ROVING

EXPLORATION SERVICES LTD.

GEOLOGICAL
GRAVITY
SCINTILLOMETER
ELECTROMAGNETOMETER
MAGNETOMETER
INDUCED POLARIZATION
GEOCHEMICAL
AIRBORNE

520 - 5th Avenue S.W.
Calgary 1, Alberta
Telephone 264-0895

OP

October 16, 1969

Mr. Jerome Reyda
President
Silver Chief Minerals Ltd.
9918 - 109 St.
Edmonton, Alberta

Dear Mr. Reyda,

Re: Ross River claims JN 9-16 incl., and JR 11-18 incl.

Please find herewith our final reports covering the Electromagnetic and Gravimetric surveys carried out on the above cited claims (JN 9-16) and (JR 11-18). The surveys have revealed nothing of particular interest indicative of commercial mineral interest.

During the course of the Geophysical investigations it should be mentioned that certain Geological examinations were also performed. Although no formal report is offered in this regard Mr. DuPre, who is a third year Geological student, examined the available outcroppings along the Geophysical traverse lines. He found no indications of mineralization. The writer also visited the claims and also detected no mineral signs. The reported mineral showings along the roadcuts mentioned in Kindles report of 1946 were looked for but not found owing to the road cuts being sloughed in. The descriptions in any case do not suggest anything of economic significance.

Yours truly

John T. Cook, P.Geol.

October 16, 1969

A GEOPHYSICAL REPORT

ON AN

Electromagnetic (EM-16) Survey
on the JR 11 - 18 claims incl.

and

GRAVIMETRIC SURVEY
on the JN 9 - 16 claims incl.

FOX CREEK _ MILE 117
CANOL ROAD, YUKON .

Mineral Claim Sheet 105F-15

for SILVER CHIEF MINERALS LTD.
9918 - 109 St.
Edmonton, Alberta

By: Roving Exploration Services Ltd.
520 - 5th. Ave. S.W.
Calgary, Alberta

John T. Cook. P.Geol.

This report has been examined by the Geological Evaluation Unit and is recommended to the Chief Gold Commissioner to be considered as representation work to the amount of $2840

Resident Mining Engineer

Considered as representation work under Section 53 of the Yukon Quartz Mining Act

Commissioner

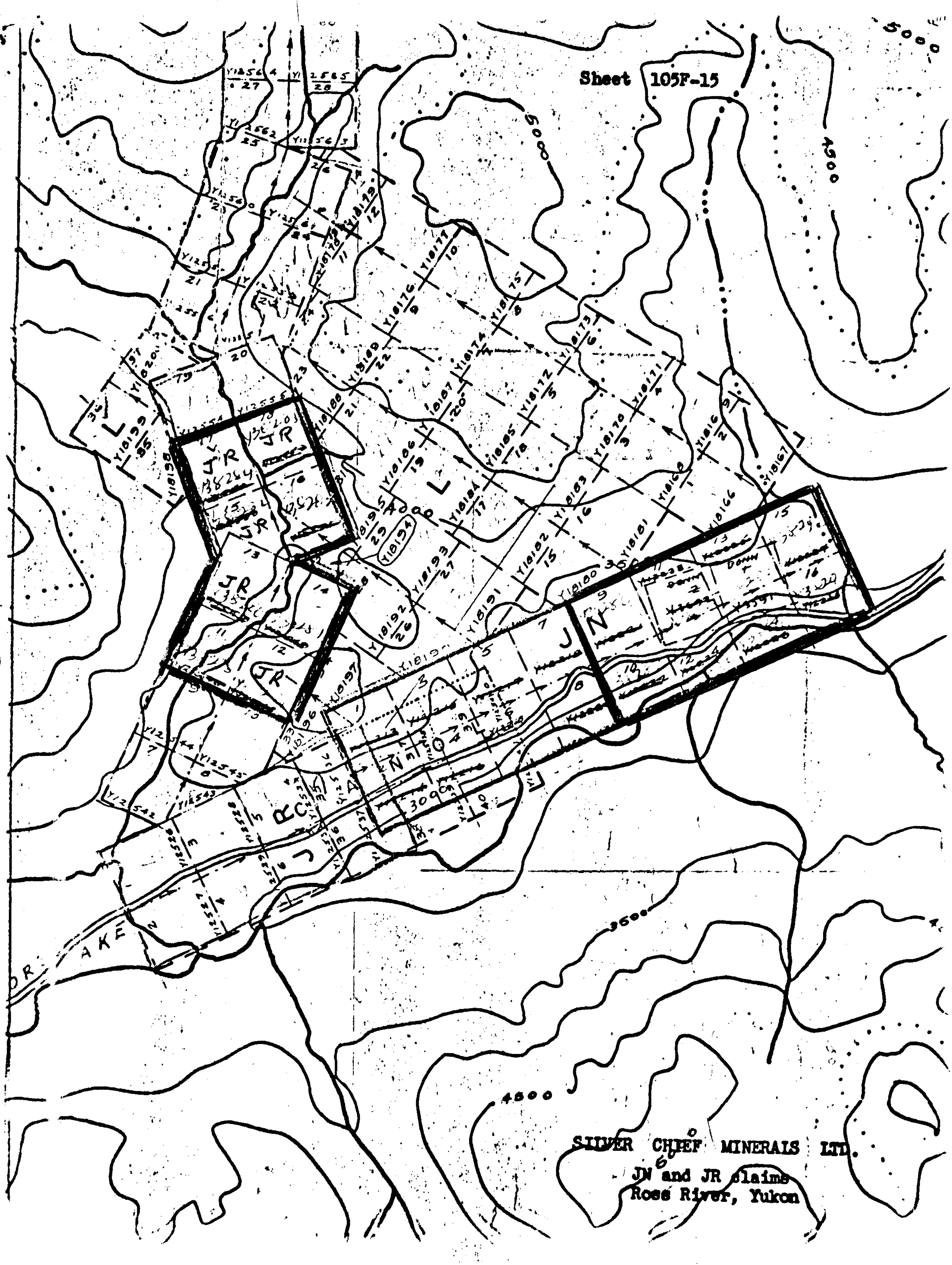
Sheet 105F-15
5000
4500
4000
3600
4800
JR
JN
L
SILVER CHIEF MINERALS LTD.
JN and JR Claims
Ross River, Yukon

TABLE OF CONTENTS

ILLUSTRATIONS

REPORT ON ELECTROMAGNETIC SURVEY
JR CLAIMS 11 - 18 incl.

INTRODUCTION AND SUMMARY

An electromagnectic survey utilizing a Ronka EM-16 detector was performed. The location of the lines of traverse are shown and profiles of the In Phase and Quadrature values are included in the report. No really significant anomalies were revealed, although areas of outcroppings containing quartz vein material show accentuated In Phase values. Geological observations in the outcrop areas were also made in conjuctions with the EM-16 Traversing.

PROPERTY AND LOCATION

The JR 11 - 18 claims are located on and near Fox Creek around Mile Post 117 on the Canol road, 20 miles west of Ross River in the Yukon. JR 11 - 18 inclusive were staked August 15th, 1969. (Approx. 61 deg. 52 min. N., 132 deg. 53 min. W.)

PREVIOUS WORK

It is reported that in 1945 the property was held by Consolidated Mining & Smelting and a certain amount of trenching and ground examinations were performed.

G.S.C. Paper 45-21, 1946, by E.D. Kindle, reports that a quartz vein was exposed in the roadside of about 3 ft. width which contained some galena mineralization with small silver and gold values. Although a number of quartz veins were observed during the present work, no mineralization was seen. This could be due to sloughing of the roadside banks obscuring the thin zone of mineralization.

GENERAL GEOLOGY

The claims area is generally covered with Glacial overburden. The area is mountainous with elevations rising to 5,000 ft. The JR claims lie in the Yukon Plateau Province in the Pelly Mountains of south-central Yukon.

The claims area is underlain by Paleozoic sedimenart rocks including argillites, chert, dolomite, limestone, quartzite, sandstone, black shale and slate. General strike is northwest and dip approximately 35 degrees northeast. Local folding faulting and contortion is evident in at least three different directions according to A.R. Parker. Most mineralization is said to be controlled by a series of northwest-southeast faulting.

The Tintina fault, a large regional fault, is located about 25 miles east of the property. A major east-west fault lies near the south boundary of the property on the Lapie River.

Some Jurassic granitic intrusions are known in the area. The property lies on the flanks of Mt. Cook, which is said to contain a granite plug. Any mineralization would, no doubt, be related to these intrusions.

SURVEY AND OPERATIONS

The field crew was flown into the area from Whitehorse and reached the property by truck on the Canol Road. The survey was carried out along the banks of Fox Creek.

The traversing was done on foot and distances and directions between stations were measured by the pace and Brunton compass method. EM-16 stations were read at 200 ft. intervals as indicated on the map. Excellent "In Phase" resolution was observed but the Quadrature readings were generally weak and inconclusive. Traverses were mainly confined to the Canol roadway, the Lapie River and Fox Creek, all of which traverse the claims. Some other smaller traverses were made laterally from these main base lines and several isolated readings were made at selected localities.

EQUIPMENT

Ronka EM-16 electromagnetic detector, Unit No. 69.

PERSONNEL AND WORK PERIOD

The field work was carried out between August ~~16th~~ 22nd and September 21st, 1969.

Field crew consisted of:

G.M. Dupre, EM-16 Operator

Sidney Atkinson, Helper.

INTERPRETATION

The plotted profiles contained in the pocket of the report show the In Phase and Quadrature readings taken on the various traverses. The In Phase curve shows reasonable resolution but the Quadrature is rather flat and inconclusive. Quadrature readings were difficult to obtain.

VLF transmitting station NPG at Seattle, Washington, was utilized. This station has a frequency of 17.8 KHZ, and it's bearing is almost due south. Orientation in the primary field was read with facility as were the In Phase angles.

A brochure describing the theory and operating principles of the Ronka EM-16 is included with the report.

Traversing along the roadway and streams, a marked increase in amplitude of the In Phase readings was noted in proximity to areas of rock outcroppings. These readings doubtfully represent any significant mineralization. In both instances the bedrock was rather well exposed and although numerous quartz veins were noted, none contained any significant mineralization. It is suspected that interference of the VLF transmitted signals is caused by the mountainous terrain, thus limiting the effectiveness of the EM-16 method.

Signed: _____

John T. Cook, P. Geol.

ROVING EXPLORATION SERVICES LTD.

October, 1969

GRAVIMETRIC SURVEY PROCEDURES

JN GROUP 9 to 16. incl. ROSS RIVER AREA, YUKON

for

SILVER CHIEF MINERALS LTD.

Crew	Meter Operator Party Chief	Glen M. Dupre
	Surveyor	Glen M. Dupre
	Rodman	S. Atkinson
	Computing	Glen M. Dupre

Equipment	Sharpe Gravity Meter	K=0.10081
	Salmoiraghi 4149A Theodolite	

Survey Procedure The survey consisted of a traverse of 2.25 miles along the Canol Road which is the location line for the Jn group of claims 9 to 16. Gravity stations were established at 200 ft. intervals. The distances between stations were paced off and elevations were run in by Theodolite to accuracey of 1/100th. ft.

Metering Procedure The dial was properly adjusted for this particular latitude in the convential manner. All stations were

carefully read and repeat readings were taken at selected stations. A Base Station (A) was established about the midway point of the traverse and the readings were taken in opposite directions from this base.

Computing Computing was done in the Calgary office of Roving Exploration Services Ltd. with the following methods being employed.

Meter Drift: Meter drift was established by returning to a base station (A) at selected intervals. Drift was then proportioned methematically between stations on a run.

An elevation correction factor of 0.061 miligals per foot was used. This value was determined from the prevailing country rock density.

The rate of change in Latitude miligals was established from the Tables of Theorectical Gravity, Dominion Observatory, Ottawa, 1962. Latitude correction Datum Line was established along east-west line and latitude was corrected from this point.

Gouguer Gravity values were "rounded off" to 1/10th. milligal and plotted in the form of a profile on a horizontal scale of 1" to 400 ft.

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An elevation profile was plotted with scales of 1" to 400 ft., horizontal and 1" to 25 ft. vertical.

The field work was carried out between August 23rd. and September, 21, 1969.

Interpretation

The results of the survey have been examined by R.B. Galeski, P. Geoph., and experience gravimeter interpreter. His comments are as follows: " The profile is remarkable smooth. Relatively sharp changes at stations 3W, 17W and 22W are probably terrain effects. Rock mass west of bas "A" is slightly higher in density than that east of base "A". There is no anomaly on the profile to indicate a significantly-sized mass of very heavy material such as sulhpide mineralization."

Glen M. Dupre
Party Chief

Approved _____ October 16, 1969
John T. Cook
P.Geol.

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF ALBERTA
ROVING EXPLORATION SERVICES LTD.

ROVING EXPLORATION SERVICES LTD.

REFERENCES

Kindle, E.D., 1946 — Geological Reconnaissance Along the Canol Road from Teslin River to MacMillan Pass, Yukon Territory, G.S.C. Paper 45-21.

Parker, A.R., 1967 — Engineer's Report on JR and JN Group for Silver Chief Minerals Ltd.

ROVING EXPLORATION

GRAVITY BASE DESCRIPTION

NO. A

PROSPECT Silver Chief — PROV. Yukon — COUNTY ____

NEAREST TOWN Ross River — QUADRANGLE ____ — BASE MAP ____

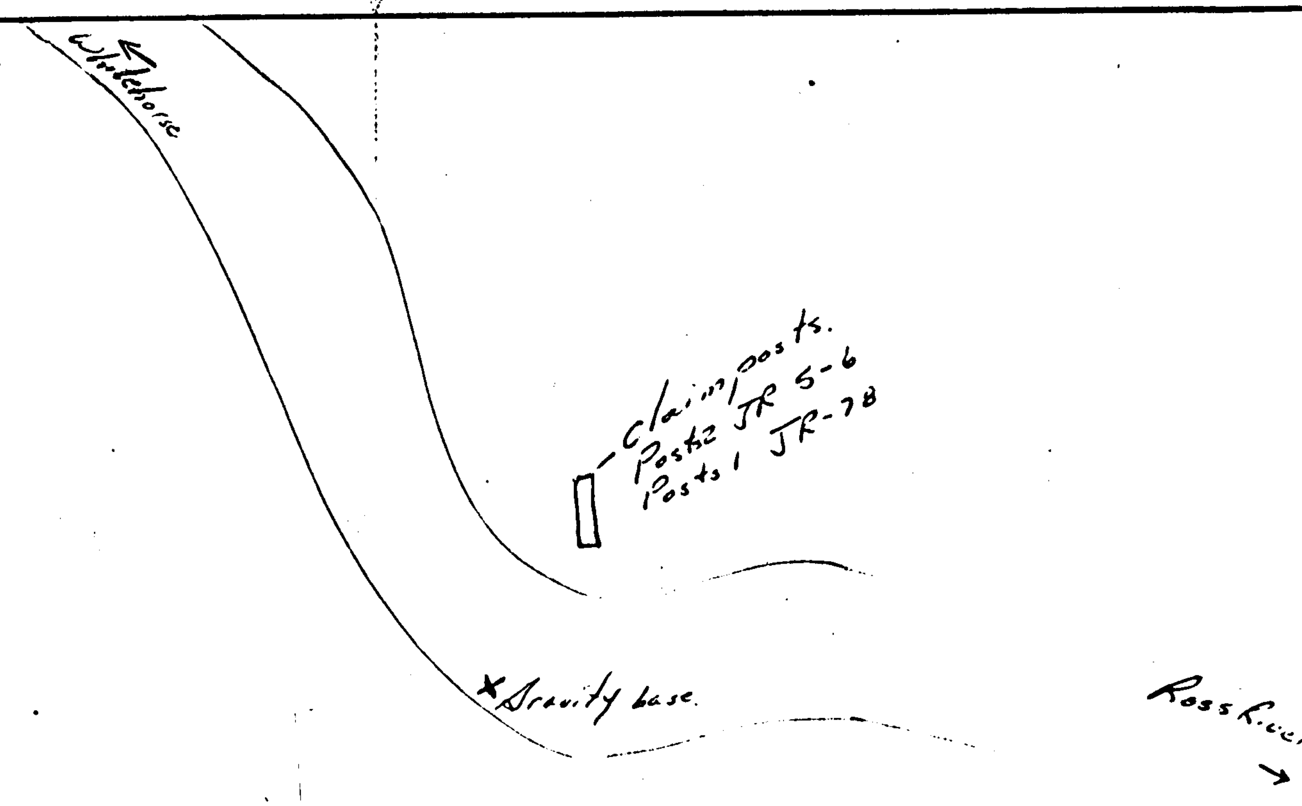
LATITUDE ____ — LONGITUDE ____ — SECTION ____ T. ____ R. ____

LINE FROM JS 1 to JR16 — TO ____ — PARTY NO. ____

LOCAL BASE USED ____ — PRIMARY BASE REFERENCE ____

STATION ELEVATION 5000 ft — LATITUDE CORRECTION ____ — BASE VALUE ____

SKETCH



DESCRIPTION

BASE "A" is set at approximately mile 119.5 on the Canol Road and is marked with orange ribbon as S.C. Base A

PARTY CHIEF [signature] — METER NO. ____

METER OPERATOR [signature] — CALIB. FACTOR .10081

DATE RUN Aug ____ — NUMBER TIES ____

ADDITIONAL CHECKS

PARTY ____ METER ____ CALIB. ____ DIFF. ____ DATE ____

RES-03

Meter No. _____

Constant .10081

ROVING EXPLORATION

FIELD GRAVITY METER DATA

Date _____

Operator J. DuLac

Area Ross River

Sta. No.	Time	Reading	Drift	Observed Gravity	Weather and Remarks
BASE A	11:00	498.4		200.00	
1E	11:05	507.9	+.06	200.97	
2E	11:09	512.7	+.11	201.95	
3E	11:13	528.5	+.16	203.05	
4E	11:17	533.1	+.20	203.52	
5E	11:22	535.4	+.26	203.76	
6E	11:26	536.5	+.30	203.87	
7E	11:30	535.8	+.36	203.81	
8E	11:35	539.3	+.42	204.16	
9E	11:39	541.2	+.47	204.36	
10E	11:44	540.8	+.53	204.32	
11E	11:47	540.1	+.56	204.26	
12E	11:51	541.3	+.61	204.38	
13E	11:54	541.5	+.65	204.41	
14E	11:58	542.6	+.70	204.53	
15E	12:01	541.6	+.73	204.43	
16E	12:05	541.9	+.78	204.46	
17E	12:09	540.9	+.83	204.36	
18E	12:14	541.3	+.89	204.41	
19E	12:18	544.0	+.94	204.69	
20E	12:22	547.2	+.98	205.02	
21E	12:25	547.1	+1.02	205.01	
22E	12.29	546.5	+1.07	204.96	
23E	12:38	547.1	+1.18	205.03	
24E	1241	547.4	+1.21	205.06	
BASE "A"	12:50	497.1	$\frac{1.3}{11}$ .12		

Meter No.

Constant .10081

ROVING EXPLORATION

FIELD GRAVITY METER DATA

Date

Operator S. Walker

Area Ross River

Sta. No.	Time	Reading	Drift	Observed Gravity	Weather and Remarks
BASE A	12:55	496.9	-	200.00	
24E	1:04	542.8	+.03	205.10	
25E	1:08	539.0	+.04	204.24	
26E	1:12	525.7	+.06	202.91	
27E	1:17	515.8	+.08	201.91	
28E	1:23	511.0	+.10	201.43	
29E	1:27	503.2	+.11	200.65	
30E	1:30	500.00	+.12	200.32	
31E	1:35	486.3	+.14	198.94	
32E	1:39	484.0	+.15	198.72	
33E	1:43	483.7	+.17	198.69	
BASE A	1:52	496.7	.2/.57 35	200.00	

AREA _____ **ROVING EXPLORATION** PARTY _____

CLIENT _____ **GRAVITY COMPUTATION SHEET** PARTY CHIEF _____

ELEVATION CORRECTION FACTOR 1 PROSPECT CORRECTION _____ MG COMP. BY _____ CHK. BY _____

STA. NO.	BOOK PAGE	GRID.	ELEV.	ELEV. CORR.	LAT. CORR.	OBS. GRAV.	TERR. CORR.	BOUG. GRAV.	NO.	RECHECK OBS. GRAV.	BOUG. GRAV.	DATE RUN	DATE RECHE
	1			305.00	0.58			504.42					
				305.54	0.55			504.36					
					0.54			504.40					
					0.51			504.53					
					0.48			505.38					
					0.46			505.36					
					0.45			505.25					
					0.43			505.39					
					0.40			505.[illegible]					
					0.38			505.[illegible]					
					0.36			505.18					
					0.33			505.17					
					0.30			505.52					
					0.27			505.89					
			5186.62		0.26			505.94					
					0.24			506.06					
					0.21			506.48					
				317.3	0.18			506.21					
					0.17			505.59					
					0.15			505.74					
					0.12			505.23	?				
					0.09			505.77					
					0.07			505.77					
					0.05			506.15					
					0.02			506.29					
					0.00			506.11					
					0.58			504.42					

AREA Ross River

CLIENT Silver Chief

ROVING EXPLORATION
GRAVITY COMPUTATION SHEET

PARTY

PARTY CHIEF E Dufe

ELEVATION CORRECTION FACTOR .061 PROSPECT CORRECTION 200.00 MG

COMP. BY [illegible] CHK. BY

STA. NO.	BOOK PAGE	GRID.	ELEV.	ELEV. CORR.	LAT. CORR.	OBS. GRAV.	TERR. CORR.	BOUG. GRAV.	NO.	RECHECK OBS. GRAV.	BOUG. GRAV.	DATE RUN	DATE RECH
BASE	9		5000.00	305.00	0.58	200.00		504.42					
1E			4982.64	303.94	0.60	200.97		504.31					
2E			4960.52	302.59	0.62	201.95		503.92	?				
3E			4945.92	301.70	0.64	203.05		504.11					
4E			4938.45	301.25	0.67	203.52		504.10					
5E	10		4932.83	301.21	0.69	203.76		504.28					
6E			4936.47	301.12	0.71	203.87		504.28					
7E			4936.58	301.13	0.73	203.81		504.21					
8E			4933.80	300.96	0.76	204.16		504.36					
9E			4932.78	300.90	0.79	204.36		504.47					
10E			4932.91	300.91	0.81	204.32		504.42					
11E			4933.93	300.97	0.83	204.26		504.40					
12E			4933.55	300.95	0.85	204.38		504.48					
13E			4932.71	300.90	0.87	204.41		504.44					
14E			4931.01	300.79	0.90	204.53		504.42					
15E			4930.82	300.78	0.92	204.43		504.29					
16E			4932.25	300.87	0.94	204.46		504.39	?				
17E			4933.84	300.90	0.96	204.36		504.30					
18E	11		4932.61	300.89	0.99	204.41		504.31					
19E			4929.37	300.69	1.01	204.69		504.37					
20E			4925.26	300.44	1.03	205.02		504.43					
21E			4924.45	300.39	1.05	205.01		504.35					
22E			4925.66	300.46	1.07	204.96		504.35					
23E			4923.91	300.34	1.10	205.03		504.27					
24E			4922.81	300.29	1.13	205.06		504.22					
BASE			5000.00	305.00	0.58	200.00		504.42					

AREA Ross River

CLIENT Silver Chief

ROVING EXPLORATION
GRAVITY COMPUTATION SHEET

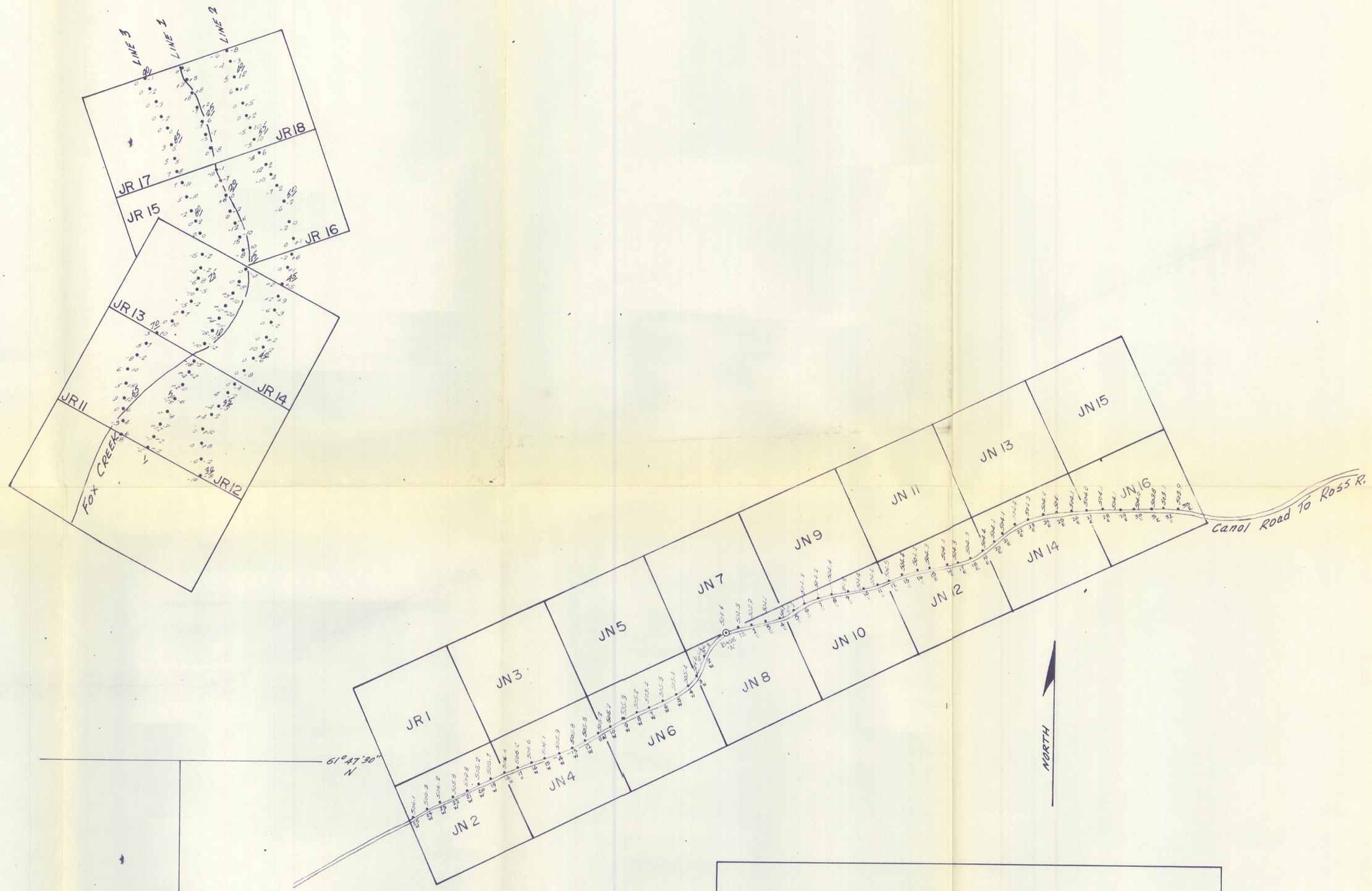
PARTY ______

PARTY CHIEF [illegible]

ELEVATION CORRECTION FACTOR .061 PROSPECT CORRECTION 200.00 MG

COMP. BY [illegible] CHK. BY ______

STA. NO.	BOOK PAGE	GRID.	ELEV.	ELEV. CORR.	LAT. CORR.	OBS. GRAV.	TERR. CORR.	BOUG. GRAV.	NO.	RECHECK OBS. GRAV.	BOUG. GRAV.	DATE RUN	DATE RECHECK
Base K	12		5000.00	305.00	0.58	200.00		504.42					
25E			4933.68	300.95	1.13	204.29		504.06					
26E			4955.70	302.30	1.15	202.91		504.06					
27E			4971.83	303.28	1.17	201.91		504.02					
28E			4980.63	303.82	1.19	201.43		504.06					
29E			4994.60	304.67	1.22	200.65		504.10					
30E			4998.71	304.92	1.25	200.32		503.99	?				
31E	13		5019.20	306.17	1.27	198.94		503.84					
32E			5023.88	306.46	1.29	198.72		503.89					
33E			5026.50	306.[illegible]	1.31	198.69		503.94					
Base K			5000.00	305.00	0.58	200.00		504.42					



ELECTROMAGNETIC AND GRAVITY SURVEY
FOR
SILVER CHIEF MINERALS
JN & JR CLAIMS
ROSS RIVER, YUKON

SCALE: 1"=800'

PARTY CHIEF: G. Du PRE

INST.: RONKA EM-16
SHARP METER

DATE: SEPT. 1969

-10 9-12 STATION E.M.
INPHASE -8 10-15 QUADRATURE
+4 11+11

BOUGUER VALUE
504.4 504.3 504.2
I.W. BASE "A" I.E.
STATION GRAVITY