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MATCH CAPITAL RESOURCES LIMITED

REPORT ON WORK PROGRAM

DECEMBER 27/89

I. C. CHRISTOPHER, B.Sc.P.Eng.

INTRODUCTION:

Match Capital Resources Limited hold a group of 19 claims in the south eastern corner of Baden Township in the district of Timiskaming Province of Ontario

The property consists of the following claims:

1050041	1050047	(7)	
760125	760129	(5)	
737106	737107	(2)	
737112	737113	(2)	
1046233	1046234	1046235	(3)
Total			19

A work program was carried out over the property during 1989. The work consisted of line cutting, magnetic and ~~electro~~ magnetic surveying. Later in March 1989 an induced polarization survey was carried out over the property.

The results of the work and the recommendations are presented in a report by G. P. Thoday, P.Eng. dated May 18, 1989.

A copy of the results of the Geophysical work and the conclusions and recommendations contained in the report of G. P. Thoday, P.Eng are attached as an addendum to this report.

In September 1989 a work program was initiated to carry out the recommendations contained in the Thoday report.

WORK CARRIED OUT TO DATE:

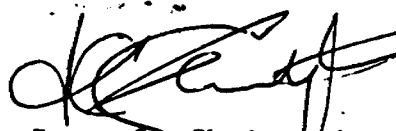
A program of stripping and trenching was carried out over the showing area and stripping was attempted on several of the anomalies. Geophysical mapping is still being completed over the area. Several samples were taken for assay.

A diamond drill was moved on to the property early in October of this year.

Six holes have been drilled totalling 3300 feet. The drilling was carried out to test geophysical indications. The drilling has encountered shearing and mineralization consisting of disseminated pyrite in the holes but no commercial values have been obtained to date.

Logs of the holes are enclosed with this report.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Ivan C. Christopher', written in a cursive style.

Ivan C. Christopher B.Sc.P.Eng.

C E R T I F I C A T E

I, Ivan C. Christopher, of the City of Toronto, in the Province of Ontario, do hereby certify that:

1. I am a consulting mining geologist with business address at 330 Bay Street, Ste 1503. Toronto, Ontario.
2. I am a graduate of the University of Saskatchewan and have been practicing my profession since 1938.
3. I am a member of the Society of Professional Engineers of Quebec and a member of the Canadian Institute of Mining and Metallurgy.
4. I have no interest either directly or indirectly, nor do I anticipate any interest either directly or indirectly in Match Capital Resources Limited.
5. My report is based on a general knowledge of the area and several visits to the property, and, in supervision of the work program

Dec. 28/89.


I. C. Christopher, B.Sc., P.Eng.

APPENDIX "A"

"From report by G. P. Thoday, P.Eng. Match Capital Resources Limited on the Baden Township property". dated April 27/89.

CONCLUSIONS & RECOMMENDATIONS:

Several gold showings have been found in Baden Township indicating that this is a favourable area for exploration. A gold showing is located on the Baden Property which has been traced for over 100 meters and is about 0.6 meters wide. It is open as the extension of the zone is covered by overburden.

Several geophysical anomalies have been located on the Baden Property. An electromagnetic survey on the Property located 5 conductors and an Induced Polarization survey over the Property located 5 clear anomalies. Diamond drilling has been recommended to test these indications.

Some of the induced polarization anomalies occur in the area where electromagnetic anomalies were obtained. Some of the drilling will check both induced polarization and electromagnetic anomalies for the same hole.

In view of this gold mineralization occurring on the Property and the geophysical indications it is believed that the Property warrants further investigation.

It is recommended that a program of diamond drilling be undertaken to test the extension of the gold bearing zone and the geophysical anomalies. Additional stripping is also recommended to attempt to extend the zone or locate it along the strike.

MATCH CAPITAL RESOURCES LIMITED

BADEN PROPERTY

HOLE 89-1

Location Line 500E at 250 M South
Drilled South at 45 degrees.

0-298

Volcanic dark green fine grained calc-alkaline
rocks with patchy alteration and local narrow
seams of pyrite and blebs of chalcopyrite.

298 - 469

Cherty Sedimentary - dense fine grained breccia
with scattered pyrite, pyrrhotite and quartz
veins and sericitic alteration.

469 - 500

Volcanic patches of pyrrhotite and scattered
chalcopyrite.

500 end of hole

MATCH CAPITAL RESOURCES LIMITED

BADEN PROPERTY

HOLE 89-2

Location Line 700E

200 M North
of South B.L.

0-10

Overburden

Drilled South
at 45

10-416.6

Volcanic Medium Grained

416.6 - 530 Dark Grey Graphitic

Chert Fine Disseminated Pyrite with Epidote and fine
quartz stringers.

530 - 568

Medium grey argillite occasional patchy and disseminated
pyrite.

568-600

Medium grey basalt hornblende phenocrysts
568 - 571.7 patchy and disseminated pyrite

600 end of hole.

FROM
GEO SIG INC
MATCH EXPLS I.P. SHAWBY
BADEN PROPERTY

BASIS

LINE

89-1
-45°

IP16

760128

89-5
45°

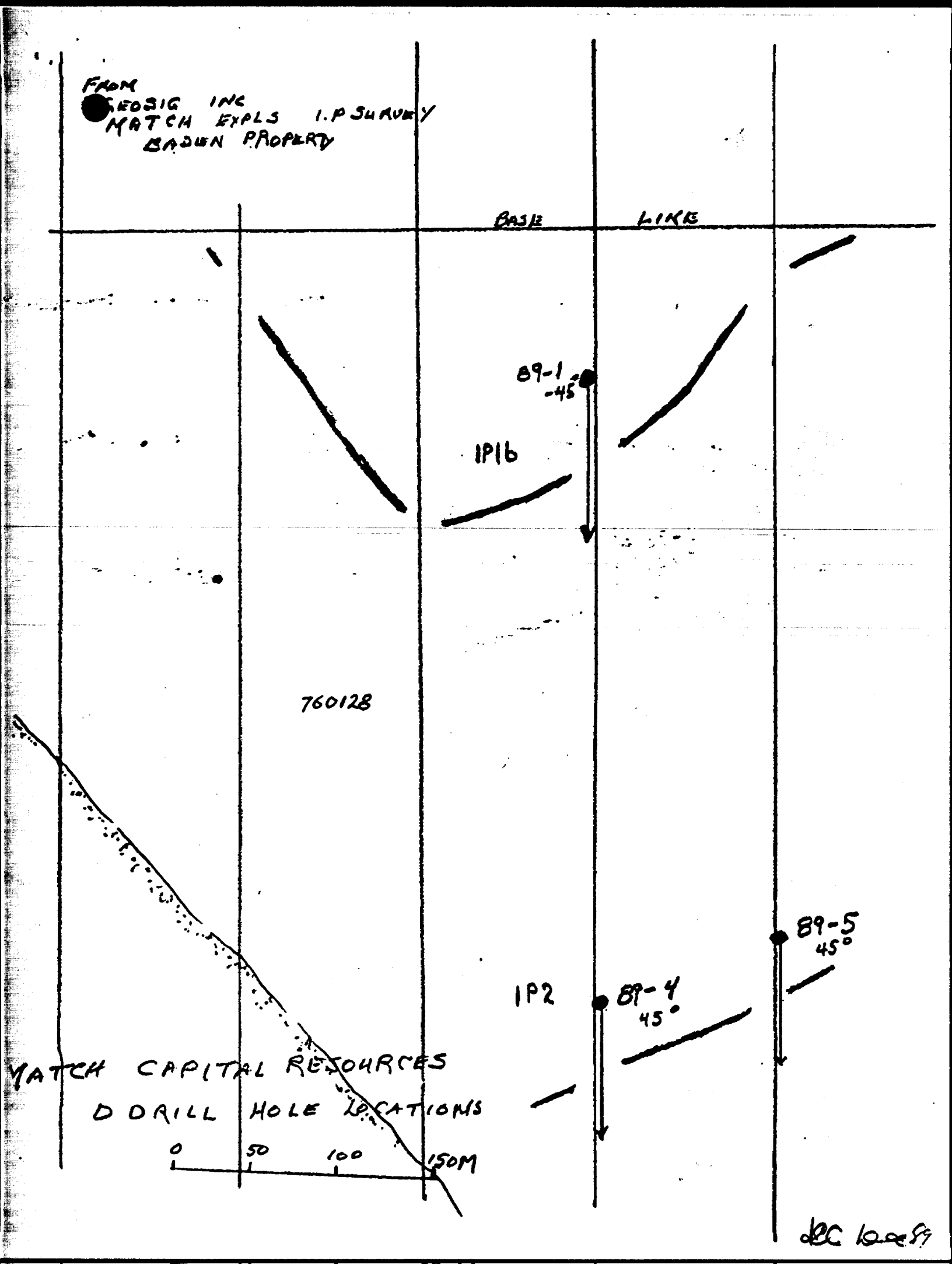
IP2

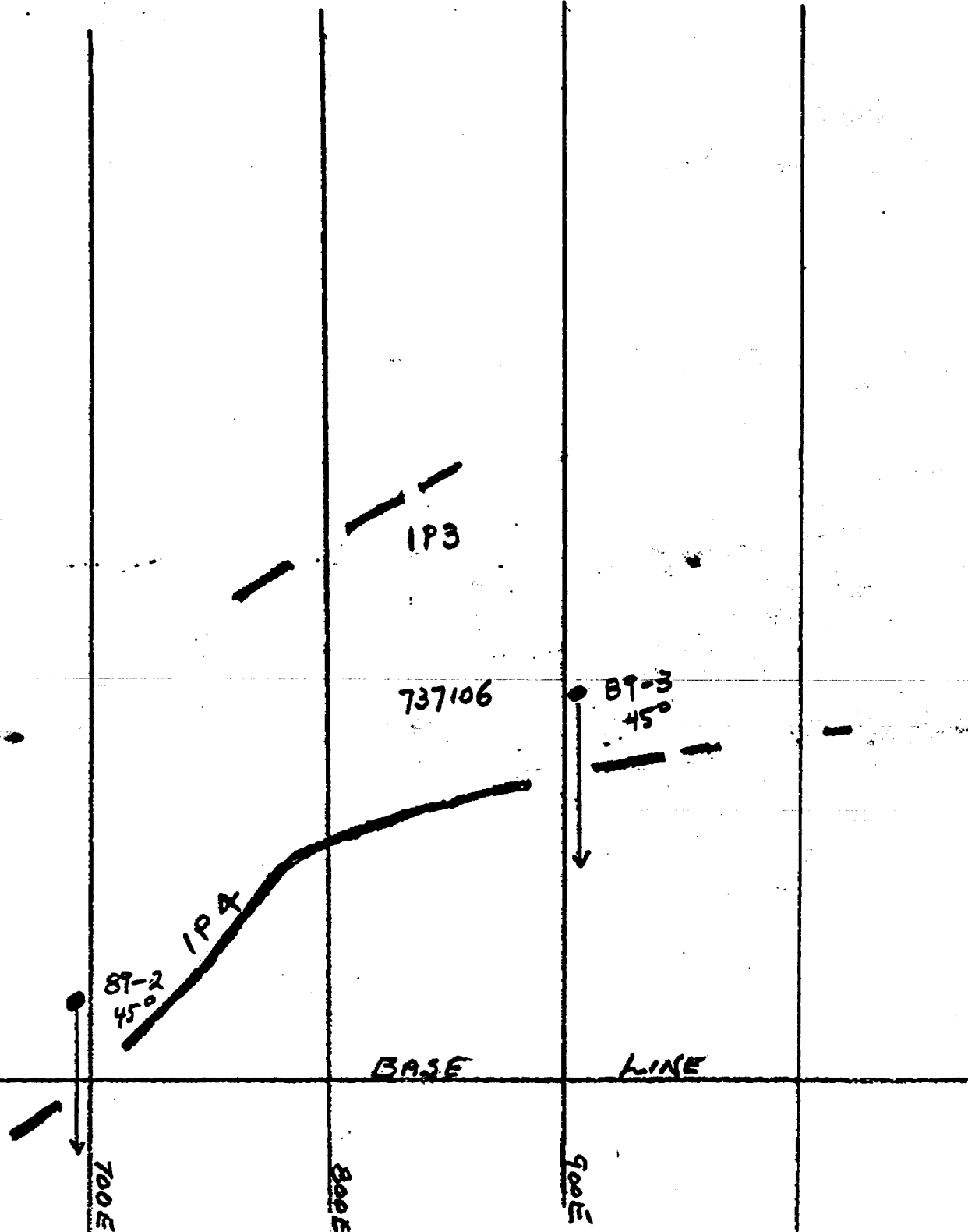
89-4
45°

MATCH CAPITAL RESOURCES
D DRILL HOLE LOCATIONS

0 50 100 150M

DEC 1989



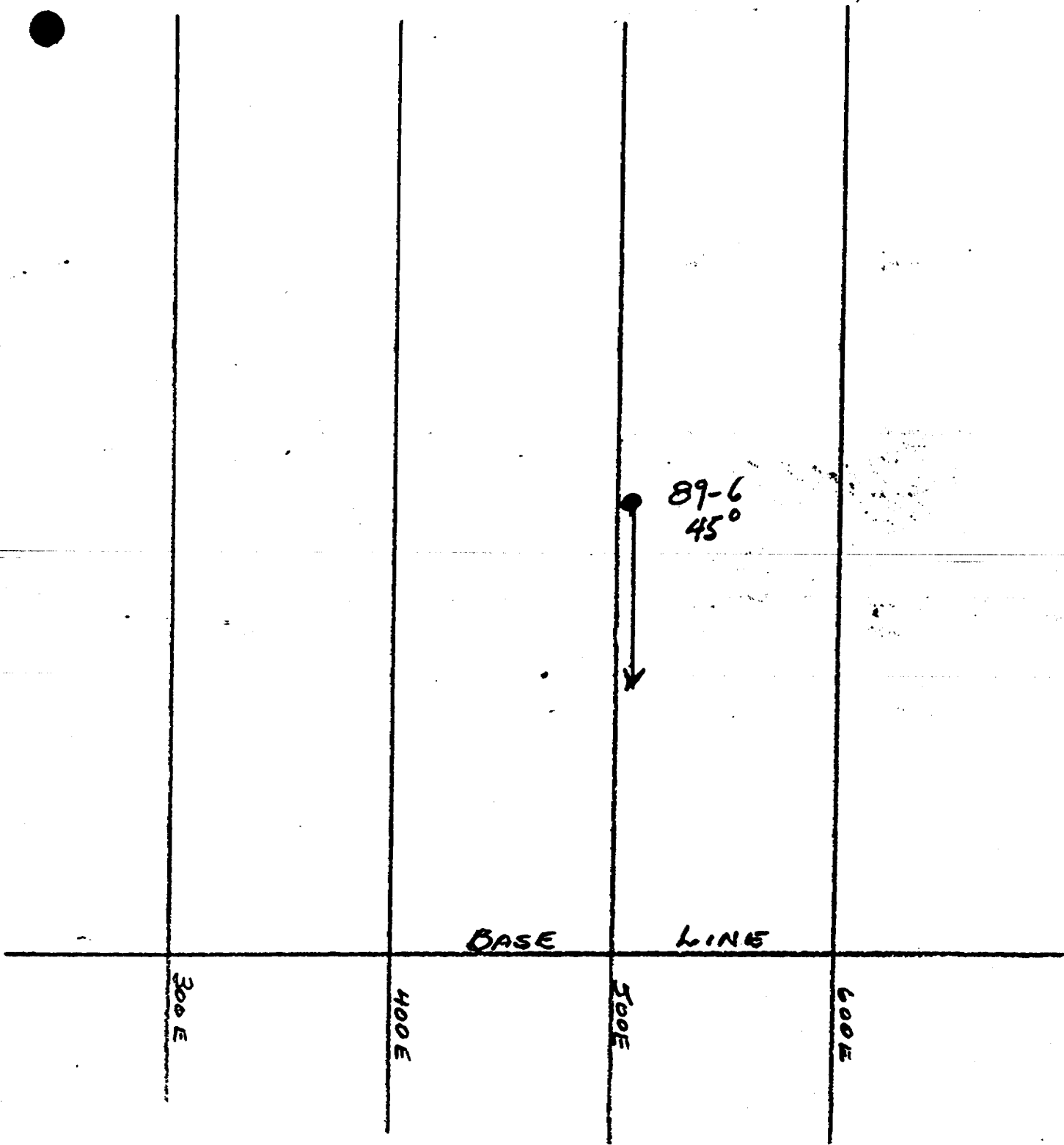


MATCH CAPITAL RESOURCES
D.DRILL HOLE LOCATIONS



KDM:
GEOSIG INC
MATCH EXPLORATIONS I.A SURVEY
BADEN PROPERTY.

DC Doe 89



MATCH CAPITAL RESOURCES
D. DRILL HOLE LOCATIONS



FROM:
GEO SIG INC.
MATCH EXPLS. I.P. SURVEY
BADEN PROPERTY

dec. 6e 99



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A REPORT
ON THE PROPERTY OF
MATCH EXPLORATIONS LTD.
BADEN TWP.
ONTARIO

April 27, 1989.

G. P. THODAY P.Eng.



SUMMARY	1
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- (1) GENERAL LOCATION MAP
- (2) MAP OF GEOLOGY OF THE AREA - AND VARIOUS SHOWINGS
- (3) MAP OF DRILLING
- (4) MAP OF LINE CUTTING
- (5) MAPS OF GEOPHYSICAL WORK

SUMMARY:

Match Explorations Limited hold a group of 19 claims in the Southeastern corner of Baden township in the district of Timiskaming Province of Ontario.

Gold was first discovered on the property in 1936 by G. L. Holbrooke Exploration. Work has been carried out spasmodically on the property now held by Match Explorations Limited since that time to the present.

Recent work gave encouraging gold values on the main showing. The gold bearing zone has been traced for over 100 meters. Widths are in the order of 0.6 meters. Overburden coverage prevents tracing the vein farther along the strike.

A magnetometer survey and VLF electromagnetic was carried out over the property and outlined several anomalous zones. Three short holes were put down in 1985 to check one anomaly

The three holes were not drilled deep enough to test the anomaly, the deepest went to 125.

During the past month a work program consisting of trenching, sampling and assaying was carried out. A line cutting program and additional magnetic and electromagnetic were completed over the whole project and an I.P survey is being completed.

INTRODUCTION:

Match Explorations Limited has acquired an option to acquire 19 claims located in the southeastern corner of Baden township.

The property is located on the east side of the Montreal River bordering on the south boundary of Baden township in the Larder Lake Mining Division of Ontario.

The property is about 10 miles north west of the town of Matachewan. Matachewan may be reached from highway 11 by the paved road that runs from Kirkland Lake to Elk Lake. A road has been built from Matachewan to the property allowing access by truck or jeep.

The Property consists of the following claims:

1050041,	-	1050047	(7)
760125,	-	760129	(5)
737106,	73107 -	737112 -	737113(4)
1046233	1046234	1046235	(3)
			<hr/>
			19

BADEN TOWNSHIP:

There have been several gold discoveries in Baden Township which are documented in the records of the Ontario Department of Mines.

Baden Gold Mines is located in the north western part of the township. A considerable amount of work has been carried out on the property including diamond drilling and the sinking of a shallow shaft.

Richore Gold property to the north of Baden gold mines located a shear zone cutting volcanic rocks and granite containing pyrite mineralization and selected samples gave gold values.

A sample taken by the Ontario Department of Mines geologist from the McVittie property located in the central part of the township gave an assay of 0.14 ounces of gold.

The Hines property to the west of the McVittie property also located gold values.

HISTORY OF THE PROPERTY:

A gold showing on the property was first discovered in 1936 by G. L. Holbrooke. Assay results are reported to have returned values of from .01 to .46 ozs. of gold per ton.

Sampling was carried out on this discovery by Keernicki and O'Bradovitch and returned values up to 0.44 oz. gold in 1984 over 2.5 feet.

Geophysical work consisting of Magnetic and electromagnetic surveying was carried out over part of the property during 1984. They located several anomalies.

Three short drill holes were put down to test an electromagnetic anomaly in 1985. These holes were short holes drilled mainly for assessment work. The holes did not go deep enough to test the geophysical anomaly. Hole #1 was drilled to a depth of 110' the second hole to a depth of 112' and hole #3 to a depth of 125'.

Recent work has consisted of cutting grid of picket lines over the whole property and carrying out an electromagnetic and magnetic survey over the property which permits relating the known anomalies to the present grid also some additional trenching and sampling was carried out.

GENERAL GEOLOGY:

The area forms a small part of a large belt of "greenstone" extending from southwest of Timmins Ontario to Chibougamau Quebec. The general geology of part of the belt in Ontario is shown on the compilation map, Timmins - Kirkland Lake sheet (Map 2046) of the Ontario Department of Mines and on Map 2109 Baden and Alma townships Timiskaming District of the Ontario Department of Mines. The rocks are of Precambrian age and consist of volcanic and sedimentary rocks. Both are cut by Mafic and Silicic intrusions.

The property is underlain by basalt and andesite. Younger diabase dykes cut the formations. A major trending fault called the Montreal River Whitney Lake Creek fault runs along the western boundary of the property.

LOCAL GEOLOGY:

The predominant rocks underlying the property consist of sheared carbonatized greenstone including andesite tuff agglomerate and basalt. The general strike of the schistosity is north easterly.

A granite intrusive occurs on the south boundry of the property.

A gold showing occurs on the northern part of the property. This was found in 1936.

Recent work on the property has traced the zone for 100 meters and is open on the strike but is covered with overburden.

Widths appear to be in the order of 0.60 meters. The showing occurs just north of an east west trending V.L.F. conductor.

The showing is contained within a band of felsic volcanics and the gold bearing horizon itself is a coarse fragmented rock with a siliceous chloritic matrix. The fragments and the matrix contain very fine grained uniformly disseminated pyrite as well as some blebs and fracture coatings of coarser grained pyrite.

The occurrence appears stratabound and as such is interesting since geologically it permits the possibility of extending the zone on the same horizon as well as permitting the repetition of similar zones.

References to government maps.

Map 2109 Baden and Alma Townships
Ontario Department of Mines

Map 2046 Timmins-Kirkland Lake Sheet Ontario Department of Mines

RESULTS OF GEOPHYSICAL

A ground electromagnetic and magnetic survey has been carried out over the property during February and March of this year to confirm and locate previous results carried out in 1984 and to locate a grid to establish the location of the anomalies.

The ground magnetometer survey was completed utilizing a proton magnetometer capable of reading total field values to an accuracy of plus 10 gammas. All readings were tied to a base station to correct for diurnal variations.

No major magnetic zones were outlined on the property. An interesting magnetic zone occurs on line 8E and 9E at 200 meters north. Several other magnetic zones were located.

An electromagnetic survey was carried out over the property using a VLF-EM 16 unit manufactured by Geonics Ltd.

One east west anomaly occurs on the northern part of the property and extends from chainage 100 meters north on line 0 to 450 meters north on line 13E. This anomaly reflects a structural trend and may represent shearing. It is shown on the map as Anomaly "A".

Anomaly "B" extends from 50 meters north on line 8E south easterly to 50 meters south easterly to 50 meters south on line 12 E.

Anomaly "C" occurs at chainage 150 meters south on line 4E. This is a small anomaly and is considered interesting and should be drilled.

Anomaly "D" occurs on line 4E at chainage 400 south and extends to line 6E at chainage 425 south. This anomaly is a local structure and probably represents shearing. It should be tested by diamond drilling.

Anomaly "E" occurs on line 11E at 650 south and trends north easterly to line 12E at chainage 600 south. This anomaly should also be tested by diamond drilling.

DISCUSSION OF INDUCED POLARIZATION SURVEY

GEOSIG INC. carried out an Induced Polarization Survey in March 1989 on the Baden township property of Match Explorations Limited.

An I.P. survey is carried out to detect conductive and or polarizable materials such as sulphides or graphite. The survey technique consists of measuring the chargeability M. and the apparent resistivity R. along the grid lines.

The results of the work has been plotted on the accompanying maps.

The I.P. survey identified five clear anomalies. Diamond drilling has been recommended to test these five anomalies.

A brief summary of the proposed drilling is discussed in the following paragraphs.

ANOMALY I.P. #1

The drill hole under line 4E referred to in the Gaucher report did not go deep enough to cover the recommended target in the Gaucher report. The holes recommended as a result of the VLF - EM survey holes #2 and 3 should suffice to check the I.P. anomaly as well as the E.M. indicator. The drill hole recommended to check the I.P. indication under line 3E at 355 and 755 should be covered by hole #1 as shown on the Map #4.

ANOMALY I.P. #2

The hole recommended by the I.P. survey should be drilled under line 5E at 450 south. A hole has already been spotted at -45 degrees under line 5E to be collared at chainage 325 south to be drilled south. This hole should be drilled deep enough to reach chainage 450 south and check the I.P. anomaly

The balance of the diamond drill holes recommended in the Gaucher report will be considered based on results of the diamond drilling program.

The first drilling program will test I.P. anomalies #1 & #2 as well as electromagnetic anomalies C and D.

Further diamond drilling will be undertaken based on the results of this work and on the results of geological investigation of the anomalous areas.

CONCLUSIONS AND RECOMMENDATIONS:

Match Explorations Limited has acquired an option on a group of 19 claims located in the southeastern part of Baden township.

Several gold showings have been found in Baden township indicating that this is a favorable area for exploration.

A gold showing is located on the Match explorations property. The zone has been traced for over 100 meters and is about 0.6 meters wide. It is open as the extension of the zone is covered by overburden.

Several geophysical anomalies have been located on the property.

An electromagnetic survey on this property located 5 conductors and an I.P. Survey over the property located 5 clear anomalies and diamond drilling has been recommended to test these indications.

Some of the I.P. anomalies occur in the area where electro magnetic anomalies were obtained. Some of the drilling will check both I.P. and E.M. anomalies for the same hole.

In view of this gold mineralization occurring on the property and the geophysical indications it is felt that the property warrants further investigation.

It is recommended that a program of exploration be carried out on the property to test the extension of the gold bearing zone and the geophysical anomalies.

The estimated cost of the program is set out below:

Geological <u>mapping</u>	\$ 10,000.00
4600 feet of diamond drilling	\$115,000.00
Trenching, sampling	\$ 12,500.00
Allowance for transportation	\$ 10,000.00
Supervision engineering assaying & travel	\$ 25,000.00
Suitable core boxes & storage	\$ 5,000.00

PHASE 2

Depending on the results of phase 1 additional 5000' x \$25.00	\$125,000.00
TOTAL	<u>\$302,500.00</u>

MATCH EXPLORATIONS LIMITED
BADEN TOWNSHIP PROPERTY
BADEN TOWNSHIP ONTARIO

REFERENCES:

- Ontario Department of Mines
Geological report 51
Geology of the Matachewan Area by H. L. Lovell 1967
- Ontario Department of Mines
Map 2046
Timmins - Kirkland Lake Sheet
- Ontario Department of Mines
Map 2109
Baden and Alma Townships
- Information from T. O. Bradovitch, Prospector
- Geosig Inc.
Match Explorations Limited
Induced Polarization Survey
On the Baden Property
Baden Township, Ontario.



**GENERAL LOCATION MAP
MATCH EXPLORATIONS LIMITED**

**BADEN TWP.
MATACHEWAN, ONTARIO**

SCALE 1"=160 MILES

MAP 1

Feb/89

ROBERTSON TOWNSHIP

RICHORE GOLD
MINES LTD.

BADEN

McVITTIE

HINES

BADEN

NORTHERN BEND

GRANITE

GRANITE

MATCH EXPLORATIONS
LIMITED

MAP 2




POWELL TOWNSHIP

ALMA TOWNSHIP

ANDYLE TOWNSHIP



PROPERTY GEOLOGY

	DIABASE
	GRANITE
	GREENSTONE BASALT ANDESITE

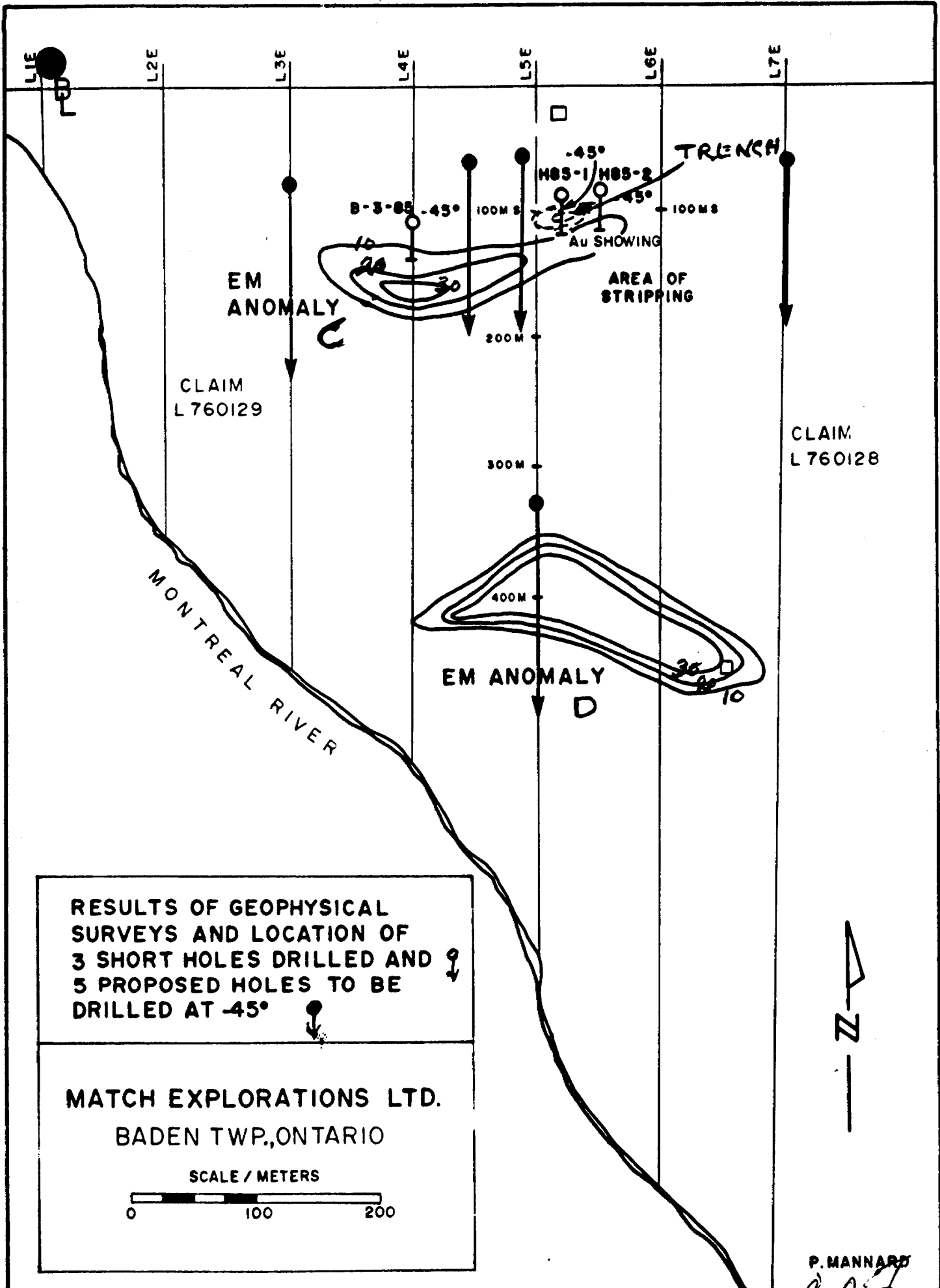
MATCH EXPLORATIONS LTD.
LOCATION OF MINING PROPERTY
 BADEN TWP. ONTARIO



SCALE

GEOLOGY TAKEN FROM ONTARIO DEPARTMENT OF MINES MAP No. 2109 BADEN AND ALMA TOWNSHIPS, TIMISKAMING DIST., ONTARIO. J. MANHARD

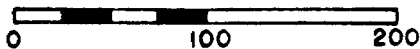
MPS



RESULTS OF GEOPHYSICAL SURVEYS AND LOCATION OF 3 SHORT HOLES DRILLED AND 5 PROPOSED HOLES TO BE DRILLED AT -45°

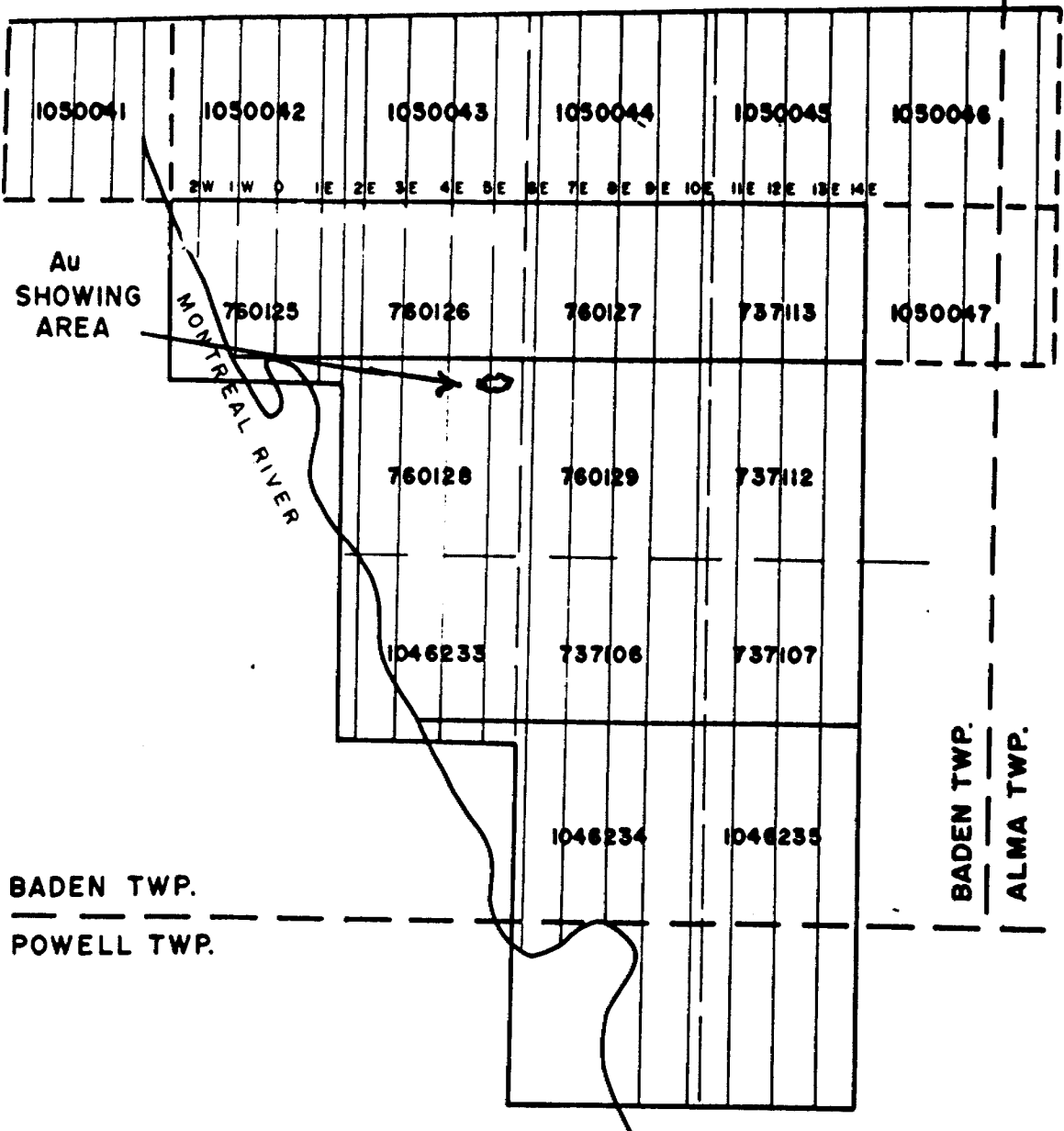
MATCH EXPLORATIONS LTD.
BADEN TWP., ONTARIO

SCALE / METERS

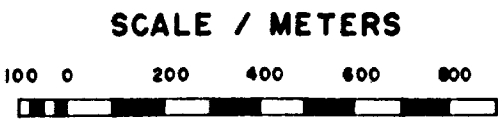


P. MANNARD

MAP 3



MATCH EXPLORATIONS LTD.
LINE CUTTING
BADEN TWP. ONT.

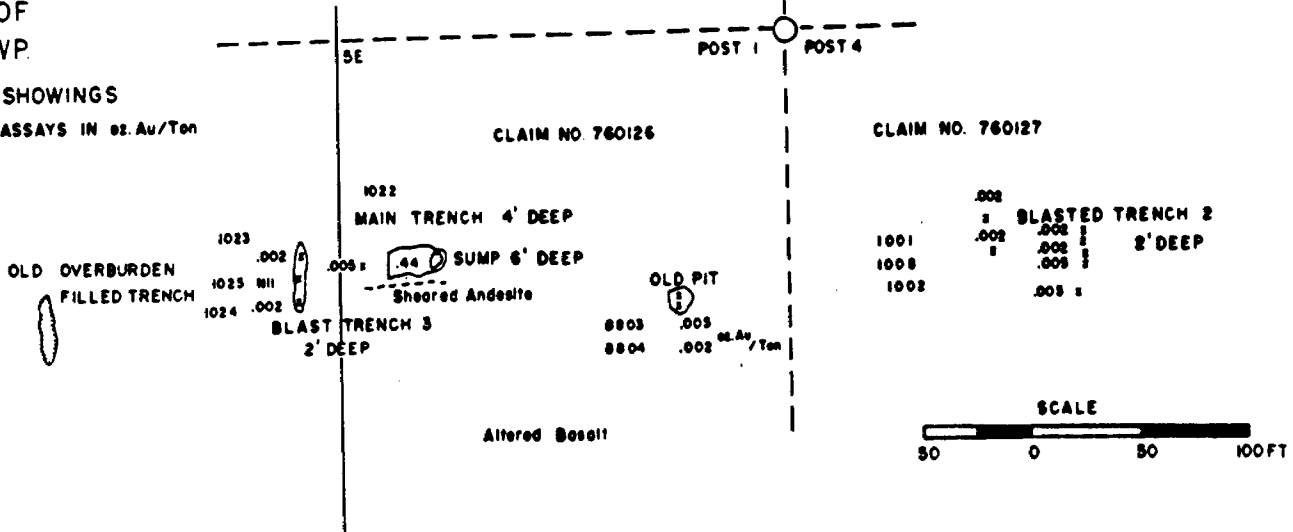
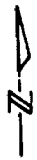


MAP 4

MATCH EXPLORATIONS LIMITED

PLAN VIEW OF
BADEN TWP.
TRENCHES AND SHOWINGS

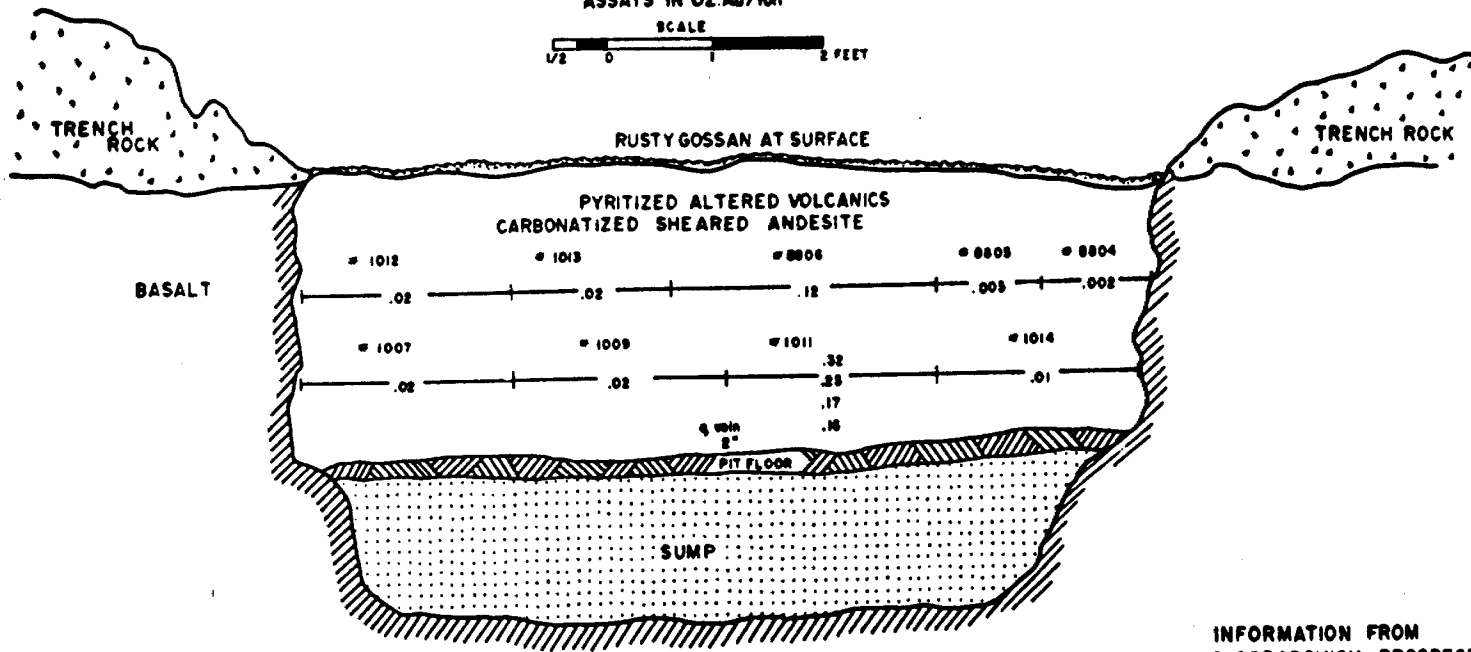
X-GRAB SAMPLE, ASSAYS IN OZ. Au/Ton



SECTION SHOWING CHIP CHANNEL SAMPLES FROM MAIN TRENCH LOOKING WEST

BADEN TOWNSHIP PROPERTY

ASSAYS IN OZ. Au/ton



INFORMATION FROM
T. OBRADOVICH, PROSPECT

MAP 5

MAP 3

M.P.S.

C E R T I F I C A T E

I, G. P. Thoday, of the Town of Haileybury, in the Province of Ontario, do hereby certify that:

1. I am a professional engineer in mining with business address Haileybury, Ontario.
2. I attended the University of Saskatchewan and have been practising my profession since 1942.
3. I am a member of the Association of Professional Engineers of Ontario, a member of the American Institute of Mining and Metallurgical Engineers and a member of the Canadian Institute of Mining and Metallurgy.
4. I have no interest either directly or indirectly nor do I anticipate any interest either directly or indirectly in the property or securities of Match Explorations Ltd.
5. My report is based upon geological information derived from various engineers' reports, and from supervision of a drilling program carried out on an adjoining property during 1964, and from a visit to the Property in September 1988, and government maps.


G. P. Thoday, P.Eng.

Haileybury, Ontario

THIS IS AN ADDENDUM TO
THE REPORT OF G. P. THODAY
OF APRIL 27/89
IN RESPONSE TO THE COMMENTS BY
THE ENGINEER OF THE O.S.C.

May 18th, 1989.

(1)

There are several gold showings in Baden Township.

There is a gold showing on Match Exploration property located in the south west corner of Baden Township.

Trenching and stripping on the showing has been carried out.

Three short drill holes were put down to test the gold showing in 1985. These holes did not get any commercial values but are believed not to have been drilled enough to hit the zone.

Recent work has outlined local E.M. anomalies.

An I.P. survey has outlined several I.P. anomalies some of which are coincidental with the E.M. surveys. These anomalies occur in the close vicinity of the showing area.

It is felt that these indications should be investigated by diamond drilling as recommended by the geophysical reports.

The author made a trip to the property in September 1988. The author has done a considerable amount of work in Baden township, having looked after an exploration program on the Baden Explorations property located in the north west corner of Baden township. The author was able to drive to the property now held by Match Explorations which will be a great help for future work. The showing area needs to be cleaned out. The pits are caved and partially full of water, as observed by writer. The showing is in acidic volcanics and is a rusty zone of shearing which is siliceous and chloritized.

- (3) A small amount of trenching consisting of cleaning out some of the trenches and some blasting was carried out to try and trace the structure. Gold panning was carried out which showed some colors in the area of the showing and some samples were taken which have yet to be assayed. Work on the property was in March and was hampered by the inclement weather. It was decided that it would be more efficient to wait for summer weather.
- (4) See enclosed map.
- (5) A chip sample across the showing assayed .44 oz. of gold across 2.5 feet.
- (6) The zone was traced for 100 meters by stripping. The zone consists of sheared and chloritized acidic volcanics with quartz stringers and fine pyrite mineralization.

- (7) The contour lines have been identified on Map 4.
- (8) V.L.F. anomaly A is a weak slightly anomalous zone that extends east-westerly across the northern part of the property of about 1200 meters.
- E.M. anomalies are usually conducting zones which may represent shear zones or graphitic schist. This anomaly is too weak in the writers opinion to represent a graphitic schist - so therefore it is probably a weak shear zone. The writer feels that such an extensive shear zone could be considered a structural feature.
- (9) The main showing contains very fine grained and uniformly disseminated pyrite as well as some blebs and fracture coatings of coarser grained pyrite. Pyrite is about 10% of the material in places. It is believed that this mineralization could cause an E.M. anomaly.
- The two E.M. anomalies C and D are very local indications and for this reason they are interesting. Ore bodies are usually of a local nature frequently no longer on strike then 1000 or 2000 feet. It is believed that these indications may be caused as concentration of mineralization.
- Also, the fact that I.P. anomalies occur coincidental with V.L.F. anomaly C and also anomaly D.
- (10) The holes drilled in 1985 are shown on Map 4 as well as the main trench.
- (11) The I.P. survey report was incorporated with the submission.
- (12) The Gaucher report is listed in the references as Geosig Inc. which is Gaucher's company, it has been submitted.
- (13) The reference to the Whisper Lake property is a error this has been corrected in the report.

- (7) The contour lines have been identified on Map 4.
- (8) V.L.F. anomaly A is a weak slightly anomalous zone that extends east-westerly across the northern part of the property of about 1200 meters.
- E.M. anomalies are usually conducting zones which may represent shear zones or graphitic schist. This anomaly is too weak in the writers opinion to represent a graphitic schist - so therefore it is probably a weak shear zone. The writer feels that such an extensive shear zone could be considered a structural feature.
- (9) The two E.M. anomalies C and D are very local indications and for this reason they are interesting. Ore bodies are usually of a local nature frequently no longer on strike then 1000 or 2000 feet.
- It is believed that these indications may be caused as concentration of mineralization.
- Also, the fact that I.P. anomalies occur coincidental with V.L.F. anomaly C and also anomaly D.
- (10) The holes drilled in 1985 are shown on Map 4 as well as the main trench.
- (11) The I.P. survey report was incorporated with the submission.
- (12) The Gaucher report is listed in the references as Geosig Inc. which is Gaucher's company, it has been submitted.
- (13) The reference to the Whisper Lake property is a error this has been corrected in the report.

- (14) The recommendation has now been corrected to include a geological mapping program.
- (15) The location of the gold showing has been shown on the magnetic and V.L.F. maps. The showing on Map 4 and Map 6 are in the same location.
- (16) O'Bradovitch's report is included.
- (17) The Montreal River Whitney Lake creek fault has been corrected on the maps.

RESULTS OF GEOPHYSICAL

A ground electromagnetic and magnetic survey has been carried out over the property during February and March of this year to confirm and locate previous results carried out in 1984 and to locate a grid to establish the location of the anomalies.

The ground magnetometer survey was completed utilizing a proton magnetometer capable of reading total field values to an accuracy of plus 10 gammas. All readings were tied to a base station to correct for diurnal variations.

No major magnetic zones were outlined on the property. An interesting magnetic zone occurs on line 8E and 9E at 200 meters north. Several other magnetic zones were located.

An electromagnetic survey was carried out over the property using a VLF-EM 16 unit manufactured by Geonics Ltd.

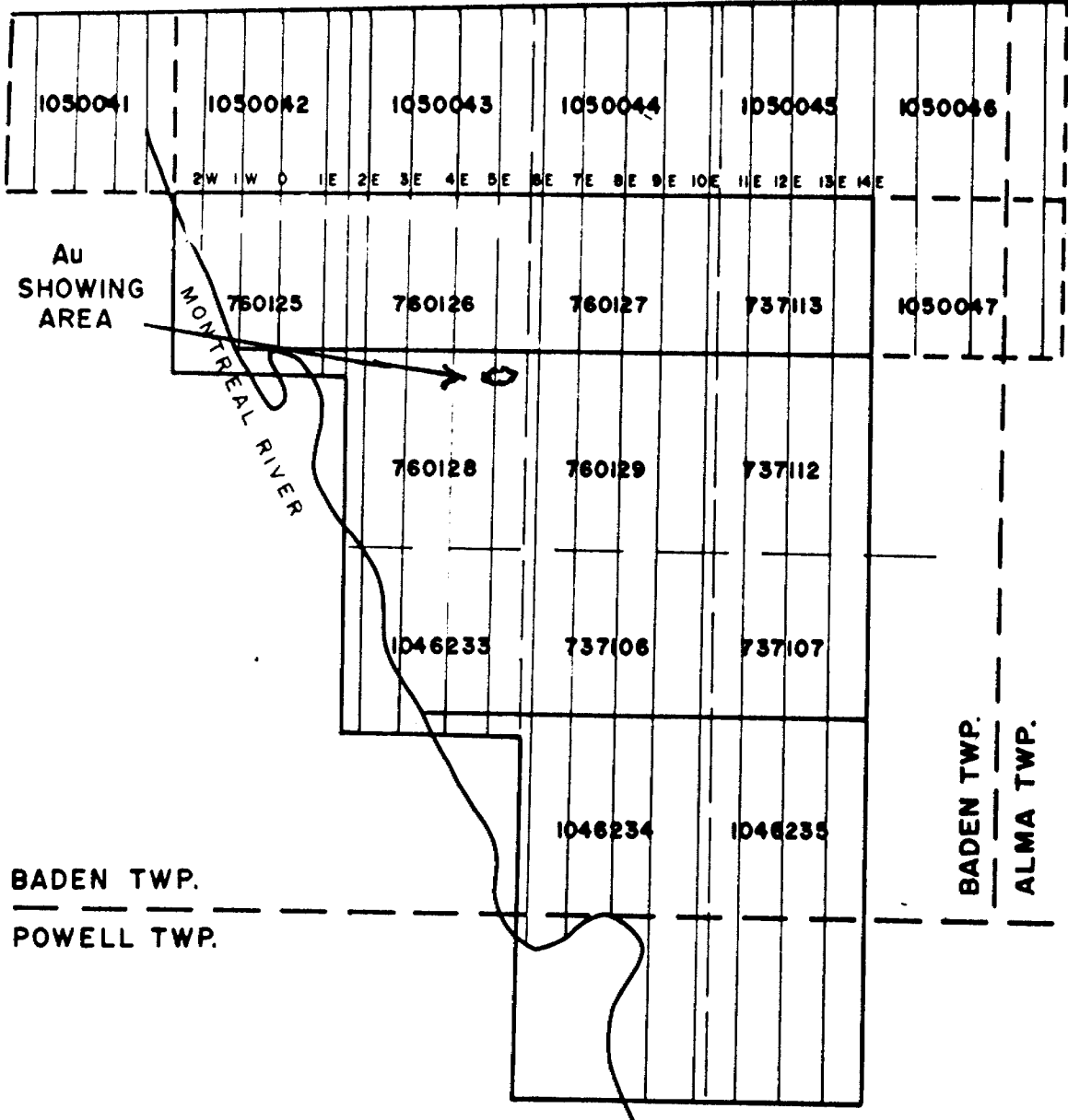
One east west anomaly occurs on the northern part of the property and extends from chainage 100 meters north on line 0 to 450 meters north on line 13E. This anomaly reflects a structural trend and may represent shearing. It is shown on the map as Anomaly "A".

Anomaly "B" extends from 50 meters north on line 8E south easterly to 50 meters south easterly to 50 meters south on line 12 E.

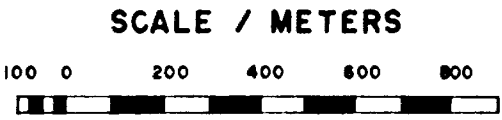
Anomaly "C" occurs at chainage 150 meters south on line 4E. This is a small anomaly and is considered interesting and should be drilled.

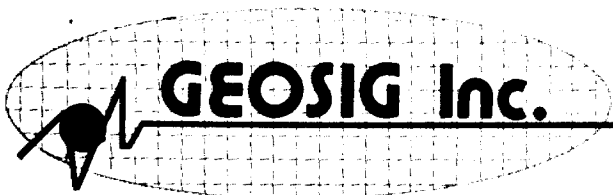
Anomaly "D" occurs on line 4E at chainage 400 south and extends to line 6E at chainage 425 south. This anomaly is a local structure and probably represents shearing. It should be tested by diamond drilling.

Anomaly "E" occurs on line 11E at 650 south and trends north easterly to line 12E at chainage 600 south. This anomaly should also be tested by diamond drilling.



MATCH EXPLORATIONS LTD.
LINE CUTTING
BADEN TWP. ONT.





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EXPERTS-CONSEILS EN GÉOPHYSIQUE



42A02SE0136 63.5532 ALMA


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MATCH EXPLORATIONS LIMITED

**INDUCED POLARIZATION SURVEY
ON THE BADEN PROPERTY,
BADEN TOWNSHIP, ONTARIO**

Project 144.02

April 21, 1989


Younes Saïm, Jr. Eng.


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42A026E0136 63.5532 ALMA

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1. INTRODUCTION

A the request of Mr. Stanley Mourin, President of MATCH EXPLORATIONS LTD., an Induced Polarization (I.P.) survey was run in March 1989 on their Baden Township property by GEOSIG INC. This survey was done under the supervision of Younes Saïm, junior engineer of Geosig, and it covered most of the claims of the property.

2. PROPERTY, LOCALIZATION AND ACCESS

This mining property is situated some five kilometers northeast of the village of Matachewan, Baden Township, and it was reached by skidoo from Indian Reserve 72, which is accessible by truck from Matachewan.

The grid surveyed extends some 1100 meters in an E-W direction. The N-S oriented lines are spaced every 100 meters and their length varies from 1100 to 1800 meters.

We did not note any claim posts, but one post is localized on a map supplied to us by Match Explorations Limited and we assumed the other posts from the one localized.

The following claims were covered by our survey:

737106	760128
737107	760129
737112	1046233
737113	1046234
760126	1046235
760127	1050043
	1050044

We noted on our map the position of a few trenches, especially over anomalies IP-1 and IP-3. Because of the snow, we did not attempt to really draw the observed trenches.

3. FIELD WORK, PROCEDURE AND INSTRUMENTS

The property was surveyed in March 1989. Gérard Couture, technician, acted as party chief, assisted by Younes Saïm, jr. eng., and Denis Nolet, Patrick Lanmigan and Dave Krutz, helpers.

The survey covered 14 km and was performed in the time domain with a standard waveform: 2 seconds ON, 2 seconds OFF. We used a dipole-dipole configuration, with a 25-meter electrode spacing, and readings were taken at three separations ($n = 1$ to $n = 3$).

Steel pin electrodes were used for the receiver and the transmitter. On the receiver electrode spreads, stainless steel pin electrodes were used in order to improve the signal-to-noise ratio.

The following equipment was used:

Receiver:	- IP-6 built by EDA-BRGM, s/n 08
Transmitters:	- T3P, 1400 W, 2 kV, built by Instrumentation GDD Inc., s/n 08

- T3P, 1400 W, 2 kV, built by
Instrumentation GDD Inc., s/n 10

The receiver reads out chargeabilities (M) within 1 msec on four windows, which were added up with the following formula:

$$M(2 s) = \{(120 M1 + 220 M2 + 420 M3 + 820 M4) / 1 580\}$$

A line of 25-meter cables connected to each other allows to read all four dipoles at once. Since the chargeability on the IP-6 receiver is half the normal calibration, we multiply the value of the chargeability by two. The final chargeability is then identical to the Crone, Hunttec or Scintrex receivers. Because of the high resistivities, we usually used the 1000-V scale of the transmitter and we often had to replant the pins of the transmitter and the receiver. In some places, it was impossible to take a reading, which explains holes on the color contour map.

4. GENERAL INFORMATION ON THE I.P. SURVEY

4.1 Purpose of the I.P. survey

An I.P. survey is usually done in order to detect conductive and/or polarizable materials such as sulfides or graphite. Therefore, the survey consists in measuring the chargeability (M) and the apparent resistivity (R) along the grid lines surveyed.

Theoretically, the resistivity map should pinpoint conductive sulfides or graphite bodies. In reality, resistivity maps usually reflect variations in the conductivity and thickness of the overburden. The chargeability (M) measurements do allow the detection of sulfides or graphite bodies, either massive or disseminated, as the overburden seldom if ever shows any chargeability.

In areas of variable overburden conductivity, chargeability "anomalies", even over massive sulfide bodies, are subdued where the surface conductivities are high. Readings may be lower over sulfide bodies covered by clays (as low as 3 msec) than over non-mineralized but highly resistive volcanic outcrops (10 to 20 msec). To interpret an I.P. survey with such variations, both sets of measurements, chargeability and resistivity, must therefore be studied together. This is why we prepare normalized chargeability (NC) maps as they reflect better the actual distribution of sulfides and other polarizable materials. Resistivity and raw chargeability maps are also drawn.

4.2 Presentation of results

The results of the survey are represented at 1:2500 scale. On one set of maps we plotted the three profiles at the following scales:

Chargeability (M)	20 msec/cm
Surface resistivity (R)	Logarithmic scale: 1 to 1 000 000 Ω -m, 1 cm per decade 1000 Ω -meters centered on the line
Normalized chargeability (NC)	25 mhosec/cm

The localization of IP conductors is mostly based on the shape of the NC profiles which were calculated from M and R with the following formula:

$$\begin{array}{ll} \text{if } R < 1000* & \text{NC} = 9,58 * M / \sqrt{R} \quad (\text{formula 1}) \\ \text{if } R > 1000* & \text{NC} = 303 * M / R \quad (\text{formula 2}) \end{array}$$

where	R	= $\pi a * n (n+1) * (n+2) * V_p / I$
	NC	= normalized chargeability, mhosec
	R	= apparent surface resistivity, Ω -meters
	M	= chargeability read on the receiver display, msec.
	V _p	= voltage between receiver electrodes, mvolts
	I	= current transmitted, milli-amperes
	a	= electrode spacing, meters
	n	= number of separations
303 and 9,58		= normalization factor

* When the resistivity is equal to 1000 Ω -meters, both formulas give the same NC value.

We gave the name of mhosec to the normalized chargeability as it is obtained by multiplying the conductivity (I/R) measured in mhos by the chargeability (milliseconds), or mhosec. By combining those two parameters, we created the new name, mhosec.

The results are shown as profiles of the first separation on plan # 4369. The resistivity, the chargeability and the normalized chargeability, also at the first separation, have been contoured and they respectively appear on plans #4370, 4371 and 4372. The three separations are presented as contoured pseudo-sections at the same scale as the profiles. The interpretation of the I.P. survey is based on the pseudo-sections which was then transferred on the profiles. In this area, the overburden is usually shallow.

4.3 Usefulness of the Normalized Chargeability

An I.P. survey consists in measuring the apparent resistivity and chargeability between four electrodes in order to predict the distribution of sulfides and other polarizable materials such as graphite. From those two parameters, we calculate the Normalized Chargeability (NC) using the formulas mentioned above. In areas of variable overburden conductivity, the application of the NC filter compensates for the high background chargeability observed in areas of high resistivity (outcrops or outcrops covered by very thin overburden) or the extremely low background chargeability observed in areas of swamps and conductive overburden.

The purpose of the exercise is to refine the NC so that a given mass of sulfides is represented by an anomaly of at least very approximately the same amplitude, whatever the nature and depth of the surface overburden.

5. PROBABILITY OF ANOMALIES AND PREDICTION OF THE QUANTITY OF SULFIDES

In an attempt to clarify our reports, we add two parameters to the description of each anomaly. In geophysics, we may express the probability that a bedrock source for an anomaly exists, but we can also, under certain conditions, predict if a given anomaly corresponds to a large or a small quantity of sulfides. Here are explanations of the two parameters we will use to better describe the anomalies of our surveys.

5.1 Probability

- A 0,9 probability indicates that the anomaly is actually present in the bedrock and that it will be intersected in more than nine out of ten attempted drill holes. A miss on such an anomaly means that there is either a mistake in chaining, or that the drill hole crossed the anomaly through a dyke, a faulted offset, or a local "barren" hole. Anyone with experience in a mine will testify that such occurrences can occasionally happen.
- A 0,5 probability means that the signature of the anomaly is somewhat doubtful, the signal-to-noise is less than 3, either because the overburden is deep or because of the interference of an adjacent stronger anomaly. The probability that the anomaly corresponds to a target is therefore lowered to a point where only one in two of such drill holes will hit a target. For example, if a target is small but of cylindrical shape, a drill hole collared too far away may completely miss the anomaly if the cylinder has a lateral rake. Any target having a 0,5 probability should be drilled if the local geology is favourable or if targets are few or far between. Out of the thousands of drill holes that we have recommended up to now, only six have resulted in mining operations. For three out of these six mines, the first drill hole was spotted on a doubtful anomaly where the probability was about 0,5 or, in other words, there was only one chance out of two to explain the anomaly by a bedrock source. And yet, most D.D.H. are drilled on anomalies that have a probability of 0,9.
- A 0,2 probability means that on the average only one drill hole in five will intersect a sulfide concentration important enough to explain the anomaly. It is often much better to drill such weak IP anomalies if the geology is favourable than to select diamond drill targets at random, or even to select magnetic anomalies or VLF targets. When comparing targets for example, we believe that the probability is much less than 0,1, that an "average" magnetic anomaly will correspond to sulfides or graphite and, if we consider VLF anomalies in clay areas, the probability is lower than 0,05, or hardly better than luck. However, VLF anomalies where the overburden is resistive may be just as reliable as MaxMin or Pulse surveys in outcrop areas, or where the overburden is non conductive.

5.2 Quantity of sulfides

Once the geophysicist has expressed the probability of an anomaly, he may add the second parameter, that is the estimation of the content of sulfides (or graphite) that we may expect to find by diamond drilling*. From past experience, we find that this estimate helps to communicate the results of our survey to the geologist doing the follow up.

MaxMin, VLF and Pulse surveys do not allow to predict how much sulfides will be found as the same excellent conductor may be due to a 2-cm thick pyrrhotine bed or to a 20-m chalcopyrite lense containing 10% copper. Our compilations and studies have actually shown that there is no correlation between either the quantity of sulfides or their economic content and the conductivity of EM conductors. On the other hand, I.P. surveys can semi-quantitatively predict the amount of sulfides or graphite that drilling will intersect. To this end, we have to take into account the width and the amplitude of the anomaly in mhos, but also make our decisions according to the nature, thickness and conductivity of overburden covering the bedrock. Gravity surveys also allow such estimates.

As the I.P. response over a certain quantity of sulfides also depends on the grain size and therefore the geologic history of the area surveyed, we attempt to adjust our estimates to any diamond drill hole result from the area surveyed.

* Reference: Gaucher Edwin, "Estimation of Sulfide Content of a Potential Orebody from Surface Observations and its Role in Optimising Exploration Programmes" in Developments in Geophysical Exploration Methods, published by Applied Science Publishers Ltd., England, 1984.

6. DESCRIPTION OF THE I.P. SURVEY

6.1 Resistivity

The resistivity map (#4370) shows that the area north of the base line is covered by moderate overburden with a few outcrops, such as under lines 2+00E, north of 4+00N, and under lines 2+00E, 3+00E and 4+00E, from 3+00N to 4+00N. A major outcrop area occurs south of the base line. The outcrop areas and the cliffs are shown on the topo map. The resistivity backgrounds are:

on the lake:	250 Ω -m
in moderate overburden areas:	1000 Ω -m
in outcrop areas:	1000 to 6000 Ω -m

6.2 Chargeability

The background chargeability (map #4371) oscillates around zero on the lake, from 5 to 10 msec on the shallow overburden, and from 10 to 30 msec on the outcrops. Most anomalies stand out of their respective background, but some outcrop areas also appear as chargeability highs. We believe that a high chargeability formation underlies a portion of line 10+00E/2+00S and line 12+00E/3+00S.

6.3 Normalized chargeability

The contoured normalized chargeability (map #4372) shows nicely the horizons containing major sulfide or graphite concentrations. The background N.C. oscillates below 0,5 mhosec and the anomalies rise from 2 to 15 mhosec and, exceptionally, to 30 mhosec. Almost all anomalies are evident on the contour map and they stand out remarkably on the pseudo sections.

6.4 Description of IP anomalies

By this survey, we have been able to localize and describe six anomalies. All of them are rather short and two coincide with existing trenches.

Anomaly IP-1

.....
This 400-m long anomaly extends from line 3+00E/0+50S to line 5+00E/1+35S, and even to line 6+00E. The N.C. reaches 15 mhosec on lines 5+00E and 4+00E, or 15 times the background. The resistivity drops to less than 1000 Ω -m from a background of 14 000 Ω -m.

A trench was observed along the anomaly on line 5+00E and a drill hole is already reported under line 4+00E. Our survey suggests a disseminated sulfide zone for about 35 meters north of the conductive axis plotted.

If the drill hole under line 4+00E was long enough to investigate until picket 2+00S, then the decision about further drilling can be taken according to the assays and geological information from the core. If not, then a drill hole should investigate under L-4+00E/1+50S.

A diamond drill hole under line 5+00E/1+35S has a probability of 0,9 to find an explanation for the anomaly. We estimate that it would intersect a 3-meter wide layer containing 50% of sulfides or graphite and, from 0+90S to 1+20S, a zone containing 3% of sulfides or graphite.

The west end of IP-1, called IP-1a, occurs under line 3+00E/0+75S and 0+35S, but it may extend until line 2+00E. The N.C. reaches 10 mhosec on line 3+00E, or 10 times the background. The resistivity drops to less than 1800 Ω -m from a background of 16 000 Ω -m.

A diamond drill hole under line 3+00E/0+35S and 0+75S has a probability of 0,8 to find an explanation for the anomaly. We estimate that it would intersect a 3-meter wide layer containing 30% of sulfides or graphite. As IP-1a may be distinct from IP-1b, it should be drilled or trenched whatever the assays on IP-1b.

Anomaly IP-2

This strong 150-m long anomaly occurs under line 5+00E/3+50S to 5+00S and it extends to line 6+00E/4+50S. The N.C. reaches 30 mhosec on line 5+00E, or 30 times the background. The resistivity drops to less than 500 Ω -m from a background of 5 000 Ω -m. Trenches have investigated the anomaly under 5+00S.

Our survey suggests disseminated sulfide zones for about 50 m north or south of the conductive axis. A trench was observed along the anomaly on line 5+00E.

A diamond drill hole under line 5+00E/4+50S has a probability of 0,9 to find an explanation for the anomaly. We estimate that it would intersect a 3-meter wide layer containing 50% of sulfides or graphite. Another D.D.H. under line 6+00E/4+50S has a probability of 0,9 to explain the anomaly and we estimate that it would intersect a 3-meter wide layer containing 40% of sulfides or graphite. The portion of the anomaly under line 5+00E/4+00S has already been investigated by trenches.

Anomaly IP-3

This short and weak anomaly occurs under line 8+00E/5+75S. The N.C. reaches 2,4 mhosec on both lines, or twice the background. The resistivity drops to 5000 Ω -m from a background of 17 000 Ω -m. Our survey suggests a disseminated sulfide zones about 15 m north of the plotted conductive axis.

A diamond drill hole under line 8+00E/5+75S has a probability of 0,4 to find an explanation for the anomaly. We estimate that it would intersect a 3-meter wide layer containing 10% of (graphite) and a wider zone of weakly disseminated sulfides.

Anomaly IP-4

This strong single line anomaly occurs under line 7+00E/8+10S. Its weak extension may perhaps be recognized until line 11+00E. The N.C. reaches 7,5 mhosec, or 7 times the background. The resistivity drops to 2500 Ω -m from a background of 15 000 Ω -m. To the east, the anomaly was not perceived under line 8+00E, but a reading is missing. To the west, the anomaly may extend under the lake.

A diamond drill hole under line 7+00E/8+10S has a probability of 0,8 to find an explanation for the anomaly. We estimate that it would intersect a 3-meter wide layer containing 25% of sulfides or graphite, and from 7+75S to 7+50S, a zone containing 3% of sulfides or graphite.

Anomaly IP-5

.....

This short single line anomaly occurs under line 10+00E/10+00S where the N.C. reaches 2,2 mhosec, or twice the background. The resistivity drops to 1300 Ω -m from a background of 6000 Ω -m.

A diamond drill hole under line 10+00E/10+00S has a probability of 0,3 to find an explanation for the anomaly. We estimate that it would intersect a 3-meter wide layer containing 15% of sulfides or graphite.

Anomaly IP-6

.....

This short single line anomaly occurs under line 10+00E/2+25S where the N.C. reaches 1 mhosec, or twice the background. The resistivity drops to less than 1500 Ω -m from a background of 30 000 Ω -m.

A diamond drill hole under line 10+00E/2+25S has a probability of 0,3 to find an explanation for the anomaly. We estimate that it would intersect several 2-meter wide layers containing 3% of sulfides or graphite.

Other anomalies

.....

A few other interpreted anomalies were drawn on the pseudo sections and maps. Some of them could be drilling targets depending on the previous D.D.H. or the geological context.

CONCLUSION

The I.P. survey identified five clear anomalies caused by concentrations of sulfides or graphite. We now have fine interesting geophysical targets and only IP-1 and IP-2 were already known and had been tested, at least partially.

We suggest to drill the selected targets appearing on our compilation map. The targets on IP-2 and IP-3 were chosen while taking into account the approximative position of the previous known D.D.H. and trenches. In the case of IP-4 and IP-5, an accurate compilation should be done from the previous maps and the D.D.H. positions could be confirmed this spring after the thaw up at the same time as the geological examination of the outcrop area.

RECOMMENDATIONS

We suggest to systematically drill all the geophysical targets as they have all been checked by detail readings.

RECOMMENDED TARGETS

Anomaly	Line	Station	Resistivity (Ω -m)	Normalized Chargeability (n = 2) (mhosec)	Probability	Quantity of sulfides
IP-1	4+00E	1+50S	1000	15,0	0,9	3 m x 50%
"	5+00E	1+35S	1000	15,0	0,9	3 m x 50%
"	3+00E	0+35S and 0+75S	1800	10,0	0,8	3 m x 30%
IP-2	5+00E	4+50S	500	30,0	0,9	3 m x 50%
"	6+00E	4+50S	500	30,0	0,9	3 m x 40%
IP-3	8+00E	5+75S	5000	2,4	0,4	3 m x 10%
IP-4	7+00E	8+10S	2500	7,5	0,8	3 m x 25%
IP-5	10+00E	10+00S	300	2,2	0,3	3 m x 15%
IP-6	10+00E	2+25S	12500	1,0	0,3	2 m x 10%



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DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

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HOLE NO. 129-4
PAGE 49
CLAIM NO.

DRILLING COMPANY L.P. Mining		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE 500'	DIP OF HOLE AT COLLAR	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	PROPERTY NAME
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY BERNE WESTIN					
EXPLORATION CO., OWNER OR OPTIONEE MATH CAP RES		DATE SUBMITTED	SUBMITTED BY (Signature) Bernie Westin					

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS
							FROM	TO		
0	17	0ub				1501	20.0	22.5	NIL	
1	30.6	Mid-Intermediate Volcanic	Medium to fine grained, medium green, possible pillow selvage at 30.8, 65° to core axis, 1.5" true width, 5% py, 20% py, chlorite, sericitic. rusty siltstone 5° to 10° to core axis 27.7-29.0			1502	22.5	25.5	NIL	
						1503	25.5	29.0	NIL	
						1504	29.0	31.6	002	
31.6	32.0	Basaltic Qtz Vein	Contact at 31.6, 20° to core axis, white qtz vein with 50 to 60% wall rock basalt fragments, 3% py with disseminated and as sub-ventral masses up to 0.12", 19% disseminated po. 35-37', 15% qtz, 2% py, 2% opy.			1505	31.6	35.0	NIL	
						1506	35.0	37.0	002	
						1507	37.0	39.6	003	
						1508	39.6	42.8	NIL	
37.0	42.8	Vol. Qtz. Mudstones and Sandstones	37.0-42.8 Strongly brecciated, 1% py + po, moderately sericitic 42.8-50.5 fine grained sandstone, generally not bedded, occasionally weakly hematitic as found 51-57 50.5-62.5 medium to coarse grained sandstone with 50% po, pebbles to 0.1", possible bedding (tops unknown) 5° to core axis at 62 62.5-90.2 generally fine grained to very fine siltstone. f. op at 0.2" to 0.5" sericitic-carbonate breccia 48° to 50° to core axis 73.8-80.7 with 0.05" to 0.1" pyroclastic seams 3 to 5% po as seams and disseminated from 76.8-80.7 Contact 35° to 40° to core axis at 90.3 (Uzque)			1509	60.0	63.0	NIL	
						1510	63.0	66.2	NIL	
						1511	73.9	76.8	NIL	
						1512	76.8	80.7	NIL	
						1513	80.7	84.0	NIL	
						1514	123.6	127.6	00Y	
						1515	127.6	132.0	602	
						1516	132.0	136.0	NIL	
						1517	136.0	140.0	NIL	
						1518	142.0	144.6	NIL	
						1519	144.6	149.0	NIL	
						1520	149.0	153.0	NIL	
						1521	153.0	158.0	2-5% opo, 1 to 3% py	



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Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

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HOLE NO. **U89-4** PAGE NO. **2/4**
CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY	ft	ft		LOCATION (Twp., Lot, Con. OR Lot. and Long.)
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)	ft	ft		
				ft	ft		

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE †	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS *	
							FROM	TO			
			fairly strong sericite/albite fracturing / brecciation 144.6 to 153.0			1521	152.0	154.0			NIL
			153.0 - 172.0 Dark green fine grained sandstone to siltstone			1522	154.0	156.0			NIL
			172.0 - 180.3 medium grained to fine grained sandstone, occasionally micaceous hematite			1523	177.0	180.3			NIL
						1524	180.3	182.0			NIL
			180.3 - 181.4 Calcite vein zone			1525	187.0	188.5			NIL
			30% milky calcite veining 0.1" to 1.5" wide, 45° to 50° to core axis			1526	188.5	189.0			NIL
			2.15" vein at 186.0 is 50% iron carbonate								
			last is medium green, moderately carbonized, moderately cemented			1527	210.0	214			NIL
			minor fault gouge along slip possible veining at 180.9			1528	214	218			NIL
						1529	218	221			NIL
						1530	221.0	225.0			OOV
			181.4 - 210 mafic sandstone, possibly up to 20% feldspathic sand grains			1531	225.0	230.4			OOV
			possible bedding contact 50° to core axis at 186.0			1532	230.4	234.0			NIL
			generally weakly carbonized								OOV
						1533	244.0	247.6			
			210. - 230.4 weakly micaceous sandstone with frequent py and po enriched pale green silty part (albite) bands								
			0.3" to 2.0" at angles from 10° to 65° to core axis								
			occasional lithic fragments / pebbles 226 to 237								
			237.4 - 238 fine to medium grained sandstone								
			233 - 247 dark green mafic siltstone								
			possible bedding 43 to 48° to core axis at 247,								
			5% py 244.0 - 247.0 and 29.0 py + po 246 - 247.0								

† Additional credit available. See Assessment Work Regulation



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DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

FILL IN ON EVERY PAGE

HOLE NO. 087-4
PAGE NO. 3/4
CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT cellar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.	
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY	ft	ft		LOCATION (Tp., Lot, Con. OR Lat. and Long.)		
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)	ft	ft		PROPERTY NAME		
				ft	ft				

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
							FROM	TO			
			3-0.105" py seams 20° to 40° to core axis from 283.0 to 284.0 and weak albite (?) altered horizon zone 284.8-286.0 with 2% py as matrix 0.05 to 0.20" in size.			C 1534	283.0	286.5			NIL
			1-2% py + py with weak possible albite alteration 302.2-314.0			1535	302	306			NIL
			possible bearing 55° to core axis at 325.1			1536	306	310			NIL
			10.5" py vein 50° to core axis at 335.7			1537	310	314			NIL
			irregularly broken core 348-350 due to jointing 20° to core axis.			1538	334.0	336.5			NIL
			0.5" calcite vein 41° to core axis at 358.7			1539	357	359			NIL
			foliation (possibly bedding contrasted) 42° to core axis at 376.0			1540	386	390			NIL
			2% py to 1% py 386.0-394.0 associated with albite alteration (possibly albite) bands 0.5" to 1" thick, generally 35 to 45° to core axis.			1541	390	394			0.02
			one 0.3" altered cemented fracture runs along core axis from 390.7-393.5								
			0.2" calcite-sericite-albite vein 65° to core axis at 417.2			1542	416.0	419.4			NIL
			2% py in vein, 1% py + py adjacent								
			447.0-500 Siltstone to Sandstone			1543	443.0	447.0			NIL
			447-466.5 Weak to moderate carbonate alteration of matrix			1544	447.0	450.5			NIL
			carbonate alteration contrasted by fractures and veins at low angle, dipping from 0° to 25° to core axis			1545	452.5	454.0			NIL
						1546	454.0	457.0			NIL
						1547	457.0	461.0			NIL
						1548	461.0	466.5			NIL
			447-466.5 Weak to moderate carbonate alteration of matrix			1549	485.0	487.0			NIL



THE MINING ACT - MINISTRY OF NATURAL RESOURCES
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HOLE 3 PAGE 3

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT COLLAR	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.	
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY				LOCATION (Twp., Lot, Con. OR Lat. and Long.)		
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)				PROPERTY NAME		
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FOOTAGE FROM	FOOTAGE TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
							FROM	TO			
	10	215									
10	179.0	Massive Vein	1 fine grained, medium green, variably altered flows, quartzite 1 to 2% pyrite and pyrrhotite both at clings and as disseminated inclusions and euhedral (cubic) crystals			C 1550	36.0	39.1			NIL
			flow top breccias, moderately sericitic, slightly chlorid, quartzite very hard (calicified) from 36.6 to 39.0,			1551	60.0	64.0			NIL
			66.2 - 68.8 sharp contact of 3' is 47° to core axis, contact at 36.6 approximately 73°, possibly indicates tops down hole?			1552	64.0	66.0			NIL
			66.2 - 68.8 - interflow breccia hard strongly foliated - possibly is altered soda ints, foliations 45° to 50° to core axis			1553	66.0	68.5			NIL
			68.8 - 179.0 - medium to dark green fine grained mafic flows, 2% to 5% pyrite with lesser 1% to 3% pyrrhotite (10% py) - trace or well as disseminated throughout			1554	68.5	73.0			NIL
			individual flow horizons (or pillows?) occasionally chloritic as from 81.5 - 86.0			1555	73.0	77.0			NIL
			135.2 - 142.9 flow top (interflow) breccia strongly sericitic, strongly brecciated 73.7 - 137.5 with 10% py and py			1556	101	103			NIL
			142.9 - 146.6 flow top (1.3')			1557	110	115			NIL
						1558	131.5	133.5			NIL
						1559	133.5	135.5			NIL
						1560	135.5	138.0			NIL
						1561	138.0	141.0			NIL
						1562	146.8	149.0			NIL
						1563	176.0	177.0			NIL
						1564	179.0	183.0			NIL
						1565	183.0	186.8			NIL



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HOLE NO. 181
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CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft			
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft			
					ft			
							LOCATION (Twp., Lot, Con. OR Lat. and Long.)	PROPERTY NAME

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS
							FROM	TO		
100.0	200.0	Siltstone	Medium to fine grained grey homogeneous siltstone			C1566	186.8	191.3	602	
			2-3 mm bedding/banding 55° to core axis such as at 195.8			1567	191.5	196.3	NIL	
			optical texture of siltstone common to 157.0 from 200-203			1568	196.3	201.1	NIL	
						1569	201.1	205.5	NIL	
						1570	205.5	209.5	NIL	
			205.0-205.5 narrow porphyritic felsic vein, 1/8" wide			1571	209.5	212.0	NIL	
			feldspar phenocrysts 1/2" in size, contacts 55° to core axis			1572	212.0	215.8	NIL	
			with biotite, possible of feldspar fuff.			1573	215.8	219.7	NIL	
						1574	219.7	221.5	NIL	
200.0	232.5	brecciated siltstone	206.5-213.8 brecciated siltstone, medium grey, possible brecciated, minor 1/2" to 1.0" - 1.5" to 2" veins 50° to 40° to core axis			1575	221.5	224.0	NIL	
			at 210.0, 210.8, 211.6 to 219.7, 19% py			1576	224.0	227.0	NIL	
						1577	227.0	230.6	NIL	
			213.8-232.5 moderately to strongly brecciated grey to grey-green fine grained siltstone. Siltstone fragments & fragments of quartz with core matrix being random due to folding and rotation of fragments			1578	230.6	232.5	NIL	
			213.8-218.1 up to 1/2" py as matrix and along fractures in strong breccia zone			1579	232.5	236.0	NIL	
			230.6-232.5 2-3% of flooding, strong brecciated siltstone, 1/2" py, 19% py							
			Contact at 232.8 is a 0.2" calcareous (calcite) breccia vein zone 43° to core axis							



Ontario

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HOLE NO. **5** PAGE

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT COLLAR	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY				LOCATION (Twp., Lot, Con. OR Lot. and Long.)	
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)				PROPERTY NAME	

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS
							FROM	TO		
272.7	276.0	Dark grey to black shale	massive to blocky dark grey to black shale - siliceous fragments, occasionally fine grained with occasional pebbly texture, interbedded with silty shale			C 1591	308.5	310.7	NIL	
			276.0-277.0 3" bed of fine grained silty shale, relatively angular, probably representing ripple/reworked siltstone.			1592	310.9	313.4	NIL	
						1593	313.4	315.7	NIL	
						1594	315.7	317.7	NIL	
						1595	317.7	322.0	NIL	
						1596	322.0	327.0	004	
						1597	327.0	329.0	002	
						1598	329.0	332.5	NIL	
			279.3-291.5 massive bed of interbedded pebbly shale with calc. matrix, pebbles in grey to tan matrix, likely is a mixture of material from 272.7-276.0							
			291.5-298.1 silty shale up to 292.5 tan to brown grey foliaceous fragments			1599	340.0	342.4	NIL	
297.1	302.2	shale	30% - 2mm to 3mm grey foliaceous lapilli phenocrysts			1600	342.4	345.2	NIL	
						1601	345.2	348.1	NIL	
						1602	348.1	350.4	NIL	
						1603	350.4	355.0	NIL	
316.8	302.2	Blocky siltstone	302.2-307.4 weathered blocky siltstone with talcaceous alteration banding 570 to core axis at 305.0							
			presence of talcaceous crusts indicates possible remobilization of talc (from 298.1-302.2), possibly talc druse.							
			locally strong epithermal alteration along fractures 307-308.4 with massive quartz veins in the dike (up to 2")							
			308.4-316.8 blocky siltstone, chert							
			banding 570 to core axis at 309.5							



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HOLE NO. PAGE 6

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Tp., Lot, Con. OR Lot. and Long.)	PROPERTY NAME
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft			
					ft			

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE °	CORE SPECIMEN FOOTAGE ±	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS ±	
							FROM	TO			
			308.4-311.0 bedded shales, silty shale								
			311.0-313.3 bedded sandstone, probably sandstone								
			313.3-316.3 bedded shaly, weak banding formation (sulphide ferrug) 25% purple, trace to 3% po. bedding 44° to core axis at 314.5								
316.7	342.4	Miscellaneous	generally fine green-fine grained ashic tuffs and possible flows 316.4-330.1 frequent (10-15% total) epidote altered fractures, possibly selvages although no other flow textures noted. 332.1-342.4 less altered, more homogeneous, fine grained ash 0.3' bedded tuff / sheet interbedded 40° to core axis at 340.6								
342.4	381.4	Altered Tuff	variably grey to orange alteration (as indicated) of volcanic tuffs / flows with occasional narrow interflow beds. Reddish brown / orange alteration is at base 269.5-270.5 with ashic / pyroclastic fragments. 342.4-345.1 weak orange to pinkish alteration - strong banding 342.4-345.2, possibly primary sedimentary bedding 40° to core axis. 345.2-348.1 altered clastics fragments up to 1" common, unit generally grey-green in colour with purple altered bands/beds 55° to core				61604	370.0	373.0		NIL
							11605	373.0	377.0		003
							11606	377.0	379.4		002
							11607	379.4	381.4		NIL
							11608	381.4	382.8		NIL
							11609	382.8	386.6		NIL
							11610	386.6	389.0		NIL



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CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Tp., Lot, Con. OR Lat. and Long.)	
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft			
					ft			PROPERTY NAME

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
							FROM	TO			
			248.1-350.4 very strong potassic (orange) altered tuff with dark green/brown matrix. Fragments up to 0.15"								
			350.4-373.0 weakly altered medium coarse micaceous tuff or possible limonite, brownish quartzite/feldspathic to 1" alteration bands may be pillowed structures								
			373.0-381.4 mainly altered banded sediments/tuffs with 10 to 15% medium coarse altered tuffa bedding and hanging 55° to 53° to core axis. 1" total locally 3% combined py and po.								
381.4		Basal Volcanics	Fine to occasionally medium grained, dark green mafic tuff and pillowed flows. Low sulphides. Frequent, sub angular, yellow, sericitic and minor epidote altered, up to 1/2" in width generally barren of sulphides except along narrow fractures			C-1611	419.3	421.3			NIL
						1612	434.5	437.0			NIL
						1613	448.2	452.0			NIL
						1614	452.0	456.0			NIL
			448.2-476.0 mafic fragmental consists of both irregular angular fragments and lapilli bombs variably found to 1" in length oriented 56-60° to core axis.			1615	484.2	488.4			NIL
			476.0-483.5 Ash tuff								
			483.5-483.5 mafic fragmental as from 478.2-476.0								
			483.5-484.2 pillowed flows, sericitic alteration, feldspathic and minor epidote noted								

* For features such as bedded, schistosity, etc.



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HOLE NO. 89-3
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DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Tp., Lot, Con. OR Lat. and Long.)
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft		
				ft	PROPERTY NAME		

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE †	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS †	
							FROM	TO			
			484.2-490.0 Breccia zone - matrix epistole quartzite, fragments are sharply angular, vary from 1/2" to 1" contact irregular, dip displaced at 484.7 - contact 470.4 to core axis at 490.0			1616	498.2	501.6	Nil		
			490.2-501.0 Dominant Ash tuff - typical dark grey, fine grained, frequent porphyritic and silica epidote altered magmas to fractures - trace to locally 10% py and ka throughout - narrow sedimentary horizons 497 to 500 up core axis at 498.2-498.8 and 501.0-501.6, yellow 514.8-515.4			1617	553.1	555.3	Nil		
			523.5-524.7 Sapill. tuff								
			524.2-569.0 Ash tuff - see from 490-523.5			1618	569.0	571.5	Nil		
			571.5-573.7 3" white to grey iron carbonate veins 1"-50" to core axis at 569.2 4" with 30% well rock fragments 35" to core axis at 571.5			1619	571.5	573.7	Nil		
			573.3-580.0 3" with 10% small fragments 50" to core axis at 573.3 discordant to 1/2" to 1" at 571.5 1/2" to 3" with 5-10% iron schistosity trace to 1/2" quartz pyrrhotite			1620	579.6	581.0	Nil		
			580.0-580.8 4" fine with iron schistosity vein 4.0 to core axis								
			580.8-581.0 Ash tuff in matrix (490-523.5)								
			600 EOH								

† Values such as foliation, bedding, schistosity measured from the long axis of the core.



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HOLE NO. 89-5
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CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.		
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY Bo Weston		ft		LOCATION (Twp., Lot, Con. OR Lat. and Long.) BADEN			
EXPLORATION CO., OWNER OR OPTIONEE MPTA TECH CAP RES		DATE SUBMITTED	SUBMITTED BY (Signature) Gene B. Weston		ft					
					ft			PROPERTY NAME		

FOOTAGE FROM TO		ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE FROM TO		SAMPLE LENGTH	ASSAYS
0	10.3	CVR								
10.3	87.6	Med. Volcanic Flows	Fine to medium grained, medium to dark grey flows, both massive and pillared. Interbedded shales and sediments indicate flow thicknesses variable from 1' to 20'. Breccias generally leucocrase rich. Conc. mass of sediments. 50° at 40.7 57° at 65.5 42° at 79.0 52° at 87.6			C 1659	18.5	21.0		NIL
						1659	38.5	42.5		NIL
						1660	41.0	67.0		NIL
						1661	72.5	87.6		NIL
						1662	87.6	92.5		NIL
10.3	187.4	Med. Flows + Tuffs	Interbedded massive flow and fine tuffs. Tuffs occasionally show possible sedimentary banding, fine grained, occasionally with to 1% disseminated pyrite or fine grains or as subventral masses up to 1/2". Volcanics, fine to medium grained dark grey basaltic flows, frequently leucocrase rich, generally unmineralized.							



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HOLE NO. 89-5 PAGE NO. 2

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Tp., Lot, Con. OR Lat. and Long.)	
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft			
					ft			PROPERTY NAME

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
							FROM	TO			
89.6	97.3	Ash Tuff	Possible Siltstone/Clay bedding 5° to core axis			61653	106.0	109.0			NIL
97.3	115.5	Volcanic Flows	Interbedded sediments 106.3-107.0, flow top (?) breccia 107.0-108.3, sediments banded 60° to core axis			1654	115.5	118.9			NIL
115.5	118.3	Ash Tuff	2% 1/8" pyrite nodules and cubes								
118.9	124.0	Mudic Flow				1655	129.0	132.0			NIL
124.0	162.5	Ash Tuff				1656	157.0	160.0			NIL
162.5	170.6	Possible Anhydrite/Debris Flow	possibly to account with 20% mudic volcanic fragments			1657	164.0	168.0			NIL
						1658	168.0	171.0			NIL
170.6	171.0	Sedimenting band	contacts 50° to core axis								
171.0	178.9	Mudic Flow				1669	184.0	187.4			NIL
178.9	182.5	Ash Tuff	Original contact 5° to core axis cross-cut by 1/2" siliceous shales 40° to core axis								
			Bath broken and ground core 182.5-184.0, probably due to bad core chisel, slips as seen from 180.0-182.5								



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DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Tp., Lot, Con. OR Lot. and Long.)		
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft			PROPERTY NAME	
					ft				

FOOTAGE FROM TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
						FROM	TO			
127.4	202.0	Serpentine Breccia								
		Strong serpentine altered zone of moderate to intense fibrous texture.			61676	187.4	192.5			NIL
		Trace very fine grained sulphide throughout most intensely brecciated zone from 192.5-197.7			1671	192.5	194.7			NIL
					1672	194.7	197.7			NIL
					1673	197.7	202.0			NIL
203.0	216.7	Ash Tuff / Breccia								
		Medium grained, medium green with a slight purplish hue. Possibly a weakly kaolinitic sandstone.								
216.7	224.4	Volcanic Fragmental (Dolomite Breccia)								
		60% dolomite fragments 1" to 6" from 216.7-221.0, then 20% to 221.0.			1674	216.7	221.0			NIL
		matrix consists of fine to medium sized fragments.			1675	221.0	224.4			NIL
		Matrix is sandstone or siltstone 221.0-224.4								
224.4	238.0	Sandstone / Tuff								
		Fine to medium grained, medium green sandstone or possibly a tuff. Core is at 224.4 approx 57° to core axis.								
		Strong banding, generally cross-bedded, variable 40° to 53° to core axis from 227.5-238.0.								
		Generally sparse mineralized.								

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

DIAMOND DRILLING LOG

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DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY			LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	LOCATION (T _p , Lot, Cor. OR Lat. and Long.)	
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)				SECTION (T _p , Lot, Cor. OR Lat. and Long.)	
PROPERTY NAME								

FOOTAGE FROM	FOOTAGE TO	ROCK TYPE	DESCRIPTION Colour, grain-size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS
							FROM	TO		
356.25	375.0	fine grained lapilli	shale green, medium to coarse grained possible volcaniclastic			1695	361.0	364.0		NIL
			9" to 12" sedimentary bands at 360' and 366', dipping 35° to 40° to core axis			1696	364.0	368.0		NIL
						1697	380.0	385.0		NIL
						1698	385.0	389.0		NIL
435.5		medium grained matrix	medium grained matrix, laminar, as from 301.5-350' but with higher concentration of interstratified (quartz-cemented) pebbles and calcified matrix up to 70% of mat.			1699	395.0	400.0		NIL
			Synclinal altered fracturing common 317-405			1700	400.0	405.0		NIL
						1701	427.5	430.0		NIL
445.5	444.0	interstratified	interstratified with evidence of an intergranular texture laminated layers or metasandstone matrix							
			Possible flow breccia or contaminated intrusive margin.							
						1702	482.5	485.0		NIL
514.2		Coarse grained flow	(or possible subvolcanic intrusive?)							
			Varied textured matrix coarse grained flow			1703	510.0	514.2		NIL
			Ranges from light green to olive green, occasional pinkish hue			1704	514.2	515.0		NIL
			Textured variety discrete to interstratified-intergranular (hypidiomorphic) grains			1705	515.0	520.0		NIL
			matrix unconsolidated							
			Sharp contact 12° to core axis at 513.5 to 514.2 with a slight							
			altered matrix to 515.0 at 12° to core axis							

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

* Additional credit available. See Assessment Form



THE MINING ACT - MINISTRY OF NATURAL RESOURCES
DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

FILL IN ON EVERY PAGE
HOLE NO. 895
PAGE 61

DRILLING COMPANY DIAMOND DRILLING LOG		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO. EVERY PAGE	CLAIM NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY			LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	LOCATION (Tp., Lot, Con. OR Lat. and Long.)	
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)				LOCATION (Tp., Lot, Con. OR Lat. and Long.)	
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)				PROPERTY NAME	

FOOTAGE FROM TO	ROCK TYPE	DESCRIPTION	PLANAR FEATURE	CORE SPECIMEN	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS
						FROM	TO		
535.2	Siltstone/argillite	Medium grained weakly laminitic sandstone with auto-genetic pits and calc. as from 375-435.5			6-1706	532.0	535.2		NIL
					1707	535.2	538.5		NIL
					1709	538.5	541.5		NIL
535.2	Chert/Siltstone	Fine grained chloritic chert or siltstone. Occasional (5%) rounded pebbles, often well laminated as at 534.8 and 540.5-55.0 to core axis			1701	541.5	545.5		NIL
		Stony carbonate zone 535.2-535.8 then generally not carbonated			1712	545.5	550.4		NIL
		2-4% pyrite, 1% pyrothitic disseminated and fracture controlled throughout unit							
552.4	Siltstone	Medium grained, weakly laminitic, occasional banding contact 33° to core axis at 552.4			1711	550.4	555.0		NIL
					1712	555.0	558.6		NIL
					1713	558.6	560.7		NIL
					1714	560.7	565.0		NIL
		Micro to medium pervasive carbonate alteration associated with calcite fracturing 558-560			1715	565.0	570.0		NIL
		Micro fracture controlled pyrite 560.4-564.7, otherwise barren			1716	580.0	582.5		DOV
		Contact 35° to core axis at 560.1							
562.7	Chert/Siltstone	Generally very fine grained, dark green, chloritic, mostly argillite			1717	588.5	592.5		NIL
		2-4% disseminated and fracture controlled white, 1% pyrothitic							

*For features such as foliation, bedding, schistosity, measured from the long axis of the core.



THE MINING ACT - MINISTRY OF NATURAL RESOURCES
DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

FILL IN ON EVERY PAGE
HOLE NO. 89-5
PAGE 7/7
CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT COLLAR	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	LOCATION (Twp., Lot, Con. OR Lot. and Block)
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY					
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)					
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)				PROPERTY NAME	

FOOTAGE FROM TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
						FROM	TO			
		Occasional banding - probably bedding contacts as indicated								
		564.0 - 40° to core axis								
		574.0 - 40° to " "								
		583.5 - 37° to core axis								
		596.7 - 30° to core axis								
		possible IP conductor								
		690' E.M.								

2. For features such as foliation, bedding, schistosity, measured from the long axis of the core.

Additional credit available. See Assessment and Mining Act.



THE MINING ACT - MINISTRY OF NATURAL RESOURCES
DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

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HOLE NO. 89-6
PAGE NO. 1

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT COLLAR	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.	
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Twp., Lot, Con. OR Lot. and Long.) SIDEN		
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft				
MATCH CAP RES			Frank A. Westin		ft				
					ft		PROPERTY NAME		

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE *	CORE SPECIMEN FOOTAGE †	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS *	
							FROM	TO			
0	124	OVBS									
124	143	Volcanics	Transition to more massive, strongly foliated due to increasing weakness to moderately carbonatic (permeability) also 5 to 10% calcite fracturing and veining. Trace chlorite 143 to 144.5 sharp intensity increase from weak from 124.0 to 145 to moderate from 145-169.0 abundant leucosene (up to 5%) and leucitic plucks up to 1mm in size from 140-153 Calcite veins increase to 15% to 20% from 148 to 157 Core highly fractured with poor recovery (70%) from 152-170 generally a transition to moderately carbonatic but with 3 to 5% calcite veins and fracturing. Slickensiding 75° at 128, 60° at 137.5, 48° at 154, 53° at 164 55° at 147				C1621	142.0	146.0		
143.7	195.2	Strongly foliated Volcanics	Transition to light-medium to moderately to strongly foliated/plucked - crystalline sericitic bands common 15% to 20% Calcite veins and fractures from 1/4" to 1/2" generally both parallel to and slightly discordant (up to 20°) to dominant shear foliation. Unit is massive brecciated, highly fractured, particularly from 189 to 195.2 where shear intensity is highest - possibly a sheared metamorphic/fault with strong sedimentary components which may be represented in part by strong sericitic 1/4" to 1/2" bands, particularly from 189-195.2 - generally trace disseminated py and po throughout.								

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations.



THE MINING ACT - MINISTRY OF NATURAL RESOURCES
DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

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MOLE NO. 89-6
PAGE NO. 2
CLAIM NO.

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (Tp., Lot, Con. OR Lot. end Long.)	PROPERTY NAME
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft			
					ft			

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE*	CORE SPECIMEN FOOTAGE †	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS *	
							FROM	TO			
			Shear/slip/Extension measurements								
			55° at 171'	60° at 186							
			55° at 175'	55° at 188		C 1622	183.0	187.0			
			60° at 178'	58° at 190.5		1623	187.0	191.0			
			40° at 178.5	60° at 194.5		1624	191.0	195.2			
			48° at 179.5								
			42° at 181.5								
			58° at 182.0								
195.2			Fault Contact			1625	195.2	197.1			
			1/4" range fault 440° to core axis at 195.2			1626	197.1	200.5			
			sub. fault at 197.1			1627	200.5	203.6			
						1628	203.6	205.8			
						1629	205.8	207.0			
195.2	200.5	Volcanic Breccia	195.2-200.5, Pelite to light green, brecciated, strongly sheared transition zone.			1630	207.0	210.0			
						1631	210.0	212.0			
						1632	212.0	214.2			
			Strong carbonate alteration 195.2 → 200.5,			1633	214.2	217.3			
			Shearing 55° at 199.5			1634	217.3	219.4			
						1635	219.4	221.8			
			Contact is a strongly sensitive 1/4" shear 220° to core axis from 200.5 to 200.8.			1636	221.8	224.3			
						1637	224.3	226.4			
200.5	226.4	Altered Turb/Sediments	Variably altered - dominantly green mica alteration from 203.6 → 207.0, then from 212.0 to 226.4								
			weak kaolinitic alteration giving slightly reddish coloration from 200.5 to 203.6 and 212.0 to 217.0.								
			Angular dark green to black sub-angular flakes comprising 3-5% of unit from 203.6-207.0 and 221.8-224.5								

* Additional credit available. See Assessment Act Regulations.



THE MINING ACT - MINISTRY OF NATURAL RESOURCES
DIAMOND DRILLING LOG

Start a new page for every new hole, but fill in top portion of form only on first page for each hole.

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HOLE NO. 81-6
PAGE NO. 3

DRILLING COMPANY		COLLAR ELEVATION	BEARING OF HOLE FROM TRUE NORTH	TOTAL FOOTAGE	DIP OF HOLE AT collar	LOCATION OF HOLE IN RELATION TO A FIXED POINT ON THE CLAIM	MAP REFERENCE NO.	CLAIM NO.	
DATE HOLE STARTED	DATE COMPLETED	DATE LOGGED	LOGGED BY		ft		LOCATION (T _{p.} , Lot, Con. OR Lot. and Long.)		
EXPLORATION CO., OWNER OR OPTIONEE		DATE SUBMITTED	SUBMITTED BY (Signature)		ft				
					ft		PROPERTY NAME		

FOOTAGE FROM	TO	ROCK TYPE	DESCRIPTION Colour, grain size, texture, minerals, alteration, etc.	PLANAR FEATURE ANGLE	CORE SPECIMEN FOOTAGE	YOUR SAMPLE NUMBER	SAMPLE FOOTAGE		SAMPLE LENGTH	ASSAYS	
							FROM	TO			
			epidote fragments or possible rip clasts. - hematitic portions strongly siliceous, green mica portions are highly sericitic and fairly soft, although with 5% qtz inlets. - white unit is uncarbonatized. Trace to locally 1% very fine disseminated pyrite and pyrrhotite throughout. Strike-slip fault on 50° at 214.0 53° at 217.0 50° at 225.0								
245.6		Highly fragmented/brecciated	Highly fragmented/brecciated. Mainly green, weakly siliceous unit 226.4 to 230.4 then unconsolidated contact at 226.4 slightly acidic, 45° to 50° to core axis Up to 1% disseminated fine grained pyrite and pyrrhotite throughout, locally up to 13% Unit possibly represents a flow top breccia to volcanics subject at 245.6 variably 40° to 45° between fragmental agglomerate above and more massive volcanics below.				1638	226.4	228.6		
							1639	228.6	230.4		
							1640	230.4	234.0		
							1641	234.0	237.5		
							1642	237.5	240.9		
							1643	240.9	245.6		
							1644	245.6	250.0		



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OM 89-24

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

NOTE: Hde No. U89-6 is comparable to Baden Twp D.D.R.# 18. However, it excludes the sample footage.