82-286-10349 4

GEOLOGICAL, GEOCHEMICAL
and
GEOPHYSICAL REPORT

SAUNDERS 1-4 MINERAL CLAIMS

Lat. 57°21' North Long. 127°05' West

N.T.S. 94-E-6E

OMINECA MINING DIVISION

British Columbia

for

GOLDEN RULE RESOURCES LTD.

Calgary, Alberta

by

Michael Fox, P.Geol.

TAIGA CONSULTANTS LTD.

Calgary, Alberta

JANUARY 1982

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CERTIFICATE

I, the undersigned, of the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am a Consulting Geologist with an office at #100, 1300 - 8th St. S.W., Calgary, Alberta;

2. I am a graduate of the University of British Columbia with a B.Sc. in Geology (1974);

3. I have worked in the field of mineral exploration since 1965;

4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

Respectfully submitted

November 1981

Michael St. Cyr, P. Geol.

SUMMARY

During August 1981, a total of approximately 17.3 line km of grid lines were established in two separate grid areas at the Saunders 1-4 claims. A total of 459 soil samples were collected at 25m intervals along grid lines spaced 100m and 200m apart. A total of 82 silt samples and 77 talus fine samples were collected along reconnaissance traverses. Some of the streams previously sampled (see report on 1980 work) were sampled in greater detail resulting in the discovery of several new anomalies. Semi-reconnaissance geological mapping and rock sampling were carried out over the property as a whole, utilizing a 1:10,000 scale topographic base. A total of 40 rock samples were collected. Of these, 32 were submitted for analysis. All samples were analyzed for Au and Ag.

The results of this work have identified at least twelve discrete zones, hosting geochemically anomalous values in Au and/or Ag. Nine of these zones are related to strong northwest-trending fracture systems that transect the property. The fracture zones are marked by inner zones of strong silicification, fracturing or brecciation, and pyritization, enclosed in a broad envelope of epidotization and weak pyritization.

This work was preceded in April 1981 by approximately 74.6 line km of airborne VLF-EM and magnetic geophysical surveying. The results and interpretation of this work are appended to this report. A very strongly conductive zone outlined by the airborne work was further defined by approximately 3.25 line km of ground VLF-EM surveying, which has defined a strong conductor (probably related to sulfide mineralization) in an area of conductive overburden.

Recommendations for further work include thorough geological and geochemical detailing of the above structural zones which are considered to have good potential for hosting a fissure-vein type precious metals deposit similar to the Baker mine model.

INTRODUCTION

Location and Access

The Saunders 1-4 mineral claims form a contiguous block of claims located in N.T.S. map-area 94-E-6E, approximately 490 km northwesterly from Prince George, British Columbia, on Saunders Creek near its confluence with the Toodoggone River (Figure 1). The approximately geographic coordinates of the claims are 57°21' North latitude and 127°05' West longitude (Figure 2). The claims are normally accessible only by helicopter.

Property and Ownership

The Saunders 1-4 mineral claims are located in the Omineca Mining Division and entirely owned by Golden Rule Resources Ltd. of Calgary, Alberta. The claims are described more specifically as follows:

Claim Name	No.of Units	Record Number	Date of Record
Saunders 1	12	2682	April 3, 1980
Saunders 2	12	2683	April 3, 1980
Saunders 3	20	2684	April 3, 1980
Saunders 4	20	2685	April 3, 1980

Physiography and Glaciation

The claims lie within the Cassiar Mountains physiographic subdivision of the Interior Plateau. The region is entirely glaciated and is characterized by wide U-shaped, drift-filled major valleys and deeply-cut, V-shaped upland valleys. Mountain peaks in the area average 1980m ASL in elevation and rise fairly abruptly from the major valleys.

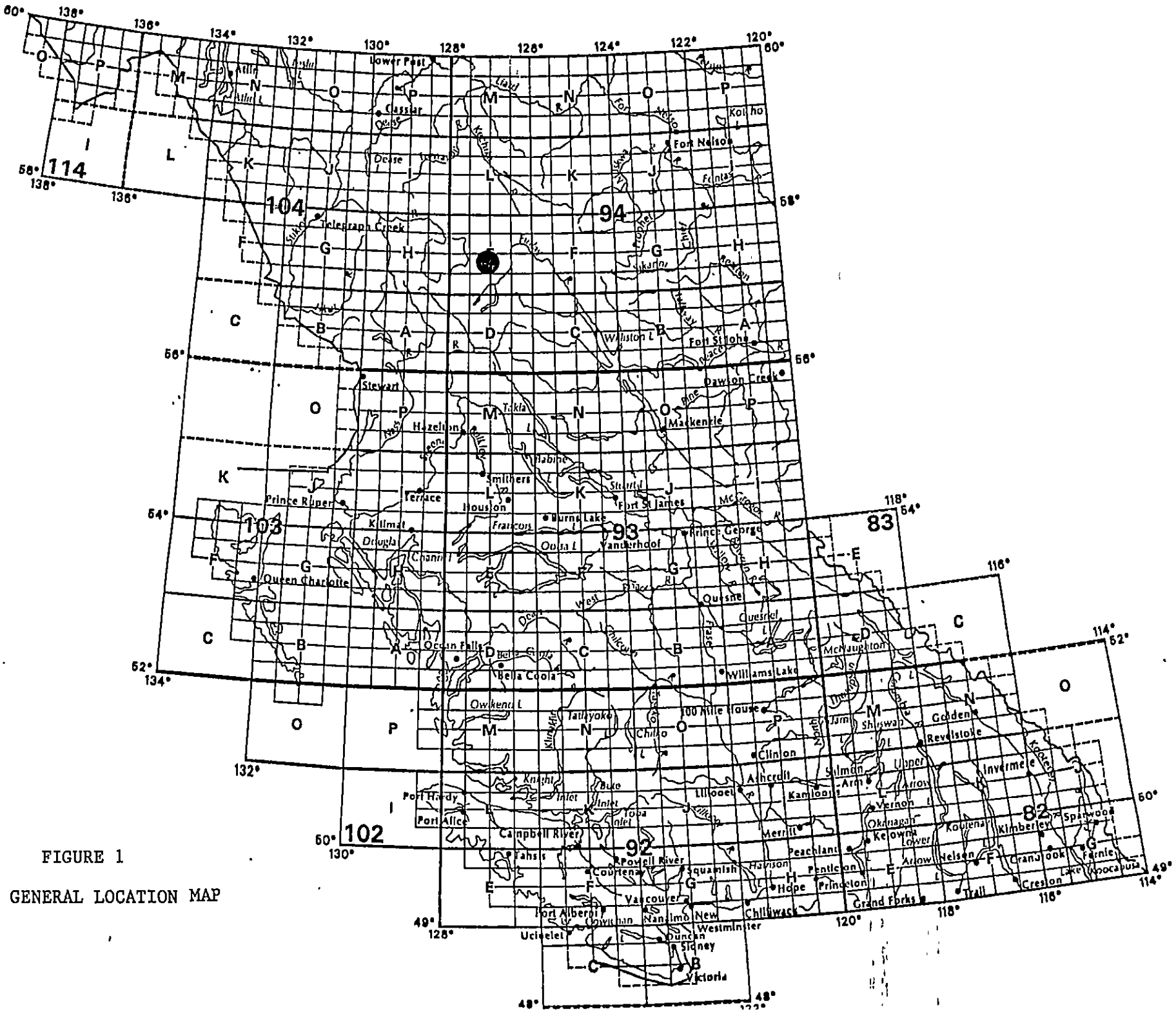
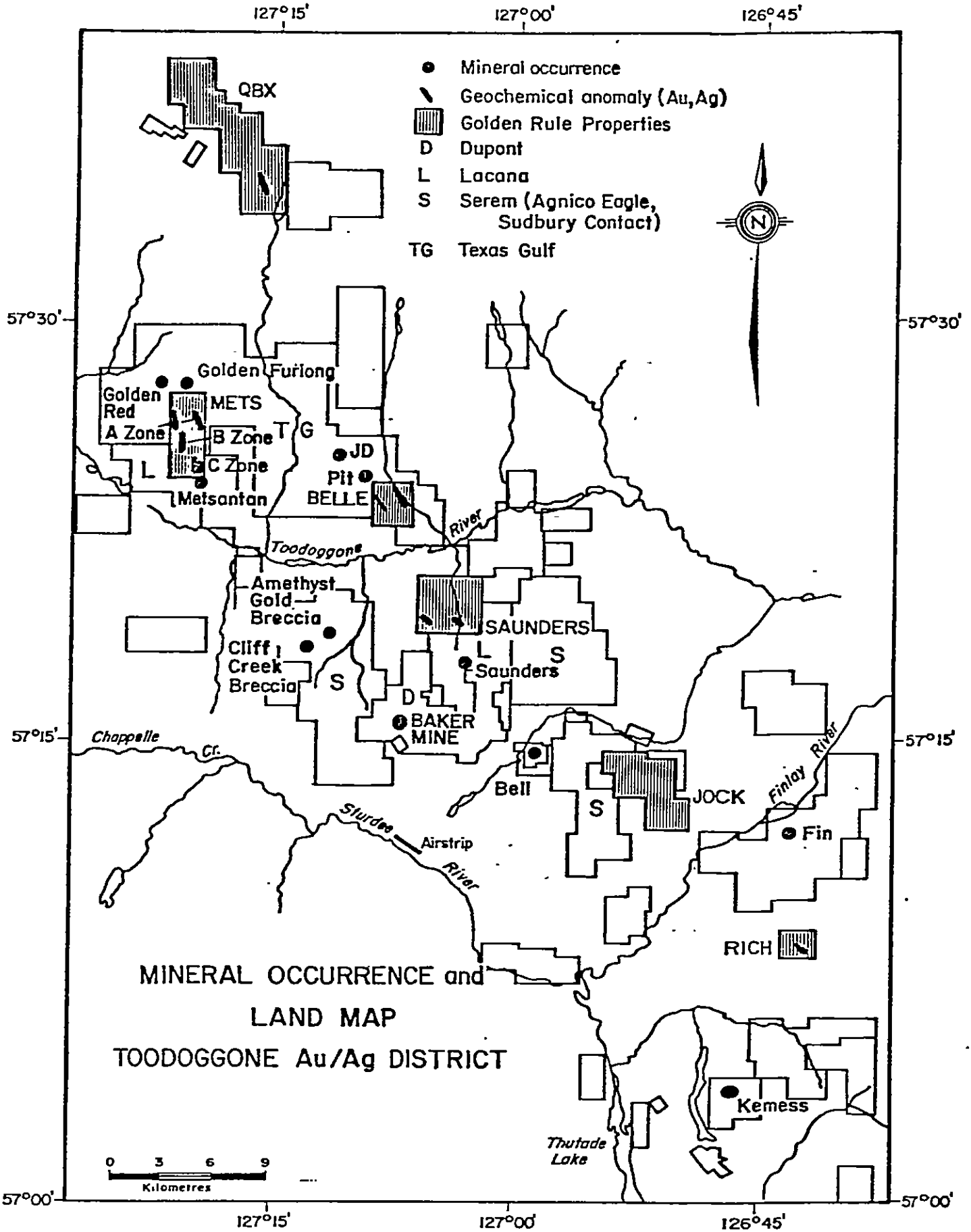
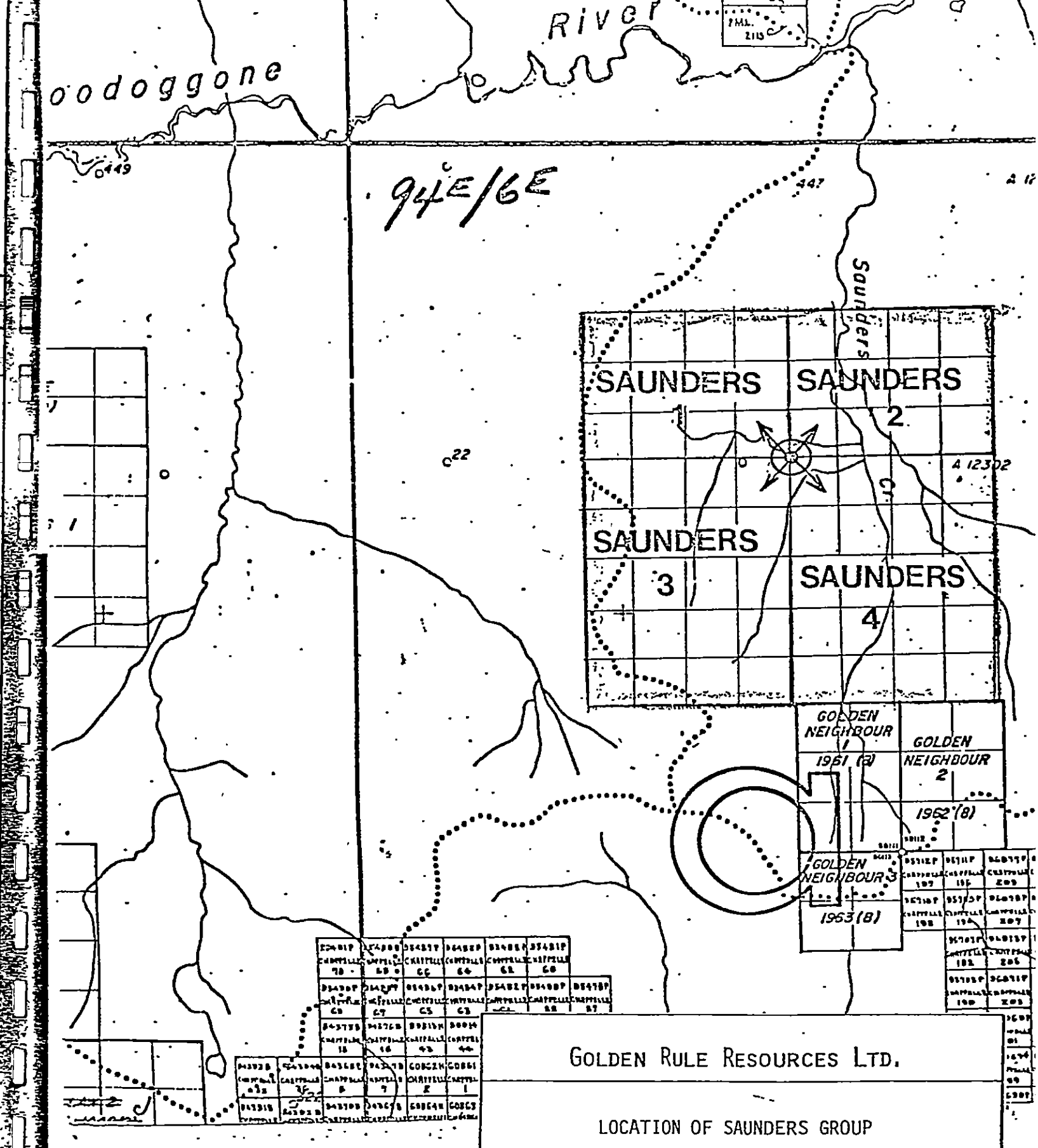


FIGURE 1

GENERAL LOCATION MAP


127°15'
127°00'
126°45'
57°30'
57°15'
57°00'
Mineral occurrence
Geochemical anomaly (Au,Ag)
Golden Rule Properties
D Dupont
L Lacana
S Serem (Agnico Eagle, Sudbury Contact)
TG Texas Gulf
N
QBX
Golden Furlong
Golden Red
METS
A Zone
B Zone
C Zone
T G
L
Metsantan
JD
Pit
BELLE
Toodoggone River
Amethyst Gold Breccia
Cliff Creek Breccia
S
SAUNDERS
L
S
Saunders
D
BAKER MINE
Chappelle Cr.
Bell
S
JOCK
Finlay River
Fin
Sturdee Airstrip River
RICH
MINERAL OCCURRENCE and LAND MAP
TOODOGGONE Au/Ag DISTRICT
Kemess
Thutade Lake
0 3 6 9
Kilometres



GOLDEN RULE RESOURCES LTD.

LOCATION OF SAUNDERS GROUP

N.T.S. 94-E-6E

DATE: JUNE 1980	FIGURE NO. 10

The claim group is situated over four northerly trending ridges drained by the five main tributary streams of Saunders Creek. Drainage patterns become more complex towards the north end of the claim group, where the two westernmost tributaries change direction and flow easterly into the master stream. These abrupt changes in the drainage direction seem to be the result of stream capture rather than any underlying geological factor. Elevations at the property range from 1340M+ to 2109m+ ASL.

1981 Exploration

Work carried out in 1981 consisted of 74.6 line km of airborne VLF-EM and magnetic surveying, followed by helicopter-supported reconnaissance and grid-controlled geological mapping and geochemical sampling. The airborne geophysical surveying was carried out in April 1981. The results of this work are presented as a separate report in Appendix III.

During August 1981, approximately 17.3 line km of soil sampling were carried out in two separate grid areas. A total of 459 soil samples, 77 talus fine samples, and 82 silt samples were collected. In addition, a total of 40 rock samples were routinely collected from the claims area during the course of geological mapping. A total of 32 of these rock samples were also submitted for analysis. All geochemical samples were analyzed for Au and Ag. Approximately 3.25 line km of ground VLF-EM surveying were done in the east grid area as follow-up to further define a strongly conductive zone outlined by the airborne geophysical survey.

REGIONAL GEOLOGY

The claims are underlain by intermediate to acidic volcanic rocks of the Lower Jurassic Toodoggone Formation. The Toodoggone volcanics form a belt 5 - 20 km wide and 100+ km long which is currently the focus of intense precious metals exploration. The belt hosts the Baker deposit, currently being mined by DuPont of Canada Ltd., and another potentially economic deposit known as the Gold-Amethyst Breccia Zone, currently being explored by Serem.

Four principal subdivisions of the Toodoggone Formation are now recognized. The following descriptions of these subdivisions are excerpted from B.C. Ministry of Mines Paper 1981-1, p.125, by T. G. Schroeter.

Lower Volcanic Division. This is dominantly a pyroclastic assemblage including purple agglomerate and grey to purple dacitic tuffs.

Middle Volcanic Division. This is an acidic assemblage including rhyolites, dacites, 'orange' crystal to lithic tuffs, and quartz feldspar porphyries. It includes welded tuff. The 'orange' color of the tuffs resulted from oxidation of the fine-grained matrix while the rock was still hot. A coeval period of explosive volcanism included the formation of 'laharic' units and intrusion of syeno-monzonite bodies and dykes. This event was accompanied by explosive brecciation along zones of weakness, predominantly large-scale faults and attendant splays, followed by silicification and deposition of precious and base metals to varying degrees in the breccias. Rounded fragments of Omineca intrusive rocks are rare components in Toodoggone tuffs.

Upper Volcanic-Intrusive Division. This division consists of grey to green to maroon crystal tuffs and quartz-eye feldspar porphyries.

Upper Volcanic-Sedimentary Division. This division consists of lacustrine sedimentary rocks (sometimes varved), stream bed deposits, and possible local fanglomerate deposits and interbedded tuff beds.

PROPERTY GEOLOGY

Geological mapping of the Saunders claims was carried out in selected areas utilizing a 1:10,000 scale topographic base. The results of this work are presented on a map accompanying this report. Mapping was restricted to major bedrock exposures.

Partial mapping of the claims indicates that the area is underlain predominantly by porphyritic green and orange feldspar and feldspar-hornblende dacitic flows corresponding to Division 2 of the Toodoggone Formation. Near the south boundary of the property, a leucocratic, gently dipping tuff unit outcrops along several hundred metres of the ridge. This unit overlies a fairly thick feldspar-hornblende porphyry flow (exposed on the west side of the claim group) and is intruded by a number of feldspar porphyry dykes which were probably feeder dykes for more acidic flows accumulated higher in the section.

Pervasive but weak epidotization affects most of the rocks underlying the porperty. Epidotization and silicification are particularly intense in the vicinity of a number of narrow (one metre) to broad (25 metres) northwesterly striking fracture zones that transect the property. These zones are characterized by intense silicification along the main axis of fracturing. Sericite, chlorite, and clay alteration products were observed in surface exposures at a few of these zones. Envelopes of intense epidotization surround the silicified zones and gradually diminish in intensity over a distance of 25m to 50m away from the fault zones. Pyrite occurs disseminated through the silicified areas, as evidenced by 1%-5% fresh sulfides in some of the zones, and extensive limonite and hematite coatings in more strongly oxidized exposures.

The above-described fracture zones appear to be subsidiary fractures related to a 60+ km long northwesterly striking fault system which has been mapped 1 km to the northeast of the property (see G.S.C. Open File 483). The style of fracturing and alteration so far seen at the Saunders claims more closely resembles a mesothermal vein-type environment rather than a high-level epithermal environment characterized by quartz breccias and quartz stringer stockworks (as at the Gold-Amethyst Breccia Zone). Further exploration should take into consideration the higher probability of discovering a vein type deposit similar to the nearby Baker mine.

GEOCHEMISTRY

Sampling and Analytical Procedures

A total of 459 soil samples were collected from 17.3 line km of grid lines in two grid areas at the Saunders claims. Line spacings were 200m and 100m. Samples were collected mainly from the B horizon at depths of 0.25m to 0.30m at 25m intervals along the lines. In some low-lying areas, only organic material could be obtained, and in some areas at higher elevations, where soil development is poor, a mixture of organic material and oxidized talus fines was obtained. Some portions of the lines at higher elevations were not sampled due to the presence of extensive fields of coarse talus. In addition to the soil samples, a total of 77 "talus fines" samples were collected along reconnaissance traverses.

Samples were collected utilizing mattocks and were placed in heavy draft paper bellows-type soil sample envelopes. The silt, soil, and talus fines samples were partially air-dried and submitted to Acme Analytical Labs Ltd. of Vancouver, B.C. for Au and Ag geochemical analysis. Rock samples were submitted to TerraMin Research Labs Ltd. of Calgary, Alberta for Au and Ag geochemical analysis. Au- and Ag-in-soils analyses were performed by standard (wet) atomic absorption procedures. Rock analyses were carried out by combined fire assay and atomic absorption. Further details of analytical methods are included in Appendix I.

Statistical Analysis

More than 80% of the sample population yielded Au-in-soils values less than or equal to 10 ppb, effectively reducing the meaningful statistical population to less than 100 samples. This remaining population occurs in a distribution approximating a normal distribution. However, slight inflection points on the cumulative probability graph indicate that threshold values occur in the 25-45 ppb range and values greater than 45 ppb are anomalous (Figure 3).

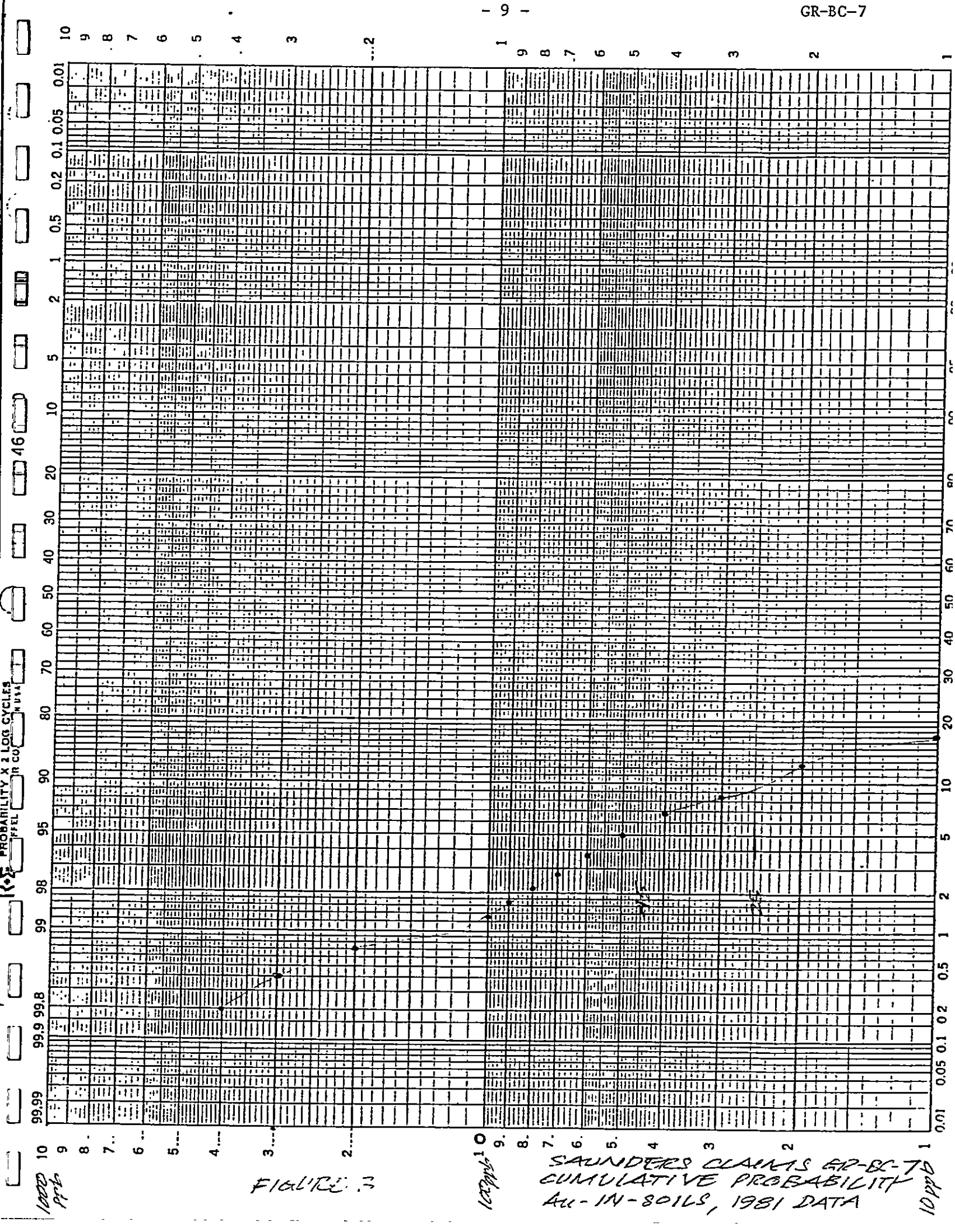


FIGURE 3

SAUNDERS CLAIMS GR-BC-7
CUMULATIVE PROBABILITY
Au-IN-SOILS, 1981 DATA

Ag-in-soils values also closely approximate a normal distribution. Threshold values fa-1 in the range of 0.7ppm to 1.0ppm. Values greater than 1.0ppm are anomalous (Figure 4).

Results

Grid-Controlled Soils

A number of Au and Ag anomalies occur in soils within the claims area and are described below.

1. A weakly anomalous (25ppb-65ppb) Au-in-soils trend occurs adjacent to a strongly silicified, epidotized, and pyritized zone located at BL 50E, 18S.

2. A 400m long, 25m-75m wide moderately anomlaous Ag-in-soils trend occurs in part over a very pronounced gossan just north of the Lacana base camp. A few moderately anomalous Au-in-soils values also occur within this area. The gossan occurs along the valley floor of a major fork of Saunders Creek. Although extensive pyritized zones occur upstream from this area (suggesting the gossan may be due to transported, reprecipitated iron), a very strong VLF-EM conductor in the hear of this zone suggests a local sulfide source for the gossan. Geochemical conditions were hardly ideal here for a proper evaluation of this zone by surface soil sampling, since at most sample points, only organic material could be obtained.

Talus Fines Samples

A total of 77 talus fines (soil) samples were collected from reconnaissance traverses. Results of interest are as follows:

1. Samples S-RD-S-17 to S-RD-S-24 define a 300m long trend of anomalous Au- and Ag-in-soils (talus fines) values. The samples were collected well downslope from a fairly strong gossan which occurs on the ridge to the east. Reconnaissance mapping of the gossan has identified

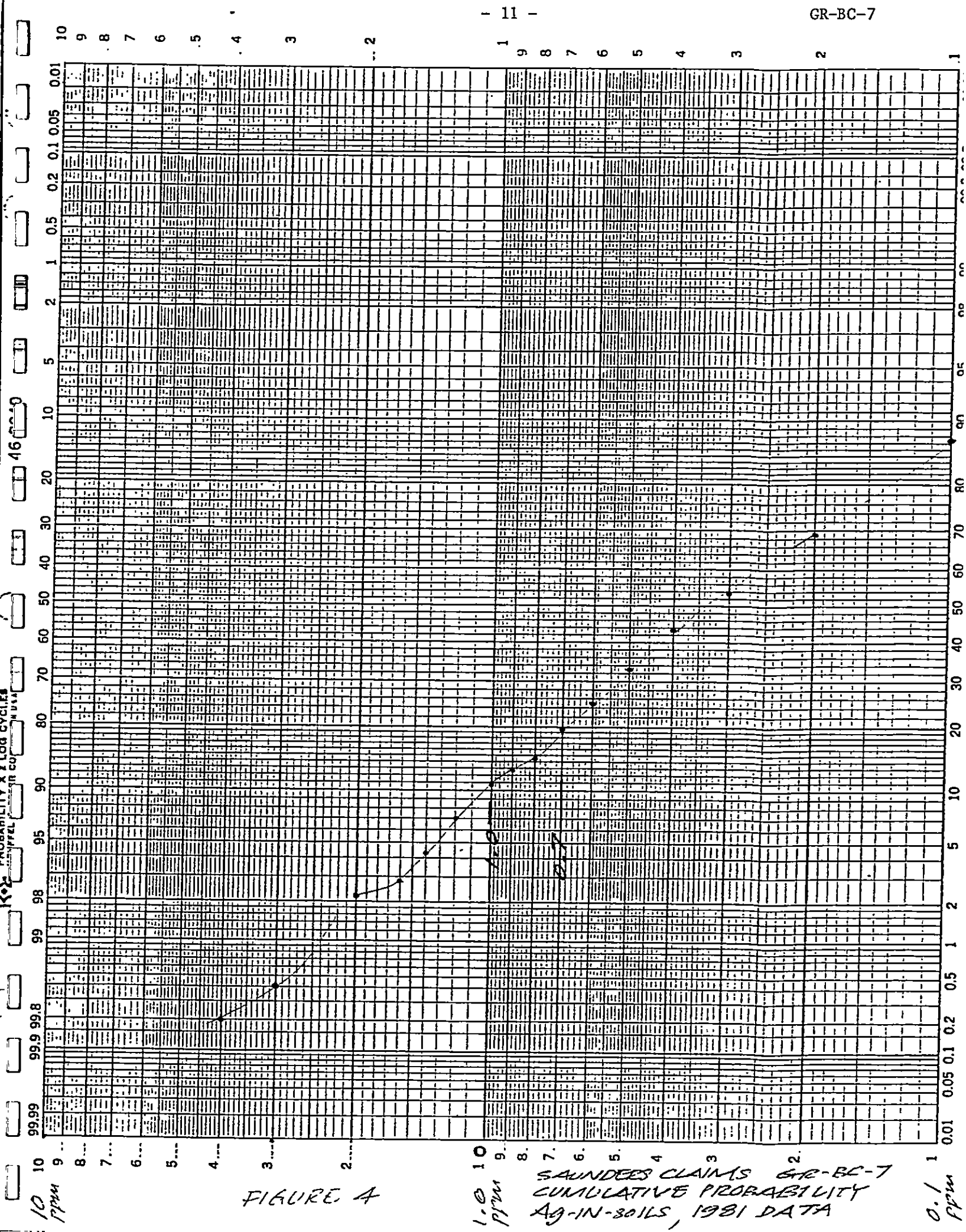

PROBABILITY X 2 LOG CYCLES
10 ppm
1.0 ppm
0.1 ppm
SAUNDERS CLAIMS GR-BC-7
CUMULATIVE PROBABILITY
Ag-IN-SOILS, 1981 DATA

FIGURE 4

easterly striking zones of strong fracturing, silicification, pyritization, and epidotization. Rock samples from this zone, described below, also have returned anomalous Au and Ag values.

2. Sample S-RD-S-35 returned a 125 ppb Au-in-soils (talus fines) value. This sample was collected near the northern end of a 50m wide gossan which occurs over a zone of strong fracturing, silicification, pyritization, and epidotization. Rock samples collected from this zone (described below) also have returned anomalous Au values. Above-threshold and anomalous Au-in-silt values occur along a 2000m stretch of the stream below this zone.

3. Samples S-TN-S-19 to S-TN-S-21 define a 150m long zone of weakly anomalous Ag-in-soils (talus fines) samples, with one associated Au-in-soils value of 165 ppb at sample S-TN-S-20. These samples were collected around the lower slopes of a cirque where anomalous Ag values were found in stream silts. Extensive bedrock exposures in the immediate area consist of strongly epidotized, weakly pyritized feldspar porphyry (dacitic) flows of the Toodoggone Formation (Division 2).

4. Samples S-TN-S-29 to S-TN-S-34 define a 250m long zone of weakly anomalous Ag-in-soils (talus fines) values. These samples were collected approximately 200m (vertically and laterally) downslope from a very prominent gossan that occurs at the north end of a ridge spur on the west side of the claim group. The weak Ag values are evidently a result of downslope dispersion from the pyritized, silicified fracture zone located above in the gossan zone.

Silt Samples

Existing silt sample coverage was extended during 1981. Areas previously sampled were re-sampled in greater detail in 1981, resulting in the discovery of several new anomalies, described below.

1. Samples S-JS-St-6 and 8-28 define a 2000m long above-threshold and anomalous Au-in-silts trend along a northerly flowing fork of Saunders Creek which drains the north-facing cirque of Peak 2109(m). Most of these samples returned values in the range $\geq$45 ppb and $\leq$80 ppb,

considered to be the above-threshold to anomalous range. Occasional definitely anomalous values occur at S-JS-St-6 (180 ppb) and S-JS-St-21 (165 ppb). These may represent local highs related to Au-bearing structures transecting the stream drainage at or near these sample points. The intervening above-threshold values may represent downstream dispersion from the highs or may be related to mineralized zones located upslope. Sample S-JS-St-6 was collected from a short tributary which flows through a gossan on the west side of the main tributary stream, approximately 500m north of the base of the cirque. Rock sampling in this area, described below, has returned anomalous Au-in-rock values.

2. Samples S-JS-1, 2, 3, 4, and 6 define a 600m long anomalous Ag-in-silts trend that partly overlaps the above-described Au-in-silts trend. A gossan which occurs on the west side of the stream approximately 200m southwest of the sample site for S-JS-St-1 marks the locus of another zone of strong fracturing, silicification, pyritization, and epidotization.

3. Samples S-JS-St-33 to S-JS-St-35 define a 400m long anomalous Ag-in-silts trend at the headwaters of the westernmost fork of Saunders Creek. These values occur in the vicinity of talus fines samples S-TN-S-19 to S-TN-S-21, described above, and are evidently related to a zone of strong fracturing and alteration noted in exposures at the head of the stream.

4. Samples S-RD-St-20 and S-RD-St-24 returned values of 110 ppb and 495 ppb Au-in-silt, respectively. A weak "high background" trend is evident in Au-in-silts values collected at sample sites S-RD-St-9 to S-RD-St-14. These latter values occur in the vicinity of and downstream from a very strongly conductive zone and an associated gossan. The Au-in-silts values in this trend may be a subtle expression of mineralization in the conductive zone. The causes of the anomalous Au-in-silts values at sample locations S-RD-St-20 and -24 have yet to be determined. The whole interval of the stream sampled from S-RD-St-18 to S-RD-St-28 returned high background and above-threshold values, punctuated by the two anomalous values.

Rock Samples

Reconnaissance mapping and rock geochemical sampling have identified a number of strongly altered fracture zones that carry anomalous Au and Ag values. All of these structures appear to have appreciable strike continuity and warrant more detailed sampling and prospecting. In a few of these areas, reconnaissance stream silt and soil (talus fines) sampling has identified apparently related anomalies. Significant rock anomalies are described as follows:

1. Sample SAD-DN-6 returned values of 728 ppb Au and 4600 ppb Ag. The sample was collected from a 1.5m wide zone of narrow quartz stringers and veinlets, 0.25 cm to 6 cm wide, striking 123° to 133°, which are exposed on the ridge crest, 300m northwest of Peak 2109, near the southern boundary of the claims. The quartz is fine-grained and highly fractured. The wallrocks are pyritized, as evidenced by heavy limonite coatings on fracture planes.

2. Sample SAD-DN-7 returned values of 50 ppb Au and 4200 ppb Ag. The sample was collected from an oxidized fracture zone approximately 100m northwest of sample SAD-DN-7 and is evidently a continuation of the same zone.

3. Sample SAD-DN-11 returned values of 104 ppb Au and 390 ppb Ag. The analyses indicate anomalous Au enrichments in the vicinity of a zone of fracturing and strong silicification, epidotization, and pyritization striking approximately 106° Az.

4. Sample SAD-DN-13 returned values of 106 ppb Au and 7600 ppb Ag. The sample was collected from a zone of fracturing and alteration similar to that which occurs at sample SAD-DN-11.

5. Samples S-DN-14 and S-DN-15 returned values of 28 ppb Au, 2400 ppb Ag; and 492 ppb Au, 2500 ppb Ag, respectively. The samples were collected from a strongly silicified and pyritized fracture system which may be continuous with a zone which outcrops 400m to the northwest (see S-DN-19 and -20).

6. Sample S-DN-18 returned values of 2940 ppb Au and 800 ppb Ag. The sample was collected from a strongly silicified, pyritized fracture system marked by a 50m wide gossan.

7. Samples S-DN-19 and S-DN-20 returned values of 186 ppb Au, 750 ppb Ag; and 442 ppb Au, 680 ppb Ag, respectively. The samples were collected from a strongly silicified, pyritized, 10m to 12m wide fracture zone trending 140° Az. Epidote is present on most fracture planes. The higher of the two Au-in-rocks values appears to be related to more intense silicification and pyritization.

8. Sample S-5 returned values of 90 ppb Au and 5200 ppb Ag. This Ag enrichment occurs in a strongly silicified, 10m wide pyritized fracture zone exposed on the crest of a northeasterly trending ridge spur in the central area of the claim block. The fracture zone is oriented 330°/7.7°NE and is probably continuous with a zone of silicification, fracturing, etc. located approximately 400m to the southeast.

GEOPHYSICS

Airborne VLF-EM and Magnetic Survey

During April 1981, approximately 74.6 line km of airborne VLF-EM and magnetic surveying were flown over the Saunders claims. Instrumentation, survey techniques, and the results of this work are described in a separate report included in Appendix III.

Ground VLF-EM Survey

During August 1981, approximately 3.25 line km of ground VLF-EM surveying were done in the east grid area to further define a very strongly conductive trend identified by the airborne work in this area (see Appendix III).

Ground VLF-EM surveying was carried out utilizing a Geonics EM-16. The transmitter used was Seattle, Washington (NLK) with a transmitting frequency of 18.6 KHz. Direction to the transmitter was determined to be 155° Az.

Ground VLF-EM survey profiles suggest that both flat-lying and steeply-dipping 'sheet-like' conductors underlie the survey area. Quadrature response indicates a fair degree of overburden conductivity. This might be due to high conductivity within the water-saturated gossan that underlies much of the grid area. Further work should include detailing of known conductive trends to remove any ambiguities present in the interpretation and extension of VLF-EM coverage to further delineate the major conductive trends.

CONCLUSIONS AND RECOMMENDATIONS

Reconnaissance geological mapping and rock, soil, and stream silt geochemical sampling have identified 12 zones, anomalous in Au and/or Ag, which warrant follow-up work. Nine of these zones are evidently related to concentrations of Au and/or Ag in strongly silicified, pyritized fracture zones enclosed by broad envelopes of epidotization. These fracture zones all appear to have appreciable strike continuity and should be prospected, mapped, and sampled in detail along their extensions.

Ground VLF-EM follow-up of the strong airborne conductor located north of the Lacana camp has defined a number of strongly conductive, northerly trending zones. VLF profiles suggest that both flat-lying and steeply-dipping "sheet-like" conductors are present. Quadrature response indicates a fair degree of overburden conductivity which may be due to the water-saturated gossan that underlies much of the grid-area. Further should include detailing of the presently known conductors in any areas where ambiguities may be present in the interpretation, and extension of VLF coverage to further delineate the major conductive trends.

The style of fracturing and mineralization at the Saunders claims indicates that the property has a greater potential for hosting fissure-type vein deposits (similar to the Baker mine model) rather than 'high level' quartz breccia/quartz stringer stockwork type deposits (similar to the Gold-Amethyst Breccia Zone model). Further exploration should take into consideration the often subtle geochemical expression of vein-type targets as well as the difficulty in evaluating a vein-type target on the basis of only a few rock samples. (Early exploration of the Baker mine by ConWest produced indifferent results.) Detailed, thorough investigation of the above zones will be required, since the widths of the zones, tenor and actual controls of mineralization could change rapidly along strike or down dip.

SUMMARY OF EXPENDITURES

Saunders 1-4 mineral claims
Chappelle Project

for explanation of "pro rata charges", see Schedule A

PERSONNEL - FIELD TIME

M. Fox	Aug. 11, ½25		
	1½ days @ $250.00/diem	375.00	
R. Davies	Aug. 11,15		
	2 days @ $141.88/diem	283.76	
D. Thompson	Aug. 17		
	1 day @ $141.88/diem	141.88	
T. Nelson	Aug. 15,25,26,30		
	4 days @ $145.25/diem	625.00	
D. Newman	Aug. 12,13		
	2 days @ $120.31/diem	240.62	
J. Selwyn	Aug. 11,17		
	2 days @ $120.31/diem	240.62	
H. Larsen	Aug. 12,13,17		
	3 days @ $91.56/diem	274.68	
M. Plumbtree	Aug. 12,13,17,25,26		
	5 days @ $91.56/diem	457.80	
B. Moffatt	Aug. ½11,½12,½13,½17,½25,½26		
	3 days @ $120.31/diem	360.93	3,000.29
Pro Rata labour charges	23.5 man days @ $29.53		693.96

HELICOPTER Bell 206

Aug. 11	1.0 hour		
12	0.5		
13	1.0		
15	1.0		
17	2.3		
25	0.6		
26	0.8		
30	0.5 hours		
	7.7 hours @ $375./hour	2,887.50	
Fuel	7.7 hours x 100L/hr @ $1.25/L	962.50	
Oil	7.7 hours @ $1.95/hour	15.02	3,865.02

CAMP AND FOOD

Taiga crew 23.5 man days
Heli crew 6.0 man days
29.5 man days

Food	29.5 man days @ $18/diem	531.00	
Camp Equipment	29.5 man days @ $12/diem	354.00	
Pro Rata camp & food	29.5 man days @ $6.06	178.77	1,063.77

Summary of Expenditures - Saunders claims

TRANSPORTATION			
3/4-ton 4x4 truck			
Pro Rata	29.5 man days @ $4.88		143.96
EQUIPMENT RENTALS			
2 SBX-11 transceiver radios			
Pro Rata	29.5 man days @ $2.02		59.59
FUEL Pro Rata	29.5 man days @ $1.27		37.47
EXPEDITING SERVICES			
Pro Rata	29.5 man days @ $4.88		143.96
FIXED-WING SUPPORT			
Pro Rata	29.5 man days @ $22.77		671.72
DISPOSABLE SUPPLIES			
Pro Rata	29.5 man days @ $2.36	69.62	
Other disposables: sample bags, flagging, etc.		196.20	265.82
FREIGHT, COURIER			
Pro Rata	29.5 man days @ $6.17		182.02
MISCELLANEOUS EXPENSES			
Telephone, photocopying, contract drafting, etc.			
Pro Rata	29.5 man days @ $2.48		73.16
TRAVEL EXPENSES			
Pro Rata	29.5 man days @ $14.06		414.77
HANDLING CHARGES (12% on all third-party expenses)			
Pro Rata	29.5 man days @ $3.53		104.14
GEOCHEMICAL ANALYSES			
618 soil & silt samples Au+Ag analyses @$5.40		3,337.20	
3 sample pulverizations @ $1.00		3.00	
16 rock samples Au+Ag analyses @ $9.00		144.00	3,484.20
CONTRACT GEOPHYSICAL SURVEYS			
74.6 line km airborne mag and VLF-EM @ $84.56			6,308.18
POST-FIELD EXPENSES			
Report preparation, data plotting, etc.		1,500.00	
Drafting		400.00	
Secretarial		75.00	
Photocopying, reproductions		125.00	2,100.00
			$ 22,612.03

CHAPPELLE PROJECT EXPENSES - SCHEDULE A

Schedule of Expenditures, General Labor Costs, Travel Expenses, Crew Mobilization Costs, General Project Expenses - to be applied on a pro rate basis to various claim blocks as per man-day formula (total of 297 man days on the project).

PERSONNEL

M. Fox	Aug. 1,2,3,6,31	1,145.00	
R. Davies	Aug. 4(½),5,6,16,28,31	780.34	
D. Thompson	Aug. 5,6,16,28,31	709.40	
T. Nelson	Aug. 4(½),5,6,16,28,31,Sep.1	1,015.63	
D. Newman	Aug. 5,6,30,31	481.24	
J. Selwyn	Aug. 1,2,3,4,5,6,16,25	962.48	
H. Larsen	Aug. 1,2,3,4,5,6,16,24	732.48	
M. Plumbtree	Aug. 5,6,7,16,28,31, Sep.1	549.36	
B. Moffatt	Aug. 4,5,6,16,28,31	721.86	
B. Coffey	Aug. 19,24,28,30,31	759.15	
R. Netolitzky	July;Aug.22,25	912.50	
		8,769.44 ÷ 297 =	29.53/man day

CAMP & ACCOMMODATION

Taiga crew	48 man days @ $30	1,440.00	
Heli crew	Aug.5,6,10,11,12,28 12 man days @ $30	360.00	
		1,880.00 ÷ 297 =	6.06/man day

TRAVEL EXPENSES 4,175.03 ÷ 297 = 14.06/man day

FUEL (gasoline) 378.40 ÷ 297 = 1.27/man day

EXPEDITING 1,450.00 ÷ 297 = 4.88/man day

FREIGHT & COURIER 1,831.63 ÷ 297 = 6.17/man day

DISPOSABLE SUPPLIES 701.71 ÷ 297 = 2.36/man day

MISC. EXPENSES

Telephone, photocopying, maps, contract drafting (land update) 735.41 ÷ 297 = 2.48/man day

HANDLING CHARGES on third-party expenses $8,729.65 x 12% 1,047.56 ÷ 297 = 3.53/man day

TRANSPORTATION

3/4-ton 4x4 1,450.00 ÷ 297 = 4.88/man day

RADIO RENTAL

SBX-11 (two) radios 600.00 ÷ 297 = 2.02/man day

FIXED-WING SUPPORT		Service	Fuel Mob
Aug. 2	Caribou		2,267.00
5	"	2,039.00	
7	"		2,067.00
11	Cessna 185	449.00	
19	"	497.00	
20	"	491.00	
22	"	491.00	
25	"	491.00	
27	DC-3		2,235.00
31	"	2,306.00	
		6,764.00	6,569.00 = 13,333.00

Service flights: apply to various claim groups on a pro rata per man day basis — 6,764.00 ÷ 297 = 22.77/man day

Fuel Mob flights: apply to various claim groups according to heli hours and average cost per litre for transport:

Aug.2 $2267 ÷ (18 x 205L drums = 3690L) = $.6144 + $.6101
= $1.2245/L x 3690 = $ 4,518.40

Aug.7 $2067 ÷ (18 x 205L drums = 3690L) = $.5602 + $.6101
= $1.17/L x 3690 = $ 4,317.30

Aug.27 $2235 ÷ (14 x 205L drums = 2870L) = $.7788 + $.6096
= $1.3884/L x 2870 = $ 3,984.71

10250L $12,820.41

$1.251/L average cost
$125.10 fuel cost per heli hour

A P P E N D I X I I I

Geophysical Report

REPORT ON A

HELICOPTER VLF-E.M. AND MAGNETOMETER SURVEY

ON TEN PROJECTS IN THE

TOODOGGONE RIVER AREA

OMINECA MINING DIVISION

BRITISH COLUMBIA

FOR

GOLDEN RULE RESOURCES LTD.
Suite 115 - 1300 - 8th Street S.W.
Calgary, Alberta
T2R 1B2

SURVEY DATES: April 1 to May 1, 1981

July 3, 1981
Vancouver, B.C.

Apex Airborne Surveys Ltd.
Ronald F. Sheldrake, B.Sc.

TABLE OF CONTENTS

PLATE 10 - MAGNETIC CONTOUR MAP - SUS GROUP

APPENDIX I - INSTRUMENTATION

APPENDIX II - IN-FLIGHT RECORD AND FLIGHT PATH RECOVERY

CERTIFICATION

1. SUMMARY

The geophysical data have provided a useful overview of magnetic character of the rocks underlying the claim groups. An electromagnetic target has been identified in the Saunders Claim Group that warrants investigation.

Recommendations for follow-up have been made.

SURVEY & CLAIM LOCATION MAP

SCALE 1:500,000

metres 10000 0 5 0

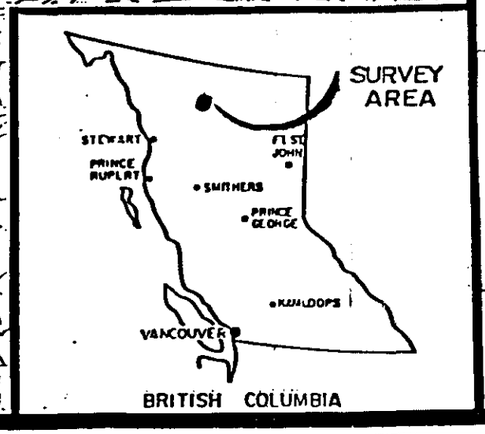
GOLDEN RULE RESOURCES LTD.

TOODOGGONE RIVER AREA PROJECT

OMINECA MINING DIVISION

N.T.S. 94 S.W

PRODUCED FROM NATIONAL N.T.S. SERIES.



2. INTRODUCTION

This report describes the results of 420 linear kilometres of combined VLF and Magnetic Helicopter Survey undertaken over 11 claim blocks in the TOODOGGONE RIVER AREA, B.C.

The claim blocks are located near or along regional strike to the Chappelle and Sawyer gold deposits within the Intermontane Belt. A description of the Chappelle deposit and environs is available in a publication by Mr. D.A. Barr of Dupont of Canada Exploration Ltd.*

The purpose of the helicopter magnetic and electromagnetic surveys was to provide targets for ground exploration and to assess in a general sense, if similar environments as those present at the Chappelle and Sawyer properties could be recognized.

The survey was flown using an Aerospatiale Gazelle Helicopter as a platform for the geophysical system.

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* D.A. Barr, "Chappelle Gold Silver Deposit, British Columbia". Geology and Exploration, pp. 66-79.

The survey conditions were difficult for the most part because of inclement weather conditions and steep terrain.

The electromagnetometer used on this survey was a Herz TOTEM 1-A VLF device. It utilizes the primary fields emitted by the military communication transmitters. The E.M. fields from the stations (Cutler, Maine and Jim Creek, Washington) are essentially perpendicular to the direction to the station and horizontal.

The E.M. sensor is suspended five metres below the helicopter (to minimize helicopter interference) and comprises of three coils, whose axis are orthogonal. The electromagnetometer senses the change in total field and quadrature values. These are the two measurements recorded on the analogue chart and magnetic tape.

The VLF electromagnetometer, although described as a very low frequency radio signal, (15-25 khrz) is rather a high frequency signal for geophysical purposes. This means that the system senses rather large, low conductance targets that are within a few tens of metres from the surface.

The magnetometer used on this survey was a Geometrics G803 total field instrument which measures the field strength with a sensitivity of one gamma. The sensor is suspended below the electromagnetometer 15 metres.

Appendix I gives the details of the geophysical equipment used for this survey. Appendix II describes the in-flight record and flight path recovery process.

GEOLOGY

The geology of the Chappelle Deposit and environs is described by Mr. D.A. Barr of Dupont of Canada Exploration Limited.*

He reports that "The Chappelle property lies near the eastern margin of the Intermontane Belt. The (quartz) vein systems which contain the gold-silver mineralization occur within a small window of Takla Group volcanic rocks of Upper Triassic age, which are intruded by granitic stocks of the Omineca Intrusions and overlain unconformably by Jurassic and younger volcanic and sedimentary rocks.

Rocks in the property area have been subject to extensive normal block faulting from Jurassic to Tertiary time and by thrusting of the Asitka Group rocks over the Takla Group rocks during Middle Jurassic time".

No detailed geology of the ten survey blocks described in this report is available to the writer at this time.

---

* Ibid.

CLAIMS

CLAIM NAME		RECORD NO.	NO. OF UNITS	DATE OF RECORDING
METS	1	1253	20	April 3, 1980
	2	1254	20	April 3, 1980
BELLE	1	2680	18	April 3, 1980
	2	2681	18	April 3, 1980
SAUNDERS	1	2682	12	April 3, 1980
	2	2683	12	April 3, 1980
	3	2684	20	April 3, 1980
	4	2685	20	April 3, 1980
JOCK	1	2699	4	April 8, 1980
	2	2700	18	April 8, 1980
	3	2701	15	April 8, 1980
	4	2702	20	April 8, 1980
	5	2703	4	April 8, 1980
RICH	1	2709	16	April 8, 1980
MC	1	2688	20	April 3, 1980
JC	1	2697	12	April 8, 1980
NIKA	1	2698	16	April 8, 1980
INGE	1	2708	16	April 8, 1980
SUS	1	2704	4	April 8, 1980
	2	2705	16	April 8, 1980
	3	2706	3	April 8, 1980
	4	2707	12	April 8, 1980

LOCATION AND ACCESS

The claim blocks are all located in the Omineca Mountain Range. The easiest access to the properties is by helicopter from either McKenzie or Smithers, B.C.

The location to the centre of each claim group is as follows:

CLAIM GROUP	LATITUDE	LONGITUDE	N.T.S.
METS	59° 24'N	127° 17'W	94 S.W.
BELLE	57° 24'N	127° 10'W	94 S.W.
SAUNDERS	57° 18'N	127° 02'W	
JOCK	57° 15'N	126° 52'W	94 S.W.
RICH	57° 15'N	126° 40'W	94 S.W.
MC	56° 52'N	126° 30'W	94 S.W.
JC	56° 50'N	126° 28'W	94 S.W.
NIKA	56° 49'N	126° 22'W	94 S.W.
INGE	56° 37'N	126° 13'W	94 S.W.
SUS	56° 30'N	126° 46'W	94 S.W.

3. DATA PRESENTATION

The data have been presented as plan maps of aeromagnetic contours at a scale of 1:10,000. The location of VLF-E.M. anomalies, interpreted lineaments and photo lineaments have been plotted on these plan maps. The maps display sufficient drainage to key them to the photo mosaics that were supplied to fly the survey.

4. DISCUSSION OF RESULTS

Twelve test lines of survey were flown over the Chappelle and Sawyer Gold properties in order to identify any characteristic geophysical responses that could be recognizable on any of the ten present survey areas.

For the most part no specific feature is correlatable with surety, however, it is apparent from the records that the magnetic environment of the ten present survey areas are similar to that of the Chappelle and Sawyer areas.

No VLF-E.M. responses were recorded on the Chappelle and Sawyer test lines.

The Golden Rule survey blocks are small in areal extent for an airborne reconnaissance survey and therefore limit the effectiveness of their interpretation, however, in general, many of the specific features reported by Mr. Barr* may be interpreted from the data, namely fracture zones, contact areas and possibly block faulting.

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* Ibid.

Any attempt to identify quartz veins from the aeromagnetics, however, is probably not justifiable for the following reasons:

1. Ground magnetic surveys over the Chappelle have not been reliable in extending quartz veins*.

2. The magnetic character of the survey areas is very complex.

3. The quartz veins are probably too small to be identified from an airborne survey.

A brief interpretation has been made of the magnetic contour map for each claim block. The geophysical lineaments that were interpreted may be either contact or fault lineaments. Predominant photo-lineaments have also been plotted where they are informative - very often because of their contradition to the geophysical map rather than their coincidence.

It should be noted that the contouring process tends to filter the data and that the in-flight recording indicates greater detail than the contour maps. As ground evaluation proceeds detailed study of the smaller (and numerous) responses on the recording may be useful.

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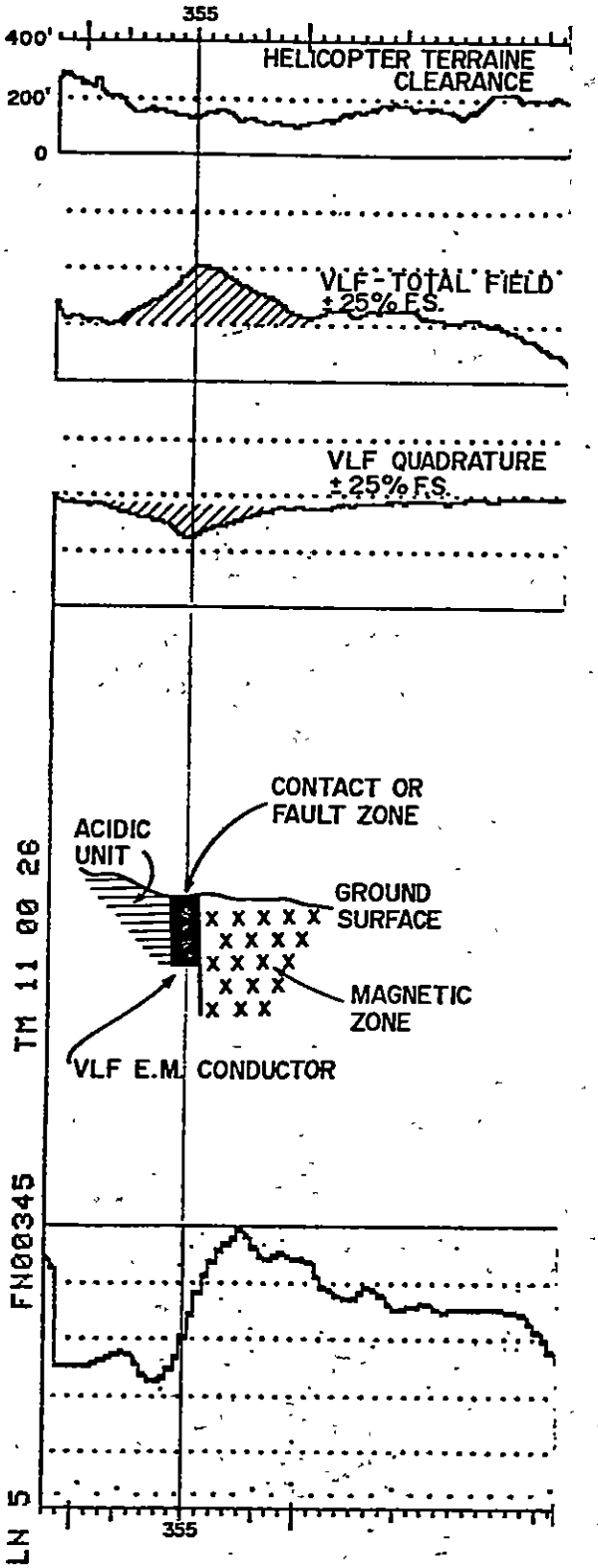
* Ibid. Page 77 (Geophysical Investigations).

The VLF-E.M. technique over some of the survey areas (and the test lines) has not been successful as a survey tool. A combination of steep terrain and inclement weather conditions made it difficult to maintain a constant sensor orientation in the fixed VLF-E.M. transmitted field. However, useable VLF-E.M. recordings were collected over the Belle, Mets and Saunders Projects, and one VLF anomaly on LN5 on the Saunders project warrants immediate ground investigation. See Figure 2 for a detail of that record. (A schematic diagram has been provided that is meant to indicate the relative location and attitudes of the targets and will not reflect the true complexity of the geological situation.)



NOTES

1 Coincident With Inferred Magnetic Contact

2 Possibly Extends to LN 6 and LN 7

FIGURE 2

DETAIL ANOMALY - SAUNDERS CLAIMS LINE 5 NORTH

CONCLUSIONS AND RECOMMENDATIONS

The geophysical survey has provided useful information that will serve to guide the upcoming exploration program.

Further, one VLF-E.M. target appears quite substantial and warrants investigation.

It is recommended that each of the areas be mapped geologically and stream samples taken wherever possible.

For the anomalous response on LN5 in the Saunders Area several traverses of ground VLF-E.M. ought to be undertaken to assess its validity and conductive response.

Respectfully Submitted

Ronald F. Sheldrake

Ronald F. Sheldrake
Apex Airborne Surveys Ltd.

BIBLIOGRAPHY

D.A. Barr - "Chappelle Gold Silver Deposit, British Columbia
GEOLOGY AND EXPLORATION
CIM Bulletin, February 1978

APPENDIX I

APPENDIX I

INSTRUMENTATION

VLF - Electromagnetic Instrument

Type: Helicopter mounted total field - quadrature instrument manufactured by Herz Industries Ltd., Toronto, Ontario.

Frequencies: Cutler, Maine 17.8 kHz. (NAA)
Jim Creek, Washington, 18.6 kHz (NLK).

Magnetometer

Type: Proton precession model G803 manufactured by Geometrics Corporation, Toronto.

Cycling Time: 1.0 second.

Sending Head Design: 5 inch diameter Toroid.

Ancillary Equipment:

UDAS Digital Acquisition System with recorder.

Geocam 35 mm Flight Path Camera
Bonzer Radio Altimeter

Geometrics G806 Magnetic Base Station and recorder.

APPENDIX II

CERTIFICATION

I, RONALD F. SHELDRAKE, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am President of Apex Airborne Surveys Ltd. a company incorporated under the laws of the Province of British Columbia.

2. The Vancouver Office of Apex Airborne Surveys Ltd. is located at Suite 512 –625 Howe Street, Vancouver, British Columbia.

3. I received my B.Sc., in Geophysics from the University of British Columbia in May 1974.

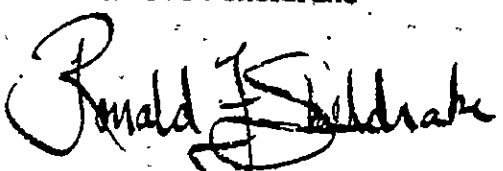
4. I have practised my profession since that date.

5. I did not examine the claims area, but I am not aware of any claim conflict and believe that the data presented herein is reliable.

6. I have no interest, direct or indirect, in GOLDEN RULE RESOURCES LTD. or its affiliates, nor do I expect to receive any.

7. I consent to the use of this report in or in connection with a Prospectus or in a Statement of Material Facts.

Ronald F. Sheldrake



Apex Airborne Surveys Ltd.

July 3, 1981

July 3, 1981

STATEMENT OF COSTS

Type of Survey:	Combined VLF and Magnetic Helicopter Survey
Date(s) of Fieldwork:	April 1 to May 1, 1981
Survey Kilometres:	420 kilometres
Cost per linear Kilometre:	$84.56
Additional Charges:	
Total cost of Survey:	420 km x $84.56 = $35,514.55

L 31 + 00S

L 32 + 00S

L 33 + 00S

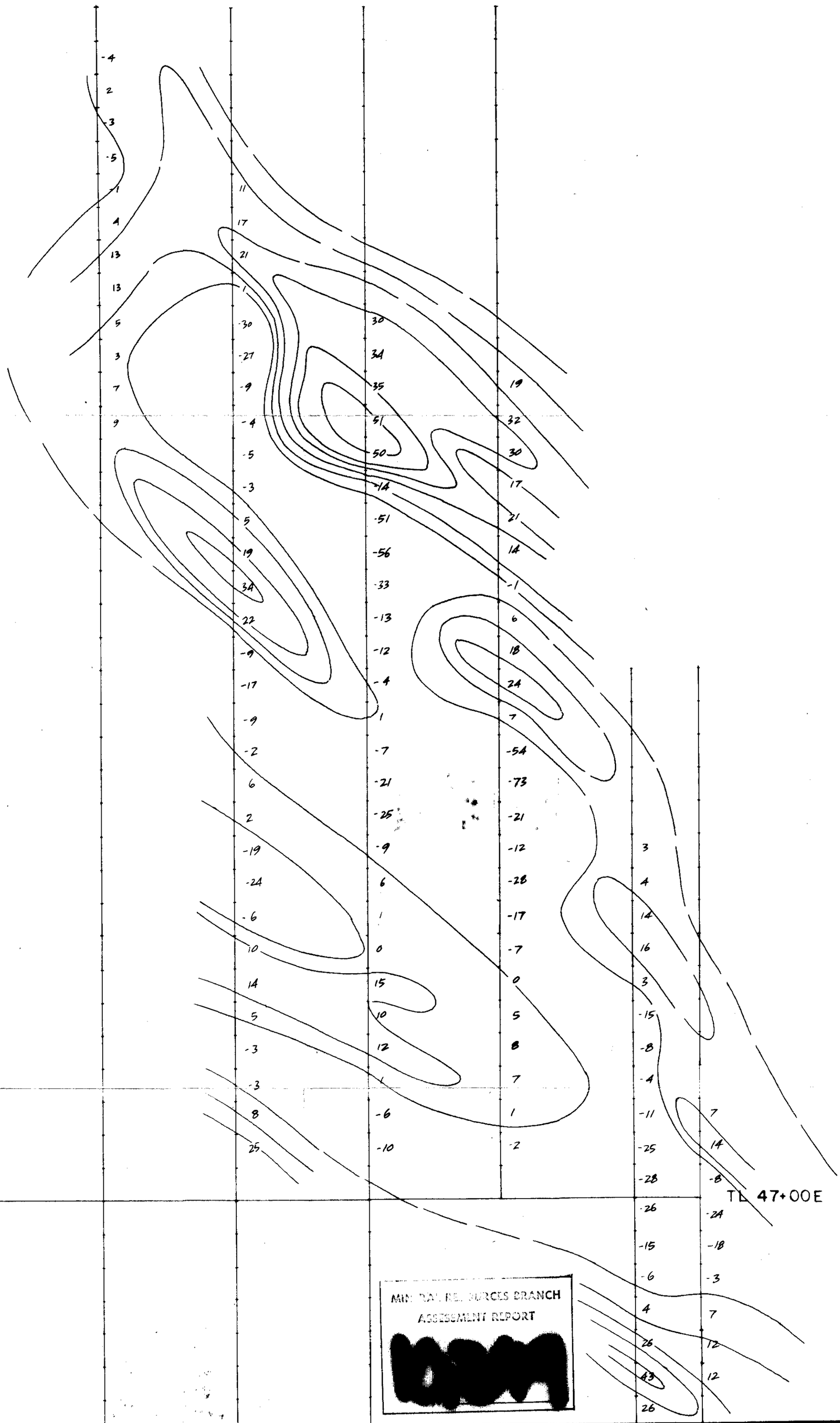
L 34 + 00S

L 35 + 00S

L 36 + 00S

L 37 + 00S

L 37 + 50S



TL 47+00E

GOLDEN RULE RESOURCES LTD.

CHAPPELLE PROJECT

MAP 3A- FRASER FILTERED VLF-EM	SAUNDERS CLAIMS
PROJECT GR-BC-7	MARCH, 1982
SCALE 1:2500	0 25 50 75 100 METRES

TAIGA CONSULTANTS LTD.

L 31 + 00S

L 32 + 00S

L 33 + 00S

L 34 + 00S

L 35 + 00S

L 36 + 00S

L 37 + 00S

L 37 + 50S

TL 47+00E

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,359
NO.

Geonics VLF E.M. 16

60 | 14
in phase | Quad

155°

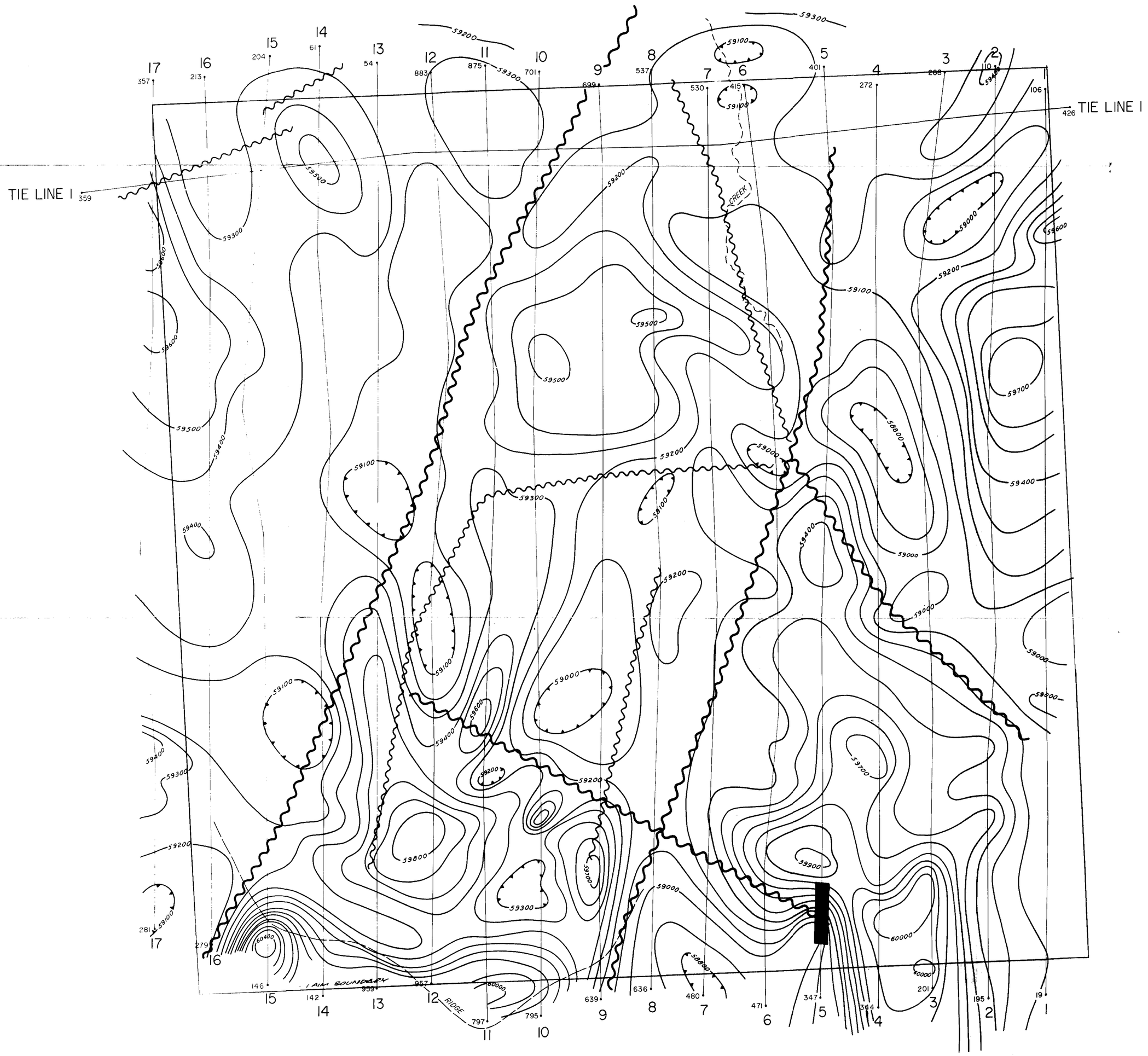
Seattle, Washington
(NLK 18.6kHz)

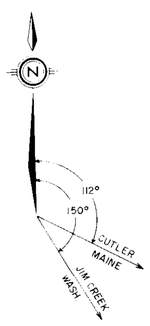
GOLDEN RULE RESOURCES LTD.

CHAPPELLE PROJECT

MAP 3 - GROUND VLF-EM SURVEY	SAUNDERS CLAIMS
PROJECT GR - BC - 7	MARCH, 1982
SCALE 1:2500	0 25 50 75 100 METRES

TAIGA CONSULTANTS LTD.





NOTES

MAGN. DEC.: 30° E MAGN. INCL.: 74° N
SENSOR HEIGHT: MAG 20 M, VLF 30 M
VERTICAL CONTROL: RADAR ALT.
HORIZ. CONTROL: PHOTOMOSAIC
CONTOUR INTERVAL: 100 GAMMAS
VLF STATION: JIM CREEK, WASHINGTON
VLF STATION (TIE LINE): CUTLER, MAINE

LEGEND

GEOPHYSICAL LINEAMENT
PHOTO LINEAMENT
VLF RESPONSE
100 GAMMA CONTOUR
MAGNETIC DEPRESSION

GOLDEN RULE RESOURCES LTD.
SAUNDERS CLAIMS
TOODOGGONE RIVER AREA, B.C.
TOTAL FIELD MAGNETIC MAP

N.T.S.: 94 E/W — MINING DIVISION: OMINECA

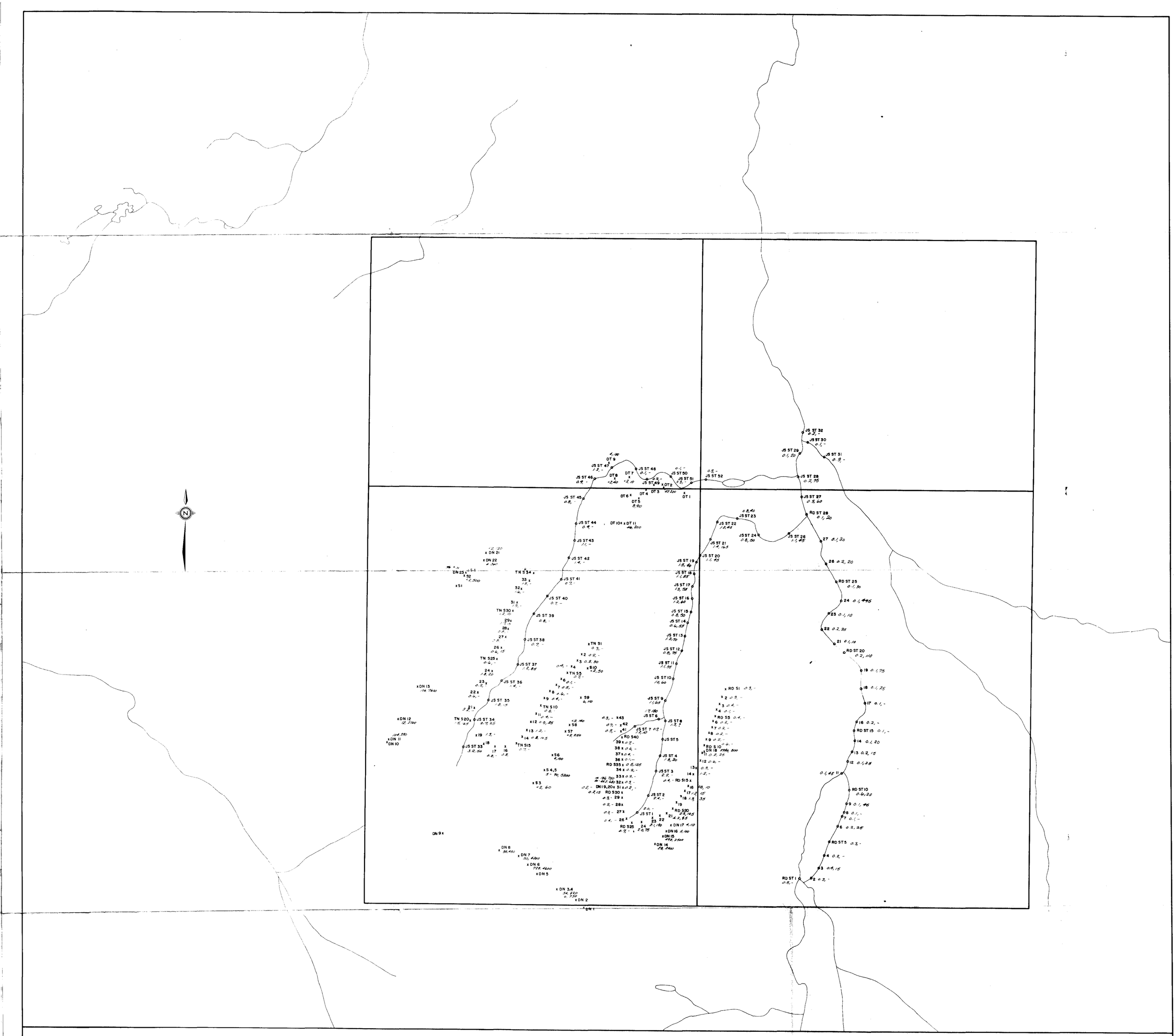
LATITUDE: 57° 18' N. — LONGITUDE: 127° 02' W.

SCALE: 1:10,000 — PLATE 3

INSTRUMENTATION: MAGNETOMETER - G803
ELECTROMAGNETOMETER - TOTEM IA - VLF

BY Ronald F. Shaldrake — DATE June 2, 1981

APEX AIRBORNE SURVEYS LTD.



O RD ST 1 0.5, - Silt sample location Ag (ppm), Au (ppb)

X DN 5 34, 820 Rock sample location Au (ppb), Ag (ppb)

X RD 5.84 20, 75 Talus fines Ag (ppm), Au (ppm)

GOLDEN RULE RESOURCES LTD.	
CHAPPELLE PROJECT	
MAP 2 - Au, Ag in Stream Silts, Rocks and Talus Fines	SAUNDERS CLAIMS
PROJECT GR - BC - 7	March, 1982
SCALE 1:10,000	0 100 200 300 400 500 METRES
TAIGA CONSULTANTS LTD.	

SAUNDERS CLAIMS "PHOTOMOSAIC" SCALE: 1:10,000 (approx.)

SAUNDERS 1

SAUNDERS 2

BL 50+00 E

L 14+00 S

L 16+00 S

L 18+00 S

L 20+00 S

L 22+00 S

L 24+00 S

L 26+00 S

SAUNDERS 3

TL 47+00 E

L 31+00 S

L 32+00 S

L 33+00 S

L 34+00 S

L 35+00 S

L 36+00 S

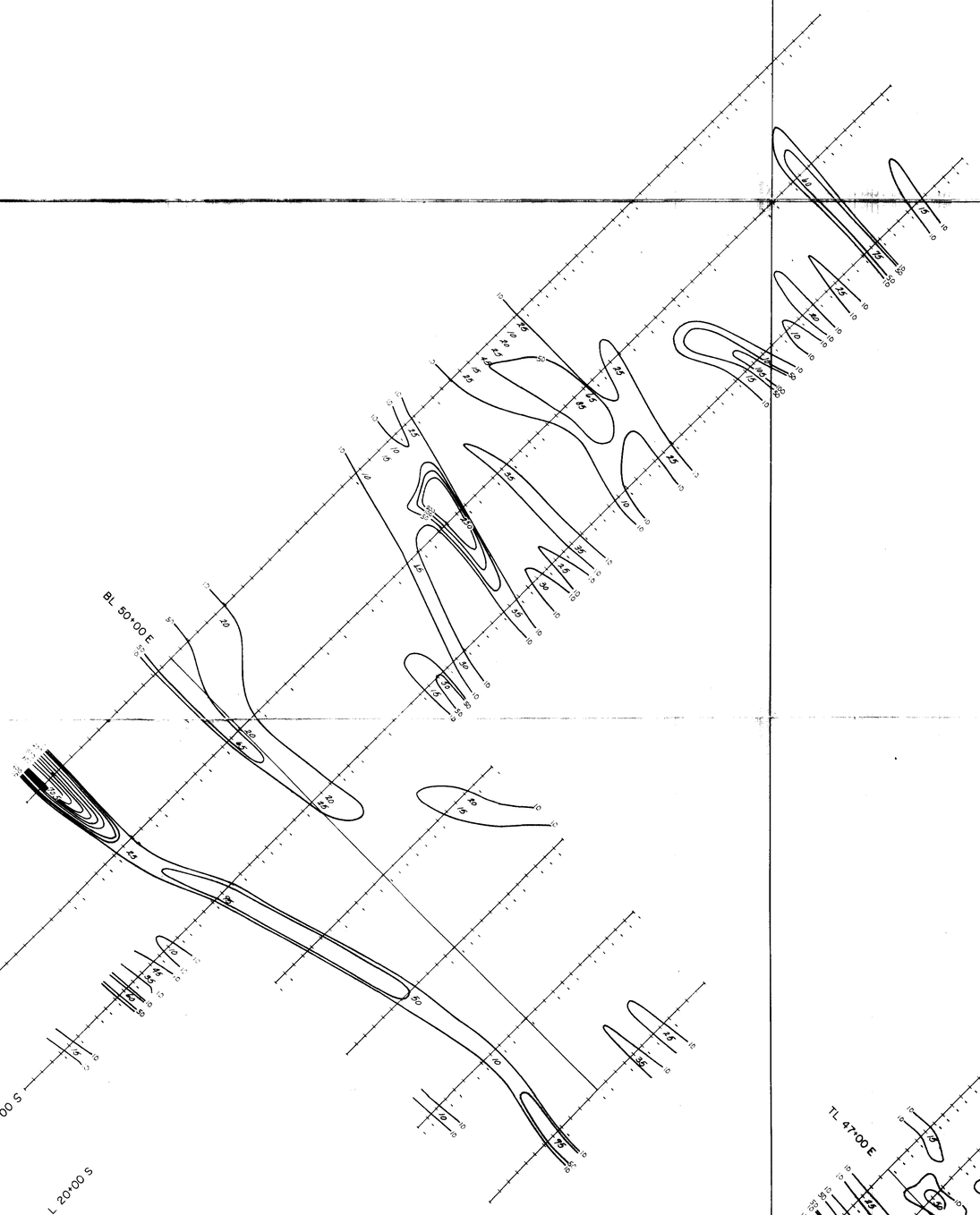
SAUNDERS 4

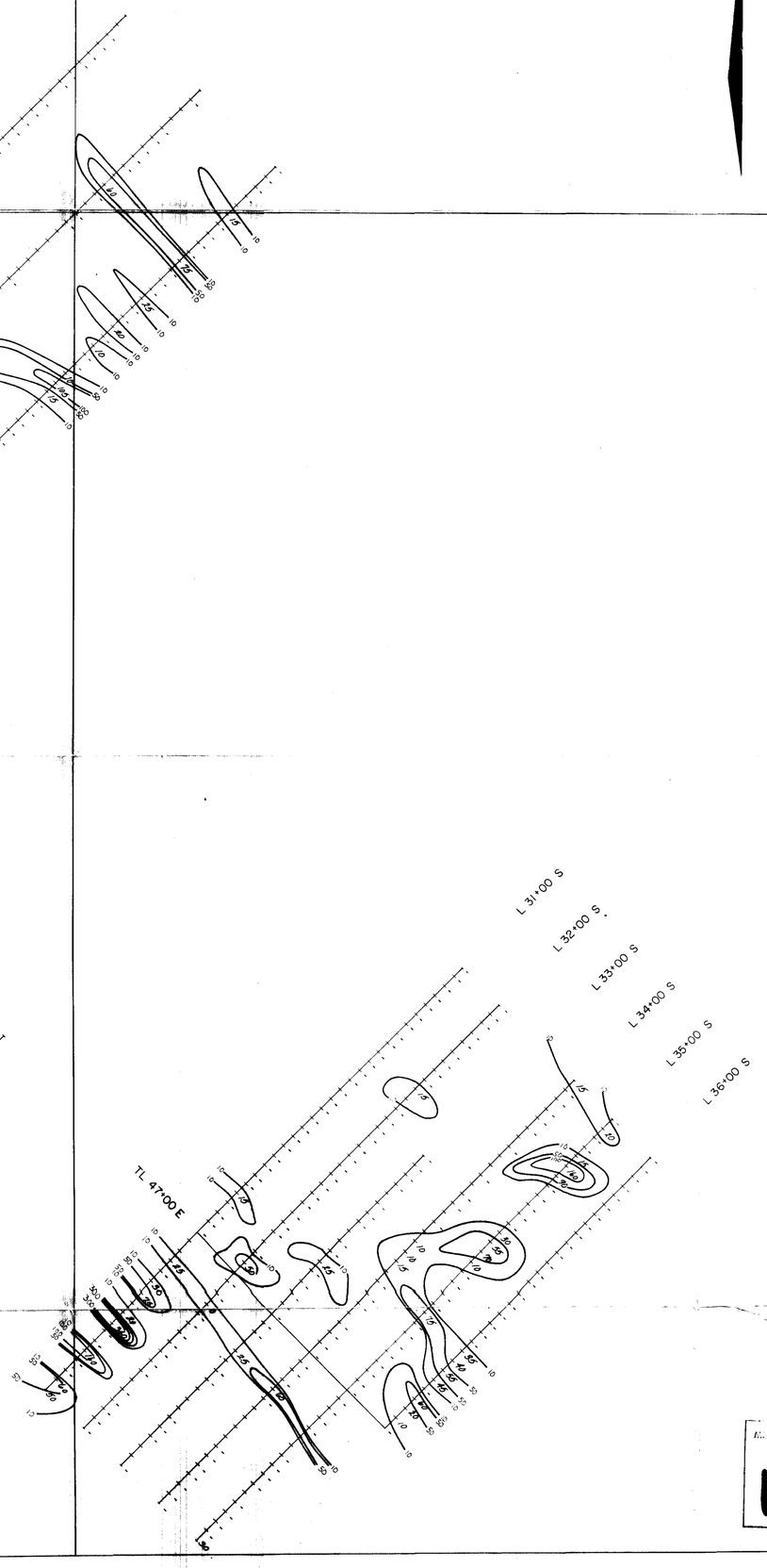
0.4 ppm Threshold
1.0 ppm Contour Interval

GOLDEN RULE RESOURCES LTD.	
CHAPPELLE PROJECT	
MAP 5 - Ag in Soils (ppm)	SAUNDERS CLAIMS
PROJECT GR-BC-7	MARCH, 1982
SCALE 1:5,000	0 50 100 150 200 250 METRES
TAIGA CONSULTANTS LTD.	

SAUNDERS 1

SAUNDERS 2





SAUNDERS 3

SAUNDERS 4

10 ppm Contour Interval
50 ppm Contour Interval
100 ppm Contour Interval

GOLDEN RULE RESOURCES LTD.	
CHAPPELLE PROJECT	
MAP 4 - Au in Soils (ppb)	SAUNDERS CLAIMS
PROJECT GR-BC-7	MARCH, 1982
SCALE 1:5,000	0 50 100 150 200 250 METRES
TAIGA CONSULTANTS LTD.	

SAUNDERS 1

SAUNDERS 2

SAUNDERS 3

SAUNDERS 4

BL 50E

L 16S

L 18S

L 20S

L 22S

L 24S

L 26S

TL 47E

L 31S

L 32S

L 33S

L 34S

L 35S

L 36S

BACANA CAMP

GOLDEN RULE RESOURCES LTD.	
CHAPPELLE PROJECT	
MAP 1 - GEOLOGY	SAUNDERS CLAIMS
PROJECT GR-BC-7	March, 1982
SCALE 1:10,000	0 100 200 300 400 500 METRES
TAIGA CONSULTANTS LTD.	