



41116SE0018 0016 VOGT

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MALARTIC GOLD FIELDS LIMITED

REPORT

ON

CLAIMS IN THE VICINITY OF AUSTIN BAY, LAKE TIMAGAMI,

VOGT TOWNSHIP, ONTARIO.

HALET, QUEBEC.

APRIL 4, 1957.

ASSESSMENT WORK	
Rec'd from.....	<i>Resident Geologist</i>
..... <i>COBALT</i>	
Date.....	<i>Jan 27/58</i> <i>WAS</i>
Resident Geologist	



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2	MAGNETOMETER SURVEY - VICINITY OF SHOWINGS	1" = 100' ✓
3	RECONNAISSANCE GEOLOGICAL PLAN	1" = 400' ✓
4	GEOLOGICAL PLAN - VICINITY OF SHOWINGS	1" = 100' ✓
5	PLAN OF DIAMOND DRILL HOLES	1" = 200' ✓
6	DIAMOND DRILL HOLE SECTION No. 1	1" = 40' ✓
7	DIAMOND DRILL HOLE SECTION No. 2	1" = 40' ✓
8	GEOLOGICAL PLAN	1" = 200' ✓
9	GEOCHEMICAL PLAN	1" = 200' ✓
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GEOLOGICAL - REPORT

AUSTIN BAY AREA, VOGT TOWNSHIP, ONTARIO

INTRODUCTION

PROPERTY: THE PROPERTY CONSIDERED IN THIS REPORT CONSISTS OF THE FOLLOWING TWENTY-FIVE CLAIMS (SEE MAP No. 1):

- (1) 5 CLAIMS: NUMBER 36567-36569, 36574 AND 36871 STAKED BY B. SIROLA, COBALT, ONTARIO; LICENSE No. B15082.
- (2) 9 CLAIMS: NUMBER 36314-36321 STAKED BY B. HERMISTON, COBALT, ONTARIO; LICENSE No. B21698.
- (3) 6 CLAIMS: NUMBER 39153-39158 STAKED BY B. H. RILEY, NORTH BAY, ONTARIO; LICENSE No. B21556.
- (4) 6 CLAIMS: NUMBER 40436-40441 STAKED BY B. H. RILEY, NORTH BAY, ONTARIO; LICENSE No. B21556.

THESE CLAIMS ARE LOCATED IN THE VICINITY OF AUSTIN BAY, AN OFFSHOOT OF THE SOUTH ARM OF LAKE TEMAGAMI SITUATED IN THE EAST CENTRAL PORTION OF VOGT TOWNSHIP, ONTARIO.

ACCESSIBILITY: THE AREA MAY BE REACHED BY BOAT FROM THE VILLAGE OF TEMAGAMI ON THE ONTARIO NORTHLAND RAILWAY, BY LOGGING ROAD FROM THE VILLAGE OF RIVER VALLEY IN CRERAR TOWNSHIP ON THE STURGEON RIVER AND, OF COURSE, BY AIR. THE ONTARIO NORTHLAND BOAT LINE RUNS A SCHEDULED SERVICE FROM TIMAGAMI TO CAMP ACOUCHICHING ON THE SOUTH ARM OF LAKE TEMAGAMI AND IT IS ONLY A SHORT VOYAGE FROM HERE TO AUSTIN BAY. THE FIELD LUMBER COMPANY MAINTAINS A WINTER LOGGING ROAD FROM RIVER VALLEY TO AUSTIN AND OUTLET BAYS AND THIS ROUTE IS USEABLE BY FOUR-WHEEL DRIVE VEHICLES IN SUMMER AS WELL. LAKELAND AIRWAYS OPERATES A CHARTER AIR SERVICE FROM THE TOWN OF TIMAGAMI USING LIGHT AIRCRAFT WITH SMALL LOAD CAPACITY.

HISTORY: DURING THE SUMMER OF 1955 THE WESTERN PART OF THE PROPERTY, CONSISTING OF CLAIMS #36567-36569, #36574, #36871 AND #36314-#36321, WAS STAKED UNDER THE DIRECTION OF JOHN SIROLA, COBALT, ONTARIO FOR MALARTIC GOLD FIELDS LIMITED. THIS AREA WAS CONSIDERED FAVOURABLE BECAUSE OF ITS PROXIMITY TO AN AREA TO THE WEST WHERE DRILLING OF A RADIOACTIVE SHOWING WAS IN PROGRESS. IN JANUARY OF 1956, MR. SIROLA RETURNED TO THE CLAIMS TO EXAMINE RUSBY ZONES WHICH HE HAD NOTICED DURING

(CONT'D. ON NEXT PAGE)

HISTORY, CONT'D.

STAKING OPERATIONS THE PREVIOUS SUMMER. HE DID A LIMITED AMOUNT OF MAGNETIC AND ELECTROMAGNETIC SURVEYING IN THE AREA AND FOUND ANOMALOUS CONDITIONS (SEE MAP NO. 2). BY STRIPPING OFF SNOW AND LIGHT OVERBURDEN HE UNCOVERED OTHER RUSTY ZONES. ON THE STRENGTH OF THIS, SIX ADDITIONAL CLAIMS (#39153-39158) WERE STAKED TO THE EASTWARD IN FEBRUARY AND IN MAY ANOTHER SIX CLAIMS (#40436-#40441) WERE ADDED.

BETWEEN FEBRUARY AND NOVEMBER OF 1956, WORK CARRIED OUT IN THE VICINITY OF AUSTIN BAY CONSISTED OF STRIPPING OUTCROPS, RECONNAISSANCE AND DETAIL GEOLOGICAL MAPPING, PACKSACK DIAMOND DRILLING, LINE CUTTING, GEOCHEMICAL AND GEOPHYSICAL SURVEYING.

FIELD WORK: IN JUNE, 1956, M. BELLAND MADE A RECONNAISSANCE GEOLOGICAL SURVEY OF THE CLAIMS BY TRAVERSING THE CLAIM LINES AND THE SHORES OF AUSTIN BAY (SEE MAP NO. 3). HE ALSO MADE A MORE DETAILED SURVEY IN THE VICINITY OF THE SHOWINGS ON CLAIM #36317 (SEE MAP NO. 4) USING THE BLAZED COMPASS AND PACE BASE LINE AND TRAVERSE LINES ESTABLISHED BY J. SITOLA.

ABOUT THIS TIME THE SHOWINGS WERE TESTED WITH A PACKSACK DIAMOND DRILL. TWO CROSS SECTIONS WERE MADE TOTALLING 351 FEET IN SIX HOLES, FOUR OF WHICH WERE DRILLED ON THE WESTERLY SHOWING AND TWO ON THE EASTERLY ONE (SEE MAPS NO. 5, 6 & 7).

IN JULY AND AUGUST, 1956 FIFTEEN MILES OF LINE WERE CUT AND PICKETED AT 100 FOOT INTERVALS TO FORM A BASE FOR GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL SURVEYS.

GEOLOGY

THE CONSOLIDATED ROCKS OF THE AREA ARE ALL OF PRECAMBRIAN AGE AND ARE DIVIDED INTO THREE GROUPS WHICH ARE DESCRIBED BELOW (SEE MAPS No. 3 & 8).

TABLE OF FORMATIONS:

PLEISTOCENE & RECENT - GLACIAL TILL AND TALUS.

HURONIAN - COBALT SERIES

- S - 4 - QUARTZITE AND ARKOSIC QUARTZITE
- S - 3 - GREYWACKE
- S - 2 - GREYWACKE CONGLOMERATE : PREDOMINANTLY GREYWACKE CONTAINING SPACIALLY DISTRIBUTED, WELL ROUNDED PEBBLES AND COBBLES.
- S - 1 - CONGLOMERATE : WELL ROUNDED COBBLES AND BOULDERS IN A MATRIX OF QUARTZITE AND GREYWACKE.

POST-KEEWATIN

- 4 - DIABASE
- 1G - GRANITE

KEEWATIN

- K - 4 - TUFF AND/OR SEDIMENTS: UNIFORMLY BANDED, FINE GRAINED, ARGILLACEOUS WITH OCCASIONAL BANDS OF GREYWACKE-LIKE MATERIAL.
- K - 3 - ACID VOLCANICS: VERY FINE GRAINED, POSSIBLE CHERT IN PART.
- K - 2 - IRON FORMATION
- K - 1 - INTERMEDIATE TO BASIC VOLCANICS: ANDESITE SOME PILLOW LAVAS, POSSIBLY IN PART FINE GRAINED PHASES OF THE DIABASE.

IN THE PRECEDING TABLE THE MAJOR ROCK UNITS ARE ARRANGED IN CHRONOLOGICAL ORDER WITH THE YOUNGEST AT THE TOP. HOWEVER, THE RELATIVE AGES OF THE FORMATIONS WITHIN EACH UNIT ARE NOT KNOWN EXCEPT THAT THE BASE OF THE COBALT SERIES IS CHARACTERISTICALLY MARKED BY COARSE GRAINED CONGLOMERATE.

KEEWATIN: ROCKS OF KEEWATIN AGE UNDERLY APPROXIMATELY ONE THIRD OF THE CLAIM GROUPS AND CONSIST OF INTERBEDDED VOLCANICS AND SEDIMENTS. THESE ROCKS FORM A BELT ON THE WEST SIDE OF A SERIES OF LOW HILLS BETWEEN SUNKEN LAKE AND AUSTIN BAY AND ALSO CROP OUT OVER A LARGE AREA OF ROLLING HILLS SOUTHEAST OF SUNKEN LAKE. THE SERIES IS COMPOSED CHIEFLY OF FLOW ROCKS AND FINELY BANDED TUFFS AND/OR SEDIMENTS BUT INCLUDES A FEW BANDS OF SILICEOUS TUFF WHICH ARE PARTLY FRAGMENTAL.

KEEWATIN, CONTINUED

THE FLOW ROCKS ARE INTERMEDIATE TO BASIC IN COMPOSITION, OF THE TYPE GENERALLY CALLED "ANDESITE" IN THE FIELD, AND IN SOME CASES EXHIBIT PILLOW STRUCTURES. THEY ARE USUALLY RATHER FINE GRAINED WITH A GREEN TO DARK GREEN COLOUR WHICH TURNS GREY OR GREYISH-BROWN ON WEATHERING. THEY ARE EASILY RECOGNIZED BY THEIR MASSIVE APPEARANCE IN THE OUTCROP BROKEN ONLY BY CLOSELY SPACED JOINTS OR OCCASIONALLY BY THE DEVELOPMENT OF FOLIATION. THESE ROCKS, WHERE PILLOW STRUCTURES ARE ABSENT, OFTEN CANNOT BE DISTINGUISHED FROM BORDER PHASES OF THE DIABASE.

TUFFS AND SEDIMENTS ARE INTERBEDDED WITH THE FLOW ROCKS BUT ARE EASILY DISTINGUISHED FROM THEM BY THEIR BANDED APPEARANCE. THEY ARE COMPOSED OF NARROW BANDS OF ROCK WITH CONTRASTING GRAIN SIZE. ON THE ONE HAND ARE BANDS OF VERY FINE GRAINED, DARK GREY TO GREENISH, SHALY MATERIAL AND ON THE OTHER THE BANDS CONSIST OF MEDIUM TO COARSE GRAINED, GREYWACKE-LIKE MATERIAL. THERE ARE, OF COURSE, ALL STAGES BETWEEN THESE EXTREMES AND COMMONLY THERE IS NO SHARP CONTACT BETWEEN ADJACENT BANDS. UNIFORMLY BANDED IRON FORMATION CONSISTING OF VERY THIN BANDS OF FINE-GRAINED MAGNETITE AND CHERT ALSO OCCURS IN THIS SERIES AND IS WELL EXPOSED ON THE NORTH FACE OF A PROMINENT RIDGE ABOUT 400 FEET OUTSIDE THE SOUTHWEST CORNER OF THE CLAIM GROUP.

BANDS OF HIGHLY SILICEOUS PALE GREY TO YELLOWISH GREY ROCK WERE OBSERVED AT A NUMBER OF HORIZONS IN THE KEEWATIN. THESE ARE PRINCIPALLY ACID VOLCANICS AT LEAST PART OF WHICH ARE FRAGMENTAL. HOWEVER, SOME VERY FINE GRAINED, MASSIVE PHASES STRONGLY RESEMBLE CHERT WHILE OTHERS, EXHIBITING INDISTINCT AND IRREGULAR BANDING, RESEMBLE RHYOLITE. THESE ROCKS ARE CHARACTERIZED BY THE PRESENCE OF SULPHIDES, PRINCIPALLY PYRROTITE WITH MINOR AMOUNTS OF PYRITE AND CHALCOPYRITE, WHICH GIVE THE OUTCROP A VERY RUSTY APPEARANCE.

POST-KEEWATIN:

THE GRANITE INCLUDED IN THIS GROUP WAS NOT SEEN BY THE AUTHOR BUT WAS OBSERVED BY H. BELLAND (SEE MAP NO. 3) IN THE SOUTHEAST CORNER OF CLAIM #4041 AND WAS ALSO REPORTED BY J. SIROLA.

A LARGE BODY OF DIABASE OCCURS JUST WEST OF SUNKEN LAKE ON CLAIMS #36319 AND 36320 AND WAS ALSO OBSERVED IN ONE OUTCROP ON CLAIM #39156. THE ROCK IS TYPICALLY MEDIUM GRAINED, DARK GREY IN COLOUR WITH A BROWNISH WEATHERED SURFACE AND EXHIBITS DIABASIC TEXTURE. IT APPEARS TO BE INTRUSIVE INTO THE KEEWATIN. ALTHOUGH IN THE ONE OUTCROP - NEAR POST #1, CLAIM #36318 - WHERE THE CONTACT WAS OBSERVED, THE DIABASE SEEMED TO PASS GRADUALLY, WITH DECREASING GRAIN SIZE, INTO TYPICAL ANDESITE. EVIDENCE OF THE INTRUSIVE NATURE OF THIS ROCK IS PROVIDED BY THE LINE OR NATURE OF ITS CONTACT WITHOUT REGARD TO TOPOGRAPHY AND THE OCCURRENCE OF A CHILLED BORDER ZONE ALONG THIS CONTACT.

THE RELATIONSHIP BETWEEN THE DIABASE AND THE COBALT SERIES IS NOT CLEAR. NORTHEAST OF SUNKEN LAKE THEY ARE PROBABLY SEPARATED BY A FAULT. EAST OF SUNKEN LAKE THERE IS INSUFFICIENT EVIDENCE TO DEFINITELY INDICATE THEIR RELATIONSHIP BUT THE COBALT IS INTERPRETED TO BE OVERLYING THE DIABASE.

HURONIAN: HURONIAN ROCKS ARE REPRESENTED BY COARSE, CLASTIC SEDIMENTS OF THE COBALT SERIES. THE BASE OF THIS SERIES IS GENERALLY MARKED BY A VERY COARSE, POORLY SORTED CONGLOMERATE PRINCIPALLY COMPOSED OF ROUNDED COBBLES OF GRANITIC MATERIAL IN A GREYWACKE-TYPE MATRIX. SLIGHTLY YOUNGER PHASES OF THE CONGLOMERATE EXHIBIT PEBBLES AND COBBLES SPACIALLY DISTRIBUTED IN POORLY BANDED GREYWACKE. THIS GRADES UPWARD THROUGH GREYWACKE INTO QUARTZITE, ARKOSIC QUARTZITE AND INTERBEDDED QUARTZITE, SILTSTONE AND MUDSTONE CONTAINING SCATTERED ROUNDED PEBBLES OF GRANITIC MATERIAL.

THESE ROCKS COVER ABOUT SIXTY PERCENT OF THE CLAIM GROUP AND OVERLIE THE KEEWATIN GROUP WITH ANGULAR UNCONFORMITY. THEY TREND IN A NORTHEASTERLY DIRECTION AND DIP TO THE NORTHWEST AT ANGLES OF 15° TO 25°.

STRUCTURAL GEOLOGY: STRUCTURALLY, THE CLAIM GROUP IS DIVIDED INTO THREE PARTS SEPARATED BY TWO MAJOR FAULTS.

THE EXTENSION OF COBALT ROCKS SOUTHWARD OPPOSITE THE DIABASE AND SEPARATED FROM IT BY A PROMINENT BULLY STRONGLY INDICATES THE PRESENCE OF A FAULT AT THEIR CONTACT. ALSO, WEST OF SUNKEN LAKE THE KEEWATIN ROCKS TREND IN AN EASTERLY TO EAST-SOUTHEASTERLY DIRECTION AND DIP VERTICALLY TO STEEPLY NORTH WHILE NORTH OF THIS LAKE TWO OUTCROPS OF KEEWATIN SEDIMENTS SHOW A NORTHERLY TREND WITH VERTICAL DIP.

EAST OF SUNKEN LAKE THE KEEWATIN TRENDS IN A SOUTHEASTERLY DIRECTION SUGGESTING THAT YET ANOTHER FAULT SEPARATES THIS AREA FROM THAT NORTH OF THE LAKE. SUCH A FAULT WOULD BE LOCATED APPROXIMATELY ON THE LONG AXIS OF SUNKEN LAKE, AS POSTULATED BY BELLAND (MAP NO. 3) AND, IN FACT, AIR PHOTOGRAPHS SHOW A TOPOGRAPHIC LINEAMENT PASSING THROUGH THIS PLACE.

VERY LITTLE EVIDENCE OF FOLDING WAS OBSERVED IN THE AREA. IN CLAIM #36318 A SMALL DRAG FOLD OCCURS ADJACENT TO WHAT WAS INTERPRETED TO BE THE FAULT-LINE SCARP OF A STRIKE FAULT IN THE KEEWATIN GROUP. NEAR THE EAST BOUNDARY OF THE CLAIM GROUP THERE IS A BROAD FLEXURE IN THE KEEWATIN INDICATED BY A GRADUAL CHANGE IN STRIKE OF THE SEDIMENTS.

ECONOMIC GEOLOGY: ECONOMIC INTEREST IN THE CLAIMS IS CENTRED ON THE OCCURRENCE OF COPPER VALUES IN THE BANDS OF SILICEOUS ROCK FOUND IN THE KEEWATIN GROUP. NOTHING OF COMMERCIAL VALUE HAS BEEN FOUND TO DATE AND THE BEST SAMPLE, OBTAINED FROM DIAMOND DRILL CORE, YIELDED 0.84% COPPER, 0.31 OZS. SILVER, AND 0.02 OZS. GOLD OVER A LENGTH OF 2.6 FEET.

MINERALIZATION CONSISTS OF PYRRHOTITE WITH MINOR AMOUNTS OF PYRITE AND CHALCOPYRITE AND GENERALLY OCCURS DISSEMINATED THROUGHOUT THE ROCK. HOWEVER, IN THE EASTERLY SHOWING ON CLAIM #36317 THERE IS A TWO INCH WIDE BAND OF MASSIVE PYRRHOTITE.

DIAMOND DRILLING

IN THE SPRING OF 1956 DIAMOND DRILLING WAS UNDERTAKEN TO TEST RUSTY ZONES ON CLAIM #36317. SIX HOLES WERE DRILLED TOTALLING 351 FEET. FOUR OF THE HOLES WERE DESIGNED TO CROSS SECTION THE WESTERLY SHOWING AND THE REMAINING TWO WERE ON THE EASTERLY ONE. MAPS No. 5, 6 & 7 SHOW THESE HOLES IN PLAN AND SECTION AND A LOG OF THE CORE FROM EACH HOLE IS INCLUDED BELOW. THE CORE IS STORED AT HALET, P.Q.

GEOCHEMICAL SURVEY

A GEOCHEMICAL SURVEY WAS MADE ON THE CLAIM GROUPS STAKED BY B. HERMISTON AND B. H. RILEY AND COVERED PARTS OF THE FOLLOWING SEVENTEEN CLAIMS:

#36314-#36320, #39153-#39158, #40436-#40439. A TOTAL OF 79,150 FEET OF LINE WAS CUT AND PICKETED FOR THIS WORK AND 1,070 SOIL SAMPLES WERE COLLECTED AT INTERVALS OF 50 AND 100 FEET. ALL OF THE SAMPLES WERE ANALYSED FOR COPPER CONTENT AND THOSE TAKEN AT 100 FOOT INTERVALS WERE ALSO ANALYSED FOR ZINC AND LEAD. THE ANALYSES WERE MADE IN THE LABORATORIES OF MALARTIC GOLD FIELDS LIMITED AT HALET, P.Q. USING THE DITHIZONE METHOD OF COLORIMETRIC ANALYSIS.

RESULTS OF THIS WORK SHOW AREAS OF GOOD COPPER VALUES ON CLAIMS #40438 AND #40439 AND A SCATTERING OF VALUES IN CLAIM #36317. (SEE MAP No. 9). THESE ANOMALIES MAY BE EXPECTED TO BE SLIGHTLY APART FROM THE GEOPHYSICAL INDICATIONS DUE TO MIGRATION OF THE IONS DOWN SLOPE.

GEOPHYSICAL SURVEYS

SELF-POTENTIAL AND MAGNETIC SURVEYS WERE UNDERTAKEN USING THE PICKET LINES ESTABLISHED FOR THE GEOCHEMICAL SURVEY.

SELF-POTENTIAL SURVEY: A SELF-POTENTIAL SURVEY WAS MADE OVER PARTS OF THE FOLLOWING SIXTEEN CLAIMS: #36314-#36320; #39153-#39157; #40436-#40439. A TOTAL OF 65,900 FEET OF LINE WAS COVERED WITH READINGS TAKEN AT 100 FOOT INTERVALS. A LEEDS AND NORTHRUP POTENTIOMETER WAS USED TO MEASURE THE POTENTIAL DIFFERENCES AND THE "LEAP-FROG" METHOD OF SURVEYING WAS EMPLOYED.

RESULTS OF THIS WORK SHOW STRONG NEGATIVE ANOMALIES ON CLAIMS #36317, #40439 AND #40436 CONFIRMING THE RESULTS OF THE GEOCHEMICAL SURVEY AND GIVING MORE ACCURATE LOCATION OF THE OXIDIZING SULPHIDE ZONES; I.E. THE PRESUMED SOURCE OF COPPER IONS IN THE SOIL (SEE MAPS No. 10 & 11).

MAGNETIC SURVEY: A MAGNETIC SURVEY WAS MADE COVERING PARTS OF THE FOLLOWING FIFTEEN CLAIMS: #36314-#36320; #39153-#39156; #40436-#40439. A TOTAL OF 51,050 FEET OF LINE WAS TRAVERSED WITH READINGS TAKEN AT INTERVALS OF 100 FEET. AN ARVELA MAGNETOMETER WAS USED WITH AN AVERAGE SCALE CONSTANT OF 25.6 GAMMAS PER DIVISION AND AN ACCURACY OF ABOUT ± 10 GAMMAS. THE MAIN BASE STATION WAS LOCATED ON THE SOUTH SHORE OF AUSTIN BAY AND WAS ARBITRARILY ASSIGNED THE VALUE OF 20 SCALE DIVISIONS OR 5,080 GAMMAS. AUXILIARY BASE STATIONS WERE ESTABLISHED ALONG THE EAST-WEST BASE LINE.

RESULTS OF THIS WORK INDICATE POSITIVE MAGNETIC ANOMALIES ON CLAIMS #36317 AND #40439, CONFIRMING THE LOCATION OF ZONES OF POSSIBLE ECONOMIC INTEREST INDICATED BY PRECEDING WORK. THE SURVEY ALSO INDICATES THOSE ZONES WHICH MIGHT BE EXPECTED TO CARRY A LARGE PERCENTAGE OF PYRRHOTITE (SEE MAP No. 12).

SUMMARY AND RECOMMENDATIONS

WORK TO DATE HAS SHOWN THE PRESENCE OF RUSTY ZONES OF SILICIOUS TUFF IN AN ASSEMBLAGE OF ANDESITE AND TUFF OR SEDIMENTS. THE RUSTY ZONES ARE MINERALIZED WITH DISSEMINATED PYRITE, PYRROTITE AND CHALCOPYRITE. VALUES IN COPPER, GOLD AND SILVER ARE LOW. THE BEST SAMPLE GAVE 0.84% COPPER, 0.31 OZS. SILVER AND 0.02 OZS. GOLD OVER A CORE LENGTH OF 2.6 FEET.

GEOCHEMICAL, MAGNETIC AND SELF-POTENTIAL ANOMALIES ARE ASSOCIATED WITH THE RUSTY ZONES AND INDICATE THAT MORE EXTENSIVE WORK SHOULD BE DONE ON CLAIMS

#36317 AND #40439.

IT IS RECOMMENDED THAT ELECTROMAGNETIC SURVEYS BE DONE TO TEST THESE RUSTY ZONES FOR MASSIVE SULPHIDES AND THAT THE LINE CUTTING AND GEOPHYSICAL WORK BE EXTENDED TO THE SOUTH ON THE EASTERLY CLAIM GROUP TO INCLUDE CLAIMS #40440 AND #40441.

ASSESSMENT WORK

THE MEMBERS OF THE SURVEY PARTIES, THEIR ADDRESSES, OCCUPATIONS AND TIME SPENT IN WORK ON THE CLAIM GROUPS, ANALYSING SAMPLES, PREPARATION OF REPORT AND MAP, FOLLOWS.

PERSONNEL

<u>NAME</u>	<u>ADDRESS</u>	<u>OCCUPATION</u>
J. E. GILL	MCGILL UNIVERSITY, MONTREAL P.Q.	CONSULTING GEOLOGIST
C. K. WILTON	VIRGINIATOWN, ONTARIO.	GEOLOGIST
T. KOULONZINE	VAL D'OR, P. Q.	CONSULTING GEOPHYSICIST
R. A. CAMERON	NORRIS, P. Q.	GEOLOGIST
J. SIROLA	COBALT, ONTARIO.	GEOPHYSICIST
M. BELLAND	BATHURST, NEW BRUNSWICK	GEOLOGIST
G. DENONNÉE	DUBUISSON, P.Q.	GEOPHYSICAL OPERATOR,
A. WEISSENBRUNNER	MALARTIC, P.Q.	DRAUGHTSMAN
P. COULTER	HALET, P. Q.	ASSAYER
F. FISET	BARRAUTE, P. Q.	GEOPHYSICAL ASSISTANT
B. CHOUINARD	ROUYN, P. Q.	GEOPHYSICAL ASSISTANT
G. ROBERT	MALARTIC, P. Q.	DRILLER
J. RAYMOND	VAL D'OR, P.Q.	DRILLER'S HELPER

LABOUR

<u>NAME</u>	<u>OFFICE WORK</u>	<u>MAN-DAYS</u>
J. E. GILL	CONSULTANT	4
C. K. WILTON	PLANNING, MAPS AND REPORT	28
T. KOULONZINE	CONSULTANT	8
R. A. CAMERON	CALCULATIONS, MAPS & REPORT	44
M. BELLAND	MAPS	16
J. SIROLA	MAPS	4
G. DENONNÉE	CALCULATIONS & MAPS	24
A. WEISSENBRUNNER	DRAUGHTING	60
P. COULTER	ASSAYER	200

<u>NAME</u>	<u>FIELD WORK 1956</u>	<u>MAN-DAYS</u>
R. A. CAMERON	OCTOBER 17 - OCTOBER 31	60
M. BELLAND	MAY 29 - JUNE 13	64
J. SIROLA	JANUARY 10 - JANUARY 13	16
G. DENOMMEE	JULY 18 - AUGUST 17 OCTOBER 17 - NOVEMBER 16	216
F. FISET	"	216
B. CHOUINARD	"	216

<u>NAME</u>	<u>DIAMOND DRILLING</u>	<u>MAN-DAYS</u>
G. ROBERT	MARCH 29 - APRIL 7 MAY 29 - JUNE 22	31
J. RAYMOND	"	31

RESPECTFULLY SUBMITTED,

R. A. CAMERON.

HALET, P.Q.

APRIL 5, 1957.

LIMSKAMING MINE DIVISION

NAME

DATE

LOCATION SOUTH SHORE OF AUSTIN BAY, VOGT. TOWNSHIP, ONTARIO.
CLAIM No. 36317

file in Property files

OPERATOR MALARTIC GOLD FIELDS LIMITED, HALET, QUEBEC.

PRINCIPAL METALS PRESENT COPPER

DEVELOPMENT GEOLOGICAL AND GEOPHYSICAL SURVEYS, 351 FEET OF PACKSACK DIAMOND DRILLING

QUALITY TWO SILICIOUS MINERALIZED ZONES IN KEEWATIN TUFF HAVING ABOUT 5% PYRRHOTITE, PYRITE AND CHALCOPYRITE. THE ZONES ARE ABOUT 40 FEET WIDE, 1,000 FEET LONG AND ARE INTERBEDDED WITH ANDESITE. AVERAGE COPPER CONTENT IS VERY LOW. ONE 2.15 SECTION OF CORE ASSAYED 0.84% COPPER. A LITTLE SILVER IS PRESENT.

PRODUCTION (Production figures, if any, will be supplied by the O. D. N. Statistician)

OUR REVIEWERS OR SUPERVISORS
AND THEIR COMMENTS

RELATED REFERENCES

REMARKS

(Signed) *L. Wilton*

Please return to: DR. W. S. SAVAGE
Resident Geologist,
Ontario Department of Mines,
Box 45,
TIMISKAMING, Ontario.

Box 48,
Swastika, Ontario,
October 29th, 1956.

Mr. Cl. J. Wilton,
Field Geologist,
Malartic Gold Fields Ltd.,
311, 200 Bay Street,
TORONTO, Ontario.

Dear Sir:

Re: Malartic Gold Fields Property
Best township

Enclosed herewith please find a specimen page from the tables
published in:

METAL RESOURCES CIRCULAR NO. 1

Copper, Nickel, Lead and Zinc Deposits in Ontario

by

J. E. Thomson & Resident Geologists

Ontario Department of Mines - May, 1954,

and several copies of our standard form on which changes or
information on new properties can be recorded.

We are now collecting (deadline November 15) and compiling
information for a new edition which will be published early in 1957 as
METAL RESOURCES CIRCULAR NO. 2.

Your prompt attention and co-operation in providing the
Department of Mines with accurate and up-to-date records for this purpose
will be appreciated.

Yours very truly,

WSS:JD
Encls.

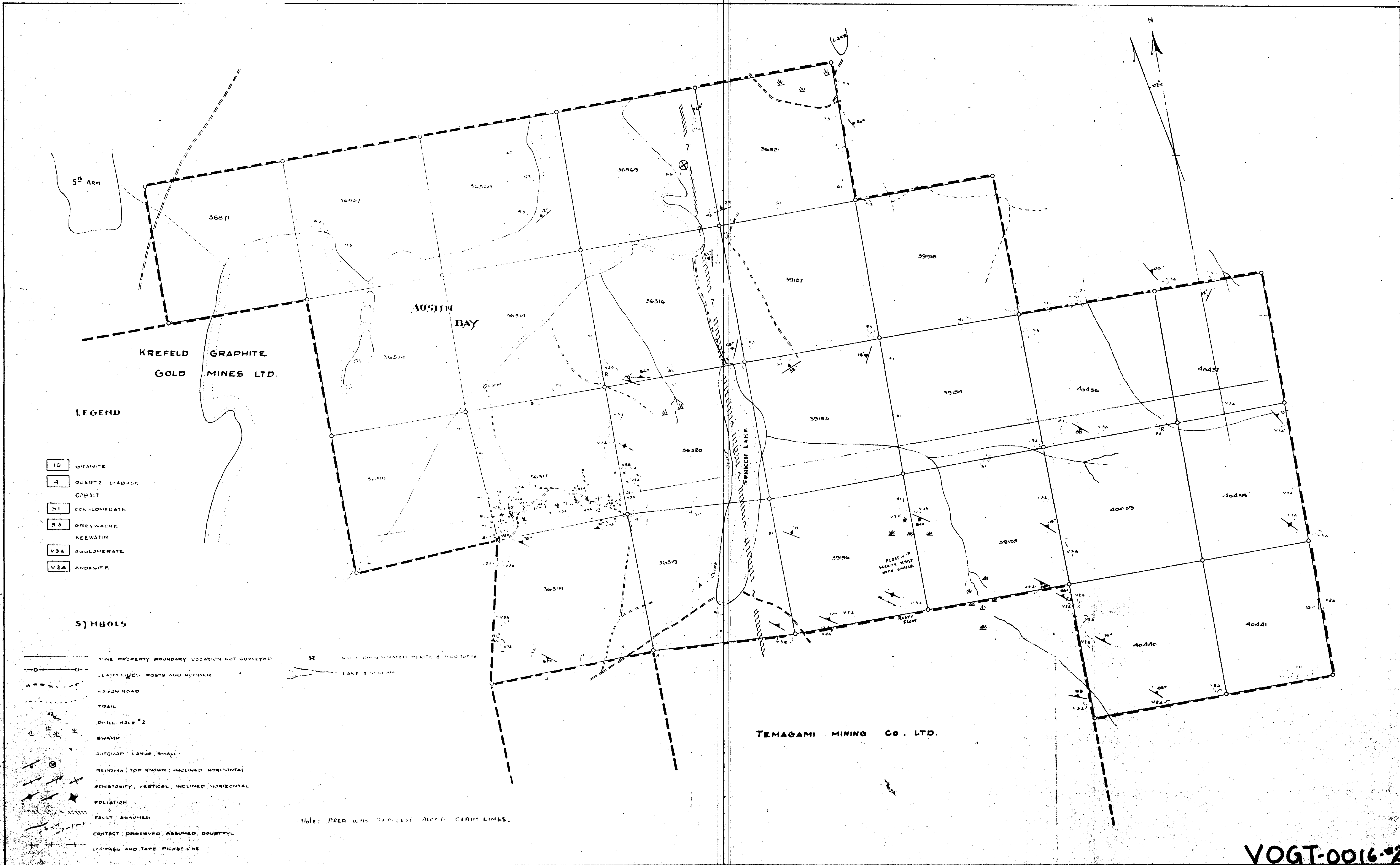
W. S. Savage,
Resident Geologist.

FOR ADDITIONAL

INFORMATION

SEE MAPS:

VOGT-0016 # 4-8



LEGEND

- 1G GRANITE
- 4 QUARTZ DIABASE
COBALT
- 51 CONGLOMERATE
- 55 GREYWACKE
KEEWATIN
- V3A AGGLOMERATE
- V2A ANDESITE

SYMBOLS

- LINE PROPERTY BOUNDARY LOCATION NOT SURVEYED
- o- CLAIM LINES, POSTS AND NUMBER
- - - WAGON ROAD
- - - TRAIL
- ⊙ DRILL HOLE #2
- ⊙ SWAMP
- ⊙ OUTCROP: LARGE, SMALL
- ⊙ READING: TOP KNOWN, INCLINED, HORIZONTAL
- ⊙ SCHISTOSITY: VERTICAL, INCLINED, HORIZONTAL
- ⊙ FOLIATION
- ⊙ FAULT: ASSUMED
- ⊙ CONTACT: OBSERVED, ASSUMED, DOUBTFUL
- ⊙ COMPASS AND TAPE PICKET LINE

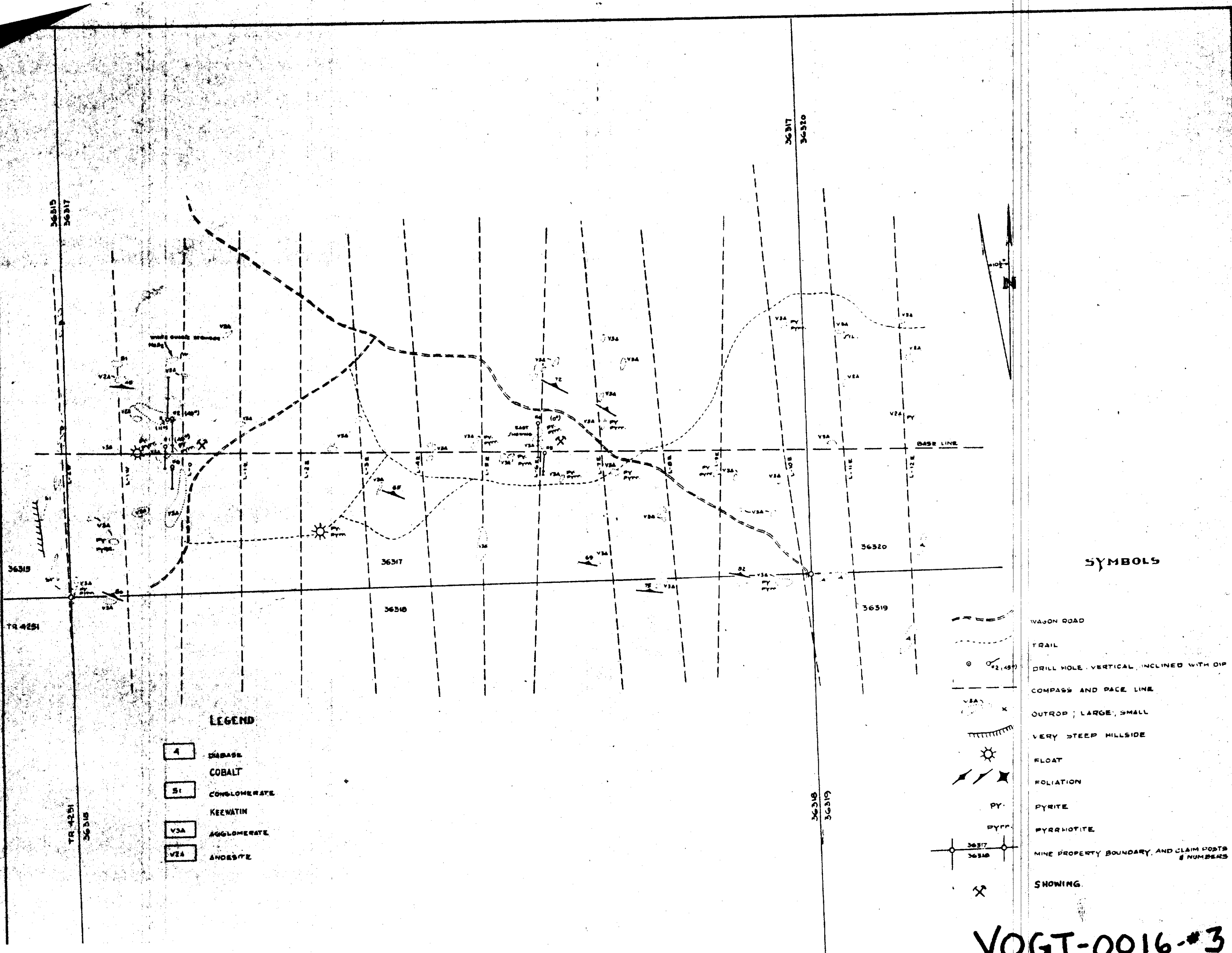
- ⊙ MUST DISMINUATED CLARTE & HERRITOTTE
- ⊙ LAKE & STREAM

Note: AREA WAS TRACED ALONG CLAIM LINES.



MAPK: INDEX & COMPASS	MALARTIC GOLD FIELDS LTD.	MAD NO. 3
GEOLOGY: M. BELLAND	AUSTIN BAY GROUP VOGT TWP. ONT.	
DRAWN BY: M. BELLAND	RECONNAISSANCE GEOLOGICAL PLAN	
TRACED BY: A.W.	SCALE: 1" = 400'	JUNE 1986

VOGT-0016-2



LEGEND

- 4 DIABASE
- S1 COBALT
- S1 CONGLOMERATE
- V3A KEENWATIN
- V3A AGGLOMERATE
- V2A ANDESITE

SYMBOLS

- WAGON ROAD
- TRAIL
- DRILL HOLE - VERTICAL, INCLINED WITH DIP
- COMPASS AND PACE LINE
- OUTCROP; LARGE, SMALL
- VERY STEEP HILLSIDE
- FLOAT
- FOLIATION
- PYR.
- PYRRH.
- MINE PROPERTY BOUNDARY, AND CLAIM POSTS & NUMBERS
- SHOWING.

VOGT-0016-#3



MALARTIC GOLD FIELDS LTD.			MAP NO 4
AUSTIN BAY AREA, VOGT TWP. ONT.			
DRAWN BY M BELLAND	GEOLOGICAL PLAN - VICINITY OF SHOWINGS		
TRACED BY A.W.	SCALE 1" = 100'	DATE JUNE 1980	

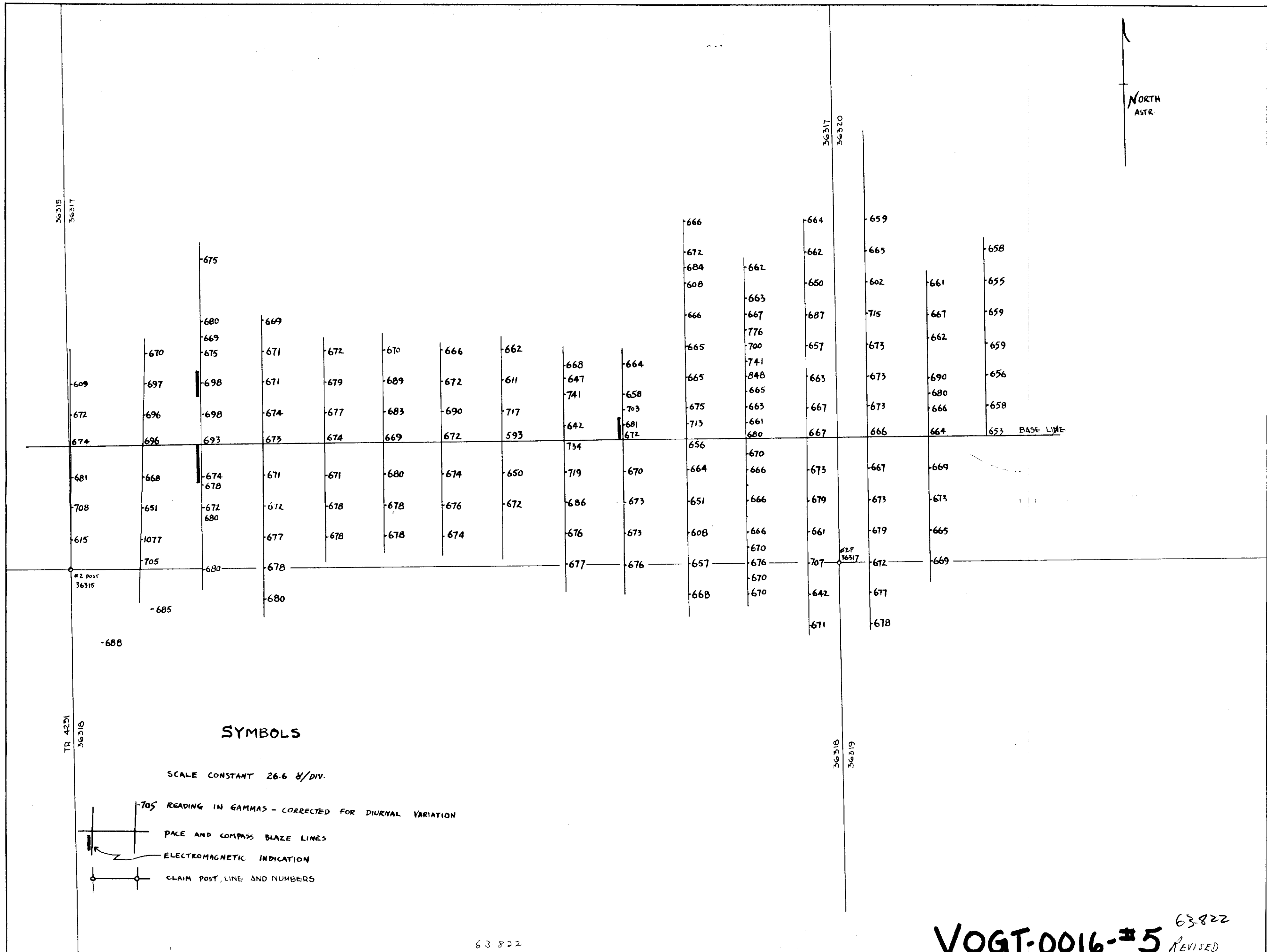


- LEGEND**
- ▲ MAIN MAGNETIC BASE STATION (5000g)
 - △ AUXILIARY MAGNETIC BASE STATIONS
 - MAGNETIC SURVEY STATION, READINGS AND POSITIVE
 - MAGNETIC ANOMALY (POSITIVE)

NOTES

- DATA FOR MAGNETIC VALUES IS 4000 GAMMAS
- POSITIVE VALUES ARE INDICATED BY A MAGNETIC ANOMALY
- SCALE CONSTANT : 25.0 g / INCH (635.0)

NORTH
ASTR.



SYMBOLS

SCALE CONSTANT 26.6 8/DIV.

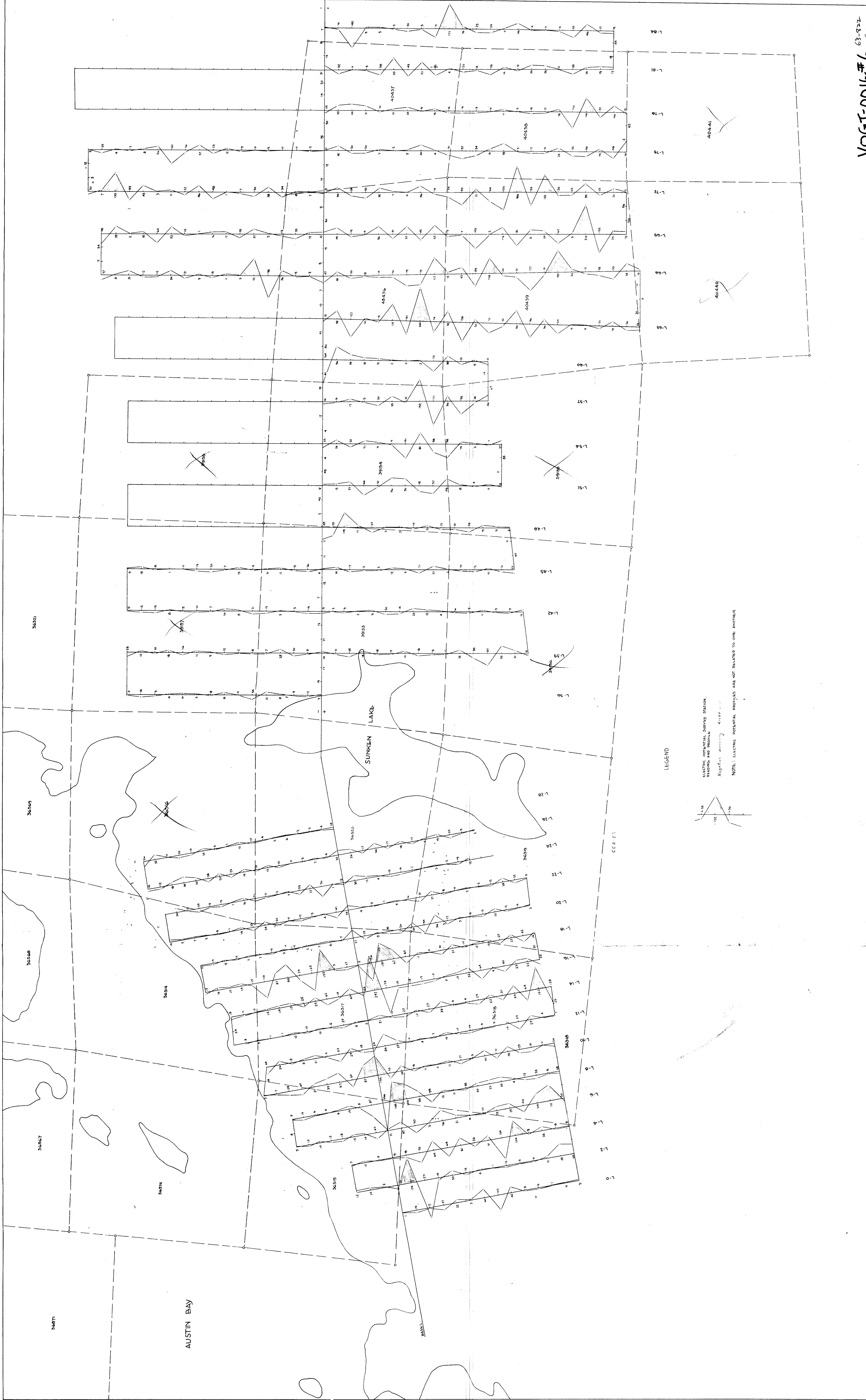
- 705 READING IN GAMMAS - CORRECTED FOR DIURNAL VARIATION
- PALE AND COMPASS BLAZE LINES
- ELECTROMAGNETIC INDICATION
- CLAIM POST, LINE AND NUMBERS

63.822

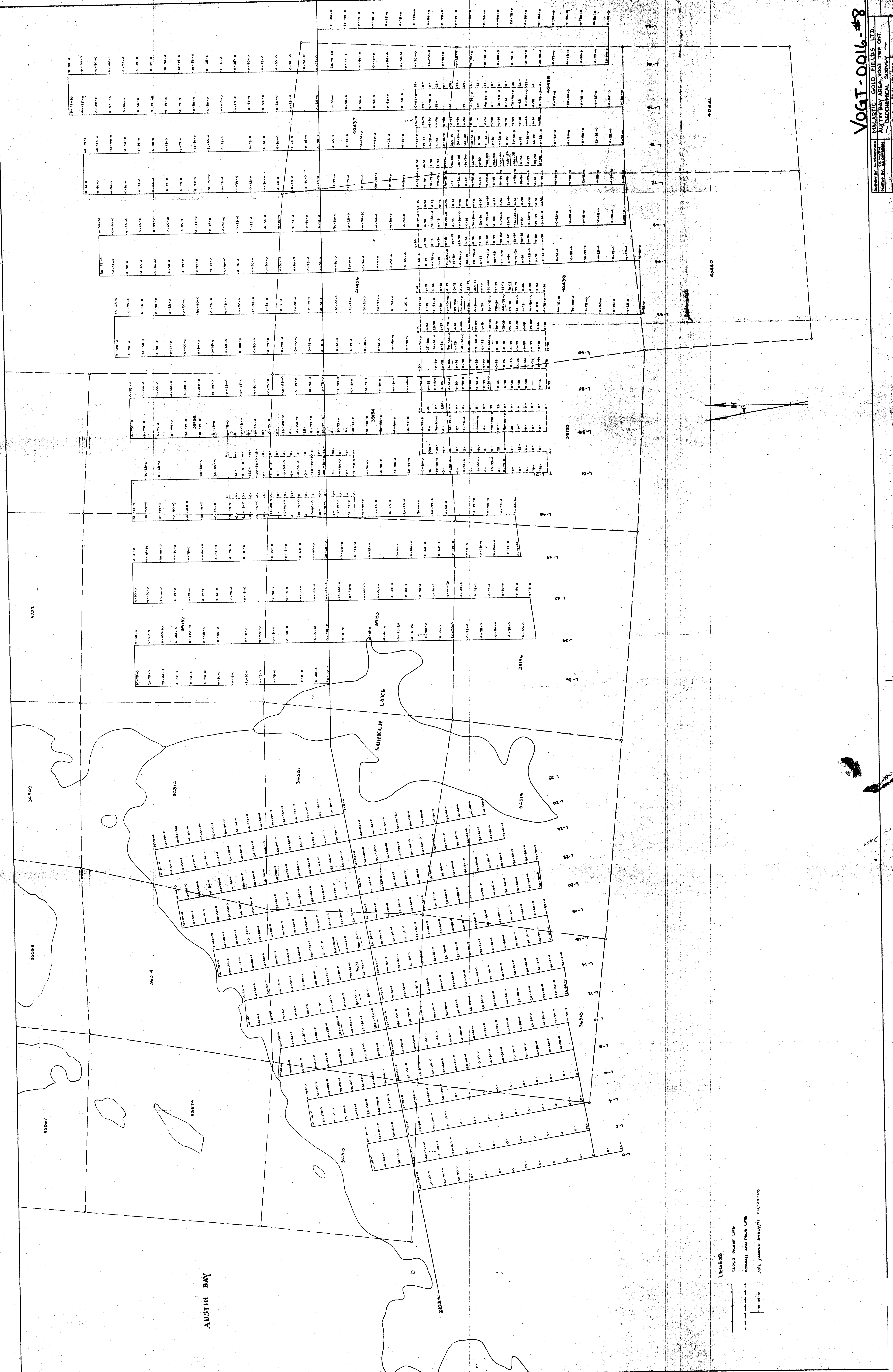
VOGT-0016-#5 63.822
REVISED



MALARTIC GOLD FIELDS LTD.		MAD NO
AUSTIN BAY AREA - VOGT TWP. ONT.		2
SURVEY BY: J. SIROLA	MAGNETOMETER SURVEY - VICINITY OF SHOWINGS	
DRAWN BY: J. SIROLA	SCALE: 1" = 100'	DATE: FEB 1956
TRACED BY: C.K.W.		



63-822
VOGT-0016-F6
 REVISED
 SHEET 1 OF 2
 MALARTIC GOLD FIELDS LTD.
 1700 HWY. 104, ONTARIO
 ELECTRO-POTENTIAL PLAN, 1985
 SCALE: 1" = 100' DATE: 11/85
 DRAWN BY: J. L. CLARK
 CHECKED BY: J. L. CLARK
 APPROVED BY: J. L. CLARK



VOGT-0016-#8
 MALABIC GOLD FIELDS LTD.
 AUSTIN BAY AREA, VOGT TWP. ONT.
 GEOLOGICAL SURVEY
 MALABIC GOLD FIELDS LTD.
 MALABIC GOLD FIELDS LTD.
 MALABIC GOLD FIELDS LTD.

LEGEND
 TAPED PICKET LINE
 CONTOUR AND PACE LINE
 SOIL SAMPLE ANALYSIS: CU, Zn, Pb