

# MAR 20060032: ST. PAUL/ASHMONT

Received date: Dec 06, 2006

Public release date: Dec 11, 2007

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## **2006 Mineral Exploration Activities on the St. Paul/Ashmont Project, East-central Alberta**

**An Assessment Report Prepared for Sandswamp Exploration Ltd.**

54.

Permit Numbers: 9305031164, 9305031165, 9304110414

Location:

NTS: 73L/03,04,05,06

ATS: Tp 58-61, Rg 10-12, W4

Author: Karen-Jane Weir, MSc.

Date: 20 September 2006

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## Summary

The St. Paul/Ashmont Project area is located in east-central Alberta, Canada, approximately 150 km northeast of Edmonton. The permits fall between 54.03° – 54.25°N latitude and 111.73° - 111.43°W longitude on NTS map sheets 73L/03,04,05. Diamondex Resources Ltd. entered in to an option agreement with Sandswamp Exploration Ltd., 876919 Alberta Ltd., and Glenn Stafford Hartley to potentially acquire a 100% interest in the permits. The St. Paul/Ashmont Project comprises 3 contiguous permits, with an area of 27,206 hectares.

The St. Paul/Ashmont Project 2006 field program was conducted between January through June 2006. A 3,054 line-km fixed-wing high resolution airborne magnetics (HRAM) survey was completed over the permits between 13 January and 15 February 2006. A single kimberlite prospective anomaly was returned from this survey, and was ground evaluated in June 2006. This single anomaly was determined to be attributable to cultural disturbance, and not indicative of a kimberlite body. Diamondex Resources Ltd. currently has no further work planned for the St. Paul/Ashmont Project.

Expenditures for the 2006 exploration program total \$45,064.57.



## **Introduction**

This report is a summary of the exploration activities undertaken by Diamondex Resources Ltd on the contiguous permits 9305031164, 9305031165, and 9304110414, collectively referred to as the St. Paul/Ashmont Project. Exploration activities include a fixed-wing airborne magnetics survey, with follow-up geophysical ground evaluation of prospective targets. All exploration activities were completed between January and June 2006, and were focussed on locating prospective kimberlite anomalies within the project area.

## **Location**

The St. Paul/Ashmont Project is located in east-central Alberta. The permits are located on NTS map sheets 73L/03,04,05. The legal locations of the permits are Tp 58-61, Rg 10-12, West of the 4<sup>th</sup> Meridian. The coordinates that encompass the permits are 54.03 – 54.25°N latitude and 111.43 – 111.73°W longitude (Figure 1,2).

The project area is accessible by road and air. The airborne geophysical survey was based out of Calgary and Bonnyville, while the ground evaluation program was based out of St. Paul, AB.

## **Work Performed and Results**

### **Fixed-wing Airborne Geophysics**

A high-resolution, high-sensitivity aeromagnetics survey (HRAM) was completed over the St. Paul/Ashmont Project area between 13 January 2006 and 15 February 2006. A total of 3,054 line-kilometers of high resolution magnetics were flown over the project area (Figure 3). The fixed-wing survey was flown with a Piper PA-31 Navajo aircraft by Firefly Aviation Ltd., with field operations based out of Bonnyville, AB. The survey line-spacing was 100m, flown at an average altitude of 60m above ground. Survey details and parameters are contained in Appendix A. Survey results are contained in Appendix B.

### **Geophysical Ground Evaluations**

Verification and investigation on the ground of any kimberlite prospective anomalies generated from the preceding fixed-wing aeromagnetics survey were conducted on 6 June 2006.

Unfortunately, only a single prospective anomaly target was generated from the survey, and when investigated on ground, it was attributed to recent cultural disturbance (Figure 4). A new garage had recently been erected at/near the epicenter of the airborne anomaly.

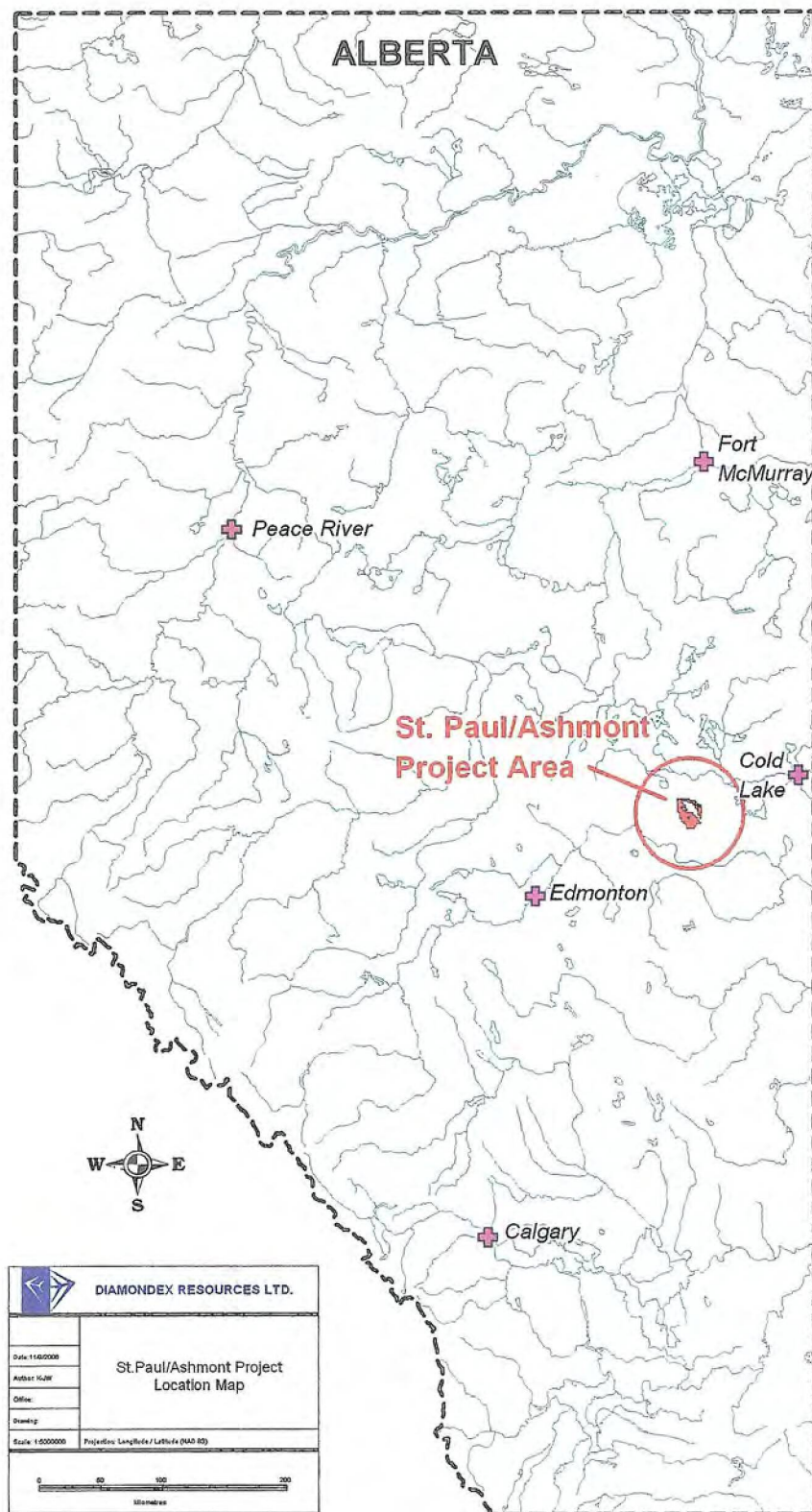


Figure 1: St. Paul/Ashmont Project Location Map



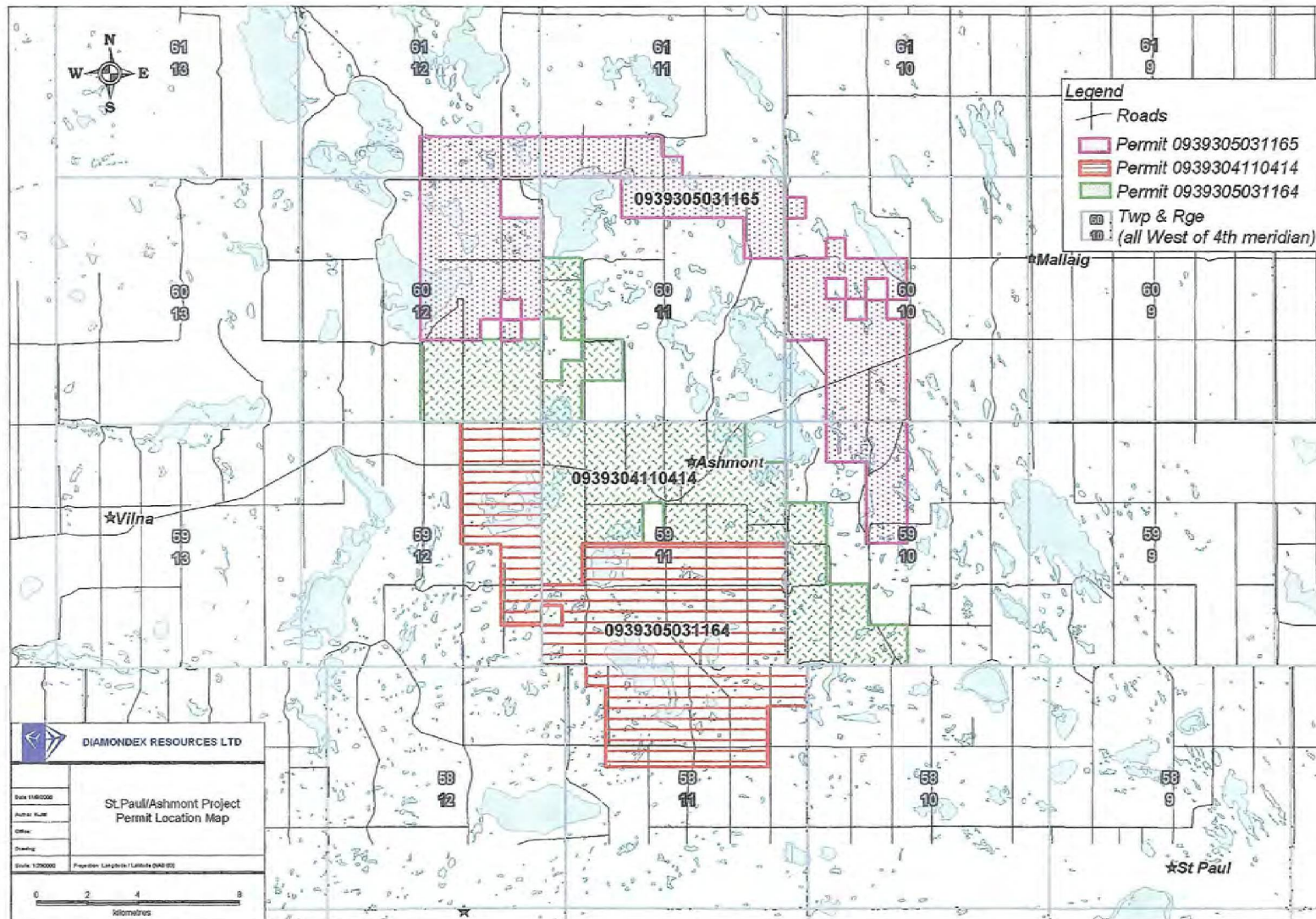


Figure 2: St. Paul/Ashmont Project Permit Location Map



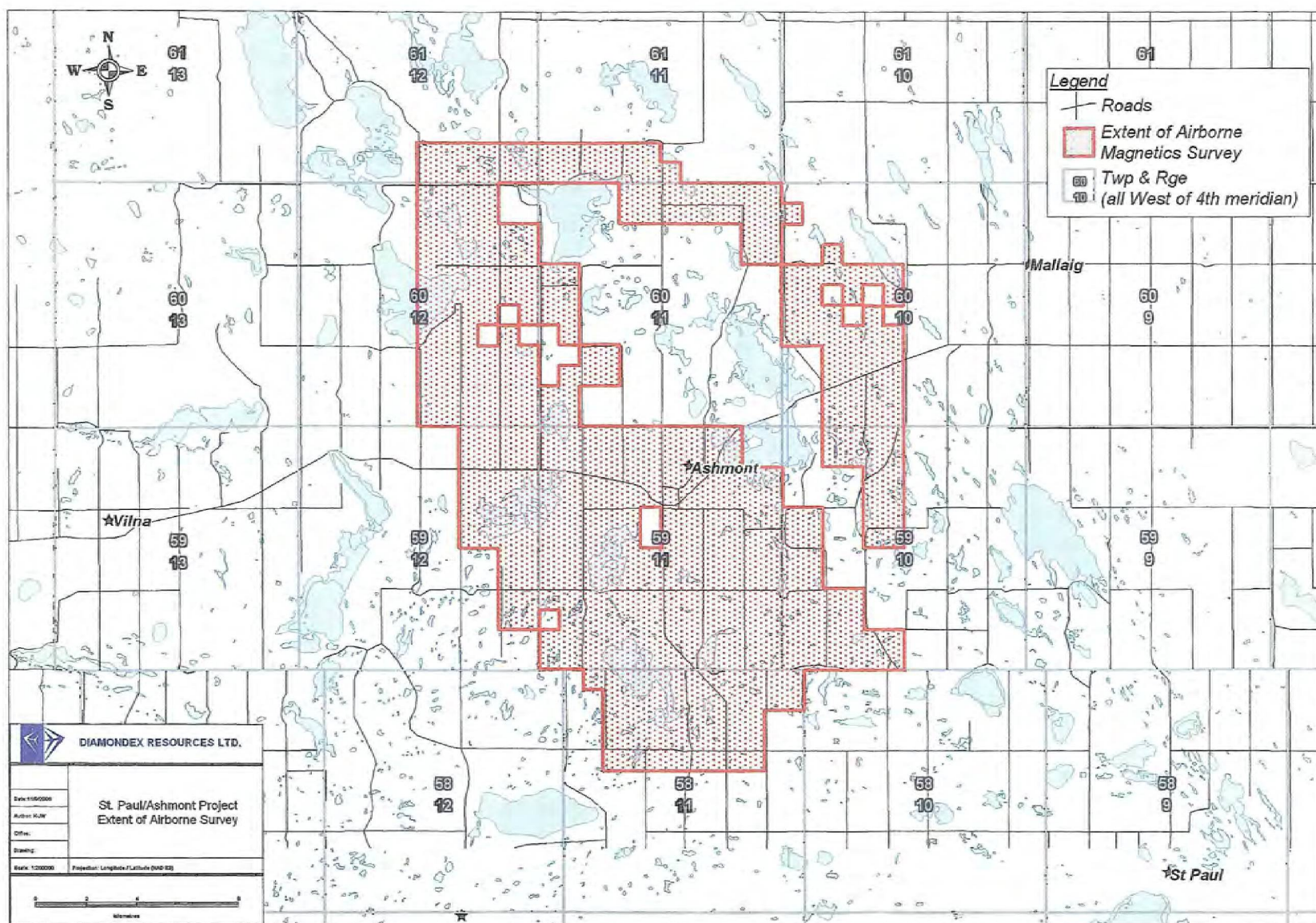


Figure 3: St. Paul/Ashmont Project Airborne Magnetics Survey Extent



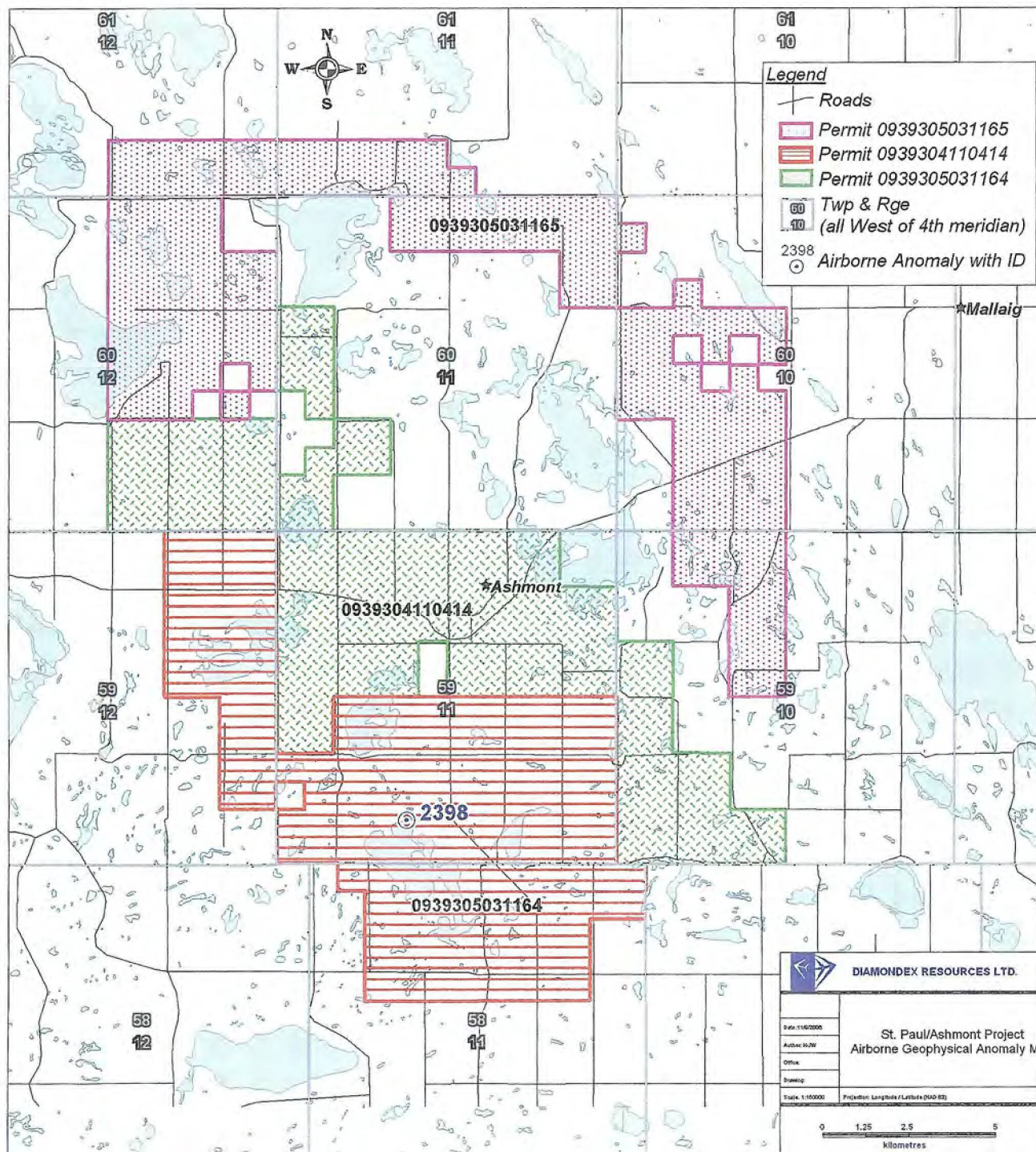


Figure 4: St.Paul/Ashmont Project Airborne Anomaly Location Map

## Conclusions

Exploration to date for kimberlite prospective targets on the St.Paul/Ashmont Project has been limited to fixed-wing aeromagnetics survey (HRAM) and follow-up geophysical ground evaluation. A single target was generated from the aeromagnetics survey, which when ground evaluated was found to be attributed to culture (a garage). No further work is planned for at this time for the St.Paul/Ashmont Project area.

## References

Evans, B.T. (2006): *Pegasus Project Bonnyville-St.Paul Area, Alberta. High resolution aeromagnetic survey (HRAM) Logistical Report.* Prepared for Diamondex Resources Ltd.



## STATEMENT OF QUALIFICATIONS – DAVID B. CLARKE

I, David B. Clarke, of 1410-650 West Georgia Street, Vancouver, V6B 4N8 in the Province of British Columbia, do hereby certify:

- a) I am presently employed as Vice President of Exploration by Diamondex Resources Ltd., 1410-650 West Georgia St., Vancouver, B.C., V6B 4N8.
- b) I am a graduate of the University of Alberta, Edmonton, Alberta, with a B.Sc. in Geology (1990), and of Queen's University, Kingston, Ontario with a M.Sc. in Mineral Exploration (1996). I have been employed in the mineral exploration industry since 1991 and have practiced my profession since graduation. I am a registered licensee with the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories.
- c) I most recently visited the subject project area in November 2005.
- d) K-J Weir and myself are responsible for the preparation and compilation of all sections of this report
- e) I have been involved with the project since 2005.

**Dated** "20 September 2006"

**D.B.Clarke P.Geol.**

**Signed** "*David Clarke*"

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## Author of the Report/Qualifications

### STATEMENT OF QUALIFICATIONS – KAREN-JANE WEIR

I, Karen-Jane Weir, of 1410-650 West Georgia Street, Vancouver, V6B 4N8 in the Province of British Columbia, do hereby certify:

- a) I am currently employed as Project Geologist with Diamondex Resources Ltd., 1410 – 650 West Georgia St., Vancouver, B.C., V6B 4N8.
- b) I am a graduate of the University of Western Ontario, London, Ontario, with a B.Sc. (with Honours) in Geology in 1993, and Queen's University, Kingston, Ontario, with an M.Sc. in Geology in 1999. I have been employed in the mineral exploration industry since graduation in 1993.
- c) I most recently visited the project area in June 2006.
- d) D. Clarke and myself are responsible for the preparation and compilation of all sections of this report.
- e) I have been involved with the project since 2005.

Dated "20 September 2006"  
K-J Weir, M.Sc.

Signed "*Karen-Jane Weir*"

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## **APPENDIX A: Airborne Geophysical Survey Logistics Report**

**PEGASUS PROJECT  
BONNYVILLE - ST. PAUL AREA, ALBERTA**

**HIGH RESOLUTION AEROMAGNETIC  
SURVEY (HRAM)  
LOGISTICAL REPORT**

**For**

**DIAMONDEX RESOURCES LTD.**

**April 2006**

**By**

**Bruce T. Evans, P.Geol.  
Firefly Aviation Ltd.  
Calgary, Alberta, Canada**

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## 1.0 INTRODUCTION

This report describes the specifications and operations of an airborne geophysical survey carried out for Diamondex Resources Ltd. by Firefly Aviation Ltd., during January to March 2006. The Firefly Aviation Ltd. Offices are located at Unit #4 550 Hurricane Drive, Springbank Airport, Calgary, Alberta T3Z 3S8. Telephone (403) 246-8083, fax (403) 202-1493.

The purpose of a survey of this type was to acquire high resolution, high sensitivity aeromagnetic data over an area located west of Bonnyville, Alberta. The end result of the HRAM data processing was to provide detailed data to assess the area for anomalies and magnetic features pertaining to their relevance in the local geology.

To achieve this purpose, the survey area was systematically traversed by an aircraft carrying geophysical instruments along parallel flight lines (traverses) spaced 100 meters apart in a north south alignment. The lines were flown normal to the traverses spaced at 1000 meters. The nominal flying height was a best-fit draped 60 meters above the terrain surface. Between 13 January 2006 and 15 February 2006 the total number of line kilometres flown and accepted are [REDACTED]

## 2.0 SURVEY AREA

The survey area is located in St. Paul - Bonnyville area, approximately 30 kilometres west of the town of Bonnyville, Alberta. The survey was conducted over an area as defined by Diamondex Resources Ltd. The area of the survey is outlined by the co-ordinates included in the appendices of this report.

## 3.0 EQUIPMENT SPECIFICATIONS

### 3.1 AIRCRAFT

The survey was carried out using a Piper PA-31 Navajo aircraft, registration C-GCMD, configured with a specially designed rigid-mount tail boom for geophysical survey operations. The aircraft is equipped with a high sensitivity magnetometer and a full on-board real time compensation recording computer, and related equipment. It is a single engine aircraft with full avionics, including real time differential 3D GPS navigation.

The aircraft has been modified to conduct airborne geophysical surveys. Considerable effort has been made to remove all ferruginous materials near the sensor and to ensure that the aircraft electrical systems do not create any noise.

The following table lists the relevant aircraft flight parameters for conducting HRAM surveys.

TYPE	Registration	TSOH HOURS	FUEL CAPACITY	CRUISE (kts)	SURVEY ENDURANCE
Piper PA-31	C-GCMD	~985.0 hours	240 gallons, AVGAS 100/130	175 knots Survey: 155 kts	7.5 hours

Normal Climb/Descent Gradient 1,000 FPM \*\*  
Survey Fuel Consumption ~ 34.0 gph



\* TSOH = Time Since Overhaul

\*\* This is best rate of climb at SL at gross weight as indicated in the PA-31 pilots' operating manual; short duration rate of climb is much higher, dependent on outside temperature.

### 3.2 AIRBORNE GEOPHYSICAL EQUIPMENT

The airborne geophysical system has one high sensitivity, cesium vapor magnetometer. Ancillary support equipment include tri-axial fluxgate magnetometer, radar altimeter, barometric altimeter, GPS receiver and a navigation system which includes a left/right indicator and a screen showing the survey area with real time flight path. All data are collected and stored by the data acquisition system. The following provides the detailed equipment specifications.

#### Cesium Vapor Magnetometer:

Manufacturer	Geometrics
Model	G-822
Resolution	0.001 nT counting @ 0.1 per second
Sensitivity	+/-0.005 nT
Dynamic Range	15,000 to 100,000 nT
Fourth Difference	0.02 nT

#### Tri-Axial Magnetic Field Sensor (for compensation, mounted in the tail boom proximal to the CS-2 pod):

Manufacturer	Billingsley Magnetics
Model	TFM 1000
Internal Noise	at 1 Hz - 1 kHz; 0.6 nT rms
Bandwidth	0 to 1 kHz maximally flat, -12 dB/octave roll off beyond 1 kHz
Frequency Response	1 Hz - 100 Hz: +/- 0.5% 100 Hz - 500 Hz: +/- 1.5% 500 Hz - 1 kHz: +/- 5.0%
Calibration Accuracy:	+/- 0.5%
Orthogonality	+/- 0.5% worst case
Package Alignment	+/- 0.5% over full temperature range
Scaling Error	absolute: +/- 0.5% between axes: +/- 0.5%

#### Radar Altimeter:

Manufacturer	King
Model	KRA-10A
Accuracy	5% up to 2,500 feet
Calibrate Accuracy	1%
Output	Analog for pilot; Converted to digital for data acquisition

#### Differential 3D GPS Receiver

Manufacturer	Novatel
Model	ProPack LB Plus
Differential Source	CDGPS
Type	Continuous tracking, L1 frequency, C/A code (SPS), 12 channel (independent)
Position Sensitivity	twice per second
Accuracy	position (differentially corrected) ~1.0 meter

Data Recording	position (SA implemented) 100 meters, position (no SA) 30 m, velocity 0.1 knot, time recovery 1 pps, 100 nsec pulse width all GPS data and positional data logged by onboard DGR33A on compact flash
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Navigation Interface (with pilot and operator readouts):

Manufacturer	AG-NAV Inc.
Model	P141
Data Input	Real time processing of GPS output data
Pilot Readout	Left/Right indicator / forward line projection screen
Operator Readout	Screen modes: map, survey and line
Data Recording	All data recorded in real time on Compact Flash disk via DGR33A

Data Acquisition System :

Manufacturer	RMS Instruments
Model	DGR33A with Chart Recorder
Operating System	MS-DOS
Microprocessor	RMS4183A
Memory	On board up to 128 MB, via SCSI Compact Flash Interface
Clock	real time; hardware implementation of MC14618 in the integrated peripherals controller
I/O Slots	5 AT and 3 PC compatible slots
Display	Electro – luminescent 640x400 pixels
Graphic Display	Scrolling analog chart simulation with up to 5 windows operator selectable; freeze display capability to hold image for inspection
Recording Media	128 MB SCSI Compact Flash Drive
Sampling	Programmable. Rate for this program set at 1 Hz.
Inputs	32 differential analog inputs
Serial Ports	2 RS-232/RS422
Parallel Ports	4 channel Serial I/O; 4 channel ARINC

Magnetometer Processor

Manufacturer	Geometrics
Model	
Input Range	20,000 - 100,000 nT
Resolution	0.001 nT
Bandwidth	0.7, 1 or 2 Hz
Input Signal	TTL, CMOS, Open collector compatible or sine wave with decoupler
Input Impedance	TTL>1K Ohm

Magnetic compensation for aircraft and heading effects is done in real time. Raw magnetic values are also stored and thus if desired, compensation with different variables can be run at a later time.

Magnetic Compensation System:

Manufacturer	RMS Instruments
Model	AADCII
Operating System	MS-DOS
Inputs	1 to 4 high sensitivity magnetometers
Input Frequency Range	70khz to 350khz
Magnetic Field Range	20,000 to 100,000 nT



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Front End Counter	100 MHz
Resolution	1 pT
Compensation Perf.	Improvement ratio 10 to 20 typical for total field
Accuracy of Compens.	0.035 nT standard deviation for the entire aircraft flight envelope in the bandwidth 0 to 1 hz typical
Data Output Rate	10 hz maximum
Internal System Noise	less than 1 pT
Vector Magnetometer	3-Axis Fluxgate over sampled, 16 bit resolution
Outputs	3 Serial RS232C ports, max rate 19.2 Kbaud Magnetometer data output Direct Interface with GR33A Parallel output port, 16 bit with full handshaking 4 Analog outputs with 12 bit resolution.

Power Supplies:

- 1) Power Distribution Unit manufactured by Analytic Systems Ltd. interfaces with the aircraft power and provides filtered and continuous power at 27.5 VDC to all components.

### 3.3 MAGNETOMETER BASE STATION

High sensitivity base station data are provided by a GEM GSM-19 Overhauser magnetometer, data logging onto a dedicated PC module.

Magnetic Sensor:

GEM	GSM-19
-----	--------

Magnetic Processor:

Manufacturer	GEM
Model	GSM-19 Overhauser Mag
Input Range	15,000 - 100,000 nT
Resolution	0.1 nT
Bandwidth	1 or 2 Hz
Input Signal	TTL, CMOS, Open collector compatible or sine wave with decoupler
Input Impedance	TTL>1K Ohm

Logging Software:

Logging software by GEM-Terraplus Ltd. Compatible to PC with RS 232 input; supports real time graphics, automatic startup, compressed data storage, selectable start/stop times, automatic disk swapping, plotting of data to screen or printer at user selected scales, and fourth digital difference and diurnal quality flags set by user.

### 3.4 GPS BASE STATION

Ground GPS data was collected to perform any required post-flight differential correction to the flight path. The ground GPS base station equipment is described below:

Manufacturer	Novatel
Model	Novatel OEM2 Card
Type	Continuous tracking, L1 frequency, C/A code (SPS), 10 channel WAAS Enabled

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Position Update	once per second
Accuracy	with SA implemented 100 meters, no SA 30 meters, velocity 0.1 knot, time recovery 1 pps, 100 nsec pulse width
Data Recording	all GPS raw and positional data logged by PC based data logger

#### 4.0 SURVEY SPECIFICATIONS

##### 4.1 LINES AND DATA

Survey area coverage	A total of 19,072 survey line kilometers were collected.
Traverse Line Direction	270 and 090 degrees true azimuth.
Line Interval	100 m
Tie Line Interval	1000 m flown orthogonal to survey lines.
Terrain Clearance	60 meters drape mode.
Average ground speed	60 meters/second
Data point interval:	Magnetic: 6.0 meters relative ground spacing per sample point.

##### 4.2 TOLERANCES

- a) Line spacing: At no point did the traverse or control lines deviate more than one third of the designated flight line spacing over a period of one kilometer of line flown.
- b) Terrain clearance: All flight lines were within tolerance of the planned drape surface.
- c) Diurnal magnetic variation: As per spec, with data not acquired during magnetic storms or short term disturbances which exceeded survey spec.
- d) Missing data: Any lines with channels or portions of channels missing from the database were reflown.

##### 4.3 NAVIGATION AND RECOVERY

The satellite navigation system was used to ferry to the survey site and to survey along each line using UTM coordinates. The survey coordinates of the survey outline for navigation purposes and flight path recovery were calculated from the project area coordinates listed above.

The navigation accuracy is variable depending on the number and condition of the satellites, however with use of the real time differential 3D GPS navigation it is generally less than five meters and typically in the 1 to 3 meter range. Post-flight differential correction of the flight path, which corrects for satellite range errors, improves the accuracy of the flight path recovery to approximately within one to three meters.

##### 4.4 OPERATIONAL LOGISTICS

The main base of operations for the Pegasus Project HRAM survey was the community of Bonnyville (CYBF). The base station magnetometer and GPS equipment were located in a magnetically quiet location at the airport.

Fuel for the aircraft was purchased on site from the Bonnyville Flying Club. Accommodations for the field crew were secured in Bonnyville.

The field crew consisted of:

- David Fenwick – Survey Pilot
- Travis Reed/Adam Harmer – Equipment Operator
- Jeremy Weber – Field Data Processor



The processing crew was: Bruce Evans – Project Manager  
Jeremy Weber – Senior Processor, Quality Control  
Christopher Campbell (Intrepid Geophysics) – Final Processing and Map Production.

Field operations were conducted at the Pegasus project between 13 January 2006 and 15 February 2006. The aircraft and crew mobilized to the project on 13 January 2006, and conducted initial calibration and compensation flights 16 January 2006. The aircraft and crew demobilized from the project on 16 February 2006 and arrived back at the Calgary base the same day. The final acquisition flight was completed on 15 February 2006. There were a total of 17 accepted survey flights, including ferry and survey flights, compensation, and reflights. Unacceptable mission data flights are not included in this total.

## 5.0 DATA PROCESSING

After each mission the flight data was fully field processed and quality-checked. Each line of data was viewed on-screen, displaying raw mag, compensated mag, ground mag, noise, radar altitude, Lat./Long, flight path, and in-grid/out-of-grid. These, with the digital review, were the basis for the data QC. Any flight lines that exceeded the survey specifications due to aircraft positioning, diurnal variations or noise were noted for reflight, and forwarded to the flight crew for re-collection.

The generalized processing procedure during the survey consisted of the following:

- 1) Import all flight and base data into Geosoft.
- 2) Edit DIURNAL channel to remove any uncharacteristic spikes and linearly interpolate across any gaps.
- 3) Establish table of mean terrain clearances at intersection locations from tie line data to provide elevation guidance for survey line navigation. Grid differences in elevations at intersections of tie and survey lines to provide quality check on elevation control and tag any for reflight.
- 4) Edit flight path channels to remove any false spikes and linearly interpolate gaps.
- 5) Edit RAWMAG channel to remove any false spikes and linearly interpolate gaps.
- 6) Create new channel as  $MAGDC = (MAG1 - BASEMAG) + \text{base constant } (59656)$ .
- 7) Perform lag correction and heading correction to MAGDC channel.
- 8) Perform tie line leveling using all the survey line data to level the tie lines.
- 9) Perform preliminary survey line leveling using the leveled tie lines; preliminary leveled channel is labeled MAG\_PRELEV.
- 10) All data were viewed on the screen on a line-by-line basis using the interactive Geosoft Oasis Montaj database to inspect for quality, required tolerances and data integrity.
- 11) Produce preliminary flight path map and gridded magnetic intensity map including shadowing.
- 12) Plot survey line and tie line flight paths and profiles for quality control inspection.

## 5.1 DATA PRODUCTS

For the purposes of the Diamondex Resources Ltd. Pegasus Project Firefly has been contracted to provide a complete data set which includes final micro-leveling, processing and plotting. Plotted products include a) Total Magnetic Intensity b) Calculated 1<sup>st</sup> Vertical Derivative and c) Flightpath.

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Survey data has been provided on CD-ROM in a Geosoft Oasis Montaj XYZ database format.

## 6.0 SUMMARY

An airborne high sensitivity, high-resolution magnetic survey has been carried out at 60 meter drape mode elevation, 100 meter line intervals and with data sample stations at ~6.0 meters along the lines. Tie lines were spaced at 1000 meters. A high sensitivity base magnetic station recorded the diurnal activity throughout the survey and a base GPS station was used to correct range errors in the GPS flight path recovery. Airborne recorded data included one fully compensated magnetometer located in a tail boom mounted pod, radar altimeter and all attendant GPS data. The magnetic data have been processed, gridded and provided on CD-ROM.

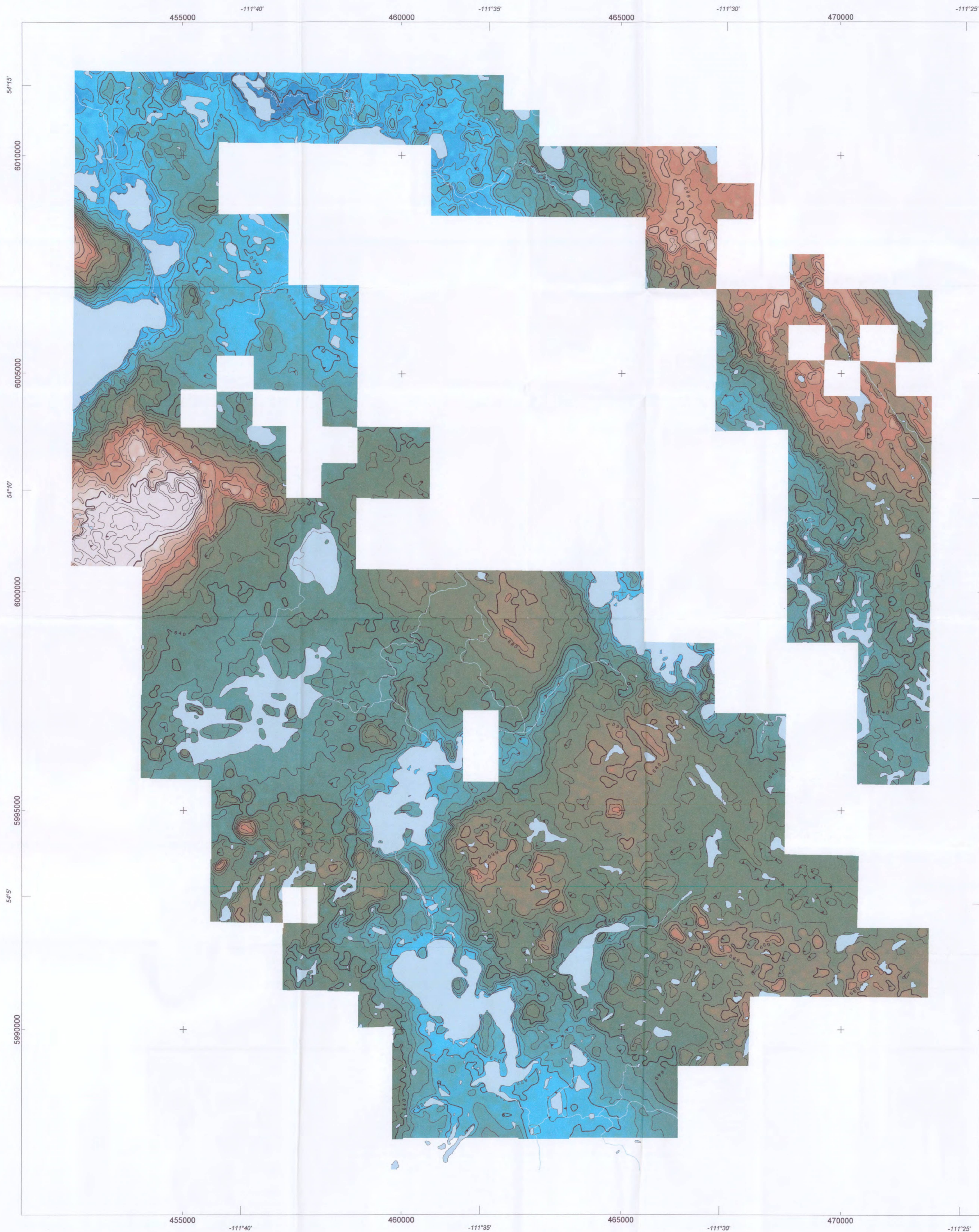
FIREFLY AVIATION LTD.

Bruce T. Evans, P.Geol.  
15 April 2006



## **APPENDIX C: Airborne Geophysical Survey Data**





An airborne high sensitivity, high-resolution magnetic survey has been carried out at 60 meter drupe mode elevation, 100 meter line intervals and with data sample stations at ~6.0 meters along the lines. Tie lines were spaced at 1000 meters. A high sensitivity base magnetic station recorded the diurnal activity throughout the survey and a base GPS station was used to correct range errors in the GPS flight path recovery. Airborne recorded data included one fully compensated magnetometer located in a tail boom mounted pod, radar altimeter and all attendant GPS data.

A total of 19,072 line kilometers were collected between January 13, 2006 and February 15, 2006.

Aircraft: Piper Navajo PA-31 with fixed stinger

Traverse Line orientation 90 degrees.

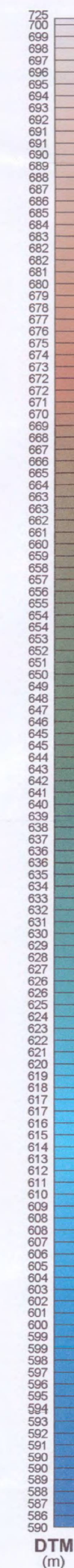
Traverse Line Interval 100 m.

Control Line orientation 0 degrees.

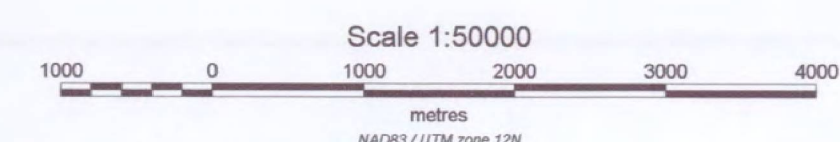
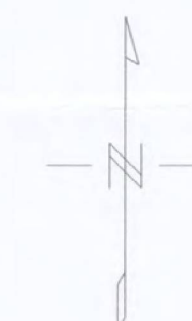
Control Line Interval 1000 m.

Terrain Clearance 60 meters drupe mode.

Average ground speed 60 meters/second  
Data point interval: Magnetic: 6.0 meters relative ground spacing per sample point.



DTM  
(m)



Scale 1:50000  
metres  
NAD83 / UTM zone 12N



Diamond Resources Ltd.

Digital Terrain Model

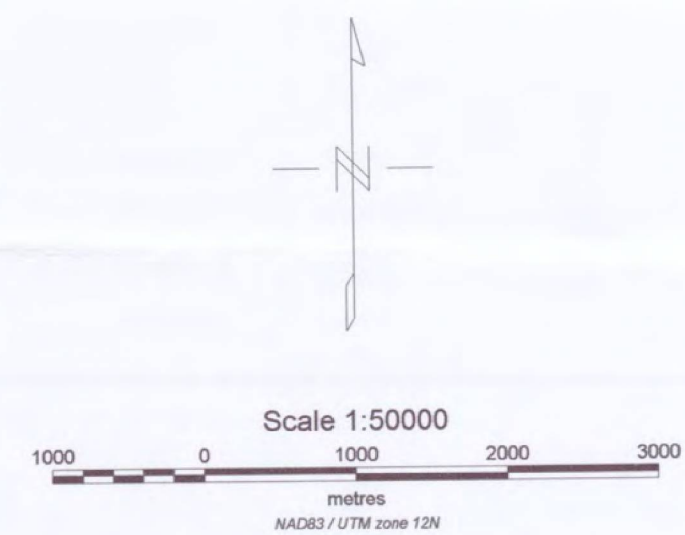
HRAM Survey Conducted by Firefly Aviation Ltd.

St. Paul / Ashmont Option Area

F. Moul, May 28, 2006

M/N 20060032

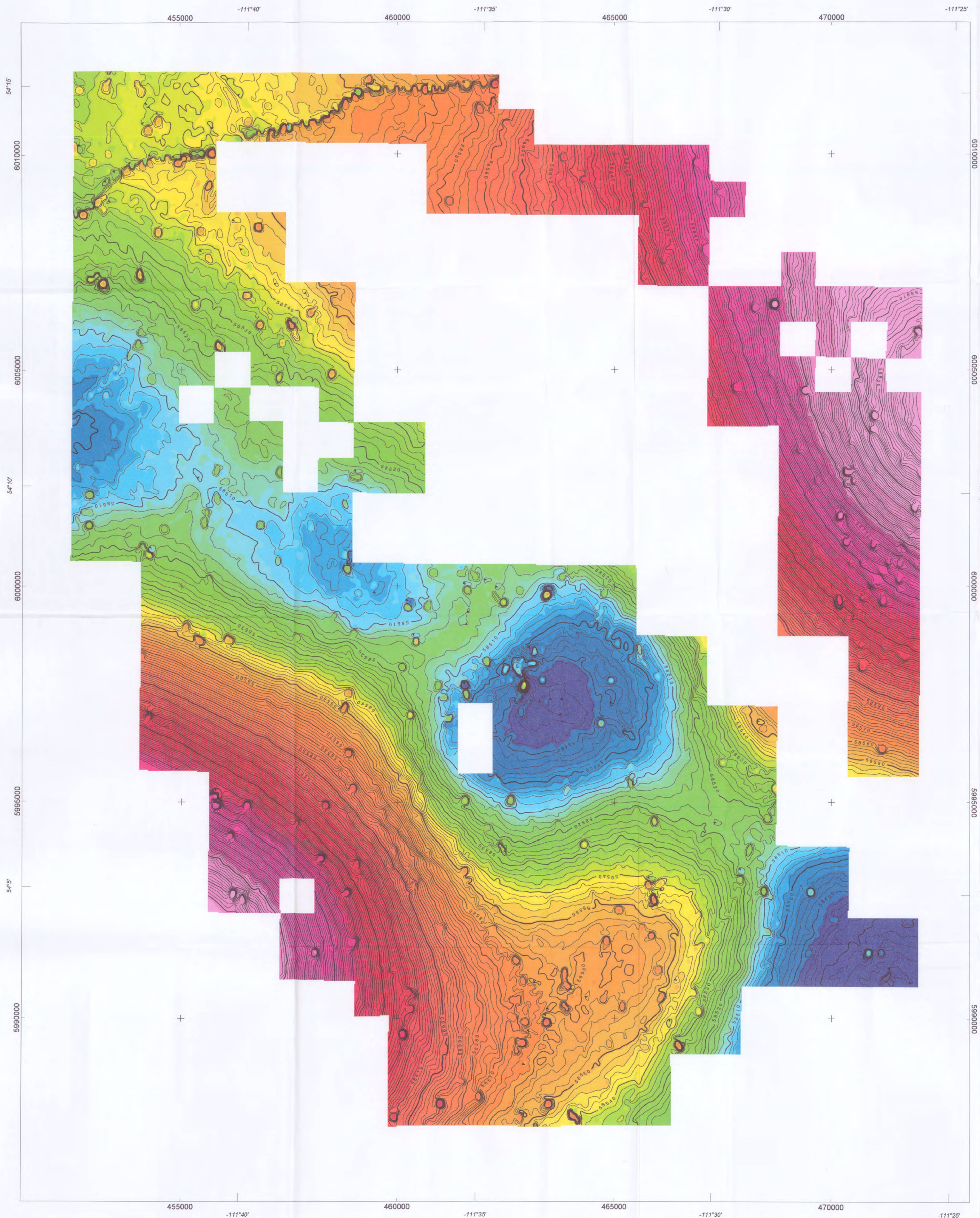




Diamondex Resources Ltd.
Infrastructure
IRS 5m Panchromatic, NTSD, Well and Pipeline Layers
HRAM Survey Conducted by Firefly Aviation Ltd.
St. Paul / Ashmont Option Area
F. Moul, May 28, 2006

M/N 20060032





An airborne high sensitivity, high-resolution magnetic survey has been carried out at 60 meter drupe mode elevation, 100 meter line intervals and with data sample stations at ~6.0 meters along the lines. Tie lines were spaced at 1000 meters. A high sensitivity base magnetic station recorded the diurnal activity throughout the survey and a base GPS station was used to correct range errors in the GPS flight path recovery. Airborne recorded data included one fully compensated magnetometer located in a tail boom mounted pod, radar altimeter and all attendant GPS data.

A total of 19,072 line kilometers were collected between January 13, 2006 and February 15, 2006.

Aircraft: Piper Navajo PA-31 with fixed stinger

Traverse Line orientation 90 degrees.

Traverse Line Interval 100 m.

Control Line orientation 0 degrees.

Control Line Interval 1000 m.

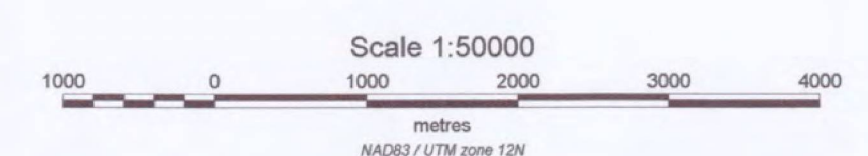
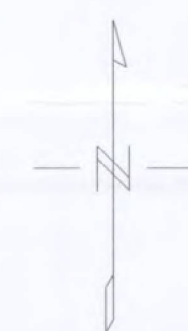
Terrain Clearance 60 meters drupe mode.

Average ground speed 50 meters/second

Data point interval: Magnetic: 6.0 meters relative ground spacing per sample point.



TMI  
(nT)



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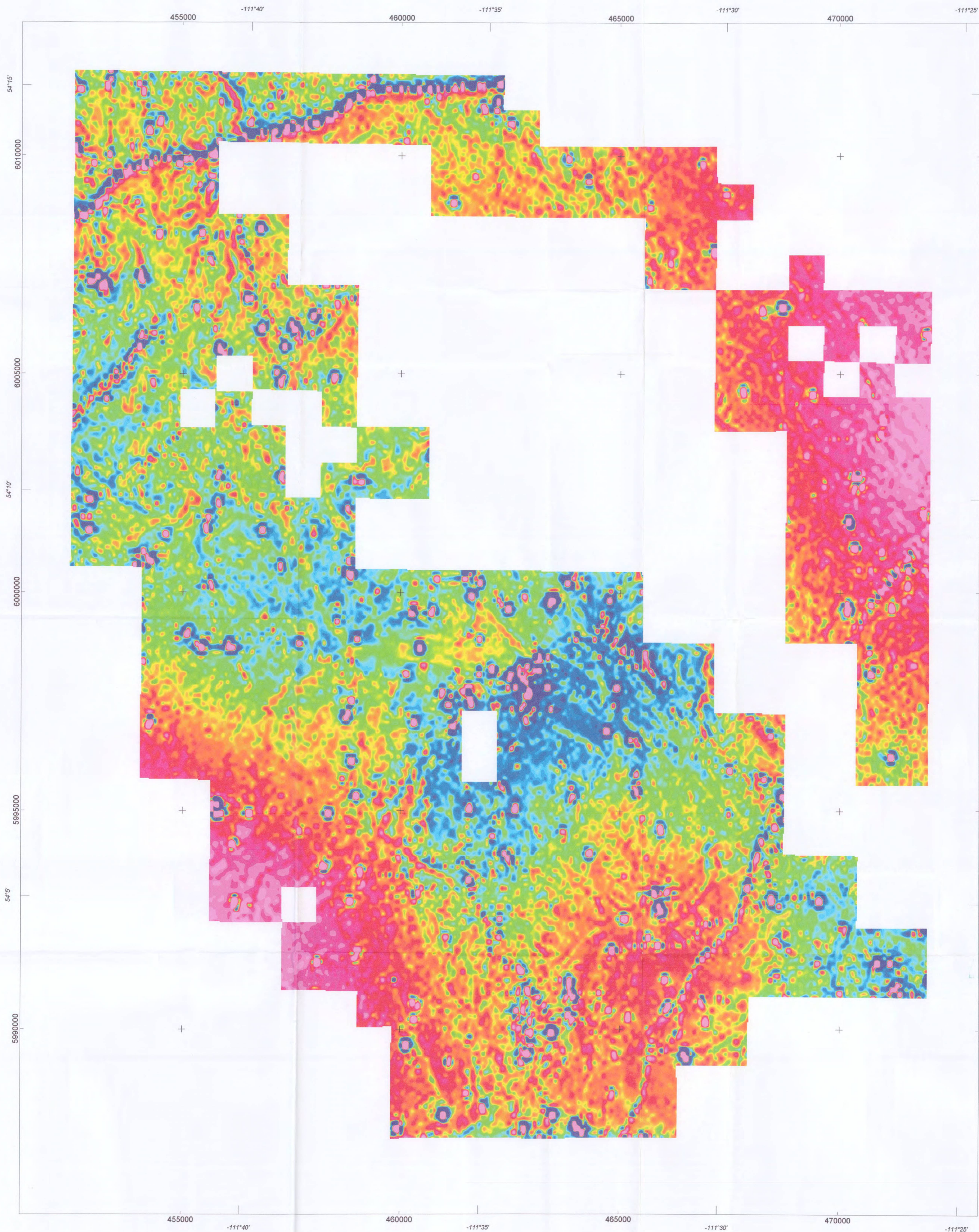
Total Magnetic Intensity (TMI)  
HRAM Survey Conducted by Firefly Aviation Ltd.

St. Paul / Ashmont Option Area, Alberta

F. Moul, May 28, 2006

MIN 20060032





An airborne high sensitivity, high-resolution magnetic survey has been carried out at 60 meter drupe mode elevation, 100 meter line intervals and with data sample stations at ~6.0 meters along the lines. Tie lines were spaced at 1000 meters. A high sensitivity base magnetic station recorded the diurnal activity throughout the survey and a base GPS station was used to correct range errors in the GPS flight path recovery. Airborne recorded data included one fully compensated magnetometer located in a tail boom mounted pod, radar altimeter and all attendant GPS data.

A total of 19,072 line kilometers were collected between January 13, 2006 and February 15, 2006.

Aircraft: Piper Navajo PA-31 with fixed stinger

Traverse Line orientation 90 degrees.

Traverse Line Interval 100 m.

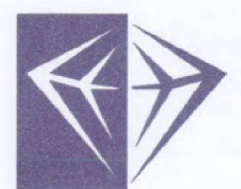
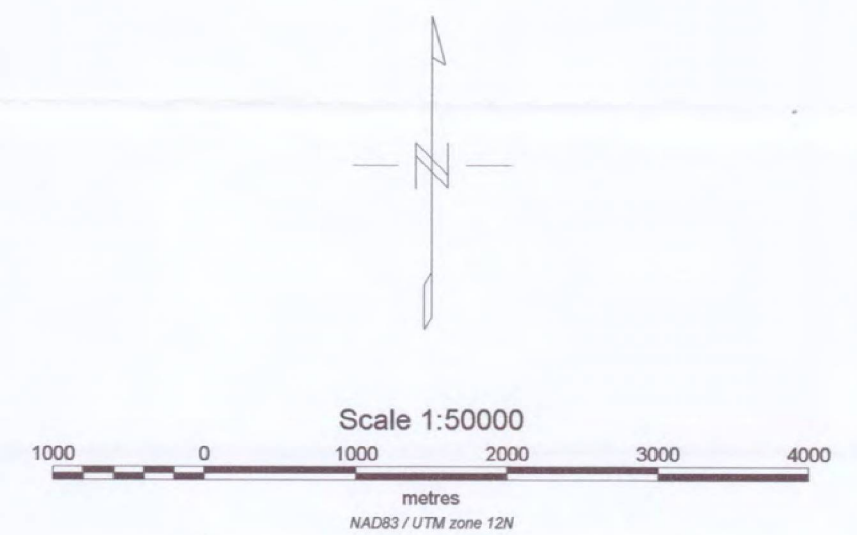
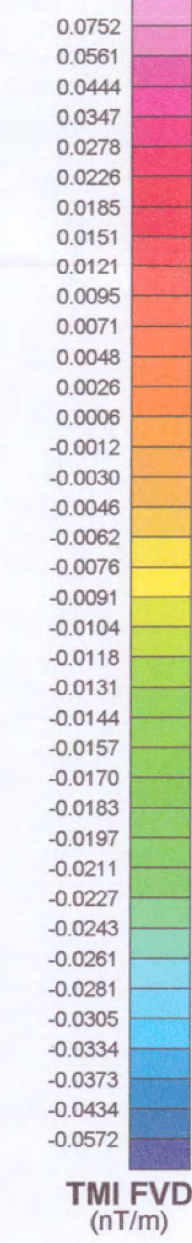
Control Line orientation 0 degrees.

Control Line Interval 1000 m.

Terrain Clearance 60 meters drupe mode.

Average ground speed 60 meters/second

Data point interval: Magnetic: 6.0 meters relative ground spacing per sample point.



Diamondex Resources Ltd.
First Vertical Derivative (FVD) of the Total Magnetic Intensity (TMI) HRAM Survey Conducted by Firefly Aviation Ltd.
St. Paul / Ashmont Option Area
F. Moul, May 28, 2006

M/W 20060052