010

REPORT ON GEOPHYSICAL SURVEYS

SNAKE BAY PROPERTY, TWEEDSMUIR TWP.

52F/5

KALROCK DEVELOPMENTS LIMITED

Thunder Bay, Ontario
September 1984.

Jūratė Lukošius-Sanders
Geologist.

TABLE OF CONTENTS

SUMMARY

Kalrock Developments Ltd. holds a group of sixteen unpatented mining claims in Tweedsmuir Township, Ontario. A gold occurrence known as the Poirier occurrence is located on this ground. The mineralized zone measures at least 10 by 2,000 feet, and sixteen trenches have been reported. A magnetometer survey and MaxMin survey were performed in order to locate conductive zones and to aid in the definition of contacts and geological structures. Prospecting, sampling and mapping are strongly recommended.

INTRODUCTION

Kalrock Developments Limited of Toronto holds a group of 16 unpatented mining claims in Tweedsmuir Township, Kenora Mining Division, Ontario. The claims were staked in February of 1983. This ground was picked up primarily due to the presence of the gold occurrence on it, and the proximity of many interesting prospects, such as the Bag Lake occurrence. A major staking rush throughout this Kenora-Fort Frances region prompted acquisition of this ground.

The purpose of this report is to present new geophysical information on this property. Both MaxMin and magnetometer surveys were performed, and results are being submitted by G.L. Mealey, operator. The surveys were conducted from April 2 to April 17, 1984. The entire area of all sixteen claims was surveyed, including sections over water.

LOCATION AND ACCESS

The Snake Bay property is situated in Tweedsmuir Township, District of Kenora, Kenora Mining Division. The claim block straddles Highway 71, just southeast of Snake Bay (Lake of the Woods). The highway divides the property through the centre, in a north-south direction, affording easy access directly off the highway. The nearest major town is Kenora, approximately 60 kilometres to the northwest.

CLAIM STATUS

Sixteen contiguous unpatented mining claims have been staked over the area. They are shown in Figure 1, and on claim map no.M2023, Tweedsmuir Township. Their numbers are : 685204-685211 and 685156-685163 inclusive. The property is wholly owned by Kalrock Developments Limited, Suite 321,3701 Chesswood Drive, Downsview, Ontario,M3J 2P6.

GEOLOGY

The O.G.S. Preliminary Map no.P731 presents the general geology of most of the property. The western limits of the claim group were not covered by this geological survey.

A geological sketch has been compiled in Figure 2. Much of the claim block is underlain by mafic metavolcanics. The government describes them as basalts and coarse basalts, which may in part be intrusive. Just to the north of the ground, and predominating over the eastern half of the property are amphibolites. Once again, both extrusive and intrusive phases have been defined, but are considered to be genetically related. One dike of quartz porphyry has been mapped, cutting the basalts. Structural information is lacking for this area of the O.G.S. map, although the foliation at one point was observed as northwest-trending and vertical. In the marginal notes, the authors contend that within the mafic metavolcanics structures such as faults are difficult to establish.Although

no faults or lineaments are depicted over the property, the contorted plan of the amphibolites suggests the presence of faults.

At the Poirier occurrence, the preliminary map notes the presence of carbonate. Most likely this is in reference to gangue material, or possibly alteration of host rocks. It does not appear to refer to a unit of carbonate rocks. There is also an indication that a trench was found at the site. Throughout this region the typical gold occurrence consists of a quartz vein within sheared or fractured mafic to intermediate volcanics or gabbros. On occasion, the hosts to mineralization are porphyry dikes. At the Poirier occurrence, the host rock is basalt.

PREVIOUS WORK

The only record of previous work on this ground comes from the O.G.S. report : Gold Deposits of the Kenora-Fort Frances Area. The gold occurrence on the Kalrock property is refered to as the Poirier occurrence. The description reads :" Mineralized zone 10 ft. to 18 ft. wide by 2,000 ft. long. Tr.(trenches) at 100 ft. intervals for 1,600 ft. Sampling gave scattered low values." The preliminary map P731 indicates a trench south of the occurrence. There is no mention of the Poirier site in the marginal notes.

INSTRUMENTATION AND SURVEY METHODS

A grid was cut and picketed over the entire area of the claim group. Picket lines were spaced 400 feet apart and stations along these lines were placed every 50 feet. The baseline is 6,000 feet long and trends 360° astronomic. It is perpendicular to the picket lines. Altogether 17.79 miles of line were cut and 1878 pickets were erected.

The Apex MaxMin II EM system was utilized to perform the MaxMin survey. Readings at two frequencies were taken at every 100 foot picket. The magnetometer survey was conducted with a McPhar M700 Fluxgate Magnetometer. Readings were taken at each 50 foot station.

MAXMIN SURVEY

The Apex MaxMin II EM unit was employed, in the horizontal loop mode. The two frequencies read were 444 Hz and 1777 Hz. The coil separation was 400 feet.

MAGNETOMETER SURVEY

A McPhar M700 vertical field fluxgate magnetometer was employed for this survey. It has a sensitivity of 5 gammas. Diurnal variations were compensated for by using each grid line/base line intersection as an arbitrary base station. These were read morning and evening as well as each time the operator crossed the baseline during the survey.

SURVEY RESULTS

The magnetometer results are presented in Map 1 at the end of this report. In general, responses over the property were fairly flat with few anomalies. The trend of the isomagnetic contours is approximately north-south. At the south-central portion of the grid is a cluster of positive anomalies, extending over 4 grid lines. From L 16+00S,17E to L 4+00S,19E there are two positive anomalies in line with one another. In the southwest portion of the grid, centred over L12+00S, 19W, is a strong negative anomaly with a weak high. The strongest magnetic anomaly is a one line high at L24+00N, 8W. Its maximum value is 12,400 gammas. The lowest value on the grid is -2325 gammas, giving a total magnetic relief of 14,725 gammas.

The MaxMin survey results are presented in Maps 2 and 3 at the end of this report. Evidently there are no coincident magnetometer and MaxMin anomalies. At the western edge of the property, from L4N, 29W to L12N, 26W there is a 020° trending anomaly "A". At L4S, 23W there is a weak anomaly "B" over one line. An anomaly "C" of a different nature occurs over six lines from L4N,10W to L24N,21W, trending approximately 320° astronomic. In the southeast corner of the grid there is an anomaly "D", similar to "C". It trends approximately 325° astronomic, from L 24S,18E to L16S, 14E. A fifth anomaly "E" trends virtually north-south from L8S, 3E to L4S, 2E. A one line anomaly "F" is present

at L8N, 15E. The final anomaly of note if "G", trending approwimately 300° astronomic, from L20N, 14E to L28N,4E.

DISCUSSION OF GEOPHYSICAL RESULTS

The magnetometer anomaly at the southcentral margin of the property is centred over a swamp of approximately the same dimensions, and appears to be a direct response to it. The anomaly towards the eastern boundary displays a sharp susceptibility contrast, such as would be present across a fault or a contact. The anomaly in the southwest is very narrow and also shows a marked susceptibility contrast. Elsewhere across the property the low magnetic relief suggests little susceptibility contrast throughout the bedrock. There is no magnetic anomaly in proximity to the gold showing.

Of the MaxMin anomalies, both "C" and "D" reflect very shallow, wide zones of low conductivity, indicative of overburden response. The weak anomaly at "B" suggests the presence of a narrow conductor. The anomaly at "A" portrays a metallic conductor, stronger to the north, but narrower and less conductive to the south. Anomaly "F" suggests a deep, very narrow conductor, whereas "G" indicates a conductor of moderate width. Anomaly "E", proximal to the Poirier occurrence, indicates a very narrow, deep metallic conductor.

DISCUSSION OF GEOLOGY AND MINERALIZATION

Not much is known about the style of mineralization at the Poirier occurrence. The country rock appears to be basalt, and the mineralized zone is 10 to 18 feet wide and 2,000 feet long. The presence of carbonate was noted at the site. If the style of mineralization is typical of the region, the zone may consist of veins or a stockwork, in sheared or fractured metavolcanics. The gold values would be found in the veins. There is no reason for this occurrence to be typical, so there is a possibility of finding an extensive carbonate alteration zone through the basalts, with or without veining. These appear to be the two main scenarios.

INTERPRETATION

The lack of geological information for this property makes interpretation of the results difficult. At the Poirier occurrence, the geophysics suggests the presence of a north-trending fault or contact zone with conductive metals along the interface.

The eastern magnetometer anomaly is situated in an area of rapid transition from basalts to amphibolites, and thus may also be reflecting a contact or a fault. Other isolated magnetic highs may be reflections of narrow, restricted mafic intrusive lenses within the basalts.

RECOMMENDATIONS

Geological mapping of the entire claim block is recommended. The Poirier gold occurrence and trenched areas should be carefully sampled and mapped. Once the controls for mineralization have been established, similar structures and geological environments should be prospected. A grid geochemical survey may then be warranted.

Juvate Lukosius-Sanders

QUALIFICATIONS

I, the undersigned, Jūratė Lukošius-Sanders, residing at 149 Duke Street, Thunder Bay, Ontario, graduated from the University of Toronto in 1982, with a Bachelor of Science honours degree in the Geology Specialist program.

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

I am an associate member of the Geological Association of Canada, and a member of the Prospectors and Developers Association.

I do not hold, nor do I expect to receive an interest of any kind in these claims held by Kalrock Developments Limited, nor in any other mining claims they may have.

Jūratė Lukošius-Sanders

Jūratė Lukošius-Sanders,
Geologist.

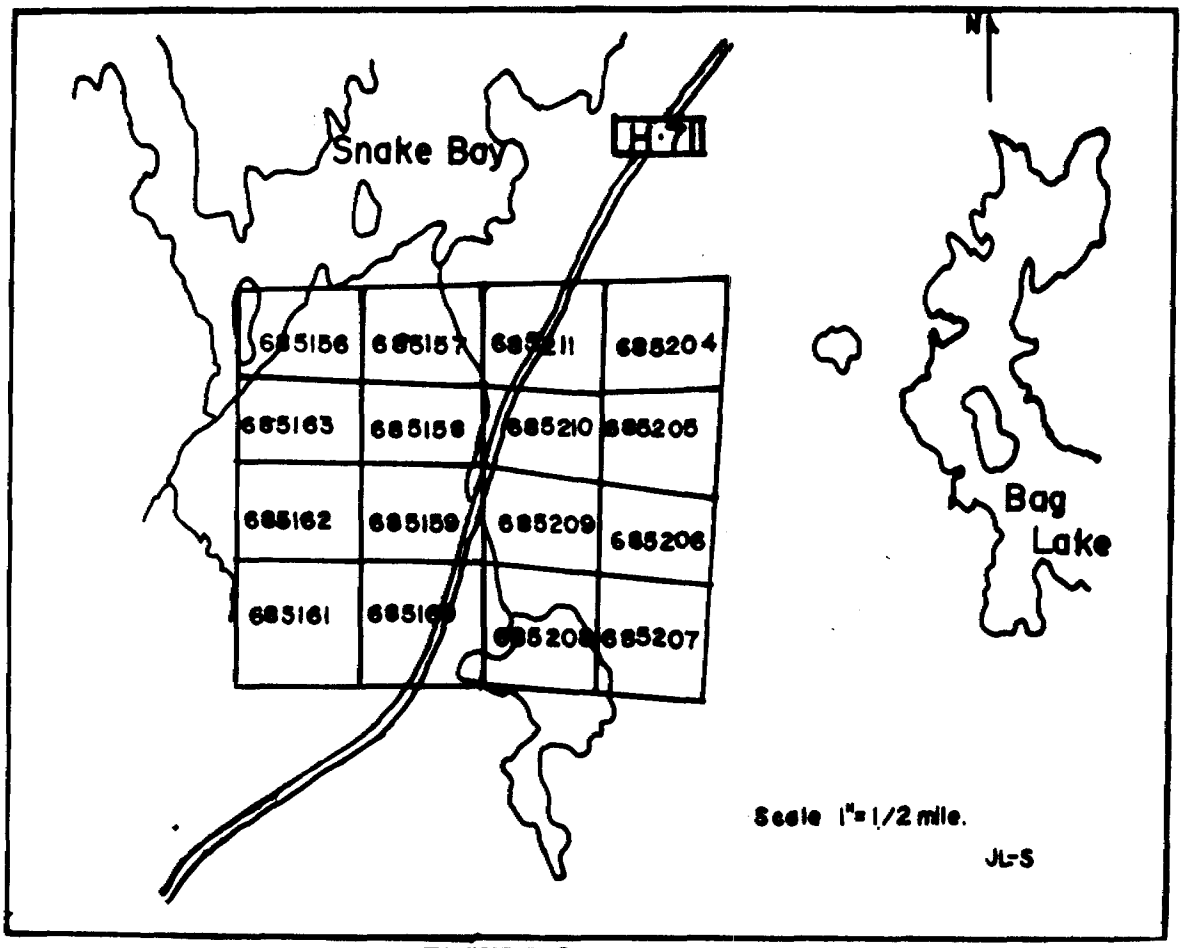


FIGURE 1

LOCATION AND CLAIM MAP

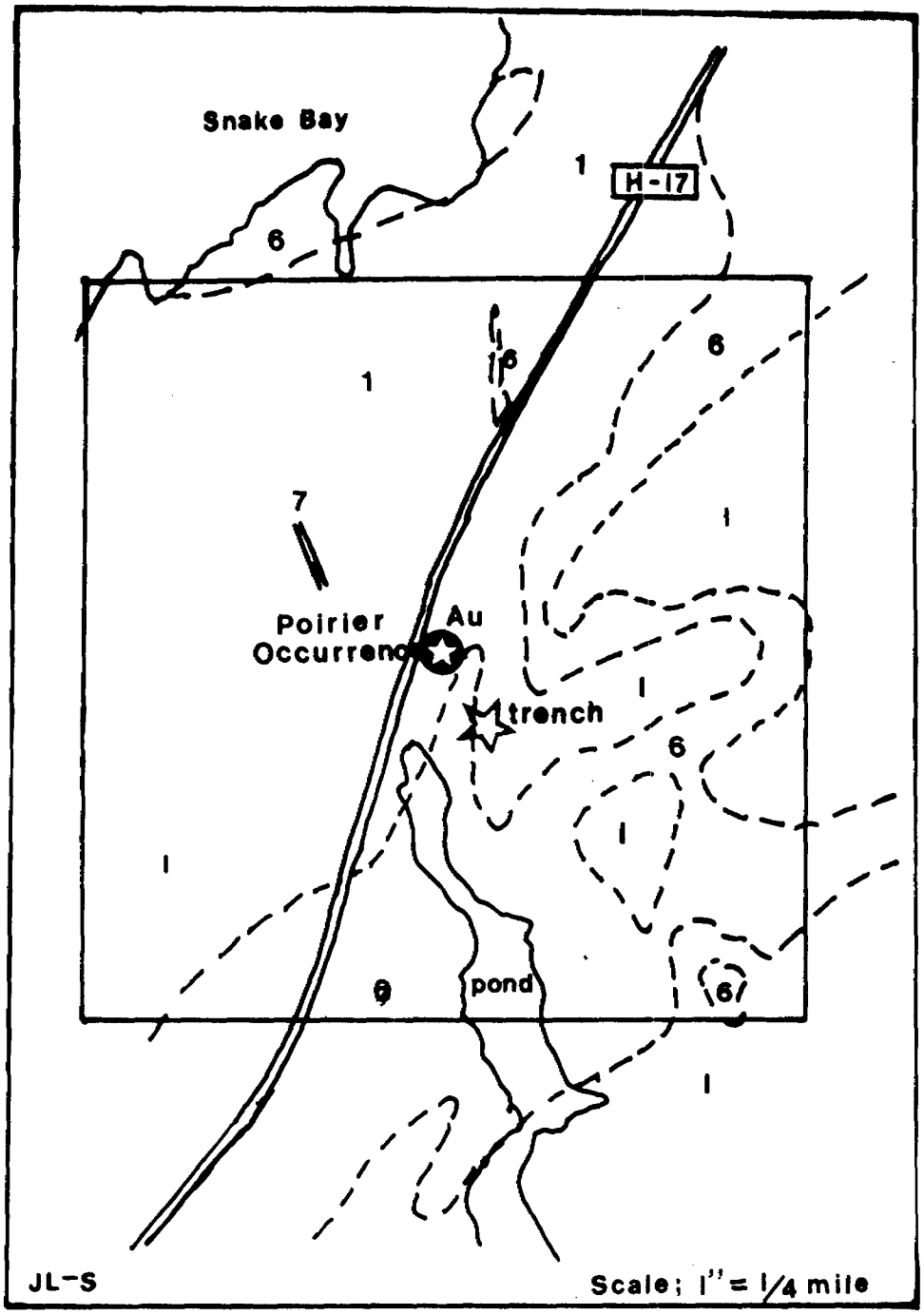


FIGURE TWO

GENERAL GEOLOGY MAP

Adapted from O.G.S. map no. P731.

Legend

1 Mafic metavolcanics
6 Mafic intrusive rocks
7 Felsic intrusive rocks

SECTION 1

INTRODUCTION

The M700 Magnetometer is a vertical field magnetometer employing the flux gate principle. The instrument is self-levelling, and a self-cancelling circuit permits rapid, accurate measurement of the earth's magnetic field from a meter, without adjustments or calculations.

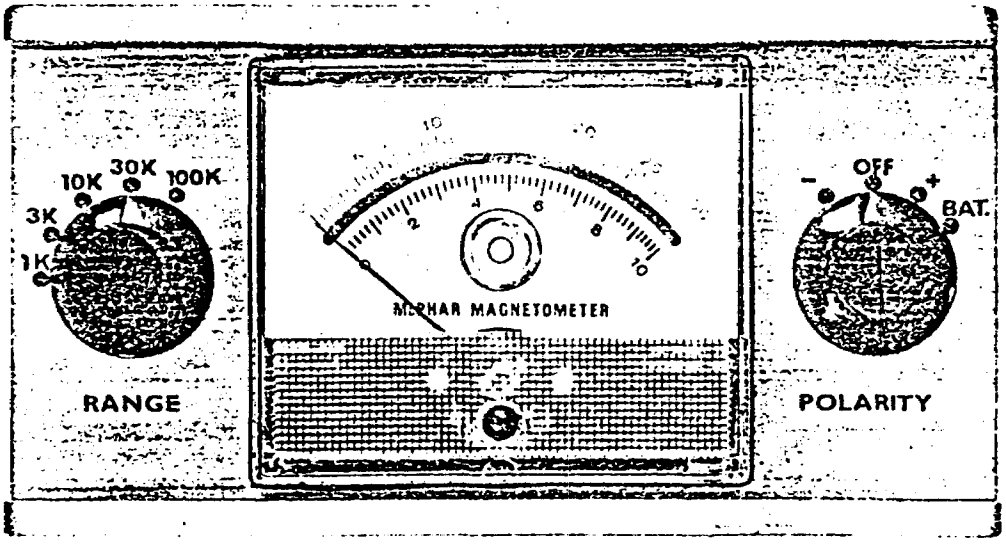
The self-levelling feature of this electronic magnetometer eliminates the need for bulky tripods and time consuming fine levelling procedures. Further, the instrument is practically insensitive to orientation. Errors are as low as 25 gammas for 180 degree rotation in a 15,000 gamma horizontal field.

Since the instrument can be adjusted electronically to measure vertical fields from plus 100,000 gammas to minus 100,000 gammas, there is no need for auxiliary magnets or complicated latitude adjustments.

The operation of the M700 is very simple. The reading on the meter is set to zero at a chosen base station by operating the latitude adjustment control. This can be done to an accuracy of 5 gammas. Next, as successive stations are occupied, the instrument is held roughly level, and the increase or decrease in the vertical component of the earth's magnetic field is read directly from the meter. Five scale ranges are available and on the most sensitive range the accuracy is 5 gammas.

The M700 Magnetometer is the result of extensive engineering based on rugged field requirements. It incorporates the latest advances in solid state components and has built in temperature stability. The instrument provides rapid, accurate, repeatable measurements.

An accessory socket broadens the applications of the M700. Optional accessories available from McPhar permit the same console to be used, for example, as a base station monitor or an airborne recording magnetometer.



SECTION 2

SPECIFICATIONS

2–1 MAXIMUM SENSITIVITY

20 gammas per scale division on 1,000 gamma range.
Readability is 1/4 scale division or 5 gammas.

2–2 MAXIMUM MEASUREMENT

Zero to ± 100,000 gammas in five ranges.

Range Switch Position	Full Scale In Gammas	Gammas Per Scale Division
1K	1,000	20 black scale
3K	3,000	50 red scale
10K	10,000	200 black scale
30K	30,000	500 red scale
100K	100,000	2,000 black scale

2–3 MEASUREMENT POLARITY

The above ranges can be reversed in polarity as a simple function of the Polarity switch.

2–4 LATITUDE ADJUSTMENT

The latitude adjustment permits cancelling the earth's field up to a magnitude of ± 100,000 gammas. The adjustment control is a ten revolution precision potentiometer located under the sliding side panel. A positive type locking lever on the control removes the hazard of accidentally dislodging the setting.

2–5 SELF-LEVELLING SENSING HEAD

The unique self-levelling sensing head of this magnetometer is inserted as a plug-in unit. It is easily detached so that the same magnetometer can be used with other types of sensing heads such as the airborne gyro stabilized head etc.
It is recommended that the instrument be re-calibrated at our servicing depot, each time the sensing head is changed.

2–6 ORIENTATION ERROR

The orientation error is set at the factory to 25 gammas or less in the presence of a 15,000 gamma horizontal field. It is possible to adjust the orientation error and the procedure is explained in the section 9–2 under Maintenance.

2–7 TEMPERATURE STABILITY

Over the temperature range of –35 to +55 degrees centigrade the temperature drift is limited to less than 50 gammas. See section 4–6 on Minimizing Temperature Drift.

2–8 BATTERY SUPPLY

The M700 Magnetometer is powered by two internally mounted 9 volt batteries. Any pair of the following batteries may be used.

Eveready No. 276
Mallory No. M1603
Burgess No. D6
R. C. A. No. VS306

For sub-zero operation the batteries may be transferred to an external battery case and carried under clothing to keep them from freezing. **See section 6, Operation with External Batteries.**

Two types of external battery cases are available **see accessory list, section 11.** One type is for the above batteries. Another type of case will accommodate the equivalent in flashlight cells for use in countries where the normal batteries are difficult to obtain.

2–9 ACCESSORY RECEPTACLE

A Cannon receptacle is located on the side of the instrument under the sliding panel. This increases the versatility of the instrument so it can be used in a number of ways in addition to its normal vertical field ground magnetometer function. See section 8, under Extended Applications and section 11, under Accessories.

2–10 ACCESSORY & LATITUDE SWITCH

This is a double function switch. The first function is to permit operation north or south of the equator by simply changing one step

2–10 ACCESSORY & LATITUDE SWITCH (Cont'd.)

on the switch. By switching on additional step, the accessory socket is brought into connection and accessories can be applied to the instrument.

2–11 WEIGHT

The weight of the magnetometer is distributed as follows:–

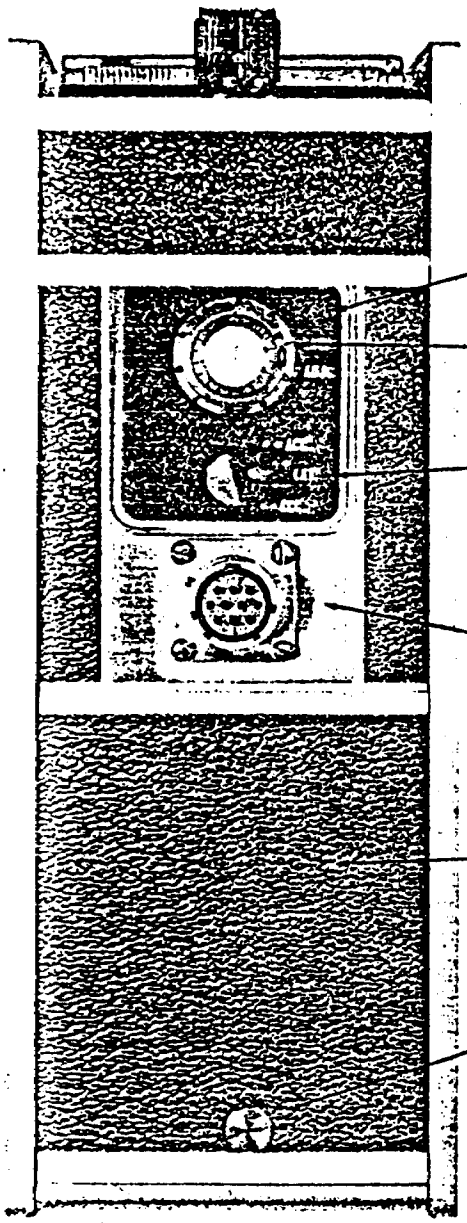
Console:	6 pounds
Batteries:	1–1/4 pounds **2 type Eveready 276**
Carrying Case:	2 pounds

2–12 MAGNETOMETER DIMENSIONS

Width:	6–7/8 inches
Depth:	3–3/4 inches
Height:	9–5/8 inches

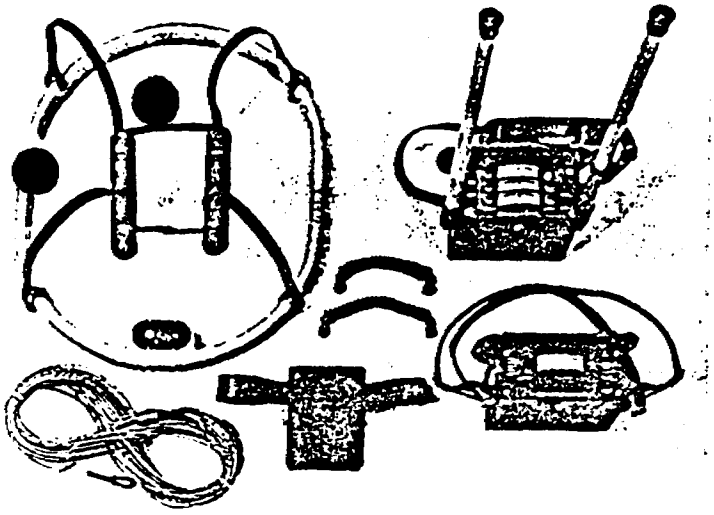
2–13 TRANSIT CASE

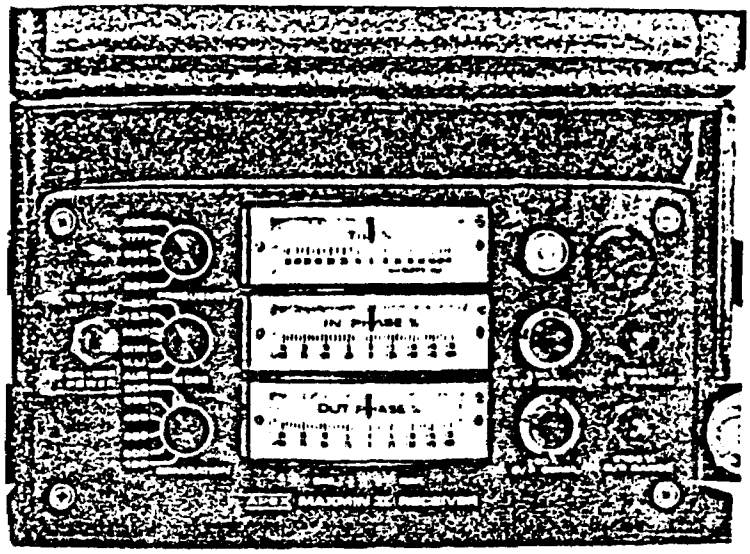
The magnetometer is shipped in a foam fitted transit case. The case is designed to accommodate the magnetometer in its leather case, spare batteries, external battery cable and battery case and instruction manual.



APEX MAXMIN II PORTABLE EM

- Five frequencies: 222, 444, 888, 1777 and 3555 Hz.
- Maximum coupled (horizontal-loop) operation with reference cable.
- Minimum coupled operation with reference cable.
- Vertical-loop operation without reference cable.
- Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.
- Reliable data from depths of up to 180 m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.





SPECIFICATIONS:

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation:
- MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.
- MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
- V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF).
Coil separations in V.L. mode not restricted to fixed values.

Parameters Read:
- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:
- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

Scale Ranges:
- In-Phase: ±20%, ±100% by push-button switch.
- Quadrature: ±20%, ±100% by push-button switch.
- Tilt: ±75% slope.
- Null (V.L.): Sensitivity adjustable by separation switch.

Repeatability: In-Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.

Repeatability: ±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

Transmitter Output:
- 222Hz : 220 Atm²
- 444Hz : 200 Atm²
- 888Hz : 120 Atm²
- 1777Hz : 60 Atm²
- 3555Hz : 30 Atm²

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 6Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6kg (13 lbs.)

Transmitter Weight: 13kg (29 lbs.)

Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612 *Cables:* APEXPARA TORONTO Telex: 06-966773 NORDVIK TOR

FWM

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#155/84

Instructions - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

52F05SE0006 2.7170 TWEEDSMUIR

900

Type of Survey(s)
Geophysical

Claim Holder(s)
Malrock Developments Ltd., T1351

Address
Suite 321, 3701 Chesswood Drive, Downsview, Ont. M3J. 2P6

Survey Company
G. L. Mealey

Date of Survey (from & to)
2 Day 4 Mo. 84 Yr. 17 Day 4 Mo. 84 Yr.

Total Miles of line Cut
17.579

Name and Address of Author (of Geo Technical report)
G. L. Mealey, RR #1, Mining Rd., Murillo, Ont. P0T 2G0

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	40
	Geophysical - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	685156				
	685157				
	685158				
	685159				
	685160				
	685161				
	685162				
	685163				
	685204				
	685205				
	685206				
	685207				
	685208				
	685209				
	685210				
	685211				

RECEIVED
JUL 27 1984
MINING LANDS SECTION

File K685156

KENORA Mining Div.
RECEIVED
JUL 13 1984
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work: 16

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	July 13/84	M. G. Wegrinec
	Date Approved as Recorded: 84.11.23	Branch Director

Date: July 9/84

Recorded Holder or Agent (Signature)

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
G. L. Mealey, RR #1, Mining Rd., Murillo, Ont., P0T 2G0

Date Certified: July 9/84

Certified by (Signature)

1582 (81/9)

FWM

Dept 11R #155/84

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.

52F05SE0006 2.7170 TWEEDSMUIR

900

Type of Survey(s)
Geophysical

Claim Holder(s)
Kalrock Developments Ltd., T1351

Address
Suite 321, 3701 Chesswood Drive, Downsview, Ont. M3J. 2P6

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
G. L. Mealey	2 Day 4 Mo. 84 Yr. 17 Day 4 Mo. 84 Yr.	17.579

Name and Address of Author (of Geo-Technical report)
G. L. Mealey, RR #1, Mining Rd., Murillo, Ont. P0T 2G0

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	40
	- Magnetometer	20
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	685156 ✓				
	685157				
	685158				
	685159				
	685160				
	685161				
	685162				
	685163				
	685204 ✓				
	685205				
	685206				
	685207				
	685208				
	685209				
	685210				
	685211				

RECEIVED
JUL 27 1984
MINING LANDS SECTION

File K 685156

KENORA MINING DIV.
RECEIVED
JUL 13 1984
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work. 16

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	July 13/84	M. G. Wegner
	Date Approved as Recorded	Branch Director
	84.11.23	

Date	Recorded Holder or Agent (Signature)
July 9/84	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
G. L. Mealey, RR #1, Mining Rd.,
Murillo, Ont., P0T 2G0

Date Certified	Certified by (Signature)
July 9/84	

1362 (81/9)

Mining Lands Section

File No 2.7170

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

lgd. L.D.

S. Hurst

Signature of Assessor

84-11-22

Date

REGISTERED

November 16, 1984 File: 2.7170

Kalrock Developments Ltd
Suite 321
3701 Chesswood Drive
Downsview, Ontario
M3J 2P6

Dear Sirs:

RE: Geophysical (Magnetometer & Electromagnetic)
Survey submitted on Mining Claims K 685156
et al in the Township of Tweedsmuir

Enclosed is a copy of our letter dated October 10, 1984 requesting additional information for the above-mentioned survey.

Unless you can provide the required data by November 26, 1984 the mining recorder will be directed to cancel the electromagnetic work credits recorded on July 13, 1984.

For further information, please contact Mr. Ray 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
Phone:(416)965-4888

S. Hurst:mc

cc: Mining Recorder
Kenora, Ontario

cc: G.L. Mealey
R.R.#1
Mining Road
Murillo, Ontario
P0T 2G0

Encl.

Mr. Lewis called 84-11-14 Allow some time

October 10, 1984 File: 2.7170

Kalrock Developments Ltd
Suite 321
3701 Chesswood Drive
Downsview, Ontario
M3J 2P6

Dear Sir:

RE: Geophysical (Magnetometer & Electromagnetic) Survey submitted on Mining Claims K 685156 et al in Tweedsmuir Township

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Returned herein are the Electromagnetic plans (in duplicate) for the above-described survey. On each plan, please plot the raw data readings at each station, and return the plans to this office, quoting file 2.7170.

For further information, please contact Susan Hurst at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

S. Hurst:mc

cc: Mining Recorder
Kenora, Ontario

Encl.

cc: G.L. Mealey
R.R.#1
Mining Rd
Murillo, Ontario
P0T 2G0

1984 09 24

Your File: 155
Our File: 2.7170

Mining Recorder
Ministry of Natural Resources
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Madam:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims K 685156 et al in the Township of Tweedsmuir.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

A. Barr:mc

cc: Kalrock Developments Ltd
Suite 321
3701 Chesswood Drive
Downsview, Ontario
M3J 2P6

cc: G.L. Mealey
R.R.#1 Mining Road
Murillo, Ontario
P0T 2G0

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geophysical: Magnetic & Max Min II
Township or Area Tweedsmuir
Claim Holder(s) Kalrock Developments Ltd.

Survey Company G.L. Medley
Author of Report Jurate Lukosius-Sanders
Address of Author 149 Duke St. Thunder Bay P7A 5S9
Covering Dates of Survey 2/4/84 to 17/4/84
(linecutting to office)
Total Miles of Line Cut [redacted] 17.8

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim.
Geophysical	
–Electromagnetic	40
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Sept. 3, 1984 SIGNATURE: Jurate Lukosius-Sanders
Author of Report or Agent

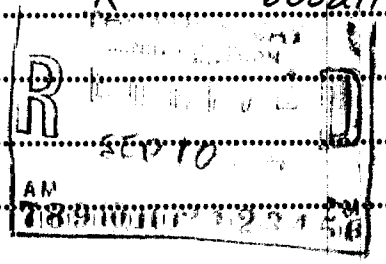
Res. Geol. _____ Qualifications 25777

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
K	685156
K	685157
K	685158
K	685159
K	685160
K	685161
K	685162
K	685163
K	685204
K	685205
K	685206
K	685207
K	685208
K	685209
K	685210
K	685211



TOTAL CLAIMS 16

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations 1878 Number of Readings 1878, (939 for EM)

Station interval mag: 50', EM: 100' Line spacing 400'

Profile scale EM: 1" = 20°

Contour interval mag: 200γ < 1000γ, 500γ > 1000γ

MAGNETIC

Instrument McPhar M700 vertical field fluxgate magnetometer

Accuracy – Scale constant 5 gammas

Diurnal correction method loop method

Base Station check-in interval (hours) one hour

Base Station location and value base line/grid line intersections, variable values.

ELECTROMAGNETIC

Instrument Apex MaxMin II EM unit

Coil configuration horizontal

Coil separation 400 feet

Accuracy 0.25% – 0.50%

Method: ☐ Fixed transmitter ☐ Shoot back ☑ In line ☐ Parallel line

Frequency 444 Hz, 1777 Hz
(specify V.L.F. station)

Parameters measured In-phase and quadrature components of secondary field.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION
RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)
Extraction Method _____
Analytical Method _____
Reagents Used _____

Field Laboratory Analysis
No. (_____ tests)
Extraction Method _____
Analytical Method _____
Reagents Used _____

Commercial Laboratory (_____ tests)
Name of Laboratory _____
Extraction Method _____
Analytical Method _____
Reagents Used _____

General _____

685156	✓	✓		685201	✓	✓					
57	✓	✓		5	✓	✓					
58	✓	✓		6	✓	✓					
59	✓	✓		7	✓	✓		3			
60	✓	✓		8	✓	✓					
61	✓	✓		9	✓	✓					
62	✓	✓		10	✓	✓					
63	✓	✓		11	✓	✓					

L 28+00 S | L 24+00 S | L 20+00 S | L 16+00 S | L 12+00 S | L 8+00 S | L 4+00 S | L 0+00 | L 4+00 N | L 8+00 N | L 12+00 N | L 16+00 N | L 20+00 N | L 24+00 N

36+00 W

32+00 W

28+00 W

24+00 W

20+00 W

16+00 W

12+00 W

8+00 W

4+00 W

B.L. 0+00

4+00 E

8+00 E

12+00 E

16+00 E

20+00 E

24+00 E

28+00 E

K 685161 | K 685162 | K 685163 | K 685156

K 685160 | K 685159 | K 685158 | K 685157

K 685208 | K 685209 | K 685210 | K 685211

K 685207 | K 685206 | K 685205 | K 685204

MAGNETOMETER SURVEY

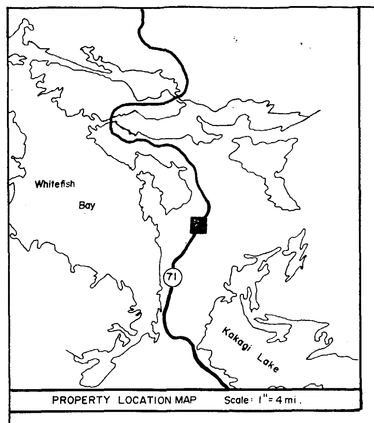
INSTRUMENT : McPHAR M700 FLUXGATE MAG.

SENSITIVITY : ± 5 gammas

BASE STATION : BASE LINE – PICKET LINE INTERCEPTS

OPERATOR : G.L. MEALEY

CONTOUR INTERVAL : < 1000 at 200 ∝ ; > 1000 at 500 ∝



PROPERTY LOCATION MAP Scale: 1"= 4 mi.

K685161
K685160
K685162
K685159
K685163
K685158
K685157
K685156
K685208
K685207
K685209
K685206
K685210
K685205
K685211
K685204

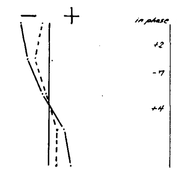
28+00 W
24+00 W
20+00 W
16+00 W
12+00 W
8+00 W
4+00 W
0+00
4+00 E
8+00 E
12+00 E
16+00 E
20+00 E
24+00 E
28+00 E

28 S 24 S 20 S 16 S 12 S 8 S 4 S 0 4 N 8 N 12 N 16 N 20 N 24 N 28 N

KALROCK
DEVELOPMENTS
LTD.

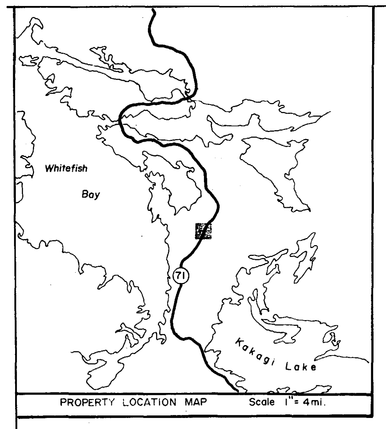
TWEEDSMUIR TWP.
PROPERTY

GEOPHYSICAL SURVEY
1"=200' 1" 20%
IN PHASE
OUT OF PHASE
INSTRUMENT: MAX-MIN II
FREQUENCY: 444 hz.
OPERATOR: J. DYCK
HELPER: G. WRIGHT



2.7170

G.L. Mealey 1984 - August



K695/16

K695/15

K695/14

K695/13

K695/12

K695/11

K695/10

K695/9

K695/8

K695/7

K695/6

K695/5

K695/4

K695/3

K695/2

K695/1

- 28+00 W
- 24+00 W
- 20+00 W
- 16+00 W
- 12+00 W
- 8+00 W
- 4 00 W
- 0+00
- 4+00 E
- 8+00 E
- 12+00 E
- 16+00 E
- 20+00 E
- 24+00 E
- 28+00 E

28 S 24 S 20 S 16 S 12 S 8 S 4 S 0 4 N 8 N 12 N 16 N 20 N 24 N 28 N

KALROCK
DEVELOPMENTS
LTD.

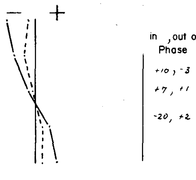
TWEEDSMUIR TWP.
PROPERTY

GEOPHYSICAL SURVEY
1"=200'

IN PHASE ———

OUT OF PHASE - - - - - -

INSTRUMENT: MAX-MIN II
FREQUENCY: 1777 hz.
OPERATOR: J. DYCK
HELPER: G. WRIGHT

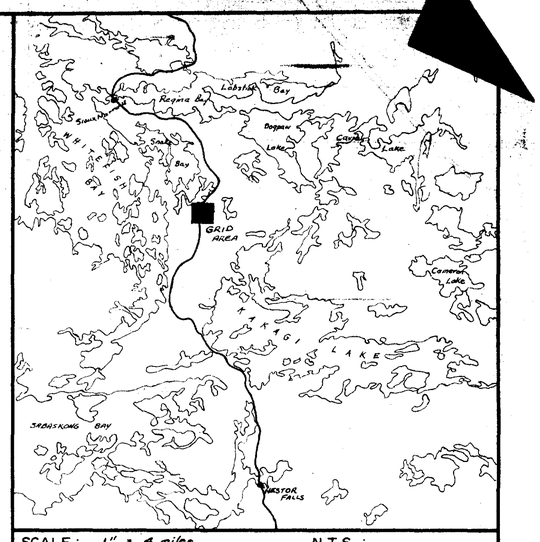


27170

S.L. Mosley, August, 1984.

L 24+00 S | L 20+00 S | L 16+00 S | L 12+00 S | L 8+00 S | L 4+00 S | L 0+00 | L 4+00 N | L 8+00 N | L 12+00 N | L 16+00 N | L 20+00 N | L 24+00 N

K685161 K685162 K685163 K685156 K685160 K685159 K685158 K685157 K685208 K685209 K685210 K685211 K685207 K685206 K685205 K685204



SCALE : 1" = 4 miles N.T.S. :

L 28+00 N

24+00 W

8+00 W

4+00 W

B.L. 0+00

4+00 E

8+00 E

12+00 E

16+00 E

20+00 E

24+00 E

28+00 E

27170

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SENSITIVITY : ± 5 gammas
BASE STATION : BASE LINE – PICKET LINE INTERCEPTS
OPERATOR : G.L. MEALEY
CONTOUR INTERVAL : < 1000 at 200 ∝ ; > 1000 at 500 ∝

KALROCK DEVELOPMENTS LTD.

SNAKE BAY PROPERTY
TWEEDSMUIR TWP., ONT.

Map 1

MAGNETOMETER SURVEY

DATE : JULY, 1984 | SCALE : 1" = 200 ft.