# KORDOL EXPLORATIONS LIMITED <br> MAGNETOMETER SURVEY <br> HYMAN TWP. PROPERTY <br> ONTARIO 





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19 Molinda stroot: Toronto 1, Ontarié
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MAGNETOMETER SURVEY. HAONBTOMETER SURVEX
suddury aran frophaty
by
Miohael Dgdon

#  

suite 407
19 Melinda street Tbrohso, 1, ontario. $\qquad$


MAOAETOMETER SURVEY, SUDBURY AREA PROPERTY

## REFERENCES:

1. Kordol Report and map by Ogden, Apr is, 2959
2. 2914, Espanola Sheet, C. S.C. 1928
3. Claim map, Hymn Tomalip.

INTAODUCTIUM:

During tho period June 10 to August 28, 1959, a Magnetometer Survey was conducted over the entire property of Kordol Explorations Limited in Hymen Tomship, Sudbury Mining District, Ontario.

One son of heavy sulphide mineralization with copper and nickel was known to exist in the southwest corner of the property. Other moving of sulphide mineralization vera suspected but their locations wore not defined. A Magnetometer survey was thorciore conducted for two specific reasons: first, in order to see whether or not the mineralisation itself. was detectable by magnetic survey, and secondly to discover if the
rocks which oncloned the mineralisation vere magnotically difforent from other rock types which underlay the property.

## propraty

The property congists of 15 unpatentod clains in Hyman Tomship, some 40 miles wast of Sudbury, Ontario.

| Consession | 1, KR | quarter | of $\mathrm{H}_{1}$ | lot 6 la | claim | S-100391 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1, 3W | " |  | ' 6 | \% | S- 99461 |
| - | 1, SE | " | " ${ }^{\text {n }}$ | 6 | " | S. 99460 |
| " | 1; KW | " | ${ }^{n}$ S $\mathrm{n}^{\frac{1}{2}}$ | " 6 | " | S- 99462 |
| * | 1, NE | " |  | " 6 | " | S. 99459 |
|  | 1; SV | * | " ${ }^{\text {a }}$ | 6 | " | s-100397 |
|  | 1, S8 |  |  | 6 |  | S-100398 |
| " | 1. NW | " | ${ }^{n} \mathrm{~N} \mathrm{~N}_{2}$ | $\cdots 5$ | " | S-108459 |
| " | 1) NE |  |  | 5 | " | S-108460 |
| " | 1, SW | " |  | 5 | " | S-108462 |
| " | 1, SE | " |  | 5 | " | S-108461 |
| " | 1, NW | " | $5 \frac{1}{2}$ | 5 | " | S-108453 |
| " | 1, NE | " | " ${ }^{\text {n }}$ | " 3 | " | s-108464 |
| " | 1, SV | " | " | $1 / 5$ <br>  | " | S-108466 |
|  |  |  |  |  |  |  |

accrass:
The property may be reached by boat, from the small town of Turbine at the east ond of Agnow lake. The ceosswater distaice is about two miles. Aircraft may also be used, landing in a long marrow bay of Agnew Lake it the northeast corner of the property. The transportation of hoavy equipmont to andfrom the property is best done by road or rail from Nairn, which is on Highuay 17 and the C.P.R. A good gravel road leads from Niairn across the Spanish River by forry, to within two milos of the southwest corner of the nordol proporty. A bush road connects the gravol road with the proparty.

ExOLOOX:
a goologicai cytur hes begn dopg framediatoly
following the sertetowidor cirvor. Although the linal results are not ploted, the distribution of rock types in the rordol property is quite obvious. sille or dykes of Nipisaing-typo diabase underlie the northern half and the outhern quarter of the gordol erond. The remaining quarter is underlain by Ramsay-Lake-type conglomerate. The strike of the formations is east-northeast with decop dips to the south. Tour occurrences of sulphide minornilsation haro beon located and all of them are within the Niplssing-type diabase rock. Tho mineralisation Ls mostly pyrite and pyrrhottite vith aniac olialcopyrite and a liftlo pontlends:

HETHOD OF SURVEY
A Sharpo d-2 magnetometor was used, serial number 102, with a senaitivity of 22.0 camaa per scale division.

A base lino vas cut east and west througk the north contral part of the property and picket lines wore rur north and south at 200 foot intervals from the base ine. Magnetometer readings vero taken at evory 100 foot interval aloug each picket linc and if anomalous readings vero oncountered, theinterval vas shertened to 50 foet and occasionally to 25 foot intorsals. A total of 16.6 milcs of IIns were aurreyed by magetometer for a total of 904 atation readings.

The anin base station is located on IIne mero at base 1ine. Its arbitarily aseionad valuo is 1500 gamas. All readings were calculated so that their valuo is what it vould have been had the whole 904 readiugs becn taken simultaneously with that of tho main base station. The calculations remove most of the effect of the hour to hour, dey to day and wook to Yoek variations in the carth's magnetic pield, plus jars and shakes to the instrument that might alter its ability to measure magnotic intonsity. Subsidiary stations,or control stations, were ect up at convoniont locations about the property and vere very accurately tided to the base station. During the colirne of tho survey, readings were takon on a control station or the mainbase station at least ovory tro hours in order to determine tho diurnal variations.

## MAONETIC TEXTURES:

The magnotoaetor roadings as shom contoured on the accompanying plan of the property display two distinct textures. The northera half and southorn quartor of the property are movth toxtured with the occasional bump or hollow. Whoreas the south contral quartor is rough textured with frequent magnetic bump, mounds, hills and a few hollows. The general magnetic intensity of the smooth textured aroa is 1500 gamas and tho rough area avoraget 1600 gammas.

These resulter wore not as expected, for the smooth textured magnetic rosula overlic arass that have been found oo bo undoriain by diabase, which would be expected to be quite variable magnetically.

The rodg texturo wa found to rerlect the kameat like type of conglomerate, with the exception of the mest otsterly 400 pet, which le underlain by diabase.

## AXOHALIES HITHIN THE TRXTURAL DIVISIONS:

Sulphide mineralization has never been formd in the sediments optined by the rough textared magnetics. Thorafore the numerons mall, magnetic anomalies in thim area niay be considered insignificant,

All the known eulphide deposita on the property are in the diabase as reflected by fho amooth texturod magnoties. Thus it is within this aroa that the aignificant anomalies exist.

1. Main ahouing, at 2900 feet 3 outh on line 32 wost. Hore, a very sharp magnetic negative (minus 7410 gammes) was encounterad on top of the mineralisntion.
2. Shaft shoring. On Iinc. gerote 900 feet south. Here, considerable sulphide were exposed near the erratic magnotics on the linez
3. A small ohowing of aulphlia minerilization on line 2 west at 700 feet outh. fifty feet south of the exposure, there is a 6710 gama reading and immodiately north of it, an 1150 gema result.
4. An 1800 gama a nomaly on lino 18 weat at 400 feet south. This azomaly is on, a large outcrop where no significant aineralization was noticod. It is thereforo unlikely to be productire.
5. A 600 gama anomaly on line 24 west 100 teet south taken in conjunction with e 100 to 200 camal deprosition on Ine 28 west at 100 foet sonth. As both these mild nomalous conditions are in areas of heavy overburden tho rock cannot be examined. Thoy should bo furthor inyestigated. If the overburden is quite thick, it could dampen tho magnetio rosults.
6. A 300 grame anozaly on lino 36 west at 2800 feot south. Thisis a swall anomaly, close onough to the main No. 1 showing that there might be some connection and therofore it should bo investigated alons with tho min siowing.
7. A 400 gamm doproselon in one location on linc 10
wost at 3000 foct south. Inis anomaly is at the contact between diabase on the north and groywackes to the souih, and is unlikely to bo productive, but vould bear somo further investigation.
cencmsions:
8. The main showing should be frilled at close intorvala with a series of short holes in osder to properiy est:ablish ita tenure and trend.
9. If significant mineralization 1 encountered in the above drilling,programe, anomalous arean $2,3,4,5,6$ and 7 shouid be investigated by geophysical means in order to ostablish tho dircction of any concentrated mineralization nearby.


RECOMMENDATIONS'

1. Drill 6 holes inter the main showing from north to south. Bach hole to be 30 feet apart. The holes to be drilled in two series of 3 holes each, the second or deeper series to be 30 feet beneath the first series.
2. Electrical-Coophysical work could boat bo done by the soleden type survey where a crow could go onto the property for ono or two days and qulekly'chock the vicinity of the magnetically anomalous areas.

Rospoctfully submitted,


Michael Ogden
ax 15,1959

# Kordol Explorations Lialtdd 

lagnetometer surver
Hyan Tomship lroporty, Ontario.

Lino Cutting: Period from June 10 to July 25, 1939. days
Hallece Hurray - 97 Duneden Dr., Toronte 33
George Popowioh - Sudibury, Ontario 30
Mernotometor Operntors Period from July 16 to Aug. 28, 1959.
Vallace Nurrey - 87 bunedon frive, Toronto 42
Techaical assistants to operator: Juiy 16 to Aus. 2E, $1959^{\circ}$
Coorge popesich - Suebury, catario 20
S.E. drastrong - Sudbury, Ontario 13

Repore proparation and consulting- June 10 to Aag. 28, 1959.
Mohacl Ogden - Bay itreet, roronto 10

| Total |  |
| :--- | :--- |
| Thucs factor of 4 | 150 |
| 000 |  |



Hichael Oeden.

See Accompanying Map (s) Identified As
$\qquad$
HYMAN-0025-B1-1

Located in The Map Channel in The Following SEQUENCE ( $x$ )


# KORDOL EXPLORATIONS LIMITED <br> mAGNETOMETER SURVEY 

HYMAN TWP. PROPERTY<br>ONTARIO

LEGEND


Scale $\frac{1}{2400}$ or 1 Inch to 200 Feet

