



32004NE8998 2.14172 LABEL

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**2.14172**

REPORT ON THE  
AIRBORNE MAGNETIC AND  
VLF-ELECTROMAGNETIC SURVAYS  
ON THE KING KIRKLAND PROPERTY  
OF PREMIER EXPLORATIONS INC.,  
LEBEL TOWNSHIP,  
LARDER LAKE MINING DIVISION, ONTARIO

Respectfully submitted by:

H. FERDERBER GEOPHYSICS LTD.

**RECEIVED**

JUN 06 1991

*R/S*

**MINING LANDS SECTION**

Val d'Or (Québec)  
May 31, 1991

R.A. Campbell, B.Sc.  
Geology

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REPORT ON THE  
AIRBORNE MAGNETIC AND  
VLF-ELECTROMAGNETIC SURVEYS  
ON THE KING KIRKLAND PROPERTY OF  
PREMIER EXPLORATIONS INC., LABEL TOWNSHIP  
LARDER LAKE MINING DIVISION, ONTARIO

#### INTRODUCTION

On April 5, 1991 airborne magnetic and VLF-electromagnetic surveys were completed on the King Kirkland Property of Premier Explorations Inc., in Label Township, Larder Lake Mining Division, 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 Val d'Or, Quebec. A total of 25.6 miles of data was collected.

The magnetic survey provides data which helps outline the underlying geological structures and helps identify any potential economic concentrations which may contain variations in accessory magnetic minerals. The results of the VLF-electromagnetic survey define conductive zones which may represent shear zones and/or sulphide deposits containing precious and/or base metal mineralization.

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### PROPERTY DESCRIPTION, LOCATION AND ACCESS

The King Kirkland Property of Premier Explorations Inc. is comprised of 20 claims in the north-central part of Lebel Twp., Larder Lake Mining Division, Ontario. The claims are registered with the Office of the Mining Recorder at Kirkland Lake and are listed in Appendix 1.

The property surrounds the village of King Kirkland, 3.2 miles east of Kirkland Lake. Provincial Highway 66 passes through the claim group and numerous secondary roads cross the surveyed area.

Over 75% of the property is forest covered. King Lake is situated near the western boundary and the western shore of Mud Lake underlies the east-central boundary. Numerous cultural features are located on the claim group, including part of King Kirkland, power lines and a railroad.

Supplies, services and qualified manpower are available in the King Kirkland and Kirkland Lake areas.

### GEOLOGY AND MINERALIZATION

The claim block is located in the Abitibi Volcanic Belt of the Superior Province of the Canadian Shield. The Abitibi Volcanic Belt extends for nearly 350 miles in a west-east direction from Timmins to Chibougamau. It is host to a variety of precious and base metal deposits including the Timmins, Kirkland Lake, Noranda, Val d'Or, Matagami and Chibougamau mining camps.

The Abitibi Volcanic Belt is composed of a complex assemblage of interbedded volcanic and sedimentary rocks intruded by a variety of intrusives, from ultrabasic to granitic in composition. The rocks are Archean in age and have been metamorphosed to the greenschist facies. Numerous late Precambrian diabase dykes cut formations of the belt. The rocks generally strike east-west, have

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a vertical dip and are highly folded and faulted. Geological interpretation of the Abitibi Volcanic Belt is complicated by both the wide scattering of outcrops and the complex structural relationships.

Geological Compilation Map 2205, Timmins-Kirkland Lake sheet of the Ontario Division of Mines and Figure 1 of Synoptic Mapping of the Kirkland Lake-Larder Lake Areas in the Ontario Geological Survey Paper 126 describe the geology underlying the property. Gold Deposits of Ontario, Part 2, outlines the gold mineralization on the property and in the surrounding area. The geology maps show that the claims are underlain by Temiskaming Group metavolcanic and metasedimentary rocks and alkalic intrusive rocks. The extreme southern and northern claims appear to be underlain by units of west-northwest trending alkalic metavolcanic rocks, comprised of trachyte flows, tuff and breccia. The metasediments are intercalated with parallel trending bands of fluvial sandstones, wackes and conglomerates. The metavolcanics underlie approximately 20% of the property, between the two metavolcanic units.

Two alkalic intrusions cut the Temiskaming Group metavolcanics and metasediments underlying the claim group. The central part of the claim group, covering about 70% of the property, is underlain by quartz, quartz-feldspar and feldspar porphyries, felsite and granophyre. A smaller intrusive body comprised of syenite, monzonite and quartz-feldspar porphyry is thought to underlie the western most claim. The northern edge of the Lebel Stock is situated 0.5 miles south of the claim group.

The property lies in an area that has undergone major structural deformation. The major west striking Kirkland Lake-Larder Lake Fault Zone lies north of the Lebel Stock, just south of the property. Map 2205 shows that at least 7 faults strike  $20^{\circ}$  to  $70^{\circ}$  across the claims.

The King Kirkland property is well situated with respect to past gold producing mines, prospects and occurrences. The past

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producing Au-Ag mines, Bidgood, Morris Kirkland, Moffatt-Hall and Toburn lie 0.6 to 1.25 miles east, 0.9 miles east-southeast, 1.6 miles east and 2.5 miles to the west, respectively. Production statistics for these mines are presented below.

Mine	Production Dates	Ounces Produced		Grade oz/ton Au
		Au	Ag	
Bidgood	1934-1939 1951	160.184	72.468	0.27
Morris Kirkland	1936-1938 1940-1942	16.861	29.754	0.13
Moffatt-Hall	1934-1935	4.769	1.149	0.49
Toburn	1912-1918. 1922 1924-1928 1932-1953	570.659	135.238	0.48

These mines are situated near contacts between metavolcanics and sediments intruded by diorite and porphyry bodies. The gold mineralization in all four mines is associated with structural deformation: the Bidgood, and Moffatt-Hall Mines are situated within a northeast trending fault zone ("Bidgood Break") the Morris Kirkland lies along the N30°E trending Main Break and Toburn Mines lies at the eastern end of the N30°E striking Kirkland Lake Main Break.

The King Kirkland and Lebel Oro gold prospects have been discovered on the property and the Kirkroyale Prospect is thought to lie near the western boundary (see Map GI-1). Shafts were sunk and underground development was carried out on each prospect. In the King Kirkland Prospect gold was found in northeast striking quartz veins in Temiskaming Group metavolcanics and metasediments intruded by porphyry. Two channel samples collected across No. 5

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vein at depths of 60 and 90 feet assayed 1.50 and 1.23 oz/ton Au across 1.2 and 2 feet, respectively.

At the Lebel Oro Prospect, located approximately 1700 feet north of the King Kirkland Prospect, the best channel sample reported, assayed 1.48 oz/ton Au across 9 inches. The shaft was sunk on one of three parallel N30<sup>o</sup>E trending quartz veins, probably in shear or fault zones.

The Kirkroyale Prospect is thought to lie near the western boundary. Gold has been discovered in a quartz vein along a contact between trachytic lava flows and conglomerate.

Approximately 0.25 miles south of the property gold has been exposed in a east trending quartz vein at the Pawnee-Kirkland Prospect. The vein occupies a fracture in trachytic flow rocks and metasediments.

In the immediate area of the property, within a radius of 2.5 miles, at least 20 gold prospects and occurrences have been mapped and sampled.

#### INSTRUMENTATION AND SURVEY METHODS

The survey was completed using a 1972 Cessna 172, fixed wing aircraft, call letters CF-EWK, owned and operated by H. Ferderber Geophysics Ltd. The pilot and navigator/operator were M. Turcotte and D. Monastesse respectively of Val d'Or and Vassan.

#### Magnetometer

The magnetometer used was a GEM Systems GSM-11, high sensitivity airborne proton (Overhauser) magnetometer. The instrument continuously measures the Earth's magnetic field at a 0.01 gamma sensitivity for 1 reading per second to 10 readings per second at

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a 0.1 gamma sensitivity. For this survey four readings per second were collected. The analog output is on 3 channels, from 1 to 10,000 gammas full scale.

#### VLF-EM System

A Herz Totem 2A VLF-EM System was used to measure the changes in the total field and in the vertical quadrature field on two frequencies simultaneously, with an accuracy of 1%. Because of the orientation of the flight lines the primary transmitting station (VLF-1) of Seattle, Washington (NLK), frequency 24.8 kHz was used.

#### Radar Altimeter

The ground clearance was measured with a King 10/10 A radar altimeter. The survey was flown at a mean clearance of 300 feet with the altimeter producing an accuracy of 5% (15 feet) at this altitude.

#### Tracking Camera and Video Centre

A RCA TC-200 colour video camera and Galaxy 200 video centre was used to record the flight path on standard VHF type video tapes. Manual fiducials were indicated on the picture frames for reference with digital printout. Flight path recovery was aided using a Panasonic Colour Video Monitor-S1300 and Video Cassette Recorder AG-2500.

#### Data Acquisition System

A Picodas Group Inc. PDAS 1100 data acquisition system featuring seven analog inputs with two frequency inputs and external interfacing was used. A Termiflex Corp. ST/32 Keyboard control unit and Sharp Corp. LCD display unit are connected to the



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data acquisition system. At present this system stores the altimeter VLF-1 in-phase, VLF-1 quadrature, VLF-2 in-phase, VLF-2 quadrature, magnetic field (coarse), magnetic field (fine), and the fourth difference (noise), and fiducials on 3.5 inch floppy disk drive. The data is then printed out in digital and profile form.

### Survey Parameters

The survey was conducted on lines oriented at 155-335° flown at an average aircraft altitude of 300 feet and a speed of approximately 90 miles per hour. Geophysical responses were collected at data points spaced at 33 foot intervals along the lines. The lines were spaced at 440 foot intervals. Navigation was visual using airphoto mosaics at a scale of one inch to 1320 feet, manual fiducials, and the flight path recovery system as references.

### DATA PRESENTATION

Flight lines, fiducial points and geophysical responses were reproduced from the airphoto mosaics at a scale of one inch to 1320 feet (1:15,840). The outline of the claim block and claim map are shown on each map sheet.

The aeromagnetic data was corrected for diurnal variations by using a base line as reference. The data was then contoured at 20 and 100 gamma intervals and presented on Map MG-1.

The VLF-EM was transferred from the Totem 2AG memory to profiled form. Base values were determined for the VLF-EM total field profiled data. These values were used to correct for variations in transmitter strength and the corrected total field values were plotted on Map EM-1. The positive values were contoured at intervals of 2%. The conductor axes were determined and labelled A, B, C etc. No priority was attached to the labelling system.

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A geological interpretation of the airborne geophysical results and approximate positions of gold prospects are included on Map GI-1.

## SURVEY RESULTS AND INTERPRETATION

### Magnetic Survey

The results of the magnetic survey form complex patterns of northeast to east trending highs and lows crossing the surveyed area. The most prominent feature are lows underlying the south and central parts of property and the western most claim. Geology maps show that these areas are underlain by low susceptibility alkalic intrusive rocks (see Map GI-1). The King Kirkland Prospect lies in the broad southern low.

Magnetic highs bordering these lows are probably caused by metasedimentary rocks containing varying amounts of magnetite. The Lebel Oro gold prospect is located in metasediments near the contact with the intrusive rocks to the south. The Pawnee-Kirkland Prospect is also situated in metasediments south of the property.

Small lows were delineated near the southern and northern boundaries. These areas appear to be underlain by narrow units of Temiskaming alkalic metavolcanic rocks. The Kirkroyale Prospect is thought to be located in a small low defining the position of a narrow zone in metavolcanics crossing the southwestern boundary.

The shape of the magnetic contour patterns is distorted and broken. This suggests that the rocks underlying the surveyed area are highly deformed. At least three sets of fault zones trend east-northeast, north-northeast and north-northwest across the surveyed area. Faults F1 and F2 strike east-northeast with F1 lying along strike west of the Bidgood #1 shaft. Three fault zones, F3, F4 and F5, trend north-northeast and the remaining two zones, F6 and F7, strike north-northwest. The Lebel Oro gold

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prospect is located near the intersection of zones F1, F4 and F7 and the Pawnee-Kirkland Prospect lies near fault F6.

#### VLF-Electromagnetic Survey

Six conductive zones strike east to east-northeast across the claims. Conductive zone A trends east-northeast along the southern edge of linear magnetic highs, across the northwestern boundary. It may represent a shear zone in metasedimentary rocks, crossing fault F3 near the intersection with fault F1.

Zone B is comprised of two conductors crossing the western and eastern boundaries. The western conductor lies over the northern edge of the King Kirkland townsite and could be caused by cultural interference. The eastern conductor trends east along the contour pattern, crossing a distortion in the contour pattern defining the position of fault F4. This conductor could be caused by a shear in metasedimentary rocks and along a contact with a small unit of metavolcanics.

Conductor C lies across a magnetic high outlining the position of a northeast striking band of metasedimentary rocks, located between two alkalic intrusive bodies. It may define the location of a small shear in metasediments, intersecting with fault F3 and Zone D.

Conductive Zone D strikes east-northeast to east-southeast along the general trend of the magnetic contour pattern, south of the highway and through Mud Lake. It could be caused by culture and conductive overburden or by a shear zone in metasediments near and along the contact with the intrusive to the south. The Lebel Oro Prospect is situated near the intersections of Zone D and faults F1, and F7.

Zone E lies in a magnetic low and along the northern edge of a magnetic high. It strikes east-northeast for over a mile, ending

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in Mud Lake east of the intersection with fault F7. This zone defines the location of a potential zone of deformation in alkalic intrusive rocks and along a contact with a band of metasediments in the east. The King Kirkland Prospect is located 600 feet north of the zone.

Conductor F lies along the southern edge of a magnetic high, near the south shore of Mud Lake and the highway. It could be caused by a change in bedrock relief - culture or could define the location of a small shear in metasedimentary rocks, near a contact with the alkalic intrusive to the south.

#### CONCLUSIONS AND RECOMMENDATIONS

The data collected by the airborne geophysical surveys were successful in producing map GI-1 which better defines the geology and structures underlying the King Kirkland property of Premier Explorations Inc. in Lebel Township. Approximately two-thirds of the claims appear to be underlain by alkalic intrusive rocks, representing two intrusive bodies. The intrusive rocks are surrounded by east-northeast striking Temiskaming metasediments and metavolcanics. The metasediments underlie 25% of the property and are intercalated with narrow units of alkalic metavolcanics.

The claims are located in an area that has undergone structural deformation. Seven potential fault zones and 6 shear zones cut across the Temiskaming Group rocks and intrusive rocks underlying the surveyed area. In the King Kirkland-Kirkland Lake area gold has been found in quartz-filled fractures and alteration zones in Temiskaming Group rocks and in the alkalic intrusive rocks cutting the metavolcanics and metasediments. The N30°E Kirkland Lake Main Break and cross-cutting northeast fault-shear zones have been shown to contain gold. On the property the King Kirkland and Lebel Oro gold prospects lie in northeast striking quartz veins within deformation zones, near contacts between rocks of the Temiskaming Group and alkalic intrusive rocks. The results of the

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airborne surveys show that the Lebel Oro Prospect is located at the intersections of conductive Zone D and Faults F1 and F4 at a contact between metasediments and the intrusive rocks. The King Kirkland Prospect appears to be situated in alkalic intrusive rocks, north of conductive Zone E. The Kirkroyale Prospect lies north of a magnetic high near a metavolcanic-metasedimentary contact. The Bidgood shaft #1 is located 0.6 miles east of the property along strike of fault F1.

The results of the airborne geophysical surveys should be confirmed and enhanced by completing ground magnetic and VLF-electromagnetic surveys over the property. The claims should also be mapped, and any mineralization or deformation zones sampled. Northeast and N30°E striking geophysical anomalies and deformation zones which may contain gold should be extended by a program of stripping.

Respectfully submitted by,

H. FERDERBER GEOPHYSICS LTD.



Val d'Or (Québec)  
May 31, 1991

R.A. Campbell, B.Sc.  
Geology

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## REFERENCES

- Ontario Division of Mines, 1972  
Geological Compilation Map 2205, Timmins-Kirkland Lake.
- Ontario Ministry of Natural Resources, 1979  
Gold Deposits of Ontario, Part 2, by J.B. Gordon, H.L. Lovell,  
J. DeGrisjs and R.F. Davie.
- Ontario Ministry of Northern Development and Mines, 1985  
Summary of Field work and Other Activities-Ontario Geological  
Survey, Paper 126, Synoptic Mapping of the Kirkland Lake-  
Larder Lake Areas, District of Timiskaming by L.S. Jensen,  
p.112.
- Ontario Ministry of Northern Development and Mines, 1986  
Report of Activities-1985, Regional and Resident Geologists,  
Miscellaneous Paper 128, Kirkland Lake Geologist Area, p.179.

APPENDIX 1 - CLAIM LIST

L1110264  
L1110265  
L1110583  
L1110584  
L1110597  
L1111057  
L1111407  
L1111477  
L1132240  
L1132250  
L1132281  
L1136901  
L1136939  
L1137268  
L1137269  
L1137275  
L1137445  
L1146059  
L1146384  
L1151828



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Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

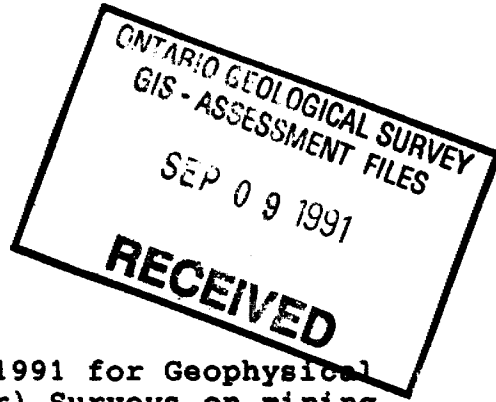
Mining Lands Section  
159 Cedar Street, 4th Floor  
Sudbury, Ontario  
P3E 6A5

Telephone: (705) 670-7264  
Fax: (705) 670-7262

Your File: W. 9180.00159  
Our File: 2.14172

August 23, 1991

Mining Recorder  
Ministry of Northern Development  
and Mines  
4 Government Road East  
Kirkland Lake, Ontario  
P2N 1A2



Dear Sir/Madam:

RE: Notice of Intent dated July 23, 1991 for Geophysical  
(Electromagnetic and Magnetometer) Surveys on mining  
claims L.1110264 et al. in the Township of Lebel.

The assessment work credits, as listed with the above-mentioned  
Notice of Intent have been approved as of the above date.

Please inform the recorded holder of these mining claims and so  
indicate on your records.

Yours sincerely,

Ron. C. Gashinski,  
Provincial Manager, Mining Lands  
Mines & Minerals Division

CDS  
CDS/jl

Enclosure:

cc: Ramshackle Resources Inc.  
Kirkland Lake, Ontario

Resident Geologist  
Kirkland Lake, Ontario

Rob Campbell  
Val d'Or, Quebec

Assessment Files Office  
Toronto, Ontario ✓



**Ramshackle Resources Inc.**  
Township or Area: **Lebel Township**

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b>	
Electromagnetic <u>30.4</u> days	L. 1110264-265
Magnetometer <u>30.4</u> days	1111407
Radiometric _____ days	1111477
Induced polarization _____ days	1110583-584
Other _____ days	1136901
	1110597
	1137268-269
	1111057
	1137445
Section 77 (10) See "Mining Claims Assessed" column	1136939
	1137275
Geological _____ days	1146384
Geochemical _____ days	1132240
	1132250
Men days <input type="checkbox"/>	1146059
Airborne <input checked="" type="checkbox"/>	1132281
Special provision <input type="checkbox"/>	1151828
Ground <input type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input checked="" type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

**Special credits under section 77 (10) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey       insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(10) - 60.



Ministry of Northern Development and Mines

**ML**  
**Mining Act**

**DOCUMENT NO.**  
**W9180-00159**

**Instructions**

- Please type or print.
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

**WORK**  
**MAY 9 1991**

**Report of Work**  
(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) <b>AIRBORNE MAGNETOMETER &amp; ULF-EM</b>	Mining Division <b>LARDEE LAKE</b>	Township or Area <b>LEBEL TOWNSHIP</b>
Recorded Holder(s) <b>RAMSHACKLE RESOURCES INC.</b>	<b>2,14172</b>	Prospector's Licence No. <b>T1635</b>
Address <b>70 McCamus Ave. Kirkland Lake Ont. P2N 2J9</b>		Telephone No. <b>705-567-5145</b>
Survey Company <b>H. FERDERBER GEOPHYSICS LTD.</b>		
Name and Address of Author (of Geo-Technical Report) <b>ROB CAMPBELL 169 PERRAULT AVE. VAL D'OR P.Q. J9P 2H1</b>		Date of Survey (from & to) <b>05 04 91</b>

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For each additional survey using the same grid: Enter 20 days (for each)	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	Days per Claim
	Geochemical	
	Electromagnetic - Magnetometer - Other	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys	Geological	Days per Claim
	Geochemical	
	Electromagnetic Magnetometer Other	<b>35</b> <b>35</b>

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L	1110265 ✓	L	1146059		
L	1110264 ✓	L	1132281 ✓		
L	1111407 ✓	L	1151028		
L	1111477 ✓				
L	1110583 ✓				
L	1136901 ✓				
L	1110597 ✓				
L	1137268 ✓				
L	1137269 ✓				
L	1110584 ✓				
L	1111057 ✓				
L	1137445 ✓				
L	1136939 ✓				
L	1137275 ✓				
L	1146384 ✓				
L	1132240 ✓				
L	1132250 ✓				

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**MAY 16 1991**

**MINING LANDS SECTION**

Total number of mining claims covered by this report of work.

**20 CLAIMS**

Total miles flown over claim(s) **30 MILES**

Date **APRIL 9 1991** Recorded Holder or Agent (Signature) **Carl P. Forbes**

**Certification Verifying Report of Work**

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

Name and Address of Person Certifying  
**CARL P. FORBES 70 McCamus Ave. Kirkland Lake Ont. P2N 2J9**

Telephone No. **705-567-5145** Date **APR 14 1991** Certified By (Signature) **Carl P. Forbes**

**For Office Use Only**

Total Days Cr. Recorded <b>1400</b>	Date Recorded <b>Apr 9/91</b>	Mining Recorder <b>[Signature]</b>
	Date Approved as Recorded	Provincial Manager, Mining Lands

**"SEE REVISED WORK STATEMENT"**

**APR 9 PM 2 41**

**RECEIVED**

*Renewed*



2.14172

H. FERDERBER GEOPHYSICS LTD. GEOPHYSICAL & GEOLOGICAL SURVEYS  
169 PERRAULT AVENUE, VAL D'OR, QUEBEC J9P 2H1 TELEPHONE 819-824-2075

---

Val d'Or, June 4, 1991

Ontario Ministry of Northern Development  
and Mines Manager  
Mining Lands Section  
Mineral Development and Lands Branch  
159 Cedar Street  
4th Floor  
SUDBURY (Ontario)  
P3E 6A5

Re: Reports, Maps and a Technical Data Statement for  
Airborne Geophysical Surveys on 20 claims, L1110264 et al  
in Lebel Township, Ontario

Dear Sir:

Enclosed are 2 copies of the report and maps, and a technical  
data statement for 20 claims of Carl Forbes in Lebel Twp.

Yours truly,

R.A. Campbell, B.Sc.  
Geology

RAC/lv

RECEIVED

JUN 06 1991

MINING LANDS SECTION



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-EM  
Township or Area Lebel Twp.  
Claim Holder(s) Carl Forbes  
  
Survey Company H. Ferderber Geophysics Ltd.  
Author of Report R.A. Campbell  
Address of Author 169 Perreault Avenue, Val d'Or (Qc) J9P 2R1  
Covering Dates of Survey April 5, 1991  
(linecutting to office)  
Total Miles of Line ~~km~~ Flown: 25.6

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>DAYS</u> <u>per claim</u>
ENTER 40 days (includes line cutting) for first survey.	Geophysical
	-Electromagnetic _____
	-Magnetometer _____
ENTER 20 days for each additional survey using same grid.	-Radiometric _____
	-Other _____
	Geological _____
	Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)  
Magnetometer 30.4 Electromagnetic 30.4 Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: May 31, 1991 SIGNATURE: RA  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications 2.6609

Previous Surveys  
File No. Type Date Claim Holder

File No.	Type	Date	Claim Holder

<u>MINING CLAIMS TRAVERSED</u> <u>List numerically</u>	
L1110264	
L1110265	<small>(prefix) (number)</small>
L1110583	
L1110584	
L1110597	
L1111057	
L1111407	
L1111477	
L1132240	
L1132250	
L1132281	
L1136901	
L1136939	
L1137268	
L1137269	
L1137275	
L1137445	
L1146059	
L1146384	
L1151828	
TOTAL CLAIMS <u>20</u>	

If space insufficient, attach list

OFFICE USE ONLY

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) Magnetic and VLF-electromagnetic

Instrument(s) Gem GSM-11 magnetometer and Herz Totem 2A VLF-EM

Accuracy 0.04 gammas and 1% (specify for each type of survey)

Aircraft used Cessna 172 Fixed-Wing (specify for each type of survey)

Sensor altitude 300 feet

Navigation and flight path recovery method Navigation was visual on airphoto mosaics. Flight path recovery was obtained using a RCA colour video camera and a Panasonic colour video monitor

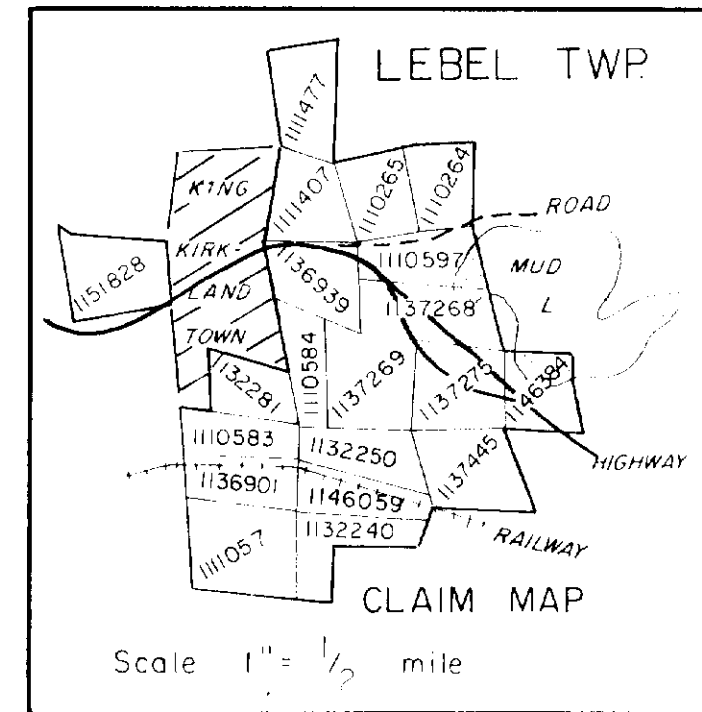
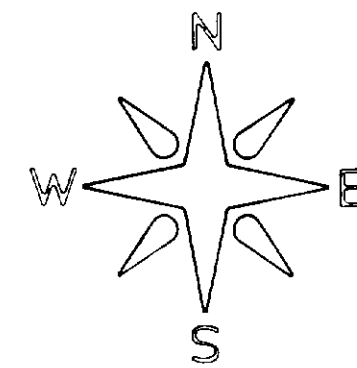
Aircraft altitude 300 feet Line Spacing 440 feet (134.1m)

Miles flown over total area 25.6 Over claims only 15.2









## LEGEND


- TOTAL FIELD CONTOUR INTERVAL 20 GAMMAS
- FIDUCIAL POINT
- > LINE DIRECTION
- BASE VALUE 58 000 GAMMAS
- Ⓜ MAGNETIC LOW

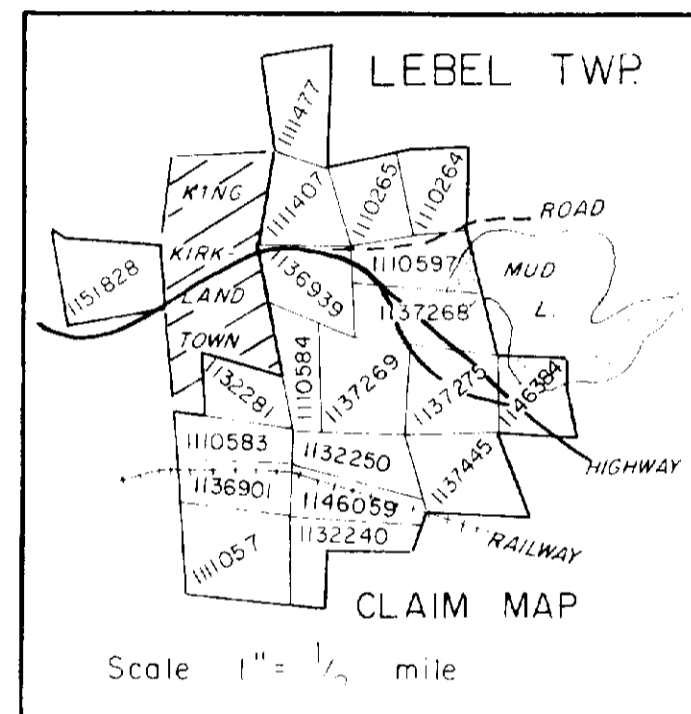
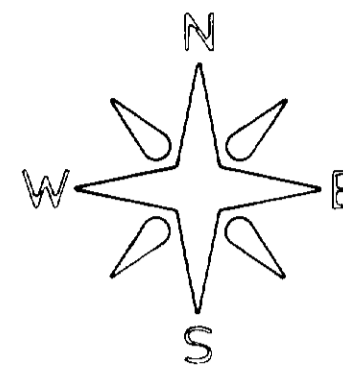
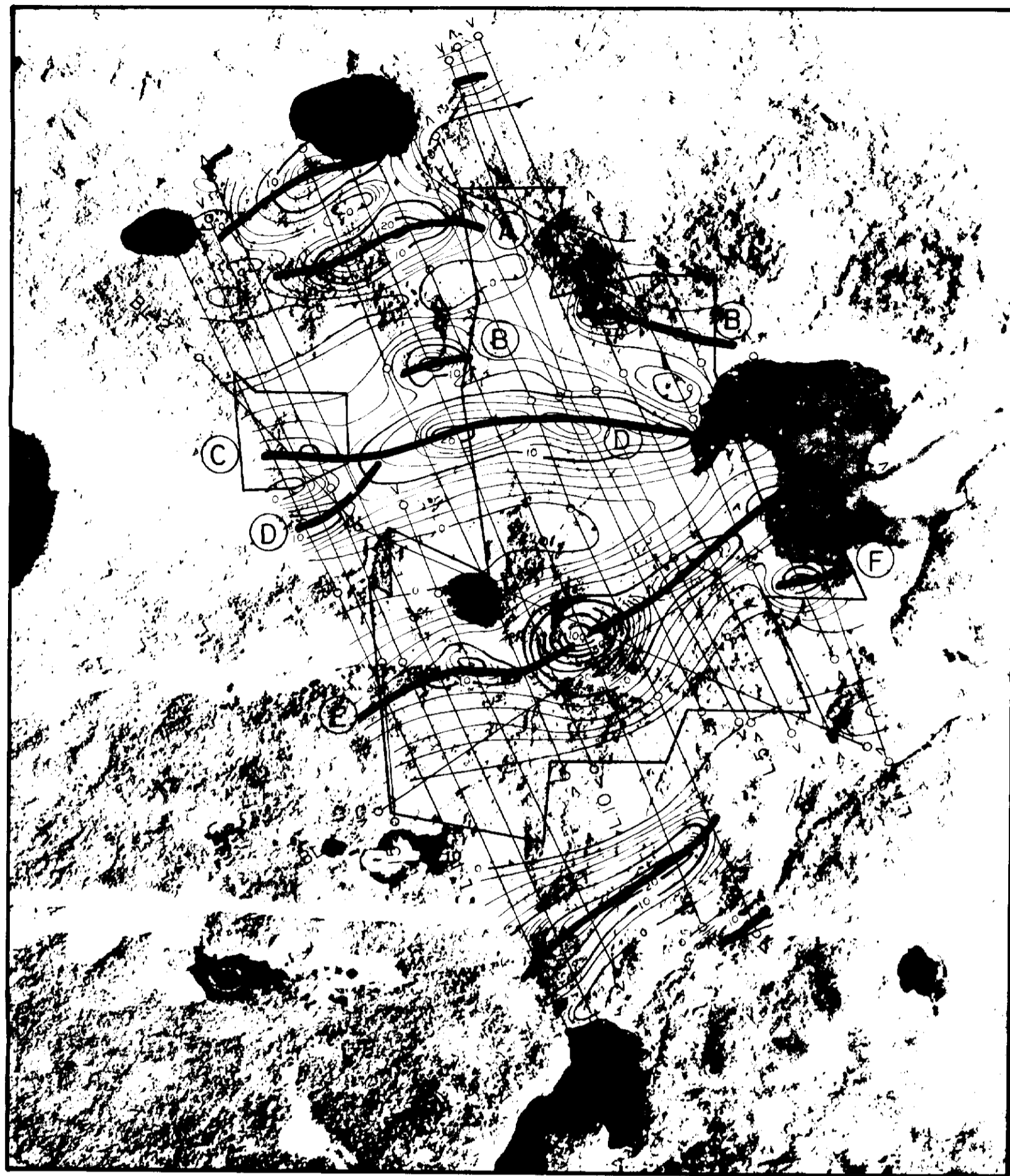


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2.14172

TYPE OF WORK		AIRBORNE MAGNETIC SURVEY	
CLIENT			
PREMIER EXPLORATIONS INC.			
PROJECT		AREA	
KING KIRKLAND PROPERTY		LEBEL TWP, ONT.	
 <i>RA</i> <b>H. Ferderber Geophysics Ltd.</b>		SCALE	DATE
		1" = 1/4 mile	MAY 1991
DRAWN BY		MAP OR SHEET NO.	
<i>W.W.</i>		MG-1	



## LEGEND

- TOTAL FIELD CONTOUR INTERVAL 2 %
- CONDUCTOR AXIS
- FIDUCIAL POINT
- > LINE DIRECTION
- STATION USED: Seattle, Wa. USA (24.8 kHz)
- ⊖ LESS THAN ZERO

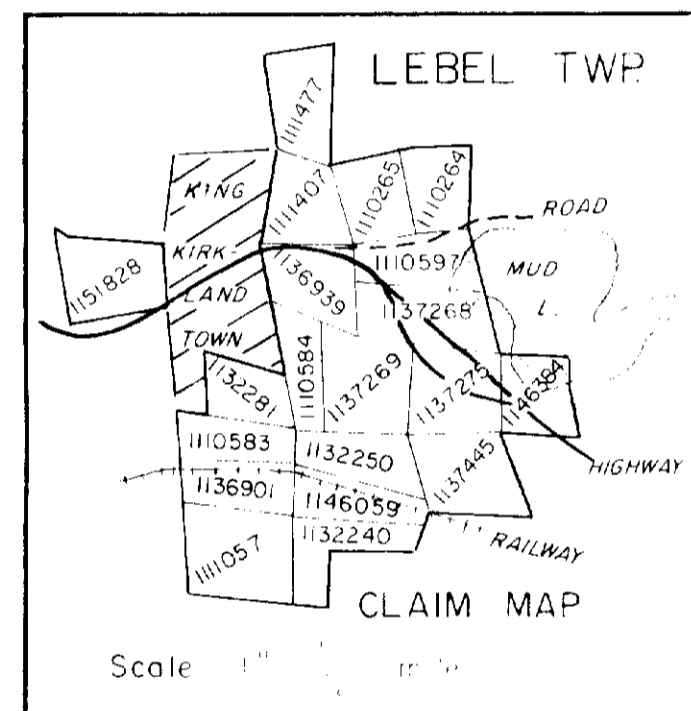
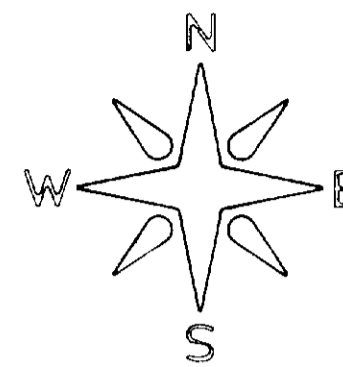
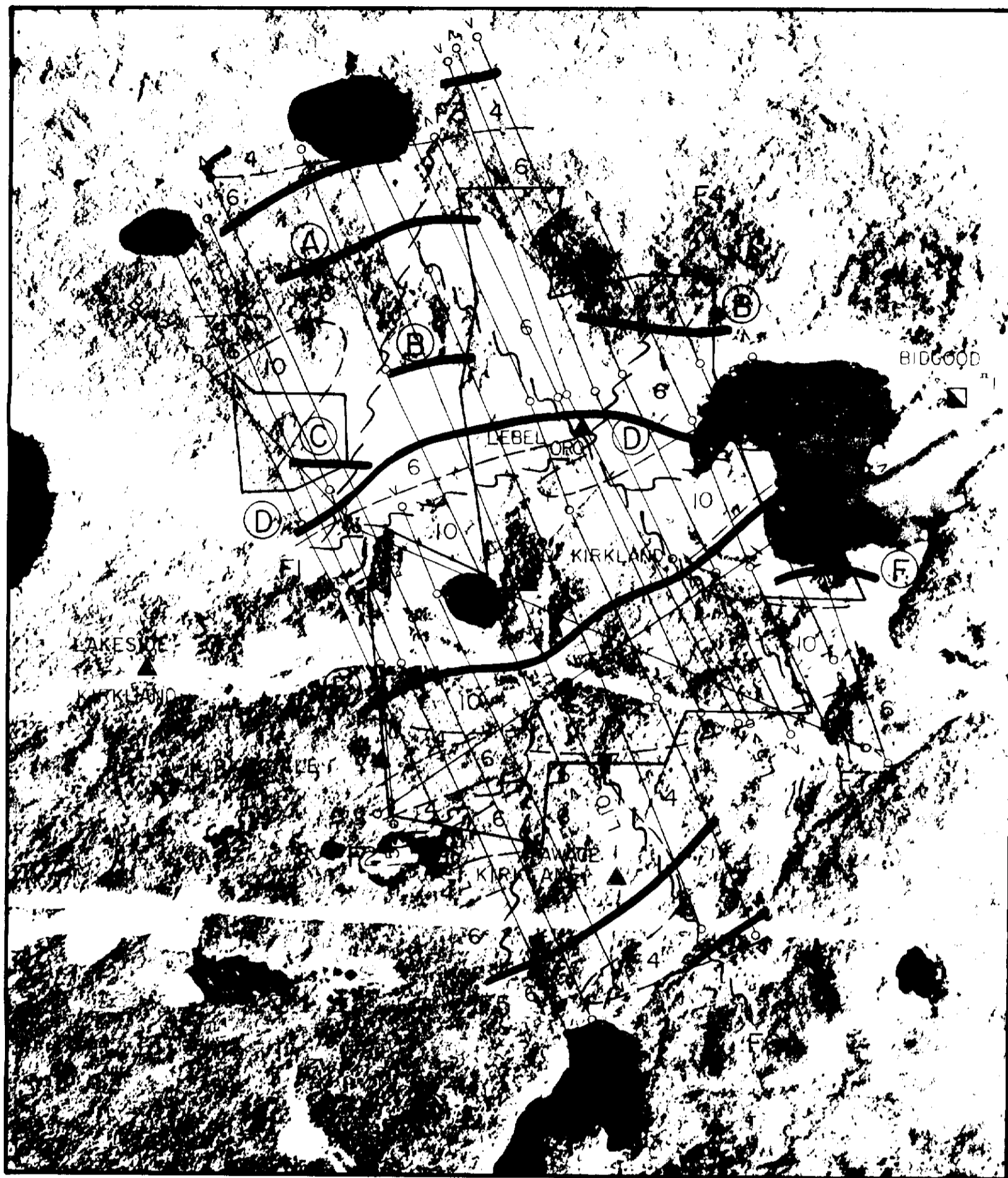
2.14172

TYPE OF WORK		AIRBORNE V.L.F.-EM SURVEY	
CLIENT			
PREMIER EXPLORATIONS INC.			
PROJECT		AREA	
KING KIRKLAND PROPERTY		LEBEL TWP, ONT.	
DRAWN BY		SCALE	DATE
H. Ferderber Geophysics Ltd.		1" = 1/4 mile	MAY 1991
DRAWN BY		MAP OR SHEET NO.	
W.M.		E M-1	



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**LEGEND**

- 10 ALKALIC INTRUSIVE ROCKS
- 6 TEMISKAMING GROUP METASEDIMENTS
- 4 TEMISKAMING GROUP ALKALIC METAVOLCANICS

**SYMBOLS**

- CONTACT (inferred from magnetic data)
- ~ POSSIBLE FAULT ZONE (inferred from geophysics)
- CONDUCTOR AXIS
- ▣ PAST PRODUCING Au-Ag MINE
- ▲ GOLD PROSPECT (approx. location)

2.14172

TYPE OF WORK		GEOLOGICAL INTERPRETATION	
CLIENT			
PREMIER EXPLORATIONS INC.			
PROJECT		AREA	
KING KIRKLAND PROPERTY		LEBEL TWP, ONT.	
 <i>RA</i> <b>H. Ferderber Geophysics Ltd.</b>	SCALE	DATE	
	1" = 1/4 mile	MAY 1991	
DRAWN BY	MAP OR SHEET NO.		
<i>W.M.</i>	GI-1		



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