Report on a Helicopter-Borne Magnetic Gradiometer & VLF-EM Survey

Project Name: Flume

Project Number: 2010-002

Client: valdez gold inc.

Contractor: CMG Airborne

Date: July 11th, 2010

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1.0 Introduction

Canadian Mining Geophysics Ltd. (CMG) has flown a helicopter-borne magnetic gradiometer & VLF-EM survey for Valdez Gold Inc. near Dawson City, Yukon.

The survey, consisting of a total of 1,420 line-kilometers (l-km), was started on May 9th, 2010 and was completed on May 16th, 2010.

The survey was flown using the WGS-84 Datum and UTM Projection, Zone 7 North. The final database was converted to the NAD-83 Datum and UTM Projection, Zone 7 North using Geosoft Oasis Montaj. All map products were processed and are presented in the NAD-83 Datum.

The CMG magnetic gradiometer consists of three (3) potassium magnetometer sensors separated approximately three (3) meters (m) apart. Measured gradients include the vertical and transverse (cross-line) horizontal. The parallel (in-line) horizontal gradient is calculated and is possible because of the close separation of the magnetometer readings (~3 m) along the flight line.

The CMG system also records two VLF-EM measurements from approximately orthogonal VLF transmitting stations – normally Cutler, Maine and Jim Creek, Seattle, both in the United States.

This report describes the Survey Area in Section 2, Survey Procedures & Personnel in Section 3, Equipment in Section 4, Deliverables in Section 5, Processing in Section 6, and Interpretation in Section 8.

Appendix A contains a list of the survey outline points in NAD-83, Zone 7 N.

Appendix B contains a list of the digital database columns, the database of which is included with this report to Valdez Gold Inc.

2.0 Property Description

The Flume property is located ~70 km south-southwest of Dawson City, Yukon. Access to the property is very limited with no roads in the surrounding area. The property is in average topography with elevations ranging from 600 to 1,100 meters. The survey area is centered at latitude 63° 28’ 11” & longitude 140° 02’ 39”.

The survey polygon covered a number of mineral claims which are contiguous (Figure 2). The property claims (See Appendix D) are held by the following owner:

Micheal Skead
800 – 372 Bay Street
Toronto, Ontario
M5H 2W9

The base of operations was in Dawson City, Yukon which was located about 70 km north-northeast of the Flume survey area. The aircraft was fueled out of a temporary fuel cache set up closer to the survey area.

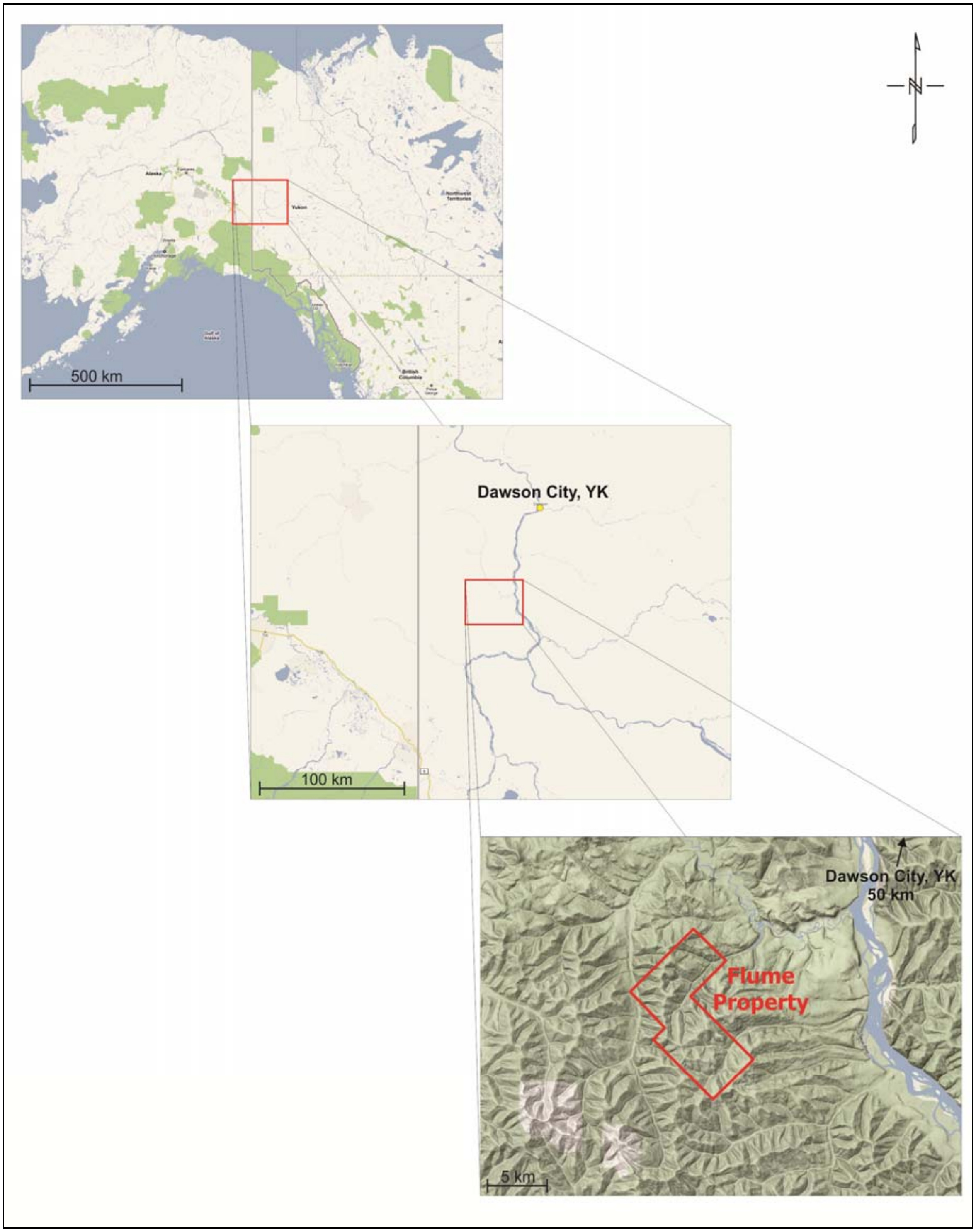

Figure 1 - Regional location of the Flume survey area.

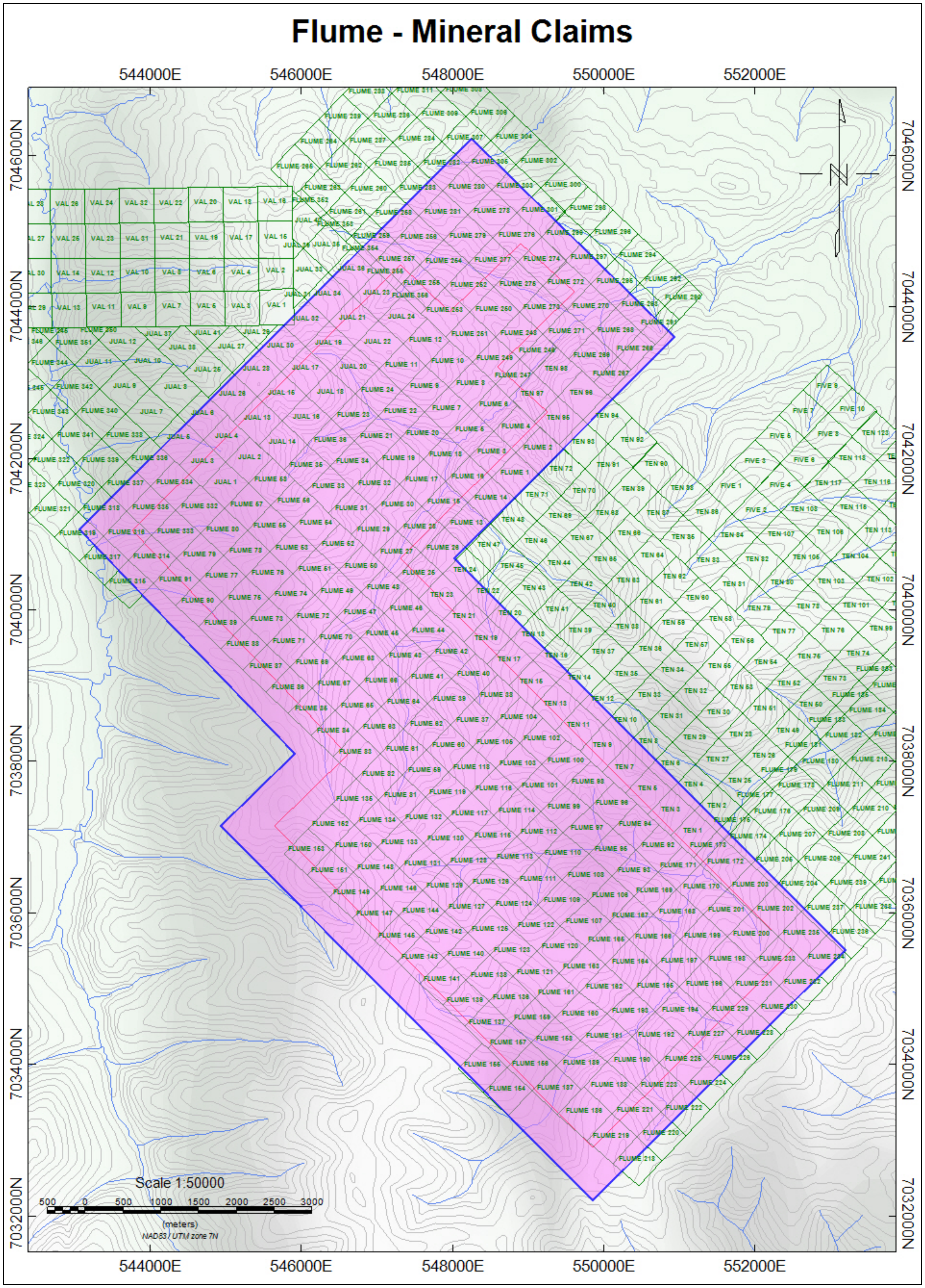

Figure 2 – Flume property with topographic contours and mineral claims.

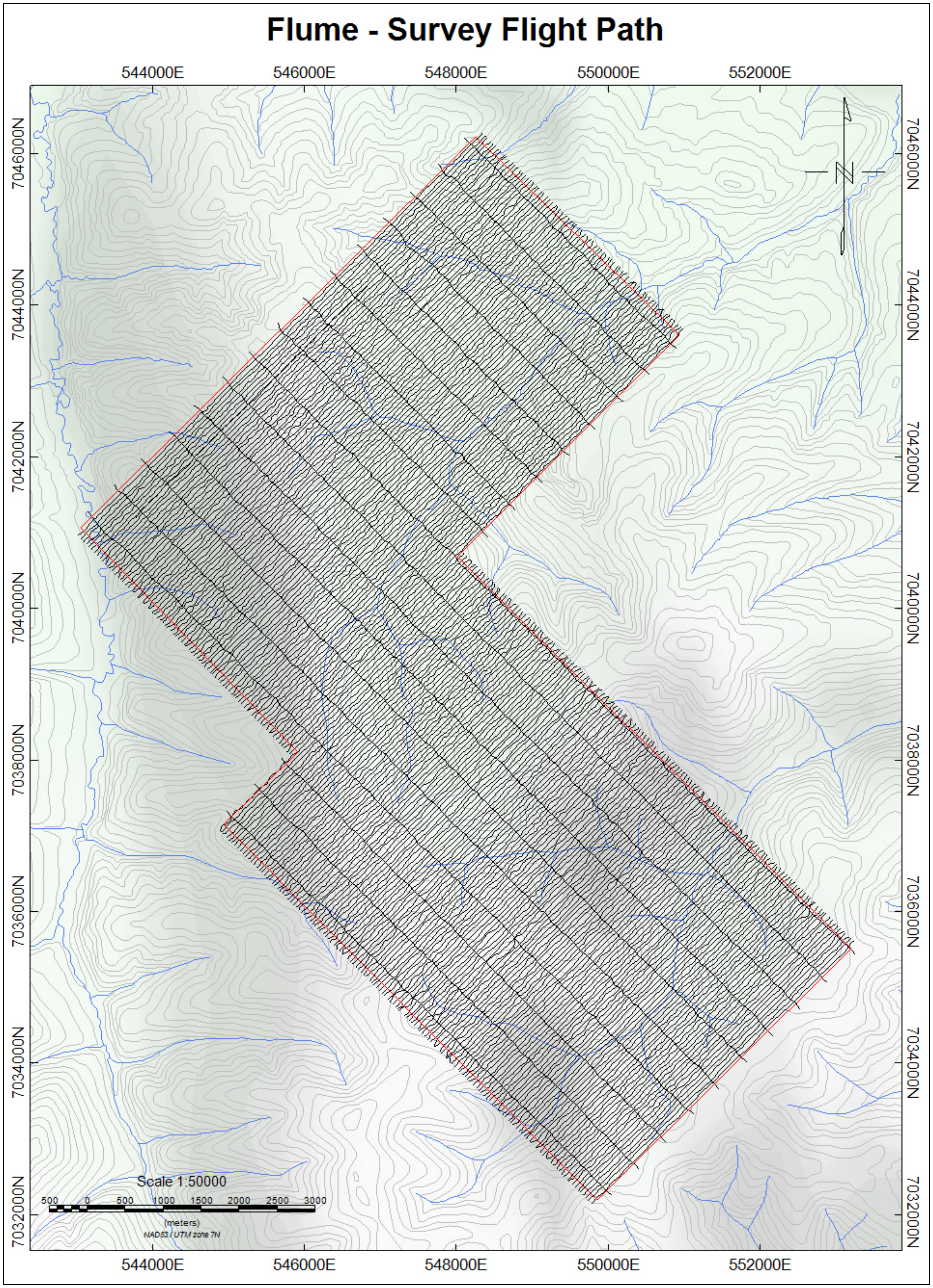

Figure 3 - Flight path & survey outline of the Flume survey area.

3.0 Property Geology (MINFILE report 115N110)

The Flume area is underlain by Devonian, Mississippian and possibly older (?) schist, gneiss and minor marble of the Yukon Tanana Terrane which have been intruded by a mid-Cretaceous aged biotite-quartz monzonite stock and later quartz feldspar porphyry dykes. No dykes have yet been identified on the Val/Jual claims.

Teck and Phelps Dodge's exploration work in the area identified five anomalous zones in proximity to this occurrence location. They are from north to south Teck's Cupid zone (5 km northwest) and Jual Vein system (2.5 km northwest); Phelps Dodge's Grid A (1.5 km west) and a zone of pervasive silicification immediately southwest of the occurrence location; and Teck's Ten and Ten West Grids (1.5 km southeast and 2.5 km south, respectively).

Extensive quartz vein, stockwork and silicified quartz monzonite float underlie a 1.4 x 0.6 km area of northwest trending, Au in soils anomalies (values to 670 ppb) in the area known as the Jual Vein system. Float samples of vuggy quartz and quartz stockwork with minor galena returned several values in the 8 – 16 g/t Au range. Trenching of lower order gold in soil anomalies, peripheral to the above, returned 1.6 g/t Au over 25 m including 11.1 g/t Au over 3 m and 1.0 g/t over 19 m including 8.5 g/t over 1.5 m.

4.0 Survey Procedures & Personnel

The survey was flown according to the specifications outlined in Table One. The survey lines (as flown) were trimmed within a Geosoft database to the survey polygon plus 100m. This resulted in the number of l-km as described in Table One.

Nominal bird height was 64 m. In some cases the bird height was higher, especially in areas where the cliffs made it difficult to climb and descend quickly. Over flatter areas, the bird height was closer to 40 m.

Nominal survey speed was approximately 100 km/hr. Sampling of all data, including GPS, occurred at a 10 Hz rate. Therefore the approximate lateral distance between readings was 2.5-3.0 m.

Real-time helicopter navigation was possible using the AgNav system. GPS sensor positioning was provided using a Novatel 10-channel receiver set to the CD-GPS mode (western zone). This mode is considered the most accurate in Canada and provides real-time accuracy of ~ 1-5 m. The GPS antenna was installed on top of the gradiometer bird, near the center (length-wise) of the housing.

A radar altimeter was connected to the skid gear of the helicopter and provided a measurement of distance above ground for the pilot to navigate by. Inside the helicopter the radar altimeter had a digital readout attached to the dash board.

Approximately one hour before the survey began, the base station magnetometer initialized and a VLF sensor attached. All transmitting VLF stations were scanned and the two stations with the strongest signal selected. The selected stations were then relayed to the operator who set them in the helicopter data system for recording during flight. The base station was turned off after the crew landed and contacted the processor.

(Table 2 provides a listing of all personnel involved in the project, their respective positions and a brief description of their roles and responsibilities throughout the survey.

Final data processing was carried out under the supervision of:

Sean Scrivens
Canadian Mining Geophysics Ltd.
Manager of Processing & Interpretation
7696 Fairhurst Dr., Kemptville, Ontario
Canada, K0G 1J0.

Table 1 - Survey Area Specifications

Area	Line Direction	Line Spacing	Number of km
Flume	N45°E	50 m lines	1,287 km
	N135°E	500 m lines	133 km

Table 2 - List of Survey Personnel

Individual	Position	Description
Rick Klassen	Pilot	Flew the helicopter.
Rob Wittmack	Aircraft Mechanic	Ensure helicopter maintenance is performed.
Dan LeBlanc	Operator	In-flight quality control & maintenance of the system and ancillary equipment.
Pawel Starmach	Processor	On-site data processing.
Sean Scrivens	Final Processing & Reporting	Integration of field data into Geosoft database and generation of grids, profiles, map products and logistics report write-up.
Sean Scrivens	Interpretation	Final review of data interpretation write-up and recommendations
Michael Skead	Client Representative	President & CEO of Max Investments on behalf of Valdez Gold Inc.

5.0 Equipment

5.1 The Helicopter

The helicopter used was a Eurocopter AStar Aerospatial 350 B2 with registration C-GPWO, owned and operated by Vancouver Island Helicopters (VIH). An AStar B2 is shown in Figure 4.

Installation of the ancillary equipment was performed in Dawson City, Yukon. The mag bird was assembled at the base of operations followed by two short test flights to ensure the system was operational. Surveying commenced immediately.

The gradiometer system was attached to the helicopter by a 30 m long tow cable. The tow cable contains a Kevlar strength member and a weak link. The tow cable also contains the power and signal wires.

Figure 4 - The survey used an AStar B2 as shown above.

5.2 The Gradiometer

The CMG magnetic gradiometer (Figure 5) is based on GEM System potassium magnetometers. These sensors are preferred over the cesium optically pumped sensors because they have a lower effective noise level (better for gradient measurements) and a much lower heading error (less absolute correction required from line to line).

Three sensors are also preferred over the normal four sensor arrays featured on systems that measure all three magnetic gradients. CMG measures the vertical gradient from the top sensor and the average of the two bottom sensors located 2.95 m apart and the cross-line (or transverse) gradient from the two side sensors located 3.45 m apart. The in-line gradient is actually calculated from successive measurements of the average of the two side sensors given the fact that measurements along the flight line are acquired at approximately the same distance as the sensor separation of the bird.

Computing the in-line gradient as opposed to measuring it directly using an additional sensor has some important advantages. Firstly, and most importantly, by having only three magnetometer sensors, they can all be placed at the front of the bird and the magnetically noisy electronics (including the tow cable) can all be placed at the back of the bird so that the distance between sensors and electronics is maximized. Secondly, the computed in-line measurement has effectively no heading error (the readings are measured from the same sensors and are constant across such a short distance), and is relatively free from diurnal variations in the magnetic field, given the short time interval (0.1 sec) between readings.

Figure 5 - The CMG tri-axial magnetic gradiometer.

Table 3 - Specifications for the CMG Magnetometer Section

Sensitivity:	+/- 0.001 nT
Absolute accuracy:	+/- 0.5 nT over operating range maximum
Sample rate:	10 Hz (0.1 sec)
Dynamic range:	30,000 to 90,000 nT, 5,000 nT/m gradient
Heading error:	+/-0.15 nT maximum for all sensor orientations
Operating temperature:	-32^{o} C to +40^{o} C normally
Tuning method:	Dynamic re-starting at 30,000 nT
Volume of sensor:	70 mm^3

The magnetometer data is collected at a rate of 10 Hz. The frequency from each sensor is counted separately within the digital electronic section located approximately 4.5 m away from the sensors in the middle of the bird. The combined data stream (including mag, gps, vlf and radar information) is then sent up the tow cable to the data acquisition system in the helicopter. Specifications for the magnetometer sensors are given in Table 3.

5.3 The Magnetometer Bird

The magnetometer frame is constructed from fiberglass and the sensor housings are made from Kevlar. The horizontal displacement between magnetometer sensors is 3.45 m. The vertical separation is 2.95 m. The length of the bird is 5.3 m and weighs approximately 180 kg. The bird can be separated into two sections and the magnetometer arms removed for easy transportation.

5.4 The VLF-EM System

The CMG gradiometer contains two VLF (very low frequency) EM receivers that can be tuned to any of the operational VLF transmitters worldwide. In general, two orthogonal stations are chosen such as La Moure (25.2 kHz) and Jim Creek Seattle (24.8 kHz).

Measurements of the in-phase, quadrature-phase and total field are taken at a 10 Hz sample rate. The in-phase measurement is easily affected by variations in the sensor orientation and may not be useful in areas of rugged topography or where bird movement is significant. The quadrature-phase measurements are dependent on bird direction so alternating lines are sign inverted. The results can be gridded and provide the locations of weak conductors, given the high relative frequency of the transmitter station.

The measured VLF components are converted into a digital signal and then appended to the data string in the main magnetometer console. This entire data string is then transmitted up the tow cable to the data acquisition system in the helicopter.

Due to the lagre distance to the nearest VLF station, the signal degradation was too high to produce any usable data throughout the survey. For the reason, no VLF products were produced. As the power output and function of the transmitting stations are out of CMG's control, VLF data is collected on a as is basis.

5.5 The Magnetometer Base Station

A GSM-19 base station was used to record variations in the earth's magnetic field and referenced into the master database using GPS time stamp. This system is based on the Overhauser principle and records total magnetic field to within +/- 0.02 nT at a one (1) second time interval.

The GSM-19 is portable and can be placed in a remote location without the need for extra batteries or cabling. On this survey the unit was positioned at a magnetically quiet location at the mine site.

5.6 The Radar Altimeter

The CMG system uses two radar altimeters, both modulated frequency radio versions manufactured by Free Flight. The radar altimeter in the helicopter is used by the pilot to estimate terrain. The second altimeter, mounted directly on the bird, provides an accurate measurement of bird height. The approximate accuracy of these devices is +/- 2 m.

5.7 GPS Navigation

CMG uses the AgNav Incorporated (AgNav-2 version) GPS navigation system for real-time locating while surveying. The AgNav unit is connected to a Tee-Jet GPS system receiver that uses the WAAS system – considered to be a standard in aircraft navigation and accurate throughout a large portion of Canada.

5.8 Data Acquisition System

Data is collected by the main magnetometer console in the gradiometer bird and includes GPS timing and positional information, magnetometer readings, VLF readings, and radar altimeter. This information is digitized inside the console, all at a rate of 10 Hz. The resulting data string is transmitted in digital format along the tow cable into a laptop computer inside the helicopter that is running the GEM Systems DAS software. All data is stored on the hard-drive in ASCII format using a simple column by row format.

6.0 Deliverables

From the survey, a number of deliverable products are generated including a set of hard-copy maps, a final report (this document), and a digital archive of the data with digital copies of map products.

6.1 Hardcopy Products

Hardcopy map products are provided at 1:20,000 scale and include a topographic back-drop. Each map contains a scale bar, north arrow, coordinate outlines (easting & northing), flight lines with line number and direction and geophysical data.

The survey block consisted of 1 map plate customized to fit within the boundaries of a 42" plotter.

Each map contains a technical summary of specifications and a colour bar that describes the geophysical data.

6.2 Digital Products

The geophysical data is provided in a Geosoft GDB database. At the Client's request a xyz archive of the same database in ASCII format can also be provided.

The contents of the database are described more fully in Appendix C.

A copy of the GDB database is kept by CMG as a courtesy to the Client but can be deleted at the Client's request.

In addition to the GDB file database, copies of all geophysical grids are provided as GRD files (also in Geosoft format). The cell size used for gridding is nominally 1/5 of the flight line spacing.

Map files in Geosoft MAP format are also provided as deliverables. The Client can use a free viewer available from Geosoft Limited (www.geosoft.com) for viewing and plotting map files, but not for editing or changing them.

6.3 Delivered Products

The following map products were delivered in hard-copy and digital (Geosoft Map & PDF) format. Each map product was colour shaded on a topographic backdrop with flight lines and contours.

- Total magnetic intensity – reduced to poles (TMI-RTP)
- Analytical signal (ASIG)
- Magnetic Tilt Derivative (TDR)
- First Vertical Magnetic Derivative (C-VMG)
- Second Vertical Magnetic Derivative (2VD)

The following map products were delivered in digital (Geosoft Map & PDF) format only (in addition to those above). Each map product was colour shaded on a topographic backdrop with flight lines and contours.

- Total magnetic intensity (TMI)
- Measured in-line horizontal magnetic field derivative (MI-HMG)
- Measured cross-line horizontal magnetic field derivative (MC-HMG)
- Measured vertical magnetic field derivative (M-VMG)

The following grid products were delivered in digital (Geosoft GRD) format only (in addition to those above).

- Digital Terrain Model (DTM)

The following additional products were delivered in digital format:

- Copy of this report in .pdf format
- Geosoft database GDB of all collected data
- Geosoft and Acrobat software utilities for data viewing

7.0 Processing

Preliminary data processing is performed using CMG proprietary methods. This includes calculation of the magnetic gradients from the three sensors (MAG1, MAG2 and MAG3), digital terrain model, bird height, and merging of the base station magnetic data (sampled at 1.0 sec) with the survey data (sampled at 0.1 sec).

7.1 Base Maps

All base maps are presented in the Datum and Projection defined in the Introduction of this report. All map coordinates refer to projected easting and northing in meters. All maps contain the actual flight paths as recorded during surveying and have been clipped to the survey polygon with a 100m extension.

The topographic vector data has been obtained from Natural Resources Canada.

Topographic shading has been derived from low resolution Global digital elevation model (DEM) data provided by the Canadian Government and shaded at an inclination and declination of 45º.

7.2 Flight Path

The helicopter used “ideal” flight lines as guidance during surveying as displayed on the real-time AgNav system with the aid of a helicopter mounted GPS. A separate GPS mounted to the bird was used to record actual position. The sample rate of the GPS was 10 Hz, the same as all the other data collected in flight.

The GPS outputted both latitude and longitude values and easting and northing values, all in the WGS84 Datum, using the UTM Projection Zone 7 North. There has been no interpolation of the positional data, nor has there been any filtering of the data.

7.3 Terrain Clearance

Two radar altimeters recorded data during the course of the survey: one located on the skid gear of the helicopter and the other on the base of the bird. The helicopter mounted radar altimeter was used to maintain terrain clearance by the pilot. A digital indicator was mounted on the dashboard of the helicopter. This work was performed by a licensed helicopter engineer provided by VIH.

The digital terrain model (DTM) was derived by subtracting the bird mounted radar altimeter value from the GPS z position (mean point above sea level). The DTM values were further corrected for a lag value of 1.0 sec. The DTM values are to be considered relative as they have not been tied into any surveyed geodetic point.

7.4 Magnetic Data Processing

The magnetic data were collected without any lag time, therefore a lag time correction was not applied. In areas where one magnetometer sensor has become unlocked, the total magnetic field values for that sensor were replaced with a dummy value (“*”). The lock and heater settings are both used for QC measures so it is easy to find the areas where one or more sensors lost lock or were not heating correctly. Locking errors occur almost entirely on turn-arounds.

The raw ASCII survey data files and basemag ASCII data files are imported into separate Geosoft databases. A QC check of the basemag data is made on a day to day basis, exported as a Geosoft Table file (TBL) and merged with the active database using built-in Geosoft routines.

Diurnal magnetic corrections were applied only to the channel that was used to generate a total magnetic field map. The MAG1, MAG2, and MAG3 sensor values were used to generate the gradients and do not require diurnal correction. The base station data was linearly interpolated from a 1.0 sec sample rate to 0.1 sec to correspond to the flight data.

The horizontal gradients are sensitive to line direction. Positive polarity is defined as to the north and east. On south- and/or west-facing lines the horizontal gradients are multiplied by -1.

The magnetic data from the individual sensors as well as the computed total magnetic intensity have no filtering applied. The computed gradients are lightly filtered to remove high frequency noise common in areas of rough terrain or flying conditions. The magnetic data grids were tie line-leveled if needed and the resulting grids micro-leveled.

8.0 Results

The following images are shown in the corresponding figures. Each image has been color shaded with a sun angle of 45^{o} inclination and 270^{o} declination to enhance regions of high gradient. All grid products are processed independently and lightly micro leveled for the final product.

- The total magnetic field (TMI) is shown in Figure 6.
- The total magnetic field – reduced to pole (TMI-RTP) is shown in Figure 7.
- The calculated vertical magnetic gradient (1VD) is shown in Figure 8.
- The measured in-line horizontal magnetic gradient (MI-HMG) is shown in Figure 9.
- The calculated second vertical magnetic gradient (2VD) is shown in Figure 10.
- The calculated magnetic analytical signal (ASIG) is shown in Figure 11.
- The magnetic tilt derivative (TDR) is shown in Figure 12.
- The digital terrain model (DTM) is shown in Figure 13 with an elevation color transform.

9.0 Interpretation

In the current survey, CMG has acquired high resolution magnetic gradiometer data and radioelement profiles. The vertical magnetic gradient provides a more accurate estimate of magnetic boundaries. The cross-line horizontal gradient highlights structures that may be oriented sub-parallel to the flight direction. The vector sum of the three magnetic gradients – known as the analytic signal – produces highs directly over magnetic sources that are independent of the direction of the earth's magnetization vector.

9.1 Magnetics

The magnetic fabric of the area is complex and defines features that appear related to structures such as faults, veins, and fractures as well as intrusive outlines. The magnetic field responses vary considerably in both amplitude and character. For example, the broad and low gradient features likely represent deeper seated bodies whereas sharp and high gradient responses are related to near surface features. The primary targets of interest, based on the previous geological findings in the area, are thought to be vein-like structures that have the potential to host economic mineralization. In addition, areas in close proximity to regions of folding and faulting are the best targets for hydrothermal deposition.

The individual magnetic products have been referenced in order to better define the numerous structures throughout the area. The various gradient and derivative products fully represent the components of the magnetic field and can provide specific information not obvious in the total field data. The in-line horizontal magnetic gradient (MI-HMG) emphasizes subtle magnetic features perpendicular to the line direction whereas the first vertical derivative product (C-VMG) emphasizes all subtle features in the data. The magnetic analytic signal (ASIG) is produced by calculating the vector sum of all three magnetic gradients to produce a grid that is independent of the effect of orientation from subsurface bodies. Typically, the orientation of a magnetic target can produce a positive or negative response in the total magnetic field relative to its orientation.

Throughout the Flume area, two intrusions zones appear quite clearly in the magnetic analytic signal grid (Figure 14) along the western margin of the survey area. These bodies appear to have a distinct edge to them. Although worth noting, these are not likely targets of interest. Of more importance is a network of magnetic structures (possibly veins) striking throughout the survey area in a NNE-SSW direction. These features are clearly visible in the first vertical derivative grid (Figure 15); some spanning the entire length of the property. Also of interest in this figure is a subtle cross-cutting feature that appears to pre-date the previously discussed veins.

The magnetic in-line gradient also highlights a couple of interesting features in the magnetic data thought to be faults (Figure 16). Several of the regional NNW-SSE striking vein-like features appear to be offset at these fault axes. These structures are ideal candidates for hydrothermal transportation of mineralization and should be considered in the interpretation of nearby geophysical features.

The most significant feature in the magnetic data is a possible fold unit identified as subtle distortion in the total magnetic intensity data. This feature is best seen in the magnetic tilt derivative data shown in Figure 17. The area in the vicinity of the nose (or hinge) is typically under compression which concentrates any disseminated mineralization in the surrounding geology. The zone is most likely to support conditions of increased stress resulting in fracturing and is the best candidate for hydrothermally derived economic mineralization. The hinge point of the fold is located at 547,883 mE & 7,041,348 mN.

10.0 Conclusion

Based on the above discussion, it is recommended that the area in close proximity to the fold hinge along with any nearby magnetic highs be the primary targets for follow up. Figure 18 defines two possible zones: ROI-01 and ROI-02. This figure also identifies the locations of two previously recorded showings (Flume and TR5) in the Flume property, although neither of these showings were located in the zones of interest as identified in this discussion. Although the mineralization acquired from these grab samples was not significant, the trenching did confirm the style of mineralization expected in the area.

ROI-01 defines a single vein-like structure that cross-cuts the central region of the interpreted fold and exhibits a stronger magnetic signature than nearby adjacent veins. This could be the result of an increase in mineralization along the structures length based on the concentrations expected in the fold nose.

ROI-02 identifies an isolated magnetic feature that in itself is not significant, however, as it occurs directly along an interpreted fault zone that also cross-cuts the fold nose, it is possible that this body represents relocation of economic mineralization along the fault.

11.0 Recommendations

1. Region of interest ROI-01 is of primary interest and should be ground truthed along the length of the vein-like structure for evidence of mineralized showings.

2. Region of interest ROI-02 is of lower priority, but should be ground truthed for mineralized showings and possibly sampled for geochemical markers.

3. Digital products from this report should be made available in either MapInfo or ArcView format as registered tiff files for integration into a GIS compilation.

4. Conduct an advanced level interpretation of the magnetic data, integrate with geology and possibly model selected structures.

Respectively Submitted,

Sean Scrivens P.Geo.
Canadian Mining Geophysics Ltd.
July, 2010

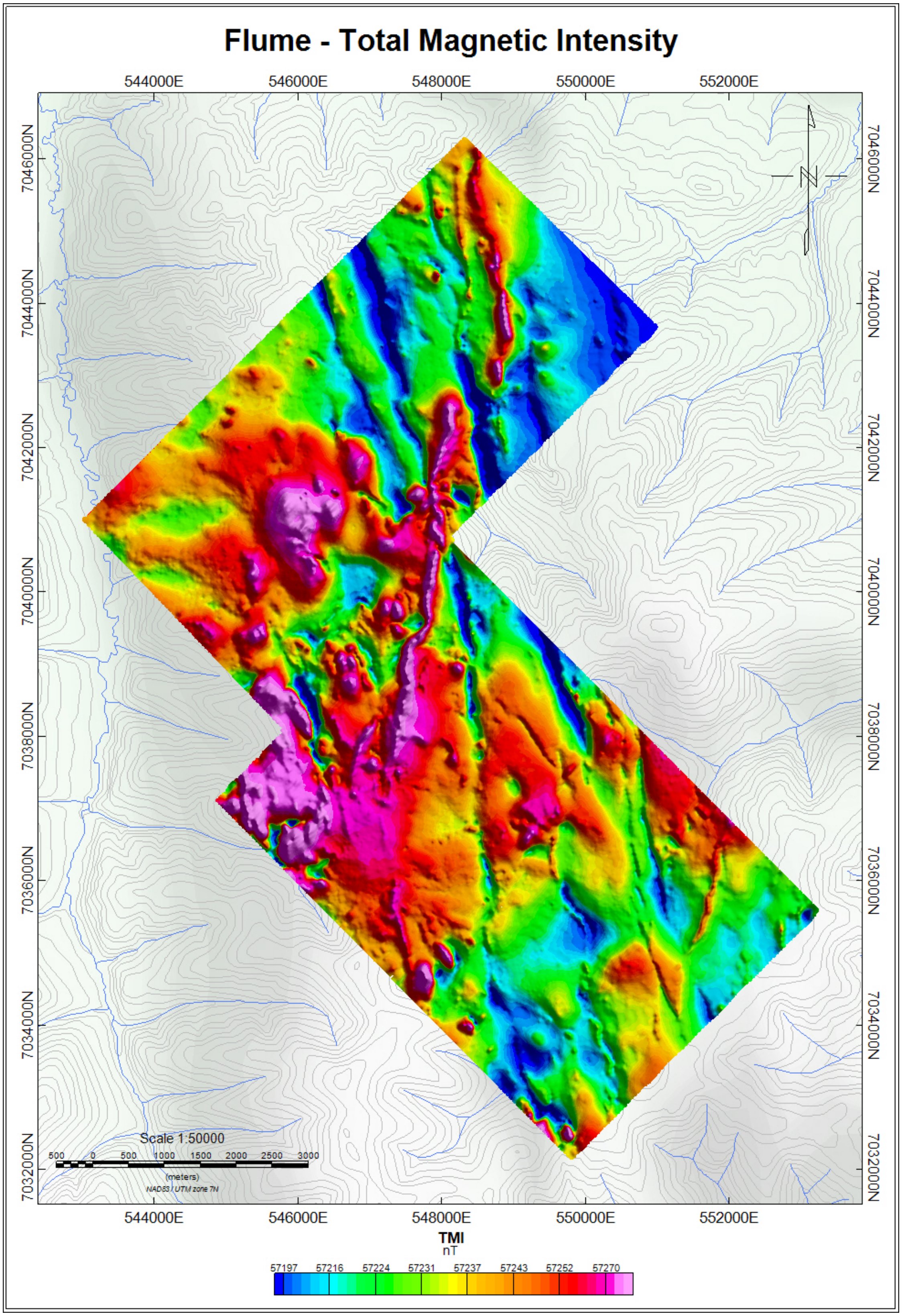

Figure 6 - Shaded image of the total magnetic field intensity (TMI) over the Flume survey area.

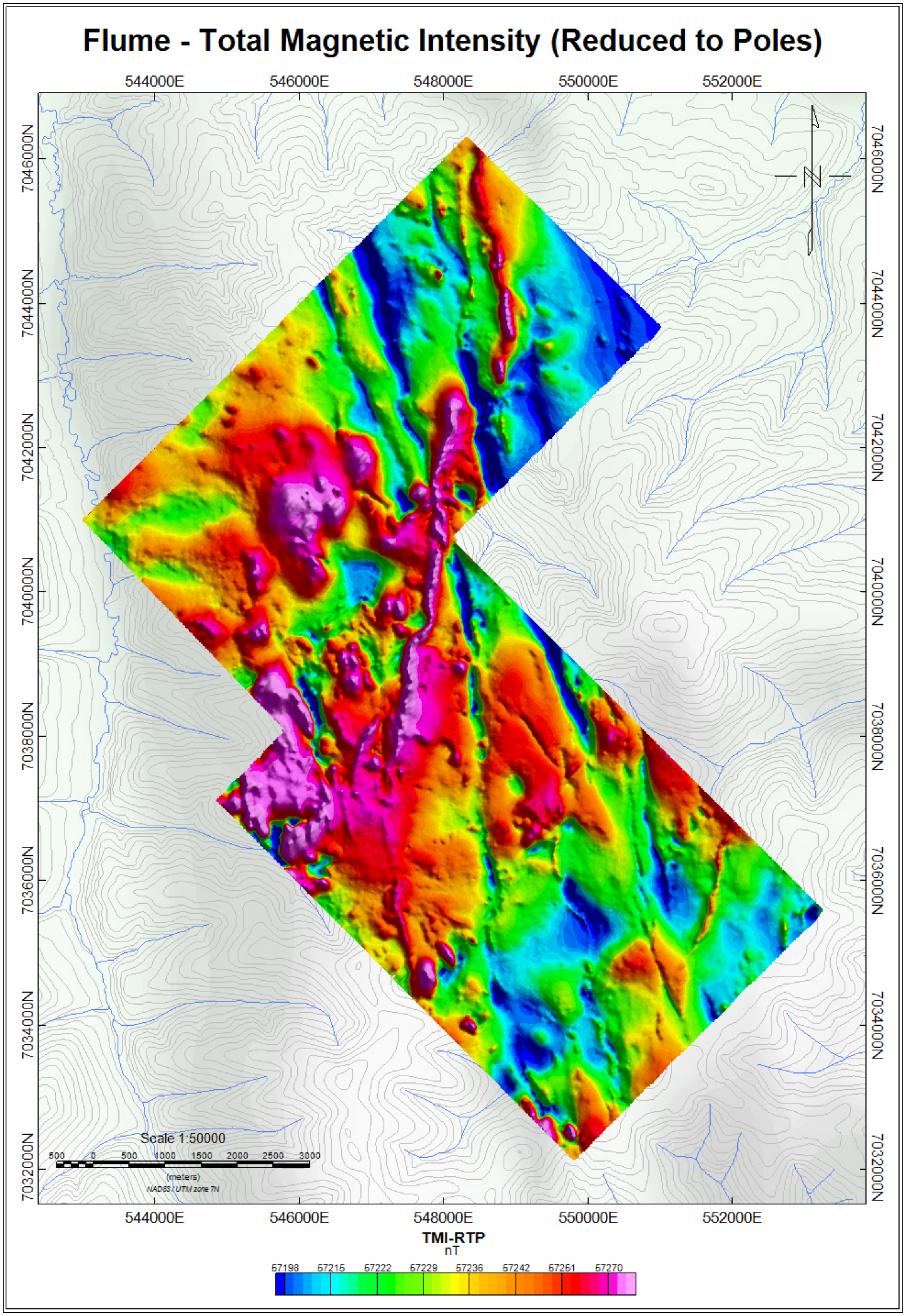

Figure 7 - Shaded image of the TMI reduced to poles (TMI-RTP) over the Flume survey area.

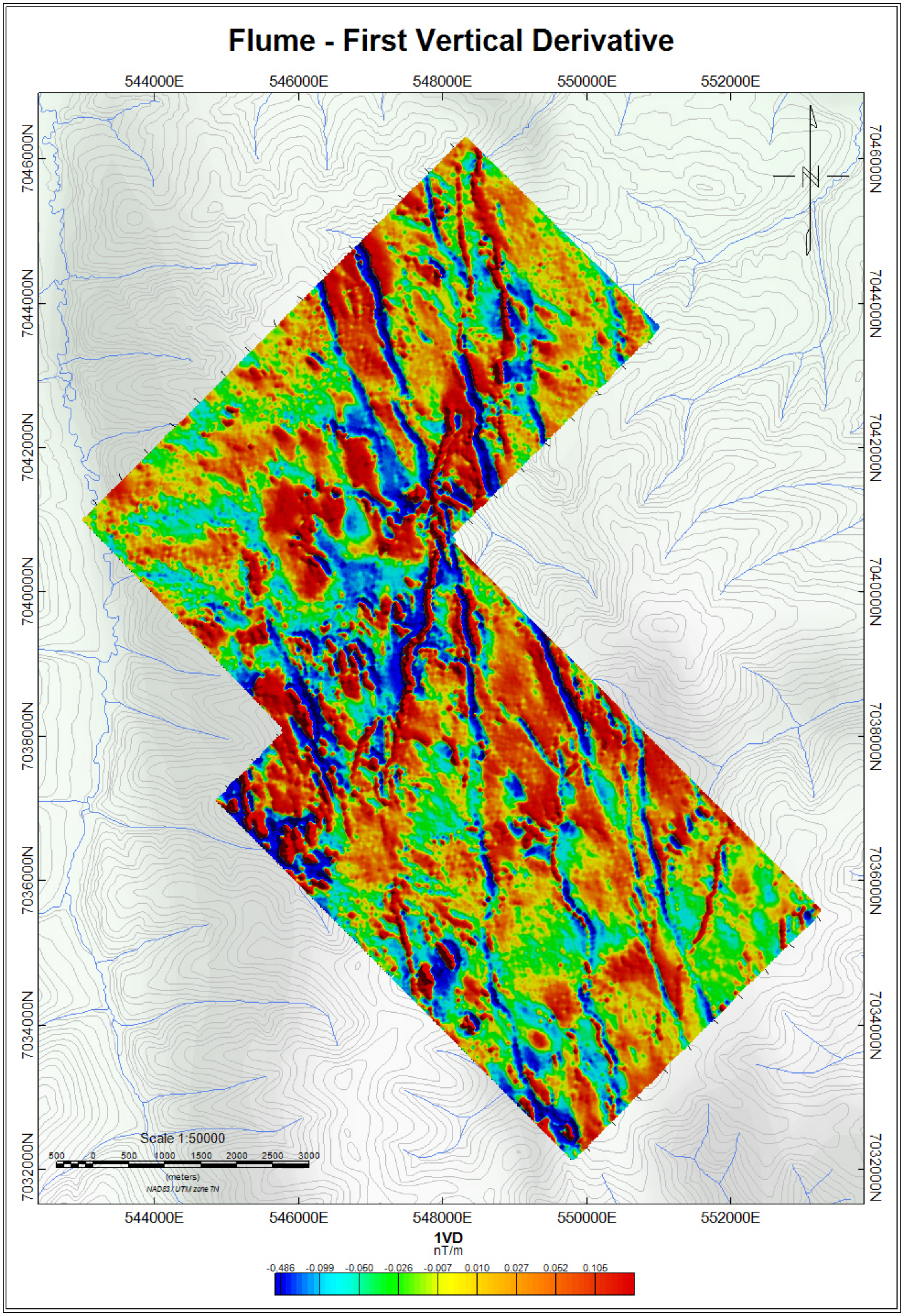

Figure 8 - Shaded image of the magnetic first vertical derivative (1VD) over the Flume survey area.

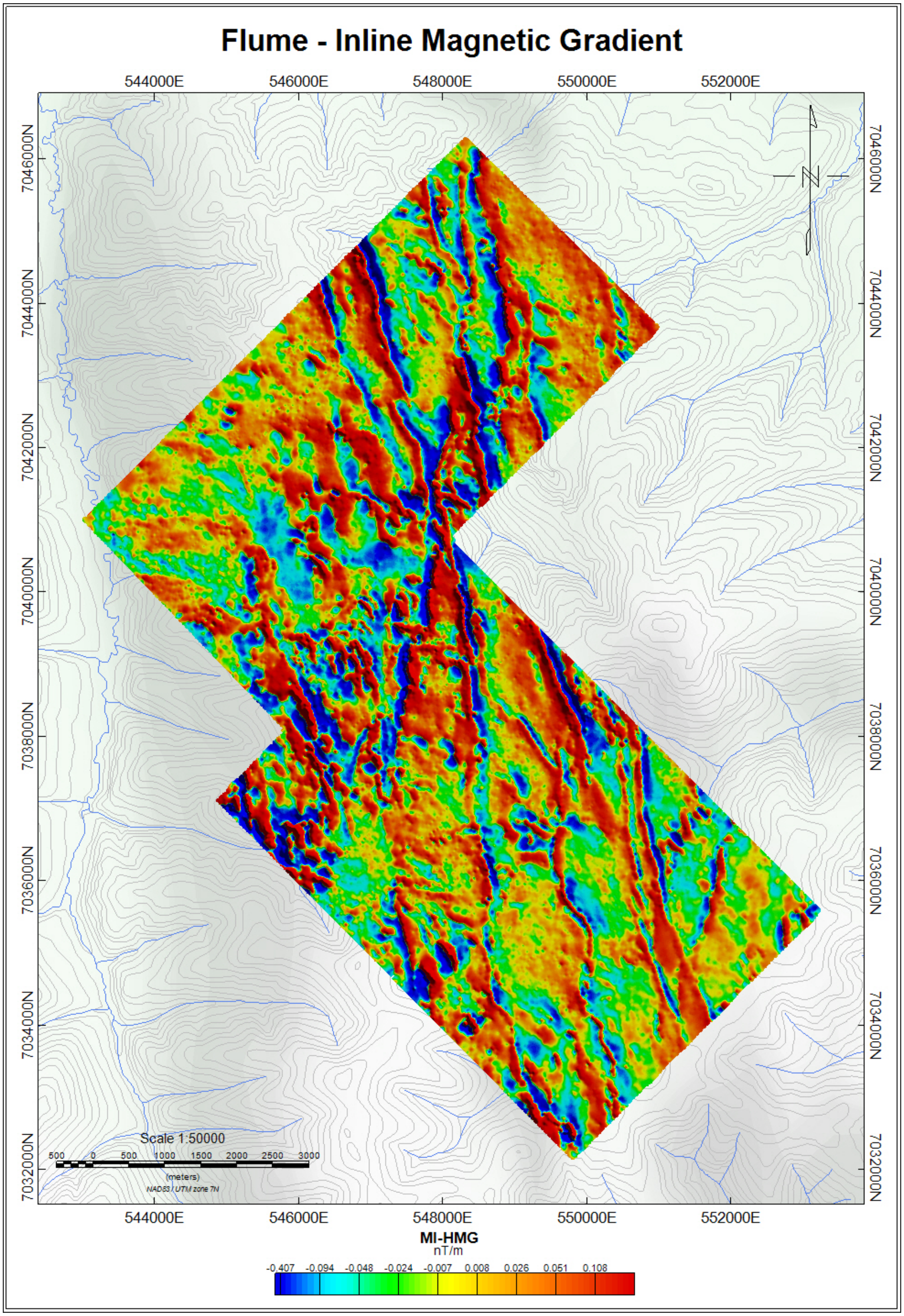

Figure 9 - Shaded image of the measured in-line gradient (MI-HMG) over the Flume survey area.

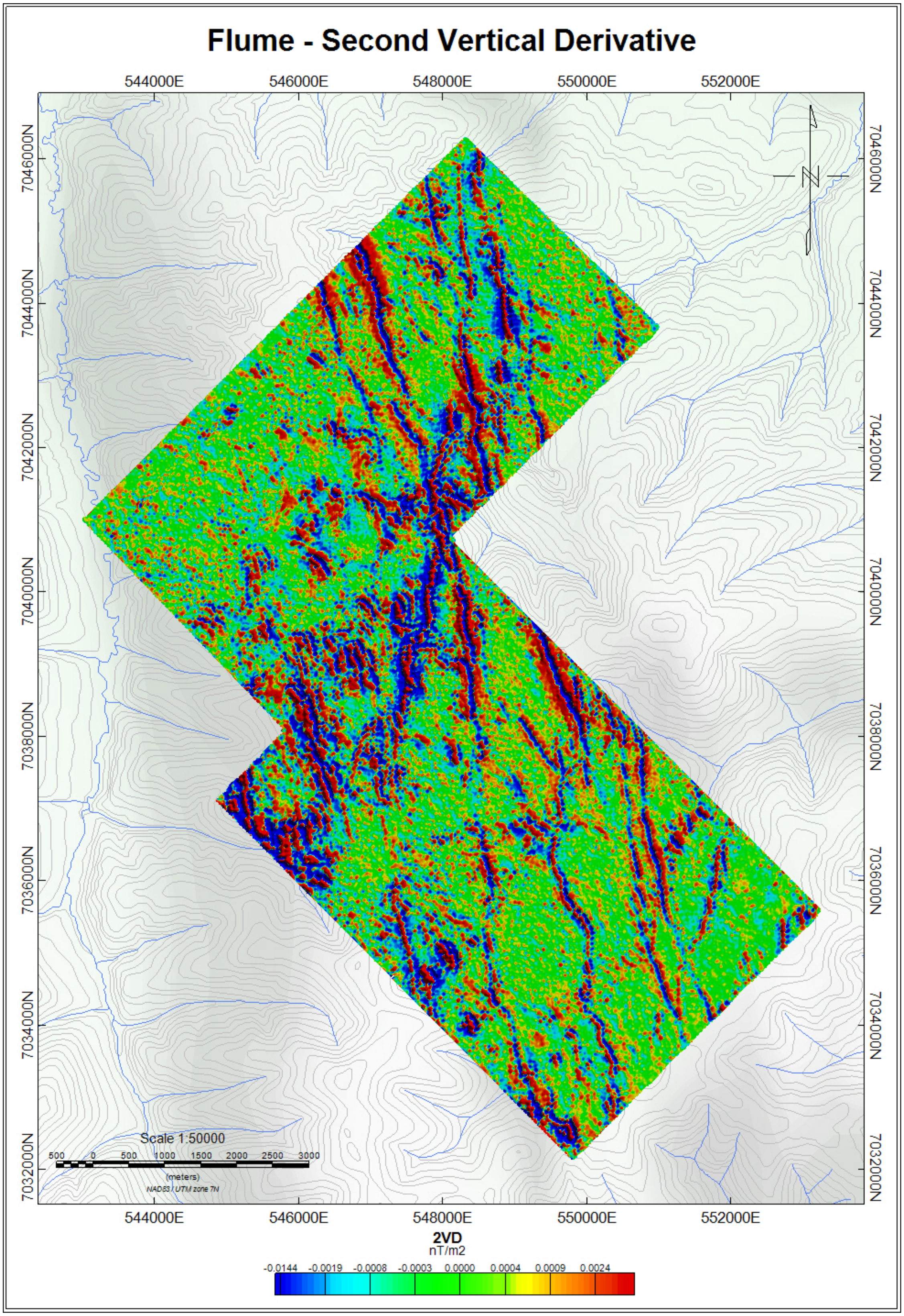

Figure 10 - Shaded image of the magnetic second vertical derivative (2VD) over the Flume survey area.

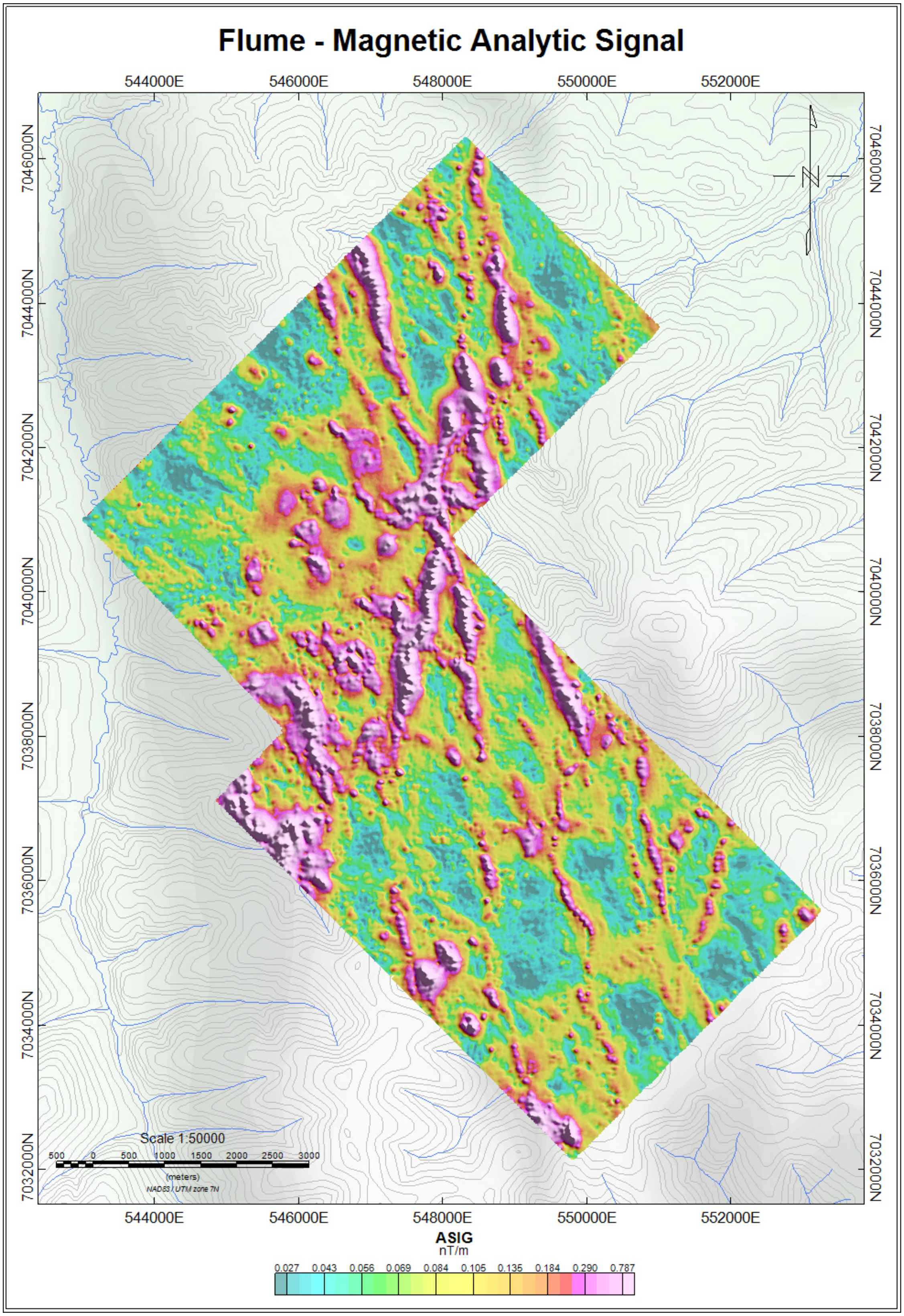

Figure 11 - Shaded image of the magnetic analytical signal (ASIG) over the Flume survey area.

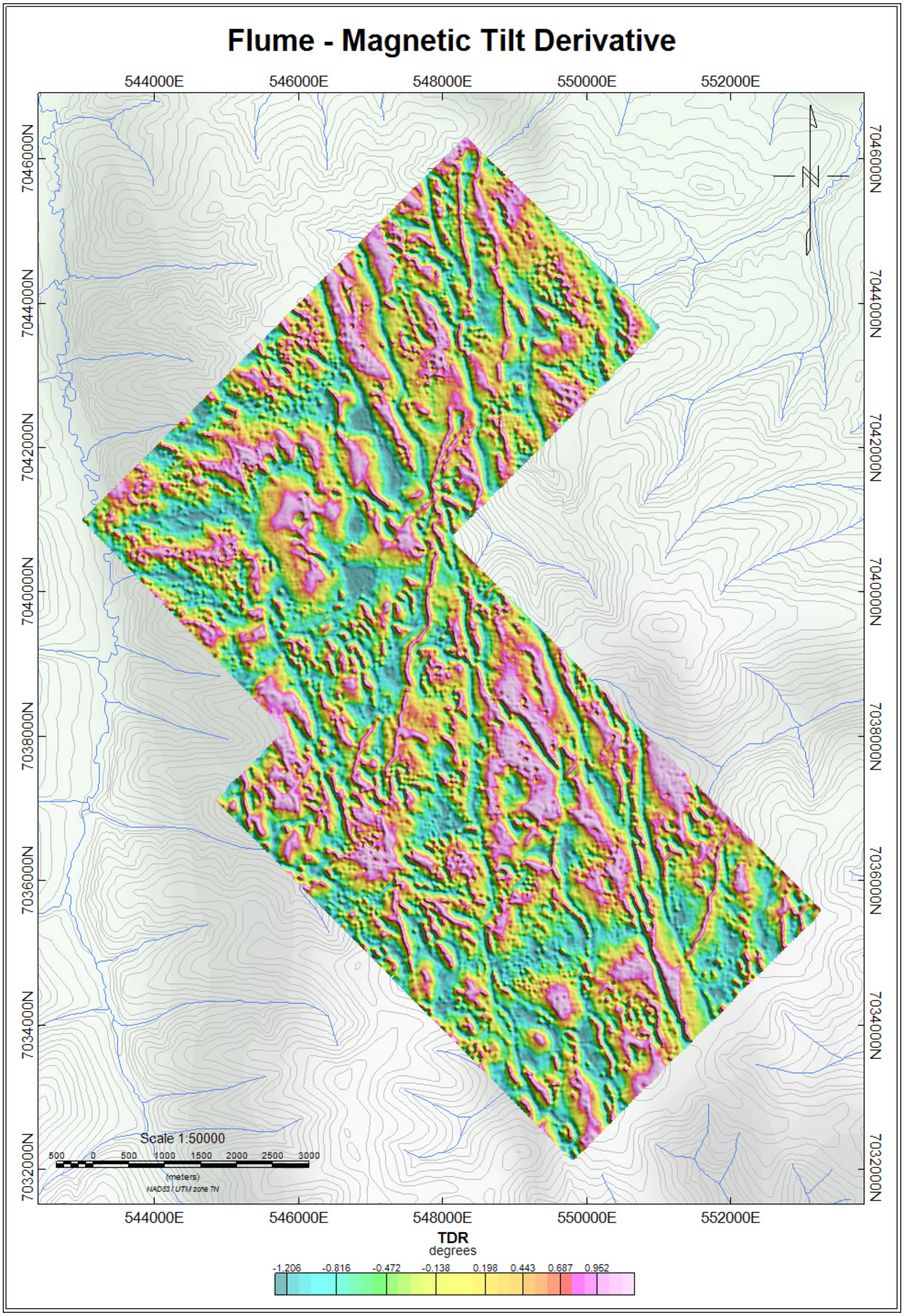

Figure 12 - Shaded image of the magnetic tilt derivative (TDR) over the Flume survey area.

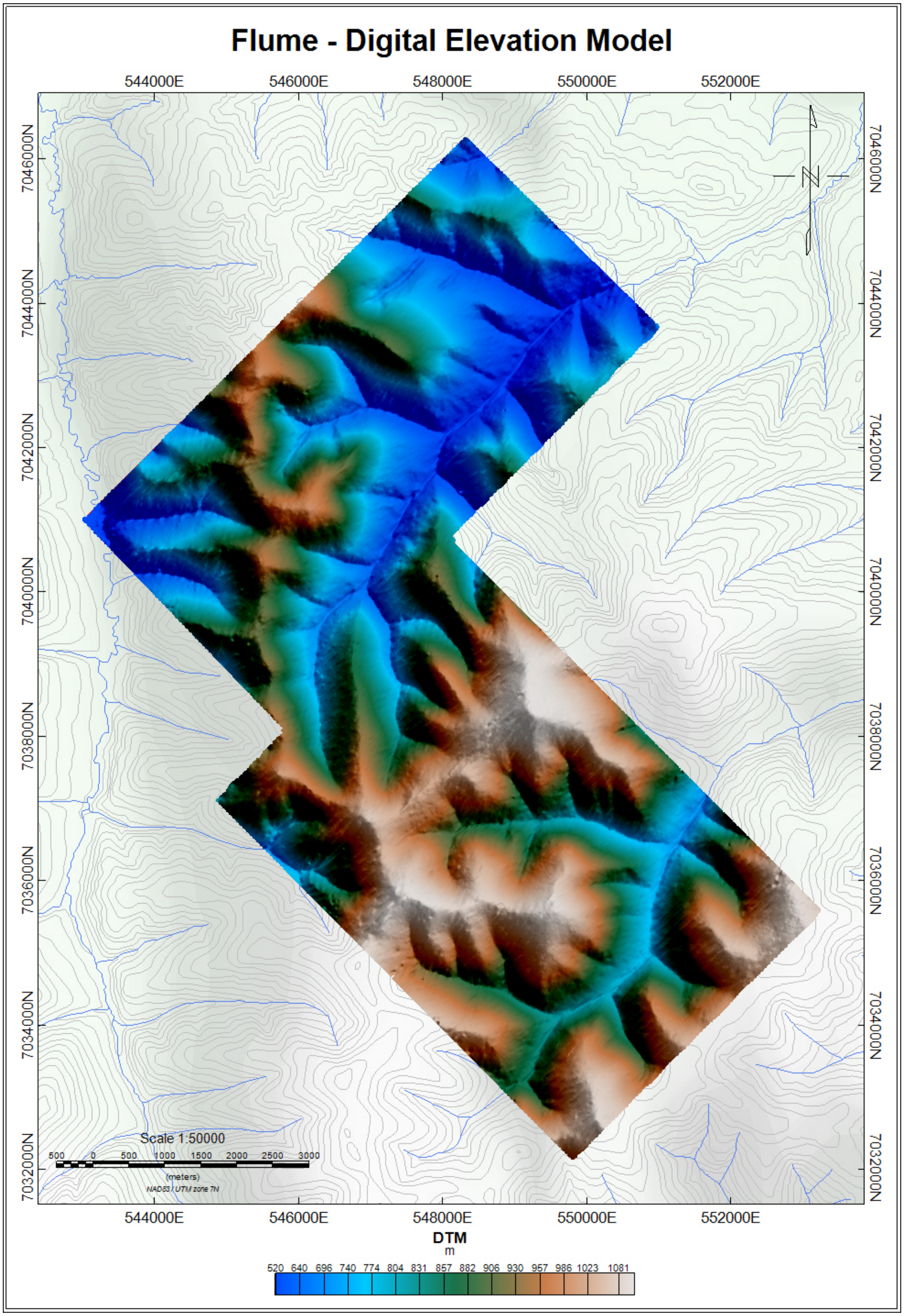

Figure 13 - Shaded image of the digital terrain model (DTM) over the Flume survey area.

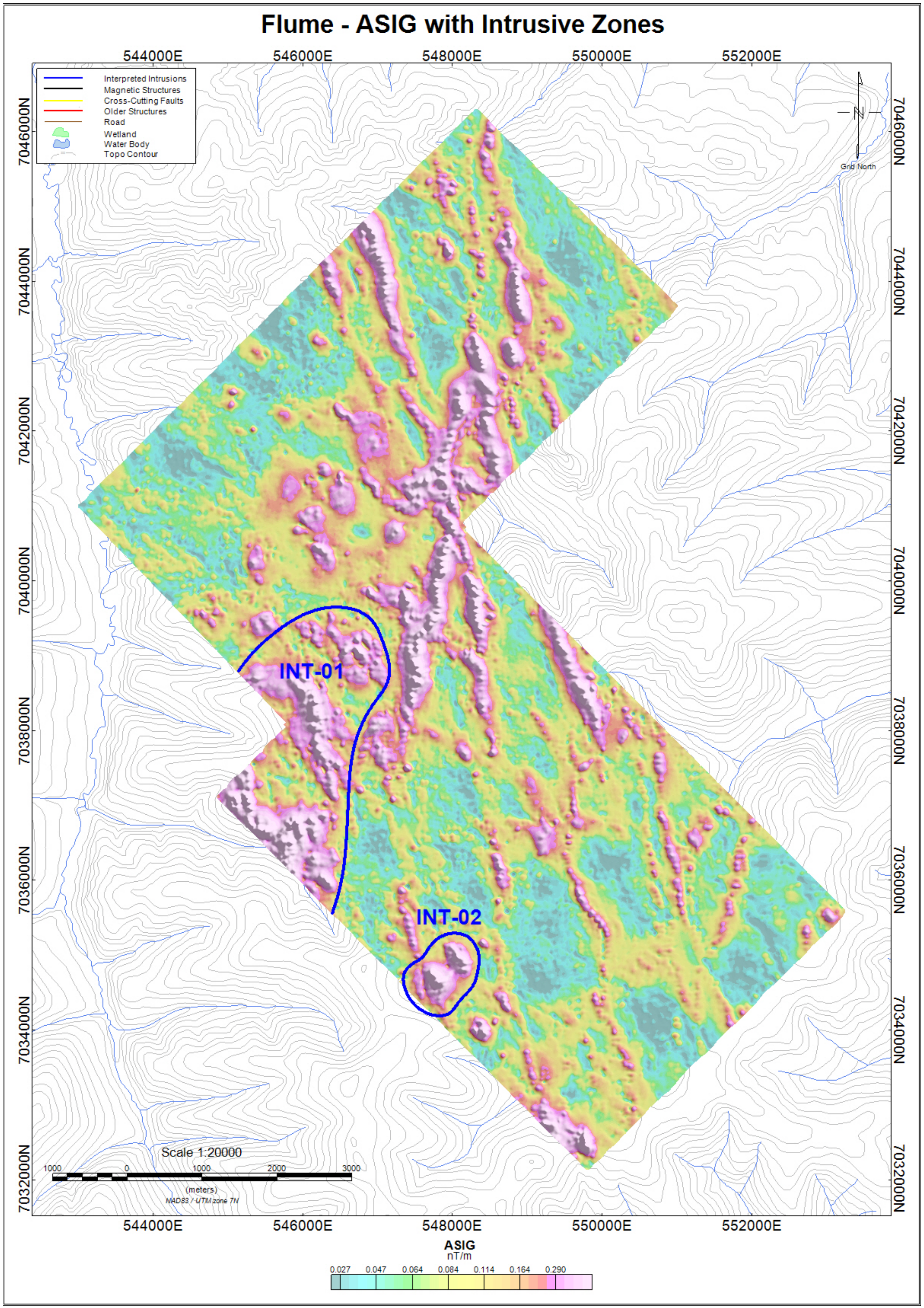

Figure 14 – Analytic signal grid showing two possible intrusion zones.

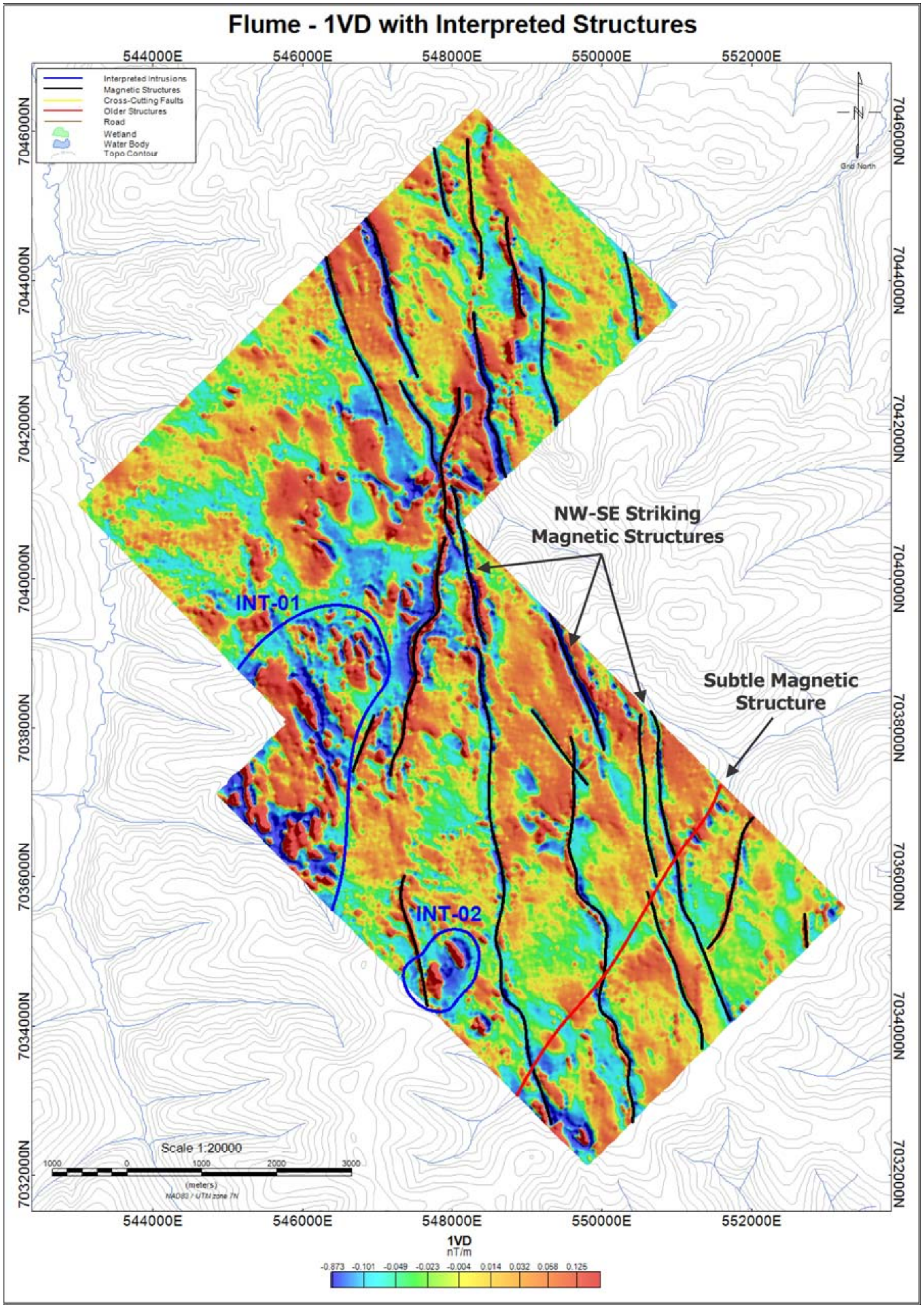

Figure 15 – First vertical derivative grid showing numerous NW-SE striking magnetic features.

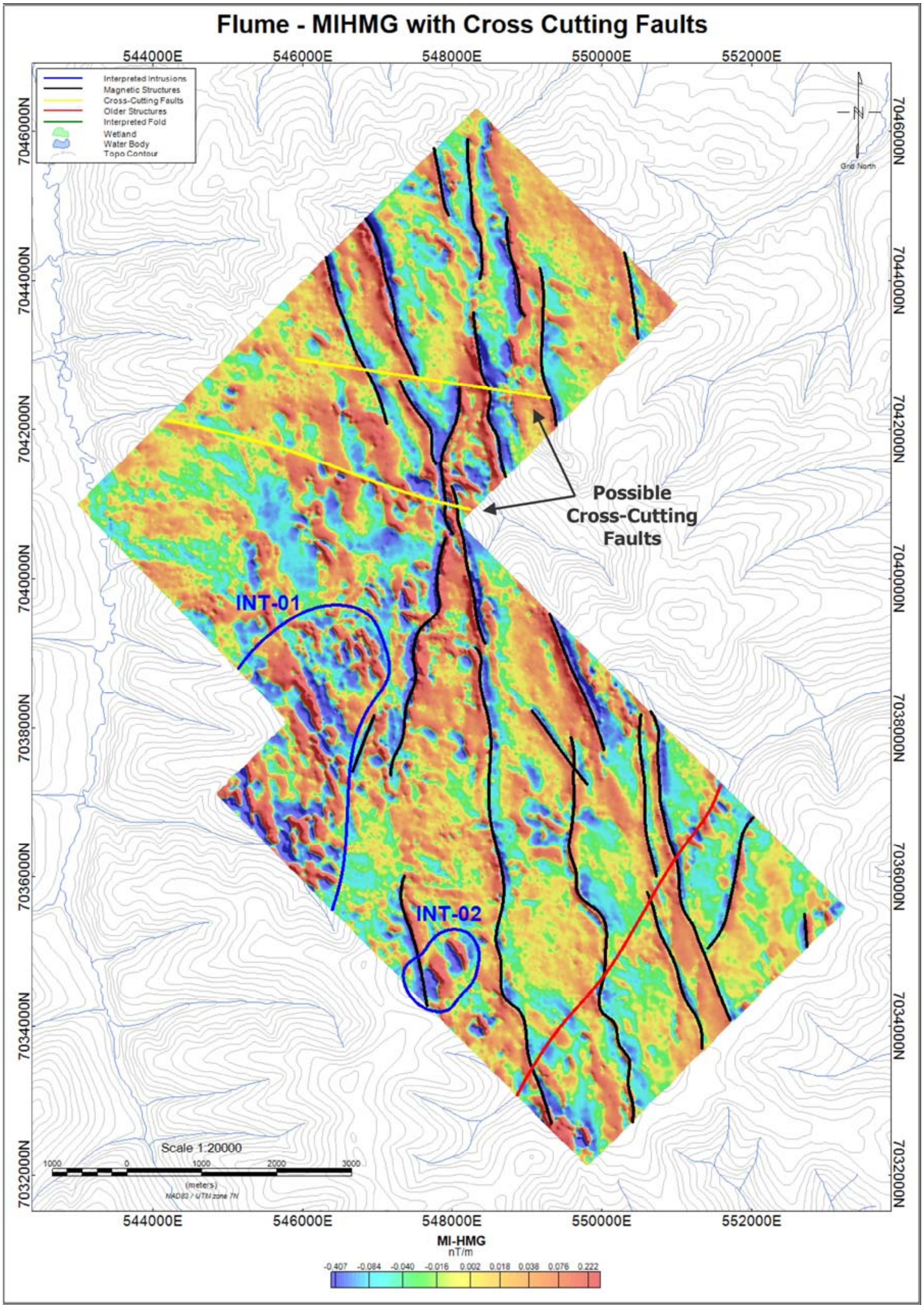

Figure 16 – Inline magnetic gradient showing two possible faults cross-cutting the regional geology.

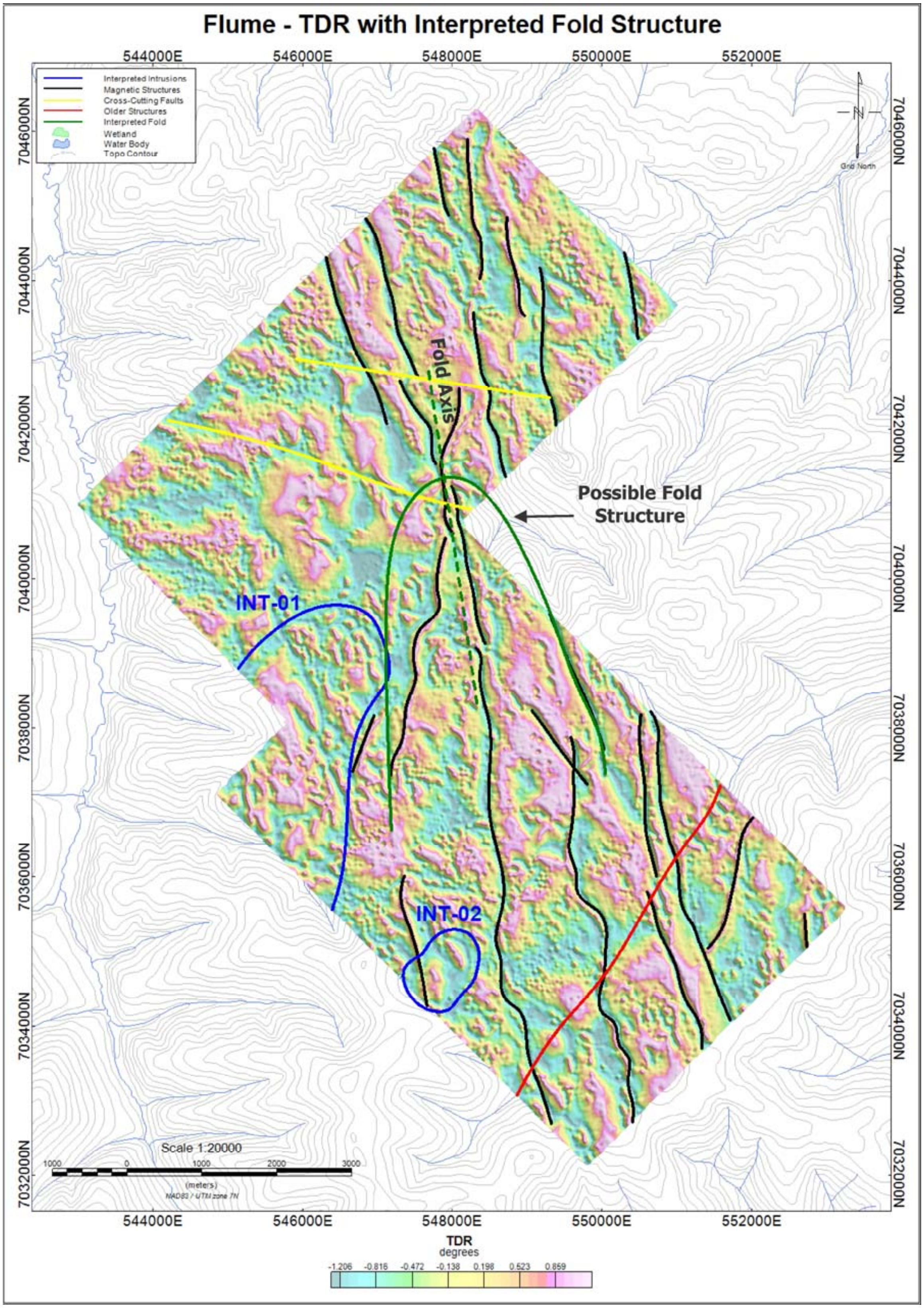

Figure 17 – Tilt derivative grid delineating a possible fold structure near the center of the Flume property.

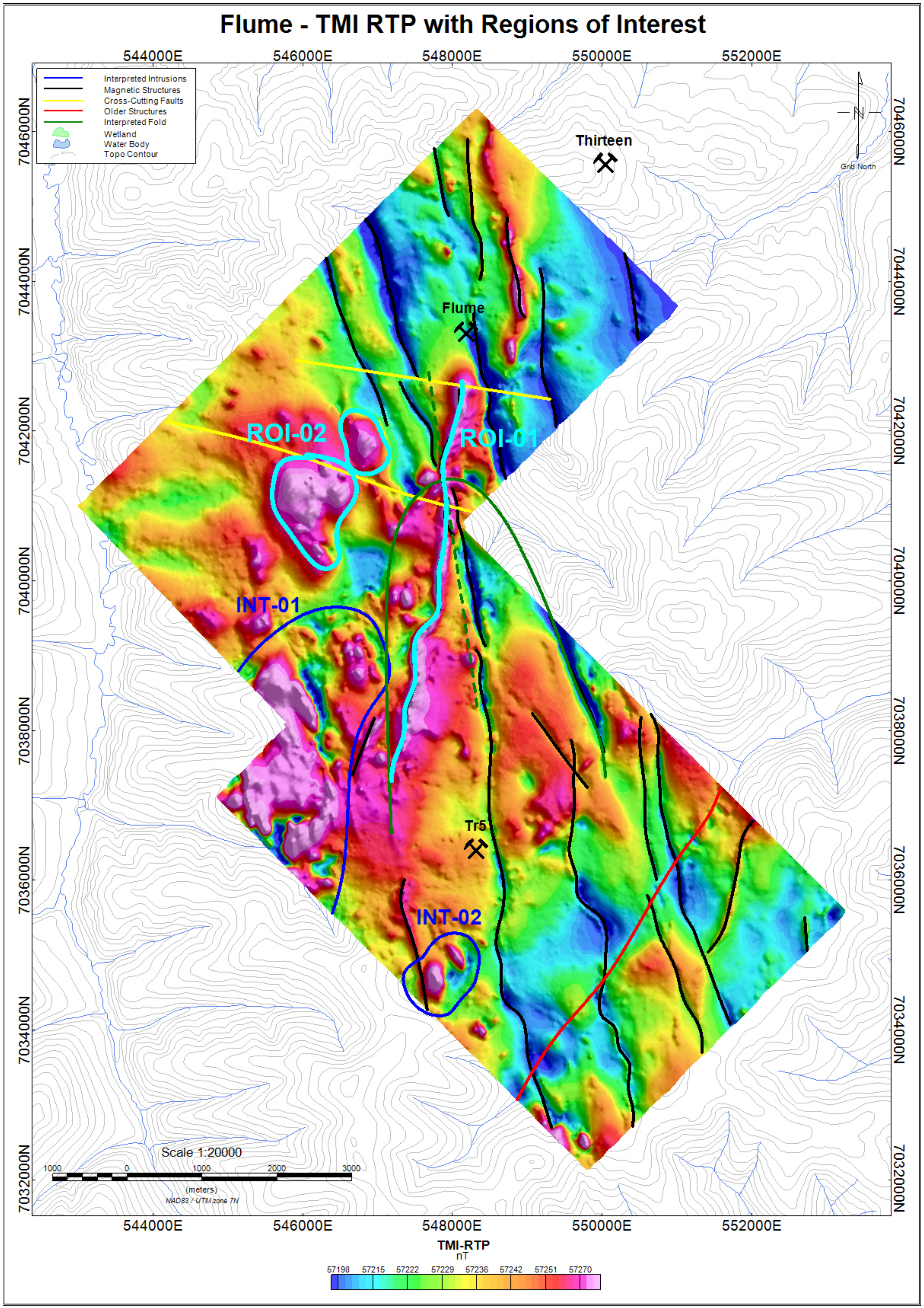

Figure 18 – Total magnetic intensity RTP grid defining possible regions of interest and previous showings.

APPENDIX A
LIST OF SURVEY OUTLINE POINTS

The following survey polygon was produced by CMG and approved by the Client.

The Datum is NAD-83.

The Projection is UTM, Zone 7 North.

Flume

Easting	Northing
543052	7041064
548249	7046228
550925	7043613
548010	7040685
553186	7035518
549849	7032205
544932	7037155
545905	7038108
543052	7041064

APPENDIX B
LIST OF DATABASE COLUMNS (GEOSOFT GDB FORMAT)

Channel Name	Description
x	X positional data (metres – NAD83, UTM Zone 7 north)
y	Y positional data (metres – NAD83, UTM Zone 7 north)
lon_wgs84	Longitude data (degree – WGS84)
lat_wgs84	Latitude data (degree – WGS84)
Lines	Line number
Flight	Flight number
Date	Flight date
gpstime	Coordinated Universal Time (UTC) measurement
gpsalt	Bird height above sea level (metres – ASL)
radalt	Bird height above ground (metres – AGL)
DTM	Digital Terrain Model (metres – ASL)
Basemag	Base station magnetic diurnal (nT)
Mag1	Sensor 1 - Total Magnetic field data (nT)
Mag2	Sensor 2 - Total Magnetic field data (nT)
Mag3	Sensor 3 - Total Magnetic field data (nT)
TMI	Leveled Total Magnetic field data (nT)
ASIG	Magnetic analytical signal (nT)
MC_HMG	Measured Cross-Line Horizontal Magnetic Gradient (nT/m)
MI_HMG	Measured In-Line Horizontal Magnetic Gradient (nT/m)
M_VMG	Measured Vertical Magnetic Gradient (nT/m)