GEOCHEMICAL-GEOPHYSICAL REPORT

ON THE

AXL 3 CLAIM ADAMS PLATEAU AREA KAMLOOPS MINING DIVISION 51⁰ 02'N 119⁰ 37'W

Claim	Units	Record No.	Expiry D	ate
AXL 3	15	649(11)	November,	1978

177- #427- # 6546

on behalf of

FARRAH RESOURCES LTD.

by

G. C. GUTRATH, P. Eng.

Atled Exploration Management Ltd.

November, 1977



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CLAIM LOCATION MAP Farrah Resources Ltd. Hesca Resources Ltd. Craigmont Mines Ltd. Staked Scale: 1 inch = 4 miles









INTRODUCTION

- 1 -

Between October 18th and 21st , 1977 a magnetic survey and a geochemical silt sampling programme were carried out on the AXL 3 claim. A total of 19,850 m of grid were surveyed. Preliminary geological mapping was initiated but snow hampered the completion of the mapping.

GEOPHYSICAL SURVEY

Magnetometer Survey

Instrumentation and Theory

The magnetic survey was carried out using a portable vertical component, Model G-110 fluxgate magnotomer manufactured by Sabre Electronic Instruments Ltd. of Burnaby, B.C. It is a visual-null type instrument using digital dial readout with a range of 100,000 gammas and a reading accuracy of 10 gammas. The G-110 has a temperature coefficient of 2 gammas per degree centigrade.

Only 2 commonly occurring minerals are strongly magnetic; magnetite and pyrrhotite. Hence, magnetic surveys are used to detect the presence of these minerals in varying concentrations. Magnetic data are also useful as a reconnaissance tool for mapping geologic lithology and structure since different rock types have different background amounts of magnetite and/or pyrrhotite.

Survey Procedure

The grid was put in by chain and compass immediately before the magnetic survey was started. The baseline was set up in a northsouth direction with the schistosity trend and marked every 50 m. Normal to the baseline at 200 m intervals are the east-west crosslines. The baseline was blazed except in treeless areas where pickets were placed at 50 m intervals.

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Survey Completed

All the crosslines from line 0 to line 7 were magnetically surveyed.

Survey Results

A series of low amplitude magnetic anomalies extend from line 7 in a northeasterly direction to line 0. These anomalies are believed to be related to minor amounts of magnetite concentrated along foliation planes in the underlying greenstone schists. The regional trend of the schistosity in this area of the plateau is in a northeasterly direction.

Electromagnetic Survey

The E.M. survey was started but could not be completed because of poor transmitter reception.

GEOCHEMICAL SURVEY

Sample Procedure

The soil samples were taken from the "B" soil horizon which has a brownish colouration at depths varying from 6 inches to 1 foot. The samples were taken with a grub-hoe and stainless steel trowel and were collected in kraft paper bags.

- 3 -

The samples were analysed by General Testing Laboratories Ltd. 1001 East Pender Street, Vancouver, B.C. using the following procedure:

- Samples sifted to 80 mesh
- Mesh weigh used 0-50g.
- Final volume 10 ml.
- Method of analysis: Instrumental Atomic absorption
- Extraction: Hot HC_10_4 HNO_3 digestion
- Detection: Techtron AA₄ and AA₅

- Supervising chemist: L. Wong

The silt samples were collected from both active streams and from springs of local origin. The samples were taken with a stainless steel trowel and placed in kraft paper bags. The samples were partially dried in the field before shipment. The silt samples were analysed by the same procedures as outlined above.

The soil and silt samples were analysed for silver, lead and zinc.

Survey Completed

A total of 43 silt samples and 8 soil samples were collected for analysis.

Silt samples were collected from streams and springs but many of the springs and smaller streams were frozen over so that samples could not be obtained. During the summer there would be many more springs and small streams that could be sampled.

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Survey Results

A minimum amount of sampling has been done on the AXL 3 claim to determine background values. However, there were 68 samples collected from the adjoining claim and the combined sampling is adequate to determine a reasonable sample value frequency distribution graph.

1. Silt Sampling

Lead

- a. background values 20-60 ppm
- b. threshold anomalous 80-100 ppm
- c. anomalous + 100 ppm -

Eight samples are lead anomalous with a high of 162 ppm. The anomalous values are randomly distributed throughout the sample area.

Zinc

- a. background values 40-160 ppm
- b. threshold anomalous 160-180 ppm
- c. anomalous +180 ppm

There are 19 zinc anomalous samples with a high of 591 ppm. These samples are randomly distributed throughout the sample area. However, the four highest values of 591, 587 and 474 ppm zinc are in the southeast corner of the grid on line 6 and 7.

Silver

Silver values range from 1.0ppm to 1.8 ppm and are not considered to indicate anomalous conditions.

2. Soil Sampling

Only 8 soil samples were collected along the road where it is crossed by the grid lines. The number of samples are inadequate to establish background values.

3. Comment

There has not been enough silt sampling done to outline the zinc anomalous area in the southeast corner of the grid. Three of the samples are also lead anomalous and this is encouraging as lead is not as mobile an element as zinc and indicates that the anomaly would be localized in that area of the grid. Additional soil and silt sampling is required to define the anomalous area.

Soil sampling in this area of the Shuswap terrain has not been particularly successful in localizing mineral occurrences. The heavy rainfall removes the metal ion from the surface soil. In addition there is very little vertical mobilization of metal ions because of numerous clay seams in the overlying glacial till. However, lateral ion mobilization is possible and as a result silt samples from springs and even minor seepages warrent sampling as they may indicate a mineral occurrence in the area. By determining the approximate direction of flow of the ground water drainage it may be possible to outline the general area where the mineral occurrence is located. Once the general area is determined the mineral occurrence can be further defined by geophysical surveys or by soil sampling if the overburden is not too deep.

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The only soil horizon that will be particularly useful to samples is the "C" horizon directly above bedrock. This sampling can be done by using a soil auger, drive-pipe or an overburden drill if depths are greater than 2 m. This type of sampling is expensive but it is warrented if the initial survey indicates a broad anomalous area where additional information is required to define a suitable drill target.

CONCLUSION AND RECOMMENDATIONS

7 -

The geochemical silt sampling has indicated anomalous lead and zinc values but additional sampling is required to outline the anomalous areas. The four samples taken in the southeast corner of the grid are particularly anomalous ranging from 280 ppm zinc to 591 zinc and three of these samples are also lead anomalous. It is also interesting to note a number of magnetic lows in this area of the grid indicating a change in the underlying geology.

The initial geochemical results are encouraging and it is recommended that the Phase I programme recommended in the report on the AXL 3 claim, by the writer, dated June, 1977, be completed. The completion of this programme will overlap Phase II (a) because the initial work indicates that fill-in surveys will be required.

ESTIMATED COSTS

8

Phase I Completion and Phase II (a)

		4,440
e)	Food & Accommodation 20 man days at \$12.00 per day	240
d)	Analysis Geochemical	700
c)	Geochemical soil and silt sampling	1,000
b)	Geophysical survey Electromagnetic survey and magnetic surveys	1,000
	<pre>supervision 10 days at \$150.00 per day \$</pre>	1,500
a)	Geological mapping and overall	

Phase II (as outlined in report on the AXL 3 claim by the writer dated June, 1977)



ENGINEER'S CERTIFICATE

1, GORDON C. GUTRATH, of 3636 Lakedale Avenue in the Municipality of Burnaby, in the Province of British Columbia, DO HEREBY CERTIFY:-

- That I am a consulting geologist with a business address of 1024-355 Burrard Street, Vancouver, B.C. V6C 2G8.
- That I am a graduate of the University of British Columbia where I obtained my B.Sc., in geological science in 1960.
- That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.
- 4. That I have practised my profession as a geologist for the past sixteen years, and
- 5. That I have no interest in the property with which this report is concerned, nor do I expect to receive any such interest, nor do I have any interest in Farrah Besservers Ltd.

FESSIO Gordo , P. Eng.

DATED at the City of Vancouver, Province of British Columbia, this 29th day of <u>November</u>, 1977.

GENERAL TESTING LABORATORIES

DIVISION SUPERINTENDENCE COMPANY (CANADA) LTD.



TO: FARRAH # 404 - 850 West Hastings St., Vancouver, B. C. V6C 1E1

4 . Ly

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2 PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE

CERTIFICATE OF ASSAY

No.: 7711-0552

DATE:Nov. 17/77

We hereby certify that the following are the results of assays on: SOIL

	<u>xexexex</u>	SILVER	LEAD	ZINC	XXX	XXX	XXX	XXX
WARKED		mag	РЪ	Zn				
Silt LO 150 E		1.1	68	1897				
Silt LO 330 E		1.0	35	124				
Silt LO 525 E		1.4	27	107				
Silt LO 535 E			112	10				
Silt L0 590 E		4 4	41	103 0				
$\begin{array}{c} \text{SIIT IN} (95) \text{E} \\ \text{SIIT IN} (95) \text{E} \end{array}$		1 1	50	$\frac{12}{137}$				
SI1+ 10 1115 E		1.4	51	179				
Silt L0 1160 E		1.3	46	150				
Silt LJ 170 E		1.4	50	159				
Silt LI 390 E		1.4	31	177				
Silt LI 745 E		1.4	105	2379				
Milt LI 845 E		1.4	68	22210				
Silt LI 990 E		1.4	162 /	182 1				
Silt LI 1140 E		1.7	52	100				
Silt L2S 65 E		1.1	40 h h	159				
Silt L2S 670 E		1.2	44 57	237 12				
5117 L25 097 E		1 7	ン1 近山	198 /4				
S117 L23 (0) E S11+ 128 075 F		1.7	46	158				
STIC 22 97								
Silt L2S1080 E		1.4	80	206 19				
Silt L3 335 E		1.4	52	174				
Silt L3 410 E		1.4	39	148	in the second			
Silt L3 875 E		1.7	50	209 15		1		
Silt L3 1015 E		1.4	61	174				
Silt L3 1170 E		1.4	146					
Silt 4S 80 E		1.7	40 h h	100 14				
Silt 49 455 E		1.4	44	158				
Silt L4S 455 E		1 1	27	215 17				
5117 L45 J20 E		1.4	- 1					
		TAINED TUDE		FOUEST				
PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.								
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REFEREE AND OR OFFICIAL CHEMISTS FOR: National Institute Of Oilseed Products - The American Oil Chemists' Society OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of Trade

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CERTIFICATE OF ASSAY

No.: 7711-0552

DATE: Nov. 17/77

We hereby certify that the following are the results of assays on:

TO:

MARKED	GARGE		LEAD	ZINC	XXX	XXX	XXX	XXX
		ppm	Pb	Zn				
SILT 4S 535 E		1.5)	105	193 1				
SILIT 45 590 E STUTTUS 620 E		4.1	50 112	204 /5				
SILT 4S 625 E		1.1	37	155				
SILTLAS 850 E		1.1	87	84				
SILTL5S 350 E		1.4	52	170				
SILTL5S 475 E		1.4	85	177				
SILTL5S 1000 E		1.7	102 /	280-3				
SILTLOS 710 E		1 7	102	587 4				
SHITLOS 1200 E		••1 ~	1.45-	쓰기				
SILTL7S 460 W		1.4	42	112				
SILTL7S 800 W		1.4	37	125				
SILTL7S 1025 E		1.1	93	474-6		ngin zmini zida si inizizi		
UI-RD		1.7	29	52				
L2- RD	antan Marina da Angela Marina da Angela	1.4	42	81				
		1.1	25	54				
L5- RD		1.4	35	86	Sail			
L6- RD		1.4	34	110				
L7- RD		1.4	36	113				
		4 -	76	116				
LO- RD		1.7	20	110				
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				and the second sec		a spinner atte		
REMARK: All result	sin	ppm.						
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L. Wong PROVINCIAL ASSAYER								

Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER: American Society For Testing Materials - The American Oil Chemists' Society - Canadian Testing Association REFEREE AND OR OFFICIAL CHEMISTS FOR: National Institute Of Oilseed Products - The American Oil Chemists' Society OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of Trade
> CANADA PROVINCE OF BRITISH COLUMBIA

In the Matter of costs incurred in carrying out the exploration program on the AXL 3 mineral claim.

TO WIT:

I,

NORM NEWSOM,

of the city of Vancouver, in the Province of British Columbia do solemnly declare that the following is a true and accurate summary of the costs incurred:

D. Mark	- Geophysical repor	t – s	\$ 300.00
G. Gutrath	- \$150 field day		
	\$250 report	-	400.00
R. Davis	- ·	· · · ·	600.00
T. Rolston	- Wages, equipment	rental	
	etc.		727.00
Assays	<u> </u>		153.00
Mapping	🗕 da ser da da ser da se	— 1	130.00
Filing of work	- - 1	-	450.00
Truck	- 6 days @ \$20	-	120.00
Mileage	- $1/3$ of 700 miles	@20¢-	47.00
N. Newsom			1,600.00
Expenses, food	,		
lodging			496.00
Equipment, etc	•		

\$<u>5,023.00</u>

AND I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at

Vancouver

in the

Province of British Columbia, this

22ndday of November 77 ا Public in and for the Province of British Calumbia. sisioner for taking Affidavits for British Columbia.

NORMAN

Dated November 1977				
	Dated	November	 1977	_

IN THE MATTER OF

the costs incurred in carrying out the exploration program on the AXL 3 mineral claim.

Statutory Declaration

Park Stationers & Printers Ltd., Vancouver, B.C.



