SILVER EAGLE MINES LTD.

REPORT on the SUNSET GROUP
95-E-6, Watson Lake M.D.

by

P.H. Sevensma, Ph.D., P. Eng.

December 4, 1968.

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95-E-6, Watson Lake M.D.

1. INTRODUCTION

The Sunset group of 32 claims, along the Y.T. - N.W.T. border, covers a showing that has been known for some time. Although the writer is familiar with a number of showings lying along or near the Y.T. - N.W.T. boundary, he has not examined this occurrence.

The present report embodies the results of a study of available documents and reports on this showing, and recommends a program of exploration to Silver Eagle Mines Ltd.

2. PROPERTY, LOCATION, ACCESS

Claims	Record No.	Expiry Date
Sunset 1 - 16	Y17354 - 17369	December 19, 1970. (Estate lay-over)
Sunset 17 - 32	Y22319 - 22334	December 5, 1968.
Sunset 1 - 8	N.W.T. claims	Status unknown

The claims lie along the Y.T. - N.W.T. border, about Lat. 61° 17'N. and Long. 127° 03'W., between elevations of 3,900' and 6,000', on claim sheet 95-E-6.

Eight claims adjoining the Y.T. group across the border in the N.W.T. have not been investigated, as they are underlain by footwall formations only and are not considered vital to investigation of the potential of the existing showings.

The property lies 96 air miles NNE of Watson Lake, the nearest center of supply. Access is either by helicopter, or by float plane to

a 3/4 mile long lake 3 miles South of the South boundary of the property at elevation 3,800'.

The timber line lies at about 4,500' elevation and there are small year-round creeks originating on the property, providing water for the exploration purposes.

Potential road access may be best up the Coal River from mile 580 on the Alaska Highway, a distance of about 92 air miles South of the property.

3. HISTORY

The showings were previously covered by the Ram group, at which time they were visited by Mr. Al Story for Conwest Explorations Ltd. Subsequently, they were staked as the Dell group.

They have been known as the Sunset since 1965 or earlier, when they were restaked by Hugo Brodell of Watson Lake, Y.T., for the Brodell Syndicate.

Assay results of samples taken by Mr. Brodell at that time have been kindly made available to the writer by a member of the former syndicate.

The Sunset 1 - 8 and the Sunset 9 - 16 were restaked last respectively on February 2nd, 1967, by Mr. Brodell and on February 16th, 1967, by Mr. T. Cairns and recorded respectively on February 24th, 1967, and February 28th, 1967.

Certificates of work for these claims were issued on January 29th, 1968,,keeping the claims in good standing until respectively February 24th and 28th, 1969. These certificates were issued to Mr. T. R. Cairns, whose untimely demise in December 1967 put the due date

ahead to December 19th, 1970.

On September 15, 1966, the claims were examined by George E. Midgley, P.Eng., Alberta, who reported on these claims on September 27th, 1966, and who submitted an amended report on October 28th, 1967. The latter report is available to the writer.

4. AREAL GEOLOGY

The general claim area is underlain by Lower Cambrian or Late Precambrian phyllites and Lower Cambrian Limestone, about 2 miles South of the Flat River Cretaceous (?) granodiorite to quartz monzonite batholith.

About 24 miles to the NNW, near the Northern boundary of this batholith there is a belt of skarn type copper-lead-zinc showings low in silver, known as the Lucky Lake occurence. These were recently drilled by Cyprus Exploration Corp. Ltd.

Some 10 miles NW of the Sunset group, a lead-zinc-tin showing with pyrite in a carbonate matrix is associated with the SW border of the intrusive stock; it carries some stannite and possibly geocronite (G.S.C., Paper 64-52).

In the writer's opinion, the area as a whole has an excellent potential for the discovery of large economic deposits. It is part of the Eastern boundary of the great intrusive arc extending well beyond the Tintina Trench NE of Watson Lake, which, in the continental framework, may be compared to the Columbia arc of intrusives extending East across the Rocky Mountain Trench as far as Butte, Montana.

The latter arc is associated with some of the most outstanding mining districts of the continent, i.e. the Sullivan Mine, the Coeur d' Alene District and the Butte, Montana District.

5. LOCAL GEOLOGY

The wallrock formations underlying the Sunset group are the favorable Lower Cambrian limestones and phyllites, which are the hostrock of many of the significant silver-lead-zinc deposits in the Yukon and in British Columbia.

The Sunset showings all lie along the limestone-phyllite contact, which is intruded on the property by a quartz-porphyry mass.

The attitude of these beds is N-S with steep Westerly dips and evidence of folding along flat lying axis, as some Easterly dips have been recorded.

Some volcanic beds have been reported on the property; this would not be unusual as volcanics have been mapped by G.S.C. within these phyllites on the Flat River map sheet, and the Lucky Lake showings are associated with andesite dykes.

The quartz porphyry intrusion on the property is a highly favorable factor.

The wallrock formations thus present an eminently favorable environment on the Sunset group.

6. SHOWINGS

Mr. G.E. Midgley, P.Eng., describes the showings as lying along the argillite limestone contact, in the vicinity of the quartz porphyry intrusion to the SE of the showing examined by him, and farther South along this contact, a small granitic intrusion is reported.

The location of the showings as reported by the Brodell Syndicate is shown on figure 2.

Detailed sample locations and assay results are all available to the writer. The assay report is by J.R. Williams, file no. 259606/620,

dated October 14th, 1965.

Assay values are as follows, with the assays grouped according to ore type, i.e. copper-showings and silver-lead showings.

A. Copper Showings

Sample No.	Description	Au.	Ag.	Cu.
19835	Cemented Q + Cp., bo., cl.	tr.	1.50	5.25
19836	Q + L.br. + Cp., bo., cl.	.01	1.95	17.05
19837	Large trench, L.br. + mal., bo., cl.	.01	1.10	35.80
19838	Float, Q + L.br. + Cp., bo., minor cl.	.01	0.60	6.78
19839	Float, Q + L.br. + mal., Cp., some cl.	.02	3.90	10.19
19846	L.br. + heavy mal., possible cl.	.01	0.80	18.20
Total of 6 samples		.06	9.85	93.27
Arithmetic average, 6 samples		.01	1.64	15.55

- = Not assayed.

Abbreviations: Q = quartz; L.br. = Limestone breccia; mal. = malachite; cp. = chalcopyrite; bo. = bornite; cl. = chalcocite.

B. Silver-Lead Showings

Sample No.	Description	Au.	Ag.	Pb.	Zn.
19840	L.br. + gn.	.01	57.40	37.75	7.80
19841	L.br. + gn.	.02	27.85	71.87	tr.
19842	L.br. + gn.	.005	36.40	43.25	.05
19843	L.br. + gn.	.005	18.15	17.60	1.00
19844	L.br. + gn., massive shwg.	tr	48.40	63.18	4.50

Sample No.	Description	Au.	Ag.	Pb.	Zn.
19845	Dissem. gn. in grey Lst.	tr.	3.30	2.67	4.35
19847	Dissem. gn. in altered Lst.	.005	31.10	15.65	tr.
Total of 7 samples:		.045	222.60	251.97	17.70
Arithmetic average, 7 samples:		.006	31.80	36.00	2.53

Average silver-lead ratio: 0.88
Minimum silver-lead ratio: 0.39
Maximum silver-lead ratio: 1.98

C. Notes on Copper Showings

Distance from 19835 to 19840 is over 5 claim lengths, i.e. some 7,500'.

The only widths of samples have been reported by G.E. Midgley, P.Eng., as follows:

No.	Width	Description	% Cu.
1	7'	Leached material	15.75
2	-	Selected from dump	27.36
3	18"	Footwall rock	0.44

He reports chunks of up to 100 lbs. stained brilled green, strewn below the trench; the primary mineralization is described as chalcocite and chalcopyrite. Float is reported by Brodell in all draws leading to the contact.

In summary, there is a limestone breccia, partly recemented by quartz, with one reported width of 7' and occurring intermittently for a length of 7,500'.

It is of interest that the Brodell Syndicate average of 15.55% Cu. is about the same as the Midgley sample of 15.75% Cu. across 7'.

A limestone tends to enrich the primary ore by precipitation of malachite, The writer is only prepared to state that copper mineralization is indicated over a mining width and a total length of about 7,500' with a possible average grade of from 5 - 10 % Cu.

This is a conservative appraisal, as it would be unusual for a breccia to be only 7' wide for a length of 7,500', and the presence of quartz porphyry is very promising.

D. Notes on Silver-Lead Showings

The silver-lead showings on claim no. 4 are reported to extend over a length of over 300', with one width of 2' reported. They were not visited by Mr. Midgley.

The writer can only state that the limestone breccia also carries silver-lead-zinc with a promising silver-lead ratio, extending over a probable length of 300' and probably at least a few inches wide.

7. SUMMARY

Commercial grade copper-mineralization in the 5 - 10% Cu. range has been reported over a length of some 7,500' in a geologically highly favorable environment.

Silver-lead mineralization with a 0.9 silver to lead ratio has been reported over a length of 300' along a brecciated portion of the generally favorable Lower Cambrian limestone near a quartz-porphyry intrusion.

Without the benefit of personal examination, the writer can state that this is a promising prospect which warrants detailed work to

assess it properly, with special attention to the possible presence of an ore-grade porphyry body.

In this area, the finding of a prospect of this nature may require several seasons prospecting at a cost of some $6,000.00 to $10,000.00 per season, and an expenditure of about 3 seasons is now justified on this target.

In the writer's opinion, this prospect warrants about $30,000.00 for a proper assessment over the full 2 mile claim-length.

Success in this first evaluation-stage is likely to lead to an expenditure in the $100,000.00 to $250,000.00 range for a meaningful drilling program.

8. RECOMMENDED PROGRAMS

As the area contains intrusives and probably volcanics, an airborne magnetic survey is of value as a mapping tool to determine the precence and the possible nature of any magnetic bodies that may have a direct or indirect relationship to the mineralization.

Subsequently, geological mapping, prospecting by both visual and geochemical means, extensive hand trenching, sampling and surveying will be required to properly evaluate the potential of this occurrence.

Costs are estimated as follows:

1. Airborne magnetic survey	$2,500.00
2. Airphoto-topo map, 1" = 1,000', 25 square miles @ $60.00 per. sq. mile	1,500.00
3. Hand trenching, 4 man months @ $750.00	3,000.00
4. Geological mapping and sampling, 4 man months @ $1,200.00	5,000.00
5. Prospecting, 2 man months @ $750.00	1,500.00
6. Soil samples, 500 @ $4.00	2,000.00
7. Transportation, aircraft, helicopter	3,000.00
8. Camp construction	1,500.00
9. Camp operation, 300 man days @ $8.00	2,500.00
Total	$22,500.00
Engineering, Supervision 10%	2,500.00
	$25,000.00

Contingencies, 10%	$2,500.00
Total field budget	$27,500.00

9. AIRBORNE SURVEY

This has been completed in late November, 1968, and will be reported upon separately as an appendix to this report.when the airborne data becomes available.

10. CONCLUSIONS

The Sunset group covers showing and float, along a well defined structure,of high grade copper in a limestone-breccia and of galena with an average 0.9 silver-lead ratio. The geological environment is very favorable.

An expenditure of $27,500.00 is recommended to assess this showing more accuratley before any extensive program is contemplated.

Respectfully submitted,

P.H. Sevensma, Ph.D., P.Eng.

December 4, 1968.

CERTIFICATE

I, PIETER H. SEVENSMA, of 908, 1280 Haro Street, in the City of Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist, with a business address at 715-850 West Hastings Street, in the City of Vancouver, in the Province of British Columbia.

2. THAT I am a graduate of the University of Geneva, Switzerland (Physics and Chemistry, 1937; Geology and Mineralogy, 1937) where I obtained my Ph.D. in Geological and Mineralogical Sciences in 1941.

3. THAT I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers of the Province of British Columbia and of the Association of Professional Engineers of Yukon Territory.

4. THAT I have practiced my profession as a geologist for the past 30 years.

5. THAT the information contained in my report on the Sunset claims is based only on a study of all information by me, as described in th in the report.

6. THAT I have not personally examined the Sunset Group, but have examined the Dorothy, Roy, and Lucky Lake groups personally, as well as the property of Cantung Mining Corporation Ltd.

7. THAT I have no direct or indirect interest in the Sunset Group, or in any of the properties or securities of Silver Eagle Mines Ltd.

Dated this 4th day of December, 1968.

P.H. Sevensma

P.H. Sevensma, Ph.D., P.Eng.

APPENDIX "A"

An airborne magnetic survey by helicopter was completed on the Sunset Group of claims, claim sheet 95-E-6. The actual survey was carried out on November 15, 1968. The following firms and personnel were employed:

P.H. Sevensma Consultants Ltd.
Preparation and Organization of Survey.
1 day, Watson Lake, November 12, 1968. — P.H. Sevensma

Frontier Helicopters Ltd., Watson Lake, Y.T.
Pilot, November 15, 1968. — L. Duggan
Helicopter: Bell G 3 B-1.

Seigel and Associates Ltd., Vancouver, B.C.
Field Technician, November 15, 1968. — R. Pollard
Data Reduction, Vancouver Office.

P.H. Sevensma Consultants Ltd.
Geological Appraisal.
December 2, 3 and 4, 1968. — P.H. Sevensma

APPENDIX "B"

Statement of Costs Incurred in the Conduct of an Airborne Magnetic Survey on the Sunset Group.

Helicopter-borne magnetic survey of the Sunset-claims and geological appraisal, all inclusive.

44 line-miles @ $70.00 - $3,080.00

P.H. Sevensma

C A N A D A)
YUKON TERRITORY)
TO WIT:)

I, Peter H. Sevensma

of 715-850 West Hastings, Vancouver, B.C.

do solemnly declare, - That in the matter of my report on an airborne magnetic survey carried out on the Sunset group of claims, there are attached thereto an Appendix "A" and an Appendix "B", listing respectively the firms and personnel engaged in work for this survey, and a cost statement of this work, which I certify to be accurate and true to the best of my knowledge and belief.

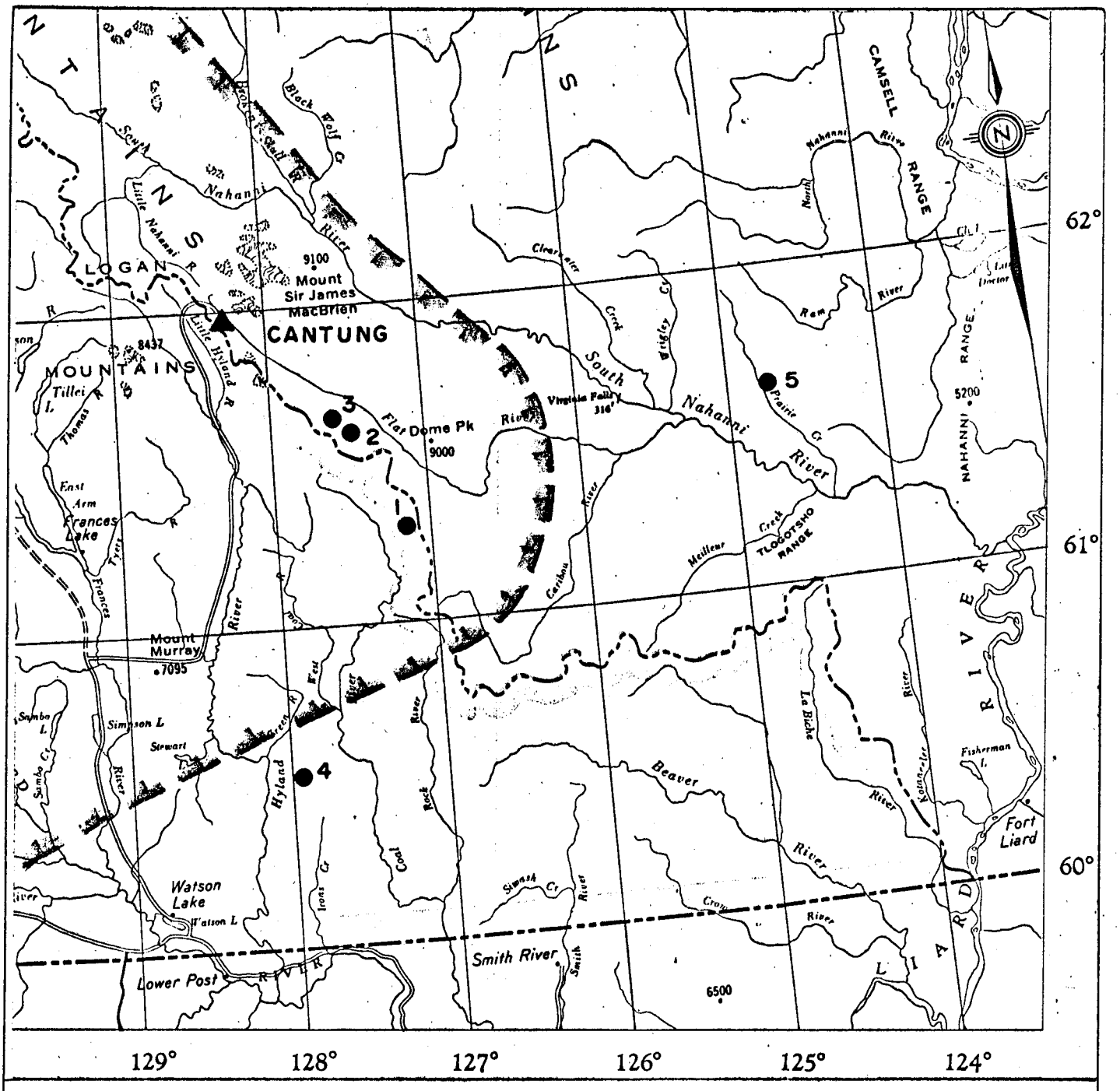
And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of The Canada Evidence Act.

Declared before me at Vancouver)
Province of British Columbia,)
in the ~~Yukon Territory~~, this 16th day of)
December A.D. 19 68.)

P. H. Sevensma

J. Scobie

A Commissioner for Oaths for Yukon Territory



LEGEND

- ▲ Producer
- ● Significant showings
- Approximate boundary of Selwyn arc of intrusives.

Roy Examined by the writer.

1. Sunset
2. Lucky Lake
3. Roy Group
4. Dorothy
5. Cadillac Explorations

P.H. Sevensma

SILVER EAGLE MINES LTD.

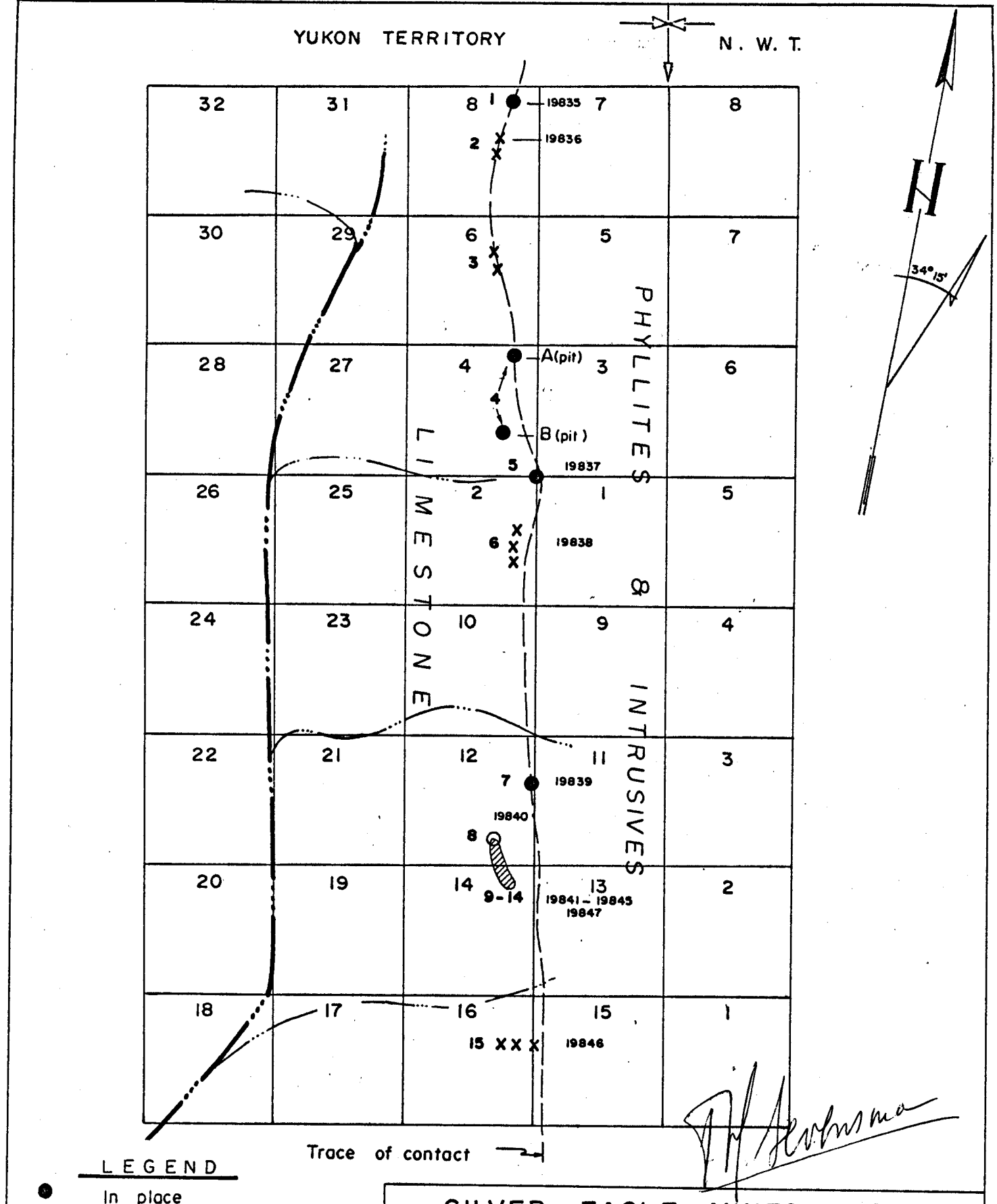
LOCATION MAP

Nahanni M.D.- N.W.T. & Watson Lake M.D.-Y.T. 95 — E — 6

P. H. Sevensma Consultants Ltd.- Vancouver B.C.

Nov. 1968, Scale: 20 0 20 mi.

FIG. 1



LEGEND

- In place
- XX Float
- Silver—Lead zone
- 19835–46 Brodell Syndicate sample numbers.
- 1 — 14 Showing numbers

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SUNSET GROUP — CLAIM MAP

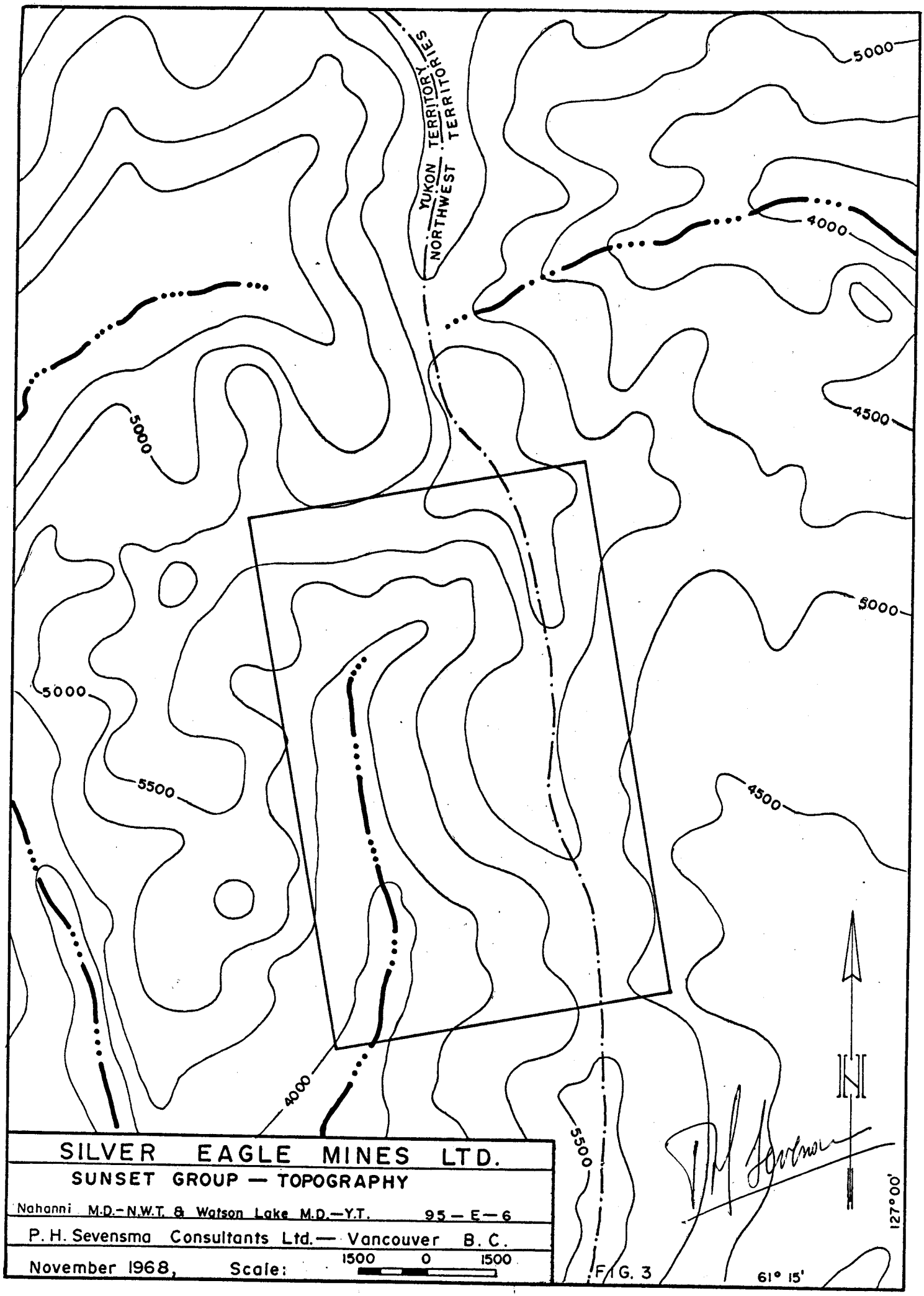
Location of showings

Nahanni M.D.– N.W.T. & Watson Lake M.D.–Y.T. 95–E–6

P. H. Sevensma Consultants Ltd. Vancouver, B.C.

November 1968, Scale: 0 1500 ft.

FIG. 2



SILVER EAGLE MINES LTD.

SUNSET GROUP — TOPOGRAPHY

Nahanni M.D.-N.W.T. & Watson Lake M.D.—Y.T. 95 — E — 6

P. H. Sevensma Consultants Ltd.— Vancouver B. C.

November 1968, Scale: 1500 0 1500

FIG. 3

REPORT ON
AEROMAGNETIC SURVEY
SUNSET GROUP
FLAT RIVER AREA
YUKON TERRITORY AND NORTHWEST TERRITORY
ON BEHALF OF
P. H. SEVENSMA CONSULTANTS LTD.

by

Richard O. Crosby, B.Sc., P.Eng.

December 16, 1968

LOCATION: Approximately 96 miles
northeast of Watson Lake,
Yukon Territory

DATE: November 15, 1968

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REPORT ON AEROMAGNETIC SURVEY SUNSET GROUP FLAT RIVER AREA YUKON TERRITORY AND NORTHWEST TERRITORY ON BEHALF OF P. H. SEVENSMA CONSULTANTS LTD.

INTRODUCTION

On November 15, 1968 an aeromagnetic survey was flown over an area 92 miles northeast of Watson Lake, Yukon Territory.

The area is centred approximately on the Yukon Territory-Northwest Territory border at about 61° 15' north and 127° 05' west and measures approximately 3 miles on each side. In this area, the lines were flown at 660 foot intervals, oriented north-south, at a mean terrain clearance of 300 feet. The topography on this grid is extremely rough with 1800 feet of relief between flight line 2 and flight line 13. A total of 22 lines were flown for a total of 45 line miles of survey.

A Scintrex NPM-1 total intensity magnetometer was employed on this survey. It was towed on a cable below the transporting helicopter, a Bell 47G3B1. A 16 mm camera was used for positioning purposes. A full description of the equipment used on this survey is included as "Appendix A" in this report.

PRESENTATION OF DATA

Magnetic data are presented as a contour map at a scale of 1 inch equals 660 feet. These data have not been corrected for regional variation and the base level is arbitrary.

DISCUSSION OF RESULTS

The magnetic field in the survey area is shown in the form of a map contoured at intervals of 25 gammas.

The observed magnetic relief is a total of 300 gammas occurring in the northwest, central and east central portions of the survey area. The most prominent magnetic feature is a narrow magnetic depression striking north-south in the vicinity of flight lines 12, 13 and 14.

While a comparison of the topographic and magnetic maps suggest that a portion of the magnetic field is reflecting topography, the magnetic anomalies also suggest a change in the rocks underlying the area of interest. This magnetic relief is attributable to the presence of igneous rocks or magnetite in skarn alteration zones. In either event, geological and geochemical reconnaissance is recommended for these areas.

Respectfully submitted,

SEIGEL ASSOCIATES LIMITED

Richard O. Crosby

Richard O. Crosby, B.Sc., P.Eng.
Geophysicist

Vancouver, B.C.
December 16, 1968

'Appendix A'

SCINTREX NPM-1 MAGNETOMETER

The Scintrex NPM-1 nuclear resonance airborne magnetometer is based on a Newmont modification of a Varian Associates magnetometer and is produced under license to both companies. It is a very light weight, solid state unit, expecially designed for use in a helicopter or light fixed-wing aircraft where weight is an important consideration.

Its cycle period is 1.1 seconds. Each cycle it measures the total intensity of the earth's magnetic field and this quantity, in gammas, is recorded, in analogue form, on a suitable graphic recorder. The full scale sensitivity is usually 1000 gammas and the recorder automatically steps each 500 gammas. In very active areas a full scale sensitivity of 5000 gammas with steps of 2,500 gammas may be employed. Only the magnetic variations are actually recorded although the absolute base level may be established from the NPM-1 as well.

The magnetic sensing head may be on a cable as much as 100 ft. below the aircraft or, in some installations, may be rigidly attached to the aircraft on a suitable boom.

The intrinsic noise level of each reading is about 5 gammas.

Where it is intended to contour the NPM-1 information it is customary to fly tie lines across the survey grid. A fixed magnetic field monitor is often used as well, on the ground, primarily to indicate periods of magnetic storms during which the aeromagnetic data should be considered as unreliable.

ANCILLARY EQUIPMENT

1. Altimeter

A Bonzer, high frequency solid state radioaltimeter is employed to continuously indicate the mean terrain clearance of the helicopter or other transporting aircraft. The altimeter is installed in the aircraft (unless otherwise indicated) so that the elevation of the sensing birds (electromagnetic or magnetic) will be less by the usual vertical displacement of these birds below the aircraft.

The output of the Bonzer may be expressed in analogue form on a suitable graphic recorder, or may be, for convenience, converted to a semi-digital form on a recorder side pen. In the latter event the altimeter record is a series of spaced pulses whose separation is proportional to the mean terrain clearance.

2. Positioning Camera

A Vinten Mark 3 16 mm positioning camera is employed with a wide angel lens. Photographs of the ground are taken with sufficient frequency to give a complete record of the flight path of the aircraft or helicopter. The frequency of exposure is controlled by the intervalometer referred to below.

3. Intervalometer

A Scintrex IA-2 intervalometer provides regularly spaced timing pulses which drive the postioning camera exposure mechanism and produces synchronous "fiducial marks" on the side pen of the geophysical graphic recorder or recorders. Because of the synchronization of the geophysical traces and the positioning camera it is then possible to relate the geophysical events of interest to their proper ground location. The timing pulse frequency may be adjusted in accordance with the ground speed of the aircraft so that an adequate flight path record is obtained.

SEIGEL ASSOCIATES LIMITED

DAILY FLIGHT REPORT

JOB: .
AREA: FLAT RIVER - YUKON / DIST. MACK.
SURVEY TYPE: AIRBORNE MAG.
SENSITIVITY 1000X FSD.

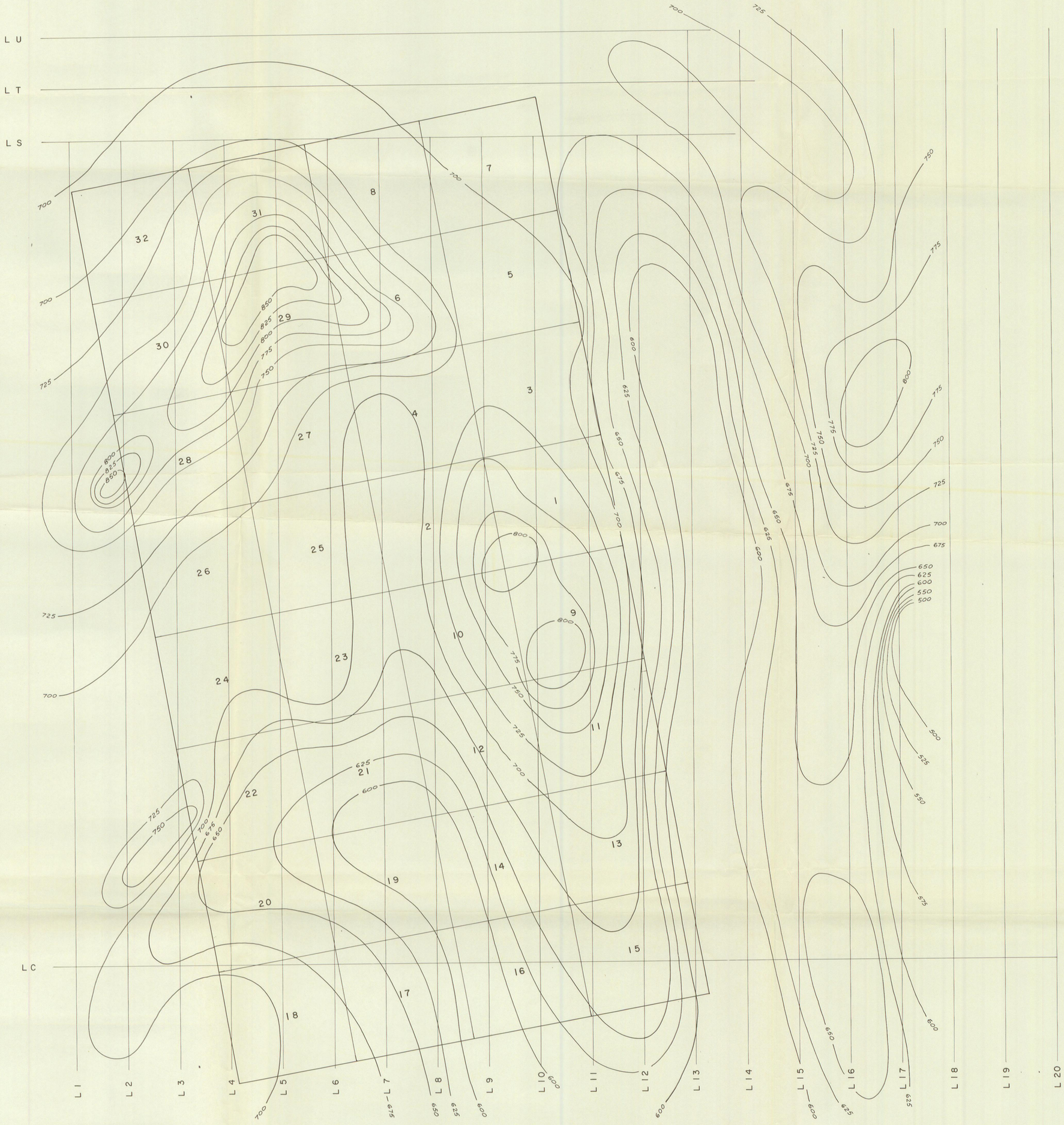
DATE: 15 NOV 68
OPERATOR: R.S.P.
PILOT: L. DUGGAN.
FLIGHT NO: 1.

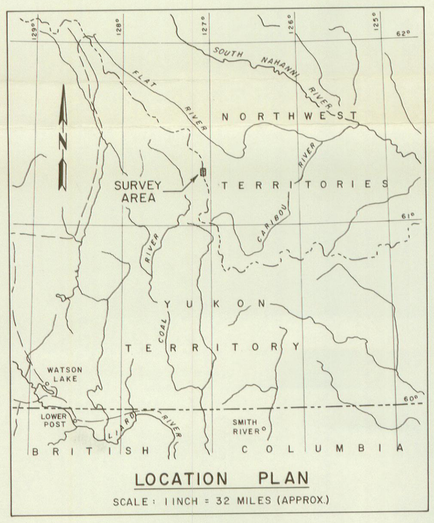
LINE NO	FIDUCIALS START	FIDUCIALS END	TIME START	TIME END	LINE LENGTH	REMARKS
1N	0001	249	1350			36-50 & 78-143 circles to climb
2S	253	335	1400			
3N	339	419				
4S	423	486				
5N	490	570				
6S	574	638				
7N	642	723				
8S	727	804				
9N	808	918				
10S	922	1005				
11N	1009	1125				
11S	1129	1217				11 rerun as 11-1-11N compressed into space for 11-10.
12N	1221	1353				
13S	1357	1439				
14N	1443	1561				
15S	1565	1638	1446			
16N	1642	1754				N.B. Frame #1642 is accidentally marked on film
17S	1758	1873				
S-W	1877	1936				} to fill space at north end of lines 1-12.
T-E	1940	1968				
U-W	1972	2014				
C-R-E	2018	2017				control line

NOTE. 10 MARKED FRAMES AT START OF FILM; 40 MARKED FRAMES AT END OF FILM, MARKS ALSO ON EVERY #1 FRAME (i.e. 1, 11, 21, 31 etc etc

FILM BROKE & SPLICED [illegible] ALSO.

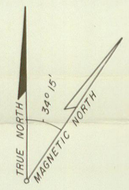
TOTAL MILES FLOWN:





LOCATION PLAN

SCALE: 1 INCH = 32 MILES (APPROX.)



LEGEND

ISOMAGNETIC CONTOURS IN GAMMAS

FLIGHT LINES

MEAN FLIGHT ALTITUDE 300 FEET ABOVE GROUND

TO ACCOMPANY A GEOPHYSICAL REPORT BY RICHARD O. CROSBY DATED DECEMBER 10, 1968

P. H. SEVENSMA CONSULTANTS LTD.

SUNSET GROUP

YELLOWKNIFE M.D.- N.W.T. & WATSON LAKE M.D.- Y.T.

AIRBORNE MAGNETOMETER SURVEY

SCALE: 1" = 660'

SURVEY BY SEIGEL ASSOCIATES LIMITED
DECEMBER, 1968

Richard O. Crosby