

010

INTERIM REPORT

ON THE

EXPLORATION PROGRAMME

MIDAS RESOURCES LTD.

\*\*\*\*\*\*

POWELL TOWNSHIP

DISTRICT OF TIMISKAMING

66-103

ONTARIO

1



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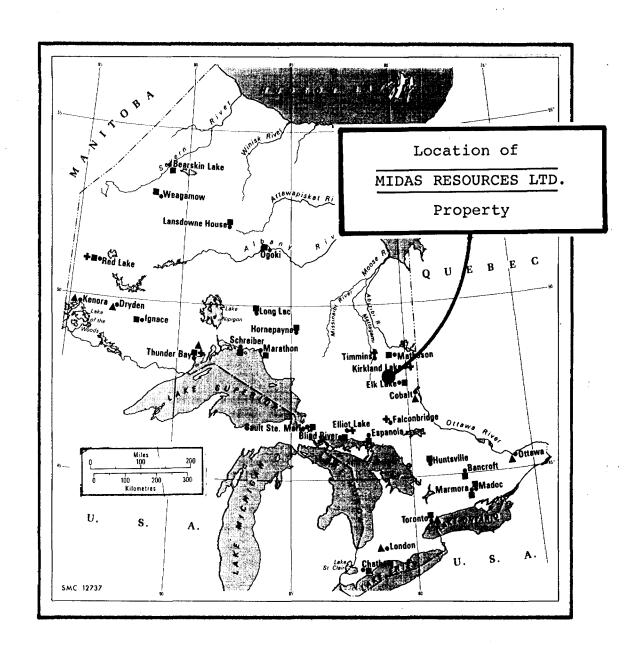
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# THOMAS SKIMMING & ASSOCIATES LIMITED

Property Location Map

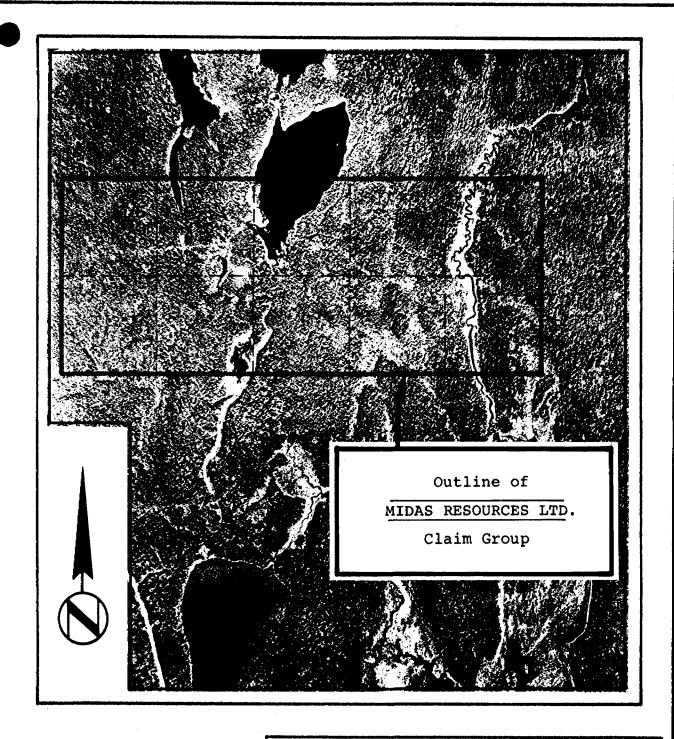
Powell Township Claims

MIDAS RESOURCES LIMITED

District of Timiskaming, Ontario

May, 1976

Plan No. MRL-1





THOMAS SKIMMING & ASSOCIATES LIMITED

Physiographic & Property Location Map

Powell Township Claims

MIDAS RESOURCES LIMITED

District of Timiskaming, Ontario

May, 1976

Plan No. MRL-2

#### INTRODUCTION

As a result of a new discovery of copper and molybdenum mineralization in a broad siliceous contact zone between an Algoman syenite porphyry and Keewatin volcanic rocks in the former gold and base metal mining camp of Matachewan in Ontario, Midas Resources Ltd. negotiated an option agreement to acquire the property and to carry out a systematic exploration programme to assess the economic potential of the discovery.

The work performed by Midas consisted of trenching and systematic trench sampling, together with induced polarization, resistivity and vertical field magnetic surveys under the management of Thomas Skimming & Associates Limited.

This report reviews the results of the exploration programme carried out on behalf of Midas Resources Ltd. and recommends a diamond drill programme principally to test the geophysical anomalies which were outlined in the vicinity of known copper and molybdenum mineralization.

### DESCRIPTION OF PROPERTY

The property of Midas Resources Ltd. consists of a group of ten, contiguous, unpatented mineral claims, each approximately forty acres in size. The claims are illustrated on Plan No. M241, published by the Surveys and Mapping Branch of the Ontario Ministry of Natural Resources and titled "The Township of Powell, District of Timiskaming, Larder Lake Mining Division".

The Midas claims are identified on Plan No. M241 as follows:

L387777	1442489
L387778	L442490
L441845	L442491
L441846	L442492
L442488	L442493

These claims are outlined and coloured in yellow on a copy of Plan No. M241 accompanying this report.

#### LOCATION AND ACCESS

The property is located 42 miles by road, west of the town of Kirkland Lake, Ontario and more specifically, in the northeast corner of Powell Township in the District of Timiskaming, approximately 6 miles by road, northwest of the Town of Matachewan.

Access to the property is by way of Highway 66 from Kirkland Lake to the town of Matachewan, a distance of 36 miles, then by way of Highway 566, northwest from Matachewan for a distance of 5 miles to Log Lake, which is situated  $\frac{1}{2}$  mile south of the southern boundary of the property. An unimproved road, suitable only for a four wheel drive vehicle, leads northeasterly from the north end of Log Lake for a distance of approximately one mile to the centre of the property where several exploration trenches were excavated a number of years ago.

The location of the Midas property is shown on Maps N.T.S. 41P/NE (Elk Lake Sheet) and 42A/SE (Kirkland Lake Sheet) published by the Ontario Ministry of Natural Resources and on Plans MRL-1 & 2 prepared by Thomas Skimming & Associates Limited, all of which accompany this report.

#### TOPOGRAPHY AND VEGETATION

The property of Midas Resources Ltd. is characterized by a gentle relief, typical of the Superior province of the Pre-Cambrian Shield. It is well forested with second growth black spruce and jack pine. Large stands of white birch and poplar are common, particularly in areas previously ravaged by forest fires.

The community of Matachewan, located 6 miles southeast of the Midas property, served the mines in the district when they were operating. Today, it functions mainly as a base for supplies for logging operations and as a centre for a variety of tourist activities. Matachewan currently is experiencing a renewed period of growth as a result of United Asbestos Corporation's decision to develop its asbestos deposit in Midlothian Township. The Company has reported that it intends to erect a total of 120 new homes for its employees in Matachewan over a period of 12 to 18 months.

An electric power transmission line leading from Matachewan to Ryan Lake to provide power for the barite milling operation of Extender Minerals Limited reaches within 2½ miles of the Midas property. A Hydro Electric Power Commission power line crosses the eastern end of the Midas property immediately east of Shields Lake.

#### HISTORY AND PRODUCTION

The history of exploration and mineral production of the Matachewan area within which the property of Midas Resources Ltd. is located, is summarized chronologically in Geological Report 51, published by the Ontario Department of Mines as follows:

"In the Matachewan area, prospecting has been carried on since the discovery of silver near Elk Lake in

During the early years, gold was discovered in the southeastern part of Alma township and in the north central part of Cairo township. In 1916, Jake Davidson discovered gold near Davidson Creek, on what is now part of the property of Young-Davidson Mines Limited. Shortly thereafter, Sam Otisse discovered gold on claims that now belong to Matachewan Consolidated Mines Limited. The Young-Davidson property was investigated chiefly by Porcupine Goldfields Development and Finance Company Limited, and the property of Matachewan Canadian Gold Limited was investigated by Colorado-Ontario Development Company Limited. 1919. Matachewan Canadian Gold Limited was reorganized under the name of Matachewan Gold Mines Limited. From about 1924 until the price of gold was raised in January 1934, the properties lay idle. Then, after intensive sampling of the Young-Davidson property. Hollinger Consolidated Gold Mines Limited erected a mill and, on 8 September 1934, production was begun at the rate of 500 tons per day. By 1956, when the mine was closed 6,128,272 tons of ore containing 585,690 ounces of gold and 131,989 ounces of silver had been produced. Ventures Limited completed a program of drifting, diamond drilling, and sampling on the property of Matachewan Gold Mines Limited, and then erected a mill. Production began on August 1934, at the rate of 85 tons per day. In 1954, when the mine was closed, 3,535,200 tons of ore had been mined, from which 370,427 ounces of gold and 133,710 ounces of silver were recovered. Lake property of Pax International Mines Limited has been in production intermittently under various company names since 1950. The property had produced 4,753,650 pounds of copper, 1,309 ounces of gold, and 34,589 ounces of silver by the end of 1956. Since August 1964 a bulk concentrate of molybdenum and copper has been recovered from tailings produced by former operations on the property."

Prior to the discovery of copper and molybdenum in the summer of 1975 on the property under option to Midas Resources Ltd., previous work was principally gold oriented and limited to basic prospecting involving some exploratory trenching and pitting by Bloom Lake Consolidated Mines Limited during 1933. From 1933 until 1972, there is no record of any work having been carried out on the property.

In 1972, Canadian Johns-Manville Company Limited completed a biogeochemical reconnaissance programme over a large (1,000 square acres) area in the general vicinity of Shields Lake. In addition, geological reconnaissance was undertaken and a map compiled. Outcrop locations were not indicated and the old pits excavated by Bloom Lake Mines at the south end of Shields Lake were not indicated, suggesting they were never examined.

Two hundred and eighty samples were collected by Canadian Johns-Manville, 270 from white birch with deep root systems and 10 from alders where birch was not available. No samples were taken within three hundred feet of the old pits referred to previously. Statistical analysis indicated only single sample populations for all elements analysed: Cu, Mo, Pb, Zn, and Ag. This is probably due to the low number of samples taken. Anomalous concentrations were evaluated from published information on "normal" background levels. Levels greater than two times normal were considered anomalous.

Generally, linear anomalous zones were indicated at various locations within the boundaries of the Midas claims. An east-west trending lead-zinc anomaly 1,000 feet in length was located 800 feet south of Shields Lake. A copper anomaly was defined on the southwest shore of the same lake. A north-south trending molybdenum target was indicated 2,000 feet west of the copper anomaly. Several other weaker zones were outlined. Little interpretation was presented in the report to indicate the possible source areas or cause of the geochemical anomalies. Additional work in the form of reconnaissance electromagnetic surveys and detailed biogeochemical surveys, was recommended; however, there is no evidence to suggest that this work was ever undertaken.

Subsequent to the work carried out by Canadian Johns-Manville, the most aggressive exploration work in the Shields Lake area was carried out in the spring of 1975 by Messrs. Henry King and Donald Campbell of Matachewan subsequent to their discovery of significant quantities of chalcopyrite and molybdenite in a wide, strong, siliceous contact zone along the margin of the prolific Matachewan syenite porphyry. In addition to systematic prospecting, their work consisted essentially of bulldozer and backhoe trenching and some sampling of the mineralized, siliceous zone where the glacial overburden was thin enough to permit exposing bedrock by trenching. The purpose of the trenching was principally to obtain some information on the nature of occurrence and the extent of the copper and molybdenum mineralization.

The exploration work completed by Midas Resources Ltd. during the spring of 1976 is reviewed in detail elsewhere in this report.

#### REGIONAL GEOLOGY

The regional geology of the Matachewan area may be seen on Map 2110 "Powell and Cairo Townships, Timiskaming District", which accompanies Geological Report 51 published by the Ontario Department of Mines.

This area forms a small part of a large belt of "greenstones" extending from southwest of Timmins, Ontario to Chibougamau, Quebec. The oldest rocks in the area are volcanic and are overlain by tightly folded sedimentary rocks. Both the volcanic and sedimentary rocks are cut by mafic and silicic intrusions. The intrusive rocks, in turn, are cut by a north-south trending swarm of Algoman diabase dikes. Flat lying sedimentary rocks overlie all of the above and are intruded by a few late Matachewan diabase dikes.

The volcanic rocks in the map area are folded into a syncline whose axial trace trends approximately northeast from the southwest quadrant of Powell Township. On the southern limb of the syncline, a relatively strongly magnetic stratum trends southeast to the western part of Powell Township. The syncline appears to plunge to the southeast. Both limbs appear to be offset (left-hand) by a fault that runs through Mistinikon Lake, and truncated a short distance farther east.

Prospecting in the Matachewan area has been concentrated in quartz veins near the borders of granite and syenite stocks and cupolas, in shears or faults, and in gossan zones. Most of the base metal and gold deposits are in or near quartz veins that follow shears or closely spaced fractures or faults adjacent to syenite and syenite porphyry intrusives.

In the Matachewan area, syenite porphyry is regarded by prospectors and geologists as a favourable host rock, owing partly to its habit of fracturing adjacent to faults or shear zones.

#### LOCAL GEOLOGY & MINERALIZATION

Based on field investigations by the writer and on a study of Map 2110 (Powell and Cairo Townships) published by the Ontario Department of Mines, the property of Midas Resources Ltd. is underlain by a varied assemblage of intermedicate to basic, volcanic rocks of Keewatin age which are overlain by a sequence of younger Timiskaming sediments of unknown thickness in the southwestern portion of the Midas property. These rocks, in turn, have been intruded by a syenite porphyry in the central portion of the property in the immediate vicinity of Shields Lake. This porphyry appears to be an offshoot of the main syenite stock centred in Cairo Township, approximately 6 miles to the east. Excluding the pleistocene sediments, the youngest rocks on the property consist of a swarm of north-south trending, "Matachewan" diabase dikes which occur mainly in the western portion of the property.

In the Matachewan area, most of the economic mineral occurrences of gold, copper and molybdenum are either in or adjacent to small piercement type intrusions of syenite porphyry. Often, the

presence of copper and molybdenum in the Matachewan area, particularly where it appears to be genetically related to a syenite or syenite porphyry, denotes proximity to the presence of gold.

The most significant mineralization on the property was discovered in the spring of 1975 by Messrs. H. King and D. Campbell at the south end of Shields Lake where chalcopyrite and molybdenite occur in a highly siliceous (quartz) zone along the margins of a syenite porphyry. The sulphides occur principally as fracture filling and as disseminated crystal and crystal aggregates. The disseminated type of mineralization often displays a pronounced structural (fracture) control. Generally, there is a concentration of the sulphides (chalcopyrite and molybdenite) over a width of 2 to 3 feet at the syenite porphyry contact. The host rock, almost exclusively, consists of a light grey, smoky quartz which periodically contains subordinate amounts of carbonate, chlorite and hornblende. The quartz exhibits a pronounced fractured or shattered texture, particularly near the contact with the syenite porphyry.

Trenching and systematic trench sampling undertaken by Thomas Skimming & Associates Limited on behalf of Midas Resources Limited outlined two siliceous zones that clearly exhibit economic potential. Zone A occurs within a syenite over a strike length of approximately 100 feet. The zone is covered by deep overburden both to the east and west. The siliceous horizon is 6 feet wide in Trench 1, but the width in Trench 4 was impossible to determine due to the presence of water. A sketch of Trench 1 (Plan TR-1) with sampling results accompanies this report. Two samples over a 6 foot width averaged 2.84% Cu, 0.004% MoS<sub>2</sub> and minor amounts of gold. A silicified porphyritic syenite on the north edge of the quartz zone averaged 0.144% MoS<sub>2</sub> and 0.27% Cu over a further 8.0 feet.

A second zone (Zone B), located about 50 to 100 feet north of Zone A, has an exposed strike length of 320 feet. The width is variable and generally not defined on the north edge of the series of trenches, but is clearly 40 feet as illustrated in the sketch of Trench 3 (Plan TR-3) accompanying this report. Eight samples collected from Trench 3 over a width of 31 feet averaged 0.14% Cu and 0.413% MoS<sub>2</sub>. An earlier trench on the baseline at 4+50E, may extend this zone to a strike length of 500 feet, although continuity is difficult to establish. This particular zone of silicification appears to be bounded on the north and south by intermediate to basic volcanics. To the west, the zone disappears into the lake and east of 4+50E is covered by overburden.

A compilation map (Plan MRL-3), illustrating the location of the exploratory trenches upon which is superimposed pertinent geophysical information as well as a geological interpretation, accompanies this report.

#### GEOPHYSICAL SURVEYS

#### Induced

On the basis of the disseminated nature of the sulphide mineralization exposed at surface, Geoterrex Limited of Ottawa, under contract to Midas Resources Ltd., carried out a gradient array induced polarization and resistivity survey, with a complementary field magnetic survey, over a ½ square mile area in the vicinity of the copper and molybdenum mineralization at the south end of Shields Lake. To facilitate the surveys, a reference grid was cut, chained and picketed for a total of 6.16 miles. The base line was oriented east-west and north-south lines were turned off each 200 feet from 12+00E to 10+00W along the baseline.

#### Induced Polarization Survey

The gradient array portion of the Induced polarization survey was completed using a Scintrex IPR-8 time-domain receiver and an Elliot Geophysical 1.5 kVA transmitter with an on-off cycle time of 2 seconds. A single 8,000 foot current electrode separation was used, with a current in the range of 0.6 to 1.0 amperes. One hundred foot potential dipoles were used to take readings each 100 feet (50 feet in anomalous areas). After the detection of significant anomalous areas, detailing was undertaken using dipole-dipole and three array (poledipole) configurations. A Sharpe MF-1-100 fluxgate magnetometer was used on the same grid. The results of these surveys are presented in Appendix I both in profile and contour form. A map illustrating the location of interpreted axes of peak apparent chargeability is shown in Appendix 11. Background chargeabilities and resistivities are judged to be 8 to 16 msec and 15,000-20,000 ohm-meters, respectively, for the gradient array survey.

#### Zones A-1, A-2

Gradient array profiles indicate a strike length for this zone, of at least 1,400 feet, extending from 2+00W to 12+00E. Amplitudes for all sections are in excess of 30 msec, except for the attenuated response on Line 8+00E. This is interpreted as the result of a north-south trending diabase dyke which interrupts the polarizable horizon. A double peaked character is noticeable on sections 4+00E and 2+00E. The stronger northern peak corresponds to a pronounced resistivity low which persists along strike and has a value of less than 12,500 ohm-meters.

The peak chargeability (41 msec) on Line 0+00 corresponds directly with the location of known mineralization in Trench 1. Magnetic coincidence is noted on Line 4+00E where the northern

chargeability anomaly is best developed. The magnetic signature may be a reflection of the presence of basic volcanics as noted in the Trench near 4+00E.

Section 4+00E, with the highest amplitude chargeability (60 msec), was detailed using a dipole-dipole array, with a dipole separation of 100 feet. The top of the polarizable source appears to be near surface with the primary response of 57 msec appearing on n=1. Background appears to range from 12 to 18 msec. The response becomes more complex with depth, possibly reflecting several parallel zones. The resistivity low appears to be displaced 50 feet towards the south.

Detailing of A-2 on Line 10+00E indicates a polarizable, conductive source is lower than for A-1, but associated resistivities are also lower, upgrading the importance of this response.

#### Zones B-1, B-2

Interpretation of the gradient array profiles suggests that these two zones are in fact one and the same. Their location is approximately 500 feet north of the main zone described previously. Lower peak amplitudes are prevalent, though peaks in excess of 40 msec were recorded on sections 10+00E and 6+00E. A pronounced resistivity low is evident on section 10+00E, though all other sections are characterized by lack of resistivity correlation. A subtle decrease in amplitude (10 msec) may reflect the presence of the diabase dyke on section 8+00E. Direct magnetic coincidence is apparent on most sections indicating a possible magnetite and/or pyrrhotite source, likely in volcanic rocks. A detailed pole-dipole survey indicates a considerable depth extent to the polarizable source. Both apparent chargeabilities and resistivities show improved responses with expanding potential electrode spacings. The high resistivity for the n=1 spacing indicates a depth to the top of the source between 25 and 50 feet.

A second, south-flanking anomaly is noted on section 12+00E and to a much lesser extent as an inflection on the profile on section 10+00E. The anomaly is not evident on the detailed profile between A-2 and B-1, for the 100 foot dipole separation. Chargeability highs are occasionally associated with highly resistive rocks.

#### Zones C-1, C-2, C-3

These three anomalies trend northwest in the northwestern section of the grid. C-3 extends from 2+00E to 4+00W and, except for the weak inflection on 4+00W the peak chargeability is associated with a resistivity high. Weakly magnetic syenite with minor pyrite was noted within 30 feet of the axis of the I.P. anomaly on Line 2+00E. It is suggested that this is a likely source rock for the anomaly.

C-l and C-2 have characteristics similar to C-3 though there is a distinct magnetic correlation associated with C-l. On the basis of profile interpretation, none of these zones appears to be interconnected.

#### Zones D-1, D-2, D-3, D-4

For these anomalies, apparent chargeabilities are considerably lower than for the zones previously described. Some evidence exists for continuity between D-3 and D-4, but D-1 and D-2 appear to be isolated single line responses. D-1 has an associated resistivity high and lies to the north of the magnetic anomaly at 4+00E - 6+00N. D-2 has no magnetic association and is also resistive. D-3 and D-4 are associated with a strong south-flanking magnetic anomaly possibly reflecting a geological contact. A magnetic phase of the syenite is another possible interpretation as the source of the induced polarization anomalies and the broad magnetic signature on Line 12+00E.

#### Magnetic Survey

The vertical field magnetic data are presented in Appendix III in both profile and contour form. From the profiles, a central zone of increased magnetic activity is clearly outlined from Line 0+00 to 6+00E. The shape of this feature closely follows the outline of the east-west trending volcanic remnant though it is almost 200 feet wider along the northern magnetic contact. However, weakly magnetic syenite was observed to outcrop near 4+00N - 2+00E and it is conceivable that a narrow magnetic phase of the syenite borders the volcanics on the north. The southern magnetic contact appears to accurately reflect the volcanic-syenite contact at least to 6+00E. On section 8+00E the zone is much wider than on the previous sections, extending from 6+00S to 6+00N. The northern contact is marked by a narrow sine-wave anomaly with a peak-to-peak amplitude of 9700 gammas. The shape is characteristic of the magnetic response of massive pyrrhotite. Section 10+00E is characterized by low magnetic relief, while a narrow anomaly extending from 2+00N to 2+00S may mark the reappearance of the distinct boundaries of the volcanic remnant on section 12+00E.

#### Additional Surveys

Also included with this report is Preliminary Map 1022, published by the Ontario Department of Natural Resources, illustrating the results of an airborne input electromagnetic and total field magnetic survey of Powell Township. The location of the Midas claim group is indicated on the map. No electromagnetic anomalies were detected on the property, but this is

not surprising considering the disseminated nature of the sulfide mineralization. The belt of volcanic rocks now known to extend to the south of Shields Lake is confirmed geophysically by the strong magnetic signature across most of the property. The band of lower susceptibility "Timis-kaming" sediments is reflected by much lower magnetic intensities on the extreme southwestern edge of the Midas claim group. The boundary between the two is characterized by a steep magnetic gradient. The outline of the syenite intrusive mass is somewhat obscure, partly due to the numerous inclusions and remnants of volcanic rocks and also to the fact that the syenite, in places, is weakly magnetic.

#### SUMMARY & CONCLUSIONS

As a result of the trenching, trench sampling and induced polarization survey completed by Midas Resources Ltd. on the Powell Township claims, the potential of the property has been considerably enhanced.

The trench sampling has indicated the presence of chalco-pyrite and molybdenite, occurring principally along fractures and as disseminated crystals and crystal aggregates in two highly siliceous (quartz) zones. The width of Zone A is 6 feet in Trench I, but no width could be determined in Trench 4. The width of the siliceous zone approximately 50 feet north of Zone A is clearly at least 40 feet as indicated in the mapping of Trench 3.

A gradient array induced polarization and resistivity survey has indicated that a strong anomaly coincides directly with the location of the known mineralization, particularly that in Trench 1. This anomaly extends the zone, by geophysical inference, under overburden over an additional 150 feet to the west and 1,200 feet to the east. A second large zone B-1, B-2 was outlined approximately 500 feet north of Zone A. Its strike extent is nearly 1,000 feet and the zone is open to the east.

The Midas property is situated within a geological environment which has been proven favourable for the presence of economic quantities of both precious and base metal mineralization. Specifically, siliceous or quartz zones proximal to the syenite-volcanic contact have been the site of deposition of economically significant occurrences of precious and base metals in the Matachewan area. Elsewhere in the Matachewan area, economic quantities of gold were found in association with copper and molybdenum along the margins of syenite and syenite porphyry intrusives (i.e. Matachewan Consolidated Gold Mines, Young-Davidson Gold Mines and the Baden Creek Vein). For this reason, in any further exploration programme on the Midas property which would entail a

considerable amount of sampling, it should be routine to analyze all samples for gold and silver in addition to base metals.

#### RECOMMENDATIONS

On the basis of the encouraging results obtained in the exploration programme carried out by Midas Resources, a further investigation of the property by diamond drilling is warranted.

Two diamond drill holes of 300 and 350 feet are recommended to test the downward extension of the indicated surface mineralization and the source of the anomalous chargeability and the low resistivity indicated for Zone A. The holes are designed to intersect the zone at a vertical depth of approximately 100 Hole 2 is extended a further 50 feet due to the large apparent width as indicated by detailed induced polarization profiling. Both are extended beyond what may be considered normal length, since vague northward surface dip indicators may be inaccurate due to structural distortion. One hole is suggested to test the strong induced polarization response on Line 10+00E at 2+50S, as the possible eastward extension of Another hole is proposed to examine a purely geological target, the downward extension of the wide zone of mineralization exposed in Trench 3. A final hole is recommended to test the strongest induced polarization response (line 10+00E) on Zone B.

The cost of the proposed diamond drill programme including supervision and assaying is estimated at \$30,000.00

Details of the proposed diamond drill programme are as follows:

DDH No.	Coordinates	Bearing	Inclination	Depth
ì	1+40N- 0+40E	S22°W	-450	300'
2	0+40N- 4+30E	\$22°W	-45°	350'
3	2+00N- 2+80E	\$22°W	-45°	350'
4	0+50S-10+00E	South	-45°	250'
5	6+50N-10+00E	South	-45°	250'
	Total:			15001

If the results of the initial diamond drilling are encouraging, considerably more work will be required to evaluate the potential of the Midas property. This should include the following:

(a) further diamond drilling to delineate the mineralization encountered in the initial drilling

- (b) expansion of the control grid to cover the entire claim group
- (c) additional induced polarization and resistivity surveys
- (d) if practicable, trenching and sampling of the weak to moderately strong induced polarization anomalies outlined in the initial survey
- (e) investigation of the biogeochemical anomalies delineated in the geochemical survey carried out by Canadian Johns-Manville Company Limited in 1972.

Respectfully submitted,

Toronto, Ontario September 24, 1976

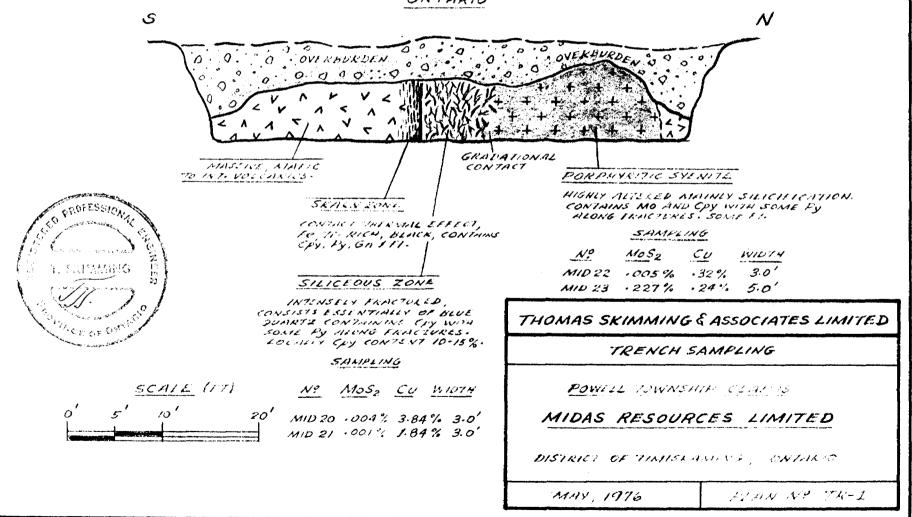




### TRENCH Nº 1

#### MIDAS RESOURCES LIMITED

SHILLDS LAKE, NIATACHEWAN ONTARIO



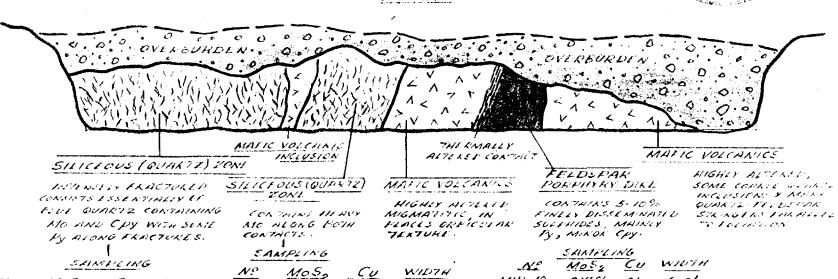
# LONGITUDINAL SECTION

TRENCH Nº 3

#### MIDAS RESOURCES LIMITED

SHIELDS LAKE, MATACHEWAN ONTARIO





1			SAMPLING				
		APCING		Nº	MO52	Cu	WIDTH
Nº	Mosz	C.21	WIDTH		.408%		
MID-10	·393%	.25%	5.0'	MID-16	.368%	.18%	3.0'
MID-11	.615%	-28%	5.0'	MID-17	. 654%	.05 %	3.0'
MID-12	.361%	.06%	5.0				
ACIZI- 13	. 333 %	. 04 %	5.0'				
MID- 14	.008%	. 09 %.	2.0				

\* MATIC VOLCANIE INCLUSION

SCALE (FT)			
o'	5'	10'	20'
<u></u>			

MIU-19 .017% .01 6.0'

# THOMAS SKIMMING & ASSOCIATES LIMITED

TRENCH SAMPLING

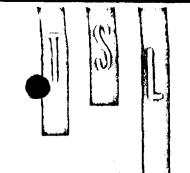
POWELL TOWNSHIP CLAIMS

MIDAS RESOURCES LIMITED

DISTRICT OF TIMISKAMING, ONTAKIC

111Y 1976

PLAN NO TR-3



#### . CHEMICAL RESEARCH AND ANALYSIS

. CONTRACT LABORATORIES

#### TECHNICAL SERVICE LABORATORIES

DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED

1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2

TELEPHONE: (416) 625-1544

# CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

T. Skimming and Associates,

Suite 1417,

52 Mabelle Ave.,

Islington, Ontario.

M9A 4X9

RE

RE: MIDAS RESOURCES,

SHIELDS LAKE,

MATACHEWAN, ONT.

REPORT NO.

T - 02132

Inv. #2257

SAMPLE(S) OF

ROCK

	Copper (Cu) %	Molybdenum (Mo) % Gold (Au) oz/ton
		MoS2%
MID-10	0.25	0.237 .393 0.005
MID-11	0.28	0.371 <i>.6/5</i> 0.002
MID-12	0.06	0.218 .36/ 0.003
MID-13	0.04	0.201 .333 0.002
MID-14	0.09	0.005 . <i>008</i> <0.001
MID-15	0.05	0.246 .408 0.001
MID-16	0.18	0.222 .368 0.003
MID-17	0.05	0.394 .654 0.005
MID-18	<0.01	0.017 .028 0.002
MID-19	<0.01	0.010 .0/7 0.005
MID-20	3.84	0.004 .007 0.010
MID-21	1.84	0.001 .002 0.008
MID-22	0.32	0.003 .005 0.001
MID-23	0.24	$0.137 \cdot 227  0.009$

NOTE: Mo% → MoS2% = Mox 1.66%



Samples, Pulps and Rejects discarded after two months

DATE \_\_\_\_April 26th, 1976.

SIGNED



APPENDIX B

**EQUIPMENT SPECIFICATIONS** 

# RECEIVER SPECIFICATION SHEET FOR IPR-7

# **Electrical:**

Primary Voltage Range 300 microvolts to 30 V Accuracy

+30%

Input Impedance · 300 K ohms

Chargeability (M) Reading Range 0 - 100 and 0 - 3 -- milliseconds

Accuracy ±5%

Delay Factor (L) Reading Range 0 - 100 and 0 - 300 milliseconds

Accuracy  $\pm 5\%$ 

Delay Time Before Integration 0.45 seconds

SP and VLF Noise Compensation Manual: ±1.5 millivolts

Automatic: lmV range + mV total

30mV range + 1V total

Power Supply Internal rechargeable nickel

cadmium batteries. Rated life

45 hours/charge.

Temperature Range -20° to 130°F (-29° to 55°C)

Humidity Range to 100% non-condensing

NOTE: A time reference signal is remotely obtained from the received primary signal to give coherent detection.

Automatic SP corrections are applied during each reading period using a memory circuit.

# Mechanical:

Weight  $13\frac{1}{2}$  lbs. (6.1 kg) including

batteries

Dimensions  $14" \times 11" \times 6\frac{1}{2}"$ 

 $(35.5 \text{ cm} \times 28 \text{ cm} \times 16.5 \text{ cm})$ 

## 5. SCINTREX IPR8 I.P. RECEIVER

#### SPECIFICATION SHEET

Input Impedance:

50 or 60 Hz Powerline Rejection

Primary Voltage Range

Accuracy of Vp Measurement

Vs/Vp Range

Vs/Vp Accuracy

Primary SP Buckout Range

Automatic SP Tracking Range

Continuity Meter Reading

Required Stability of

Transmitter Timing

Operation Temperature Range

Dimensions

Weight, Complete with Lid

and Batteries

Power Supply:

3 megohms

-50 db (300x)\*

300 microvolts to 40

volts in 10 ranges

+ 3% of full scale

20 and 100 mV/V (20 and

100 per nil) full scale

3% of full scale

± 1 volt

 $6 \times Vp$ , maximum  $\pm 1$  volt

0 - 500 k ohms

Need only exceed measuring

program selected (1 or 2

seconds.

-30°C to +60°C

-22°F to +140°F

 $31 \text{ cm} \times 15 \text{ cm} \times 17 \text{ cm}$ 

3.6 kg

4 D cells - Eveready #1050

or equivalent; estimated

battery life 2 months

intermittent duty at 25°C

1 Alkaline cell Eveready

#E91 or equivalent; estimated

life 1 year.

\* 50 or 60 Hz depending on local frequency

# <u>1.5 KW I.P. TRANSMITTER</u>

## SPECIFICATIONS:

INPUT POWER 120 volt 400 Hz single phase

at 1800 VA, relatively insensitive to input voltage/frequency

regulation

OUTPUT POWER 1500 watts

OUTPUT VOLTAGE 200 to 3000 volts in 12 switch

selected steps

OUTPUT CURRENT 5 amp. maximum

OUTPUT IMPEDANCE DRIVE 40 ohms to over 10,000 ohms

TIME CYCLE On/off periods (symmetrical)

adjustable at factory from 0.5

to 10 seconds

TEMPERATURE RANGE (AMBIENT) -15°C to +60°C (+5°F to 140°F)

WEIGHT, COMPLETE WITH CASE 45 pounds

DIMENSIONS, INCASE 10.5 inches high by 16 inches

wide by 11.5 inches deep

# Power Supply for 1.5 KW IP Transmitter Specifications

# manufactured by McPhar Geophysics Limited

Output voltage

125 volts

frequency

400 Hz

power

2.5 KVA

Engine

Briggs & Stratton 7 HP

#### SCINTREX 250 WATT I.P. TRANSMITTER

#### SPECIFICATIONS

Power:

Output Voltage:

Output Current:

Meter Ranges:

Cycle:

Pulse Durations:

Power Sources:

Power requirements for

charges:

Dimensions and Weights

Transmitter Packs and

two battery packs:

Charger:

Operating Temperature:

250W max.

150V to 850V in 5 steps. 1.4 ratio

1.5A max.

0 - 0.5A F.S. and 0 - 1.5A F.S.  $\pm 3\%$ 

l:1:1:1 on:off:reverse:off

1, 2, 4 secs.

8 GC 660-1 lead-acid gel-type

batteries 24V at 12 Ah

1 penlite battery Eveready E91

or equivalent

115/230V 50 - 40 Hz 100W

 $5-1/2 \times 12 \times 18$ " (14 x 30 x 46cm)

35 lbs (15.5 kg)

 $5-1/2 \times 12 \times 6$ " (14 x 30 x 15cm)

12 lbs. (5.5 kg)

-30°C to +50°C

#### MAGNETOMETER SPECIFICATIONS SHEET

# SPECIFICATIONS OF FLUXGATE MAGNETOMETER MODEL MF-1

RANGES:

Plus or minus - 1,000 gammas f.sc.

3,000 "
10,000 "
30,000 "
100,000 "

Sensitivity - 20 gammas/div.
50 "
200 "
500 "
2,000 "

METER: Taut-band suspension

1000 gammas scale 1-7/8" long- 50 div. 3000 gammas scale 1-11/16" long- 60 div.

ACCURACY: 1000 to 10,000 gamma ranges -0.5%

of full scale, 30,000 and 100,000 gamma ranges - 1% of full scale.

OPERATING TEMPERATURE: -40°C to +40°C

 $-40^{\circ}$ F to  $+100^{\circ}$ F

TEMPERATURE STABILITY: Less than 2 gammas per °C (1 gamma/°F)

NOISE LEVEL: Total 1 gamma P-P

LONG TERM STABILITY: †1 gamma for 24 hours at constant

temperature.

BUCKING ADJUSTMENTS: 10,000 to 75,000 gammas by 9 steps (Latitude) of approximately 8,000 gammas and

fine control by 10 turn potentiometer. Convertible for southern hemisphere

or -30,000 gammas equatorial.

# Specifications of Fluxgate Magnetometer Model MF-1 Cont'd.

RECORDING OUTPUT:

1.7 ma per oersted for 1000 to 100,000 gamma ranges with maximum

termination of 15,000 ohms

**RESPONSE:** 

DC to 5 Hz. (3 db down)

CONNECTOR:

Amphenol 91-MC3F1

BATTERIES:

12 x 1.5V flashlight batteries "C" cell type (AC power supply available)

ava

COMSUMPTION:

50 milliamperes

**DIMENSIONS:** 

Instrument -  $6\frac{1}{2}$ " x  $3\frac{1}{2}$ " x  $12\frac{1}{2}$ "

 $165 \times 90 \times 320 \text{ mm}$ 

Battery pack - 4" x 2" x 7"

100 x 50 x 180 mm

Shipping Container - 10" dia x 16" 254 mm dia. x 410 mm

WEIGHTS:

Instrument - 5 lb. 12 oz. 2.6 kg Battery pack - 2 lb. 4 oz. 1.0 kg Shipping - 13 lb. 6.0 kg

THE TOWNSHIP

# POWELL

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

# LEGEND

PATENTED LAND	P
CROWN LAND SALE	C. <b>S</b> .
LEASES	<b>(</b> )
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L. <b>0</b> .
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	14 +3
MINES	*
CANCELLED	

### NOTES

400' Surface Rights Reservation along the shores of all lakes and livers

LO 7501 Covers Flooding Rights In This Tay To Pelow Contour 870 OU to HEAD

DATE OF ISSUE MAY 2 1976 SURVEYS AND MAPPING BRANCH

PLAN NO. M. 241

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

200

Park boundary.

Post Office...

Declination of the compass needle is decreasing annually 1' within the area shown green.

FIRST EDITION PUBLISHED 1974

Index to adjoining maps of the 1 Inch to 2 miles series

Ontario Coordinate System Zones are indicated in red.

Lookout tower.

Alienated surface rights and Indian Lands ...

8. Sixt, W., Estate.

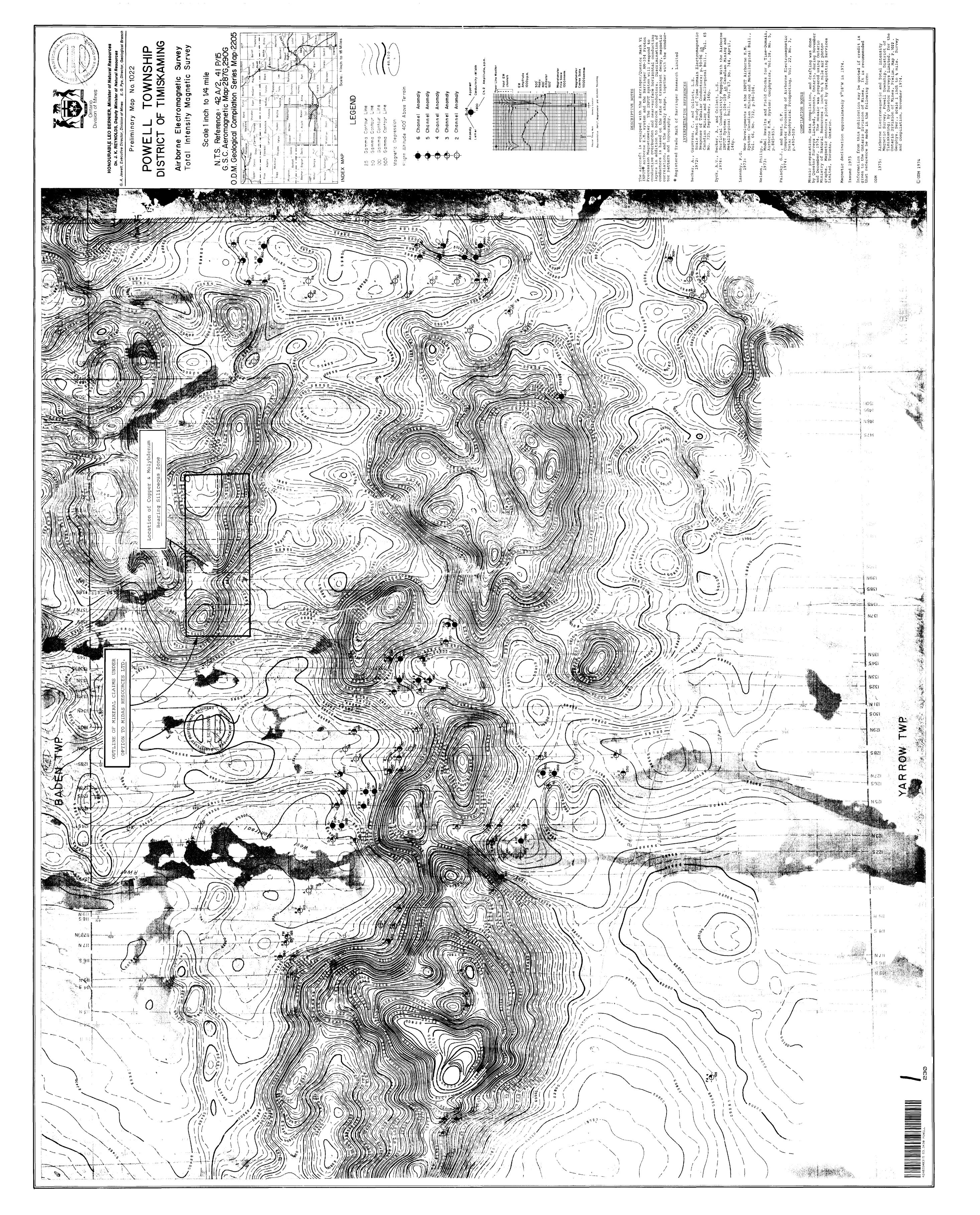
220

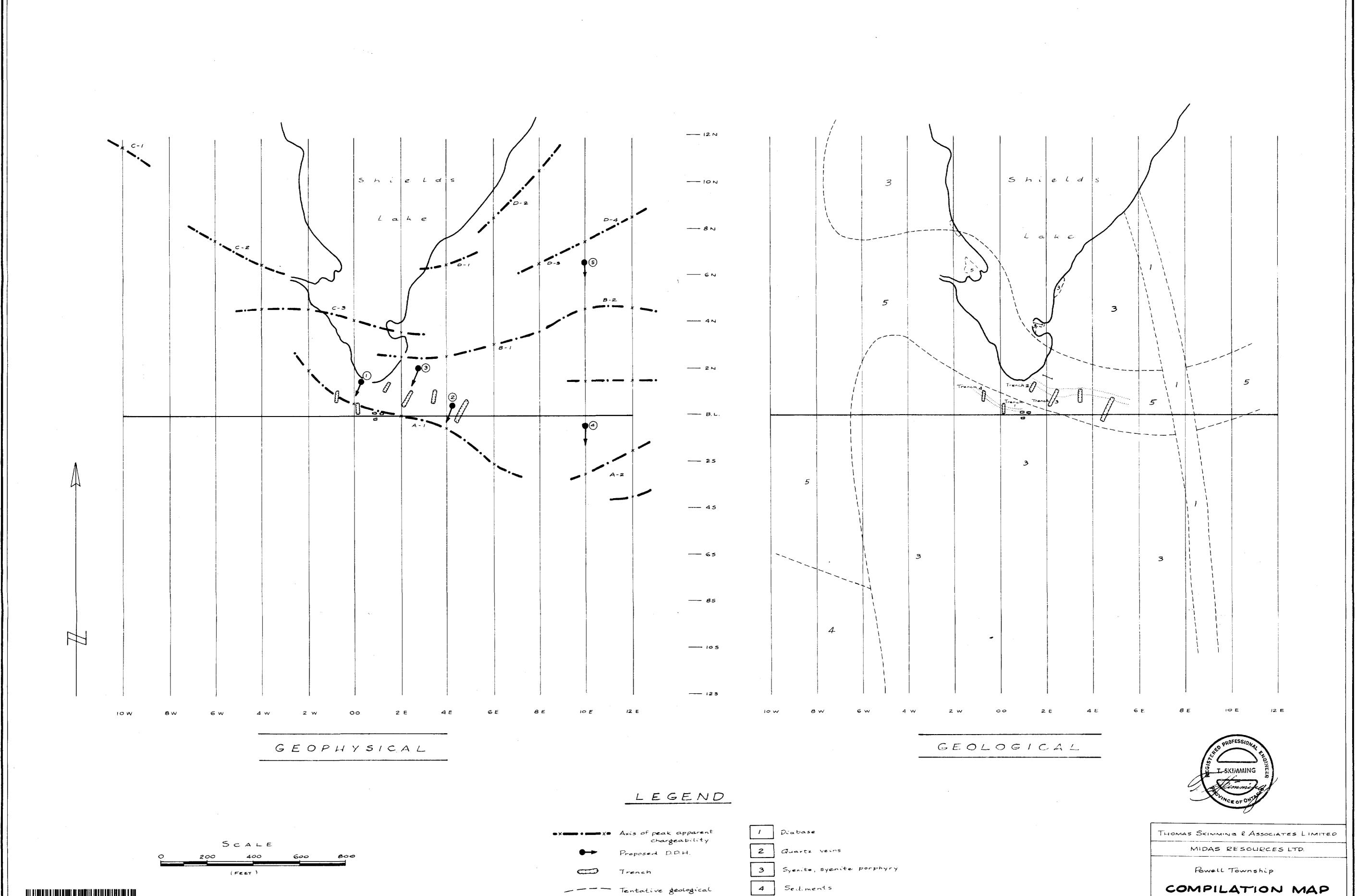
20. Talbot, H.

'td. (Ethel Copper property). 21. Willetts, H.

oper Gold Mines Ltd. Mines Ltd.

\*Unconsolidated deposits. Cenozoic di posits are not differentiated on the map. For the most part they coincide with the lighter coloured parts of the map. \*\*Betrock geology, Outerops and inferred extensions of each rock unit are stawn, respectively, in deep and light forces of the same colour.





Tentative geological

Strike of foliation

Outcrop

contact

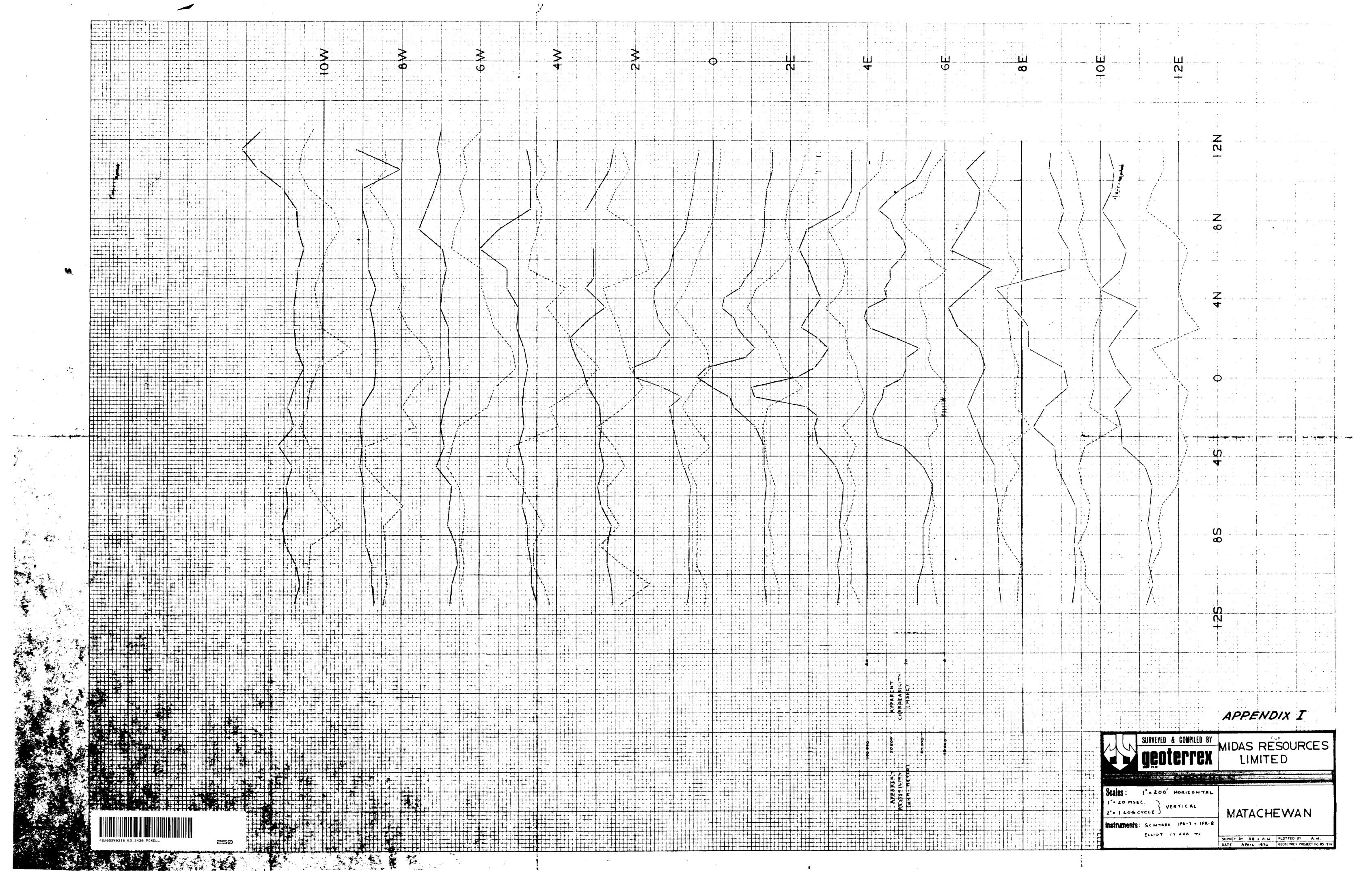
Volcanics

District of Timiskaming, Ont.

Plan No: MRL-3

September. 1976

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#### **Problem Page**

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We apologize for the inconvenience.

#### Problème de conversion de page

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