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MINING LANDS SECTION

AIRBORNE ELECTROMAGNETIC SURVEY

SHIELD GEOPHYSICS LIMITED

RHYOLITE LAKE AREA, ONTARIO

FILE NO: 23038 JUNE 1981

Questor Surveys Limited, 6380 Viscount Road, Mississauga, Ontario L4V 1H3

INTRODUCTION

This report contains our interpretation of the results of an airborne electromagnetic survey flown in the Rhyolite Lake Area, Ontario on May 17, 1981.

A brief description of the survey procedure is included.

The survey mileage was 102 line miles and the survey was performed by Questor Surveys Limited. The survey aircraft was a Britten Norman Trislander C-GNKW and the operating base was Timmins, Ontario.

The area outline is shown on a 1:250,000 map at the end of this report. This is part of the National Topographic Series sheet number 41P.

The following were the personnel involved with the airborne survey:--

Pilot	C. Flamand
Co-Pilot	B. Jurgens
Operator	W. Hutchinson
Engineer	W. Arbour
Crew Chief	Dan Martyn

MAP COMPILATION

The base maps are uncontrolled mosaics constructed from Ontario Department of Lands and Forests 1:16,600 photographs. These mosaics were used to produce maps at a scale of 1" = 1320' on stable transparent film from which white prints can be made.

Flight path recovery was accomplished by comparison of 35mm film with the mosaic in order to locate the fiducial points. These points are approximately 4,092 feet apart.

SURVEY PROCEDURE

Terrain clearance was maintained as close to 400 feet as possible, with the E. M. Bird at approximately 150 feet above the ground. A normal S-pattern flight path using approximately one mile turns was used. The equipment operator logged the flight details and monitored the instruments.

A line spacing of 660 feet was used.

INTERPRETATION AND RECOMMENDATIONS

There were a few INPUT conductors intercepted during the course of the airborne survey. Some of them display good responses, eq., ZONES 1 and 6. The survey area, which is located approximately 40 miles south of Timmins, Ontario, has seen a considerable amount of exploration carried out, mainly for gold. However, some base metal interest has been seen in the past as well as asbestos, the latter in ultramafic rocks on the northwestern arm of Lloyd Lake. Stairs Exploration and Mining Co. Ltd., has a gold property near the northwest corner of Midlothian Township, which at one time was a gold producer. It is believed it only lasted one year and actually is the only past producer within the survey area.

The rock types, as described in Geology Map 2187, are rhyolite-dacite, sericite schist, andesite (extreme northwest corner of Midlothian Township), Archean age arkose and conglomerate, ultramafic intrusive rocks, and younger Huronian conglomerates, quartzites, greywackes and argillites. Geology maps used for this report were MAP 2187, P. 385 and P. 386.

During the course of the survey, an attempt was made to fly the flight lines in alternate directions. This procedure aids in the interpretation of a dip of a conductor. Double peaks occur on the up-dip flight line while only one intercept usually occurs on the down-dip flight line. If more than one anomaly occurs on the down-dip flight line, then more than one conductor is suspected. Where the conductor is considered to be vertical, a small response usually precedes the larger second response. This will occur no matter what direction the flight line is flown.. The ratio in channel 2 amplitudes between the first and second anomaly is approximately 1:10. For a conductor dipping at 45^{o}, the ratio is roughly 1:1.5. The direction and amount of dip have been put on the INPUT maps where it was deemed possible.

A few comments on each of the intercepted conductors follows:--

ZONE 1

This is a long, linear trend which appears to have continuity from the east end of the survey area to the west. With the portion of the trend within Midlothian Township, there is good magnetic correlation with the conductor and referring to Geology Map 2187, an ultramafic intrusive has been mapped. It is interesting to note that the conductor in Halliday Township does not have magnetic association even though the source of the conductivity is thought to be the same throughout the entire trend. The attitude of the conductor is steeply dipping towards the south, becoming more shallow near the township line and then becoming more steeply dipping just south of Rhyolite Lake. Intercepts 10260C and 10290A may be due to conductive overburden. This certainly appears to be the source for intercepts 10150B and 10160D (outlined with a dashed line). Note the fault zone toward the extreme east end of the trend. The continuation of the conductor on the east side of the fault is actually ZONE 2. The fault is called the Mitt Lake Fault. Two areas, which may warrant further work, if there hasn't been already, are in the vicinity of intercepts 10090A and 10250B.

ZONE 2

The trend could be just a continuation of ZONE 1 which has been offset to the south. It displays good conductivity and is flanking a magnetic trend to the south. The latter is due to peridotite and serpentinite (Geology Map 2187). A near vertical dip is interpreted for the zone and is thought to be quite shallow in depth.

Intercepts 10280C, 10290A and 10310C display very weak E. M. responses and may be bedrock related. However, they should be considered low priority anomalies. The rock types in this area have been described as being rhyolite-dacite and sericite schist. Pyrite and/or graphite could be the cause. A reconnaissance survey is recommended.

ZONE 3

These two anomalies display very weak E. M. responses but they may be related to a geological contact with sericite schist to the north and rhyolite-dacite to the south. Although the anomalies are located in a lake, a bedrock source is thought to be the cause. Minor amounts of mineralization is probably the source.

ZONE 4

The conductor correlates with a known marcasite-graphite conductor traversing just to the south of the Stairs Exploration and Mining Co. Ltd., shaft. The Stairs mine (A on the map), situated on the southern limb of a syncline, produced gold and silver from 1965 to 1966. The gold-bearing quartz veins occur in two zones of intense shearing and sericitization, each 30-40 feet wide separated by about 125 feet of altered arkose and conglomerate. The quartz veins emanate from a carbonatized fault zone; and strike N.50°C. Gold is associated with chalcopyrite, galena, tetrahedrite and sphalerite. The conductor is much stronger south of the shaft area and then weakens to the west. Also, the trend is cut off at the east end by the Mitt Lake Fault.

There could be a weak trend to the north in which intercepts 10170A and 10200D are part of it. A reconnaissance survey is suggested for this area of weak conductivity. The main trend, no doubt, has been given a thorough evaluation.

ZONE 5

The target is a very small one, limited to two lines only. It would appear that the western extent is cut off by the Mitt Lake Fault while the eastern limit simply cut off at line 10240N. The rock type in the area has been described as being conglomerate. The zone displays a fair E. M. response but has no magnetic association whatsoever. Pyrite and/or graphite may be the cause.

ZONE 6

Very strong conductivity is exhibited within this zone and because of the location of the anomalies at the extreme end of the flight lines, there was no chance to get a proper E. M. cross-correlation. The rock type, as described on Geology Map 2187, is rhyolite-dacite. Reconnaissance surveys are recommended, only providing that previous work has not been carried out.

ZONE 7

This lone intercept displays a very weak E. M. response but does have a subtle magnetic trend associated with it. The weakness of the anomaly may be due to the flight line being flown at an oblique angle to the strike of the conductor. The poor response may be due to sulphides within a gabbroic complex. A reconnaissance survey is suggested but on a low priority basis only.

QUESTOR SURVEYS LIMITED

R. J. de Carle

R. J. deCarle,
Chief Geophysicist

Commercial sulphide ore bodies are rare, and those that respond to airborne survey methods usually have medium to high conductivity. Limited lateral dimensions are to be expected and many have magnetic correlation caused by magnetite or pyrrhotite. Provided that the ore bodies do not occur within formational conductive zones as mentioned above, the anomalies caused by them will usually be recognized on an E.M. map as priority targets.

D. WATSON

DWatson
Questor Surveys
July 23rd /82

APPENDIX

EQUIPMENT

The aircraft is equipped with a Mark VI INPUT (R) airborne E.M. system and Sonotek P.M.H. 5010 Proton Magnetometer. Radar altimeters are used for vertical control. The outputs of these instruments together with fiducial timing marks are recorded by means of galvanometer type recorders using light sensitive paper. Thirty-five millimeter continuous strip cameras are used to record the actual flight path.

(I) BARRINGER/QUESTOR MARK VI INPUT (R) SYSTEM

The Induced Pulse Transient (INPUT) system is particularly well suited to the problems of overburden penetration. Currents are induced into the ground by means of a pulsed primary electromagnetic field which is generated in a transmitting loop around the aircraft. By using half sine wave current pulses and a loop of large turns-area, the high output power needed for deep penetration is achieved.

The induced current in a conductor produces a secondary electromagnetic field which is detected and measured after the termination of each primary pulse. Detection is accomplished by means of a receiving coil towed behind the aircraft on four hundred feet of cable, and the received signal is processed and recorded by equipment in the aircraft. Since the measurements are in the time domain rather than the frequency domain common to continuous wave systems, interference effects of the primary transmitted field are eliminated. The secondary field is in the form of a decaying voltage transient originating in time at the termination of the transmitted pulse. The amplitude of the transient is, of course, proportional to the amount of current induced into the conductor and, in turn, this current is proportional to the dimensions, the conductivity and the depth beneath the aircraft.

The rate of decay of the transient is inversely proportional to conductivity. By sampling the decay curve at six different time intervals, and recording the amplitude of each sample, an estimate of the relative conductivity can be obtained. By this means, it is possible to discriminate between the effects due to conductive near-surface materials such as swamps and lake bottom silts, and those due to genuine bedrock sources. The transients due to strong conductors such as sulphides exhibit long decay curves and are therefore commonly recorded on all six channels. Sheet-like surface materials, on the other hand, have short decay curves and will normally only show a response in the first two or three channels.

The samples, or gates, are positioned at 310, 490, 760, 1120, 1570 and 2110 micro-seconds after the cessation of the pulse. The widths of the gates are 180, 180, 360, 360, 540, and 540 micro-seconds respectively.

For homogeneous conditions, the transient decay will be exponential and the time constant of decay is equal to the time difference at two successive sampling points divided by the log ratio of the amplitudes at these points.

(II) SONOTEK P.M.H. 5010 PROTON MAGNETOMETER

The magnetometers which measure the total magnetic field have a sensitivity of 1 gamma and a range from 20,000 gammas to 100,000 gammas.

Because of the high intensity field produced by the INPUT transmitter, the magnetometer results are recorded on a time-sharing basis. The magnetometer head is energized while the transmitter is on, but the read-out is obtained during a short period when the transmitter is off. Using this technique, the head is energized for 0.83 seconds while the precession frequency is being recorded and converted to gammas. Thus a magnetic reading is taken every 1.13 second.

For this survey, a lag factor has been applied to the data. Magnetic data recorded on the analogue records at fiducial 10.00 for example would be plotted at fiducial 9.95 on the mosaics.

DATA PRESENTATION

The symbols used to designate the anomalies are shown in the legend on each map sheet, and the anomalies on each line are lettered in alphabetical order in the direction of flight. Their locations are plotted with reference to the fiducial numbers on the analog record.

A sample record is included to indicate the method used for correcting the position of the E.M. Bird and to identify the parameters that are recorded.

All the anomaly locations, magnetic correlations, conductivity-thickness values and the amplitudes of channel number 2 are listed on the data sheets accompanying the final maps.

GENERAL INTERPRETATION

The INPUT system will respond to conductive overburden and near-surface horizontal conducting layers in addition to bedrock conductors. Differentiation is based on the rate of transient decay, magnetic correlation and the anomaly shape together with the conductor pattern and topography.

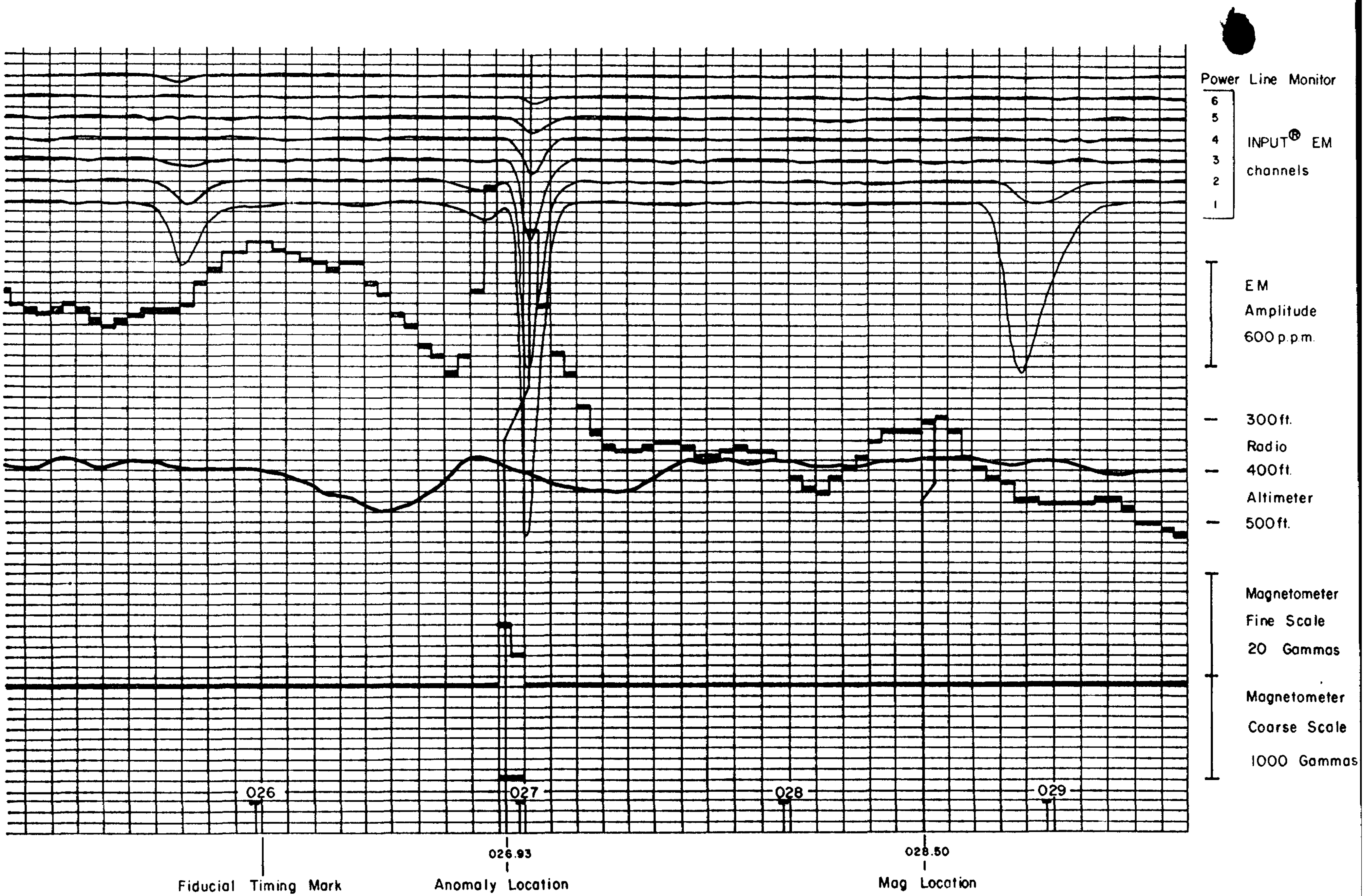
Power lines sometimes produce spurious anomalies but these can be identified by reference to the monitor channel.

Railroad and pipeline responses are recognized by studying the film strips.

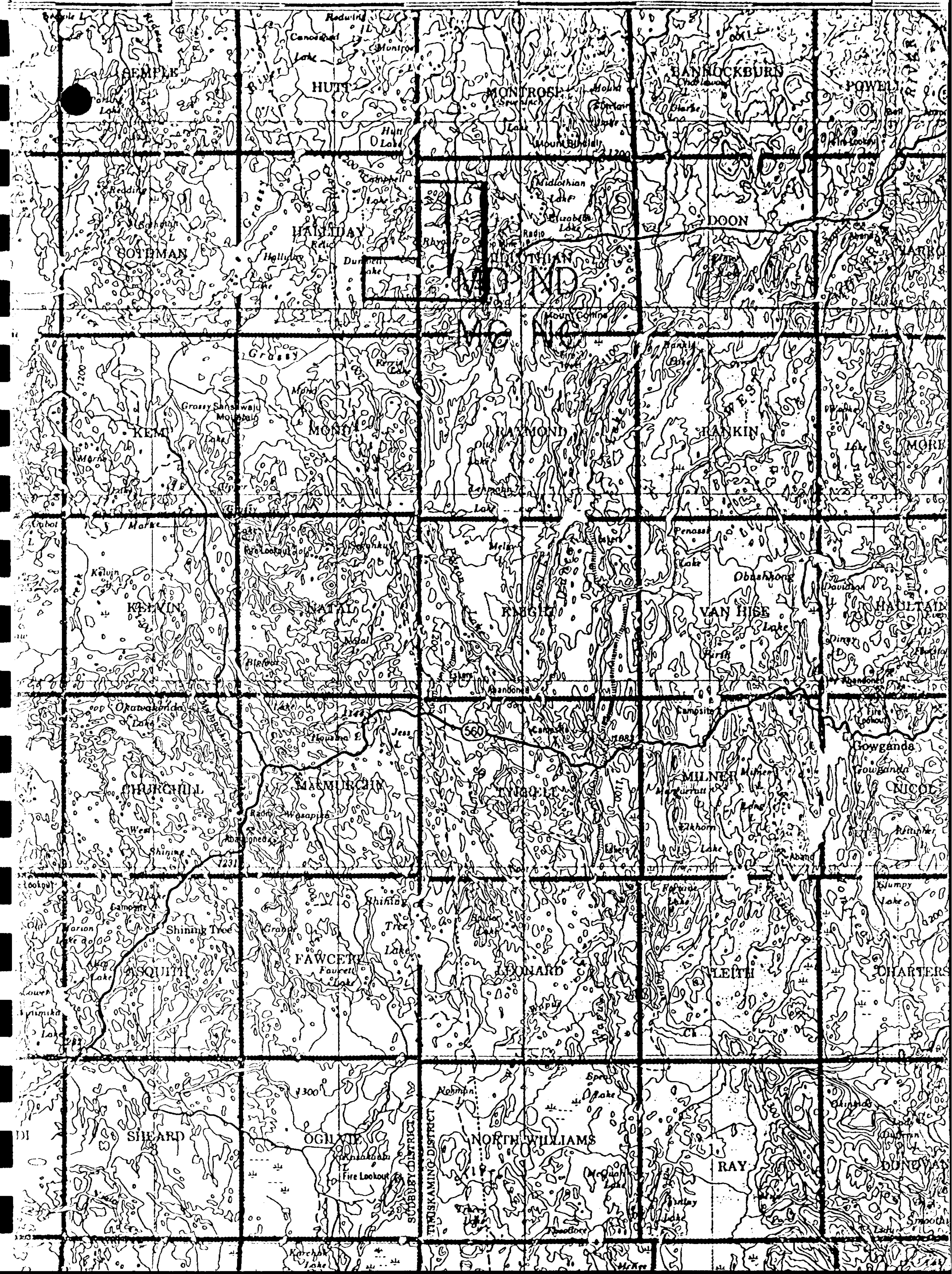
Graphite or carbonaceous material exhibits a wide range of conductivity. When long conductors without magnetic correlation are located on or parallel to known faults or photographic linears, graphite is most likely the cause.

Contact zones can often be predicted when anomaly trends coincide with the lines of maximum gradient along a flanking magnetic anomaly. It is unfortunate that graphite can also occur as relatively short conductors and produce attractive looking anomalies. With no other information than the airborne results, these must be examined on the ground.

Serpentinized peridotites often produce anomalies with a character that is fairly easy to recognize. The conductivity which is probably caused in part by magnetite, is fairly low so that the anomalies often have fairly large response on channel #1; they decay rapidly, and they have strong magnetic correlation. INPUT E.M. anomalies over massive magnetites show a relationship to the total Fe content. Below 25 - 30%, very little or no response at all is obtained, but as the percentage increases the anomalies become quite strong with a characteristic rate of decay which is usually greater than that produced by massive sulphides.



Representative INPUT®, Magnetometer and Altimeter Recording



SEMPLE
HUTT
MONTROSE
BANNOCKBURN
HALLIDAY
DOON
Midlothian Lake
MOND
RAYMOND
RANKIN
NATAL
VAN HISE
Obushkong Lake
CHURCHILL
MILNER
Gowganda
Shining Tree
FAWCETT
LEONARD
ASQUITH
SHEARD
NORTH WILLIAMS
RAY
Fire Lookout
SUDBURY DISTRICT
TIMISKAMING DISTRICT
560

FINAL ANOMALY	FID	CHS	CH1.AMP	CH2.AMP	SIEMENS	MAG	VALUE
~~10010A~~	~~207.491~~	~~1~~	~~63~~		~~NC~~	–	
10010B	208.101	2		72	NC	207.90	10
10020A	201.817	3		135	1	–	
10030A	200.105	3		191	1	200.30	14
10040A	194.465	3		120	1	–	
10050A	192.257	4		204	1	192.40	10
10060A	186.513	2		39	NC	186.55	9
10060B	186.978	3		107	1	–	
10070A	184.337	4		195	1	184.50	9
10080A	178.800	2		80	NC	178.60	15
~~10080B~~	~~179.080~~	~~3~~		~~195~~	~~1~~	~~179.25~~	~~6~~
10090A	176.698	6		414	10	–	
~~10100A~~	~~171.336~~	~~2~~		~~43~~	~~NC~~	–	
10100B	171.828	3		96	1	171.60	12
10110A	168.660	3		74	1	168.65	13
10130A	161.130	2		46	NC	–	
10150A	152.404	2		30	NC	152.40	9
10150B	153.171	2		30	NC	153.10	4
10160A	143.208	6		438	15	–	
10160B	143.583	2		38	NC	143.50	1
10160C	145.577	3		38	3	145.35	13
10160D	145.951	2		30	NC	145.80	2
~~10160E~~	~~149.031~~	~~4~~		~~181~~	~~5~~	–	
10170A	138.466	2		63	NC	137.75	17
10170B	138.795	3		132	1	–	

FINAL ANOMALY	FID	CHS	CH1.AMP	CH2.AMP	SIEMENS	MAG	VALUE
10170C	140.611	2		32	NC	140.50	6
10170D	141.685	4		238	1	141.60	33
10180A	131.205	3		95	1	131.30	40
~~10180B~~	~~131.431~~	~~5~~		~~429~~	~~3~~	~~-~~	
10180C	134.912	3		132	1	135.05	3
10190A	124.342	4		164	1	-	
10190B	127.354	4		376	2	127.35	22
10200A	115.036	6		1186	13	-	
~~10200B~~	~~117.502~~	~~3~~		~~164~~	~~1~~	~~117.40~~	~~25~~
10200C	120.618	4		192	6	-	
10200D	120.866	2		58	NC	-	
10210A	110.693	5		230	21	-	
~~10210B~~	~~113.411~~	~~3~~		~~168~~	~~1~~	~~113.30~~	~~25~~
~~10220A~~	~~103.094~~	~~2~~		~~30~~	~~NC~~	~~102.90~~	~~30~~
10220B	103.550	4		121	2	-	
10220C	106.625	6		715	12	106.65	7
10230A	95.572	2		50	NC	-	
~~10230B~~	~~95.816~~	~~2~~		~~56~~	~~NC~~	~~95.75~~	~~5~~
10230C	96.696	3		162	1	96.70	1
10230D	96.845	5		150	17	-	
~~10230E~~	~~99.518~~	~~5~~		~~268~~	~~8~~	~~99.60~~	~~48~~
~~10240A~~	~~88.093~~	~~2~~		~~75~~	~~NC~~	~~88.05~~	~~13~~
10240B	89.399	4		163	9	-	
10240C	89.598	6		644	13	89.50	51
~~10240D~~	~~92.808~~	~~4~~		~~144~~	~~4~~	~~-~~	
10240E	93.896	4		169	1	93.55	7
10250A	82.726	2		57	NC	82.45	7
10250B	85.413	6		585	12	85.40	97
10260A	75.551	3		98	1	-	
~~10260B~~	~~75.804~~	~~4~~		~~266~~	~~2~~	~~75.70~~	~~190~~
10260C	76.002	2		69	NC	-	
10270A	71.854	4		145	7	71.70	473
10280A	62.032	2		76	NC	-	

FINAL ANOMALY	FID	CHS	CH1.AMP	CH2.AMP	SIEMENS	MAG	VALUE
10280B	62.466	4		226	1	62.35	761
10280C	63.702	2		58	NC	63.40	13
10290A	56.902	2		42	NC	57.25	18
~~10290B~~	~~58.073~~	~~2~~		~~145~~	~~NC~~	~~-~~	
10290C	58.276	5		252	2	58.25	850
10300A	49.014	2		83	NC	-	
10300B	49.272	2		115	NC	49.25	690
~~10300C~~	~~50.345~~	~~4~~		~~149~~	~~1~~	~~50.25~~	~~247~~
10300D	50.603	6		424	14	-	
10310A	43.378	3		68	2	-	
10310B	43.645	6		562	12	-	
~~10310C~~	~~43.920~~	~~2~~		~~30~~	~~NC~~	~~43.80~~	~~458~~
10310D	44.699	3		143	1	-	
10310E	44.870	4		127	2	44.80	705
19010A	31.875	2		65	NC	31.80	4
~~19010B~~	~~32.204~~	~~3~~		~~119~~	~~1~~	~~32.20~~	~~4~~
19010C	33.693	2		78	NC	33.65	2

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Claim	Claim
L572801	L579188
572802	579189
572803	579190
572804	579191
572805	579192
572806	579193
572807	579194
572808	579195
572809	579196
572810	579197
572811	579198
572812	579199
572813	579200
572814	579201
572815	579202
572816	579203
572817	579204
572818	579205
572819	579206
572820	579207
572821	
572822	L579148
	579149
L398283	579150
398284	579151
398285	579152
398286	579153
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398290	579157
398291	579158
398292	579159
398293	579160
398294	579161
398295	579162
398296	579163
398297	579164
398298	579165
398299	579166
398300	579167
	579168

File ____________

Ontario

Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

RECEIVED OCT 30 1981 MINING LANDS SECTION

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) Airborne magnetic & electromagnetic

Township or Area Halliday & Midlothian Townships

Claim Holder(s) Stairs Exploration & Development (Regal Goldfields Limited)

Survey Company Questor Surveys Limited

Author of Report R. J. de Carle

Address of Author 6380 Viscount Rd., Mississauga, Ontario

Covering Dates of Survey May 17, 1981 (linecutting to office)

Total Miles of Line Cut N.A.

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	
–Magnetometer	
–Radiometric	
–Other	
Geological	
Geochemical	

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

Magnetometer 20 Electromagnetic 20 Radiometric ____
(enter days per claim)

DATE: October 6, 1981 SIGNATURE: [signature]
Author of Report or Agent

Res. Geol. ____________ Qualifications 2.467

Previous Surveys

File No.	Type	Date	Claim Holder
			L.D.

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

40X40=1600÷81=19.7 ea.

20 days

If space insufficient, attach list

TOTAL CLAIMS 81

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations ______ Number of Readings ______

Station interval ______ Line spacing ______

Profile scale ______

Contour interval ______

MAGNETIC

Instrument ______

Accuracy – Scale constant ______

Diurnal correction method ______

Base Station check-in interval (hours) ______

Base Station location and value ______

ELECTROMAGNETIC

Instrument ______

Coil configuration ______

Coil separation ______

Accuracy ______

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

Frequency ______ (specify V.L.F. station)

Parameters measured ______

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) Magnetic-electromagnetic

Instrument(s) Sonotek P.M.H. 5010 mag. Barringer-Questor Mark VI input EM
(specify for each type of survey)

Accuracy 1 gamma - mag
(specify for each type of survey)

Aircraft used Trislander C-GNKW

Sensor altitude 400 feet - mag 150 feet - EM

Navigation and flight path recovery method comparison of 35 mm film with 1" to ¼ mile mosaics of Lands & Forests photos to locate fiducial points

Aircraft altitude 400 feet Line Spacing 660 feet

Miles flown over total area 102 Over claims only 40

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 ______________________

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____

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

Mesh size of fraction used for analysis ______________________

____

____

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General ______________________

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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 ______________________

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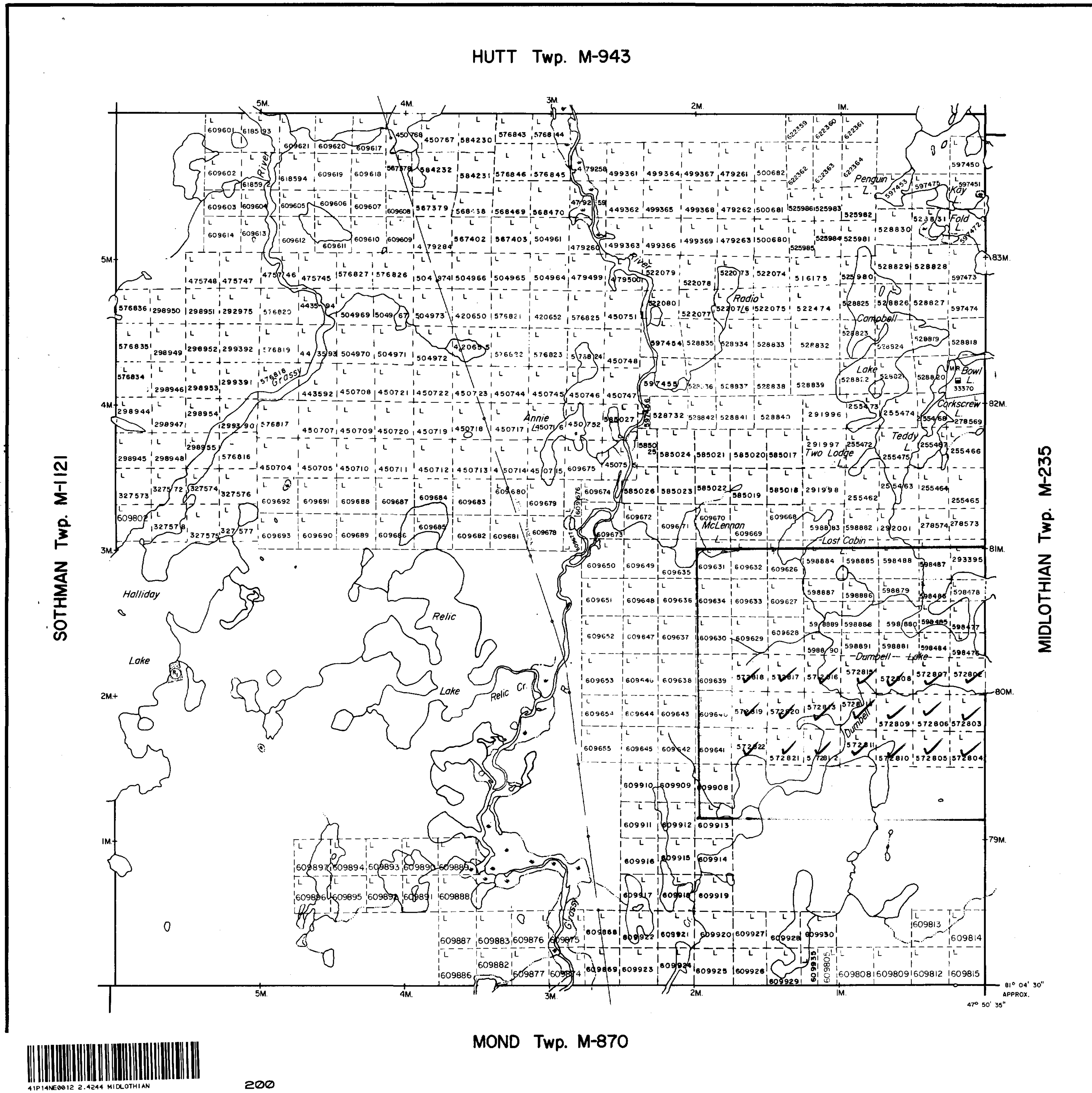


NOTES

400' surface rights reservation along the shores of all lakes and rivers.

RESERVES

(R) S.R.O. RESERVE, MARCH 22/67, FILE 163003

DATE OF ISSUE
DEC - 2 1981
Ministry of Natural Resources
TORONTO

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE AND MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	⬒
" , MINING RIGHTS ONLY	⬓
LICENCE OF OCCUPATION	▼
HIGHWAY & ROUTE NO.	
ROADS	
TRAILS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	⚒

*used only with summer resort locations or when space is limited

TOWNSHIP OF

HALLIDAY

2.4244

DISTRICT OF
SUDBURY

LARDER LAKE
MINING DIVISION

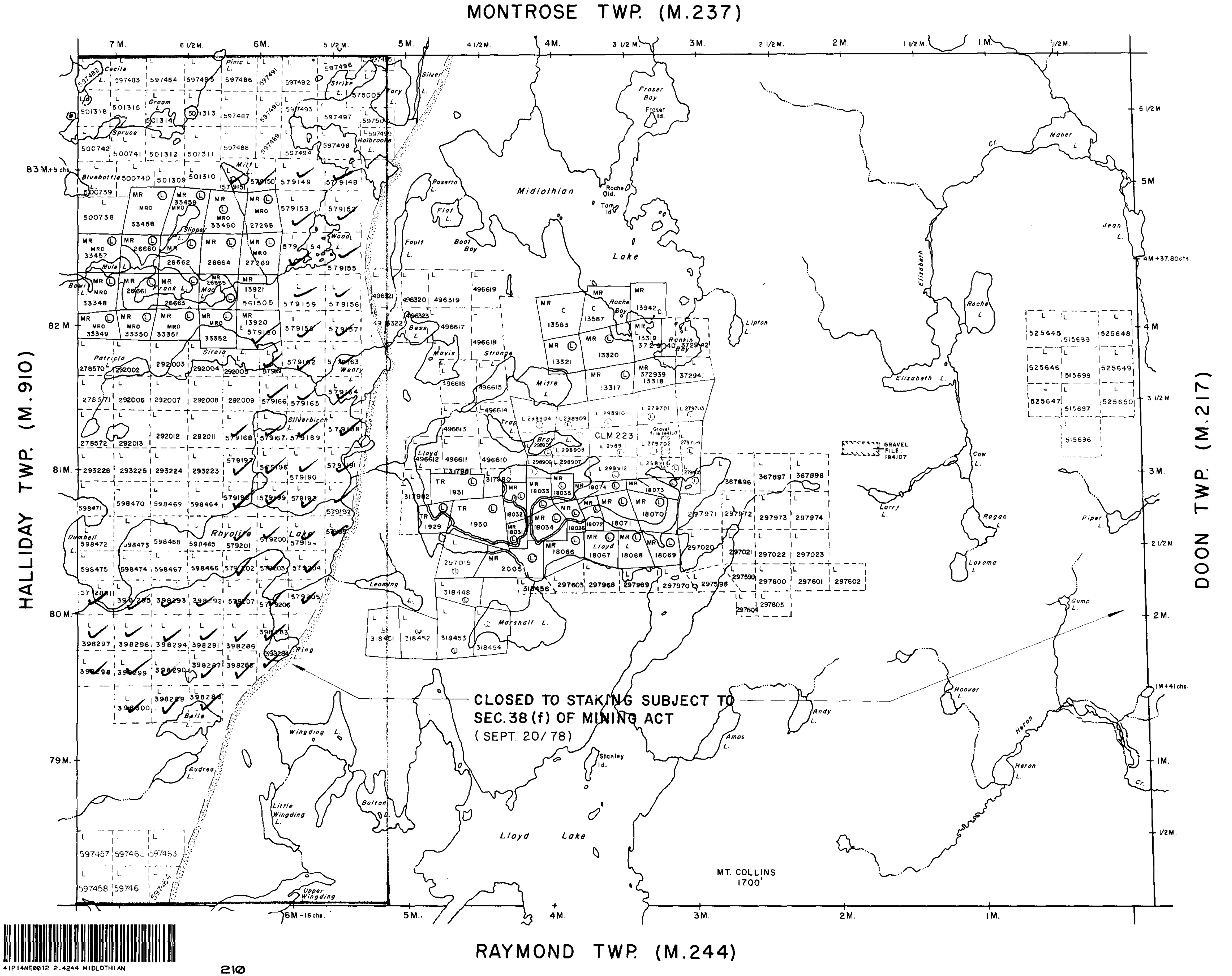
SCALE : 1 INCH 40 CHAINS (1/2 MILE)

DR. RWN
DATE FEB. 2, 71.
PLAN NO. M-910

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

41P14NE0012 2.4244 MIDLOTHIAN

200



THE TOWNSHIP OF

MIDLOTHIAN

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES CANCELLED	C.

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

DATE OF ISSUE
DEC - 2 1981
Ministry of Natural Resources
TORONTO

2.4244.

PLAN NO. M.235

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

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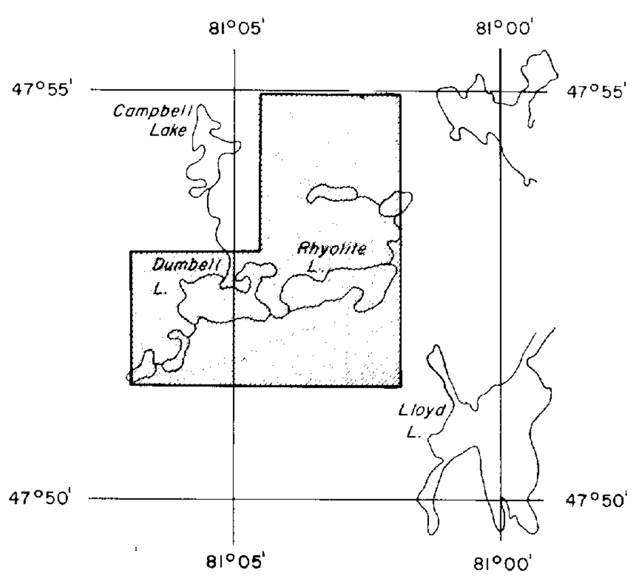
Legend

- 6 Channel Anomaly
- 5 Channel Anomaly
- 4 Channel Anomaly
- 3 Channel Anomaly
- 2 Channel Anomaly
- 1 Channel Anomaly
- Magnetic Correlation



SCALE

1 inch to 1320 feet

RHYOLITE LAKE AREA
ONTARIO
AIRBORNE MK VI INPUT SURVEY

FLOWN MAY, 1981	DRAWN BY DATAPLOTTING SERVICES LTD.
COMPLETED JUNE, 1981	SHEET Nº 1 of 1
CHECKED ROBERT deCARLE	FILE Nº 23038

Questor Surveys Limited
Mississauga, Canada.

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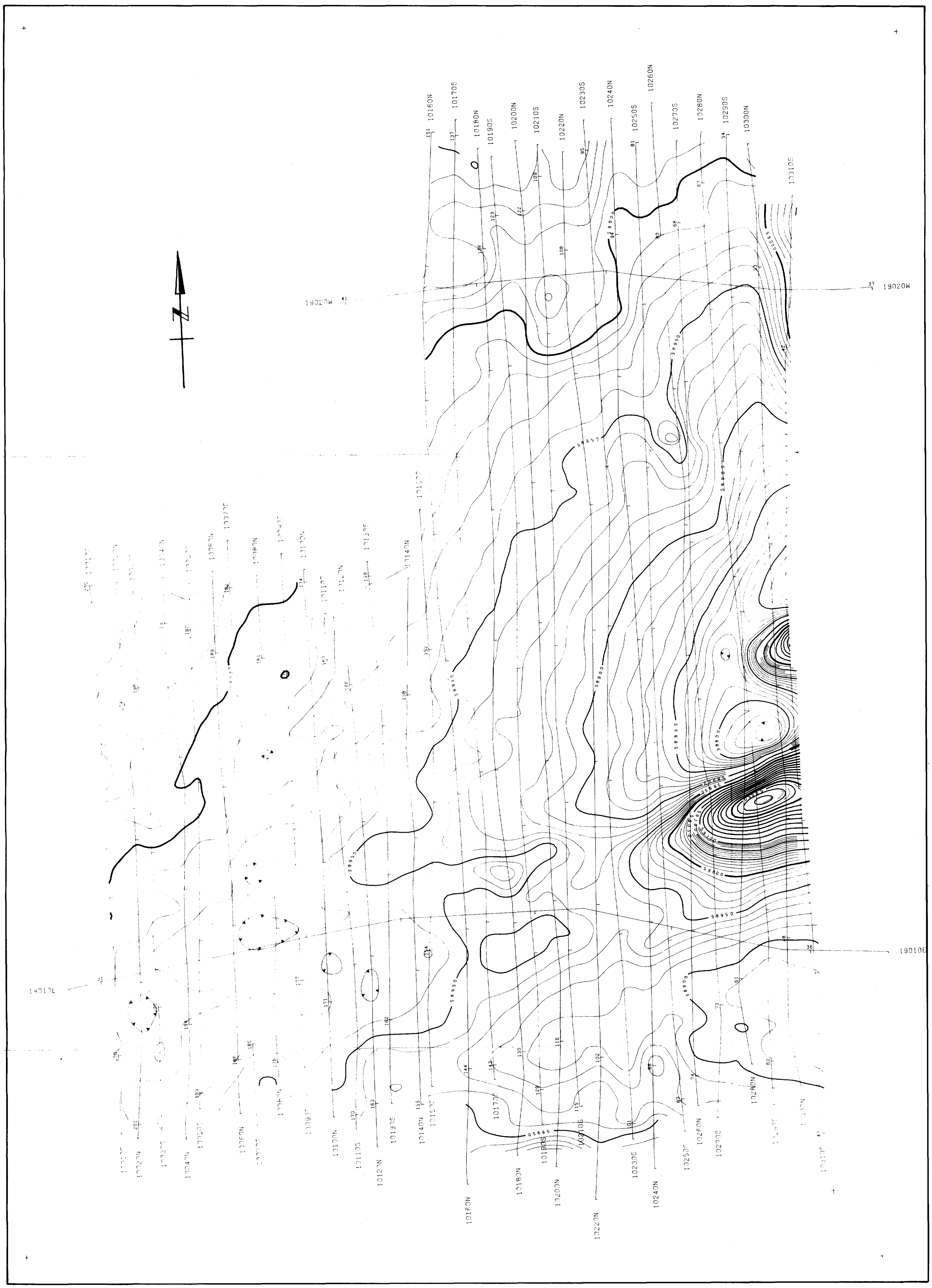
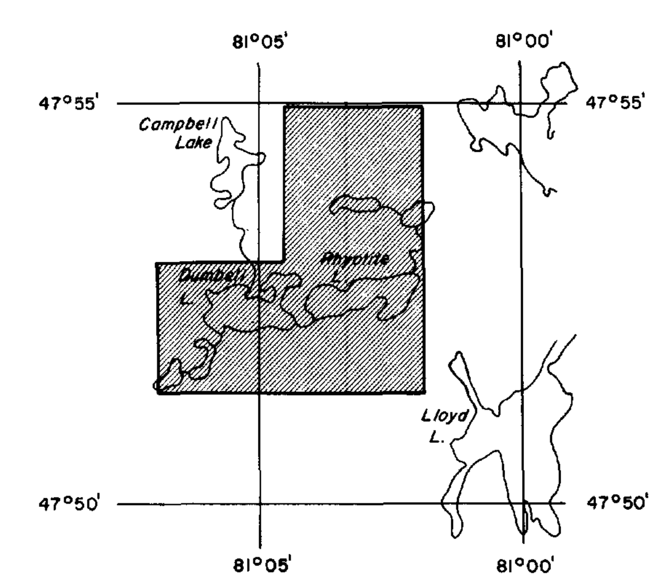


ISOMAGNETIC INTERVAL

(TOTAL FIELD)

10 GAMMA CONTOUR LINE	
50 GAMMA CONTOUR LINE	
500 GAMMA CONTOUR LINE	
MAGNETIC DEPRESSION	
FLIGHT ALTITUDE	400' ABOVE TERRAIN



SCALE

1000 Feet 0 1000 2000 3000 Feet

1 inch to 1320 feet

RHYOLITE LAKE AREA

ONTARIO

TOTAL MAGNETIC INTENSITY

FLOWN	DRAWN BY
MAY, 1981	DATAPLOTTING SERVICES LTD.
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