

MID-CANADA EXPLORATION SERVICES LIMITED

REPORT ON A GROUND

MAGNETIC

AND

ELECTROMAGNETIC PROGRAM

FOR

GOLDEN RANGE RESOURCES INC.

RECEIVED

JAN 1 1 1985

MINING LANDS SECTION

BURNTHUT ISLAND

PARNES LAKE AREA

SIOUX LOOKOUT, ONTARIO

N.T.S. 52 - G - 13

Timmins, Ontario October, 1984

Kenneth Guy Geologist





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MAPS

ATE - EM	PROFILE	SHEET	1	(back	rocket)
MAGNETIC	CONTOUR	MAP	1	(Back	Pocket)

SUMMARY AND RECOMMENDATION\$

The ground geophysical program was successful in delineating 15 anomalies, six of which are rated Priority -1- and recommended for diamond drill testing. These six anomalies possess more than one of the following characteristics:

- (1) excellent geophysical response
- (2) proximal to a gold occurrence
- (3) located within a stratigraphic sequence which is known to be auriferous.

The following recommendations are made for the project area:

- (1) a detailed compilation should be made of all the data to date geophysical, geological, historical;
- (2) an HLEM survey on the lake between Burnt Island and the mainland where airborne geophysical anomalies were not recovered on the ground;
- (3) prospecting and trenching at known gold occurrences;
- (4) diamond drilling of the six Priority -1- anomalies outlined by the geophysical surveys;
- (5) diamond drilling of the gold zone previously outlined on Burnthut Island to substantiate and extend the zone.

BUDGET

An estimated budget for the proposed program would be as follows:

PHASE I

(a)	<u>Compilation</u>	
	Summary Report on Exploration with Compilation Map 15 days @ \$200/day	\$ 3,000.
(b)	HLEM Survey	
	Max Min 400' cable, 4 miles 4 miles @ \$300/mile	1,200.
		1,200.
(c)	Diamond Drilling	
	6 Geophysical Targets	
	6 Holes on showing 12 holes @ 500 feet/hole	
	6,000 feet at \$40/foot includes	
	assays and supervision	240,000.
		•
	TOTAL - PHASE I	\$244,200.

INTRODUCTION

During the months of February and March, 1984, a combined Very Low Frequency Electromagnetic (VLF-EM) survey and magnetic survey were carried out over the Burnthut Island property owned by Golden Range Resources Inc.

The purpose of the surveys was to explore for potential gold-bearing structures and stratigraphy, correlating geophysical data with the gold occurrences known on the property.

The purpose of the VLF-EM survey was to detect on the ground, zones of conductivity which may be produced by conductive minerals and/or zones of shearing or faulting. The magnetic survey was performed to determine if any magnetic correlation exists with apparent conductivity and to aid in stratigraphic correlation.

LOCATION AND ACCESS

The Burnthut Island project is located in the District of Kenora, Patricia Mining Division, Ontario.

The project area is centred on Burnthut Island, on Minnitaki Lake, about seven miles south of Sioux Lookout. Sioux Lookout is located 180 miles northwest of Thunder Bay, Ontario.

Access to the property is by boat in summer or snowmobile in winter from Sioux Lookout or the numerous access points to Minnitaki Lake off Highway 72.

PROPERTY

The Burnthut Island Project consists of 30 unpatented mining claims for a total of approximately 1,200 acres.

The claims lie within the Patricia Mining Division,
Parnes Lake Area and Kabik Lake Area. The claims covered
by the combined surveys are:

Рa	719489	-	496	inclusive	8
	719504	-	512	inclusive	9
	752552	_	559	inclusive	8
	780297	-	301	inclusive	_5
					30

A total of 30 unpatented contiguous mining claims.

PREVIOUS WORK AND ECONOMIC GEOLOGY

Gold was originally discovered on Burnthut Island as early as 1897 when the Harvey Syndicate sank a 50 foot shaft on the contact between quartz porphyry and mafic volcanics. No further work is documented until 1947 when Ourgold Mines Ltd. drilled 21 holes, 6,000 feet, on three showings - the original shaft zone, a zone to the west and a zone to the north. In 1961 - 62 Ourgold drilled an additional 18 holes, 2,563 feet, on the three zones.

The gold is associated with the quartz porphyry - volcanic contact zone. The contact is sheared and carbonatized over varying widths of up to 150 feet. The gold is contained in quartz veins with accessory pyrite, mariposite, galena and chalcopyrite.

The zone to the west of the shaft, essentially a continuation of the shaft zone, appears most promising as drilling has outlined a gold bearing section 300 feet long, 4 feet wide, and grading 0.18 oz/ton Au. However, further drilling in 1961 failed to verify the continuity of this section.

During June of 1984 the property was prospected and mapped by the current claim holders. Many quartz veins and old trenches were located and sampled. Of particular note is the sampling of the quartz porphyry-volcanic contact on Burnt Island where a sample of schistose porphyry with 10% pyrite assayed 0.304 oz/ton Au.

LINE CUTTING

A baseline was established at 70° through the north section of the property. Sections are located at 400 foot intervals, with intermediate 200 foot lines on Burnthut and Burnt Islands. Stations were established at 100 foot intervals along all lines.

A total of 36.7 miles of lines were cut.

SURVEY EQUIPMENT AND PROCEDUES

The Very Low Frequency Electromagnetic (VLF-EM) survey was carried out utilizing a Geonics EM-16, operating at a frequency of 24.0 kHz utilizing the Cutler, Maine (NAA) transmission station. Readings of both Inphase and Quadrature were taken every 100 feet with an accuracy of 1% on both.

A total of 34.7 miles of line were surveyed with the VLF-EM survey.

A total of 36.7 miles of line were surveyed with the magnetic survey.

The magnetometer utilized was a Geometrics G-816 proton precession magnetometer measuring the total magnetic field. Readings were taken every 100 feet.

The intersection of the section lines on the base line served as a base station for monitoring diurnal drift. This method allows readings to be taken and corrected with an accuracy of one gamma.

SURVEY EQUIPMENT AND PROCEDURES (Cont'd)

The magnetic data is presented as contoured plan maps. (Back pocket).

The VLF-EM data is presented as profiled plan maps. (Back pocket).

DISCUSSION OF RESULTS

The Very Low Frequency Electromagnetic (VLF-EM) survey detected 15 anomalies. The VLF-EM anomaly summary table summarizes the anomalies and rates their priority for follow-up. The anomalies break down into the following priorities:

PRIORITY -1
- highest priority - diamond drilling 6 recommended.

PRIORITY -2
- high priority - follow-up contingent 7 on Priority -1- results and additional follow-up.

PRIORITY -3
- no follow-up recommended at this time 2

The main criteria for Priority -1- anomalies is relationship to a known gold occurrence, ie. they are all proximal, along strike or within the same stratigraphic interval as a gold occurrence.

The magnetic survey is utilized in assisting stratigraphic correlation. The major drawback of the magnetics on this property is the lake; water depth exceeds 140 feet in places and in general is quite deep. This results in a smoothing and contrasting low of the magnetics over the water due to the depth to source. However the magnetics are useful in delineating the volcanic-porphyry contact.

VLF-EM ANOMALY SUMMARY

		MIN.DIST.	MAX.DEFL.					
ANOMALY	LENGTH	PEAK-PEAK	PEAK-PEAK	DEPTH	QUAD	MAG	PRIORITY	CONCLUSIONS
Α	4 lines	100	38	mod	qu 4m	flanks lo	2	contingent on B
В	3 lines	100	48	shallow	x-over	mag hi	. 1	proximal to Au showing- on quartz-porphyry volcanic contact - diamond drill
С	3 lines	100	40	shallow	x-over	mag lo	1	on strike from Au showing,quartz-porphyry volcanic contact- diamond drill
D	6 lines	200	67	mod	x-over	inflection between hi - lo	2	proximal to Au showing and q.pvol. contact-contingent on C
E	12 lines	200	108	mod	x-over	lo	1	excellent geophysical response in q.p diamond drill
F	2 lines	100	18	shallow	x-over	~ ~	2	in q.p prospect
G	10+ lines	100	42	mod to deep	reverse x-over	lo	3	weak geophysical response, mainly in lake
Н	3 lines	200	29	mod	x-over	hi	3	in volcanics

VLF-EM ANOMALY SUMMARY

ANOMALY	LENGTH	MIN.DIST. PEAK-PEAK	MAX.DEFL. PEAK-PEAK	<u>DEPTH</u>	QUAD	MAG	PRIORITY	CONCLUSIONS
I	1 line	200	22	mod	x-over	flanks hi	2	prospect - edge of property
J	4 lines	200	67	mod		mag lo	1	in lake - may be on contact of q.pvolc.
K	2 lines	200	41	mod	x-over	mag hi	2	edge of claim group
${f L}$	3 lines	200	45	mod	x-over	mag hi	2	contingent on M
M	3 lines	100	59	shallow	x-over	mag hi	1	good geophysical - proximal to Au showing -
N	7 lines	300	120	mod	x-over	inflection	1	on q.p volc. contact- along strike from Au occurrence - 1 or 2 diamond drill holes recommended
0	3 lines	200	101	mod		inflection	2	on q.pvolc.contact in lake, along strike from Au occurrence - contingent upon N

DISCUSSION OF RESULTS (Cont'd)

A more detailed discussion of the Priority -1-anomaly selections follows:

ANOMALY B

This anomaly is an excellent target as it possesses all three characteristics of a Priority -1- anomaly:

- 1) excellent geophysical response;
- 2) proximal to the north showing on Burnthut Island;
- 3) excellent stratigraphic location as it lies on the porphyry-volcanic contact which hosts gold mineralization in the area.

For the above reasons this anomaly represents an excellent diamond drill target.

ANOMALY C

This anomaly possesses all the characteristics of Anomaly B but lies on the opposite contact therefore represents an excellent diamond drill target.

ANOMALY E

This anomaly represents an excellent geophysical response and lies within the quartz porphyry unit proximal to the volcanic contact. Should be tested with a diamond drill hole. ANOMALY J

A good geophysical response in a relatively unknown area as it lies under the lake; appears to lie on the volcanic-porphyry contact - a good diamond drill target.

ANOMALY M

An excellent geophysical response and proximity to the gold occurrence discovered during the summer of 1984 by D. Black makes this anomaly an excellent diamond drill target.

ANOMALY N

This long strike length features possess excellent geophysical characteristics and lies along strike from an Au occurrence.

At least one, possibly two diamond drill holes are recommended.

REFERENCES

BLACK, D. 1984 - Geology Report on the Burnthut Island Project

GUY, K. 1983 - Summary Report on Exploration - Neepawa Island Project for Golden Range Resources Inc.

JOHNSTON, F.S. 1972 - Geology of the Vermilion Abram Lakes Area, District of
Kenora - ODM GR 101

STATEMENT FOR ASSESSMENT WORK

I, Kenneth Guy, certify to the following:

A total of 36.7 miles of lines were cut.

A total of 34.7 miles of line were surveyed with the VLF-EM survey.

A total of 36.7 miles of line were surveyed with the magnetic survey.

The claims are owned by Golden Range Resources Inc. and include the following:

Pa 719489 - 496 inclusive

719504 - 512 inclusive

752552 - 559 inclusive

780297 - 301 inclusive

Total - 30 claims

Kenneth Guy, Geologist

CERTIFICATE

I, the undersigned, Kenneth Guy, residing at 180 Nadine Street, South Porcupine, Ontario, graduated with a Bachelor of Applied Science, degree in Earth Science - Geology from the University of Waterloo, Waterloo, Ontario in 1978.

I have been employed in the field of Geclogy since graduation in 1978.

I am a fellow of the Geological Association of Canada.

I do not hold, nor do I expect to receive an interest of any kind in these claims held by Golden Range Resources Inc. nor in any other mining claims they may have.

Kenneth Guy, Geologist

Timmins, Ontario October, 1984



52G13NW0008 2.7568 PARNES LAKE

900

Mining Lands Section

File No 2.7568

Control Sheet

TYPE OF SURVEY	GEOPHYSICAL GEOLOGICAL GEOCHEMICAL EXPENDITURE
MINING LANDS COMMENTS:	
loph. L.D.	
V	
	3 Dust
	Signature of Assessor
	84-12-11

Date

Only days note salarity "Expenditures" we con may be in the "Expend, Days Cr."

GEOPHYSICAL	SURVEY

GOLDEN RANGE RESOURCES INC.

PARNES LAKE M2150

T 1324

189 Preston Street, Timmins, Ontario P4N 3N4

Kenneth Guy, 180 redits Requested per Each O				Claims Traversed	Il ist in num	orical come	2000)	
Special Provisions	Geophysical	Days per		Mining Claim	Expend.		lining Claim	E-;
For first survey:		° Claim	Prefix	Number	Days Cr.	Prefix	Number	Olys C
Enter 40 days, (This	- Electromagnetic	40	Pa	719489		_ Pa	752558	1
includes line cutting)	- Magnutometer	20		719490			752559	
For each additional survey: using the same grid:	- Radiometric		;	719491			780297	
Enter 20 days (for each)	- Other			719492			780299	_]
	Geological			719493		1	780300	
	Geochemical			719494			780301	
Man Days	Geophysical	Days per Claim	:	719495				
Complete reverse side and enter total(s) here	- Electromagnetic			719496				
and enter total(s) here	- Magnetometer					ļ .		+
	- Radiometric			719504				
	- Other		i	719505	+-+			
			:	719506)		
	Geological		i	719507		FCE	1VEN	
Airborne Credits	Geochemical	Days per		719508	<u> </u>	nn -	/VED	
		Claim		719509		17 65	1901	
Note: Special provisions credits do not apply	Electromagnetic			719510	Militar	a latina		
to Airborne Surveys.	Magneto meter			719511		- Cours	SECTION	
	Radiometric			719512				
xpenditures (excludes pow	er stripping)			752552				
Type of Work Performed		,				14		
Performed on Claim(s)				752553				
				752554 752555		A	! !	-
			1		-			
alculation of Expenditure Day	s Credits	Total		752556			<i>></i>	
Total Expenditures		s Credits		752557		W. E.		
\$	÷ [15] = [R	5.71948	9 (27.4	Total nu	Mise of Mings	30,
Instructions Total Days Credits may be a	oportioned at the claim l	noider's				eptry e		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
choice. Enter number of day in columns at right.			Total Da	For Office Use ys Cr. Date Records		VSP2 P		
			Recorded	octin	1984	The state of the s		in
ł	corded Holder or Agent (Signature)	180	Date Approve	d as Recorded	Branch		
October 15/84 /	ort of Work	-,1	J		wiea.	301	The state of the s	
I harely circuity that I have a							eng performed	

Date Certified

October 15/84

1985 03 11

Your File: 84-149 Our File: 2.7568

Mining Recorder
Hinistry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2TO

Dear Sir:

RE: Approval Letter dated February 6, 1985 Report of Work #84-149

With reference to the above-noted letter, Mining Claim PA 780298 was incorrectly listed as part of the group. Please disregard any references made to this claim.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario N7A 1W3 Phone: (416)965-4888

S. Hurst:mc

cc: Golden Range Resources Inc 189 Preston Street Timmins, Ontario M7A 1W3 Phone: (416)965-4888

cc: Resident Geologist Sioux Lookout, Ontario cc: Kenneth Guy 180 Nadine Street Porcupine, Ontario PON 100 1985 02 06

Your File: 84-149 Our File: 2.7568

Mining Recorder
Ministry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2TO

Dear Sir:

RE: Notice of Intent dated January 21, 1985. Geophysical (Electromagentic & Magnetometer) Survey on Mining Claims PA 719489 et al in the Parnes Lake Area.

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-6918

S. Hurst:sc

cc: Golden Range Resources Inc 189 Preston Street Timmins, Ontario P4N 3N4 Attn: Denis Laforest

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Kenneth Guy 180 Nadine Street Porcupine, Ontario PON 100

> Resident Geologist Sioux Lookout, ontario



Technical Assessment Work Credits

AMENDED

Date

1985 01 21

		File
		2.7568
5 01	<u>2</u> 1	Mining Recorder's Report of Work No. 84-149

Recorded Holder		
	GOLDEN RANGE RESOURCES INC	
Township or Area		
	PARNES LAKE AREA	

PARNES LAKE AREA	1	
Type of survey and number of Assessment days credit per claim		Mining Claims Assessed
Geophysical		
Electromagnetic40	. days	PA 719489 to 494 inclusive 719504 to 512 inclusive
Magnetometer	days	752552 - 53 752555 to 559 inclusive
Radiometric	days	780297 to 301 inclusive 719495-96
Induced polarization	. days	
Other	. days	
Section 77 (19) See "Mining Claims Assessed" colu	mn	·
Geological	days	
Geochemical	. days	
Man days 🗌 Airborne		
Special provision 🗵 Ground		
Credits have been reduced because of coverage of claims.	partial	
Credits have been reduced because of correto work dates and figures of applicant.	octions	
Special credits under section 77 (16) for the folio	wing mining cla	ims
30 DAYS CREDIT		
PA 752554		
No credits have been allowed for the following m	ining claims	
not sufficiently covered by the survey	Insufficier	nt technical data filed



AMENDED

Jano Feb. 5/65

.1985 01 21

Your File: 84-149 Our File: 2.7568

Mining Recorder
Ministry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2TO

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

S. Hurst:mc

Encls.

cc: Golden Range Resources Inc 189 Preston Street Timmins, Ontario P4N 3N4 Attention: Denis Laforest

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Kenneth Guy 180 Nadine Street Porcupine, Ontario PON 100



AMENDED

Notice of Intent
for Technical Reports

1985 01 21

2.7568/84-149

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



Jan 11/85

1984 12 27

Your File: 84-149 Our File: 2.7568

Mining Recorder
Ministry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2TO

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

∠ S.E. Yundt

Director

Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

Encls.

cc: Golden Range Resources Inc 189 Preston Street Timmins, Ontario P4N 3N4 Attention: Denis Laforest

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Kenneth Guy 180 Nadine Street Porcupine, Ontario PON 100



Notice of Intent for Technical Reports 1984 12 27 2,7568/84-149

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Technical Assessment Work Credits

	F	2.7568
Date 1984 12 27	Mining Red Work No.	corder's Report of

Recorded Holder	
	GOLDEN RANGE RESOURCES INC
Township or Area	
	PARNES LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic days	
Magnetometer days	PA 719489 to 494 inclusive 719504 to 512 inclusive
Radiometric days	752552-55-57-58-59 780297 to 301 inclusive
Induced polarization days	700297 to 301 Inclusive
Other days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological days	
Geochemical days	
Man days Airborne	
Special provision 🗵 Ground 🗵	
Credits have been reduced because of partial coverage of claims.	
Credits have been reduced because of corrections to work dates and figures of applicant.	
pecial credits under section 77 (16) for the following mining cla	ims
Special credits under section 77 (16) for the following mining cla	ims

15 DAYS CREDIT

PA 752553-54-56

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

Insufficient technical data filed

PA 719495-96

GOLDEN RANGE RESOURCES INC.

Telephone (705) 267-7971

RECEIVED
Lend Management Branch

JAN 11 1985

CIRCULATE COMMENTS PLEASE

S. E. YUNDT

J. C. SMITH

W. L. GOOD

M. J. NUGAN

W. P. BROOK

TURN TO R. 6643

189 Preston St.

Timmins, Ontario P4N 3N4

THE TROPE

January 10, 1985

Ministry of Natural Resources Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

Attention: Susan Hurst

Re: Your File: 2.7568

Claims Pa 719495, Pa 719496

Dear Madam:

Enclosed are duplicate copies of a Report on a Ground Magnetic and Electromagnetic Program for Golden Range Resources Inc., Burnthut Island along with maps.

I have also enclosed a copy of the letter along with the application for Extension of Time on the above-noted claims.

Yours truly,

Orville E. Hicks

/ch

Enclosures

RECEIVED

- JAN 1 1 1985

MINING LANDS SECTION

189 Preston St.

Timmins, Ontario P4N 3N4

TSE - GORT

January 10, 1985

A. J. Stewart, District Manager Mining Recording Office P. O. Box 309 Sioux Lookout, Ontario POV 2TO

Re: Abstracts

Dear Sir:

Would you please send abstracts for claims as per attached list. Upon receipt a cheque will be forwarded.

Enclosed is an Application for Extension of Time on mining claims
Pa 719495 and Pa 719494 along with a cheque for \$20.00 to cover costs.

Yours truly,

Claudia Hanninen

/ch

Enclosure

RECEIVED

JAN 1 1 1985

MINING LANDS SECTION

Res Intario	ources			
Name of applican	GOLDEN RANGE RESOURC	ES INC.		·
Ad	189 PRESTON STREET			
	TIMMINS, ONTARIO P4	N 3N4	.*	Telephone 267-7971
Claim numbers	PA 719495, PA 719496			
		:		
		:		
		-	·	Total Claims
Reasons why wor	k not done Work is done - i	nsufficien	t technical data filed.	
			submitted to Ministry or	
			Hurst in Toronto on Jan:	
			·	
Length of time de			Approximate date when work will	l commence
	one month		work is done	
Type and extent o	of work contemplated (indicate total nui	mber of days wor	k to be performed)	
			_	
				- -
Have metal tags be	een affixed to claim corner posts?			
Date of Application			Signature of Applicant	
Janua	ry 10	19 85	Could the	

List of Claims - Golden Range Resources Inc.

Parnes Lake Claim Nos. Pa650239 - 245 inclusive

652801 - 803 inclusive 741551 - 578 inclusive

741580 - 583 inclusive

741585 - 600 inclusive

742301 - 321 inclusive

697343

697342

Burnthut Claim Nos. Pa719489 - 496 inclusive

719504 - 512 inclusive

752552 - 559 inclusive

780297 - 301 inclusive

TSE - GORT

89 Preston St. Timmins, Ontario P4N 3N4

December 13, 1984

Mr. F. W. Matthews Ontario Ministry of Natural Resources W1617, Whitney Block Queen's Park Toronto, Ontario M7A 1W3

Re: Geophysical Survey

Dear Sir:

Enclosed are duplicate copies of a Report on a Ground Magnetic and Electromagnetic Program for Golden Range Resources Inc., Burnthut Island, Parnes Lake Area, Sioux Lookout, Ontario.

Yours truly,

Peter G. Hunkin

Vice-President &

Secretary Treasurer

/ch

Enclosures

RECEIVED

DEC 14 1984

MINING LANDS SECTION

MID-CANADA EXPLORATION SERVICES LIMITED

REPORT ON A GROUND

MAGNETIC

AND

ELECTROMAGNETIC PROGRAM

FOR

GOLDEN RANGE RESOURCES INC.

PARNES LAKE AREA
SIOUX LOOKOUT, ONTARIO
N.T.S. 52 - G - 13

RECEIVED

UEC 1 4 1984

MINING LANDS SECTION

Timmins, Ontario October, 1984

Kenneth Guy Geologist

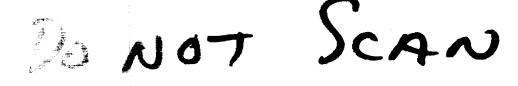


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MAPS

VLF - EM	PROFILE	SHEET	į	1	(Back Pocket)
MAGNETIC	CONTOUR	MAP		1	(Back Pocket)

SUMMARY AND RECOMMENDATIONS

The ground geophysical program was successful in delineating 15 anomalies, six of which are rated Priority -1- and recommended for diamond drill testing. These six anomalies possess more than one of the following characteristics:

- (1) excellent geophysical response
- (2) proximal to a gold occurrence
- (3) located within a stratigraphic sequence which is known to be auriferous.

The following recommendations are made for the project area:

- (1) a detailed compilation should be made of all the data to date geophysical, geological, historical;
- an HLEM survey on the lake between Burnt Island and the mainland where airborne geophysical anomalies were not recovered on the ground;
- (3) prospecting and trenching at known gold occurrences;
- diamond drilling of the six Priority -1- anomalies outlined by the geophysical surveys;
- (5) diamond drilling of the gold zone previously outlined on Burnthut Island to substantiate and extend the zone.

BUDGET

An estimated budget for the proposed program would be as follows:

PHASE I

	n eg sam	and the second of the second o
(a)	Compilation	
	Summary Report on Exploration with Compilation Map 15 days @ \$200/day	\$ 3,000.
(b)	HLEM Survey Max Min 400' cable, 4 miles 4 miles @ \$300/mile	1,200.
(c)	Diamond Drilling 6 Geophysical Targets 6 Holes on showing 12 holes @ 500 feet/hole 6,000 feet at \$40/foot includes	
	assays and supervision TOTAL - PHASE I	\$244,200.

INTRODUCTION

During the months of February and March, 1984, a combined Very Low Frequency Electromagnetic (VLF-EM) survey and magnetic survey were carried out over the Burnthut Island property owned by Golden Range Resources Inc.

The purpose of the surveys was to explore for potential gold-bearing structures and stratigraphy, correlating geophysical data with the gold occurrences known on the property.

The purpose of the VLF-EM survey was to detect on the ground, zones of conductivity which may be produced by conductive minerals and/or zones of shearing or faulting. The magnetic survey was performed to determine if any magnetic correlation exists with apparent conductivity and to aid in stratigraphic correlation.

LOCATION AND ACCESS

The Burnthut Island project is located in the District of Kenora, Patricia Mining Division, Ontario.

The project area is centred on Burnthut Island, on Minnitaki Lake, about seven miles south of Sioux Lookout. Sioux Lookout is located 180 miles northwest of Thunder Bay, Ontario.

Access to the property is by boat in summer or snowmobile in winter from Sioux Lookout or the numerous access points to Minnitaki Lake off Highway 72.

PROPERTY

The Burnthut Island Project consists of 30 unpatented mining claims for a total of approximately 1,200 acres.

The claims lie within the Patricia Mining Division,
Parnes Lake Area and Kabik Lake Area. The claims covered
by the combined surveys are:

Рa	719489	-	496	inclusive	8
	719504	-	512	inclusive	9
	752552	-	559	inclusive	8
	780297	-	301	inclusive	<u>_5</u>
					30

A total of 30 unpatented contiguous mining claims.

PREVIOUS WORK AND ECONOMIC GEOLOGY

Gold was originally discovered on Burnthut Island as early as 1897 when the Harvey Syndicate sank a 50 foot shaft on the contact between quartz porphyry and mafic volcanics. No further work is documented until 1947 when Ourgold Mines Ltd. drilled 21 holes, 6,000 feet, on three showings - the original shaft zone, a zone to the west and a zone to the north. In 1961 - 62 Ourgold drilled an additional 18 holes, 2,563 feet, on the three zones.

The gold is associated with the quartz porphyry - volcanic contact zone. The contact is sheared and carbonatized over varying widths of up to 150 feet. The gold is contained in quartz veins with accessory pyrite, mariposite, galena and chalcopyrite.

The zone to the west of the shaft, essentially a continuation of the shaft zone, appears most promising as drilling has outlined a gold bearing section 300 feet long, 4 feet wide, and grading 0.18 oz/ton Au. However, further drilling in 1961 failed to verify the continuity of this section.

During June of 1984 the property was prospected and mapped by the current claim holders. Many quartz veins and old trenches were located and sampled. Of particular note is the sampling of the quartz porphyry-volcanic contact on Burnt Island where a sample of schistose porphyry with 10% pyrite assayed 0.304 oz/ton Au.

LINE CUTTING

A baseline was established at 70° through the north section of the property. Sections are located at 400 foot intervals, with intermediate 200 foot lines on Burnthut and Burnt Islands. Stations were established at 100 foot intervals along all lines.

A total of 36.7 miles of lines were cut.

SURVEY EQUIPMENT AND PROCEDUES

The Very Low Frequency Electromagnetic (VLF-EM) survey was carried out utilizing a Geonics EM-16, operating at a frequency of 24.0 kHz utilizing the Cutler, Maine (NAA) transmission station. Readings of both Inphase and Quadrature were taken every 100 feet with an accuracy of 1% on both.

A total of 34.7 miles of line were surveyed with the VLF-EM survey.

A total of 36.7 miles of line were surveyed with the magnetic survey.

The magnetometer utilized was a Geometrics G-816 proton precession magnetometer measuring the total magnetic field. Readings were taken every 100 feet.

The intersection of the section lines on the base line served as a base station for monitoring diurnal drift. This method allows readings to be taken and corrected with an accuracy of one gamma.

SURVEY EQUIPMENT AND PROCEDURES (Cont'd)

The magnetic data is presented as contoured plan maps. (Back pocket).

The VLF-EM data is presented as profiled plan maps. (Back pocket).

DISCUSSION OF RESULTS

The Very Low Frequency Electromagnetic (VLF-EM) survey detected 15 anomalies. The VLF-EM anomaly summary table summarizes the anomalies and rates their priority for follow-up. The anomalies break down into the following priorities:

PRIORITY -1- highest priority - diamond drilling 6 recommended.

PRIORITY -2- high priority - follow-up contingent 7 on Priority -1- results and additional follow-up.

2

The main criteria for Priority -1- anomalies is relationship to a known gold occurrence, ie. they are all proximal, along strike or within the same stratigraphic interval as a gold occurrence.

PRIORITY -3- - no follow-up recommended at this time

The magnetic survey is utilized in assisting stratigraphic correlation. The major drawback of the magnetics on this property is the lake; water depth exceeds 140 feet in places and in general is quite deep. This results in a smoothing and contrasting low of the magnetics over the water due to the depth to source. However the magnetics are useful in delineating the volcanic-porphyry contact.

VLF-EM ANOMALY SUMMARY

ANOMALY	LENGTH	MIN.DIST. PEAK-PEAK	MAX.DEFL. PEAK-PEAK	DEPTH	QUAD	MAG	PRIORITY	<u>conclusions</u>
Α	4 lines	100	38	mod		flanks lo	. 2	contingent on B
В	3 lines	100	48	shallow	x-over	mag hi	1	proximal to Au showing- on quartz-porphyry volcanic contact - diamond drill
С	3 lines	100	40	shallow	x-over	mag lo	1	on strike from Au showing, quartz-porphyry volcanic contact-diamond drill
D	6 lines	200	67	mod	x-over	inflection between hi - lo	2	proximal to Au showing and q.pvol. contact-contingent on C
E	12 lines	200	108	mod	x-over	lo	1	excellent geophysical response in q.p diamond drill
F	2 lines	100	18	shallow	x-over		2	in q.p prospect
G	10+ lines	100	42	mod to deep	reverse x-over	lo	3	weak geophysical response, mainly in lake
Н	3 lines	200	29	mod	x-over	hi	3	in volc a nics

VLF-EM ANOMALY SUMMARY

ANOMALY	LENGTH	MIN.DIST. PEAK-PEAK	MAX.DEFL. PEAK-PEAK	DEPTH	QUAD	MAG	PRIORITY	CONCESSIONS
I	1 line	200	22	mod	x-over	flanks hi	2	<pre>prospect - edge of property</pre>
J	4 lines	200	67	mod		mag lo	1	in lake - may be on contact of q.pvolc.
K	2 lines	200	41	mod	x-over	mag hi	22	edge of claim group
L	3 lines	200	45	mod	x-over	mag hi	2	contingent on M
M	3 lines	100	59	shallow	x-over	mag hi	1	good geophysical - proximal to Au showing -
N	7 lines	300	120	mod	x-over	inflection	1	on q.p volc. contact- along strike from Au occurrence - 1 or 2 diamond drill holes recommended
0	3 lines	200	101	mod		inflection	·2	on q.pvolc.contact in lake, along strike from Au occurrence - contingent upon N

DISCUSSION OF RESULTS (Cont'd)

A more detailed discussion of the Priority -1-anomaly selections follows:

ANOMALY B

This anomaly is an excellent target as it possesses all three characteristics of a Priority -1- anomaly:

- 1) excellent geophysical response;
- 2) proximal to the north showing on Burnthut Island;
- 3) excellent stratigraphic location as it lies on the porphyry-volcanic contact which hosts gold mineralization in the area.

For the above reasons this anomaly represents an excellent diamond drill target.

ANOMALY C

This anomaly possesses all the characteristics of Anomaly B but lies on the opposite contact therefore represents an <u>excellent diamond</u> drill target.

ANOMALY E

This anomaly represents an excellent geophysical response and lies within the quartz porphyry unit proximal to the volcanic contact. Should be tested with a diamond drill hole. ANOMALY J

A good geophysical response in a relatively unknown area as it lies under the lake; appears to lie on the volcanic-porphyry contact - a good diamond drill target.

ANOMALY M

An excellent geophysical response and proximity to the gold occurrence discovered during the summer of 1984 by D. Black makes this anomaly an excellent diamond drill target.

ANOMALY N

This long strike length features posseses excellent geophysical characteristics and lies along strike from an Au occurrence.

At least one, possibly two diamond drill holes are recommended.

REFERENCES

BLACK, D. 1984 - Geology Report on the Burnthut Island Project

GUY, K. 1983 - Summary Report on Exploration - Neepawa Island Project for Golden Range Resources Inc.

JOHNSTON, F.S. 1972 - Geology of the Vermilion Abram Lakes Area, District of
Kenora - ODM GR 101

STATEMENT FOR ASSESSMENT WORK

I, Kenneth Guy, certify to the following:

A total of 36.7 miles of lines were cut.

A total of 34.7 miles of line were surveyed with the VLF-EM survey.

A total of 36.7 miles of line were surveyed with the magnetic survey.

The claims are owned by Golden Range Resources Inc. and include the following:

Pa 719489 - 496 inclusive

719504 - 512 inclusive

752552 - 559 inclusive

780297 - 301 inclusive

Total - 30 claims

Kenneth Guy, Geologist



CERTIFICATE

I, the undersigned, Kenneth Guy, residing at 180 Nadine Street, South Porcupine, Ontario, graduated with a Bachelor of Applied Science, degree in Earth Science - Geology from the University of Waterloo, Waterloo, Ontario in 1978.

I have been employed in the field of Geology since graduation in 1978.

I am a fellow of the Geological Association of Canada.

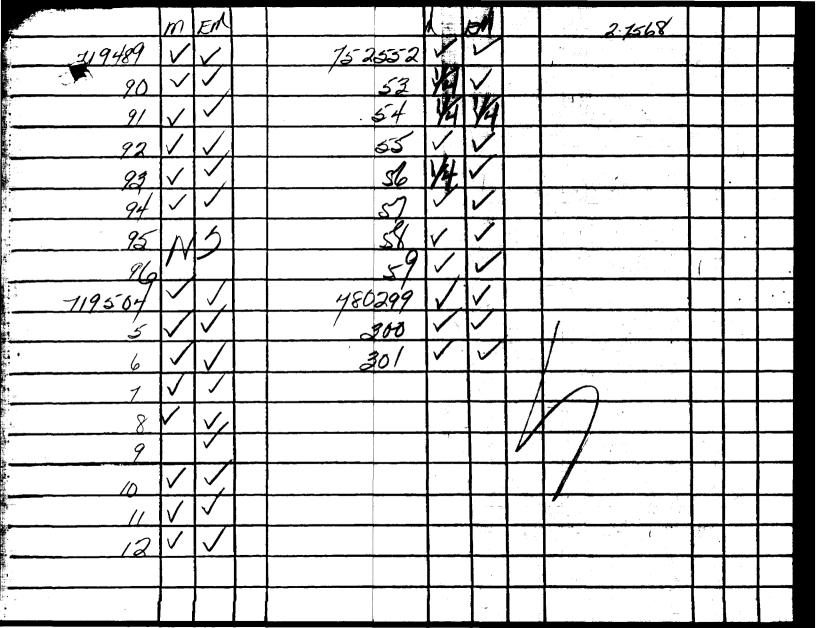
I do not hold, nor do I expect to receive an interest of any kind in these claims held by Golden Range Resources Inc. nor in any other mining claims they may have.

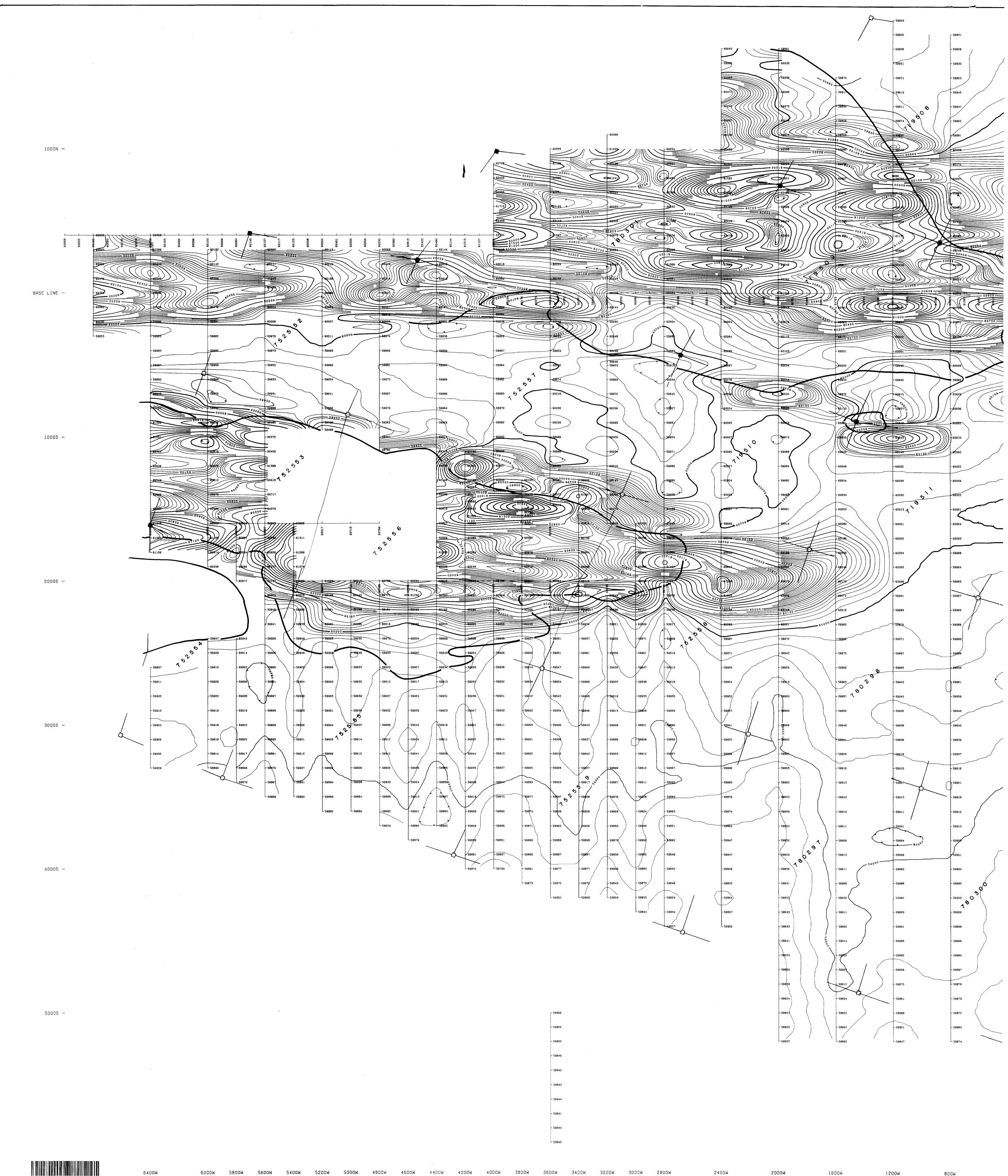
Kenneth Guy, Geologist

Timmins, Ontario October, 1984



2002.5778





6000W 5<mark>800W 5600W 5400W 5200W 5000W 48</mark>00W 4600W 4400W 4200W 4000W 3800W 3600W 3400W 3200W 3000W 2800W

2400W

1600W

1200W 800W

