EDS. H101nm H102nm H103nm H104nm H105nm	HOPE ppb Au 4 5 8 244	Geoche ppb I Hg 95 115 1200 85 90	am IC ppm 3 Ag 4 0.1 1.0 0.1 1.0 0.1 1.2 0.1 1.1 0.4 0.1	P K Pp Al 208 25 17 .9	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 55 80	ICP ppm Bi 1 1 1 5	ICP % Ca 0.43 0.36 0.43 0.43 0.45 0.64	ICP ppm p Co 9 9 10 11 18	ICP ppm Cr 21 20 23 20 16	ICP ppm Cu 13 13 13 15 34 202	ICP % Fe 3.5 3.3 3.2 3.6 3.7	ICP % 0.1 0.1 0.1 0.1 0.1	ICP ppm (La 10 10 10 20	ICP IC ppm Li M 12 0.9 12 0.9 12 0.9 12 0.9 13 0.9	P IC % pp g N 7 51 1 54 9 25 2 55 2 75	P ICP m ppm in Mo 0 1 0 2 05 1 00 1 1 00 16	ICP % Na 0.02 0.02 0.02 0.02 0.02	ICP ppm Nb 10 10 10 10	ICP ppm Ni 22 19 23 29 31	ICP ppm P 1220 960 950 1530 2960	ICP ppm Pb 14 12 12 20 60	ICP % 0.01 0.01 0.01 0.01 0.15	ICP ppm Sb 1 1 5 5 20	ICP ppm Sc 3 3 3 3 2	ICP ppm Sr 44 78 64 39 40	ICP % Ti 0.0 0.0 0.0 0.0	ICP ppm V 60 57 53 53 44	ICP ppm W 10 10 10 10	ICP ppm Y 7 6 5 8 10	ICP ppm Zn 76 68 66 101 147	ICP ppm Zr 5 5 5 5
SILVER (NM) 8EDS. H101nm H102nm H103nm H104nm H105nm	HOPE ppb Au 4 5 6 244 3	Geoche ppb Hg 95 115 1200 85 90 90	am IC ppm 1 Ag 1 0.1 1.0 0.1 1.0 0.1 1.2 0.1 1.1 0.4 0.1 0.1 0.9	P 10 % pp Al / 25 17 .9	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 55 80 5 300	ICP ppm 1 1 1 1 5 1	ICP % Ca 0.43 0.36 0.43 0.45 0.64 0.61	ICP ppm r Co 9 9 10 11 11 18 11	ICP ppm Cr 21 20 23 20 16 24	ICP ppm Cu 13 13 13 15 34 202 15	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4	ICP % 0.1 0.1 0.1 0.1 0.1	ICP ppm r La 10 10 10 20 20	ICP IC pm Li M 12 0.1 12 0.1 12 0.1 13 0.1 7 0.1	P IC % pp g N 7 51 1 54 9 25 2 55 2 55 2 75 7 57	P ICP m ppm In Mo 0 1 0 2 55 1 1 00 1 1 00 16 0 1	ICP % Na 0.02 0.02 0.02 0.02 0.02 0.01 0.03	ICP ppm Nb 10 10 10 10 10 10	ICP ppm Ni 22 19 23 29 31 28	ICP ppm P 1220 960 950 1530 2960 1910	ICP ppm Pb 14 12 12 20 60	ICP % 0.01 0.01 0.01 0.01 0.15 0.01	ICP ppm Sb 1 1 5 5 20 5	ICP ppm Sc 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ICP ppm Sr 44 78 64 39 40 132	ICP % Ti 0.0 0.0 0.0 0.0 0.0 0.0	ICP ppm V 60 57 53 53 44 66	ICP ppm W 10 10 10 10 10	ICP ppm Y 7 6 5 8 10	ICP ppm Zn 76 68 66 101 147 85	ICP ppm Zr 5 5 5 5 5 8
SILVER (NM) 8ED8. H101nm H102nm H102nm H104nm H104nm H106nm H107nm	HOPE ppb Au 4 5 6 244 3 4	Geoche ppb Hg 95 115 1200 85 90 90 130	am IC ppm 3 Ag 4 0.1 1.0 0.1 1.0 0.1 1.2 0.1 1.2 0.1 1.1 0.4 0. 0.1 0.9 0.1 0.9	P 10 % pp Al / 08 08 08 08 08 08 08 08 08 1	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 35 80 5 300 20 320	ICP ppm Bi 1 1 1 5 1	ICP % Ca 0.43 0.36 0.43 0.45 0.64 0.61	(CP ppm p Co 9 9 10 11 18 11 15	ICP ppm Cr 21 20 23 20 16 24 21	ICP ppm Cu 13 13 15 34 202 15 20	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4 4.3	ICP % 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm p La 10 10 10 20 20 20	ICP IC ppm 12 0.9 12 0.9 12 0.9 12 0.9 13 0.9 7 0.9 9 0.4	P IC % pp g N 7 51 1 54 9 25 2 55 2 55 2 75 8 129	P ICP m ppm in Mo 0 1 25 1 55 1 10 16 70 1 15 1	ICP % Na 0.02 0.02 0.02 0.02 0.01 0.03 0.03	ICP ppm Nb 10 10 10 10 10 10 10	ICP ppm Ni 22 19 23 29 31 28 40	ICP ppm P 1220 960 950 1530 2960 1910 2040	ICP ppm Pb 14 12 12 20 60 10	ICP % 0.01 0.01 0.01 0.01 0.15 0.01 0.05	ICP ppm Sb 1 1 5 5 20 5 1	ICP ppm Sc 3 3 3 3 3 3 3 3 3 3 3 3 3	ICP ppm Sr 44 78 64 39 40 132 147	ICP % Ti 0.0 0.0 0.0 0.0 0.0 0.1 0.1	ICP ppm V 60 57 53 53 44 66 66	ICP ppm W 10 10 10 10 10 10	ICP ppm Y 7 6 5 8 10 10 10	ICP ppm Zn 76 68 66 101 147 85 92	ICP ppm Zr 5 5 5 5 5 8 8
SILVER (NM) 8ED8. H101nm H102nm H103nm H104nm H105nm H106nm H107nm H108nm	HOPE ppb Au 4 5 6 244 3 4 81	Geoche ppb Hg 95 115 1200 85 90 90 130 170	am IC ppm 3 Ag 4 0.1 1.0 0.1 1.2 0.1 1.1 0.4 0. 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.7	P IC % pp Al / 08 25 17 .9 .9 .88 1 .7 4	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 35 80 5 300 20 320 20 280	ICP ppm Bi 1 1 1 5 5 1 1	ICP % Ca 0.43 0.36 0.43 0.43 0.45 0.64 0.64 0.61 0.64 0.71	(CP ppm r Co 9 9 10 11 18 11 15 13	ICP ppm Cr 21 20 23 20 16 24 21 22	ICP ppm Cu 13 13 15 34 202 15 20 32	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4 4.3 3.7	ICP % 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm ; La 10 10 10 20 20 20 20	ICP IC pm Li M 12 0.9 12 0.9 12 0.9 12 0.9 13 0.9 7 0.9 9 0.4 6 0.9	P IC % pp g N 7 51 1 54 9 25 2 55 2 75 7 57 8 129 5 73	P ICP m ppm ln Mo 0 1 25 1 55 1 50 1 50 1 50 1 55 1 55 1 55 1 5	ICP % Na 0.02 0.02 0.02 0.02 0.02 0.03 0.03 0.02	ICP ppm Nb 10 10 10 10 10 10 10 10 10 10	ICP ppm Ni 22 19 23 29 31 28 40 35	ICP ppm P 1220 960 950 1530 2960 1910 2040 1990	ICP ppm Pb 14 12 12 20 60 10 10	ICP % 0.01 0.01 0.01 0.01 0.05 0.05 0.10	ICP ppm Sb 1 1 5 20 5 1 1	ICP ppm Sc 3 3 3 3 3 3 3 3 3 3 4	ICP ppm Sr 44 78 64 39 40 132 147 89	ICP % Ti 0.0 0.0 0.0 0.0 0.0 0.1 0.1	ICP ppm V 60 57 53 53 53 44 66 66 66	ICP ppm W 10 10 10 10 10 10 10 10	ICP ppm Y 7 6 5 8 10 10 10 11	ICP ppm Zn 76 68 66 101 147 85 92 89	ICP ppm 2r 5 5 5 5 5 5 8 8 6 15
SILVER (NM) 8ED8. H101nm H102nm H102nm H104nm H104nm H106nm H106nm H108nm	HOPE ppb Au 4 5 6 244 3 4 81 6	Geoche ppb Hg 95 115 1200 85 90 90 130 170 210	am IC ppm 3 Ag J 0.1 1.0 0.1 1.0 0.1 1.2 0.1 1.1 0.4 0. 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.7 0.1 0.7 0.1 0.7	P IC % pp AI ////////////////////////////////////	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 35 80 5 300 20 320 20 280 35 130	ICP ppm Bi 1 1 1 5 1 1 1 1 1	ICP % Ca 0.43 0.36 0.43 0.45 0.64 0.61 0.64 0.71 1.17	ICP ppm 1 Co 9 9 10 11 18 11 15 13 12	ICP ppm Cr 21 20 23 20 16 24 21 22 16	ICP ppm Cu 13 13 15 34 202 15 20 32 27	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4 4.3 3.7 4.0	ICP % K 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm (La 10 10 10 20 20 20 20 20	ICP IC ppm	P IC % pp g N 7 51 1 54 9 25 2 55 2 75 7 57 8 129 5 73 2 55	P ICP m ppm in Mo 0 1 2 5 1 5 1 60 16 70 1 1 5 1 90 2 15 1	ICP % Na 0.02 0.02 0.02 0.02 0.02 0.02 0.02	ICP ppm Nb 10 10 10 10 10 10 10 10 10 10	ICP ppm Ni 22 19 23 29 31 28 40 35 29	ICP ppm P 1220 960 950 1530 2960 1910 2040 1990 2120	ICP ppm Pb 14 12 12 20 60 10 10 16 18 18	ICP % 0.01 0.01 0.01 0.01 0.05 0.01 0.05 0.10 0.75	ICP ppm Sb 1 1 5 5 20 5 1 1 1	ICP ppm Sc 3 3 3 3 3 3 3 4 3	ICP ppm Sr 44 78 64 39 40 132 147 89 87	ICP % Ti 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.1	ICP ppm V 60 57 53 53 53 44 66 66 67 54	ICP ppm W 10 10 10 10 10 10 10 10 10	ICP ppm Y 7 6 5 8 10 10 10 11 10	ICP ppm Zn 76 68 66 101 147 85 92 89 92	ICP ppm Zr 5 5 5 5 5 8 6 15 12
SILVER (NM) 8ED8. H101nm H102nm H102nm H103nm H104nm H106nm H107nm H108nm H108nm H109nm	HOPE ppb Au 4 5 8 244 3 4 81 6 7	Geoche ppb Hg 95 115 1200 85 90 90 130 170 210 85	am IC ppm 3 Ag 7 0.1 1.0 0.1 1.2 0.1 1.2 0.1 1.2 0.1 1.2 0.1 1.2 0.1 1.2 0.1 0.1 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.7 0.1 0.6 0.4 0.4	P IC % pp AI ////////////////////////////////////	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 55 80 5 300 20 320 20 280 35 130 20 130	ICP ppm Bi 1 1 1 1 5 1 1 1 1 1 1	ICP % Ca 0.43 0.36 0.45 0.64 0.64 0.61 0.64 0.71 1.17 0.42	(CP ppm r Co 9 9 10 11 18 11 15 13 12 10	ICP pppm Cr 21 20 23 20 16 24 21 22 16 14	ICP ppm Cu 13 13 15 34 202 15 20 32 27 75	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4 4.3 3.7 4.0 3.1	ICP % K 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm (La 10 10 10 20 20 20 20 20 20 20 10	ICP IC ppm 12 0.9 12 0.9 12 0.9 12 0.9 13 0.9 13 0.9 9 0.4 6 0.1 5 0.7 7 0	P IC % pp g N 7 51 1 54 9 255 2 55 2 75 7 57 8 129 5 73 2 55 5 47	P ICP m ppm ln Mo 0 1 25 1 55 1 1 50 1 1 55 1 1 55 1 1 55 1 1 50 2 55 1 1 50 2 5 1 50 2 50 2	ICP % Na 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.0	ICP ppm Nb 10 10 10 10 10 10 10 10 10 10	ICP ppm NI 22 19 23 29 31 28 40 35 29 21	ICP ppm P 1220 960 950 1530 2960 1910 2040 1990 2120 1660	ICP ppm Pb 14 12 20 60 10 10 16 18 18 20	ICP % 0.01 0.01 0.01 0.01 0.05 0.01 0.75 0.01	ICP ppm 5b 1 1 5 5 20 5 1 1 1 1 5	ICP ppm Sc 3 3 3 3 3 3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3	ICP ppm Sr 44 78 64 39 40 132 147 89 87 40	ICP % Ti 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm V 60 57 53 53 44 66 66 67 54 52	ICP ppm W 10 10 10 10 10 10 10 10 10	ICP ppm Y 7 6 5 8 10 10 10 11 10 8	ICP ppm Zn 76 68 66 101 147 85 92 89 95 90	ICP ppm 2r 5 5 5 5 5 8 6 15 12 12 10
SILVER (NM) 8EDS. H101nm H102nm H103nm H104nm H105nm H106nm H108nm H108nm H108nm H109nm H110nm	HOPE ppb Au 4 5 8 244 3 4 81 6 7 3	Geoche ppb Hg 95 115 1200 85 90 90 130 170 210 85 65	am IC ppm 3 Ag 3 0.1 1.0 0.1 1.0 0.1 1.2 0.1 1.1 0.4 0. 0.1 0.9 0.1 0.9 0.1 0.7 0.1 0.7 0.1 0.7 0.1 0.7 0.1 0.7 0.1 0.7 0.1 0.7 0.1 0.9 0.4 0.9 0.1 0.9	P IC % PP AI ////////////////////////////////////	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 55 80 5 300 20 320 20 280 35 130 20 230	ICP ppm Bi 1 1 1 1 5 1 1 1 1 1 1 1 1	ICP % Ca 0.43 0.36 0.43 0.45 0.64 0.61 0.64 0.61 1.17 0.42 0.4	ICP ppm r Co 9 9 10 11 18 11 15 13 12 10 14	ICP pppm Cr 21 20 23 20 16 24 21 22 16 14 17	ICP ppm Cu 13 13 15 34 202 15 20 32 27 75 34	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4 4.3 3.7 4.0 3.1 3.8	ICP % K 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm (La 10 10 10 20 20 20 20 10 10	ICP IC pm	P IC % pp /g N /g N /1 54 /9 25 /2 55 /2 75 /7 57 /8 129 /5 73 /2 55 /3 2 /5 47 /1 213	P ICP m ppm in Mo 0 1 20 2 55 1 100 1 100 1 100 1 100 2 15 1 100 2 15 1 100 2 15 1 100 2 15 1 100 2 100 10 100 2 100 10 100 10 100 2 100 10 100 100	ICP % Na 0.02 0.02 0.02 0.02 0.02 0.03 0.02 0.02	ICP PPM Nb 10 10 10 10 10 10 10 10 10 10	ICP ppm NI 22 19 23 29 31 28 40 35 29 21 21	ICP ppm P 1220 960 950 1530 2960 1910 2040 1990 2120 1660 980	ICP ppm Pb 14 12 20 60 10 16 18 18 20 16	ICP % S 0.01 0.01 0.01 0.05 0.10 0.75 0.01	ICP ppm Sb 1 1 5 20 5 1 1 1 5 1	ICP ppm Sc 3 3 3 3 3 3 3 3 3 4 3 3 3 3 3 3 3 3 3	ICP ppm Sr 44 78 64 39 40 132 147 89 87 40 44	ICP % Ti 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.1	ICP ppm V 60 57 53 53 44 66 66 66 67 54 52 69	ICP ppm W 10 10 10 10 10 10 10 10 10 10	ICP ppm Y 7 6 5 8 10 10 10 10 10 8 7	ICP ppm Zn 76 68 66 101 147 85 92 89 92 89 95 90 77	ICP ppm 2r 5 5 5 5 5 8 6 15 12 10 7
SILVER (NM) 8EDS. H101nm H102nm H102nm H104nm H104nm H104nm H107nm H108nm H109nm H109nm H110nm H112nm	HOPE ppb Au 4 5 6 244 3 4 81 6 7 3 6	Geoche ppb Hg 95 115 1200 85 90 90 130 170 210 85 65 55	am IC ppm 3 Ag 4 0.1 1.0 0.1 1.2 0.1 1.2 0.1 1.2 0.1 1.2 0.1 1.2 0.1 0.1 0.1 0.9 0.1 0.9 0.1 0.7 0.1 0.9 0.1 0.9 0.1 0.7 0.1 0.6 0.4 0.9 0.1 0.9 0.1 0.9 0.1 0.9 0.1 0.9	P IC % PF AI // 08 // 08 // 08 // 08 // 08 // 17 // .9 // .9 // .9 // .9 // .9 // .8 // .74 // .8 // .93 // .9 //	P ICP m ppm As Ba 10 200 25 220 5 370 25 170 35 80 5 300 20 280 35 130 20 230 20 130 20 230 20 140	ICP ppm Bi 1 1 1 1 5 1 1 1 1 1 1 1 1	ICP % Ca 0.43 0.36 0.43 0.45 0.64 0.61 0.64 0.61 1.17 0.42 0.4 0.4	(CP ppm r Co 9 9 10 11 18 11 15 13 12 10 14 11	ICP pppm Cr 21 20 23 20 16 24 21 22 16 14 17 20	ICP ppm Cu 13 13 15 34 202 15 20 32 27 75 34 25	ICP % Fe 3.5 3.3 3.2 3.6 3.7 3.4 4.3 3.7 4.0 3.1 3.8 3.4	ICP % K 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm (La 10 10 10 20 20 20 20 20 20 10 10	ICP IC ppm 12 0.9 12 0.9 12 0.9 12 0.9 12 0.9 13 0.9 7 0.9 5 0.7 7 0.9 7 0.9 16 0.7 16 0.1	P IC % pp g N 7 51 1 54 9 25 2 55 2 75 7 57 8 129 5 47 1 213 5 47	P ICP m ppm in Mo 0 1 25 5 1 10 16 70 1 15 1 15 1 10 2 15 1 170 2 10 1 15 1 170 2 10 1 15 1	ICP % Na 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.0	ICP PPm Nb 10 10 10 10 10 10 10 10 10 10	ICP ppm NI 22 19 23 29 31 28 40 35 29 21 21 21 21 27	ICP ppm P 1220 960 950 1530 2960 1910 2040 1910 2040 1990 2120 1660 980 1530	ICP ppm Pb 14 12 20 60 10 10 16 18 20 16 18	ICP % S 0.01 0.01 0.01 0.05 0.01 0.05 0.01 0.01	ICP ppm 5b 1 1 5 5 20 5 1 1 1 5 1 5 1 5 5	ICP ppm Sc 3 3 3 3 3 3 3 3 4 4 3 3 3 2 2	ICP ppm Sr 44 78 64 39 40 132 147 89 87 40 44 39	ICP % Ti 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1	ICP ppm V 600 577 533 533 44 666 667 64 52 89 51	ICP ppm W 10 10 10 10 10 10 10 10 10 10 10	ICP ppm Y 7 6 5 8 10 10 10 11 10 8 7 7 7	ICP ppm Zn 76 68 66 101 147 85 92 89 95 90 77 100	ICP ppm 2r 5 5 5 5 8 6 15 12 10 7 5

S.Zastavnikovich, P.Geo.

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SILVER HOPE - SOILS

APPENDIX IV

ASSAYERS MIN-EN LABs

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SILVER HOPE	Geocl	nem	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ЮР	ICP	ICP	ICP	ICP	ICP	ICP I	CP	ICP	ICP
SOILS	Au	Hg	Ag	AI	As	Ba	Bi	Ca	Co	Cr	Çu	Fe	ĸ	La	Li	Mg	Mn	Мо	Na	Nb	Ni	Р	Pb	S	Sb	Sc	Sr	Ti	V	W	Y	Zn	Zr
Line-Station	ppb	ppb	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm o	pm	ppm	ppm
L1+00S 5+00E	6	90	0.2	1.66	25	340	1	0.32	11	32	64	3.93	0.09	30	8	0.63	305	2	0.01	10	30	1750	36	0.01	5	3	30	0	77	10	10	95	5
L1+00S 4+50E	7	130	0.8	2.45	30	540	1	0.64	15	32	. 85	4.32	0.13	30	17	1.02	1110	2	0.01	10	3 5	1600	36	0.05	5	3	92	0	74	10	14	125	5
L1+00S 4+00E	8	110	0.2	1.67	30	290	1	0.62	14	33	91	4.0	0.09	20	14	0.72	600	2	0.01	10	31	1630	40	0.01	5	2	64	0	76	10	8	99	3
L1+00S 3+50E	8	115	0.2	1.3	130	270	1	0.19	10	44	169	6.11	0.23	10	12	0.37	225	đ	0.01	10	28	2280	26	0.2	5	2	231	0.1	99	10	2	77	5
L1+00S 3+00E	11	95	0.1	1.24	55	290	5	0.21	12	27	112	4.25	0.08	10	17	0.25	570	2	0.01	10	27	1710	22	0.05	5	1	44	0	63	10	2	114	3
L1+00S 2+50E	45	165	0.6	1.98	120	1 6 0	10	0.08	6	35.	379	7.85	0.08	10	20	0.27	205	16	0.01	10	26	2420	32	0.05	10	2	20	0	82	10	1	91	6
L1+00S 2+00E	28	145	1.0	1.54	90	110	10	0.07	7	31	192	4.72	0.06	10	15	0.24	150	12.	0.01	10	27	1810	38	0.05	20	1	18	0	67	10	2	85	4
L1+00S 1+50E	20	105	0.2	0.81	30	170	5	0.19	7	30	36	3.35	0.08	10	9	0.23	180	6	0.01	20	16	1330	24	0.01	5	1	27	0	70	10	3	83	2
L1+00S 1+00E	31	170	1.0	1.3	45	120	5	0.47	11	41	1258	4.16	0.11	30	20	0.53	380	4	0.01	10	43	1900	30	0.05	10	4	41	o	77	10	20	118	4
L1+00S 0+50E	17	105	0.1	1.24	50	140	1	0.32	9	37	130	4.68	0.09	10	16	0.68	195	6	0.01	20	39	980	30	0.05	10	2	32	0.1	102	10	5	110	3
L1+00\$ 0+00	28	120	0.1	1.14	45	90	5	0.5	32	32	457	3.37	0.08	20	15	0.5	940	4	0.01	10	36	1900	34	0.01	10	2	37	0.1	65	10	10	110	3
L1+00S 0+50W	13	95	0.2	1.04	40	120	1	0.34	9	29	100	3.28	0.09	10	15	0.45	370	4	0.01	10	35	1320	26	0.01	10	1	33	O	62	10	6	155	3
L1+00S 1+00W	8	75	0.2	0.96	25	240	1	0.3	9	31	100	3.2	0. 09	20	11	0.33	415	4	0.01	20	34	1110	26	0.01	5	1	40	0	73	10	7	111	2
L1+00S 1+50W	23	155	0.6	1.52	45	200	1	0.46	13	29	205	3.45	0.1	20	17	0.55	755	12	0.01	10	42	1640	34	0.05	10	2	44	0	59	10	10	123	4
L1+00S 2+00W	16	10 5	0.8	1.35	50	180	5	0.4	9	34	138	3.92	0.08	10	17	0.47	290	8	0.01	10	30	1320	36	0.0 5	15	1	46	0	75	10	6	92	3
L1+00S 2+50W	13	130	0.1	1.29	65	170	5	0.51	22	41	233	5.15	0.1	20	13	0.49	1215	10	0.01	10	45	1900	36	0.05	10	2	48	0	87	10	9	123	4
L1+00S 3+00W	20	105	0.4	0.95	50	160	1	0.49	10	34	244	4.0	0.11	20	8	0.45	310	16	0.02	10	25	2380	38	0.05	15	2	42	0.1	78	10	8	90	3
L1+00S 3+50W	13	85	0.6	1.03	40	220	1	0.49	8	30	177	3.62	0.09	10	9	0.42	280	8	0.01	10	22	1780	32	0.05	10	1	57	0	69	10	6	91	3
L1+00S 4+00W	19	170	0.6	1.1	50	220	1	0.75	14	29	132	4.09	0.1	30	9	0.58	795	10	0.02	10	27	3190	54	0.05	15	3	73	0	73	10	13	206	4
L1+005 4+10W	(34	160	0.8	0.98	80	140	1	0.71	20	43	190	4.78	0.08	20	12	0.54	950	16	0.01	10	38	2920	84	0.15	25	2	61	0	88	10	12	177	5
L1+008 4+50W	27	80	0.1	1.64	30	210	1	0.4	[:] 11	36	164	4.0	0.07	10	10	0.42	260	12	0.02	20	26	2180	30	0.01	10	3	47	0.1	90	10	7	87	5
L1+00S 5+00W	7	75	0.1	1.38	20	210	1	1.01	13	31	88	4.1	0.11	30	11	0.68	290	2	0.02	30	28	4360	24	0.01	5	3	86	0.1	113	10	13	76 ¹	4
L2+00S 5+00E	11	185	0.6	2.45	110	570	1	0.6	20	36	88	4.83	0.13	20	35	0.82	4010	4	0.02	10	48	1080	36	0.05	10	6	70	0	75	10	17	151	7
L2+00S 4+50E	11	110	0,6	2.08	75	230	1	0.63	13	31	164	4.7	0.09	10	22	0.61	475	2	0.01	10	34	760	28	0.05	10	3	73	o	80	10	6	176	5
L2+00S 4+00E	13	130	0.1	1.52	55	190	5	0.2	12	30	62	4.37	0.08	10	18	0.36	360	4	0.01	20	26	500	30	0.01	10	2	33	0	82	10	2	141	3
L2+00S 3+50E	7	110	0.1	1.55	60	300	1	0.41	16	29	32	4 57	0.12	10	20	0.4	900	2	0.01	10	23	1390	32	0.05	10	1	52	0	76	10	3	236	4
L2+00S 3+00E	42	415	3.2	3.51	100	610	10	1.19	34	34	552	7.21	0.17	30	23	0.63	1120	2	0.02	10	95	1350	74	0.05	20	8	144	0	67	10	27	244	13
L2+00S 2+50E	16	155	0.2	2.27	90	260	5	0.35	47	31	215	5.0	0.08	10	30	0.71	860	2	0.01	10	87	970	46	0.01	15	3	40	0	73	10	7	237	4
L2+00S 2+00E	10	135	0.6	2.83	85	510	5	0.57	21	34	191	5.0	0.17	20	22	0.74	1655	2	0.01	10	58	1380	66	0.05	10	4	76	0	71	10	13	290	7
L2+00S 1+50E	7	120	0.1	1.87	60	250	1	0.42	12	30	85	4.19	0.09	10	19	0.62	585	2	0.01	10	33	1020	32	0.05	10	2	55	0	71	10	7	163	4
L2+00S 1+00E	12	160	0.1	2	105	320	1	0.55	19	35	127	5.09	0.13	20	20	0.82	990	2	0.02	10	43	1590	54	0.01	15	5	52	O	81	10	13	167	8
L2+00S 0+50E	: 23	130	0.1	1.99) 50	330	1	0.31	48	34	239	4.45	0.1	20	23	0.67	1110	2	0.01	10	54	890	32	0.01	10	3	49	0	73	10	13	300	5

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SILVER HOPE - SOILS

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APPENDIX IV

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SILVER HOPE	Geoch	nem	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	IÇP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
SOILS	Au	Hg	Ag	AI	As	Ва	Bi	Са	Ċo	Cr	Cu	Fe	ĸ	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	S	Sb	Sc	Sr	Ti	V	W	Y	Zn	Zr
Line-Station	ррЪ	ppb	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm (pm	ppm	%	ppm	ppm	pm	ppm	эрт
L2+00S 0+00	19	275	1.2	3.12	70	540	5	0.86	43	31	647	4.72	0.16	40	22	0.72	1715	2	0.01	10	97	1330	42	0.05	10	6	131	0	58	10	33	437	8
L2+00S 0+50W	12	165	1.0	2.74	65	540	5	0.82	32	31	495	5.0	0.15	40	19	0.72	1660	2	0.01	10	106	1300	34	0.05	10	6	112	0	65	10	35	415	8
L2+00S 1+00W	10	170	0.2	1.51	25	240	: 1	0.65	11	30	190	3.29	0.09	30	15	0.59	355	1	0.01	10	41	1400	36	0.05	5	3	80	0	64	10	16	186	3
L2+00S 1+50W	26	280	1.4	3.23	60	440	1	0.91	29	29	558	5.0	0.14	30	22	0.65	1010	2	0.02	10	69	1590	44	0.05	10	5	135	0	6 2	10	23	330	7
L2+00S 2+00W	9	70	0.1	1.68	50	160	1	0.26	11	31	91	4.31	0.08	10	14	0.5	300	2	0.01	10	27	2020	36	0.01	10	2	26	0.1	84	10	4	121	4
L2+00S 2+50W	4	80	0.2	1.45	25	300	1	0.56	12	32	218	3.7	0.15	20	8	0.45	705	2	0.02	20	28	1730	22	0.01	5	3	82	0.1	80	10	9	131	4
L2+00S 3+00W	5	165	0.4	2.24	25	160	1	0.21	9	31	47	3.87	0. 06	10	14	0.36	210	2	0.01	10	23	2900	24	0.01	5	2	19	0.1	77	10	4	151	5
L2+00S 3+50W	7	105	0,1	1.59	30	170	1	0.38	10	38	67	4.31	0.09	10	9	0.45	290	2	0.02	20	26	2130	26	0.01	5	3	47	0.1	94	10	4 :	109	6
L2+00S 4+00W	3	70	0.1	1.07	10	270	1	0.57	11	31	40	3.35	0.09	10	6	0.49	540	1	0.02	20	20	1240	16	0.01	1	4	89	0.1	77	10	8	89	7
L2+00S 4+50W	8	60	0.1	1.7	5	260	1	0.42	12	37	21	3.87	0.08	10	7	0.38	395	1	0.02	30	21	3210	14	0.01	5	3	59	0.1	96	10	6	126	6
L2+008 5+00W	4	100	Q.1	1.15	5	270	1	0.5	12	35	26	3.54	0.1	10	6	0.36	705	1	0.02	30	20	2160	14	0.01	1	3	76	0.1	90	10	7	124	4
L3+00S 5+00E	7	105	0.1	1.86	55	210	1	0.35	: 10	35	62	4.21	0.1	10	15	0.49	375	1	0.02	20	29	1800	28	0.01	5	3	35	0.1	83	10	6	149	4
L3+00S 4+50E	7	110	0.1	1.55	55	260	1	0.5	12	32	62	3.71	0.09	10	11	0.53	495	1	0.02	20	28	1310	34	0.01	10	3	55	0.1	76	10	8	109	4
L3+00S 4+00E	3	90	0.1	1.45	40	230	1	0.26	9	32	44	3.73	0.06	10	13	0.32	230	2	0.01	20	22	890	28	0.01	5	2	35	0.1	83	10	3	137	4
L3+00S 3+50E	5	100	0.4	1.6	45	220	1	0.28	10	39	46	4.23	0.07	10	15	0.32	265	1	0.01	30	24	1270	24	0.01	5	2	32	0.1	90	10	3	139	4
L3+00\$ 3+00E	8	80	0.1	1.24	30	180	1	0.34	8	28	48	2.87	0.06	10	11	0.46	285	1	0.02	20	25	780	26	0.01	5	2	38	Q.1	60	10	4	73	3
L3+00S 2+50E	4	105	0.2	2.7	80	230	1	0.31	14	35	71	5.37	0.07	10	25	0.33	215	2	0.01	30	35	1280	30	0.01	10	3	45	0.1	85	10	4	168	7
L3+00S 2+00E	5	80	0.2	. 2.14	105	210	1	0.2	16	39	79	4.93	0.05	10	12	0.42	295	1	0.01	10	48	1300	30	0.01	15	3	32	0.1	87	10	3	123	5
L3+00S 1+50E	10	70	0.2	2.6	85	270	1	0.21	15	35	102	4.38	0.06	10	14	0.39	220	2	0.01	20	46	970	40	0.01	10	3	35	0.1	81	10	3	178	11
L3+00S 1+00E	4	45	0.1	2.26	120	210	1	0.21	17	42	91	4 94	0.07	10	13	0.47	310	1	0.01	10	46	1590	32	0.01	10	3	23	0.1	90	10	4	132	10
L3+00S 0+50E	8	160	0.4	2.0	125	230	1	0.59	15	38	129	4.62	0.09	10	16	0.59	655	1	0.02	10	42	1280	34	0.05	15	3	66	0.1	82	10	8	193	5
L3+00S 0+00	5	25	0.1	1.26	75	200	1	0.35	11	35	68	3.88	0.06	10	8	0.41	335	1	0. 02	20	24	1040	34	0.01	10	2	45	0.1	86	10	4	96	5
L3+00S 0+50W	5	55	0.4	1.36	40	220	1	0.28	13	30	55	3.4	0.07	10	10	0.36	685	1	0.01	10	21	840	24	0.01	5	2	51	0.1	67	10	5	130	3
L3+00S 1+00W	14	30	0.2	1.46	75	260	1	0.34	11	39	69	4.0	0.09	10	10	0.43	325	1	0.02	20	31	1260	30	0.01	10	3	43	0.1	85	10	5	141	6
L3+00S 1+50W	4	65	0.4	1.84	40	230	1	0.19	7	33	28	3.48	0.05	10	10	0.25	155	1	0.01	20	18	530	20	0.01	5	2	24	0.1	77	10	3	192	5
L3+00S 2+00W	4	105	0.1	3.24	5	240	1	0.29	9	39	17	3.9	0.05	10	10	0.24	195	1	0.01	40	16	1830	10	0.05	5	3	48	0.1	94	10	5	147	10
L3+00S 2+50W	5	60	0.2	2.15	10	230	1	0.53	10	33	62	3.3	0.05	10	8	0.43	830	1	0.02	20	22	620	12	0.01	5	3	75	0.1	78	10	6	100	4
L3+00S 3+00W	6	50	0.1	1.3	20	160	1	0.36	7	32	31	3.11	0.04	10	9	0.32	200	1	0.02	20	17	660	18	0.01	5	2	64	0,1	74	10	5	78	3
L3+005 3+50W	9	55	0,1	1.39	15	220	1	0.52	8	30	41	3.0	0.07	10	8	0.43	365	1	0.02	20	19	980	14	0.01	5	4	83	0.1	70	10	10	77	4
L3+00S 4+00W	10	85	0.4	1.44	10	360	1	0.58	9	29	73	3.09	0.05	20	7	0.3	345	2	0.02	20	17	750	18	0.01	5	3	95	0.1	70	10	11	97	4
L3+008 4+50W	6	55	0.2	1.27	15	270	1.1	0.59	9	29	119	3.21	0.07	10	9	0.36	375	2	0.02	20	19	910	16	0.01	5	4	80	0.1	75	10	10	86	4
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APPENDIX ...V

<u>Analytical Procedure</u> - The samples were analyzed by Min-En Laboratories Ltd. of 705 West 15th St., N.Vanc, as follows:

The stream sediments were oven-dried in their original water-resistant kraft paper bags at 95°C and screened to obtain the minus 80 mesh fraction for analysis. The rock samples were crushed and pulverized in a ceramic-plated pulverizer.

A suitable weight og 5.0 or 10.0 grams is pretreated with HNO3 and HC104 mixture.

After pretreatment the samples are digested with Aqua Regia solution, then taken up with 25% HCl to suitable volume and aliquot used for the 26 element ICP trace element analysis.

From the major remaining portion of the sample, Gold is preconcentrated by standard fire assay methods, then extracted with Methyl Iso-Butyl Ketone and analyzed by Atomic Absorption.

For Mercury analysis, 1 gram of sieved material is sintered at 90°c for 4 hours, then digested in HNO₃ and HCl acids mixture, and analyzed by the Hatch and Ott flameless AA method.

APPENDIX V

MIN-EN Laboratories Ltd. Specialisis in Mineral Environments

> Corner 15th Street and Bewicke 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

FIRE GOLD GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES_LTD.

Geochemical samples for Fire Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 15.00 or 30.00 grams are fire assay preconcentrated.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 1 ppb.