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AIRBORNE GEOPHYSICAL SURVEY

ON THE PROPERTY OF

JARVIS RESOURCES LTD.

SWAYZE TOWNSHIP, ONTARIO

BY

H. FERDERBER GEOPHYSICS LTD.

August 1987
Val d'Or, Quebec

G.N Henriksen, B.Sc.
Geologist

Qual.
2.10136

AIRBORNE GEOPHYSICAL SURVEY
ON THE PROPERTY OF
JARVIS RESOURCES LTD.
SWAYZE TOWNSHIP, ONTARIO

INTRODUCTION

On July 26, 1987 an airborne geophysical survey was carried out on the property of Jarvis Resources Ltd. in Swayze Township, Ontario. Magnetic and VLF-electromagnetic data was collected by the airborne division of H. Ferderber Geophysics Ltd. The Survey was flown from a base at Chapleau, Ontario. A total 31.4 miles of data was collected.

The magnetic survey provides information which helps define underlying geological strutures and identifies any potential economic concentrations from variations in accessory magnetic minerals. The VLF-electromagnetic survey outlines conductive zones which may represent shear zones and/or metallic sulphide deposits containing gold mineralization.

PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Jarvis Resources Ltd. property is comprised of 25 claims in Swayze Township, Porcupine Mining Division, Ontario. The claims cover approximately 400 hectares in the northwest corner of the township, are registered with the Ontario Mining Recorder's Office in Timmins and are listed in Appendix 1.

The property is located approximately 55 km (33 miles) east of the town of Chapleau, 50 km (30 miles) south-southwest of the town of Foleyet and 28.3 km (17 miles) north of the village of Sultan.

Access can be obtained by taking a float/ski plane from Chapleau to the northwest corner of Brett Lake which lies within a half mile of the southeast corner of the property.

GEOLOGY

The Ontario Department of Mines Geological Compilation Map 2116 Chapleau-Foleyet Sheet indicates the property is underlain by intermediate and basic volcanic rocks. A north-northwest trending sinestral fault lies adjacent to the northeast corner of the property.

Two gold occurrences lie along strike of the fault, approximately 2 miles and 3 miles north of the property. The Kenty Gold Prospect lies about 3.5 east of the northeastern side of the property, along strike of the geology. This area is underlain by an east striking belt of folded Early Precambrian mafic and felsic metavolcanics, with small interbedded lenticular bodies of clastic metasediments. The principal occurrences lie within massive andesite and schistose felsic metavolcanics close to a large body of feldspar porphyry.

The deposit consists of a series of parallel fracture filling quartz-carbonate veins in an altered host rock, which can be mafic or felsic lava, or felspar porphyry. The average strike of the veins is N60°E, and dips range from 40-80°SE. The veins average 4 to 5 feet in width; the maximum width is 10 feet. Each consists of a main quartz leader with subsidiary parallel veinlets on either side. Mineralization consist of pyrite and minor galena, chalcopyrite, sphalerite, specularite, and graphite. Coarse visible gold occurs in fractures in the vein quartz. Development work indicated that the best values occur where the host rock is "greenstone". Two grab samples of mineralized vein material from a muck pile near Shaft No. 1 assayed 0.16 and 0.19 ounce of Au per ton. Channel sampling on surface indicated that an ore shoot on the No.1 Vein, measuring 6.3 feet in width and 50 feet in length, averaged 0.39 ounce of Au per ton. A second ore shoot, located to the east of the first and measuring 3.7 feet in width by 72 feet in length, averaged 0.67 ounce of Au per ton.

The McNeely-McCullogh Gold Prospect lies about 3.25 miles east of the central the west side of the property, along strike of the geology. The prospect area is underlain by an east-striking fold belt consisting of Early Precambrian mafic to felsic metavolcanics and small amounts of interbedded metasediments. The showings consist mainly of narrow quartz-carbonate veins and stringers. These occupy fracture zones along the north edge of a feldspar porphyry body which is considered to be a phase of the felsic volcanic suite. Some of these showings reportedly gave moderately low gold values over narrow widths.

INSTRUMENTATION AND SURVEY METHODS

The survey was completed using a Cessna 172, fixed wing aircraft (CF-AAV) owned and operated by H. Ferderber Geophysics Ltd. It was piloted by P. Jevremovic of Val d'Or. The navigator/operator was M. Caron, also from Val d'Or. Geophysical sensors were mounted in modified wing tips. GEM-GSM-9 BA Overhauser Proton Precession Magnetometer and Herz Totem 2AG VLF-electromagnetic systems were used. The magnetometer has a resolution of 0.5 gammas, recorded on analogue tape. The VLF-EM measures the change in total field and vertical quadrature field on two channels simultaneously, with an accuracy of 1%. The data is then transferred to a printer. The transmitting station at Cutler, Maine, NAA, frequency 24.0 kiloherz was used.

The survey was conducted at an aircraft altitude of 250 feet above ground level. The altitude was measured with a Bonzer Mark 10 radar altimeter. A survey speed of approximately 100 miles per hour was used. Navigation was visual with reference to air photo mosaics at a scale of one inch to 1,320 feet. Lines were flown in north-south directions at spacings of 440 feet were recovered from the photo mosaics. Manual fiducials were recorded simultaneously on the geophysical tapes and solid state memory.

DATA PRESENTATION

Flight lines, fiducial points and geophysical responses were reproduced from the air photo mosaics on maps at a scale of 1:15,840 (one inch to 1,320 feet). The outline of the claim group and claim map are shown on each sheet.

The aeromagnetic data was corrected for diurnal variations by using base lines as reference. The data was then reduced to a base level of 58,500 gammas, contoured at 25,100 and 1000 gamma intervals and presented on map MG-1.

The VLF-EM data was transferred from the Totem 2AG memory to printed form. Base values were determined and the change in the total field strength as a percentage of the base values was calculated. These values were plotted on map EM-1. The positive values were contoured at intervals of 2%. The conductor axes were determined and numbered 1, 2, 3, etc. No priority was attached to the numbering system.

SURVEY RESULTS AND INTERPRETATION

Magnetic Survey Map MG-1

In the central part of the property a prominent magnetic high anomalous zone trends east-west, and probably represents the location of basic volcanic rocks. A magnetic low anomalous zone in the north part of the property may represent acid volcanic rocks. The magnetic low anomalous zone on the south half of the property that trends east-west and appears truncated to the east by a high magnetic anomalous zone, may represent a lense of intermediate volcanic rock.

The saddle in the prominent magnetic high anomalous zone in the central part of the map and a saddle in a magnetic high, just south of the claim block, along with the lowest point in the southern magnetic low anomalous zone and an isolated point magnetic low anomaly directly north of the prominent magnetic high anomalous zone, define a northwest trending linear zone that roughly parallels a presumed fault which lies east of the property. This anomalous zone may represent a shear zone.

A distortion in the magnetic contour pattern in the northwest corner of the claim block may be related to fault presumed to lie in the vicinity of this corner of the claim block.

VLF-electromagnetic Survey EM-1

Conductive zone 2 is a short, north-northwest trending conductor located in the northeast corner of the property. It crosscuts magnetic contour lines and appears to coincide with a topographic high. It may represent a structural break or be the result of electromagnetic gathering due to topography or overburden.

Conductive zone 3 is a short, continuous northwest trending conductor in the central north part of the claim block. It lies at a slight oblique angle to magnetic contour line along the northern shoulder of a magnetic high anomalous zone and may represent shear along a geologic contact.

Conductive zone 4 consists of two, short, north-northeast trending conductors in the central part of the claim block. They lie across a linear, northwest trending magnetic low anomalous zone and bracket an isolated magnetic low anomaly. They may represent possible structural breaks.

Conductive zone 5, a discontinuous, east-west trending conductor is located in the southwest part of the claim block. It lies along the southern shoulder of a prominent magnetic high anomalous zone and appears to represent a conductor related to a geologic contact.

Conductive zone 6 is a continuous east-west trending conductor in the south central part of the claim block. Its location coincides with that of a magnetic low anomaly and a lake.

Conductive zone 7 is a discontinuous northeast trending conductor in the southeast part of the claim block. It crosscuts magnetic contours and its southern half is situated over a lake.

Conductive zone 8 is a long, continuous, northwest trending conductor in the northeast corner of the property. It lies over a saddle between two magnetic high anomalies, disturbances in the magnetic contour pattern, and the edge of a wooded area. A presumed fault is situated near the northeast corner of the property and conductor 8 may represent a shear zone possibly related to the fault.

Conductive zones 1, 2, 6 and 7 appear to be the results of electromagnetic gathering of feature such as lakes, streams, overburden etc. Conductive zones 2, 6, and 7 may reflect the presence of structural breaks.

CONCLUSIONS

The airborne VLF-electromagnetic and magnetic surveys were successful in outlining possible shear zones and helping define the underlying geology of the Jarvis Resources Ltd. property in Swayze Township, Ontario.

Rocks of high magnetic susceptability underlie the central part of the claim block and have an east-west trend. They are probably basic metavolcanic rocks. Rocks of low magnetic susceptability underlie the north and south parts of the claim block and are thought to be acid and intermediate volcanic rocks, respectively.

A northwest trending linear magnetic low traverses the central part of the property saddles in magnetic high anomalous zones and may represent a structual break, possibly a shear zone.

Disturbances in the magnetic contour pattern near the northeast corner of the claim block, associated with a magnetic high anomaly, define a northwest trending zone. This zone is thought to represent a shear zone related to a presumed fault which trends northwest.

Eight conductive zones were outlined on the property. Of the conductive zones, zones 3, 4, 5 and 8 appear to represent bedrock conductors. Conductive zones 4 and 8 may represent structural breaks, possibly shears and conductive zones 3 and 5 probably represent conductors along geologic contacts, possibly related to shearing.

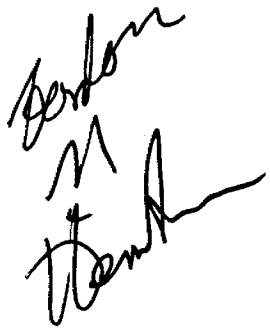
The 2 gold prospects east of the property are along strike of the geology and the 2 gold showings north of the property are along strike of the presumed north-northwest trending fault near the northeast corner of the property.

RECOMMENDATIONS

Further work is warranted on the property especially in the areas of the above mentioned conductors and in the northeast corner of the property. An exploration program of ground geophysics and geological mapping should be undertaken. A combined vertical gradient/total magnetic survey and horizontal loop-electromagnetic survey should be performed, followed by an induced polarization survey over selected conductors and the northeast corner of the property. Potentially interesting geological targets and geophysical anomalies should then be tested by diamond drilling.

Respectfully submitted,

H. FERDERBER GEOPHYSICS LTD.



G.N. Henriksen, B.Sc.
Geologist

APPENDIX I

Claim list

P	894590
	894591
	894592
	894593
	894594
	894595
	894596
	894597
	894598
	894599
	894600
	917201
	917202
	917203
	917204
	917205
	917206
	917207
	917208
	917209
	917210
	917211
	917212
	917213
	917214

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Airborne Magnetic and VLF-Electromagetic

Township or Area Swayze Twp

Claim Holder(s) Jarvis Resources LTD

Survey Company H. Ferderber Geophysics LTD

Author of Report G.N. Henriksen

Address of Author 169 Perreault Ave., Val D'OR, Que.

Covering Dates of Survey July 26, 1987 (linecutting to office)

Total Miles of Line ~~Cut~~ Flown 128.3

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical

–Electromagnetic _____

–Magnetometer _____

–Radiometric _____

–Other _____

Geological _____

Geochemical _____

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

Magnetometer 38 Electromagnetic 38 Radiometric _____
(enter days per claim)

DATE: Sept 2, 1987 SIGNATURE: D W Carstairs
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

P 894590 et al.
(prefix) (number)

See attached Appendix

If space insufficient, attach list

RECEIVED
SEP 21 1987
MINING LANDS SECTION

TOTAL CLAIMS 25

OFFICE USE ONLY

637 (85/12)

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) VLF-EM and Magnetometer

Instrument(s) Herz Totem 2AG and GEM GSM-9BA

(specify for each type of survey)

Accuracy 1% and 0.5 gammas

(specify for each type of survey)

Aircraft used Cessna 172

Sensor altitude 250 feet

Navigation and flight path recovery method Visual navigation on airphoto-mosaic manual fiducial points

Aircraft altitude 250 feet Line Spacing 440 feet

Miles flown over total area 128.3 Over claims only 23.9

APPENDIX I

Claim list

P	894590
	894591
	894592
	894593
	894594
	894595
	894596
	894597
	894598
	894599
	894600
	917201
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	917203
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	917211
	917212
	917213
	917214

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#16;

#169/87

41015SE0058 2.10362 SWAYZE

900

The Mining Act

– Do not use shaded areas below.

ONTARIO GEOLOGICAL SURVEY
NOV 13 1987
FILE OFFICE

Type of Survey(s)	Township or Area
Airborne VLF and Magnetics	Swayze Twp.
Claim Holder(s)	**Prospector's Licence No.**
Jarvis Resources Ltd.	T-1117
Address	
106 Fielding Road, Lively, Ontario, P0M 2E0	
Survey Company	**Date of Survey (from & to)** Day / Mo. / Yr. — Day / Mo. / Yr.	**Total Miles of line Cut**
H. Ferderber Geophysics Ltd.	26 07 87 — 26 07 87	
Name and Address of Author (of Geo-Technical report)	
R. Campbell, 169 Perreault Ave., Val d'Or, Quebec	

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
G. N. Henriksen For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here		Days per Claim
	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	30
	Magnetometer	30
	Radiometric	—

ONTARIO GEOLOGICAL SURVEY
RECEIVED
JUL 29 1987

Expenditures (excludes power stripping)
Type of work performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)
July 28/87	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P-	894590	
	894591	
	894592	
	894593	
	894594	
	894595	
	894596	
	894597	
	894598	
	894599	
	894600	
	917201	
	917202	
	917203	
	917204	
	917205	
	917206	
	917207	
	917208	
	917209	
	917210	
	917211	
	917212	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	917213	
	917214	

RECEIVED
AUG 17 1987
MINING LANDS SECTION

RECORDED
JUL 29 1987

Total number of mining claims covered by this report of work: 25

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
1,500	July 29/87	
	Date Approved as Recorded	Branch Director
	1987.10.20	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

David W. Constable-Constable Consultants, 10 Kingston Court, Sudbury, Ontario P3A 1C9

Date Certified: July 28/87

Certified by (Signature)

TRIM LINE

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

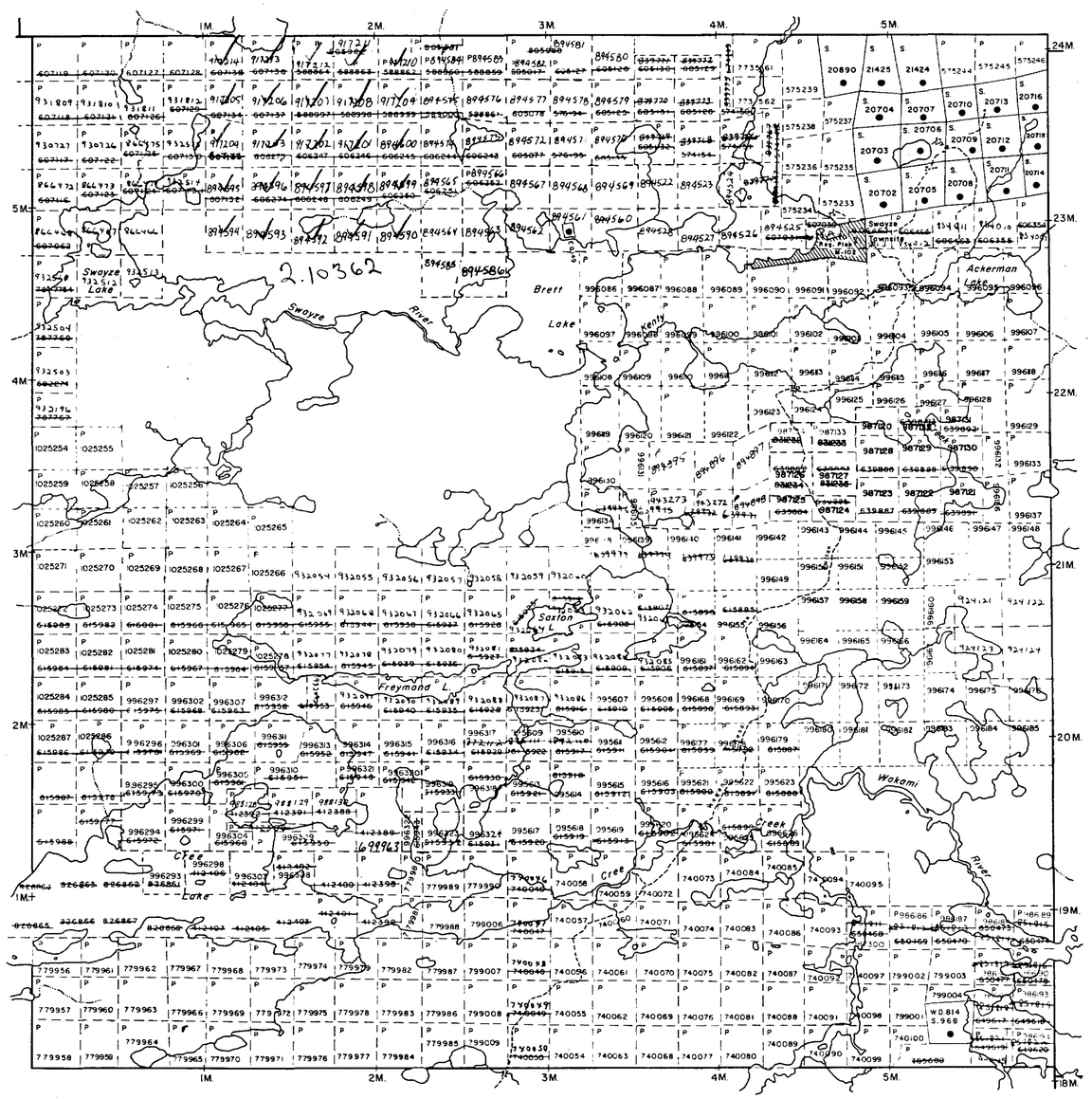
Description	Order No.	Date	Disposition	File

Rollo Twp.

Denyes Twp.

Dore Twp.

Cunningham Twp.



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◐
" , MINING RIGHTS ONLY	◑
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◧
" , MINING RIGHTS ONLY	◨
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊛
CANCELLED	⊗
SAND & GRAVEL	⊕

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

SWAYZE

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ministry of Natural Resources — Land Management Branch

Ontario

Date MARCH, 1985

Checked

Number G-3249

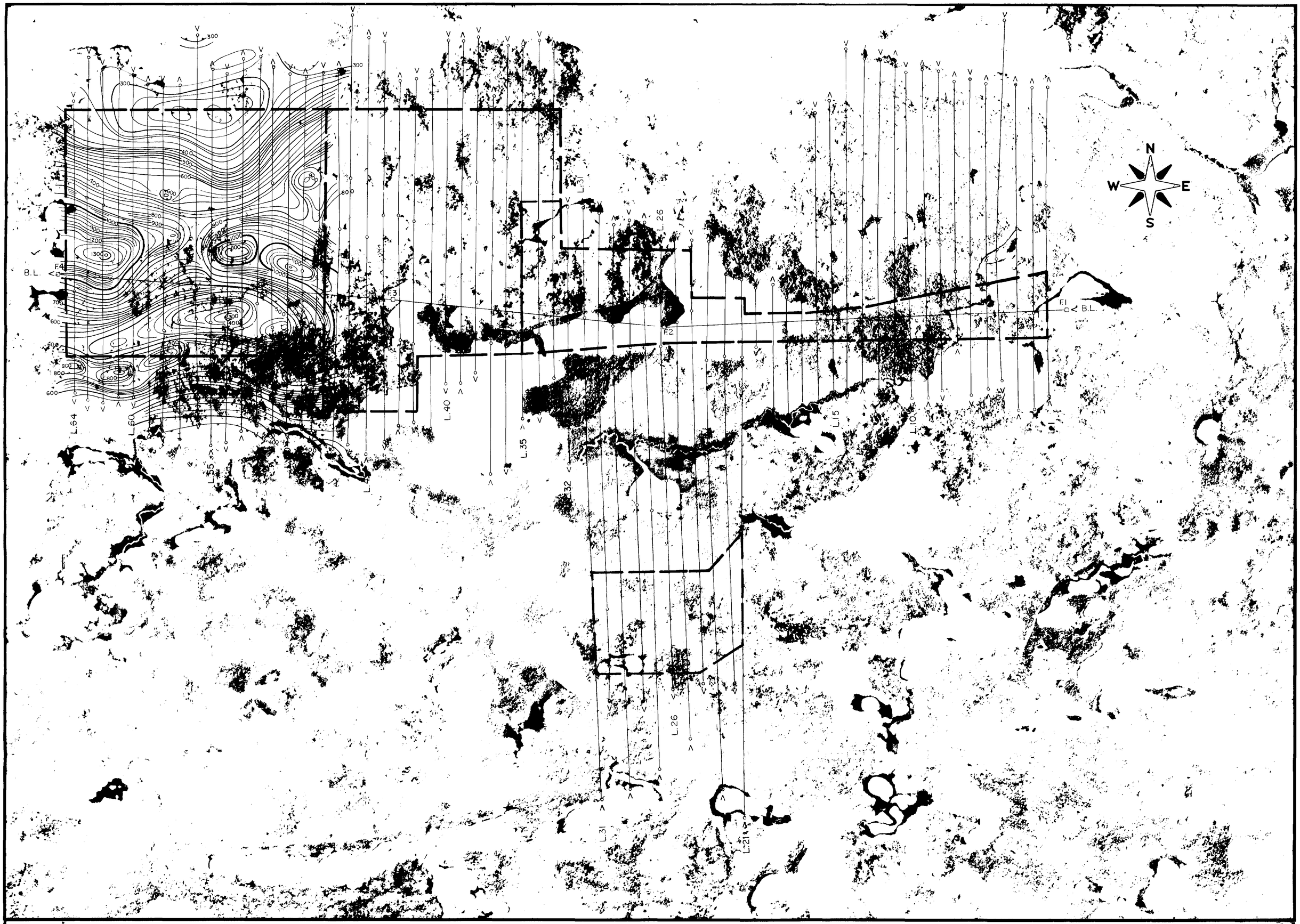
RECEIVED SEP 3 1987

SWAYZE TWP.

G-3249

410155E0058 2.10362 SWAYZE

200



LEGEND

TOTAL FIELD CONTOUR INTERVAL 25 GAMMA

FIDUCIAL POINT

LINE DIRECTION

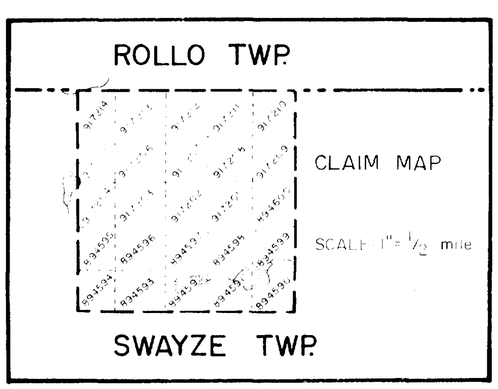
BASE VALUE 58500 GAMMAS

MAGNETIC LOW

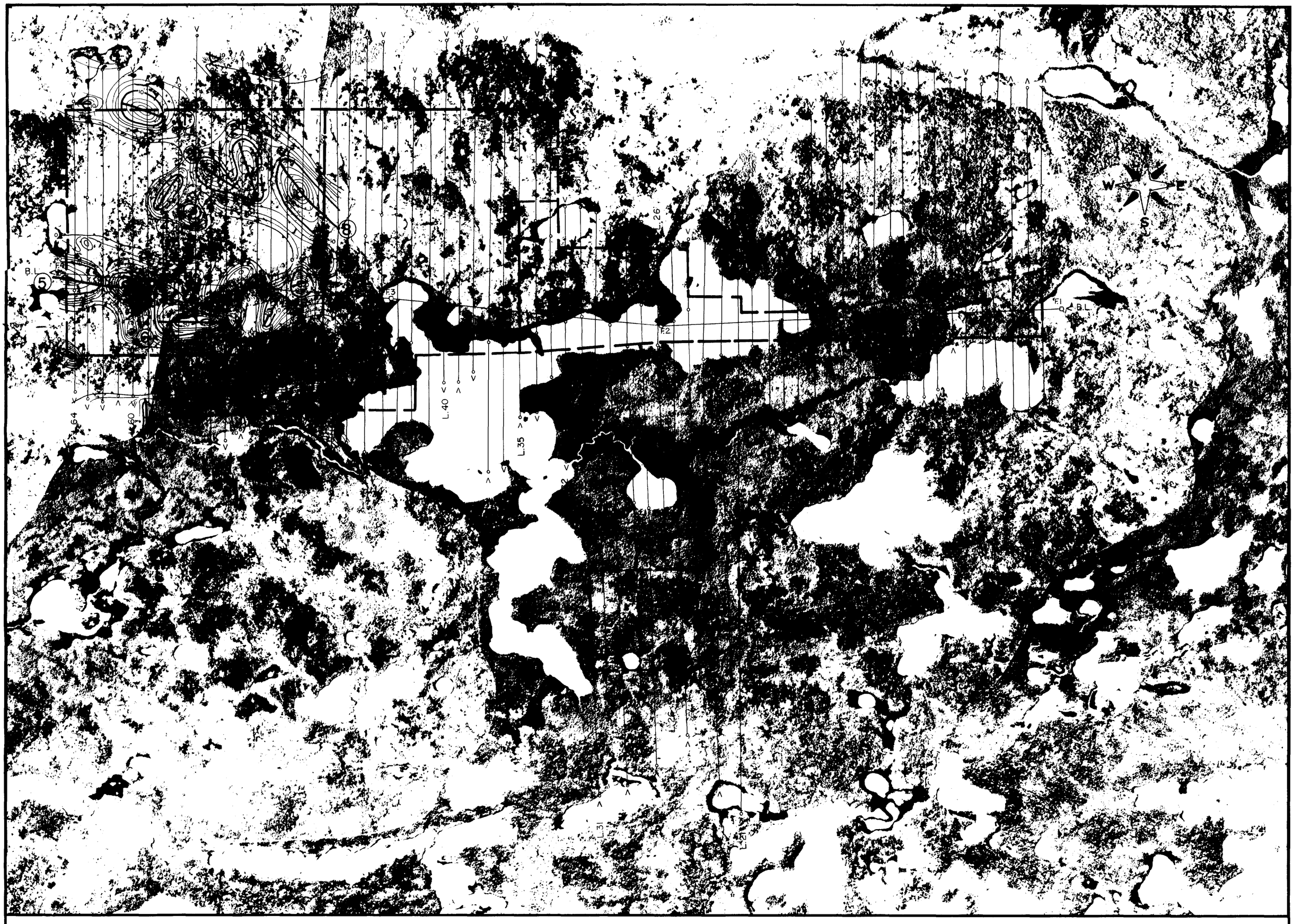
1000 GAMMAS

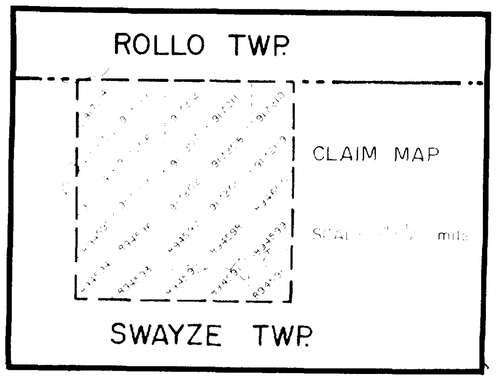
100 GAMMAS

25 GAMMAS



TYPE OF WORK: AIRBORNE MAGNETIC SURVEY	
CLIENT: JARVIS RESOURCES LTD. 2.10362	
PROJECT:	AREA: SWAYZE TWP. ONT.
H. Ferderber Geophysics Ltd.	SCALE: 1" = ¼ mile; DATE: AUGUST 1987
	DRAWN BY: W.M.; MAP OR SHEET NO: MG-1





LEGEND

TOTAL FIELD CONTOUR INTERVAL 2 %
CONDUCTOR AXIS
FIDUCIAL POINT
LINE DIRECTION
STATION USED: CUTLER, MAINE, USA. (N.A.A. 24.0 kHz)
LESS THAN ZERO
10%, 20%
2%
0%

AIRBORNE V.L.F.-EM SURVEY

JARVIS RESOURCES LTD.

2.10362

AREA: SWAYZE TWP. CNT.

H. Ferderber Geophysics Ltd.

SCALE: 1" = 1/4 mile

DATE: AUGUST 1987

DRAWN BY: DM

MAP OR SHEET NO: EM-1