84-986-12724 id. 11/85

## B.E. Spencer Engineering Ltd.



CONSULTING GEOLOGICAL ENGINEER

REPORT

ON

A GEOCHEMICAL SOIL SURVEY

ON THE

AXL 3 MINERAL CLAIM

KAMLOOPS MINING DIVISION, N.T.S. 82 M/4

LATITUDE: 51° N, LONGITUDE: 119°W

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48°

FORGEOLOGICAL BRANCH

BY 12, 724

B. E. SPENCER, P. ENG.

B. E. SPENCER ENGINEERING LTD.

OCTOBER 30, 1984

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#### INTRODUCTION

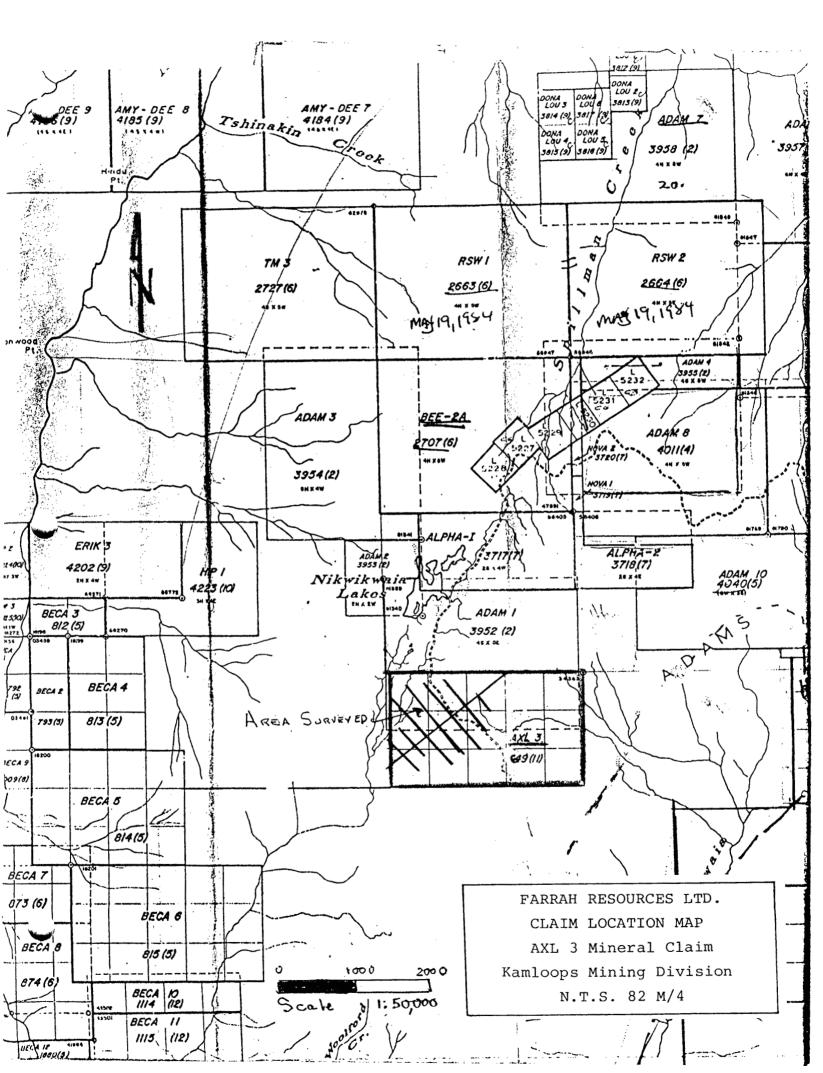
Farrah Resources Ltd. have a 100% interest in the 15 unit AXL 3 mineral claim located on the Adams Plateau, 70 kilometres east of Kamloops, British Columbia. The area has been the focus of considerable exploration activity for some time and with the recent discovery of massive sulphide type mineralization by Rea Gold Corporation, exploration has quickened. As a preliminary assessment of the exploration potential of the AXL 3 claim, a soil geochemical soil survey was conducted on the claim during October, 1984. A total of 163 samples were collected and analysed for lead, zinc and silver. Details of this survey follow.

#### ACCESS AND TOPOGRAPHY

The AXL 3 claim is located 75 kilometres east of Kamloops and may be reached by travelling north from Squilax to the south end of Adams Lake and then by logging roads which lead directly to the claim.

The claim is at an elevation of 1,675 metres and relief is gentle on this portion of the Adams Plateau. Outcrop on the claim is sparse and alpine meadows and light stands of spruce are the dominant vegetation type.





#### SURVEY PROCEDURE

A compass and topofil hip chain controlled base line was picketed and flagged for a 1,000 metre length on a bearing of N 45° W in the north central portion of the claim. 8,250 metres of lines at 200 metre spacing were run normal to the baseline and soil samples collected at 30 metre centres. A soil auger was used to collect B Horizon samples which occur at some 30 centimetres depth. A total of 163 samples were analysed for Ag, Pb and Zn at Min-En Laboratories Ltd. utilizing analytical procedures described in the Appendix.

### DISCUSSION OF RESULTS

Geological mapping done in conjunction with the line cutting and geochemical soil survey indicates the claim is underlain by a thick greenstone unit and a more variable unit consisting of quartzites, phyllites and intermediate volcanics. These rocks have been folded into a broad synform and the crest of this structure lies in the northwest portion of the claim. The core of the structure containing the mixed sedimentary - volcanic unit is regarded as more favourable for lead-zinc-silver mineralization and the geochemical soil survey concentrated in this area.

Previous geochemical soil surveys in this area



have established that anomalous soil values for lead, zinc and silver are as follows: Pb - greater than 50 ppm, Zn - greater than 150 ppm, Ag - greater than 2.0 ppm. Utilizing this criteria, the following areas of interest are: (see Dwg. 1)

L47W	1+20S	-	Pb	58	ppm*			
	1+80N	-	Pb	59	ppm*			
L47W	3+00S	-	Zn	194	ppm			
	2+40N	-	Zn	195	ppm*			
L51W	3+30S	-	Zn	143	ppm			
L53	1+20S	_	Zn	147	ppm;	Ag	2.0	ppm*
L53W	1+50N	-	Zn	153	ppm;	Ag	2.2	ppm*
L47W	1+20N	-	Ag	2.0	ppm*			
	3+60N	-	Ag	2.0	ppm*			
L51W	4+80	-	Ag	2.6	ppm			
	5+10	-	Ag	2.2	ppm			
L53W	4+50S	_	Ag	2.5	ppm			
L55W	0+90S	-	Ag	2.0	ppm			

\* Within volcanic-sediment rock unit.

Anomalous values within the volcanic-sediment unit are considered of sufficient interest to warrant further closer spaced soil sampling and prospecting/mapping.

BES:1m

B. E. Spencer, P. Eng.

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October 30, 1984



#### COST STATEMENT

### AXL 3 MINERAL CLAIM - GEOCHEMICAL SOIL SURVEY

### Labour

G. King - October 1-11, 1984 11 days @ \$140.00/day \$ 1,540.00

### Transportation

4 x 4 - 11 days @ \$40.00/day

440.00

### Accommodation

11 days @ \$40.00/day

440.00

### Assaying

Min-En Laboratories Ltd.

757.95

163 samples for Pb, Zn, Ag @ \$4.65/sample

### Report Preparation/Drafting

B.E. Spencer - 1.5 days @ \$400.00/day

600.00

TOTAL COSTS

\$ 3,777.95



### STATEMENT OF QUALIFICATIONS

I, Bruce Everton Spencer, of the City of Vancouver, in the Province of British Columbia hereby certify as follows:

- I am a Geological Engineer residing at
   7 2485 Cornwall Avenue, Vancouver,
   British Columbia V6K 1B9.
- 2) I am a registered Professional Engineer of the Province of British Columbia.
- 3) I am a graduate of the University of British Columbia with a degree of B.A. Sc. (1958).
- 4) I have practised my profession as a Geologist for more than twenty years.
- 5) The survey was conducted under my supervision by George King, a university graduate in geology with previous experience in geochemical soil sample surveys.

Ochober 30, 1984

Date

Lencer

Bruce Everton Spencer, P. Eng.



### APPENDIX I

GEOCHEMICAL ANALYSIS CERTIFICATES



# Specialists in Hineral Environments 705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PR (604) 980-5814 DR (604) 988-4524

TELEX: 04-352828

### GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER

PROJECT: ADAMS SILVER GROUND

ATTENTION: B.E. SPENCER/E. OLFERT

FILE:4-1288/P2 DATE: OCT. 23/84 TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE	PB	ZN	AG	
NUMBER	PPM	FFM	PPM	
and the first of the second se	pro, only			
L38W2+508	23	54	1.1	
L45W0+00N	36	102	1.2	•
0+308	31	73	1.0	
0+608	29	68	1.2	
0+908	28	77	1.3	
1+208	34	93	1.3	
1+50S	29	56	1.4	
1+805	34	94	13	
2+108	30	96	1.5	
L10+308	29	92	1 - 1	
0+608	28	59	1 . 4	
0+95S	20	41	1.2	•
1+208	59	103-	1.3	
1+505	35	Βĺ	1.1	
1+808	20	or an	ΰĮΦ	
200 - 1		- 25		THE STATE OF THE S
2+108 2+408	29	69 45	1.0	
24708	26 25	7 ()	1.3	
3+005		194 -		
0+00N	R.J.			
Orggn	34	79	U. S	
0+30N	28	43	1.4	
0+60N	31	57	1.0	
0+90M	38	94	1.2	
1+20M	28	60	2.0	
1+50N	4 <u>0</u>	78	1.7	
1+80N	59	107	1.3	
2+10N	33	58	14	
2+40N	66	195	1.5	
2+70N	51	136	1 . 22	
L W3+00N	47	115	L = 65	
A STATE OF STATE A	TT /	A. A. a.f	J. w (17	

Certified by

TELEX: 04-352828

### GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER

PROJECT: ADAMS SILVER GROUND

ATTENTION: B.E. SPENCER/E. OLFERT

FILE:4-1288/P3 DATE: OCT. 23/84. TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE	PB	ZN	AG	
NUMBER	PPH	M역역	£2.[2.[4]	
L47W3+30N	28	47	1.4	
3+60N	43	112	2.0	
3+90N	33	64	1.1	
4+20N	36	83	1.2	
4+50N	32	64	1.2	
		Table 1		
4+80N	31	59	1.1	
5+10N	3.2	57	1.4	
5+40N	33	54	0.9	
5+70N	29	127-	i . O	
6+CON	40	85	1.4	
1.4990+308	30	62	1.0	THE PERSON NAMED IN COLUMN TO PARTY.
0+608	24	55	Ů. Š	
0+905		43	Ĭ., O	
1+208	26	54	1.1	
1+505	249	62	1	
1+300	30	(3.3)	1 a Ú	***************************************
2+105	34	V.	1. 2	
2+408	29	άŜ	1	
2+705	54	120 =	) <sub>u</sub> .!	
34008	3.2	άl	1 %	
en en en en en en				
3+308	<b>4</b> 2	29	1.4	
3+608	30	25	1.4	
OFOON	22	38	1.1	
0+30N	24	52		
0+60H	To the second se	<u>61</u>	j. O	sementer . et in
Q+9QN	28	55	1 a C	
1+20N	26	52	1 " 4	
1+50N	42	56	1.0	
1 + \$(ON	22	34	Ö, 9	
L/PW2FION	200	59	1 1	

Certified by

# Specialists in Mineral Environments 705 WEST 15th STREET NORTH VANCOUVER, B.C. GANADA 978 172

PHONE (604) 980-5814 OR (604) 988-4524

TELEX: 04-352828

### GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER

PROJECT: ADAMS SILVER GROUND

ATTENTION: B.E. SPENCER/E. OLFERT

FILE: 4-1288/P4 DATE: OCT. 23/84

TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE	PB	ZN	A(S	
NUMBER	PPM	t-t-H	b-b-M	
L49W2+40N	The same of the sa	83	1.0	
2+70N	22	47	1.1	
3+00N	23	82	O. 8	
3+30N	18	30	1 - 1	
3+60N	19	34	1.2	
3+90N	21	35	1.3	
4+20N	33	70	1.5	
4+50N	21	37	1 . 1	
4+80N	25	58	1.2	
5+10N	22	32	1 1.	
5+40N	20	64	1.2	
5+70N	31	39	1.0	
6+00N	33	51	1.3	
L51W0+309	19	27	O 7	
0+608	22	51	1.1	
0+908	28	59	1.1	
14208	23	51	1 . 1	
1+508	21	79	13	
1+808	29	52	1.4	
2+105	38	52	1.O	
2+408	18	39	0,9	
2+709	23	99	1 4	
3+008	48 .	70	0.9	
3+309	30	143 -	1.5	
3+608		49	1.1	
3+908	2.3	44	1.4	
4+208	31	103	1 . 25	
4+508	20	38	1 1.	
4+805	22	40	1 . O	
I, ŅĢ+ĢĢN	29	65	O., 8	

Certified by

# Specialists in Hineral Environments 705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V/M 1T2

PHO (604) 980-5814 OR (604) 988-4524

TELEX: 04-352828

### GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER

PROJECT: ADAMS SILVER GROUND

ATTENTION: B.E. SPENCER/E. OLFERT

FILE: 4-1288/P5

DATE: OCT. 23/84

TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE	PB	ZN	AB
NUMBER	PPM	PPH	PPM
L51W0+30N		42	1.4
0+60N	21	36	1.2
0+90N	19	37	0.7
1+20N	23	47	1.2
1450N	34	48	1.0
1+80N	20	43	La 4
2+10N	21	39	12
2+40N	21	40	1.3
2+70N	33	62	1 , 4
3400M	23	57.	i i.
3+30N	20	79	1.2
3+60N	29	105.	
3+90N	32	68	1,4
4+20N	27	54	
4+50N	20	31	.t. 2
4+80N	23	45	2.6
5+10N	24	100	2. 2.
5+40N	20		l a 1.
5+70N	34	ΔZ	A. 22
4+00N	27	72	2.4
L 13W0+305	23	Só	1.0
0+608	2 f	50	13
Control Co	19	35	l. 1
1+208	29	147	2.0
1+508	27	51	1 . 4
1+808	32	84	1 , 4
2+108	21	40	$i_{\mu} I_{\mu} \stackrel{C_{\mu}}{\sim}$
2+408	25	₹5€)	The A
2+705	3.3		1.2
1 9/3+009	20	38	1. 1

Certified by

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# Specialists in Mineral Environments 705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 112

FH(-----504/980-5814 08 (604)988-4524

TELE): 04-352828

### GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER

PROJECT: ADAMS SILVER GROUND ATTENTION: B.E.SPENCER/E.OLFERT

FILE:4-1288/P6 DATE: OCT. 23/84 TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE	PB	ZN	AG	
NUMBER	E-1-1-1	E-E-M	PPM	
		er gerinden anderstelle, militar i kristians gerinde en pages.	1 22	
L53W3+30S	31	81	1.7	
3+608	23	48	1.6	
34905	17	50	1.2	
4+205	29	58	1.5	
4+508	31	57	2.5	
4+808		92	1.2	
5+108	31	i 19	1 . 7	
5+405	21	50	1.1	
5+708	31	58	i . i	
6+008	29	74	1.0	
6+308	25	43	1.2	
6+60S	26	38	1.2	
0+00N	24	46		
0+30M	33.22	70	11	
0+60N	22	25	1.2	
O F90N	26	481	14	
1+20N	27	6.65	( , 4	
1+50N	28	153	1.5	
1+80N	3 (2) 3 (2) 3 (3)	51	1.3	
2+10M	29	54		
2+40N	22	49	1 n A	
2+70N	23	56	1 . 1	
	ali di Selah	48	1.2	
3+004		79	1.7	
3+30N	29			
3+601	26	49	1.2	
3+90N	27	41	1.2	
L55W0+30S	22	47	1 n ()	
0+608	33	56	1.2	
04908	34	121	2. O	
LESW1+208	19	32	0.9	

Certified by

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705 WEST 15th STREET NORTH VANCOUVER, 8.C. CANADA 97H (12

/604)980-5814 OR (604)988-4524

(ELEX: 04-352828

### GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER

PROJECT: ADAMS SILVER GROUND

ATTENTION: B.E. SPENCER/E.OLFERT

FILE: 4-1288/F7

DATE: OCT. 23/84.

TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 14 samples submitted.

SAMPLE	PB	ZN	AG	
NUMBER	FFM	FFM	PPM	
L55W1+508	21	49	0.8	The state of the s
1+808	47	59	1 <sub>n</sub> O	
2+108	20.20 20.40	35	1 1	
VQQ+Q	21	63		
0+30N	16.	36	1.1	
0+60N	19	32	1.0	
0490N	26	76	1 6	
1+20N	24	119	1.6	
1+50N	28	75	1 5	
1+80N	2.3	60 T	1	
2+10N	31	73	L = 32	. Halle de la constitución de la
2+40M	32	95	1.49	
2+70N	28	74	1 . 4	
1.55W3+OON	19	42	1 2	

### APPENDIX II

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

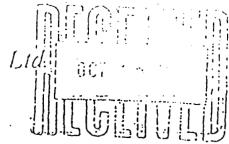


19 **y ----**980 5814

## MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke 705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA



## ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are 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 by a jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with  $\mathrm{HNO}_3$  and  $\mathrm{HClO}_4$  mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH  $_{\rm H_2}$ -Air flame combination but the Molybdenum determination is carried out by  $\rm C_2H_2$ -N $_2$ 0 gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzit method using Ag CS $_2$ N (C $_2$ H $_5$ ) $_2$ as a reagent. The detection limit obtained is 1. ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is

