

SUITE 1000  
217 BAY STREET  
TORONTO 1, CANADA

CABLES  
SURVEYMIN  
TORONTO

TELEPHONE  
362-6424

REDFORT PROSPECTING SYNDICATE

STATEMENT OF EXPENDITURES\*

RE PROSPECTING AND GEOLOGICAL MAPPING OF RED, FORT AND PLUS GROUPS  
(192 claims)

ALL CONTIGUOUS AND LOCATED IN YUKON TERRITORY  
(Claim Sheets 95D-12, 95D-5)

FOR PERIOD JANUARY 1 - NOVEMBER 28, 1966

Salaries, wages and consulting fees	9,400.00 \$13,980.48
Photostudy consulting and drafting	1,068.65
Insurance	588.07
Aircraft charter	3,737.41
Materials and supplies	2,136.24
Travel	2,103.95
Legal	278.30
Telephone, telegraph and sundry	807.97
	<u>\$24,701.07</u> 20,670.00

\*Vouchers supporting all of the above expenditures are available for examination at any time at the Surveymin office, 217 Bay Street, Toronto 1, Ontario.

Approved by Manager of  
Redfort Prospecting Syndicate  
Surveymin Limited

Per:

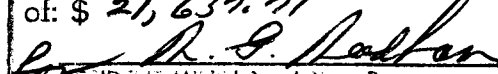
*S. Wisebrot*  
S. Wisebrot  
Director

November 28, 1966

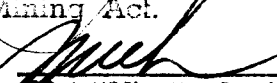
This report has been examined by  
the Geological Evaluation Unit.  
Approved as to technical worth by:

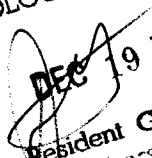
  
RESIDENT GEOLOGIST

Approved as to cost in the amount  
of: \$ 21,637.71

  
RESIDENT MINING ENGINEER

Accepted as representation work  
under Section 53(4) Yukon Quartz  
Mining Act.

  
COMMISSIONER

GEOLOGICAL SURVEY  
  
DEC 19 1966  
Resident Geologist  
Whitehorse, Y. T.

CANADA )  
 )  
COUNTY OF YORK )  
 )  
 )  
 )  
TO WIT: )

IN THE MATTER OF the Canada Mining  
Regulations

AND IN THE MATTER of Surveymin Limited  
Manager of the Redfort Prospecting Syndicate

I, Seymour Wisebrot, of the City of Toronto, in the Province  
of Ontario, Corporate Secretary, make oath and say that:

1. I am a Director of Surveymin Limited, Manager of the Redfort  
Prospecting Syndicate, and as such I have knowledge of the facts deposed  
herein.

2. The following are the costs incurred by the said Company on  
lands in the Yukon Territory during the period January 1, 1966 to  
November 28, 1966.

Salaries, wages and consulting fees  
Photostudy, consulting and drafting  
Insurance  
Aircraft charter  
Materials and supplies  
Travel  
Legal  
Telephone, telegraph and sundry

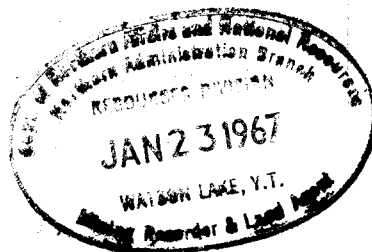
*9,480.48*  
~~\$13,980.48~~  
1,068.65  
588.07  
3,737.41  
2,136.24  
2,103.95  
278.30  
807.97 *288.09*

~~\$24,701.07~~ *21637.71*

SWORN before me at the City )  
of Toronto, in the Province )  
of Ontario, this 19th day of )  
January, 1967. )

*S. Wisebrot*

*W. B. McCreary*  
A Notary Public in and for  
this Province of Ontario.



GEOPHYSICAL REPORT

LAD MINERAL CLAIM GROUP  
(Lad 3-12, 19-34, 45-62)

Mayo Mining District  
Yukon Territory

Longitude : 132° 15' W.  
Latitude : 62° 56' N.

N.T.S. 105-K-16

Work done during period  
July 23 - Sept. 13, 1968

By

THOMAS J. ADAMSON

ATLAS EXPLORATIONS LIMITED

October 15, 1968

This report has been examined by  
the Geological Evaluation Unit.  
Approved as to technical worth by:

*D. C. Willey*  
RESIDENT GEOLOGIST

Approved as to cost in the amount  
of: \$ 8500.00

*H. G. Hallan*  
REGISTERED MINING ENGINEER

Accepted as representation work  
under Section 53(4) Yukon Quartz  
Mining Act.

*Thomas J. Adamson*  
COMMISSIONER OF YUKON

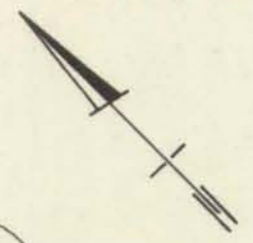
LIST OF CLAIMS

<u>Claim Numbers</u>	<u>Grant Numbers</u>	<u>Date Recorded</u>
Lad 3-8	Y14068-Y14073	Oct. 11, 1967
Lad 9-12	Y14074-Y14077	Oct. 11, 1967
Lad 19-24	Y14136-Y14141	Nov. 3, 1967
Lad 25-32	Y14078-Y14085	Oct. 11, 1967
Lad 33-34	Y14086-Y14087	Oct. 11, 1967
Lad 45-48	Y14218-Y14221	Nov. 6, 1967
Lad 49-54	Y14142-Y14147	Nov. 3, 1967
Lad 55-62	Y14148-Y14155	Nov. 3, 1967

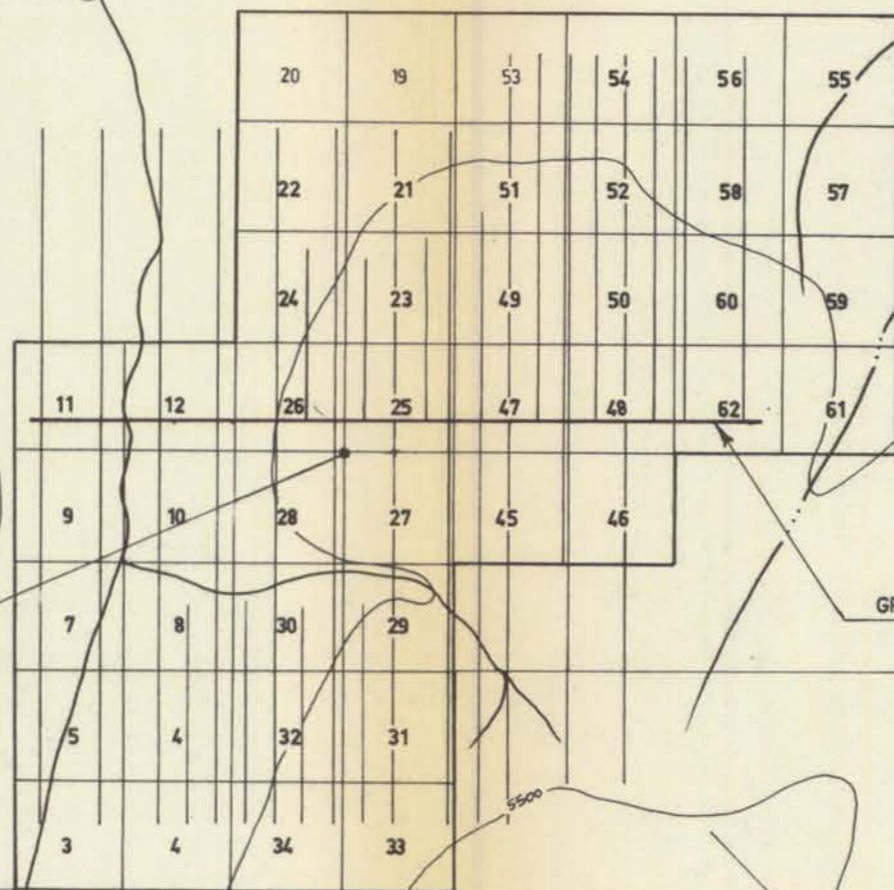
105-K-16

132° 14'

62° 56'



### LAD MINERAL CLAIMS



MOUNT SELOUS 7138' ELEVATION 9 MILE

1967 STAKED CLAIMS

GRID

ATLAS EXPLORATIONS LIMITED

ROSS RIVER (Y.T.)

KEY MAP OF LAD MINERAL CLAIMS AND GRID

scale 1" = 1/2 mi

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# ATLAS EXPLORATIONS LIMITED

(N. P. L.)

330 MARINE BUILDING  
355 BURRARD STREET  
VANCOUVER 1, B. C.

## GEOPHYSICAL REPORT LAD MINERAL CLAIM GROUP (Lad 3-12, 19-34, 45-62)

### INTRODUCTION

The Lad Group was staked in September and October, 1967, to cover the area of three Ag, Pb, Zn, Cu showings, a number of sulfide float occurrences, and high lead results from reconnaissance soil and gossan sampling.

To September 13, 1968, the work done on the group consisted of cutting a grid in the area of interest, over which geological mapping and prospecting, soil and silt sampling, magnetic and electromagnetic surveying were carried out.

An additional 164 claims were staked in the immediate vicinity during the 1968 field season.

### LOCATION AND ACCESS

The Lad Group is located on the SE slope of Mt. Selous, in the north-central portion of claim sheet 105-K-16. Ross River, Y.T., the nearest settlement, is about 65 miles south of the claim group.

Access to the property can be made by float-equipped aircraft to "Van Lake" 8 miles east of the claims. Helicopter support is required from this lake to the property. Several helipads have been cut out on the property.

A camp was established on Clearwater Creek, in the northwestern portion of the claim group.

## GEOLOGY

The Lad Group was geologically mapped on a scale of 1":400'.

The area is underlain mainly by quartzites, phyllites and limestones of Proterozoic age. Quartzite is by far the most abundant unit.

A number of wedges of Ordovician-Devonian rocks have been infolded (?) into the Proterozoic sequence. These rocks are graphitic shales, slates and cherts, chert pebble conglomerate and grey bedded chert.

The general regional attitude of the sediments is about 135°, and dipping moderately to steeply to the NE or SW.

A small pluton of granitic orthoclase porphyry outcrops on the grid at about L80E, 28N. A narrow dyke (approx. 10' wide) of quartz-orthoclase porphyry outcrops in Hugo Creek at 33E, 22S.

The contact of the Mt. Selous pluton is about 2 miles west of the Lad Group.

Within the grid area, five sulfide showings have been discovered. They are vein fracture zones and shear zone impregnations. Only 1 of the above showings, located at 51E, 24S, would seem to hold any economic potential. This mineralized shear zone (chalcopyrite, pyrite, galena and pyrrhotite) is exposed in the creek bed for about 30 ft, is from 2-5 ft. wide, and open on both ends. A representative grab sample assayed 49.68 oz. Ag, 15.3% Pb, 3.1% Zn, 4.40% Cu.

## GEOCHEMISTRY

Soil samples were taken at 100 ft. intervals on the cut grid. The geochemical results from these soils have outlined and detailed several very interesting zones of anomalous lead and

copper-zinc values. The geochemistry was successful in detecting the known showings, making the geochemical anomalies in the overburden covered areas attractive targets for further work.

## GEOPHYSICAL SURVEY

### Linecutting

A crew of up to six men spent 107 man days cutting the Lad Group grid. The central base line of this grid runs  $135^{\circ}$  and is 11,200 ft. long. Original cross-line spacing on the grid was 800 ft. but this was reduced to 400 ft. or 200 ft. in areas where more detailed work was necessary. Stations at 100 ft. intervals were marked on all lines. The grid was controlled by picket and chain methods. A total of 208,000 ft. of line was cut. The line cutting was carried out mainly by natives from Ross River, Y.T.

### Instruments Used

For the magnetometer survey, a Sharpe MF-1 magnetometer was used. This is a hand held fluxgate magnetometer which measures the vertical magnetic component. The range of this instrument is 0 to 100,000 gammas over five sensitivity ranges, the lowest being 10 gammas per scale dimension. The instrument reads directly in gammas. No conversion factor is necessary.

The electromagnetic survey was carried out with a Crone JEM dual frequency unit. The Crone JEM is of the inductive type and may be either used as a horizontal or vertical loop apparatus. Measurements are made of the resultant dip angle of the field and the width of null or out of phase component. It is designed to be operated with a maximum coil spread of 300 ft. for a horizontal conductor and 100 ft. for a vertical conductor. The effective lateral coverage is a direct function of the spread under ideal conditions. The equipment was chosen in order to give reliable information on the attitude and

configuration of a conductor, the physical properties of the host rock, dimensions of the conductor, and results free from error due to topographic relief.

## SURVEY METHODS

### Magnetometer Survey

#### Results

Approximately 150,000 ft. of magnetometer survey was conducted over the Lad Group on grid lines of 800 ft. spacing with 400 ft. 'fill-in' lines over areas of anomalous interest.

Background is in the order of 1700 gammas with maximum peak values of 2800 gammas being obtained in specific and localized areas on the grid.

Isomagnetic contouring of gamma values reveals a general northwest-southeast magnetic trend over the survey area. Within this trend, numerous discordant and localized magnetic highs are apparent with relief from 500 to 1000 gammas above background.

Two major expressions have been outlined between lines 72E and 96E at stations 25N to 50N (eastern anomaly) and lines 16E to 40E between stations 20S to 45S (western anomaly). These anomalies are characterized by an 1800 gamma closure around numerous isolated spot highs contributing to a discontinuous array of magnetic anomalies within the overall expression.

Other magnetic highs are of a more northwest-southeast enechelon trending nature and are sinuous and discordant in character. Peaks of these anomalies are located at:

L64E, 38S  
L64E, 7S  
L40E, 12S  
L32E, 38N

A strong localized negative magnetic response is located at L24E, 35N.

Magnetic anomalies coincident with lead geochemical anomalies are located at:

L80E, 29S  
L80E, 30-40N  
L86E, 20N  
L32E, 5N  
L 24E to L48E, 22S, and  
L24E, 35N

#### Interpretation

The area described as the 'eastern anomaly' is probably associated with a granitic orthoclase porphyry that outcrops in several locations in this vicinity. The irregular magnetics can be attributed to varying susceptibilities within the intrusive mass. The 'western anomaly' which is similar in character to the 'eastern anomaly' could also be due to similar underlying intrusives, although no outcrop was noted in this area.

Quartzite with minor disseminated pyrrhotite was found close to the peak of the magnetic high centred at L64E, 34S. There is little or no outcrop near the other magnetic peaks.

From limited outcrop and float locations as well as sulphide occurrences noted over the survey grid, there is little direct evidence that can be attributed to causing the numerous magnetic anomalies. In many instances, lead geochemistry is coincident with magnetic expressions and it is thought that the irregular magnetics could be associated with intrusive action and related faulting and shearing that contains sulphide mineralization.

Half width calculations show most causative structures to be close to surface (within 50 ft.). Test pits sunk on the negative magnetic anomaly (L24E, 35N) uncovered gossan-like float containing minor galena.

The sulphide occurrences in Hugo Creek are within a magnetic low.

### Electromagnetic Survey

#### Results

A total of 13,200 ft. of line was surveyed with the Crone JEM horizontal loop to detect any conductive zones coincident with magnetic and lead geochemical anomalies. Experimental profiles were run over selected portions of magnetic and geochemical anomalies on lines 20E, 24E, 32E, 40E, 48E, 56E, 64E and 80E.

All profiles (see map folder) are of a 'flat' nature and do not show relief exceeding -4 and +2 degrees resultant dip. The only response of significance is obtained on line 40E, 25+00S and line 48E, 23+00S, where positive resultant dips of +2 degrees were obtained on both 1800 and 480 cps frequencies. These values are obtained on single stations only.

#### Interpretation

The easterly trending conductor traced over lines 40E and 48E is of vertical or near vertical attitude and limited in width (probably less than 10 ft.). The electromagnetic response is not strong and conductivity cannot be attributed to a definite source, a vein structure of disseminated sulphides or a vertical shear zone would be a plausible explanation of the causative structure.

### CONCLUSIONS AND RECOMMENDATIONS


The magnetic survey revealed a number of irregular and localized magnetic anomalies, the majority of which are associated with lead geochemical anomalies. The magnetics are thought to be related to intrusive activity and associated shear zones that could be favourable to vein-type sulphide mineralization.

Electromagnetic results are not conclusive in outlining conductors associated with geochemical and magnetic anomalies.

Although no mineral deposits of economic size have been found to date, we are dealing with a structurally and lithologically favourable, well mineralized district.

A program of bulldozer trenching of geochemical anomalies and follow-up diamond drilling is planned for next season.

Respectfully submitted,

  
T. J. Adamson,  
Geologist

October 15, 1968



SUMMARY OF COSTS  
 (July 23-Sept.13)  
GEOPHYSICAL SURVEYS - LAD MINERAL CLAIM GROUP  
 (Lad 3-12, 19-34, 45-62)

A. LINECUTTING

1. (a)	Footage Cut	:	208,000 ft.	
	(b) Linecutters	:	M. Simpson T. Brock F. Charlie T. Charlie M. Acklack G. Johnny J. Olie J. Dick	
	(c) Cook	:	C. Marcoux	
2. (a)	Wages:			
	7 man days @\$18.00, daily			
	wage of M. Simpson		\$126.00	
	6 man days @\$17.00, daily			
	wage of T. Brock		\$102.00	
	24 man days @\$20.00 daily			
	wage of F. Charlie		\$480.00	
	20 man days @\$20.00, daily			
	wage of T. Charlie		\$400.00	
	24 man days @\$20.00, daily			
	wage of M. Acklack		\$480.00	
	20 man days @\$20.00, daily			
	wage of G. Johnny		\$400.00	
	4 man days @\$20.00, daily			
	wage of J. Olie		\$ 80.00	
	2 man days @\$20.00, daily			
	wage of J. Dick		\$ 40.00	
	21 man days @\$20.00 daily			
	wage of C. Marcoux		<u>\$420.00</u>	\$2,528.00
(b)	Helicopter Support:			
	19.5 hrs. @\$127.00/hr.		\$2,477.00	
	Aviation Gasoline -			
	17 gal/hr. @\$2.00/gal		<u>\$ 663.00</u>	\$3,140.00

(c)	Fixed-Wing Support	\$ 308.00
(d)	Subsistence Cost: 128 man days @\$8.00/man day	\$1,024.00
(e)	Supplies and Misc. Equipment	\$ 25.00
(f)	Travel from Vancouver 3 man @ \$7.00/man	\$ 21.00
(g)	Supervision: 128 man days @ \$1.20/man day	\$ 154.00
(h)	Overhead - 15% of total 15% of \$7,200.00	<u>\$1,080.00</u>
	TOTAL COST LAD GROUP LINECUTTING (Lad 3-12, 19-34, 45-62)	\$8,280.00

B. MAGNETOMETER SURVEY

1.	(a)	Footage read	:	148,400 ft.	
	(b)	Operators	:	M. Simpson, T. Brock	
	(c)	Cook	:	C. Marcoux	
2.	(a)	Wages:			
		11 man days @\$18.00, daily			
		wage of M. Simpson		198.00	
		2 man days @\$17.00, daily			
		wage of T. Brock		34.00	
		3 man days @\$20.00, daily			
		wage of C. Marcoux		<u>60.00</u>	\$ 292.00
	(b)	Helicopter Support:			
		2.6 hrs. @\$127.00/hr.		330.00	
		Aviation Gasoline -			
		17 gal/hr. @\$2.00/gal.		<u>88.00</u>	\$ 418.00
	(c)	Fixed-Wing Support			\$ 40.00
	(d)	Subsistence Cost			
		16 man days @\$8.00/man day			\$ 128.00
	(e)	Travel from Vancouver:			
		3 man @ \$7.00/man			\$ 21.00
	(f)	Supervision Cost:			
		16 man days @ \$1.20/man day			\$ 19.00
	(g)	Instrument Cost:			
		13 days used @ \$5.00/day			\$ 65.00

(h)	Interpretation & Report Presentation:		
	Drafting:		
	1 man day @\$19.00, daily wage of P. Vlasveld, draftsman	19.00	
	Interpretation & Report Writing:		
	1 man day @\$23.00, daily wage of T. Adamson	23.00	
	Subsistence Cost:		
	2 man days @\$8.00/man day	16.00	
	Supervision:		
	2 man days @\$1.20/man day	<u>2.00</u>	\$ 60.00
(i)	Overhead - 15% of total 15% of \$1,043.00		\$ <u>156.00</u>
	TOTAL COST LAD GROUP MAGNETOMETER SURVEY (3-12, 19-34, 45-62)		<u>\$1,199.00</u>

C. E.M. SURVEY

1.	(a)	Footage read	: 13,400 ft.	
	(b)	Operator	: M. Simpson	
	(c)	Helper	: T. Brock	
	(d)	Cook	: C. Marcoux	
2.	(a)	Wages:		
		2 man days @\$18.00, daily wage of M. Simpson	36.00	
		2 man days @\$17.00, daily wage of T. Brock	34.00	
		1 man day @\$20.00, daily wage of C. Marcoux	<u>20.00</u>	\$ 90.00
	(b)	Helicopter Support:		
		.8 hrs. @\$127.00/hr.	102.00	
		Av. Gas, 17 gal/hr. @ \$2.00/gal.	<u>28.00</u>	\$ 130.00
	(c)	Fixed-Wing Support		\$ 14.00
	(d)	Subsistence Cost:		
		5 man days @\$8.00/man day		\$ 40.00

(e)	Travel From Vancouver: 3 man @ \$7.00/man		\$	21.00
(f)	Supervision Cost: 5 man days @\$1.20/man day		\$	6.00
(g)	Instrument Cost: 2 days used @ \$5.00/day		\$	10.00
(h)	Interpretation & Report Presentation: Drafting: 1 man day @\$19.00, daily wage of P. Vlasveld, draftsman	19.00		
	Subsistence: 1 man day @\$8.00/day	8.00		
	Supervision: 1 man day @\$1.20/man day	<u>1.20</u>	\$	28.00
(i)	Overhead: 15% of total 15% of \$339.00		\$	<u>51.00</u>
	TOTAL COST OF LAD GROUP E.M. SURVEY (3-12, 19-34, 45-62)		\$	<u><u>390.00</u></u>

TOTAL COST OF LAD GROUP GEOPHYSICAL SURVEYS:

Linecutting	\$8,280.00	
Magnetometer Survey	\$1,199.00	
Electromagnetic Survey	<u>\$ 390.00</u>	\$ <u><u>9,869.00</u></u>

**ATLAS EXPLORATIONS LIMITED**

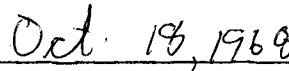
(N. P. L.)

330 MARINE BUILDING  
355 BURRARD STREET  
VANCOUVER 1, B.C.AFFIDAVIT SUPPORTING SUMMARY OF COSTS

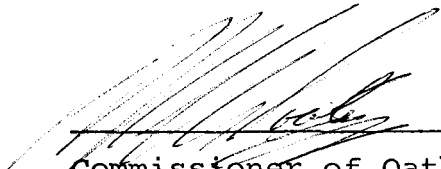
I, Thomas J. Adamson, Geologist, Atlas Explorations Limited, of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report "Geophysical Report - Lad Mineral Claim Group" (Appendix I) is both correct and true.



T. J. Adamson



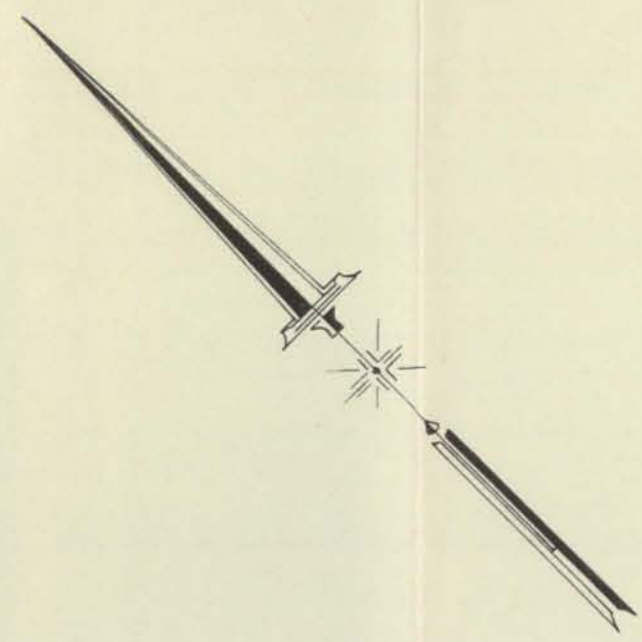
Date

  
\_\_\_\_\_  
Commissioner of Oaths in and  
for the Yukon Territory.

LIST OF PERSONNEL  
LAD GROUP GEOPHYSICAL SURVEY

T. Adamson	Geologist, Party Chief	Vancouver, B.C.
M. Simpson	Student Assistant	Vancouver, B.C.
T. Brock	Student Assistant	Vancouver, B.C.
F. Charlie	Linecutter	Ross River, Y.T.
T. Charlie	Linecutter	Ross River, Y.T.
M. Acklack	Linecutter	Ross River, Y.T.
G. Johnny	Linecutter	Ross River, Y.T.
J. Olie	Linecutter	Ross River, Y.T.
J. Dick	Linecutter	Ross River, Y.T.
C. Marcoux	Cook	Quebec, P.Q.

16 W      8 W      0      8 E      16 E      20 E      24 E      28 E      32 E      36 E      40 E      44 E      48 E      52 E      56 E      60 E      64 E      68 E      72 E      76 E      80 E      84 E      88 E      96 E



50 N  
40 N  
30 N  
20 N  
10 N  
BASE LINE 0  
10 S  
20 S  
30 S  
40 S  
50 S

**LEGEND**

- |             |    |   |
|-------------|----|---|
| CRETACEOUS  | 1f | GRANITIC INTRUSIVES                                     |
|             | 3f | GREY BEDDED CHERT                                       |
| ORDOVICIAN  | 3d | CHERT-BLACK SLATE PEBBLE CONGLOMERATE                   |
| DEVONIAN    | 3a | GRAPHITIC SHALES, CHERT, GREYWACHE                      |
|             | 1c | PHYLLITE, GREY TO BUFF                                  |
| PROTEROZOIC | 1b | LIMESTONE   |
|             | 1a | QUARTZITE, MICACEOUS QUARTZITE, QUARTZ-SERICITE SCHIST. |

**SYMBOLS**

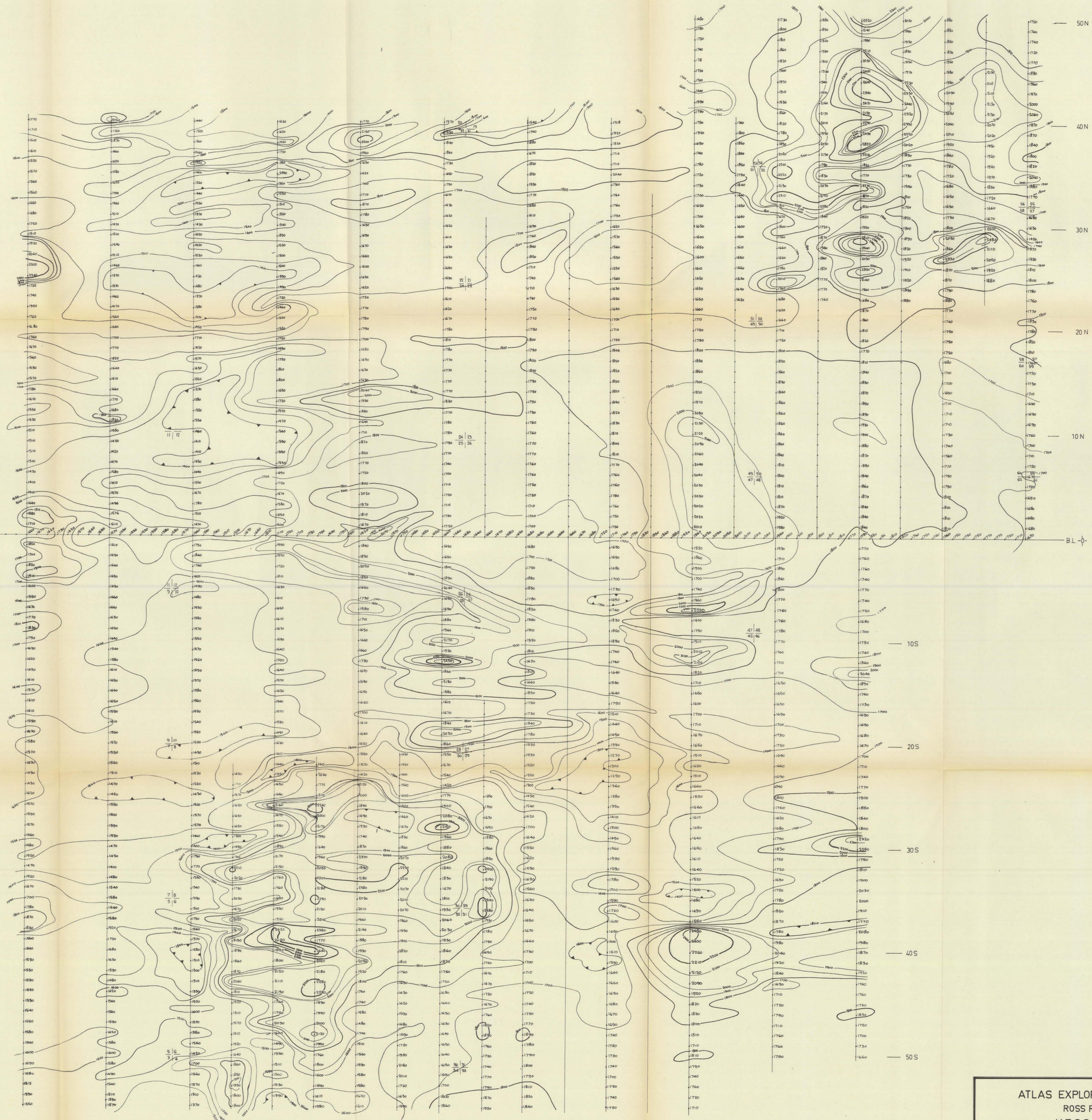
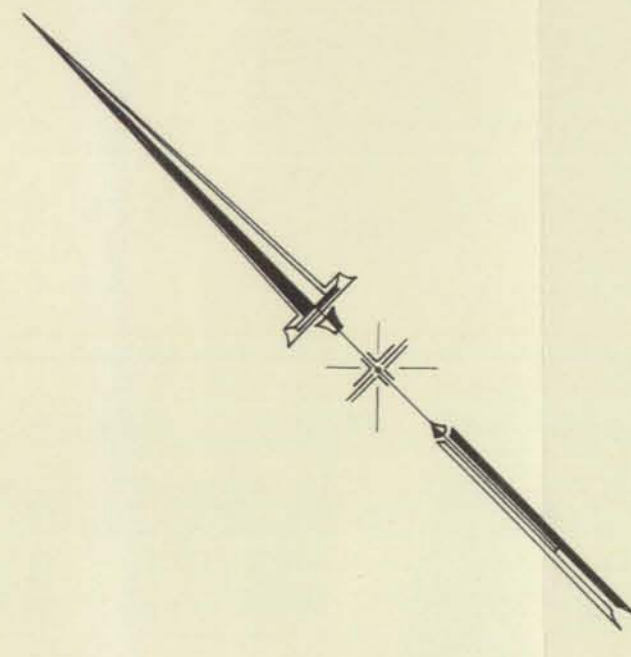
- CONTACTS
- OUTCROP LIMIT
- BEDDING ATTITUDE
- LINEATION
- ANTICLINAL FOLD
- FAULT OR SHEAR

ATLAS EXPLORATIONS LIMITED  
ROSS RIVER (Y.T.)  
HESS REGION  
LAD MINERAL CLAIM GROUP  
GRID GEOLOGY  
(OUTCROP MAP)

GEOLOGY BY: T. ADAMSON      DRAWN BY: P.J.F. VLASVELD  
DATE: OCTOBER 19/58

0 200 400 800 Feet

16 W 8W 0 8E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 60E 64E 68E 72E 76E 80E 84E 88E 92E 96E



ATLAS EXPLORATIONS LIMITED  
ROSS RIVER (Y.T.)  
HESS REGION  
LAD MINERAL CLAIM GROUP  
GROUND MAGNETOMETER SURVEY  
VALUES AND CONTOUR MAP

PARTY CHIEF: T. ADAMSON  
OPERATOR: M. SIMPSON  
AND T. BROCK

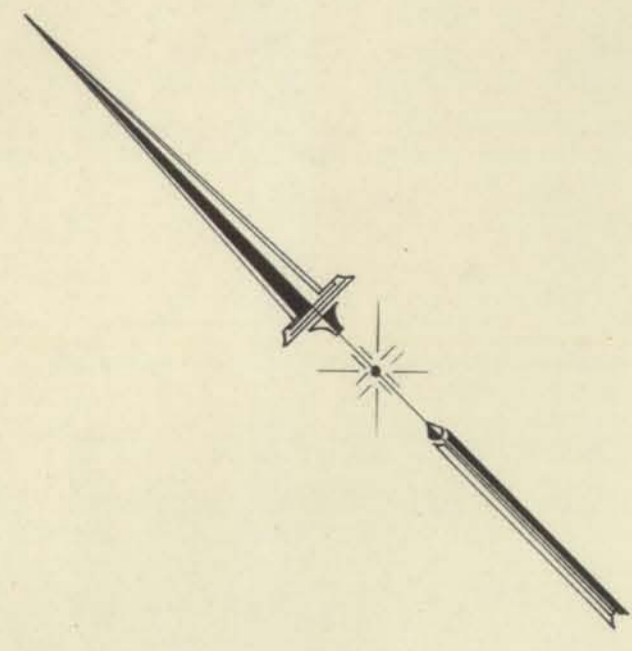
INSTRUMENT: SHARFE MF-1

DRAWN BY: P.J. VLASVELD  
DATE: SEPTEMBER 26/58

0 400 800  
feet



16W 8W 0 8E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 60E 64E 68E 72E 76E 80E 84E 88E 92E 96E



ATLAS EXPLORATIONS LIMITED  
ROSS RIVER (Y.T.)  
HESS REGION  
LAD MINERAL CLAIM GROUP  
GEOCHEMICAL SOIL SAMPLE SURVEY  
LEAD CONTOURS

PARTY CHIEF: TADAMSON DRAWN BY: P.J.F. GLASFIELD  
DATE: OCTOBER 17/88

0 200 400 600 800 feet