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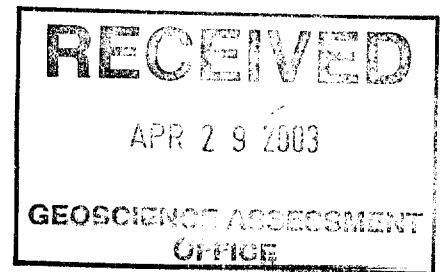
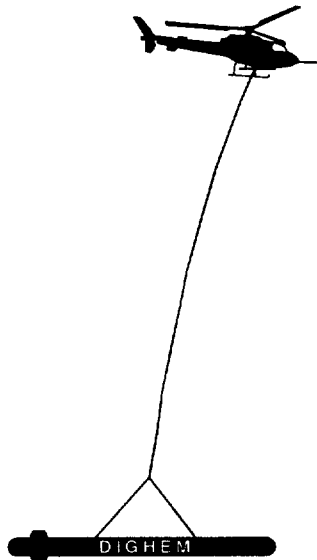
FUGRO AIRBORNE SURVEYS

Report #2123A

2. 25505

**DIGHEM<sup>V</sup> SURVEY  
FOR  
REDSTAR GOLD CORP.  
RIVARD RED LAKE AREAS  
ONTARIO**

**NTS 52M/1**



Fugro Airborne Surveys Corp.  
Mississauga, Ontario

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## SUMMARY

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This report describes the logistics and results of a DIGHEM<sup>V-DSP</sup> airborne geophysical survey carried out for Redstar Gold Corp., over three properties located near Red Lake, Ontario. Total coverage of the survey blocks amounted to 223 km. The survey was flown from November 3 to November 5, 2002.

The purpose of the survey was to detect zones of conductive mineralization and to provide information which could be used to map the geology and structure of the survey areas. This was accomplished by using a DIGHEM<sup>V-DSP</sup> multi-coil, multi-frequency electromagnetic system, supplemented by a high sensitivity horizontal gradient cesium magnetometer. The information from these sensors was processed to produce maps which display the magnetic and conductive properties of the survey areas. A GPS electronic navigation system ensured accurate positioning of the geophysical data with respect to the base maps. Visual flight path recovery techniques were used to confirm the location of the helicopter where visible topographic features could be identified on the ground.

The survey properties contain numerous anomalous features, many of which are considered to be of moderate to high priority as exploration targets. Most of the inferred bedrock conductors appear to warrant further investigation using appropriate surface exploration techniques. Areas of interest may be assigned priorities on the basis of supporting geophysical, geochemical and/or geological information. After initial

investigations have been carried out, it may be necessary to re-evaluate the remaining anomalies based on information acquired from the follow-up program.

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## APPENDICES

- A. List of Personnel
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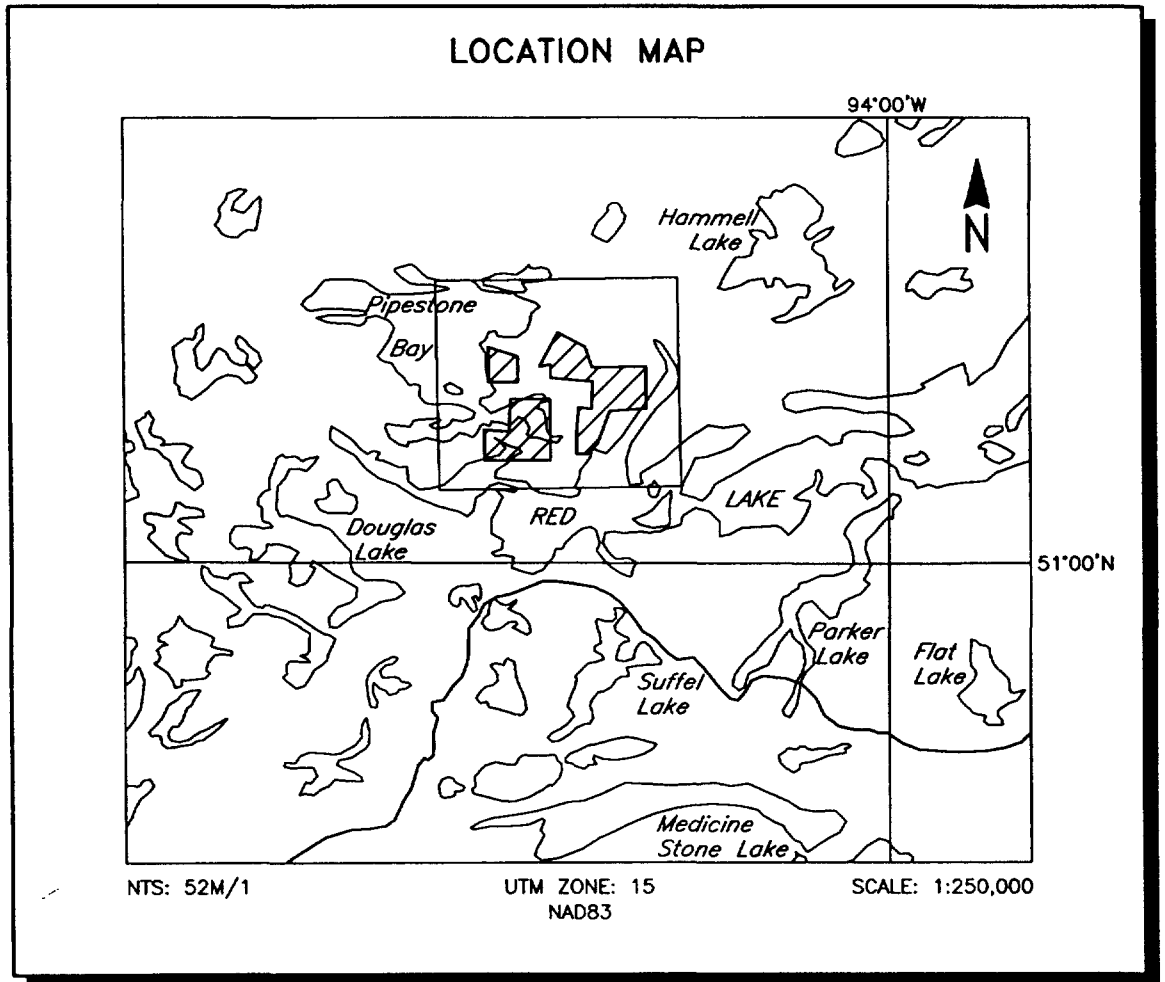


Figure 1  
Redstar Gold Corp.  
Rivard Red Lake Areas  
Job #2123A

## 1. INTRODUCTION

A DIGHEM<sup>V-DSP</sup> electromagnetic/resistivity/magnetic survey was flown for Redstar Gold Corp., from November 3 to November 5, 2002, over three survey blocks located near Red Lake, Ontario. The survey areas can be located on NTS map sheet 52M/1 (Figure 1). Table 1-1 lists the corner coordinates of the three survey blocks in NAD83, UTM Zone 15. Table 1-2 provides a summary of the coverage acquired over each area

Survey coverage consisted of approximately 223 line-km, including tie lines. Flight lines were flown in an azimuthal direction of 360°/180° with a line separation of 50 metres.

The survey employed the DIGHEM<sup>V-DSP</sup> electromagnetic system. Ancillary equipment consisted of a magnetometer, radar and barometric altimeters, video camera, analog and digital recorders, and an electronic navigation system. The instrumentation was installed in an AS350BA turbine helicopter (Registration C-GJIX) which was provided by Questral Helicopters Ltd. The helicopter flew at an average airspeed of 118 km/h with an EM sensor height of approximately 30 metres.

Section 2 provides details on the survey equipment, the data channels, their respective sensitivities, and the navigation/flight path recovery procedure. Noise levels of less than 2 ppm are generally maintained for wind speeds up to 35 km/h. Higher winds may cause the system to be grounded because excessive bird swinging produces difficulties in flying

the helicopter. The swinging results from the 5 m<sup>2</sup> of area which is presented by the bird to broadside gusts.

Due to the presence of cultural features in the survey area, any interpreted conductors which occur in close proximity to cultural sources, should be confirmed as bedrock conductors prior to drilling.

**Table 1-1**

<b>Area corner coordinates in NAD83 – UTM Zone 15</b>				
Block A	X=	416696	Y=	5657758
	X=	417639	Y=	5657433
	X=	417644	Y=	5656583
	X=	416696	Y=	5656572
Block B	X=	416501	Y=	5654995
	X=	417297	Y=	5654925
	X=	417379	Y=	5655997
	X=	418679	Y=	5655987
	X=	418668	Y=	5653939
	X=	416501	Y=	5653955
Block C	X=	418359	Y=	5657086
	X=	418977	Y=	5658208
	X=	419882	Y=	5657720
	X=	420109	Y=	5657027
	X=	421913	Y=	5657027
	X=	421897	Y=	5655607
	X=	420667	Y=	5655548
	X=	420256	Y=	5654486
	X=	419920	Y=	5654112
	X=	419540	Y=	5654134
	X=	419546	Y=	5654930
	X=	419622	Y=	5655689
	X=	420066	Y=	5655629
	X=	420120	Y=	5656550
	X=	419595	Y=	5656599
	X=	418701	Y=	5656696
	X=	418728	Y=	5657141



Table 1-2

Block	Traverse km	Tie km	Total km	Flight #	Dates
A	19.1	0.9	20.0	4,5,6	Nov. 4-Nov. 5
B	70.8	2.2	73.0	4,5	Nov. 4
C	125.7	4.3	130.0	2,3,4	Nov. 3-Nov. 4
			223.0		

## 2. SURVEY EQUIPMENT

This section provides a brief description of the geophysical instruments used to acquire the survey data and the calibration procedures employed.

### Electromagnetic System

Model: DIGHEM<sup>V-DSP</sup>

Type: Towed bird, symmetric dipole configuration operated at a nominal survey altitude of 30 metres. Coil separation is 8 metres for 900 Hz, 1000 Hz, 5500 Hz and 7200 Hz, and 6.3 metres for the 56,000 Hz coil-pair.

Coil orientations/frequencies:	<u>orientation</u>	<u>nominal</u>	<u>actual</u>
	coaxial /	1000 Hz	1090Hz
	coplanar /	900 Hz	874 Hz
	coaxial /	5500 Hz	5780 Hz
	coplanar /	7200 Hz	7235 Hz
	coplanar /	56,000 Hz	56,500Hz

Channels recorded: 5 in-phase channels  
5 quadrature channels

Sensitivity: 0.06 ppm at 1000 Hz Cx  
0.12 ppm at 900 Hz Cp  
0.12 ppm at 5500 Hz Cx  
0.24 ppm at 7200 Hz Cp  
0.60 ppm at 56,000 Hz Cp

Sample rate: 10 per second, equivalent to 1 sample every 3 m, at a survey speed of 110 km/h.

The electromagnetic system utilizes a multi-coil coaxial/coplanar technique to energize conductors in different directions. The coaxial coils are vertical with their axes in the flight direction. The coplanar coils are horizontal. The secondary fields are sensed simultaneously by means of receiver coils which are maximum coupled to their respective transmitter coils. The system yields an in-phase and a quadrature channel from each transmitter-receiver coil-pair.

The Dighem calibration procedure involves four stages; primary field bucking, phase calibration, gain calibration, and zero adjust. At the beginning of the survey, the primary field at each receiver coil is cancelled, or "bucked out", by precise positioning of five bucking coils.

## **DSP System Calibration**

The phase calibration adjusts the phase angle of the receiver to match that of the transmitter. The initial phase calibration is conducted with a ferrite bar on the ground, and subsequent calibrations are conducted in the air using a calibration coil in the bird. A ferrite bar, which produces a purely in-phase anomaly, is positioned near each receiver coil. The bar is rotated from minimum to maximum field coupling and the responses for the in-phase and quadrature components for each coil-pair/frequency are measured. The phase of the response is adjusted at the console to return an in-phase only response for each coil-pair. Phase checks are performed daily.

The ferrite bar phase calibrations measure a relative change in the secondary field, rather than an absolute value. This removes any dependency of the calibration procedure on the secondary field due to the ground, except under circumstances of extreme ground conductivity.

Calibrations of the gain, phase and the system zero level are performed in the air, before, after, and at regular intervals during each flight. The system is flown to an altitude high enough to be out of range of any secondary field from the earth (the altitude is dependent on ground resistivity) at which point the zero, or base level of the system is measured. Calibration coils in the bird are activated for each frequency in turn by closing a switch to form a closed circuit through the coil. The transmitter induces a current in this loop, which creates a secondary field in the receiver of precisely known phase and amplitude. The phase and gain of the system are automatically adjusted by the digital receiver to set the measured calibration signal to the known values for the system.

## **Magnetometer**

Model:	Fugro AM102 processor with two Geometrics G822 sensors
Type:	Optically pumped cesium vapour
Sensitivity:	0.01 nT
Sample rate:	10 per second

The horizontal gradient magnetometer sensors are mounted on the EM bird, 28 m below the helicopter, with a transverse separation of 5.56 m.

## **Magnetic Base Stations**

Model: Fugro CF1 processor with Geometrics G822 sensor  
Type: Digital recording cesium vapour  
Sensitivity: 0.01 nT  
Sample rate: 1 Hz

Model: GEM Systems GSM-19T  
Type: Digital recording overhauser  
Sensitivity: 0.01 nT  
Sample rate: 1 per second

A digital recorder is operated in conjunction with the base station magnetometers to record the diurnal variations of the earth's magnetic field. The clocks of the base stations were synchronized with that of the airborne system to permit subsequent removal of diurnal drift.

## **Radar Altimeter**

Manufacturer: Honeywell/Sperry  
Model: RT 220  
Type: Short pulse modulation, 4.3 GHz  
Sensitivity: 0.3 m

The radar altimeter measures the vertical distance between the helicopter and the ground. This information is used in the processing algorithm which determines conductor depth.

## **Barometric Pressure and Temperature Sensors**

Model: DIGHEM D 1300  
Type: Motorola MPX4115AP analog pressure sensor  
AD592AN high-impedance remote temperature sensors  
Sensitivity: Pressure: 150 mV/kPa  
Temperature: 100 mV/°C or 10 mV/°C (selectable)  
Sample rate: 10 per second

The D1300 circuit is used in conjunction with one barometric sensor and up to three temperature sensors. Two sensors (baro and temp) are installed in the EM console in the aircraft, to monitor pressure (1KPA) and internal operating temperatures (2TDC). An additional sensor is contained within the EM bird to monitor external temperatures (3TDC).

## **Analog Recorder**

Manufacturer:	RMS Instruments
Type:	DGR33 dot-matrix graphics recorder
Resolution:	4x4 dots/mm
Speed:	1.5 mm/sec

The analog profiles are recorded on chart paper in the aircraft during the survey. Table 2-1 lists the geophysical data channels and the vertical scale of each profile.

## **Digital Data Acquisition System**

Manufacturer:	RMS Instruments
Model:	DGR 33
Recorder:	San Disk 48 Mb flash card

The data are stored on a 48 Mb flash card and are downloaded to the field workstation PC at the survey base for verification, backup and preparation of in-field products.

**Table 2-1. The Analog Profiles**

Channel Name	Parameter	Scale units/mm	Designation on Digital Profile
1X9I	coaxial in-phase ( 1000 Hz)	2.5 ppm	CXI1000
1X9Q	coaxial quad ( 1000 Hz)	2.5 ppm	CXQ1000
3P9I	coplanar in-phase ( 900 Hz)	2.5 ppm	CPI900
3P9Q	coplanar quad ( 900 Hz)	2.5 ppm	CPQ900
2P7I	coplanar in-phase ( 7200 Hz)	5 ppm	CPI7200
2P7Q	coplanar quad ( 7200 Hz)	5 ppm	CPQ7200
4X7I	coaxial in-phase ( 5500 Hz)	5 ppm	CXI5500
4X7Q	coaxial quad ( 5500 Hz)	5 ppm	CXQ5500
5P5I	coplanar in-phase ( 56000 Hz)	10 ppm	CPI56K
5P5Q	coplanar quad ( 56000 Hz)	10 ppm	CPQ56K
ALTR	altimeter (radar)	3 m	ALTBIRD
MG1F	magnetics, left sensor	2.0 nT	
MG2F	magnetics, right sensor	2.0 nT	MAG
CXSP	coaxial spherics monitor		
CPSP	coplanar spherics monitor		
CXPL	coaxial powerline monitor		
CPPL	coplanar powerline monitor		
1KPA	altimeter (barometric)	30 m	
2TDC	internal (console) temperature	1° C	
3TDC	external temperature	1° C	



## **Video Flight Path Recording System**

Type: Sony DXC-101  
Recorder: Panasonic AG-720 VCR

Fiducial numbers are recorded continuously and are displayed on the margin of each image. This procedure ensures accurate correlation of analog and digital data with respect to visible features on the ground.

## **Navigation (Global Positioning System)**

### Airborne Receiver

Model: Ashtech Glonass GG24 with Picodas 2100 interface  
Type: SPS (L1 band), 24-channel, C/A code at 1575.42 MHz,  
S code at 0.5625 MHz, Real-time differential.  
Sensitivity: -132 dBm, 0.5 second update  
Accuracy: Manufacturer's stated accuracy is better than 5 metres  
real-time

### Base Station

Model:	Ashtech Z-Surveyor
Type:	12-channel (dual frequency). Code and carrier tracking of L1 and L2 bands
Sensitivity:	-90 dBm, 1.0 second update
Accuracy:	Manufacturer's stated accuracy for differential-corrected GPS is better than 1 metre

The Ashtech GG24 receiver is coupled with a PNAV navigation system for real-time guidance.

The Ashtech GG24 is a line of sight, satellite navigation system which utilizes time-coded signals from at least four of forty-eight available satellites. Both Russian GLONASS and American NAVSTAR satellite constellations are used to calculate the position and to provide real time guidance to the helicopter.

An Ashtech Z-Surveyor was used to provide post-survey differential corrections. The dual frequency Ashtech base station utilizes time-coded signals from at least four of the twenty-four NAVSTAR satellites. The base station raw XYZ data are recorded, thereby permitting post-survey processing for theoretical accuracies of better than 2 metres.

Although the base station receiver is able to calculate its own latitude and longitude, a higher degree of accuracy can be obtained if the reference unit is established on a known benchmark or triangulation point. For this survey, the GPS station was located at latitude

51°03'20.95172"N, longitude 93°44'42.11895"W at an ellipsoidal elevation of 354.5 metres. The GPS records data relative to the WGS84 ellipsoid, which is the basis of the revised North American Datum (NAD83). Conversion software is used to transform the WGS84 lat/long coordinates to the NAD83 system (UTM Zone 15) displayed on the base maps.

### **Field Workstation**

A PC is used at the survey base to verify data quality and completeness. Flight data are transferred to the PC hard drive to permit the creation of a database using a proprietary software package. This process allows the field personnel to display both the positional (flight path) and geophysical data on a screen or printer.

### 3. PRODUCTS AND PROCESSING TECHNIQUES

Table 3-1 lists the maps and products which have been provided under the terms of the survey agreement. Other products can be prepared from the existing dataset, if requested. These include magnetic enhancements or derivatives, percent magnetite, digital terrain or resistivity-depth sections. Most parameters can be displayed as contours, profiles, or in colour.

#### Base Maps

Base maps of the survey areas have been produced from published topographic maps (NAD27). These provide a relatively accurate, distortion-free base which facilitates correlation of the navigation data to the UTM grid. The original topographic maps are scanned to a bitmap format and combined with geophysical data for plotting the final maps. The geophysical data are in NAD83, so the NAD83 graticules are offset from the NAD27 grid lines shown on the scanned base map. All data have been presented using the following parameters:

#### Projection Description:

Datum:	NAD83
Ellipsoid:	WGS84
Projection:	UTM (Zone: 15)
Central Meridian:	80°W
False Northing:	0
False Easting:	500000
Scale Factor:	0.9996
WGS84 to Local Conversion:	Molodensky
Datum Shifts:	DX: 0    DY: 0    DZ: 0

### Table 3-1 Survey Products

1. Final Transparent Maps (+1 print) @ 1:10,000

Dighem EM anomalies  
Total magnetic field  
Calculated vertical magnetic gradient  
Apparent resistivity (7200 Hz)  
Apparent resistivity (56,000 Hz)

2. Colour Maps (1 set) @ 1:10,000

Total magnetic field  
Calculated vertical magnetic gradient  
Apparent resistivity (7200 Hz)  
Apparent resistivity (56,000 Hz)

3. Additional Products

Digital XYZ archive in Geosoft format (CD-ROM)  
Digital grid archives in Geosoft format (CD-ROM)  
Survey report (1 copy)

Note: Other products can be produced from existing survey data, if requested.

## **Electromagnetic Anomalies**

EM data are processed at the recorded sample rate of 10 samples/second. If necessary, appropriate spheric rejection median or Hanning filters are applied to reduce noise to acceptable levels. EM test profiles are then created to allow the interpreter to select the most appropriate EM anomaly picking controls for a given survey area. The EM picking parameters depend on several factors but are primarily based on the dynamic range of the resistivities within the survey area, and the types and expected geophysical responses of the targets being sought.

Anomalous electromagnetic responses are selected and analysed by computer to provide a preliminary electromagnetic anomaly map. The automatic selection algorithm is intentionally oversensitive to assure that no meaningful responses are missed. Using the preliminary map in conjunction with the multi-parameter stacked profiles, the interpreter then classifies the anomalies according to their source and eliminates those that are not substantiated by the data. The final interpreted EM anomaly map includes bedrock, surficial and cultural conductors. A map containing only bedrock conductors can be generated, if desired.

## **Apparent Resistivity**

The apparent resistivity in ohm-m can be generated from the in-phase and quadrature EM components for any of the frequencies, using a pseudo-layer half-space model. A resistivity map portrays all the EM information for that frequency over the entire survey area. This contrasts with the electromagnetic anomaly map which provides information only over interpreted conductors. The large dynamic range makes the resistivity parameter an excellent mapping tool.

The preliminary resistivity maps and images are carefully inspected to locate any lines or line segments that might require levelling adjustments. Subtle changes between in-flight calibrations of the system can result in line to line differences, particularly in resistive (low signal amplitude) areas. If required, manual levelling is carried out to eliminate or minimize resistivity differences which can be caused by changes in operating temperatures. These levelling adjustments are usually very subtle, and do not result in the degradation of anomalies from valid bedrock sources.

After the manual levelling process is complete, revised resistivity grids are created. The resulting grids can be subjected to a microlevelling technique in order to smooth the data for contouring. The coplanar resistivity parameter has a broad 'footprint' that requires very little filtering.

The calculated resistivities for the three coplanar frequencies are included in the XYZ and grid archives. Values are in ohm-metres on all final products.

### **EM Magnetite (optional)**

The apparent percent magnetite by weight is computed wherever magnetite produces a negative in-phase EM response. This calculation is more meaningful in resistive areas.

### **Total Magnetic Field**

The aeromagnetic data are corrected for diurnal variation using the magnetic base station data. Manual adjustments are applied to any lines that require levelling, as indicated by shadowed images of the gridded magnetic data or tie line/traverse line intercepts. The IGRF gradient can be removed from the corrected total field data, if requested.

### **Calculated Vertical Magnetic Gradient**

The diurnally-corrected total magnetic field data are subjected to a processing algorithm that enhances the response of magnetic bodies in the upper 500 m and attenuates the response of deeper bodies. The resulting vertical gradient map provides better definition and resolution of near-surface magnetic units. It also identifies weak magnetic features



that may not be evident on the total field map. However, regional magnetic variations and changes in lithology may be better defined on the total magnetic field map.

## **Magnetic Derivatives (optional)**

The total magnetic field data can be subjected to a variety of filtering techniques to yield maps of the following:

- enhanced magnetics

- second vertical derivative

- reduction to the pole/equator

- magnetic susceptibility with reduction to the pole

- upward/downward continuations

- analytic signal

All of these filtering techniques improve the recognition of near-surface magnetic bodies, with the exception of upward continuation. Any of these parameters can be produced on request.

### **Multi-channel Stacked Profiles (optional)**

Distance-based profiles of the digitally recorded geophysical data are generated and plotted at an appropriate scale. These profiles also contain the calculated parameters which are used in the interpretation process. These are produced as worksheets prior to interpretation, and are also presented in the final corrected form after interpretation. The profiles display electromagnetic anomalies with their respective interpretive symbols. Table 3-2 shows the parameters and scales for the multi-channel stacked profiles.

In Table 3-2, the log resistivity scale of 0.06 decade/mm means that the resistivity changes by an order of magnitude in 16.6 mm. The resistivities at 0, 33 and 67 mm up from the bottom of the digital profile are respectively 1, 100 and 10,000 ohm-m.

**Table 3-2. Multi-channel Stacked Profiles**

Channel Name (Freq)	Observed Parameters	Scale Units/mm
MAG20	total magnetic field (fine)	20 nT
MAG200	total magnetic field (coarse)	200 nT
ALTBIRD	EM sensor height above ground	6 m
CXI1000	vertical coaxial coil-pair in-phase (1000 Hz)	2 ppm
CXQ1000	vertical coaxial coil-pair quadrature (1000 Hz)	2 ppm
CPI900	horizontal coplanar coil-pair in-phase (900 Hz)	5 ppm
CPQ900	horizontal coplanar coil-pair quadrature (900 Hz)	5 ppm
CXI5500	vertical coaxial coil-pair in-phase (5500 Hz)	5 ppm
CXQ5500	vertical coaxial coil-pair quadrature (5500 Hz)	5 ppm
CPI7200	horizontal coplanar coil-pair in-phase (7200 Hz)	20 ppm
CPQ7200	horizontal coplanar coil-pair quadrature (7200 Hz)	20 ppm
CPI56K	horizontal coplanar coil-pair in-phase (56,000 Hz)	30 ppm
CPQ56K	horizontal coplanar coil-pair quadrature (56,000 Hz)	30 ppm
	Computed Parameters	
DIFI ( 7200 Hz)	difference function in-phase from CXI and CPI	10 ppm
DIFQ ( 5500 Hz)	difference function quadrature from CXQ and CPQ	10 ppm
RES900	log resistivity	.06 decade
RES7200	log resistivity	.06 decade
RES56K	log resistivity	.06 decade
DP900	apparent depth	6 m
DP7200	apparent depth	6 m
DP56K	apparent depth	6 m
CDT	conductance	1 grade

## **Contour, Colour and Shadow Map Displays**

The geophysical data are interpolated onto a regular grid using a modified Akima spline technique. The resulting grid is suitable for generating contour maps of excellent quality.

The grid cell size is usually 25% of the line interval.

Colour maps are produced by interpolating the grid down to the pixel size. The parameter is then incremented with respect to specific amplitude ranges to provide colour "contour" maps. Colour maps of the total magnetic field are particularly useful in defining the lithology of the survey areas.

Monochromatic shadow maps or images are generated by employing an artificial sun to cast shadows on a surface defined by the geophysical grid. There are many variations in the shadowing technique. These techniques can be applied to total field or enhanced magnetic data, magnetic derivatives, VLF, resistivity, etc. The shadowing technique is also used as a quality control method to highlight subtle changes between lines.

## **Resistivity-depth Sections (optional)**

The apparent resistivities for all frequencies can be displayed simultaneously as coloured resistivity-depth sections. Usually, only the coplanar data are displayed as the close frequency separation between the coplanar and adjacent coaxial data tends to distort the

moderate to high resistivity where signal amplitudes are weak. In areas where in-phase responses have been suppressed by the effects of magnetite, the computed resistivities shown on the sections may be unreliable.

Both the Occam and Multi-layer Inversions compute the layered earth resistivity model which would best match the measured EM data. The Occam inversion uses a series of thin, fixed layers (usually 20 x 5m and 10 x 10m layers) and computes resistivities to fit the EM data. The multi-layer inversion computes the resistivity and thickness for each of a defined number of layers (typically 3-5 layers) to best fit the data.

### **Digital Terrain (optional)**

The radar altimeter values (ALTR - aircraft to ground clearance) can be subtracted from the differentially corrected GPS-Z values, which are transformed to the local datum, to produce profiles of the height above mean sea level along the survey lines. These values are gridded to produce contour maps showing approximate elevations within the survey area. The resulting digital terrain contours are compared with published topographic maps and can be manually adjusted to remove differences between the two. The data are then subjected to a microlevelling algorithm to remove any remaining small line-to-line discrepancies.

The accuracy of the elevation calculation is directly dependent on the accuracy of the two input parameters, ALTR and GPS-Z. The ALTR value may be erroneous in areas of

heavy tree cover, where the altimeter reflects the distance to the tree canopy rather than the ground. The GPS-Z value is primarily dependent on the number of available satellites. Although post-processing of GPS data will yield X and Y accuracies in the order of 2 metres, the accuracy of the Z value is usually much less, sometimes in the  $\pm 20$  metre range. Further inaccuracies may be introduced during the interpolation and gridding process.

Because of the inherent inaccuracies of this method, no guarantee is made or implied that the information displayed is a true representation of the height above sea level. Although this product may be of some use as a general reference, THIS PRODUCT MUST NOT BE USED FOR NAVIGATION PURPOSES.

## 4. SURVEY RESULTS

### General Discussion

The survey results are presented on a single map sheet for each parameter at a scale of 1:10,000. Tables 4-1 to 4-3 summarize the EM responses in the survey areas, with respect to conductance grade and interpretation.

The anomalies shown on the electromagnetic anomaly maps are based on a near-vertical, half plane model. This model best reflects "discrete" bedrock conductors. Wide bedrock conductors or flat-lying conductive units, whether from surficial or bedrock sources, may give rise to very broad anomalous responses on the EM profiles. These may not appear on the electromagnetic anomaly map if they have a regional character rather than a locally anomalous character. These broad conductors, which more closely approximate a half-space model, will be maximum coupled to the horizontal (coplanar) coil-pair and should be more evident on the resistivity parameter. Resistivity maps, therefore, may be more valuable than the electromagnetic anomaly maps, in areas where broad or flat-lying conductors are considered to be of importance. Contoured resistivity maps, based on the 7200 Hz and 56,000 Hz coplanar data are included with this report.

**TABLE 4-1 EM ANOMALY STATISTICS  
BLOCK A, RED LAKE AREA**

CONDUCTOR GRADE	CONDUCTANCE RANGE SIEMENS (MHOS)	NUMBER OF RESPONSES
7	>100	0
6	50 - 100	0
5	20 - 50	0
4	10 - 20	0
3	5 - 10	0
2	1 - 5	1
1	<1	18
*	INDETERMINATE	21
TOTAL		40

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
B	DISCRETE BEDROCK CONDUCTOR	11
S	CONDUCTIVE COVER	25
E	EDGE OF WIDE CONDUCTOR	4
TOTAL		40

(SEE EM MAP LEGEND FOR EXPLANATIONS)



**TABLE 4-2 EM ANOMALY STATISTICS  
BLOCK B, RED LAKE AREA**

CONDUCTOR GRADE	CONDUCTANCE RANGE SIEMENS (MHOS)	NUMBER OF RESPONSES
7	>100	1
6	50 - 100	2
5	20 - 50	7
4	10 - 20	11
3	5 - 10	21
2	1 - 5	82
1	<1	137
*	INDETERMINATE	41
TOTAL		302

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
D	THIN BEDROCK CONDUCTOR	58
B	DISCRETE BEDROCK CONDUCTOR	53
S	CONDUCTIVE COVER	143
E	EDGE OF WIDE CONDUCTOR	48
TOTAL		302

(SEE EM MAP LEGEND FOR EXPLANATIONS)

**TABLE 4-3 EM ANOMALY STATISTICS  
BLOCK C, RED LAKE AREA**

CONDUCTOR GRADE	CONDUCTANCE RANGE SIEMENS (MHOS)	NUMBER OF RESPONSES
7	>100	2
6	50 - 100	3
5	20 - 50	8
4	10 - 20	21
3	5 - 10	25
2	1 - 5	107
1	<1	133
*	INDETERMINATE	119
TOTAL		418

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
T	THICK BEDROCK CONDUCTOR	1
D	THIN BEDROCK CONDUCTOR	68
B	DISCRETE BEDROCK CONDUCTOR	133
S	CONDUCTIVE COVER	165
H	ROCK UNIT OR THICK COVER	5
E	EDGE OF WIDE CONDUCTOR	46
TOTAL		418

(SEE EM MAP LEGEND FOR EXPLANATIONS)

Excellent resolution and discrimination of conductors was accomplished by using a fast sampling rate of 0.1 sec and by employing a "common" frequency (5500 Hz/7200 Hz) on two orthogonal coil-pairs (coaxial and coplanar). The resulting difference channel parameters often permit differentiation of bedrock and surficial conductors, even though they may exhibit similar conductance values.

## **Magnetics**

A GEM Systems GSM-19T overhauser magnetometer was operated at the survey base to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to permit subsequent removal of diurnal drift.

The total magnetic field data have been presented as contours on the base map using a contour interval of 10 nT where gradients permit. The map shows the magnetic properties of the rock units underlying the survey areas.

The total magnetic field data have been subjected to a processing algorithm to produce maps of the calculated vertical gradient. This procedure enhances near-surface magnetic units and suppresses regional gradients. It also provides better definition and resolution of magnetic units and displays weak magnetic features that may not be clearly evident on the total field maps.

There is some evidence on the magnetic maps which suggests that the survey areas have been subjected to deformation and/or alteration. These structural complexities are evident on the contour maps as variations in magnetic intensity, irregular patterns, and as offsets or changes in strike direction. Some of the more prominent linear features are also evident on the topographic base map.

Several other folds and faults can be inferred from the magnetic data. The individual magnetic sources and the structural complexity of the peripheral units are more evident on the calculated vertical gradient map.

If a specific magnetic intensity can be assigned to the rock type which is believed to host the target mineralization, it may be possible to select areas of higher priority on the basis of the total field magnetic data. This is based on the assumption that the magnetite content of the host rocks will give rise to a limited range of contour values which will permit differentiation of various lithological units.

The magnetic results, in conjunction with the other geophysical parameters, have provided valuable information that can be used to effectively map the geology and structure in the survey areas.

## Apparent Resistivity

Apparent resistivity maps, which display the conductive properties of the survey area, were produced from the 7200 Hz and 56,000 Hz coplanar data. The maximum resistivity values, which are calculated for each frequency, are 8,100 and 25,000 ohm-m respectively. These cutoffs eliminate the erratic higher resistivities which would result from unstable ratios of very small EM amplitudes.

In general, the resistivity patterns show moderately good agreement with the magnetic trends. This suggests that many of the resistivity lows are probably related to bedrock features, rather than conductive overburden. There are some areas, however, where contour patterns appear to be influenced by conductive lake-bottom material. Most of the water-covered areas yield resistivity values of less than 2500 ohm-m.

There are other resistivity lows in the area. Some of these are quite extensive and appear to reflect "formational" conductors which may be of minor interest as direct exploration targets. However, attention may be focused on areas where these zones appear to be faulted or folded or where anomaly characteristics differ along strike.

## Electromagnetic Anomalies

The EM anomalies resulting from this survey appear to fall within one of three general categories. The first type consists of discrete, well-defined anomalies which yield marked inflections on the difference channels. These anomalies are usually attributed to conductive sulphides or graphite and are generally given a "B", "T" or "D" interpretive symbol, denoting a bedrock source.

The second class of anomalies comprises moderately broad responses which exhibit the characteristics of a half-space and do not yield well-defined inflections on the difference channels. Anomalies in this category are usually given an "S" or "H" interpretive symbol. The lack of a difference channel response usually implies a broad or flat-lying conductive source such as overburden. Some of these anomalies may reflect conductive rock units or zones of deep weathering, both of which can be wide enough to yield "non-discrete" signatures.

The effects of conductive overburden are evident over portions of the survey areas. Although the difference channels (DIFI and DIFQ) are extremely valuable in detecting bedrock conductors which are partially masked by conductive overburden, sharp undulations in the bedrock/overburden interface can yield anomalies in the difference channels which may be interpreted as possible bedrock conductors. Such anomalies

usually fall into the "S?" or "B?" classification but may also be given an "E" interpretive symbol, denoting a resistivity contrast at the edge of a conductive unit.

The "?" symbol does not question the validity of an anomaly, but instead indicates some degree of uncertainty as to which is the most appropriate EM source model. This ambiguity results from the combination of effects from two or more conductive sources, such as overburden and bedrock, gradational changes, or moderately shallow dips. The presence of a conductive upper layer has a tendency to mask or alter the characteristics of bedrock conductors, making interpretation difficult. This problem is further exacerbated in the presence of magnetite.

The third anomaly category includes responses that are associated with magnetite. Magnetite can cause suppression or polarity reversals of the in-phase components, particularly at the lower frequencies in resistive areas. The effects of magnetite-rich rock units are evident as negative excursions of the 900 Hz in-phase channel.

In areas where EM responses are evident primarily on the quadrature components, zones of poor conductivity are indicated. Where these responses are coincident with magnetic anomalies, it is possible that the in-phase component amplitudes have been suppressed by the effects of magnetite. Most of these poorly-conductive magnetic features can give rise to resistivity anomalies that are only slightly below or slightly above background. If it is expected that poorly-conductive economic mineralization could be associated with magnetite-rich units, most of these weakly anomalous features will be of interest. In areas

where magnetite causes the in-phase components to become negative, the apparent conductance and depth of EM anomalies will be unreliable. Magnetite effects usually give rise to overstated (higher) resistivity values and understated (shallow) depth calculations.

As economic mineralization within the area may be associated with massive to weakly disseminated sulphides, which may or may not be hosted by magnetite-rich rocks, it is impractical to assess the relative merits of EM anomalies on the basis of conductance. It is recommended that an attempt be made to compile a suite of geophysical "signatures" over any known areas of interest. Anomaly characteristics are clearly defined on the computer-processed geophysical data profiles which are supplied as one of the survey products.

A complete assessment and evaluation of the survey data should be carried out by one or more qualified professionals who have access to, and can provide a meaningful compilation of all available geophysical, geological and geochemical data.

### **Conductors in the Survey Area**

The electromagnetic anomaly map shows the anomaly locations with the interpreted conductor type, dip, conductance and depth being indicated by symbols. Direct magnetic correlation is also shown if it exists. The strike direction and length of the conductors are



indicated where anomalies can be correlated from line to line with a reasonable degree of confidence.

In areas where several conductors or conductive trends appear to be related to a common geological unit, these have been outlined as "zones" on the EM anomaly maps. The zone outlines usually approximate the limits of conductive units defined by the 100 ohm-m resistivity contours, but may also be related to distinct rock units that can be inferred from the magnetic data.

Most of the highly conductive zones on the property are coincident with moderate to strong magnetic anomalies. The causative sources, therefore, are considered to be due to magnetic sulphides, such as pyrrhotite, or possibly a banded combination of magnetite and graphite.

Approximately 30% of the bedrock anomalies in the survey blocks exhibit direct magnetic correlation. However, there are several other bedrock conductors that are associated with relatively non-magnetic units, inferred faults or shears, or in close proximity to the contacts of magnetic units. Variations in conductivity along strike can often reflect sulphide/oxide facies changes.

### Block A

Two east-trending magnetic units are evident in Block A, with the vertical gradient map suggesting the presence of a third, north-trending unit in the southwestern corner. A probable SSE-trending fault can be inferred from the gradient data, along the shoreline, just east of anomalies 10220M and N.

Block A is generally quite resistive, except for the clearly defined resistivity low that hosts conductors 10250J-10280O and 10260K-10310L. These two parallel conductors occur near the north and south contacts of the central east-trending magnetic unit, and often resemble edge effects from a 100 m wide conductive zone.

The apparent resistivity and depth calculations for this magnetic/conductive unit are unreliable, due to the effects of magnetite. The presence of magnetite is clearly indicated by the negative inphase responses at the low (900 Hz) frequency.

Anomaly 10220N, at the eastern shore of Pipestone Bay, may also reflect a bedrock source. This incomplete anomaly occurs near an inferred SSE-trending (faulted) contact. The resistivity maps suggest this conductive zone is open to the west.

## Block B

A complex multi-layered, ENE-trending magnetic zone dominates the southeastern portion of Block B. At least four southeast-trending linear breaks can be inferred from the vertical gradient magnetic data in the southern portion of the area. Similar disruptions or offsets in the resistivity parameter are associated with at least three of these inferred breaks.

Two of the three highly conductive zones in this area are lake-hosted. However, the highly conductive nature and magnetic correlation suggest that these are likely due to buried bedrock sources, rather than conductive overburden.

A major conductive unit that extends from anomaly 10230C through 10610E has been shown on the EM anomaly map as three distinct, highly conductive segments. These conductive units extend to depth and have been identified as Zones B1, B2 and B3.

## Zones B1, B2 and B3

This multi-conductor unit comprises three or more segments of an interesting east-northeast trending feature with a strike length of more than 2.3 km. The conductive trend is open to the east and west. Probable cross-cutting breaks can be inferred from the vertical gradient magnetic data in the vicinity of anomalies 10320D, 10440B, 10520D and 10600E.

Segments B1 and B2 are both within the lake, but host similar, thin, south-dipping sources. A third, segmented, parallel source is evident near the south shore, from 10340D to 10390E. These poorly defined sources are non-magnetic.

The strongest conductive portions in B1 and B2 occur near 10270C and 10330G. Neither of these anomalies yields direct magnetic correlation, although they both occur on the northern contacts of strong magnetic units.

Zone B3 also contains deep, conductive zones, particularly near 10560F, 10700G and 10730H. In general, this segment hosts two or more narrow, south-dipping sources, within a magnetic unit. Only a small portion of this conductive unit is lake-hosted, from 10560F to 10610E

In addition to the main conductors in Zone B, there are several other interesting resistivity lows of shorter strike length that are evident beyond the outlined zone limits. These include the conductive zones near 10190E and 10350H, the thin south-dipping conductor at 10530H, the conductive edge at 10540I, and the two conductors through 10570A and 10570B. The last two conductors are associated with a small lake, on the flanks of a weak magnetic unit, just east of an inferred SE-trending fault or contact. However, they could be due to edge effects (sharp resistivity contrasts at the edges of the small lake) rather than two separate bedrock sources.

This block also hosts other strong resistivity lows that could be due to a combination of surficial and bedrock conductivity. Lows are evident in the vicinity of anomalies 10190E, 10390K, 10530I, 10550K, 10560K and 10590L. Anomalies 10440J-10540H are all associated with a very weak, southeast-trending magnetic anomaly.

### Block C

The central portion of Block C is underlain by a relatively non-magnetic unit. The northern portion hosts a moderately strong, east-trending magnetic unit that is associated with weak resistivity lows at 10610O and 10710H, and a highly conductive lake-hosted zone from 10800M to 10860N.

A fourth, weak, resistivity low is located in a small lake at 10590P. This non-magnetic anomaly is likely due to conductive overburden.

There are four small plug-like magnetic anomalies that may also be of interest. These are located on line 10700 at fiducial 911, line 10710 at fiducial 786, 10760 at 7325, and 10890 at 4492. The anomalies on lines 10710 and 10890 are weakly conductive.

The southeastern portion of the survey block is dominated by a strong magnetic unit, the northern contact of which extends from anomaly 10790F to 11260L. The complexity and multi-layer characteristics of this unit are more clearly defined on the vertical

gradient map. Several possible offsets or folds can be inferred from the magnetic patterns.

### Zones C1 and C2

Zones C1 and C2 are closely associated with the northwestern contact of the main magnetic unit. Although the general trend of these zones is northeast, there are at least four conductors that suggest an east/west alignment direction in the vicinity of anomalies 10800B, 10920D, 11000K and 11070I.

A highly conductive, thick bedrock source is evident at 10790E. Resistivity values of less than 1 ohm-m are not uncommon in this highly magnetic zone. This conductor is open towards the west.

There are several highly conductive areas in Zone C1. These occur in the vicinity of anomalies 10800E, 10890D, 10920D, 10920F, 11000G and 11060H. Most of these are associated with the magnetic unit that defines the southern contact of the central non-magnetic zone

### Zone C2

Zone C2 follows the same major magnetic contact that hosts Zone C1. The most conductive portion has been attributed to a thin, southeast-dipping conductor with a

strike length of at least 1.1 km. Most of the clearly defined anomalies comprising this conductive zone yield direct magnetic correlation. The conductive unit is not lake-hosted, and in most areas, the conductivity appears to increase with depth.

Parallel conductors, both north and south of the main axis, are evident on most lines, from 11070 to 11200. Although magnetite has distorted the inphase responses, there is a weak indication on some lines that dips are opposite, near the edges of Zone C2. Anomalies 11120J and 11120K, for example, suggest dips to the south and north respectively.

The presence of magnetite has also precluded accurate resistivity (conductivity) calculations. However, values of less than 20 ohm-m are commonly observed at the (900 Hz) low frequency. The strongest EM conductor is 11210J.

Although the foregoing may describe the most conductive sources, it is possible that some of the weaker conductors that are associated with structural breaks could be of greater economic significance. Possible breaks can be inferred in the vicinity of 10800D, 10820G, 10880F, 11010G, 11040H, 11110L and 11210J.

Most of the shorter conductors that occur beyond the zone outlines are also considered to be potential target areas. A few examples would include the conductors associated with 10830G, 10850I, 10890C, 10920I, 10950J, 10960I, 11000K, 11050K, 11070L,

11070N, 11100L, 11150K and the weak isolated magnetic source at 11130J. Most of these reflect probable bedrock sources with strike lengths of less than 200 m.

### Zone C3

2 3 3 3 3

The resistivity data suggest that Zone C3 could be related to Zones C1 and C2, and that the apparent break between C1 and C2 is the result of an increase in magnetite that has suppressed the inphase responses, leading to erroneously high resistivities between 11060I and 11100J. The possible connection with C1 is supported by an east-trending bedrock conductor, 10970H-11020H. To the north, conductor 11030J-11040J indicates a possible link with Zone C2. The magnetic results, however, suggest that Zone C3 is likely due to a separate source, within the central non-magnetic unit, but near its southeastern contact.

The most conductive portion of Zone C3 occurs at 10970J. Two strong, thin magnetic sources are clearly indicated on this line. On the adjacent line 10980, up to four possible sources can be inferred. It is interesting to note that the 900 Hz resistivity profile suggests a probable connection at depth between Zone C1 and Zone C3, on at least seven lines (10960-11030).



The differences in resistivity and magnetic patterns tend to enhance the significance of this area. The vertical gradient results suggest that anomalies 10920J, 10950J and 11010J are all related to the magnetic unit that is associated with Zone C3.

#### Zone C4

A strong resistivity low on the shore of the lake coincides with a strong magnetic anomaly. This magnetic/conductive unit is open to the east, beyond line 11260. Resistivities of less than 1 ohm-m are evident on the low (900 Hz) frequency, at anomaly 11260H, where the unit exhibits a probable depth of about 12 m.

This broad unit appears to get slightly deeper towards the north, but this apparent increase in depth might actually be due to an increase in thickness of the overlying resistive material (a small hill) towards the north.

The magnetic results suggest that the southwestern limit of this zone abuts an east-southeast trending linear magnetic low that is likely due to a fault or a non-magnetic intrusion. Additional work is recommended to check the causative source of this highly conductive zone, in the vicinity of anomaly 11260H.

A short, weak conductor, about 70 m northwest of Zone C4, occurs on the northern contact of the strong magnetic unit that hosts C4. This moderately thin source is also considered to be a potential target.

There are also a few anomalies in Block C that have been attributed to possible surficial or bedrock sources, but which could be due to culture. Anomalies 10920I, 10940J and 10990G-11090H, for example, have all been attributed to possible bedrock sources. However, all of these responses occur on, or in very close proximity to, the route of an old powerline shown on the topographic base map. A close inspection of the flight path video records did not reveal any poles or wires, so it has been assumed that the line has been removed, or that it is buried or obscured by snow.

In addition to the numerous conductive zones in the three survey blocks, there are several isolated, moderately small, plug-like magnetic anomalies that might also be of interest, even if they are relatively non-conductive. Examples include the magnetic highs on line 10240 at fiducial 1262, line 10320 at 8997, line 10360 at 8149, line 10390 at 7401, line 10430 at 6640, line 10630 at 2398, line 10680 at 1403, line 10700 at 911, 10830F, line 10890 at 4492, and at anomalies 10920J, 11020I and 11130I.

## 5. CONCLUSIONS AND RECOMMENDATIONS

This report provides a very brief description of the survey results and describes the equipment, procedures and logistics of the survey.

There are numerous anomalies in the three survey blocks that are typical of banded iron formation or massive sulphide responses. The survey was also successful in locating several moderately weak or broad conductors that also warrant additional work. The various maps included with this report display the magnetic and conductive properties of the survey areas. It is recommended that the survey results be reviewed in detail, in conjunction with all available geophysical, geological and geochemical information. An attempt should be made to determine the geophysical signatures over any known zones of economic mineralization within the survey blocks.

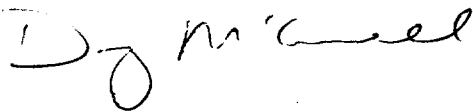
Most anomalies in the area are moderately strong and well-defined. Roughly 60% have been attributed to conductive overburden or deep weathering, although many of these appear to be associated with magnetite-rich rock units. Others coincide with magnetic gradients which may reflect contacts, faults or shears. Such structural breaks are considered to be of particular interest as they may have influenced mineral deposition within the survey areas.

The interpreted bedrock conductors defined by the survey should be subjected to further investigation, using appropriate surface exploration techniques. Anomalies which are currently considered to be of moderately low priority may require upgrading if follow-up results are favourable.

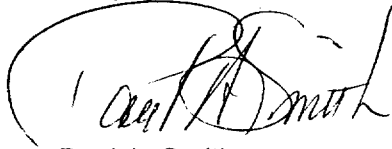
It is also recommended that image processing of existing geophysical data be considered, in order to extract the maximum amount of information from the survey results. Current software and imaging techniques often provide valuable information on structure and lithology, which may not be clearly evident on the contour and colour maps. These techniques can yield images which define subtle, but significant, structural details.

Respectfully submitted,

**FUGRO AIRBORNE SURVEYS CORP.**



Douglas L. McConnell, P.Eng.  
Geophysicist



Paul A. Smith  
Geophysicist

PAS/sdp

R2123A-DEC.02

## APPENDIX A

### LIST OF PERSONNEL

The following personnel were involved in the acquisition, processing, interpretation and presentation of data, relating to a DIGHEM<sup>V-DSP</sup> airborne geophysical survey carried out for Redstar Gold Corp., near Red Lake, Ontario.

Doug McConnell	Senior Geophysicist
David Miles	Manager, Helicopter Operations
Emily Farquhar	Manager, Data Processing and Interpretation
Riz Fazal	Senior Geophysical Operator
Nick Venter	Field Geophysicist
Terry Thompson	Pilot (Questral Helicopters Ltd.)
Gordon Smith	Data Processing Supervisor
Elizabeth Bowslaugh	Data Processor/Geophysicist
Paul A. Smith	Interpretation Geophysicist
Lyn Vanderstarren	Drafting Supervisor
Susan Pothiah	Word Processing Operator
Albina Tonello	Secretary/Expeditor

The survey consisted of 223 km of coverage, flown from November 3 to November 5, 2002.

All personnel are employees of Fugro Airborne Surveys, except for the pilot who is an employee of Questral Helicopters Ltd.

## APPENDIX B

### STATEMENT OF COST

Date: December 16, 2002

#### IN ACCOUNT WITH FUGRO AIRBORNE SURVEYS

To: Fugro flying of Agreement dated October 22, 2002, pertaining to an Airborne Geophysical Survey in the Rivard Red Lake area, Ontario.

##### Survey Charges

223 km of flying @ \$102.00/km plus mobilization costs of \$2,427.00 (prorated)	\$ 25,173.00
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Reports and maps	\$ <u>1,850.00</u>
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	\$ <u><u>27,023.00</u></u>
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##### Allocation of Costs

- Data Acquisition	(80%)
- Data Processing	(10%)
- Interpretation, Report and Maps	(10%)

## BACKGROUND INFORMATION

### Electromagnetics

DIGHEM electromagnetic responses fall into two general classes, discrete and broad. The discrete class consists of sharp, well-defined anomalies from discrete conductors such as sulphide lenses and steeply dipping sheets of graphite and sulphides. The broad class consists of wide anomalies from conductors having a large horizontal surface such as flatly dipping graphite or sulphide sheets, saline water-saturated sedimentary formations, conductive overburden and rock, and geothermal zones. A vertical conductive slab with a width of 200 m would straddle these two classes.

The vertical sheet (half plane) is the most common model used for the analysis of discrete conductors. All anomalies plotted on the geophysical maps are analyzed according to this model. The following section entitled **Discrete Conductor Analysis** describes this model in detail, including the effect of using it on anomalies caused by broad conductors such as conductive overburden.

The conductive earth (half-space) model is suitable for broad conductors. Resistivity contour maps result from the use of this model. A later section entitled **Resistivity Mapping** describes the method further, including the effect of using it on anomalies caused by discrete conductors such as sulphide bodies.

## **Geometric Interpretation**

The geophysical interpreter attempts to determine the geometric shape and dip of the conductor. Figure C-1 shows typical DIGHEM anomaly shapes which are used to guide the geometric interpretation.

## **Discrete Conductor Analysis**

The EM anomalies appearing on the electromagnetic map are analyzed by computer to give the conductance (i.e., conductivity-thickness product) in siemens (mhos) of a vertical sheet model. This is done regardless of the interpreted geometric shape of the conductor.

This is not an unreasonable procedure, because the computed conductance increases as the electrical quality of the conductor increases, regardless of its true shape. DIGHEM anomalies are divided into seven grades of conductance, as shown in Table C-1. The conductance in siemens (mhos) is the reciprocal of resistance in ohms.

The conductance value is a geological parameter because it is a characteristic of the conductor alone. It generally is independent of frequency, flying height or depth of burial, apart from the averaging over a greater portion of the conductor as height increases. Small anomalies from deeply buried strong conductors are not confused with small anomalies from shallow weak conductors because the former will have larger conductance values.



**Table C-1. EM Anomaly Grades**

Anomaly Grade	Siemens
7	> 100
6	50 - 100
5	20 - 50
4	10 - 20
3	5 - 10
2	1 - 5
1	< 1

Conductive overburden generally produces broad EM responses which may not be shown as anomalies on the geophysical maps. However, patchy conductive overburden in otherwise resistive areas can yield discrete anomalies with a conductance grade (cf. Table C-1) of 1, 2 or even 3 for conducting clays which have resistivities as low as 50 ohm-m. In areas where ground resistivities are below 10 ohm-m, anomalies caused by weathering variations and similar causes can have any conductance grade. The anomaly shapes from the multiple coils often allow such conductors to be recognized, and these are indicated by the letters S, H, and sometimes E on the geophysical maps (see EM legend on maps).

For bedrock conductors, the higher anomaly grades indicate increasingly higher conductances. Examples: DIGHEM's New Inco copper discovery (Noranda, Canada) yielded a grade 5 anomaly, as did the neighbouring copper-zinc Magusi River ore body; Mattabi (copper-zinc, Sturgeon Lake, Canada) and Whistle (nickel, Sudbury, Canada) gave grade 6; and DIGHEM's Montcalm nickel-copper discovery (Timmins, Canada)

- Appendix C.4 -

yielded a grade 7 anomaly. Graphite and sulphides can span all grades but, in any particular survey area, field work may show that the different grades indicate different types of conductors.

Strong conductors (i.e., grades 6 and 7) are characteristic of massive sulphides or graphite. Moderate conductors (grades 4 and 5) typically reflect graphite or sulphides of a less massive character, while weak bedrock conductors (grades 1 to 3) can signify poorly connected graphite or heavily disseminated sulphides. Grades 1 and 2 conductors may not respond to ground EM equipment using frequencies less than 2000 Hz.

The presence of sphalerite or gangue can result in ore deposits having weak to moderate conductances. As an example, the three million ton lead-zinc deposit of Restigouche Mining Corporation near Bathurst, Canada, yielded a well-defined grade 2 conductor. The 10 percent by volume of sphalerite occurs as a coating around the fine grained massive pyrite, thereby inhibiting electrical conduction. Faults, fractures and shear zones may produce anomalies which typically have low conductances (e.g., grades 1 to 3). Conductive rock formations can yield anomalies of any conductance grade. The conductive materials in such rock formations can be salt water, weathered products such as clays, original depositional clays, and carbonaceous material.

For each interpreted electromagnetic anomaly on the geophysical maps, a letter identifier and an interpretive symbol are plotted beside the EM grade symbol. The horizontal rows of dots, under the interpretive symbol, indicate the anomaly amplitude on the flight record.

- Appendix C.5 -

The vertical column of dots, under the anomaly letter, gives the estimated depth. In areas where anomalies are crowded, the letter identifiers, interpretive symbols and dots may be obliterated. The EM grade symbols, however, will always be discernible, and the obliterated information can be obtained from the anomaly listing appended to this report.

The purpose of indicating the anomaly amplitude by dots is to provide an estimate of the reliability of the conductance calculation. Thus, a conductance value obtained from a large ppm anomaly (3 or 4 dots) will tend to be accurate whereas one obtained from a small ppm anomaly (no dots) could be quite inaccurate. The absence of amplitude dots indicates that the anomaly from the coaxial coil-pair is 5 ppm or less on both the in-phase and quadrature channels. Such small anomalies could reflect a weak conductor at the surface or a stronger conductor at depth. The conductance grade and depth estimate illustrates which of these possibilities fits the recorded data best.

The conductance measurement is considered more reliable than the depth estimate. There are a number of factors which can produce an error in the depth estimate, including the averaging of topographic variations by the altimeter, overlying conductive overburden, and the location and attitude of the conductor relative to the flight line. Conductor location and attitude can provide an erroneous depth estimate because the stronger part of the conductor may be deeper or to one side of the flight line, or because it has a shallow dip. A heavy tree cover can also produce errors in depth estimates. This is because the depth estimate is computed as the distance of bird from conductor, minus the altimeter reading.

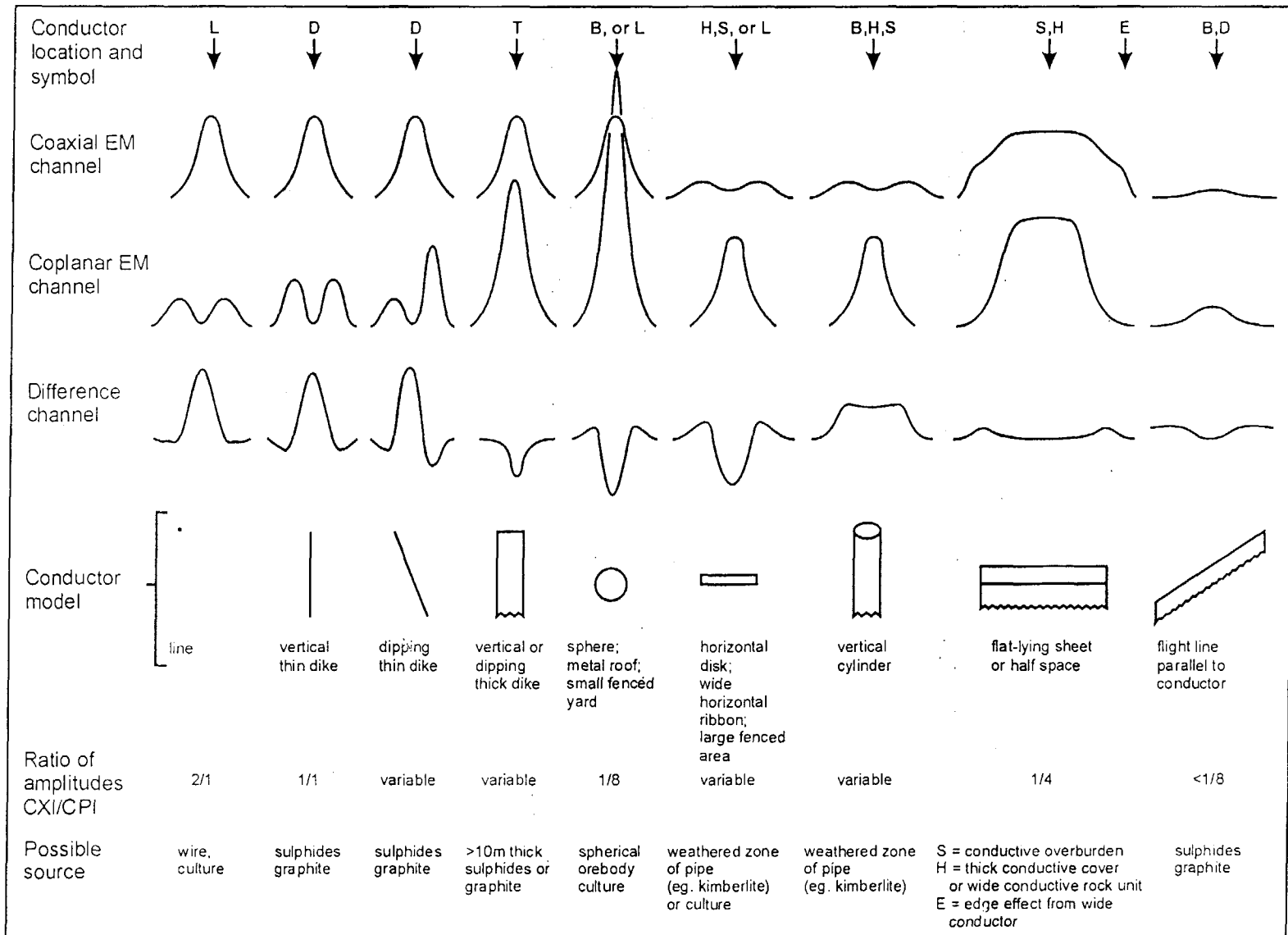
- Appendix C.6 -

The altimeter can lock onto the top of a dense forest canopy. This situation yields an erroneously large depth estimate but does not affect the conductance estimate.

Dip symbols are used to indicate the direction of dip of conductors. These symbols are used only when the anomaly shapes are unambiguous, which usually requires a fairly resistive environment.

A further interpretation is presented on the EM map by means of the line-to-line correlation of bedrock anomalies, which is based on a comparison of anomaly shapes on adjacent lines. This provides conductor axes that may define the geological structure over portions of the survey area. The absence of conductor axes in an area implies that anomalies could not be correlated from line to line with reasonable confidence.

DIGHEM electromagnetic anomalies are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a follow-up program. The actual conductance values are printed in the attached anomaly list for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of conductors in terms of length, strike and dip, geometric shape, conductance, depth, and thickness. The accuracy is comparable to an interpretation from a high quality ground EM survey having the same line spacing.



Typical DIGHEM anomaly shapes  
Figure C-1

## - Appendix C.8 -

The attached EM anomaly list provides a tabulation of anomalies in ppm, conductance, and depth for the vertical sheet model. The EM anomaly list also shows the conductance and depth for a thin horizontal sheet (whole plane) model, but only the vertical sheet parameters appear on the EM map. The horizontal sheet model is suitable for a flatly dipping thin bedrock conductor such as a sulphide sheet having a thickness less than 10 m. The list also shows the resistivity and depth for a conductive earth (half-space) model, which is suitable for thicker slabs such as thick conductive overburden. In the EM anomaly list, a depth value of zero for the conductive earth model, in an area of thick cover, warns that the anomaly may be caused by conductive overburden.

Since discrete bodies normally are the targets of EM surveys, local base (or zero) levels are used to compute local anomaly amplitudes. This contrasts with the use of true zero levels which are used to compute true EM amplitudes. Local anomaly amplitudes are shown in the EM anomaly list and these are used to compute the vertical sheet parameters of conductance and depth. Not shown in the EM anomaly list are the true amplitudes which are used to compute the horizontal sheet and conductive earth parameters.

### **Questionable Anomalies**

DIGHEM maps may contain EM responses which are displayed as asterisks (\*). These responses denote weak anomalies of indeterminate conductance, which may reflect one

of the following: a weak conductor near the surface, a strong conductor at depth (e.g., 100 to 120 m below surface) or to one side of the flight line, or aerodynamic noise. Those responses which have the appearance of valid bedrock anomalies on the flight profiles are indicated by appropriate interpretive symbols (see EM legend on maps). The others probably do not warrant further investigation unless their locations are of considerable geological interest.

### **The Thickness Parameter**

DIGHEM can provide an indication of the thickness of a steeply dipping conductor. The amplitude of the coplanar anomaly (e.g., CPI channel on the digital profile) increases relative to the coaxial anomaly (e.g., CXI) as the apparent thickness increases, i.e., the thickness in the horizontal plane. (The thickness is equal to the conductor width if the conductor dips at 90 degrees and strikes at right angles to the flight line.) This report refers to a conductor as thin when the thickness is likely to be less than 3 m, and thick when in excess of 10 m. Thick conductors are indicated on the EM map by parentheses "( )". For base metal exploration in steeply dipping geology, thick conductors can be high priority targets because many massive sulphide ore bodies are thick, whereas non-economic bedrock conductors are often thin. The system cannot sense the thickness when the strike of the conductor is subparallel to the flight line, when the conductor has a shallow dip, when the anomaly amplitudes are small, or when the resistivity of the environment is below 100 ohm-m.

## Resistivity Mapping

Resistivity mapping is useful in areas where broad or flat lying conductive units are of interest. One example of this is the clay alteration which is associated with Carlin-type deposits in the south west United States. The Dighem system was able to identify the clay alteration zone over the Cove deposit. The alteration zone appeared as a strong resistivity low on the 900 Hz resistivity parameter. The 7,200 Hz and 56,000 Hz resistivities show more of the detail in the covering sediments, and delineate a range front fault. This is typical in many areas of the south west United States, where conductive near surface sediments, which may sometimes be alkalic, attenuate the higher frequencies.

Resistivity mapping has proven successful for locating diatremes in diamond exploration. Weathering products from relatively soft kimberlite pipes produce a resistivity contrast with the unaltered host rock. In many cases weathered kimberlite pipes were associated with thick conductive layers which contrasted with overlying or adjacent relatively thin layers of lake bottom sediments or overburden.

Areas of widespread conductivity are commonly encountered during surveys. These conductive zones may reflect alteration zones, shallow-dipping sulphide or graphite-rich units or conductive overburden. In such areas, anomalies can be generated by decreases of only 5 m in survey altitude as well as by increases in conductivity. The typical flight record in conductive areas is characterized by in-phase and quadrature channels which



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are continuously active. Local EM peaks reflect either increases in conductivity of the earth or decreases in survey altitude. For such conductive areas, apparent resistivity profiles and contour maps are necessary for the correct interpretation of the airborne data. The advantage of the resistivity parameter is that anomalies caused by altitude changes are virtually eliminated, so the resistivity data reflect only those anomalies caused by conductivity changes. The resistivity analysis also helps the interpreter to differentiate between conductive bedrock and conductive overburden. For example, discrete conductors will generally appear as narrow lows on the contour map and broad conductors (e.g., overburden) will appear as wide lows.

The apparent resistivity is calculated using the pseudo-layer (or buried) half-space model defined by Fraser (1978)<sup>5</sup>. This model consists of a resistive layer overlying a conductive half-space. The depth channels give the apparent depth below surface of the conductive material. The apparent depth is simply the apparent thickness of the overlying resistive layer. The apparent depth (or thickness) parameter will be positive when the upper layer is more resistive than the underlying material, in which case the apparent depth may be quite close to the true depth.

The apparent depth will be negative when the upper layer is more conductive than the underlying material, and will be zero when a homogeneous half-space exists. The

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<sup>5</sup> Resistivity mapping with an airborne multicoil electromagnetic system: *Geophysics*, v. 43, p.144-172

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apparent depth parameter must be interpreted cautiously because it will contain any errors which may exist in the measured altitude of the EM bird (e.g., as caused by a dense tree cover). The inputs to the resistivity algorithm are the in-phase and quadrature components of the coplanar coil-pair. The outputs are the apparent resistivity of the conductive half-space (the source) and the sensor-source distance. The flying height is not an input variable, and the output resistivity and sensor-source distance are independent of the flying height when the conductivity of the measured material is sufficient to yield significant in-phase as well as quadrature responses. The apparent depth, discussed above, is simply the sensor-source distance minus the measured altitude or flying height. Consequently, errors in the measured altitude will affect the apparent depth parameter but not the apparent resistivity parameter.

The apparent depth parameter is a useful indicator of simple layering in areas lacking a heavy tree cover. The DIGHEM system has been flown for purposes of permafrost mapping, where positive apparent depths were used as a measure of permafrost thickness. However, little quantitative use has been made of negative apparent depths because the absolute value of the negative depth is not a measure of the thickness of the conductive upper layer and, therefore, is not meaningful physically. Qualitatively, a negative apparent depth estimate usually shows that the EM anomaly is caused by conductive overburden. Consequently, the apparent depth channel can be of significant help in distinguishing between overburden and bedrock conductors.

## Interpretation in Conductive Environments

Environments having low background resistivities (e.g., below 30 ohm-m for a 900 Hz system) yield very large responses from the conductive ground. This usually prohibits the recognition of discrete bedrock conductors. However, DIGHEM data processing techniques produce three parameters which contribute significantly to the recognition of bedrock conductors in conductive environments. These are the in-phase and quadrature difference channels (DIFI and DIFQ, which are available only on systems with common frequencies on orthogonal coil pairs), and the resistivity and depth channels (RES and DP) for each coplanar frequency.

The EM difference channels (DIFI and DIFQ) eliminate most of the responses from conductive ground, leaving responses from bedrock conductors, cultural features (e.g., telephone lines, fences, etc.) and edge effects. Edge effects often occur near the perimeter of broad conductive zones. This can be a source of geologic noise. While edge effects yield anomalies on the EM difference channels, they do not produce resistivity anomalies. Consequently, the resistivity channel aids in eliminating anomalies due to edge effects. On the other hand, resistivity anomalies will coincide with the most highly conductive sections of conductive ground, and this is another source of geologic noise. The recognition of a bedrock conductor in a conductive environment therefore is based on the anomalous responses of the two difference channels (DIFI and DIFQ) and the

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resistivity channels (RES). The most favourable situation is where anomalies coincide on all channels.

The DP channels, which give the apparent depth to the conductive material, also help to determine whether a conductive response arises from surficial material or from a conductive zone in the bedrock. When these channels ride above the zero level on the digital profiles (i.e., depth is negative), it implies that the EM and resistivity profiles are responding primarily to a conductive upper layer, i.e., conductive overburden. If the DP channels are below the zero level, it indicates that a resistive upper layer exists, and this usually implies the existence of a bedrock conductor. If the low frequency DP channel is below the zero level and the high frequency DP is above, this suggests that a bedrock conductor occurs beneath conductive cover.

### **Reduction of Geologic Noise**

Geologic noise refers to unwanted geophysical responses. For purposes of airborne EM surveying, geologic noise refers to EM responses caused by conductive overburden and magnetic permeability. It was mentioned previously that the EM difference channels (i.e., channel DIFI for in-phase and DIFQ for quadrature) tend to eliminate the response of conductive overburden.

Magnetite produces a form of geological noise on the in-phase channels of all EM systems. Rocks containing less than 1% magnetite can yield negative in-phase anomalies caused by magnetic permeability. When magnetite is widely distributed throughout a survey area, the in-phase EM channels may continuously rise and fall, reflecting variations in the magnetite percentage, flying height, and overburden thickness. This can lead to difficulties in recognizing deeply buried bedrock conductors, particularly if conductive overburden also exists. However, the response of broadly distributed magnetite generally vanishes on the in-phase difference channel DIFI. This feature can be a significant aid in the recognition of conductors which occur in rocks containing accessory magnetite.

## **EM Magnetite Mapping**

The information content of DIGHEM data consists of a combination of conductive eddy current responses and magnetic permeability responses. The secondary field resulting from conductive eddy current flow is frequency-dependent and consists of both in-phase and quadrature components, which are positive in sign. On the other hand, the secondary field resulting from magnetic permeability is independent of frequency and consists of only an in-phase component which is negative in sign. When magnetic permeability manifests itself by decreasing the measured amount of positive in-phase, its presence may be difficult to recognize. However, when it manifests itself by yielding a negative in-phase anomaly (e.g., in the absence of eddy current flow), its presence is assured. In this latter case, the negative component can be used to estimate the percent magnetite content.

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A magnetite mapping technique was developed for the coplanar coil-pair of DIGHEM. The method can be complementary to magnetometer mapping in certain cases. Compared to magnetometry, it is far less sensitive but is more able to resolve closely spaced magnetite zones, as well as providing an estimate of the amount of magnetite in the rock. The method is sensitive to 1/4% magnetite by weight when the EM sensor is at a height of 30 m above a magnetitic half-space. It can individually resolve steep dipping narrow magnetite-rich bands which are separated by 60 m. Unlike magnetometry, the EM magnetite method is unaffected by remanent magnetism or magnetic latitude.

The EM magnetite mapping technique provides estimates of magnetite content which are usually correct within a factor of 2 when the magnetite is fairly uniformly distributed. EM magnetite maps can be generated when magnetic permeability is evident as negative in-phase responses on the data profiles.

Like magnetometry, the EM magnetite method maps only bedrock features, provided that the overburden is characterized by a general lack of magnetite. This contrasts with resistivity mapping which portrays the combined effect of bedrock and overburden.

## **Recognition of Culture**

Cultural responses include all EM anomalies caused by man-made metallic objects. Such anomalies may be caused by inductive coupling or current gathering. The concern of the

interpreter is to recognize when an EM response is due to culture. Points of consideration used by the interpreter, when coaxial and coplanar coil-pairs are operated at a common frequency, are as follows:

1. Channels CXP and CPP monitor 60 Hz radiation. An anomaly on these channels shows that the conductor is radiating power. Such an indication is normally a guarantee that the conductor is cultural. However, care must be taken to ensure that the conductor is not a geologic body which strikes across a power line, carrying leakage currents.
2. A flight which crosses a "line" (e.g., fence, telephone line, etc.) yields a centre-peaked coaxial anomaly and an m-shaped coplanar anomaly.<sup>6</sup> When the flight crosses the cultural line at a high angle of intersection, the amplitude ratio of coaxial/coplanar response is 8. Such an EM anomaly can only be caused by a line. The geologic body which yields anomalies most closely resembling a line is the vertically dipping thin dike. Such a body, however, yields an amplitude ratio of 4 rather than 8. Consequently, an m-shaped coplanar anomaly with a CXI/CPI amplitude ratio of 8 is virtually a guarantee that the source is a cultural line.
3. A flight which crosses a sphere or horizontal disk yields centre-peaked coaxial and coplanar anomalies with a CXI/CPI amplitude ratio (i.e., coaxial/coplanar) of 1/8.

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<sup>6</sup> See Figure C-1 presented earlier.

In the absence of geologic bodies of this geometry, the most likely conductor is a metal roof or small fenced yard.<sup>7</sup> Anomalies of this type are virtually certain to be cultural if they occur in an area of culture.

4. A flight which crosses a horizontal rectangular body or wide ribbon yields an m-shaped coaxial anomaly and a centre-peaked coplanar anomaly. In the absence of geologic bodies of this geometry, the most likely conductor is a large fenced area.<sup>5</sup> Anomalies of this type are virtually certain to be cultural if they occur in an area of culture.
5. EM anomalies which coincide with culture, as seen on the camera film or video display, are usually caused by culture. However, care is taken with such coincidences because a geologic conductor could occur beneath a fence, for example. In this example, the fence would be expected to yield an m-shaped coplanar anomaly as in case #2 above. If, instead, a centre-peaked coplanar anomaly occurred, there would be concern that a thick geologic conductor coincided with the cultural line.
6. The above description of anomaly shapes is valid when the culture is not conductively coupled to the environment. In this case, the anomalies arise from

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<sup>7</sup> It is a characteristic of EM that geometrically similar anomalies are obtained from: (1) a planar conductor, and (2) a wire which forms a loop having dimensions identical to the perimeter of the equivalent planar conductor.



inductive coupling to the EM transmitter. However, when the environment is quite conductive (e.g., less than 100 ohm-m at 900 Hz), the cultural conductor may be conductively coupled to the environment. In this latter case, the anomaly shapes tend to be governed by current gathering. Current gathering can completely distort the anomaly shapes, thereby complicating the identification of cultural anomalies. In such circumstances, the interpreter can only rely on the radiation channels and on the camera film or video records.

## **Magnetics**

Total field magnetics provides information on the magnetic properties of the earth materials in the survey area. The information can be used to locate magnetic bodies of direct interest for exploration, and for structural and lithological mapping.

The total field magnetic response reflects the abundance of magnetic material, in the source. Magnetite is the most common magnetic mineral. Other minerals such as ilmenite, pyrrhotite, franklinite, chromite, hematite, arsenopyrite, limonite and pyrite are also magnetic, but to a lesser extent than magnetite on average.

In some geological environments, an EM anomaly with magnetic correlation has a greater likelihood of being produced by sulphides than one which is non-magnetic. However,

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sulphide ore bodies may be non-magnetic (e.g., the Kidd Creek deposit near Timmins, Canada) as well as magnetic (e.g., the Mattabi deposit near Sturgeon Lake, Canada).

Iron ore deposits will be anomalously magnetic in comparison to surrounding rock due to the concentration of iron minerals such as magnetite, ilmenite and hematite.

Changes in magnetic susceptibility often allow rock units to be differentiated based on the total field magnetic response. Geophysical classifications may differ from geological classifications if various magnetite levels exist within one general geological classification.

Geometric considerations of the source such as shape, dip and depth, inclination of the earth's field and remanent magnetization will complicate such an analysis.

In general, mafic lithologies contain more magnetite and are therefore more magnetic than many sediments which tend to be weakly magnetic. Metamorphism and alteration can also increase or decrease the magnetization of a rock unit.

Textural differences on a total field magnetic contour, colour or shadow map due to the frequency of activity of the magnetic parameter resulting from inhomogeneities in the distribution of magnetite within the rock, may define certain lithologies. For example, near surface volcanics may display highly complex contour patterns with little line-to-line correlation.

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Rock units may be differentiated based on the plan shapes of their total field magnetic responses. Mafic intrusive plugs can appear as isolated "bull's-eye" anomalies. Granitic intrusives appear as sub-circular zones, and may have contrasting rings due to contact metamorphism. Generally, granitic terrain will lack a pronounced strike direction, although granite gneiss may display strike.

Linear north-south units are theoretically not well-defined on total field magnetic maps in equatorial regions due to the low inclination of the earth's magnetic field. However, most stratigraphic units will have variations in composition along strike which will cause the units to appear as a series of alternating magnetic highs and lows.

Faults and shear zones may be characterized by alteration which causes destruction of magnetite (e.g., weathering) which produces a contrast with surrounding rock. Structural breaks may be filled by magnetite-rich, fracture filling material as is the case with diabase dikes, or by non-magnetic felsic material.

Faulting can also be identified by patterns in the magnetic total field contours or colours. Faults and dikes tend to appear as lineaments and often have strike lengths of several kilometres. Offsets in narrow, magnetic, stratigraphic trends also delineate structure. Sharp contrasts in magnetic lithologies may arise due to large displacements along strike-slip or dip-slip faults.

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**APPENDIX D**

**EM ANOMALY LIST**

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10220			FLIGHT 5										
M	1686.5	S	416698	5656787	14.0	17.3	133.0	148.1	28.9	74.0	1.1	7	1474
N	1683.7	B?	416697	5656881	11.7	21.1	133.0	151.6	28.9	74.0	0.7	2	0
LINE 10230			FLIGHT 5										
L	1525.0	S	416748	5657541	6.7	14.4	55.6	64.6	20.3	16.5	0.5	2	0
LINE 10240			FLIGHT 5										
J	1249.3	S	416798	5657564	4.2	17.3	17.7	67.0	18.2	13.1	---	---	0
LINE 10250			FLIGHT 5										
I	1103.6	E	416847	5656929	8.2	45.1	106.5	370.2	26.6	63.1	0.3	0	1074
J	1105.3	B?	416847	5656989	14.7	71.8	106.5	370.2	0.0	63.1	0.3	0	1073
LINE 10260			FLIGHT 6										
K	534.0	B?	416897	5656893	23.8	54.9	227.3	504.7	61.6	92.9	0.8	0	882
L	531.1	E	416898	5656992	21.2	67.5	227.3	504.7	61.6	92.9	0.6	0	1110
LINE 10270			FLIGHT 4										
L	10063.7	S	416947	5656574	9.3	15.7	14.7	60.1	18.2	8.5	0.7	10	0
M	10073.7	B?	416945	5656915	25.9	47.3	177.7	423.4	56.1	78.9	0.9	0	0
N	10076.2	B?	416940	5657004	23.3	67.8	177.7	423.4	0.0	78.9	0.6	0	1194
LINE 10280			FLIGHT 4										
N	9823.2	B?	416997	5656921	32.8	94.6	180.8	486.1	33.7	86.5	0.7	0	0
O	9820.8	B?	416996	5657001	21.8	75.0	180.8	486.1	16.6	86.5	0.5	0	1222
P	9805.3	S	416993	5657527	0.9	6.0	37.3	80.4	19.8	17.0	---	---	0
LINE 10290			FLIGHT 4										
L	9665.5	B?	417044	5656921	27.8	52.9	160.0	415.4	38.5	74.9	0.9	0	0
M	9667.5	S?	417044	5656990	17.3	62.2	160.0	415.4	0.0	74.9	0.5	0	1284
LINE 10300			FLIGHT 4										
K	9429.7	B?	417091	5656927	18.2	44.0	86.4	336.3	34.4	56.6	0.7	0	1390
L	9428.7	S	417092	5656960	18.2	44.0	86.4	336.3	33.4	56.6	0.7	0	1390
LINE 10310			FLIGHT 4										
L	9171.2	B?	417149	5656949	15.1	61.3	41.6	261.1	6.6	39.9	0.4	0	1627

CX = COAXIAL  
CP = COPLANAR

Note: EM values shown above  
are local amplitudes

\*Estimated Depth may be unreliable because the  
stronger part of the conductor may be deeper or  
to one side of the flight line, or because of a  
shallow dip or magnetite/overburden effects

TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10310			FLIGHT 4										
M	9183.5	S	417148	5657368	5.9	16.4	39.9	86.7	45.1	11.7	---	---	0
LINE 10320			FLIGHT 4										
O	8938.2	S	417197	5656616	4.0	9.9	24.4	153.3	12.3	21.0	---	---	0
P	8936.7	E	417196	5656666	5.3	32.5	24.4	153.3	12.3	21.0	---	---	0
Q	8927.7	S?	417196	5656964	10.3	38.5	29.4	165.4	0.0	24.6	---	---	1459
LINE 10330			FLIGHT 4										
M	8761.1	S	417249	5656580	5.5	11.1	45.6	196.9	16.1	27.4	---	---	0
N	8772.9	B?	417248	5656976	10.8	49.9	44.7	210.9	38.2	30.3	---	---	1348
O	8785.5	E	417248	5657400	4.2	21.4	27.3	101.4	23.4	14.0	---	---	636
LINE 10340			FLIGHT 4										
N	8519.4	S	417296	5656991	10.1	42.2	28.8	208.9	14.6	30.0	---	---	1139
O	8506.1	S	417296	5657419	2.7	22.4	19.6	117.7	9.3	16.8	---	---	285
LINE 10350			FLIGHT 4										
J	8352.3	S	417345	5656589	3.2	13.2	18.8	82.0	11.0	10.8	---	---	22
K	8365.5	S	417350	5657062	3.2	15.3	31.1	158.2	18.4	22.5	---	---	0
L	8375.8	S	417347	5657429	4.4	20.2	20.6	115.0	6.3	15.5	---	---	43
LINE 10360			FLIGHT 4										
L	8113.8	S	417397	5656996	4.7	28.3	15.4	127.3	6.2	18.0	---	---	1026
LINE 10370			FLIGHT 4										
J	7855.8	S	417440	5656720	3.0	17.1	10.4	80.4	8.3	12.3	---	---	200
K	7875.2	S	417452	5657453	7.4	25.7	9.2	50.2	14.9	5.3	---	---	0
LINE 10380			FLIGHT 4										
I	7618.2	S?	417499	5656672	9.1	46.2	38.4	199.7	10.3	28.9	---	---	86
LINE 10390			FLIGHT 4										
M	7449.2	S	417552	5656664	7.6	30.1	64.8	190.9	23.0	28.1	---	---	0
N	7465.1	S	417554	5657226	5.6	17.1	50.4	241.4	23.4	33.0	0.4	4	0
LINE 19020			FLIGHT 6										
A	1572.1	S	417283	5657352	1.9	0.0	28.5	128.6	21.5	18.1	---	---	0

CX = COAXIAL  
CP = COPLANAR  
TEST FPick

Note: EM values shown above  
are local amplitudes

\*Estimated Depth may be unreliable because the  
stronger part of the conductor may be deeper or  
to one side of the flight line, or because of a  
shallow dip or magnetite/overburden effects

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE	10400		FLIGHT 4										
I	7227.1	S	417597	5656741	5.3	12.9	47.9	133.1	14.6	18.4	---	---	0
J	7213.5	S	417596	5657225	5.8	23.9	41.4	168.7	25.0	24.2	0.3	0	0

CX = COAXIAL  
CP = COPLANAR

Note: EM values shown above  
are local amplitudes

TEST FPick

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\*Estimated Depth may be unreliable because the  
stronger part of the conductor may be deeper or  
to one side of the flight line, or because of a  
shallow dip or magnetite/overburden effects

Anomalies Summary

Conductor Grade No, of Responses

7	0
6	0
5	0
4	0
3	0
2	1
1	18
0	21
Total	40

Conductor Model No, of Responses

E	4
B	11
S	25
Total	40



## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10190 FLIGHT 5													
D	2375.4	S	416543	5654415	2.5	16.6	6.1	65.5	3.5	9.1	---	---	0
E	2385.4	B?	416544	5654770	38.6	69.0	407.6	477.4	32.2	113.2	1.1	0	0
F	2388.5	S	416544	5654886	21.9	37.3	407.6	477.4	32.2	113.2	0.9	0	0
LINE 10200 FLIGHT 5													
C	2261.5	S	416598	5654879	22.6	20.2	371.8	465.2	52.0	99.6	1.9	13	0
LINE 10210 FLIGHT 5													
E	1860.0	S	416646	5654825	14.0	28.3	168.0	386.3	52.8	64.4	0.7	1	0
LINE 10220 FLIGHT 5													
D	1758.8	S	416694	5654379	3.6	20.2	14.7	104.4	3.3	14.9	---	---	0
E	1757.5	S	416693	5654421	3.1	20.1	14.7	104.4	3.3	14.9	---	---	0
F	1746.2	S	416690	5654795	8.4	27.5	54.1	233.2	22.4	33.8	0.4	0	0
LINE 10230 FLIGHT 5													
C	1419.4	D	416751	5653963	46.6	31.3	272.3	227.2	102.2	79.9	3.4	4	0
D	1432.5	S	416749	5654412	1.3	15.9	14.0	99.5	3.7	14.0	---	---	0
E	1443.3	S?	416749	5654794	9.0	29.4	32.4	72.0	26.6	10.2	0.4	0	0
LINE 10240 FLIGHT 5													
C	1358.0	D	416790	5653963	50.8	34.6	272.0	229.0	110.1	78.9	3.4	2	0
D	1345.3	S	416791	5654388	3.1	20.0	7.5	53.9	4.9	7.4	---	---	0
E	1333.4	S?	416794	5654782	10.1	39.8	15.4	114.7	4.5	16.1	0.4	0	0
LINE 10250 FLIGHT 5													
C	1020.7	D	416851	5654009	39.6	16.2	230.0	139.2	100.5	57.9	6.2	8	0
D	1042.5	S	416846	5654776	8.5	37.7	52.1	196.7	2.6	29.2	0.3	0	0
LINE 10260 FLIGHT 6													
C	627.2	D	416897	5654016	60.1	28.2	292.4	228.5	147.8	80.3	5.9	3	0
D	606.2	D	416896	5654638	9.6	55.9	70.0	262.2	3.7	37.0	0.3	0	0
E	603.1	S	416897	5654735	11.2	52.8	69.9	330.7	4.2	53.0	0.3	0	0
F	600.9	B?	416898	5654805	4.8	22.2	69.9	330.7	2.5	53.0	0.3	0	0
LINE 10270 FLIGHT 4													
C	9982.5	D	416948	5654035	69.9	27.5	276.5	219.0	151.8	79.5	7.8	3	0

CX = COAXIAL  
CP = COPLANAR  
TEST FPick

Note: EM values shown above  
are local amplitudes

\*Estimated Depth may be unreliable because the  
stronger part of the conductor may be deeper or  
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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10270 FLIGHT 4													
D	9993.1	S	416947	5654349	3.4	17.1	7.7	59.9	0.8	8.5	---	---	0
E	10005.3	S	416947	5654727	4.5	18.9	46.0	230.3	7.0	32.5	0.3	0	0
F	10009.0	S	416948	5654849	5.4	25.2	45.3	166.3	3.4	36.0	0.3	0	0
LINE 10280 FLIGHT 4													
C	9916.9	D	416994	5654039	72.8	37.5	300.1	275.3	165.7	93.8	5.5	3	0
D	9904.7	S	416993	5654362	5.5	34.4	28.6	203.9	0.5	28.9	0.2	0	0
E	9897.9	S	416997	5654569	4.0	30.4	1.4	150.0	18.3	21.3	---	---	195
F	9892.3	S?	416998	5654750	4.5	14.5	66.3	378.9	9.1	54.3	0.3	6	0
G	9889.5	S	417000	5654841	8.3	52.6	66.3	378.9	21.3	54.3	0.2	0	0
LINE 10290 FLIGHT 4													
E	9582.1	D	417043	5653980	19.8	26.9	260.0	250.7	89.3	77.3	1.1	8	0
F	9604.2	S	417041	5654753	2.9	12.4	35.7	206.5	12.5	29.5	---	---	0
LINE 10300 FLIGHT 4													
D	9518.6	D	417096	5654004	51.5	31.5	214.1	217.3	77.4	71.6	4.0	8	0
E	9497.1	S	417096	5654716	4.2	31.8	43.5	258.2	3.3	36.4	0.2	0	0
LINE 10310 FLIGHT 4													
D	9085.8	D	417141	5654011	47.4	23.1	173.7	113.7	86.4	58.3	5.2	11	0
E	9089.8	B?	417141	5654142	10.9	26.5	48.2	21.9	15.7	14.1	0.6	4	0
F	9099.5	S	417141	5654465	5.3	24.0	21.5	172.9	15.6	20.6	0.3	0	0
LINE 10320 FLIGHT 4													
C	9020.0	D	417193	5654016	26.8	15.8	88.6	68.2	37.0	30.4	3.3	17	0
D	9016.4	S	417191	5654129	7.5	29.6	7.8	195.1	4.8	9.0	0.3	0	0
E	9011.4	B	417194	5654282	13.1	5.9	200.7	59.5	112.3	69.5	---	---	848
F	9009.3	D	417195	5654345	53.5	3.7	200.7	77.9	112.3	69.5	92.6	17	0
G	9005.8	S	417195	5654449	12.9	49.3	42.2	191.4	52.2	31.0	0.4	0	0
LINE 10330 FLIGHT 4													
E	8687.9	E	417244	5654127	30.1	62.7	223.1	398.3	3.5	78.9	0.9	0	0
F	8693.4	D	417238	5654290	18.6	7.6	318.7	333.3	223.3	107.0	4.8	28	1660
G	8695.8	D	417236	5654366	101.4	6.3	141.0	201.2	223.3	107.0	133.5	6	0
H	8698.3	E	417235	5654444	9.9	43.7	29.9	201.2	6.5	40.5	0.3	0	0

2. 25505

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					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10340 FLIGHT 4													
D	8605.1	E	417296	5654160	47.4	61.8	432.2	397.9	21.2	129.6	1.6	0	0
E	8602.7	B	417296	5654236	30.7	31.5	453.1	397.9	324.0	132.0	1.8	8	0
F	8600.1	D	417297	5654324	47.4	25.9	465.6	397.9	324.0	148.1	4.5	7	3098
G	8598.7	D	417296	5654371	127.0	39.9	465.6	186.6	324.0	148.1	13.1	0	0
LINE 10350 FLIGHT 4													
D	8283.3	E	417343	5654176	42.0	51.5	427.7	440.5	33.9	131.0	1.6	0	0
E	8286.4	B	417340	5654254	21.7	36.7	427.7	440.5	149.0	131.0	0.9	2	0
F	8290.4	D	417337	5654370	77.0	33.9	362.5	174.0	149.0	105.4	7.0	2	0
G	8313.7	S?	417344	5655179	15.2	32.8	90.4	221.3	5.3	37.8	0.7	0	0
H	8321.9	D	417343	5655489	56.5	77.9	250.4	210.8	9.6	58.6	1.6	0	0
LINE 10360 FLIGHT 4													
D	8199.3	E	417398	5654160	51.5	63.6	357.2	442.2	9.7	115.4	1.7	0	0
E	8196.3	B	417401	5654254	43.6	46.1	394.8	442.2	152.9	142.1	1.9	3	0
F	8194.0	D	417402	5654327	87.1	29.0	394.8	442.2	152.9	142.1	10.7	6	2304
G	8192.0	E	417405	5654390	58.6	59.4	394.8	275.9	152.9	142.1	2.3	0	0
H	8184.0	S	417400	5654645	5.4	20.4	34.0	113.4	10.4	16.6	---	---	0
I	8165.0	S	417399	5655266	5.9	16.8	67.1	260.5	11.7	40.2	0.4	6	10
J	8157.8	B?	417402	5655502	36.1	45.9	220.6	241.2	7.7	54.1	1.5	1	0
K	8152.6	S	417398	5655679	15.7	28.4	138.9	220.8	27.5	38.3	0.8	2	0
LINE 10370 FLIGHT 4													
D	7778.8	E	417446	5654159	30.5	46.2	34.7	295.8	8.6	69.7	1.2	0	275
E	7782.3	B	417446	5654244	20.9	21.4	250.6	295.8	90.1	92.7	1.6	10	0
F	7784.8	D	417446	5654314	38.0	7.9	250.6	278.7	90.1	92.7	15.9	15	1083
G	7787.6	E	417445	5654399	32.3	37.7	234.2	192.3	9.1	93.3	1.6	0	0
H	7820.9	S	417446	5655491	18.7	22.2	140.5	223.8	4.6	41.7	1.3	10	0
I	7825.9	S	417445	5655675	14.7	28.2	136.2	297.0	27.2	48.0	0.7	5	0
LINE 10380 FLIGHT 4													
C	7692.4	B	417498	5654211	43.5	72.3	317.4	360.3	152.3	122.1	1.2	0	0
D	7690.3	B	417498	5654280	54.5	25.6	317.4	360.3	152.3	122.1	5.7	11	1272
E	7689.0	D	417498	5654323	83.5	16.9	317.4	208.2	152.3	122.1	21.5	9	1075
F	7680.5	S?	417495	5654609	6.7	27.5	31.0	96.4	2.4	15.6	---	---	0
G	7654.2	S?	417496	5655483	8.9	27.0	108.1	289.2	2.9	46.3	0.4	0	0
H	7649.6	S	417497	5655640	9.3	18.1	195.3	296.6	9.9	56.8	0.6	10	0

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TEST FPick

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10390 FLIGHT 4													
D	7369.3	E	417538	5653960	3.9	34.9	15.1	224.9	35.5	33.5	---	---	0
E	7380.0	B	417545	5654197	34.2	54.7	323.3	319.4	155.0	137.7	1.2	0	0
F	7383.0	D	417543	5654275	117.0	45.6	340.6	319.4	159.8	136.0	9.5	2	3241
G	7384.3	D	417541	5654313	96.6	44.5	340.6	319.4	159.8	136.0	7.1	3	0
H	7390.9	S	417545	5654525	4.4	36.6	66.4	343.8	6.7	50.4	0.2	0	0
I	7416.0	S?	417548	5655445	10.0	39.8	54.1	198.8	2.8	31.1	0.4	0	10
J	7420.1	E	417543	5655600	29.9	59.4	261.9	354.5	8.3	69.9	0.9	0	0
K	7422.3	S	417542	5655684	29.9	15.4	261.9	354.5	8.3	69.9	4.1	16	0
LINE 10400 FLIGHT 4													
C	7310.7	S?	417602	5653957	4.9	18.0	2.6	76.3	0.0	13.3	---	---	376
D	7299.4	D	417595	5654276	45.3	21.3	128.1	154.4	52.6	59.4	5.3	6	2770
E	7291.9	S	417597	5654517	5.5	24.8	33.4	86.3	7.8	12.9	---	---	0
F	7261.9	B?	417598	5655505	11.3	41.9	57.7	192.2	0.6	29.8	0.4	0	13
G	7258.6	E	417597	5655620	26.2	56.8	200.4	299.7	5.0	57.3	0.8	0	0
H	7256.0	S	417595	5655714	7.6	28.7	200.4	311.4	5.0	57.9	0.3	0	35
LINE 10410 FLIGHT 4													
B	6988.4	S?	417648	5653972	7.4	20.5	9.4	39.5	11.5	9.0	---	---	318
C	6998.4	D	417643	5654270	98.5	38.4	210.2	162.1	123.4	95.9	8.9	0	3959
D	7008.7	S	417644	5654572	2.6	24.3	38.5	160.3	9.2	23.2	---	---	0
E	7034.8	E	417652	5655523	9.6	38.6	44.3	163.2	2.1	25.5	0.4	0	0
F	7038.8	S?	417650	5655670	16.6	34.3	80.7	224.9	2.3	35.2	0.7	0	26
G	7045.8	S	417651	5655934	6.6	24.2	38.9	192.1	1.4	27.5	0.3	0	0
LINE 10420 FLIGHT 4													
B	6925.3	S	417699	5653975	4.7	9.4	5.7	18.9	5.1	3.6	---	---	202
C	6915.1	D	417698	5654278	38.3	29.9	82.0	108.6	40.6	38.1	2.6	5	1894
D	6907.2	S	417702	5654539	3.0	12.0	41.8	145.9	7.5	23.0	---	---	0
E	6877.1	S?	417697	5655536	12.2	36.6	37.9	228.8	7.3	33.2	0.5	0	10
F	6872.9	S?	417697	5655678	13.2	35.2	22.2	43.7	3.1	24.0	0.5	0	16
G	6864.9	S	417694	5655948	5.9	26.6	49.1	199.1	4.2	29.2	0.3	0	18
LINE 10430 FLIGHT 4													
B	6601.7	S?	417761	5654016	5.1	13.9	8.8	64.1	9.4	10.0	---	---	119
C	6608.5	B	417757	5654236	6.1	6.4	18.2	34.8	13.9	10.8	1.0	38	1666
D	6609.8	D	417756	5654277	11.2	14.7	22.0	34.8	17.2	10.8	1.0	19	1666

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TEST FPick

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10430 FLIGHT 4													
E	6621.7	S	417757	5654664	7.9	16.1	20.5	94.1	25.9	13.1	0.6	11	0
F	6647.2	S?	417748	5655526	12.9	60.9	50.2	237.0	8.5	34.4	0.3	0	0
G	6651.5	S	417744	5655670	12.5	36.3	50.2	174.1	2.2	24.2	0.5	0	13
H	6657.9	S	417742	5655890	12.6	36.6	54.7	249.6	2.3	35.6	0.5	0	0
LINE 10440 FLIGHT 4													
A	6541.3	S?	417800	5654032	5.0	17.4	10.5	77.3	2.7	12.5	---	---	44
B	6533.0	D	417798	5654302	12.8	15.4	66.6	78.0	48.5	30.9	1.1	22	1683
C	6530.9	D	417798	5654368	16.9	9.7	66.6	71.3	48.5	30.9	3.0	19	1433
D	6527.7	B	417800	5654470	16.6	2.3	68.2	14.3	48.0	22.0	---	---	443
E	6521.8	E	417801	5654655	21.3	43.8	124.0	271.5	28.2	46.0	0.8	0	0
F	6518.8	S	417801	5654755	10.0	20.0	127.6	271.5	28.2	46.0	0.6	8	44
G	6515.1	E	417800	5654877	12.6	43.1	117.5	277.6	16.1	46.5	0.4	0	0
H	6493.9	E	417797	5655550	11.9	45.6	45.4	201.0	6.2	29.9	0.4	0	0
I	6490.8	S?	417797	5655659	14.2	42.3	45.4	201.0	6.2	29.9	0.5	0	19
J	6483.8	S?	417795	5655907	16.1	62.8	70.0	283.3	4.1	42.0	0.4	0	18
LINE 10450 FLIGHT 4													
A	6124.5	S	417846	5654038	5.1	18.8	10.9	81.4	6.1	11.5	0.3	0	0
B	6134.0	D	417846	5654366	23.8	13.4	106.1	88.0	49.1	53.2	3.4	15	2623
C	6137.0	B	417847	5654472	17.8	12.7	112.2	62.4	37.9	53.2	---	---	0
D	6143.5	E	417845	5654698	34.2	63.2	303.0	387.6	18.0	84.0	1.0	0	0
E	6146.5	S	417843	5654800	29.3	34.2	303.0	387.6	18.0	84.0	1.5	4	15
F	6155.2	S	417844	5655105	3.0	18.2	4.8	74.6	6.0	10.8	---	---	17
G	6167.8	S?	417849	5655529	9.3	35.7	31.5	149.9	7.2	22.1	0.4	0	0
H	6170.9	S	417850	5655633	9.8	34.7	56.5	231.4	7.7	34.6	0.4	0	0
I	6178.7	S	417849	5655904	24.5	60.7	131.3	441.3	2.6	67.0	0.7	0	21
LINE 10460 FLIGHT 4													
A	6050.9	B	417900	5654256	22.0	10.5	132.9	110.8	76.2	50.8	---	---	0
B	6048.2	D	417899	5654346	22.5	16.5	132.9	110.8	76.2	50.8	2.4	16	3419
C	6042.8	B	417900	5654522	28.5	13.0	190.7	37.4	145.0	62.9	4.8	20	0
D	6038.2	E	417899	5654668	42.7	57.3	320.2	317.9	27.3	83.5	1.5	0	0
E	6036.3	S?	417898	5654733	23.1	20.2	324.6	349.6	27.7	84.4	2.0	13	0
F	6033.1	E	417899	5654843	36.1	22.0	324.6	349.6	27.7	84.4	3.5	12	14
G	6027.8	S	417900	5655024	4.2	34.3	39.0	266.5	0.9	37.6	0.2	0	0
H	6012.7	S	417897	5655517	10.9	33.4	10.8	102.9	13.4	14.7	0.5	0	0
I	6009.0	S	417898	5655642	11.7	47.5	70.8	273.4	13.4	40.3	0.4	0	0

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LINE 10460 FLIGHT 4													
J	6001.6	S	417900	5655883	21.7	46.9	202.4	593.9	3.8	93.1	0.8	0	18
LINE 10470 FLIGHT 4													
A	5743.3	S?	417944	5654144	6.7	35.1	26.0	238.0	0.8	37.5	0.3	0	380
B	5749.4	D	417942	5654349	32.5	9.4	171.1	116.0	142.3	66.4	9.4	26	0
C	5750.9	D	417942	5654399	29.5	7.4	166.5	116.0	142.3	66.4	11.1	23	3931
D	5754.0	B	417943	5654503	13.3	13.3	147.4	73.7	100.8	66.4	1.4	18	0
E	5759.9	S?	417944	5654711	46.3	65.5	300.2	325.6	14.6	81.2	1.5	0	0
F	5763.1	S	417942	5654823	23.9	21.0	300.2	343.3	14.6	81.2	2.0	11	0
G	5765.3	E	417941	5654902	45.5	60.3	251.2	343.3	2.7	73.4	1.5	0	0
H	5769.8	S	417943	5655066	3.8	27.4	37.6	238.5	0.5	33.3	0.2	0	24
I	5781.7	S?	417943	5655503	14.3	36.5	94.2	237.6	3.7	39.5	0.6	0	0
J	5790.8	S?	417948	5655843	21.0	54.6	128.8	385.1	1.8	59.2	0.7	0	16
LINE 10480 FLIGHT 4													
A	5667.2	S	418000	5654197	3.2	24.6	25.1	194.3	17.2	36.2	0.1	0	451
B	5664.1	E	417999	5654302	40.8	16.5	244.5	194.3	191.8	61.8	6.3	8	0
C	5662.2	B	418000	5654367	26.7	9.7	244.5	113.5	191.8	61.8	6.4	19	3672
D	5660.7	B	418000	5654419	29.8	0.7	244.5	91.4	191.8	61.8	---	---	3645
E	5650.9	S	417998	5654754	6.0	13.5	217.8	242.4	11.1	57.8	0.5	8	0
F	5647.7	E	418001	5654869	34.1	47.7	216.9	238.4	11.1	57.5	1.3	0	0
G	5641.4	S?	418005	5655097	4.4	32.3	33.3	212.1	0.1	31.2	0.2	0	119
H	5633.0	E	418004	5655395	16.8	22.6	254.2	325.8	7.5	69.5	1.1	10	46
I	5630.4	S?	418005	5655488	27.6	42.9	254.2	325.8	7.5	69.5	1.1	0	0
J	5622.2	S?	418005	5655770	17.0	16.1	118.1	401.5	2.2	61.5	1.6	20	22
K	5618.5	S	418005	5655897	10.0	45.4	121.2	413.9	4.2	63.9	0.3	0	0
LINE 10490 FLIGHT 4													
A	5359.0	S?	418048	5654222	6.1	26.2	28.3	230.9	2.8	44.9	0.3	0	641
B	5361.8	B	418046	5654321	62.2	17.1	417.2	170.4	335.2	114.8	12.5	7	0
C	5364.1	D	418045	5654397	82.0	24.3	417.2	170.4	335.2	114.8	12.4	9	3821
D	5369.5	D	418049	5654579	50.6	17.3	196.2	25.1	223.9	41.9	8.6	13	0
E	5372.3	E	418049	5654677	16.0	34.1	171.5	222.8	37.3	54.7	0.7	0	0
F	5376.3	S?	418049	5654817	6.9	15.8	184.8	223.8	9.2	52.8	0.5	6	0
G	5378.4	E	418048	5654891	33.4	51.8	184.8	223.8	9.2	52.8	1.2	0	0
H	5389.9	S	418045	5655305	7.2	23.6	131.3	329.3	12.1	51.9	0.4	0	0
I	5392.9	S	418043	5655417	12.0	13.3	132.9	189.2	3.1	37.3	1.2	18	26
J	5396.4	E	418043	5655547	22.9	40.1	132.9	157.8	3.1	37.3	0.9	0	0

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10490 FLIGHT 4													
K	5402.6	S?	418048	5655769	17.2	35.3	53.0	126.8	0.6	17.1	0.7	1	15
L	5407.2	S	418049	5655931	3.9	33.5	76.5	307.7	1.2	46.3	0.1	0	0
LINE 10500 FLIGHT 4													
A	5282.1	S?	418095	5654230	5.3	52.2	114.0	312.9	23.4	51.6	0.1	0	1085
B	5279.2	D	418096	5654326	44.6	18.3	123.2	312.9	75.4	41.1	6.4	16	0
C	5275.2	B	418099	5654462	59.7	9.2	499.2	40.8	419.4	146.1	29.3	13	1685
D	5273.6	D	418098	5654515	40.7	33.4	499.2	235.1	463.0	146.1	2.5	8	0
E	5271.6	B	418098	5654580	103.4	43.4	499.2	235.1	463.0	86.7	8.2	0	0
F	5262.0	E	418097	5654894	37.0	33.4	178.4	357.6	10.2	64.7	2.2	6	0
G	5252.3	E	418097	5655212	9.4	23.1	64.5	188.0	0.6	29.4	0.5	2	29
H	5250.3	S	418099	5655282	5.5	19.7	64.5	188.0	5.0	29.4	0.3	0	28
I	5241.6	B?	418108	5655577	14.6	24.2	0.0	15.7	2.8	2.2	0.8	6	0
J	5237.4	S?	418105	5655729	18.7	27.4	54.6	114.2	2.8	18.0	1.0	5	11
LINE 10510 FLIGHT 4													
A	4963.5	S?	418151	5654110	6.8	37.9	13.1	146.3	3.9	20.4	---	---	0
B	4967.6	S?	418149	5654231	13.2	48.7	73.4	228.6	5.7	38.8	0.4	0	468
C	4972.3	B	418147	5654380	53.4	2.4	329.7	54.4	270.9	80.1	---	---	411
D	4976.9	B	418149	5654533	86.6	14.4	377.4	55.7	422.0	73.1	29.4	7	1843
E	4983.5	S?	418149	5654767	9.9	12.6	124.2	109.0	40.3	55.2	1.0	19	0
F	4987.9	S	418147	5654924	24.7	42.6	191.3	373.8	23.7	66.3	1.0	0	0
G	4994.1	D	418146	5655140	11.6	31.1	16.9	13.4	3.8	4.6	0.5	0	0
H	5007.7	E	418152	5655606	28.4	47.1	189.8	262.6	5.3	52.2	1.1	0	0
I	5010.5	S	418153	5655701	28.6	20.0	189.8	262.6	5.3	52.2	2.8	10	19
J	5011.7	D	418153	5655741	30.2	47.1	189.8	262.6	5.3	52.2	1.1	0	19
LINE 10520 FLIGHT 4													
A	4887.5	S?	418196	5654124	6.2	23.6	30.4	155.1	9.1	21.9	0.3	0	19
B	4881.6	S?	418203	5654304	4.7	31.5	64.7	179.4	21.6	23.0	0.2	0	149
C	4877.1	D	418207	5654450	44.7	16.7	212.5	0.0	301.1	34.0	7.3	7	790
D	4873.3	B	418210	5654574	69.3	12.5	304.6	162.2	301.1	85.9	24.0	19	0
E	4870.5	B	418211	5654663	37.2	11.9	250.6	162.2	128.2	98.0	8.5	10	2312
F	4861.9	S	418206	5654947	14.9	47.9	104.5	254.7	7.1	41.9	0.5	0	0
G	4856.4	S?	418203	5655142	11.2	25.5	5.2	37.5	2.9	4.6	0.6	0	0
H	4842.9	E	418191	5655592	38.7	45.5	322.6	426.5	9.4	91.4	1.7	2	0
I	4840.2	E	418194	5655675	44.6	50.8	322.6	426.5	9.4	91.4	1.8	2	30
J	4833.6	S	418201	5655863	16.8	65.4	68.3	173.2	0.5	25.1	0.4	0	0

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TEST FPick

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10530 FLIGHT 4													
A	4439.3	S	418245	5654131	4.5	26.9	25.6	131.8	11.5	18.7	---	---	140
B	4450.0	D	418247	5654453	79.9	20.1	210.1	96.2	160.4	68.8	15.5	11	699
C	4454.8	B	418247	5654599	81.7	32.9	456.2	202.1	310.2	168.9	8.0	12	0
D	4456.5	B	418246	5654652	92.5	21.8	456.2	223.5	310.2	168.9	17.8	4	4330
E	4459.2	E	418244	5654738	44.8	52.6	456.2	223.5	34.9	168.9	1.8	0	0
F	4464.6	S	418249	5654908	13.8	36.7	46.4	143.4	11.1	14.2	0.6	0	0
G	4467.1	S	418253	5654986	19.5	40.5	46.4	143.4	2.4	14.2	0.8	0	0
H	4471.9	D	418253	5655130	32.4	76.0	90.1	256.7	5.0	39.2	0.8	0	42
I	4487.9	S	418251	5655608	33.1	41.0	380.3	484.9	12.6	108.6	1.5	3	0
J	4490.8	E	418249	5655699	45.9	74.4	365.2	440.4	0.0	103.1	1.3	0	23
K	4496.2	B?	418253	5655874	24.0	67.9	96.1	281.5	3.0	46.4	0.6	0	0
LINE 10540 FLIGHT 4													
A	4364.6	S?	418295	5654118	7.3	27.7	31.9	110.3	22.0	16.1	---	---	0
B	4356.4	S?	418293	5654334	7.9	42.6	21.6	203.0	64.1	35.1	---	---	1173
C	4346.3	B	418298	5654652	150.9	36.2	661.2	245.1	555.6	214.6	20.5	0	5893
D	4344.1	B	418299	5654721	117.2	36.0	661.2	245.1	555.6	214.6	13.2	0	0
E	4336.5	S	418297	5654957	22.2	75.3	69.1	170.0	5.5	23.2	0.5	0	0
F	4330.2	D	418296	5655152	37.8	83.6	87.0	229.6	1.3	35.0	0.9	0	0
G	4318.0	S	418292	5655536	50.1	66.1	408.7	597.8	12.4	124.9	1.6	1	0
H	4314.3	E	418291	5655656	44.1	83.2	408.7	597.8	12.4	124.9	1.1	0	24
I	4306.9	B	418293	5655891	31.4	80.8	20.5	349.9	3.3	59.3	0.8	0	0
LINE 10550 FLIGHT 4													
A	4025.7	B?	418344	5654093	11.9	68.1	85.7	388.7	3.4	57.3	0.3	0	0
B	4027.1	B?	418345	5654133	9.3	73.5	85.7	388.7	20.0	57.3	0.2	0	0
C	4036.4	S?	418347	5654369	4.6	23.5	0.5	139.9	3.8	24.4	---	---	953
D	4038.8	S?	418347	5654434	15.9	21.1	112.9	139.9	100.6	24.4	1.1	13	0
E	4048.3	B	418345	5654722	202.3	83.3	1067.6	464.3	725.5	375.9	10.5	0	6581
F	4056.2	S?	418347	5654974	35.1	59.6	178.9	285.4	5.1	49.7	1.1	0	0
G	4061.4	S?	418346	5655150	24.4	31.1	138.1	122.5	3.0	51.5	1.3	5	19
H	4068.8	E	418348	5655407	39.3	61.7	255.6	362.0	8.2	74.6	1.2	0	34
I	4072.2	S	418347	5655525	26.2	25.2	255.6	362.0	8.2	74.6	1.8	8	0
J	4075.9	E	418349	5655653	14.8	36.9	11.5	198.8	0.0	30.5	0.6	0	0
K	4083.9	B	418348	5655913	40.4	84.2	68.1	657.8	1.3	100.2	1.0	0	0

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TEST FPick



## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH+ m	
LINE	10560		FLIGHT 4										
A	3953.7	B?	418398	5654096	35.2	109.5	186.1	557.8	1.2	86.8	0.7	0	0
B	3951.2	B?	418397	5654155	15.3	77.5	186.1	557.8	31.2	86.8	0.3	0	0
C	3942.0	S?	418388	5654378	6.4	28.6	28.1	152.1	61.1	25.6	---	---	978
D	3939.6	S	418386	5654438	19.3	21.5	38.7	152.1	44.7	25.6	1.4	8	0
E	3934.2	D	418389	5654599	97.6	32.2	3.9	321.1	0.3	61.0	11.2	0	930
F	3930.1	B	418391	5654726	220.0	44.8	941.1	312.2	807.5	278.4	29.5	0	5438
G	3926.4	E	418394	5654848	61.9	71.0	275.5	312.2	19.7	83.4	2.0	0	0
H	3922.2	S?	418397	5654988	36.5	53.4	257.5	221.8	7.9	56.9	1.3	0	0
I	3918.3	S?	418396	5655119	28.5	31.9	257.5	449.1	7.9	56.9	1.6	6	0
J	3907.9	S	418399	5655469	23.2	35.0	219.9	373.9	6.6	69.9	1.1	0	0
K	3905.5	B	418399	5655544	30.3	70.8	219.9	373.9	6.6	69.9	0.8	0	0
LINE	10570		FLIGHT 4										
A	3607.8	D	418450	5654093	30.1	90.4	244.0	635.6	9.0	101.4	0.7	0	0
B	3610.4	D	418450	5654176	28.4	113.9	244.0	635.6	20.1	101.4	0.5	0	0
C	3621.6	S?	418452	5654471	0.0	37.7	135.8	276.7	154.5	44.1	---	---	1034
D	3624.0	D	418451	5654526	60.8	5.9	135.8	276.7	154.5	37.8	---	---	0
E	3630.1	D	418448	5654669	93.9	91.9	1001.2	1216.9	285.0	348.0	2.7	0	1342
F	3633.1	B	418447	5654746	174.7	195.2	1001.2	1216.9	285.0	348.0	2.9	0	2922
G	3641.7	E	418454	5655004	29.6	89.1	227.0	439.3	6.9	76.6	0.6	0	0
H	3644.8	S	418458	5655110	36.0	81.9	227.0	439.3	6.9	76.6	0.9	0	0
I	3654.0	S	418455	5655448	3.8	7.1	54.9	133.7	2.8	21.0	0.5	24	41
J	3660.4	S	418457	5655681	5.7	24.0	31.4	79.9	3.2	13.0	0.3	0	0
K	3667.2	E	418451	5655921	74.2	113.3	548.4	729.6	15.1	159.7	1.6	0	0
LINE	10580		FLIGHT 4										
B	3532.6	D	418492	5654120	32.1	147.3	223.2	753.2	14.4	115.3	0.5	0	279
C	3530.7	D	418495	5654171	23.8	125.0	223.2	753.2	13.5	115.3	0.4	0	247
D	3521.0	S?	418505	5654447	10.0	44.9	0.2	239.8	71.5	38.1	0.3	0	1473
E	3513.6	D	418503	5654677	59.2	46.1	506.3	431.9	242.0	138.6	3.1	0	1727
F	3510.9	B	418503	5654766	23.5	46.0	506.3	513.4	125.9	138.6	0.8	0	861
G	3508.2	E	418500	5654860	95.7	121.2	506.3	513.4	16.3	138.6	2.1	0	0
H	3501.1	S	418488	5655118	23.4	50.4	173.8	377.7	5.9	62.8	0.8	0	0
I	3485.4	S	418490	5655683	5.8	20.4	29.0	147.5	2.8	20.5	0.3	0	0
LINE	10590		FLIGHT 4										
B	3212.2	S	418550	5654149	5.9	45.7	32.1	266.4	9.9	38.5	---	---	833

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TEST FPick

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE	10590		FLIGHT 4										
C	3213.5	S?	418550	5654191	0.6	47.9	32.1	266.4	48.1	38.5	---	---	833
D	3223.1	B?	418552	5654472	19.4	66.6	26.2	348.2	128.0	56.2	0.5	0	1608.
E	3225.4	B?	418553	5654542	44.3	33.1	472.3	348.2	462.9	128.9	2.9	8	0
F	3228.4	D	418554	5654639	151.6	20.7	472.3	301.7	462.9	128.9	47.6	0	1217
G	3230.8	D	418553	5654719	28.1	28.8	358.8	460.4	298.0	68.5	1.7	10	1060
H	3233.9	B?	418551	5654823	52.2	70.0	293.8	460.4	62.4	93.6	1.6	0	0
I	3242.4	S	418551	5655127	21.8	70.6	120.6	328.1	2.8	52.3	0.6	0	0
J	3245.9	E	418549	5655254	12.3	46.6	120.6	328.1	2.5	52.3	0.4	0	0
K	3258.3	S	418550	5655700	9.6	57.8	52.3	289.7	1.7	40.9	0.3	0	17
L	3264.6	B?	418547	5655922	34.8	110.7	163.8	532.9	4.3	80.8	0.7	0	0
LINE	10600		FLIGHT 4										
B	3138.4	S?	418597	5654171	5.6	44.8	19.1	277.1	52.9	39.6	---	---	813
C	3136.7	S?	418598	5654221	11.4	54.1	35.6	277.1	34.2	39.6	---	---	757
D	3128.1	D	418601	5654479	12.4	61.1	39.5	28.8	75.4	55.6	0.3	0	1323
E	3122.3	D	418595	5654669	151.8	16.6	544.0	186.8	345.1	164.4	66.1	0	0
F	3120.5	D	418592	5654729	41.8	19.1	318.1	377.1	199.6	100.3	5.4	14	921
G	3117.6	B	418588	5654823	34.2	81.5	181.4	377.1	30.6	76.3	0.8	0	0
H	3107.9	S	418587	5655141	24.0	76.1	163.2	502.4	3.6	77.6	0.6	0	0
I	3105.5	S	418589	5655224	19.2	53.9	163.2	502.4	3.6	77.6	0.6	0	0
J	3092.9	E	418593	5655625	4.4	58.1	73.7	429.3	1.9	61.9	---	---	0
K	3090.3	S	418595	5655704	14.0	73.5	73.7	429.3	1.8	61.9	0.3	0	0
L	3082.6	S	418601	5655951	3.3	20.4	26.4	207.6	0.7	29.6	0.2	0	0
LINE	10610		FLIGHT 4										
B	2732.0	S	418655	5654242	3.6	34.7	25.9	146.4	30.7	21.6	---	---	0
C	2740.3	E	418646	5654504	13.4	93.0	39.5	136.5	99.8	20.8	0.3	0	1113
D	2743.8	B	418647	5654617	84.2	115.3	548.5	1015.7	373.3	188.6	1.8	0	0
E	2745.6	D	418647	5654676	127.5	131.6	548.5	1015.7	373.3	188.6	2.9	0	0
F	2749.5	D	418649	5654806	11.9	10.7	65.6	175.0	0.0	36.2	1.5	30	987
G	2752.8	B	418650	5654916	6.7	22.8	24.0	0.0	28.1	5.1	0.4	0	0
H	2759.0	E	418654	5655140	14.5	59.3	145.8	491.1	3.5	74.7	0.4	0	0
I	2760.2	S	418653	5655183	11.2	52.5	145.8	491.1	3.5	74.7	0.3	0	0
J	2761.5	E	418652	5655230	16.7	72.7	145.8	491.1	3.5	74.7	0.4	0	0
K	2774.3	E	418650	5655680	10.9	51.3	88.6	338.0	5.7	50.6	0.3	0	0
L	2776.6	E	418648	5655759	10.5	54.0	88.6	338.0	5.7	50.6	0.3	0	0

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE	19040		FLIGHT 6										
E	2135.7	S	416564	5654850	15.4	44.4	448.0	535.6	20.8	120.5	0.5	0	0
F	2132.5	E	416671	5654851	45.2	88.4	443.5	535.6	20.8	120.5	1.1	0	0
G	2126.1	E	416885	5654852	4.0	40.7	62.2	312.4	4.7	44.0	---	---	0
H	2123.8	S	416961	5654854	3.3	29.1	62.2	312.4	10.8	44.0	0.1	0	0
I	2097.3	S	417868	5654854	16.9	23.9	193.1	144.3	12.9	59.2	1.0	7	0
J	2090.9	S	418100	5654854	21.9	35.6	97.4	223.9	3.0	33.7	1.0	1	0
K	2081.9	S	418411	5654853	30.3	65.9	100.9	323.8	34.4	48.7	0.9	0	0
L	2079.3	S	418497	5654855	23.9	85.3	177.5	429.5	34.4	67.8	0.5	0	0
M	2076.4	B	418594	5654857	5.2	15.1	67.3	429.5	57.2	67.8	0.4	2	0

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TEST FPick

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Anomalies Summary

Conductor Grade No, of Responses

7	1
6	2
5	7
4	11
3	21
2	82
1	137
0	41
Total	302

Conductor Model No, of Responses

E	48
B	53
D	58
S	143
Total	302

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10580 FLIGHT 4													
L	3439.2	E	418500	5657158	11.7	66.6	52.9	308.5	3.4	45.1	0.3	0	0
M	3436.6	B?	418498	5657246	13.9	56.0	130.8	323.9	6.3	78.9	0.4	0	0
LINE 10590 FLIGHT 4													
O	3301.1	S	418554	5657181	16.6	60.7	140.3	383.4	9.7	60.1	0.5	0	0
P	3303.0	S	418553	5657247	12.5	44.2	140.3	383.4	9.7	60.1	0.4	0	0
LINE 10600 FLIGHT 4													
N	3046.8	E	418600	5657145	12.3	65.3	122.7	441.7	2.8	66.2	0.3	0	0
O	3044.4	S	418599	5657227	6.8	33.7	122.7	441.7	6.7	66.2	0.3	0	0
P	3038.7	E	418597	5657427	21.0	42.6	193.3	343.0	7.2	61.5	0.8	0	299
LINE 10610 FLIGHT 4													
N	2824.7	E	418651	5657484	23.4	63.1	174.8	416.5	4.6	67.5	0.7	0	246
O	2827.1	S	418650	5657573	16.3	41.5	174.8	416.5	19.2	67.5	0.6	0	0
LINE 10620 FLIGHT 4													
N	2556.3	S	418696	5657541	18.4	80.3	137.0	460.3	16.3	69.4	0.4	0	307
LINE 10630 FLIGHT 4													
I	2427.0	S?	418750	5657088	3.1	14.2	5.1	30.9	3.0	4.6	---	---	0
J	2440.9	S	418748	5657599	9.4	13.5	43.8	158.7	23.9	22.5	0.8	18	268
LINE 10640 FLIGHT 4													
I	2192.5	S?	418797	5657090	3.2	17.9	4.7	41.9	2.1	5.8	---	---	0
J	2176.8	S?	418798	5657600	14.9	35.3	22.1	164.6	19.6	22.8	0.6	4	330
LINE 10650 FLIGHT 4													
H	2050.4	S?	418849	5657089	1.8	16.8	6.2	45.2	3.1	6.5	---	---	0
I	2065.5	S	418848	5657624	7.3	26.3	10.6	85.9	12.9	12.0	---	---	0
LINE 10660 FLIGHT 4													
I	1803.1	S	418895	5657032	2.1	24.7	14.3	134.2	3.0	19.0	---	---	0
J	1801.6	S	418895	5657079	1.3	22.3	14.3	134.2	3.0	19.0	---	---	0
K	1784.5	S?	418897	5657624	5.6	23.8	13.5	105.2	21.9	14.2	---	---	0
L	1773.4	S	418897	5658000	5.4	26.6	13.8	100.9	3.9	14.2	---	---	0

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TEST FPick

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10670			FLIGHT 4										
I	1551.5	E	418950	5657028	2.6	40.2	44.0	296.2	2.3	42.1	---	---	0
J	1553.4	S	418949	5657096	6.4	50.6	44.0	296.2	1.1	42.1	---	---	0
K	1564.6	S?	418947	5657461	1.9	11.4	5.6	53.6	8.2	7.4	---	---	0
L	1569.2	E	418946	5657620	6.7	35.8	2.7	130.0	18.7	17.9	---	---	0
M	1575.1	S	418949	5657820	3.4	20.2	4.5	92.4	8.9	13.0	---	---	338
LINE 10680			FLIGHT 4										
J	1307.6	E	418995	5657045	3.0	30.5	30.0	191.8	4.3	26.3	---	---	0
K	1305.3	S?	418997	5657122	3.8	29.8	30.0	191.8	8.2	26.3	---	---	0
L	1290.4	S	419000	5657608	5.8	17.8	13.4	157.2	22.4	21.8	0.4	1	700
LINE 10690			FLIGHT 4										
K	1160.7	S	419045	5657138	3.8	25.8	24.2	198.0	12.4	28.0	---	---	0
L	1174.7	S	419049	5657619	8.1	44.3	59.8	330.1	3.7	48.2	0.3	0	47
LINE 10700			FLIGHT 4										
I	915.1	S	419102	5657114	2.0	22.5	19.7	186.9	11.7	26.1	---	---	0
J	901.4	S	419100	5657571	5.7	26.1	114.4	405.9	5.9	62.0	0.3	0	244
K	900.0	S?	419098	5657620	17.8	38.1	114.4	405.9	5.9	62.0	0.7	0	75
LINE 10710			FLIGHT 4										
F	778.7	S	419149	5657224	1.7	6.4	0.9	72.4	1.0	9.7	---	---	167
G	787.9	S	419149	5657573	8.9	44.9	137.6	404.8	10.7	63.2	0.3	0	298
H	789.3	S?	419150	5657624	19.3	53.9	137.6	404.8	10.7	63.2	0.6	0	0
I	801.2	S	419146	5658052	7.3	29.1	15.7	111.3	2.1	16.1	---	---	0
LINE 10720			FLIGHT 4										
J	512.9	E	419203	5657455	4.8	46.0	3.8	270.4	17.7	35.9	---	---	0
K	509.3	S	419204	5657576	13.5	25.2	77.3	288.0	19.2	43.0	0.7	3	0
L	508.1	S?	419205	5657618	13.5	25.2	77.3	288.0	19.2	43.0	0.7	0	0
M	494.8	S	419205	5658075	9.4	36.4	32.6	121.9	31.9	17.4	---	---	0
LINE 10730			FLIGHT 3										
K	8012.5	S	419247	5657632	16.8	50.4	53.8	282.0	14.2	43.4	0.5	0	0
LINE 10740			FLIGHT 3										
J	7721.5	S	419296	5657636	11.8	27.8	49.8	140.6	35.3	21.4	0.6	0	0

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10740			FLIGHT 3										
K	7711.1	S	419300	5657994	4.8	18.2	27.7	100.9	29.0	15.2	---	---	107
LINE 10750			FLIGHT 3										
I	7607.1	S	419347	5657668	9.7	36.9	22.2	169.5	27.6	25.6	0.4	0	642
J	7615.6	S	419347	5657969	3.7	25.6	34.3	161.3	18.9	24.2	---	---	180
LINE 10760			FLIGHT 3										
G	7338.0	S?	419394	5656980	1.0	8.1	2.6	53.8	0.6	7.2	---	---	0
H	7320.3	S	419398	5657592	6.0	30.7	40.0	193.9	25.8	29.4	0.2	0	0
I	7317.9	S	419397	5657676	9.6	30.0	40.0	193.9	12.3	29.4	0.4	0	564
LINE 10770			FLIGHT 3										
I	7183.9	S	419441	5656964	2.4	10.8	1.9	57.4	0.6	7.9	---	---	0
J	7202.5	S	419446	5657590	8.4	44.6	49.9	332.3	22.9	49.9	0.3	0	0
K	7204.8	S	419446	5657667	15.4	52.7	49.9	332.3	10.6	49.9	0.5	0	278
LINE 10780			FLIGHT 3										
J	6806.2	S	419495	5656948	1.0	13.0	7.4	83.2	0.9	12.0	---	---	0
K	6787.2	S?	419498	5657594	9.1	42.4	68.6	330.2	21.4	51.5	0.3	0	399
LINE 10790			FLIGHT 3										
E	6569.4	T	419542	5654195	189.6	17.7	587.9	53.6	780.9	118.2	90.2	0	7506
F	6572.0	B	419542	5654283	68.3	5.1	587.9	173.8	780.9	118.2	90.1	11	0
K	6647.9	S	419550	5656843	0.9	24.2	6.7	106.4	0.9	15.9	---	---	0
L	6668.0	E	419553	5657506	25.8	86.4	232.0	645.7	34.9	108.0	0.6	0	0
M	6670.1	S	419553	5657582	22.9	81.5	232.0	645.7	13.0	108.0	0.5	0	0
N	6673.5	E	419553	5657703	20.8	86.4	18.8	529.5	26.7	103.1	0.4	0	141
LINE 10800			FLIGHT 3										
D	6492.0	B	419598	5654189	75.6	4.0	175.6	169.6	378.8	42.5	154.4	8	2845
E	6487.4	B	419597	5654342	121.7	6.3	604.9	175.8	468.0	176.3	189.5	0	3355
F	6486.2	B	419597	5654383	121.7	39.4	604.9	175.8	468.0	176.3	12.4	0	0
G	6479.3	B?	419596	5654619	10.2	9.9	39.0	31.4	10.3	19.4	---	---	0
H	6462.7	S?	419592	5655153	16.7	43.2	64.1	298.4	10.5	47.3	0.6	0	0
I	6454.9	B?	419597	5655417	10.5	27.1	11.5	105.6	28.7	25.4	0.5	0	1443
L	6411.5	S	419591	5656849	1.9	21.6	6.5	97.1	3.4	14.4	---	---	0
M	6387.5	B?	419595	5657585	69.4	189.1	430.7	1309.3	76.7	218.6	0.9	0	0
N	6384.1	B	419595	5657685	30.3	149.0	430.7	1309.3	2.5	218.6	0.4	0	913

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE	10810		FLIGHT 3										
E	6170.1	B	419638	5654173	17.9	0.0	42.4	177.2	108.8	8.8	---	---	0
F	6174.8	B	419636	5654330	79.9	20.8	534.8	191.6	425.1	145.9	14.8	4	3039
G	6176.6	B	419636	5654387	66.9	21.2	534.8	191.6	425.1	145.9	10.5	11	0
H	6179.4	B	419636	5654471	45.8	12.0	402.0	56.2	21.3	127.2	12.1	17	0
I	6186.6	D	419637	5654697	32.8	20.0	166.0	95.2	54.7	76.5	3.4	11	0
J	6199.6	S	419647	5655129	17.8	41.3	77.3	333.5	5.4	51.6	0.7	0	11
K	6209.7	S?	419645	5655461	12.1	26.9	151.3	320.3	28.6	63.9	0.6	0	498
L	6213.3	B?	419645	5655586	21.8	42.5	151.3	332.4	28.6	63.9	0.8	0	0
M	6251.2	S	419644	5656886	1.7	33.0	19.7	186.7	1.7	27.5	---	---	0
N	6271.7	B?	419644	5657541	52.8	163.6	333.5	865.8	54.6	150.7	0.8	0	0
O	6273.2	S?	419644	5657590	21.9	113.8	333.5	865.8	17.8	150.7	0.4	0	0
P	6275.7	S	419646	5657672	21.2	87.2	333.5	865.8	26.6	150.7	0.5	0	1027
Q	6277.7	E	419647	5657738	17.3	62.1	6.8	561.8	49.8	15.9	0.5	0	0
LINE	10820		FLIGHT 3										
C	6091.0	B	419700	5654162	32.4	15.3	269.3	298.2	44.1	84.2	4.7	19	0
D	6087.4	B?	419699	5654285	37.0	52.4	149.1	271.6	189.6	74.7	1.3	1	2535
E	6084.1	B	419699	5654399	9.9	12.3	149.1	75.3	176.6	74.7	1.0	10	0
F	6082.1	B	419700	5654467	9.6	2.5	84.3	0.6	176.6	27.6	---	---	0
G	6079.1	D	419698	5654569	24.5	15.4	241.7	85.5	115.8	98.7	3.0	21	0
H	6076.3	D	419698	5654665	27.8	15.2	241.7	85.5	150.0	98.7	3.7	17	0
I	6073.5	E	419697	5654758	17.7	6.5	127.1	55.3	54.2	54.1	---	---	0
J	6062.0	S?	419697	5655128	18.8	45.9	94.1	283.2	5.2	46.0	0.7	0	244
K	6052.3	S?	419696	5655463	8.3	13.8	96.9	186.8	7.6	39.2	0.7	12	429
L	6048.6	S	419694	5655593	15.9	33.9	96.9	186.8	10.7	39.2	0.7	0	0
M	6012.2	S?	419695	5656834	3.6	35.2	31.2	232.7	3.8	33.7	---	---	0
N	5988.1	E	419696	5657575	52.5	85.6	306.6	849.7	55.8	149.2	1.3	0	0
O	5986.9	S?	419695	5657615	52.5	85.6	306.6	849.7	53.6	149.2	1.3	0	980
P	5984.5	E	419695	5657694	40.7	89.4	306.6	849.7	1.6	149.2	0.9	0	0
LINE	10830		FLIGHT 3										
D	5780.7	B	419748	5654592	59.2	33.6	396.4	176.3	275.9	147.6	4.6	4	0
E	5783.8	B	419750	5654686	58.1	39.9	397.1	176.3	228.7	147.6	3.6	0	0
F	5799.6	S?	419756	5655138	16.9	45.3	179.6	448.3	12.6	80.6	0.6	0	1111
G	5801.0	B?	419756	5655179	24.1	58.8	179.6	448.3	0.0	80.6	0.7	0	1111
H	5812.1	S	419745	5655530	6.9	17.3	66.3	260.0	0.0	44.4	0.5	3	318
I	5813.8	E	419744	5655588	12.6	45.7	66.3	260.0	5.5	44.4	0.4	0	0

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Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10830 FLIGHT 3													
J	5852.0	S	419748	5656832	2.0	13.6	9.8	134.3	2.3	19.0	---	---	0
K	5876.6	E	419749	5657556	47.5	125.2	363.6	871.1	41.0	158.0	0.8	0	0
L	5879.5	S?	419750	5657637	50.4	72.3	363.6	871.1	0.0	158.0	1.5	0	844
M	5880.5	E	419751	5657666	50.4	72.3	363.6	871.1	5.3	158.0	1.5	0	844
LINE 10840 FLIGHT 3													
B	5495.1	H	419796	5654133	21.1	20.3	213.1	300.5	17.5	72.1	1.7	13	0
C	5490.3	B	419796	5654290	10.6	10.1	3.7	75.9	18.0	6.7	---	---	1126
D	5482.7	B	419796	5654526	55.3	17.6	486.0	15.9	299.4	170.4	9.8	17	2044
E	5479.8	B	419796	5654610	109.0	36.9	486.0	336.7	299.4	178.0	11.2	1	0
F	5464.1	S?	419797	5655079	18.6	38.1	150.0	361.6	29.9	61.6	0.8	0	71
G	5460.5	B?	419797	5655196	21.8	61.3	150.0	361.6	2.5	61.6	0.6	0	681
H	5451.1	S	419793	5655509	4.9	15.9	38.5	162.8	7.0	27.8	0.3	3	157
I	5411.0	S	419789	5656852	1.4	1.6	1.1	36.6	3.7	4.6	---	---	0
J	5387.7	E	419788	5657558	40.0	97.9	360.9	680.2	18.3	129.1	0.8	0	0
K	5385.6	S?	419789	5657629	9.8	51.0	360.9	680.2	34.9	129.1	0.3	0	674
L	5383.8	E	419789	5657690	54.8	98.7	360.9	680.2	34.9	129.1	1.2	0	670
LINE 10850 FLIGHT 3													
D	5188.1	S?	419845	5654334	8.2	34.4	43.7	173.7	0.0	30.0	0.3	0	1716
E	5192.7	B	419841	5654470	23.4	0.5	63.0	2.0	135.8	4.4	---	---	936
F	5196.8	B	419841	5654603	45.3	23.9	265.1	207.5	177.4	105.7	4.6	4	2654
G	5199.2	B	419842	5654683	20.7	26.7	265.1	207.5	177.4	105.7	1.2	6	0
H	5202.5	B	419844	5654796	28.1	30.1	157.9	131.6	60.8	68.5	1.7	6	0
I	5209.6	B	419854	5655043	24.3	30.2	133.4	288.5	46.3	49.0	1.3	7	132
J	5256.5	S?	419848	5656697	1.4	9.7	0.9	57.6	1.8	8.1	---	---	0
K	5283.9	E	419848	5657549	44.5	128.2	468.2	812.8	24.8	162.2	0.8	0	0
L	5287.6	S?	419846	5657660	54.8	68.6	468.2	812.8	25.2	162.2	1.8	0	520
M	5289.1	E	419845	5657708	68.6	123.3	468.2	798.1	25.2	162.2	1.3	0	575
LINE 10860 FLIGHT 3													
B	5106.2	D	419897	5654116	37.9	40.1	195.2	320.8	59.8	81.9	1.9	5	0
C	5102.9	B?	419896	5654220	30.4	40.7	195.2	320.8	59.8	81.9	1.3	6	2224
D	5093.8	B	419897	5654510	34.9	12.9	223.8	0.0	175.0	83.1	6.8	25	0
E	5091.7	D	419895	5654577	57.7	40.5	354.4	270.3	193.5	146.0	3.5	5	3349
F	5089.7	D	419895	5654643	20.7	20.3	354.4	241.2	193.5	146.0	1.7	14	0
G	5087.2	B	419896	5654731	10.1	19.9	251.4	241.2	126.5	119.9	0.6	11	0
H	5084.8	B	419898	5654815	27.7	30.4	249.9	241.2	126.5	82.7	1.6	8	0

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TEST FPick

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					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE	10860		FLIGHT 3										
I	5077.8	H	419900	5655062	13.3	27.2	141.9	224.5	27.9	50.2	0.7	4	0
J	5066.7	S	419893	5655440	5.6	23.9	43.3	180.3	2.9	29.8	0.3	0	0
K	5029.3	S	419892	5656678	2.7	14.4	6.8	81.5	4.8	11.3	---	---	11
L	5023.5	S	419893	5656865	0.0	16.1	7.8	71.7	2.5	10.8	---	---	0
M	5002.4	E	419901	5657520	35.9	84.8	10.4	677.6	7.7	15.8	0.8	0	0
N	4999.8	S?	419905	5657609	37.2	62.9	488.2	726.9	63.3	150.8	1.1	0	419
LINE	10870		FLIGHT 3										
D	4796.5	S	419949	5654206	20.0	15.3	155.6	196.6	72.2	58.6	2.2	14	0
E	4800.7	S?	419950	5654352	0.5	17.8	56.3	122.6	55.1	5.9	---	---	2441
F	4806.7	B	419947	5654547	21.0	3.7	166.3	9.5	109.8	61.5	16.9	29	0
G	4810.0	B	419949	5654676	64.1	35.7	370.2	297.7	187.9	130.0	4.8	0	1683
H	4813.6	B	419949	5654775	19.4	36.7	370.2	297.7	187.9	130.0	0.8	2	0
I	4822.9	H	419946	5655091	9.8	14.5	161.2	214.9	15.3	52.9	0.8	15	0
J	4833.1	S	419947	5655445	5.0	17.8	43.3	158.5	2.3	26.3	0.3	0	0
K	4874.3	S	419946	5656844	2.9	13.4	10.0	87.5	0.4	11.9	---	---	43
L	4894.8	E	419942	5657508	37.6	103.2	427.5	722.1	3.5	144.0	0.8	0	0
LINE	10880		FLIGHT 3										
D	4713.2	D	419996	5654368	6.2	15.4	65.8	67.1	37.6	32.9	0.4	7	538
E	4703.6	B	419990	5654690	85.1	31.0	563.5	208.3	465.2	171.3	9.3	1	2148
F	4697.2	B	419996	5654915	13.3	16.3	95.1	156.2	247.1	31.4	1.1	16	0
G	4692.2	H	419999	5655094	18.5	20.5	242.8	200.6	51.7	83.9	1.4	14	0
H	4683.4	S	419992	5655407	9.7	39.4	70.3	266.3	3.9	42.2	0.4	0	48
I	4681.8	S	419992	5655463	8.6	38.6	70.3	266.3	3.9	42.2	0.3	0	0
J	4640.0	S?	419993	5656866	3.3	30.3	34.1	255.5	1.8	37.0	---	---	0
LINE	10890		FLIGHT 3										
C	4413.6	D	420047	5654293	21.4	28.2	0.0	228.0	48.5	68.8	1.2	4	1100
D	4424.6	B	420046	5654625	23.7	7.4	173.4	11.3	195.6	12.8	7.6	27	0
E	4431.6	D	420050	5654850	31.2	27.0	325.1	320.1	241.3	227.6	2.2	6	554
F	4434.0	B	420051	5654928	69.0	88.0	385.2	500.9	241.3	227.6	1.9	0	1430
G	4437.9	H	420048	5655052	25.4	13.1	263.5	180.5	90.1	97.3	3.9	22	0
H	4449.3	S	420037	5655430	7.4	33.6	77.2	264.4	3.4	39.0	0.3	0	40
I	4454.8	S?	420039	5655620	12.0	29.3	81.5	305.6	0.2	42.6	0.6	0	0
L	4495.2	E	420046	5656926	3.6	43.2	25.3	210.5	2.3	30.0	---	---	0

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10900			FLIGHT 3										
D	4186.6	B	420099	5654626	32.2	14.4	122.7	65.7	138.5	23.3	5.1	19	0
E	4176.4	B	420095	5654955	61.7	38.8	241.9	322.4	120.2	163.6	4.1	1	2751
F	4173.6	B	420095	5655058	10.1	30.7	241.9	322.4	94.0	144.7	0.5	0	1680
G	4169.4	B	420097	5655215	23.5	7.8	238.9	110.6	84.7	84.6	6.9	27	0
H	4158.5	S	420101	5655607	13.0	56.4	219.1	592.1	2.4	97.0	0.4	0	0
I	4156.1	E	420102	5655689	28.9	89.7	219.1	592.1	16.0	97.0	0.6	0	0
J	4155.1	B	420101	5655722	1.2	19.6	53.1	65.8	16.0	21.0	---	---	0
K	4124.4	S	420092	5656767	3.5	30.6	18.5	146.1	3.1	21.0	---	---	41
L	4120.5	S	420091	5656902	3.7	43.1	18.5	146.1	3.1	21.0	---	---	0
LINE 10910			FLIGHT 3										
D	3908.6	B	420154	5654551	19.0	4.6	496.5	216.0	421.5	132.1	10.2	32	0
E	3911.7	B	420154	5654656	134.0	34.5	496.5	216.0	421.5	132.1	17.7	0	0
F	3924.1	D	420147	5655049	11.7	6.3	109.8	75.0	89.4	38.3	2.8	29	1457
G	3928.6	B	420147	5655202	170.4	78.8	679.9	468.4	335.6	299.8	8.5	0	2682
H	3930.0	B	420146	5655250	138.2	78.8	679.9	468.4	335.6	299.8	6.0	1	0
I	3931.6	E	420144	5655305	41.0	37.2	679.9	468.4	335.6	299.8	2.3	8	0
J	3941.9	S	420146	5655664	15.6	44.4	262.2	612.7	10.1	102.8	0.5	0	0
K	3944.0	E	420145	5655740	28.0	80.6	262.2	612.7	10.1	102.8	0.7	0	0
L	3952.7	S	420143	5656047	1.4	6.4	7.7	65.3	2.3	10.0	---	---	0
M	3973.0	S	420146	5656742	1.8	26.1	22.1	189.5	1.5	27.4	---	---	0
N	3977.3	S	420147	5656885	3.3	30.7	22.1	146.5	3.9	20.8	---	---	0
LINE 10920			FLIGHT 3										
D	3809.5	B	420199	5654642	103.8	16.3	452.9	158.6	389.3	116.2	33.9	3	3467
E	3804.7	B	420199	5654806	4.7	7.6	61.8	19.7	73.0	4.4	0.6	27	0
F	3790.1	B	420198	5655254	155.0	80.7	742.9	638.2	443.4	292.8	7.0	0	2632
G	3786.1	B	420199	5655382	70.7	108.8	88.0	638.2	20.9	40.0	1.5	0	0
H	3777.1	S?	420197	5655680	10.5	45.8	222.3	520.9	25.5	80.7	0.3	0	0
I	3775.5	D	420196	5655733	26.0	77.2	222.3	520.9	25.5	80.7	0.6	0	0
J	3772.3	E	420192	5655838	11.5	8.7	176.4	398.1	25.5	70.7	1.9	32	679
K	3770.0	S?	420190	5655917	6.6	11.4	30.9	183.2	2.5	29.0	---	---	0
L	3742.3	S	420195	5656802	0.8	13.6	11.4	132.1	1.3	19.2	---	---	0
M	3739.8	S	420195	5656886	2.1	26.8	12.1	132.1	1.4	19.2	---	---	0
LINE 10930			FLIGHT 3										
D	3534.5	B	420243	5654636	92.6	20.8	381.3	141.7	313.5	103.1	19.1	5	2632

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 10930			FLIGHT 3										
E	3539.3	B	420251	5654801	7.0	16.7	86.8	36.5	90.0	7.0	0.5	7	0
F	3554.3	B	420254	5655301	63.7	53.9	350.0	501.7	114.7	137.5	2.9	0	2482
G	3556.5	S?	420251	5655388	46.3	72.8	350.0	501.7	114.7	137.5	1.3	0	0
H	3558.0	E	420250	5655438	53.8	85.5	350.0	501.7	40.8	120.9	1.4	0	0
I	3568.7	S	420246	5655793	5.9	16.0	120.2	373.6	11.8	57.3	0.4	4	0
J	3599.4	S	420248	5656883	0.8	16.0	9.0	99.2	1.8	13.9	---	---	0
LINE 10940			FLIGHT 3										
E	3428.1	D	420296	5654668	69.6	50.9	317.6	244.2	166.2	127.0	3.5	4	3642
F	3426.2	B	420295	5654730	46.9	19.2	317.6	244.2	166.2	127.0	6.5	7	3453
G	3422.7	B	420295	5654846	5.5	0.9	57.8	32.5	55.4	9.4	---	---	0
H	3404.8	B	420292	5655371	52.0	67.1	324.2	538.1	73.0	110.1	1.7	0	0
I	3401.7	E	420291	5655468	41.5	88.1	324.2	538.1	73.0	110.1	1.0	0	0
J	3392.9	B?	420292	5655742	2.4	33.3	77.1	300.6	8.2	45.8	---	---	0
K	3391.0	S	420292	5655800	4.3	18.2	77.1	300.6	9.3	45.8	0.3	0	0
L	3388.7	S	420293	5655873	8.0	26.5	77.1	300.6	9.3	45.8	0.4	0	352
M	3380.6	S	420294	5656129	5.4	27.7	33.3	189.1	2.8	29.5	0.2	0	0
N	3356.1	S	420298	5656905	2.6	33.2	30.4	222.4	3.2	31.5	---	---	0
LINE 10950			FLIGHT 3										
G	3024.0	B	420351	5654774	42.9	36.4	239.9	270.9	64.6	148.7	2.5	7	0
H	3026.5	B	420354	5654856	0.7	0.3	36.4	32.6	18.4	17.5	---	---	0
I	3046.2	B	420352	5655466	41.9	93.9	251.0	522.2	70.6	114.4	0.9	0	0
J	3061.5	B?	420345	5655928	13.0	19.4	30.7	150.6	12.6	25.7	0.9	20	409
K	3067.7	S?	420347	5656131	10.5	21.1	60.9	212.2	8.1	38.8	0.6	5	459
L	3092.6	S	420352	5656939	1.6	35.0	41.0	289.3	7.4	41.3	---	---	0
LINE 10960			FLIGHT 3										
I	2905.9	D	420399	5654952	25.6	6.9	92.2	52.4	86.4	23.7	9.6	24	751
J	2891.2	D	420391	5655368	16.6	20.9	62.8	46.4	47.9	25.3	1.2	6	1181
K	2888.6	D	420392	5655446	71.5	94.8	374.9	499.4	133.0	156.1	1.8	0	462
L	2886.5	B	420393	5655514	34.0	59.2	374.9	499.4	133.0	156.1	1.1	0	296
M	2870.0	B	420396	5656031	12.1	11.9	95.6	126.6	36.1	50.8	1.4	28	0
N	2867.2	D	420394	5656127	28.3	42.8	187.4	331.2	36.1	90.4	1.2	2	1120
O	2841.8	S	420397	5656927	2.8	35.4	23.9	288.4	0.4	40.1	---	---	0
LINE 10970			FLIGHT 3										
G	2663.1	B	420449	5655538	73.5	29.6	351.7	226.4	183.3	140.6	7.7	5	1220

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE	10970		FLIGHT 3										
H	2677.0	D	420445	5655984	47.7	46.1	226.5	264.8	85.4	111.6	2.2	0	0
I	2678.6	D	420446	5656037	52.6	35.7	226.5	264.8	85.4	108.1	3.5	9	1310
J	2682.0	D	420446	5656151	51.7	5.9	263.7	103.1	139.0	108.1	---	---	1792
K	2688.5	S	420447	5656376	9.9	31.9	44.3	266.6	1.2	40.0	0.4	0	0
L	2705.3	S	420448	5656906	0.7	15.6	6.9	75.4	1.5	10.3	---	---	0
LINE	10980		FLIGHT 3										
F	2504.1	B	420496	5655547	83.5	26.4	270.7	125.5	160.9	92.8	11.3	3	2013
G	2491.2	D	420496	5655991	36.7	33.0	217.9	156.8	93.8	97.1	2.2	5	584
H	2489.3	B	420497	5656055	9.2	0.0	217.9	156.8	93.8	97.1	---	---	612
I	2487.6	D	420497	5656111	13.7	9.9	217.9	156.8	114.3	97.1	2.1	28	431
J	2485.3	D	420497	5656185	9.6	16.9	169.3	101.3	114.3	79.2	0.7	14	1754
K	2482.5	D	420498	5656278	13.2	69.6	274.3	698.2	56.6	120.7	0.3	0	0
L	2480.3	S?	420498	5656353	19.7	59.0	274.3	698.2	9.9	120.7	0.6	0	0
M	2477.4	E	420498	5656451	31.9	99.4	253.6	698.2	1.4	116.8	0.6	0	0
N	2460.0	S?	420501	5656986	0.7	12.2	1.3	41.1	0.4	6.2	---	---	0
LINE	10990		FLIGHT 3										
F	2274.1	B	420550	5655591	52.3	12.3	274.0	86.7	216.1	71.9	14.8	10	3145
G	2276.8	B?	420550	5655687	36.9	14.3	197.4	86.7	135.6	71.9	---	---	0
H	2285.7	D	420549	5656006	38.6	30.3	98.5	100.7	49.1	47.4	2.7	6	0
I	2292.5	B	420549	5656255	27.8	67.9	323.1	573.4	81.1	113.7	0.8	0	851
J	2296.2	S	420548	5656389	35.2	40.9	323.1	573.4	5.6	113.7	1.6	2	0
K	2298.0	E	420548	5656452	46.5	91.6	20.2	573.4	0.0	111.5	1.1	0	0
LINE	11000		FLIGHT 3										
G	2115.8	D	420600	5655607	81.5	15.6	443.1	117.4	333.4	126.6	23.3	4	0
H	2114.0	B	420601	5655665	34.0	14.5	443.1	117.4	333.4	126.6	5.6	19	0
I	2109.4	D	420600	5655811	32.3	50.2	77.7	250.6	34.3	42.2	1.2	0	0
J	2106.0	B	420601	5655925	0.5	6.3	54.8	250.6	25.4	42.2	---	---	0
K	2103.5	D	420601	5656007	33.4	15.4	47.4	19.9	20.3	10.9	4.9	16	0
L	2098.0	B	420597	5656176	9.0	18.1	25.0	69.8	62.8	17.8	0.6	8	255
M	2094.7	B	420595	5656281	43.4	80.1	428.8	771.0	62.8	154.6	1.1	0	0
N	2092.0	S	420596	5656370	31.7	50.3	428.8	771.0	16.6	154.6	---	---	0
O	2090.8	E	420597	5656409	56.1	114.5	428.8	771.0	8.3	154.6	1.1	0	0
LINE	11010		FLIGHT 3										
G	1894.9	B	420648	5655681	106.1	32.7	631.6	173.4	473.9	184.4	12.7	8	0

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 11010			FLIGHT 3										
H	1897.1	B	420646	5655759	74.6	9.0	631.6	235.1	473.9	184.4	45.2	6	0
I	1904.5	D	420645	5656014	24.9	18.3	6.3	49.9	26.5	18.1	2.5	8	243
J	1910.1	D	420646	5656208	32.3	62.1	351.5	539.3	43.9	132.6	1.0	0	974
K	1913.4	S?	420646	5656323	33.3	49.3	351.5	617.4	43.9	132.6	1.2	0	0
L	1916.9	E	420645	5656446	39.4	64.4	21.6	588.9	2.4	14.5	1.2	0	0
LINE 11020			FLIGHT 3										
F	1606.6	B	420701	5655679	43.8	6.9	427.0	102.3	426.9	125.2	25.2	21	388
G	1601.9	B	420703	5655828	158.5	77.2	523.6	497.3	385.9	191.2	7.7	0	0
H	1595.2	B	420704	5656038	8.1	6.8	30.7	10.1	12.4	15.5	1.4	27	65
I	1589.2	E	420698	5656212	19.4	26.3	34.4	447.8	21.3	115.6	1.1	1	0
J	1585.5	R?	420697	5656333	17.5	63.4	330.3	581.5	22.9	120.4	0.5	0	0
K	1583.3	E	420696	5656406	49.4	88.5	330.3	581.5	22.9	120.4	1.2	0	0
LINE 11030			FLIGHT 3										
E	1384.4	B	420747	5655677	34.3	17.0	279.0	64.1	198.6	81.3	4.5	14	0
F	1387.9	D	420748	5655805	60.9	17.9	354.1	213.8	275.1	136.2	11.3	5	3355
G	1389.2	B	420748	5655853	46.9	17.9	354.1	213.8	275.1	136.2	7.2	8	0
H	1390.5	B	420748	5655901	57.4	37.7	354.1	213.8	275.1	136.2	3.8	0	0
I	1397.3	B	420746	5656125	0.0	0.2	0.0	0.0	8.5	0.0	---	---	0
J	1403.1	D	420743	5656311	35.6	83.9	288.3	610.6	40.3	109.6	0.8	0	573
K	1405.6	S	420742	5656390	42.4	78.5	288.3	610.6	6.5	109.6	1.1	0	0
LINE 11040			FLIGHT 3										
E	1219.7	B?	420798	5655656	5.9	15.0	29.7	3.2	78.4	11.9	---	---	337
F	1215.3	D	420797	5655800	65.5	22.3	467.3	123.8	402.8	149.1	9.4	15	4277
G	1213.4	D	420797	5655863	36.4	7.0	493.3	167.0	402.8	150.2	17.6	18	0
H	1211.7	B	420798	5655917	69.3	29.6	493.3	167.0	402.8	150.2	7.0	3	0
I	1202.0	B	420800	5656207	0.4	3.0	0.0	0.0	47.9	0.0	---	---	221
J	1198.2	D	420800	5656323	33.0	92.2	287.3	656.4	47.9	112.7	0.7	0	0
K	1195.3	S	420800	5656422	44.4	67.3	287.3	656.4	13.8	112.7	1.3	0	0
LINE 11050			FLIGHT 3										
F	999.0	B?	420845	5655645	1.0	10.9	13.5	47.3	18.5	3.1	---	---	0
G	1002.7	E	420844	5655780	24.2	15.7	184.2	88.1	102.3	84.5	2.8	15	4517
H	1004.6	D	420843	5655850	34.4	8.0	318.3	88.1	284.3	84.5	13.1	19	4517
I	1008.1	D	420844	5655975	47.0	5.3	318.3	76.7	284.3	85.8	43.4	15	0
J	1012.0	B?	420848	5656108	21.0	12.2	329.6	76.7	284.5	85.8	---	---	3978

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 11050 FLIGHT 3													
K	1016.8	B	420850	5656267	8.3	5.0	125.5	2.8	165.7	0.3	2.2	32	0
L	1021.6	S?	420846	5656424	53.7	118.7	282.8	679.2	14.5	111.5	1.0	0	0
LINE 11060 FLIGHT 3													
F	765.6	B?	420893	5655622	8.6	11.1	45.3	0.0	80.1	0.0	---	---	0
G	758.7	D	420891	5655843	19.5	13.5	229.5	127.3	114.1	85.2	2.5	17	0
H	754.2	D	420896	5655993	67.5	5.1	295.4	127.3	307.8	36.9	87.5	10	0
I	744.4	B	420894	5656292	3.0	4.6	5.6	0.0	35.4	0.0	---	---	0
J	739.6	S?	420894	5656444	42.8	83.2	213.8	517.5	18.5	88.7	1.0	0	0
LINE 11070 FLIGHT 2													
I	7112.8	B?	420941	5655606	3.3	14.5	81.0	3.7	98.0	0.6	---	---	0
J	7120.4	D	420945	5655851	14.1	34.1	133.4	208.2	89.7	68.1	0.6	0	0
K	7123.6	D	420943	5655955	45.7	40.5	111.6	208.2	74.3	68.1	2.4	8	0
L	7132.5	D	420945	5656233	17.3	9.0	65.7	15.1	67.0	1.7	3.4	17	5585
M	7137.5	B	420945	5656402	30.5	42.8	193.3	306.4	89.9	50.1	1.3	1	0
N	7139.2	D	420943	5656461	40.5	35.3	193.3	306.4	87.9	50.1	2.4	2	0
LINE 11080 FLIGHT 2													
F	6961.6	B?	420992	5655596	16.6	11.8	54.5	19.2	66.7	3.2	---	---	0
G	6950.0	S?	420994	5656000	37.1	27.1	102.8	159.2	113.6	63.6	2.8	8	0
H	6944.5	B?	420993	5656202	30.7	2.5	118.8	20.1	138.7	25.2	---	---	4372
I	6939.7	B	420990	5656369	4.8	0.0	55.6	7.6	69.5	5.1	---	---	0
J	6937.8	D	420990	5656434	14.2	24.3	136.1	16.9	69.5	20.4	0.8	9	0
K	6934.8	D	420990	5656539	11.5	43.1	5.6	299.5	4.3	12.5	0.4	0	0
L	6931.2	S	420990	5656673	5.5	14.5	138.4	353.1	5.3	56.9	0.4	3	0
M	6928.6	E	420991	5656770	14.7	54.6	138.4	353.1	1.0	56.9	0.4	0	0
LINE 11090 FLIGHT 2													
H	6748.2	B?	421043	5655600	16.0	15.2	64.8	11.7	76.5	0.9	---	---	0
I	6760.7	S?	421046	5655999	14.5	32.0	52.3	190.5	44.0	38.4	0.7	4	0
J	6763.0	S?	421046	5656083	28.9	25.8	52.3	190.5	16.0	38.4	2.1	12	0
K	6766.0	D	421045	5656173	20.9	19.7	0.0	113.5	124.9	30.2	---	---	3210
L	6770.6	D	421045	5656319	34.6	15.0	151.2	37.5	115.5	31.2	5.5	7	2104
M	6773.5	B	421044	5656410	6.5	0.0	91.3	6.6	115.5	0.0	---	---	0
N	6778.2	B?	421046	5656568	18.0	57.2	176.6	472.9	56.2	68.4	---	---	0
O	6780.3	S	421047	5656638	6.3	37.3	176.6	472.9	4.4	68.4	0.2	0	165
P	6782.3	S	421048	5656704	15.6	46.2	176.6	472.9	4.4	68.4	0.5	0	0

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 11100			FLIGHT 2										
G	6594.6	S?	421096	5655572	8.5	13.5	88.0	25.5	99.7	4.3	---	---	0
H	6582.0	S?	421091	5655984	8.3	14.7	90.5	34.8	96.6	5.2	---	---	0
I	6578.3	S	421092	5656108	23.8	33.7	90.5	127.3	101.6	25.1	---	---	0
J	6571.6	D	421092	5656331	52.3	17.2	142.1	52.8	111.4	34.3	9.2	8	2239
K	6568.7	B	421091	5656422	4.4	0.7	32.3	2.9	156.7	2.7	---	---	0
L	6563.9	B?	421089	5656569	16.5	59.0	144.5	449.3	30.3	65.0	0.5	0	0
M	6560.2	S	421087	5656695	12.8	37.9	144.5	449.3	1.6	65.0	0.5	0	0
LINE 11110			FLIGHT 2										
G	6377.5	S?	421149	5655580	7.8	32.9	24.1	171.6	30.2	24.1	---	---	0
H	6387.4	S?	421144	5655869	0.0	13.0	0.0	37.3	0.0	5.9	---	---	265
I	6395.5	D	421144	5656108	20.7	34.8	54.1	143.7	116.9	27.4	0.9	1	0
J	6400.0	B?	421143	5656244	57.1	40.7	262.2	170.9	267.8	44.1	3.4	3	1329
K	6401.6	B	421143	5656292	49.3	27.0	262.2	170.9	267.8	44.1	4.5	7	0
L	6404.5	D	421143	5656379	48.5	18.4	262.2	10.7	267.8	31.4	7.3	9	59
M	6410.8	D	421143	5656575	17.5	59.6	111.6	385.4	4.6	59.1	0.5	0	0
N	6415.1	S?	421142	5656720	25.6	64.3	111.6	385.4	26.0	59.1	0.7	0	0
LINE 11120			FLIGHT 2										
F	6200.7	E	421192	5656027	6.5	6.0	21.6	58.8	39.3	9.8	---	---	0
G	6197.9	S	421192	5656114	6.3	35.5	45.1	146.4	28.2	24.0	---	---	27
H	6193.3	S	421194	5656262	43.0	58.9	190.8	371.5	61.5	70.7	1.5	1	288
I	6191.7	B	421195	5656311	30.5	47.2	294.7	371.5	251.5	70.7	1.2	2	0
J	6188.2	D	421192	5656423	27.8	15.8	294.7	48.0	251.5	44.7	3.6	16	697
K	6183.0	D	421186	5656589	22.7	51.6	92.8	215.8	83.7	35.0	0.7	0	0
L	6180.0	S	421185	5656691	0.9	17.6	80.2	215.8	28.3	41.0	---	---	941
M	6178.2	S?	421184	5656754	21.6	36.8	80.2	215.8	4.7	41.0	0.9	0	0
LINE 11130			FLIGHT 2										
E	5994.0	S	421243	5655575	21.2	57.6	187.4	301.7	75.8	42.7	0.6	0	0
F	6019.5	D	421249	5656392	30.6	25.4	263.0	172.9	213.8	60.2	2.3	8	0
G	6022.3	D	421250	5656484	59.6	17.6	263.0	100.9	213.8	60.2	11.1	8	350
H	6024.7	B	421249	5656564	10.8	0.0	2.0	0.0	53.6	0.0	---	---	0
I	6029.1	S?	421247	5656712	6.5	60.4	92.7	342.6	22.3	60.7	0.2	0	901
J	6030.6	B?	421247	5656762	17.4	56.5	92.7	342.6	33.1	60.7	0.5	0	891

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TEST FPick



## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 11140 FLIGHT 2													
F	5837.3	S?	421294	5655614	17.3	28.2	190.3	415.4	92.9	62.2	0.9	5	0
G	5813.9	B	421293	5656428	32.3	31.2	332.6	225.6	234.9	96.3	2.0	9	0
H	5812.4	D	421294	5656479	24.1	0.0	332.6	225.6	234.9	96.3	---	---	0
I	5810.6	D	421295	5656540	74.2	31.7	332.6	225.6	234.9	96.3	7.2	5	1432
J	5809.2	B	421296	5656587	15.6	27.8	332.6	20.6	72.8	96.3	0.8	11	0
K	5804.8	S?	421298	5656735	3.1	29.6	36.6	188.1	0.9	29.9	---	---	441
LINE 11150 FLIGHT 2													
F	5538.4	S	421348	5655712	19.4	28.8	157.4	293.0	89.9	45.3	1.0	7	0
G	5543.8	B?	421347	5655889	8.2	21.8	6.7	92.9	17.3	13.7	---	---	0
H	5552.6	B?	421340	5656155	8.8	9.7	20.7	6.4	44.5	1.1	---	---	0
I	5563.3	B?	421347	5656476	30.1	31.3	225.1	247.4	156.9	65.8	1.8	6	0
J	5565.7	D	421349	5656551	55.1	32.5	225.1	247.4	156.9	65.8	4.2	5	535
K	5568.3	B	421351	5656637	8.2	5.0	102.6	48.7	82.3	15.4	2.1	44	0
L	5575.3	S?	421352	5656870	6.7	25.0	31.5	116.5	9.1	18.9	---	---	0
LINE 11160 FLIGHT 2													
H	5373.7	S	421391	5655731	11.9	19.5	77.3	202.0	30.2	29.9	0.8	3	0
I	5359.3	S	421394	5656210	7.5	11.1	51.2	34.2	64.7	1.9	---	---	0
J	5348.0	D	421398	5656583	29.4	20.1	222.7	176.5	207.1	43.8	2.9	7	436
K	5345.6	B	421397	5656669	20.5	11.5	193.0	176.5	192.8	43.8	3.3	23	0
L	5336.0	S?	421394	5656998	1.5	16.6	8.4	81.8	2.9	11.3	---	---	0
LINE 11170 FLIGHT 2													
E	5158.0	S?	421442	5655793	10.7	25.4	82.1	321.7	28.9	46.2	0.6	1	0
F	5171.2	S	421443	5656209	4.6	10.1	69.7	32.1	81.8	1.7	---	---	0
G	5185.8	D	421445	5656649	121.3	42.5	434.2	292.3	320.8	133.5	11.1	0	1009
H	5196.9	S	421447	5657011	4.5	17.0	8.9	84.5	1.2	11.9	---	---	0
LINE 11180 FLIGHT 2													
G	4989.7	S?	421497	5655811	9.4	49.7	79.8	253.9	27.4	36.3	0.3	0	0
H	4965.6	B	421494	5656672	57.2	27.9	339.5	210.8	253.7	100.7	5.5	10	1094
LINE 11190 FLIGHT 2													
G	4778.6	S	421548	5655830	12.3	23.0	47.0	94.4	16.7	13.9	0.7	1	0
H	4783.9	S	421546	5656013	10.1	12.4	68.5	125.7	65.1	17.4	---	---	0
I	4803.5	E	421549	5656642	27.7	26.8	303.7	172.7	204.5	110.6	1.8	8	12

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TEST FPick

## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 11190			FLIGHT 2										
J	4807.2	D	421549	5656762	90.0	28.2	303.7	172.7	204.5	110.6	11.7	3	1754
LINE 11200			FLIGHT 2										
F	4590.6	S	421594	5656115	14.0	19.7	82.4	160.3	65.8	22.5	---	---	0
G	4574.8	E	421594	5656642	30.4	27.3	223.0	103.6	196.9	43.2	2.1	4	0
H	4571.8	B	421592	5656743	20.0	7.8	223.0	103.6	196.9	43.2	5.3	24	1460
I	4570.5	D	421593	5656785	20.0	12.8	223.0	100.1	196.9	43.2	2.7	18	1460
J	4563.9	S?	421594	5656994	19.9	102.9	152.4	575.1	10.2	86.1	0.4	0	0
LINE 11210			FLIGHT 2										
H	4285.3	S?	421640	5656157	35.4	40.9	102.8	125.6	84.8	18.1	---	---	10
I	4303.4	S	421639	5656706	9.0	18.1	298.1	164.0	222.1	106.8	0.6	15	1098
J	4307.3	D	421640	5656829	110.4	21.0	298.1	121.0	222.1	106.8	26.0	9	1529
LINE 11220			FLIGHT 2										
G	4080.7	S?	421690	5656173	15.2	37.5	80.9	174.4	47.1	26.1	---	---	0
H	4060.6	D	421694	5656868	40.2	10.1	168.0	25.9	130.9	48.9	12.3	19	1983
I	4055.8	S?	421692	5657018	17.9	65.9	191.6	525.3	45.0	83.7	0.5	0	0
LINE 11230			FLIGHT 2										
H	3872.2	E	421745	5655847	32.9	92.2	222.4	475.4	19.4	82.8	0.7	0	0
I	3874.2	E	421745	5655912	16.9	53.2	222.4	475.4	19.4	82.8	0.5	0	0
J	3879.6	B?	421745	5656080	14.7	0.0	52.0	4.5	73.2	17.9	---	---	0
K	3884.7	S?	421744	5656242	22.1	53.6	138.5	232.2	107.1	33.7	0.7	0	0
L	3905.7	D	421739	5656887	45.8	4.9	181.6	51.1	160.6	39.6	46.5	18	3239
LINE 11240			FLIGHT 2										
H	3687.9	E	421800	5655841	47.0	64.5	322.5	397.2	81.9	103.2	1.5	0	0
I	3685.6	B?	421798	5655923	39.3	46.2	322.5	397.2	81.9	103.2	1.7	0	0
J	3681.1	B?	421795	5656080	22.4	22.9	135.8	104.0	55.0	44.7	1.6	9	0
K	3675.7	S	421793	5656265	13.3	36.0	94.4	253.0	29.1	38.3	---	---	47
L	3657.1	D	421794	5656895	27.8	0.0	152.2	75.2	194.9	48.2	---	---	5173
LINE 11250			FLIGHT 2										
G	3481.1	B	421847	5655861	72.1	47.7	460.5	200.5	313.0	148.3	4.0	0	0
H	3483.3	B	421847	5655933	33.7	16.7	460.5	200.5	313.0	148.3	4.5	17	0
I	3495.9	S	421845	5656367	10.1	19.4	99.1	171.0	79.3	21.0	---	---	0
J	3503.6	S	421848	5656617	7.6	24.8	91.4	49.6	93.7	7.5	---	---	0

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## EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ		CP 7200 HZ		CP 900 HZ		Vertical Dike		Mag. Corr NT
					Real ppm	Quad ppm	Real ppm	Quad ppm	Real ppm	Quad ppm	COND siemens	DEPTH* m	
LINE 11250 FLIGHT 2													
K	3514.7	D	421846	5656983	30.0	48.5	115.3	152.5	111.3	43.9	1.1	0	1973
LINE 11260 FLIGHT 2													
G	3296.2	B	421891	5655861	92.2	19.7	583.3	58.7	528.7	151.4	20.6	0	0
H	3294.5	B	421892	5655922	50.0	1.1	583.3	58.7	528.7	151.4	---	---	4369
I	3291.5	B	421893	5656028	72.3	23.2	583.3	81.4	518.5	141.8	10.5	10	0
J	3285.7	E	421894	5656228	15.3	29.9	138.2	50.5	80.8	6.1	0.7	0	0
K	3274.4	S?	421893	5656626	7.2	17.0	56.5	190.3	60.7	26.5	---	---	1088
L	3263.7	D	421889	5657006	13.0	33.7	155.8	202.7	180.0	34.3	0.6	2	2420
LINE 19020 FLIGHT 6													
F	1534.9	E	418576	5657355	8.7	41.6	63.4	290.1	12.6	42.0	0.3	0	15
G	1514.0	S	419264	5657350	0.7	2.4	3.6	46.3	0.9	5.9	---	---	0
LINE 19030 FLIGHT 6													
C	1801.6	S	420359	5656101	19.0	22.5	183.7	250.8	7.5	56.7	1.3	12	0
D	1804.0	B	420436	5656102	27.3	0.0	186.8	225.1	105.2	56.7	---	---	897
E	1805.6	D	420487	5656105	41.3	18.2	186.8	82.6	105.2	56.7	5.7	14	157
F	1818.2	B	420889	5656105	35.0	8.3	135.8	36.6	154.9	38.3	12.8	18	0
G	1822.6	S?	421031	5656103	16.6	27.0	106.1	169.9	168.9	38.3	---	---	0
H	1825.2	S	421116	5656104	16.3	22.6	106.1	169.9	169.4	19.6	---	---	0
I	1828.8	S	421237	5656105	1.4	18.2	26.7	124.2	34.4	19.4	---	---	33
J	1839.5	S	421597	5656103	13.5	31.4	67.6	146.2	48.4	21.3	---	---	0
K	1844.2	S	421765	5656104	15.6	6.0	55.4	88.0	33.8	17.6	4.9	27	0
LINE 19040 FLIGHT 6													
P	2035.3	B	419876	5654852	47.5	63.8	456.0	375.5	88.4	136.0	1.5	0	0
Q	2032.6	B	419959	5654855	46.1	37.6	464.9	375.5	297.0	138.2	2.7	6	0
R	2031.0	B	420009	5654856	92.5	43.6	464.9	375.5	297.0	138.2	6.7	0	841

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Anomalies Summary

Conductor Grade No, of Responses

7	2
6	3
5	8
4	21
3	25
2	107
1	133
0	119
Total	418

Conductor Model No, of Responses

E	46
B	133
D	68
S	165
H	5
T	1
Total	418

---

**APPENDIX E**

**ARCHIVE DESCRIPTION**

---

## APPENDIX E

### ARCHIVE DESCRIPTION

Reference: CCD01905  
Disc 1 of 1  
Archive Date: 2002-Dec-16

---

This archive contains final data archives of an airborne geophysical survey conducted by FUGRO AIRBORNE SURVEYS CORP. on behalf of REDSTAR GOLD CORP. during November, 2002

Job # 2123

---

This archive comprises 24 files contained in 3 directories

\*\*\*\*\* Disc 1 of 1 \*\*\*\*\*

#### \GRIDS

Grids in Geosoft binary format

MAG_*.GRD	- Total Magnetic Field (nT)
CVG_*.GRD	- Calculated Vertical Magnetic Gradient (nT/m)
RES900_*.GRD	- Apparent Resistivity 878 Hz (ohm·m)
RES7200_*.GRD	- Apparent Resistivity 7116 Hz (ohm·m)
RES56K_*.GRD	- Apparent Resistivity 55800 Hz (ohm·m)

where \* is area A, B or C

#### \LINEDATA

REDSTAR_*.XYZ	- Data archive in Geosoft Ascii format
ANA_*.XYZ	- Anomaly archive in Ascii format
REDSTAR.TXT	- Documentation for linedata XYZ files
ANOMALY.TXT	- Documentation for anomaly XYZ files

where \* is area A, B or C

#### REPORT\

REDSTAR.DOC	- Logistics Report in MSWord v6.0 format
-------------	--

---

The coordinate system for all grids and GDB files is projected as follows

Datum	NAD83
Spheroid	GRS 1980
Projection	UTM
Central meridian	93 West
False easting	500000
False northing	0
Scale factor	0.9996
Northern parallel	N/A
Base parallel	N/A
WGS84 to local conversion method	Molodensky
Delta X shift	0

Delta Y shift 0  
Delta Z shift 0

---

If you have any problems with this archive please contact

Processing Manager  
FUGRO AIRBORNE SURVEYS CORP.  
2270 Argentia Road, Unit 2  
Mississauga, Ontario  
Canada L5N 6A6  
Tel (905) 812-0212  
Fax (905) 812-1504  
E-mail [toronto@fugroairborne.com](mailto:toronto@fugroairborne.com)

Geosoft XYZ ANOMALY ARCHIVE SUMMARY

JOB TITLE:  
-----

JOB # :2123  
TYPE OF SURVEY :EM, MAGNETICS, RESISTIVITY  
AREA :Red Lake Area, Ontario  
CLIENT :Redstar Gold Corp.

2. 255 85

\*\*\*\*\*  
SURVEY DATA FORMAT:  
-----

NUMBER OF DATA FIELDS : 15

#	CHANNAME(16LONG)	TIME	UNITS	/ DESCRIPTION
1	EASTING	0.10	m	UTME-NAD83
2	NORTHING	0.10	m	UTMN-NAD83
3	FID	1.00	n/a	Synchronization Counter
4	FLT	0.10	n/a	Flight
5	MHOS	0.10	siemens	Conductance based on Vertical Dike Model
6	DEPTH	0.10	m	Depth based on Vertical Dike Model
7	MAG	0.10	nT	Mag Correlation, local amplitude
8	CXI1	0.10	ppm	Inphase Coaxial 5780 Hz, local amplitude
9	CXQ1	0.10	ppm	Quadrature Coaxial 5780 Hz, local amplitude
10	CPI1	0.10	ppm	Inphase Coplanar 7235 Hz, absolute amplitude
11	CPQ1	0.10	ppm	Quadrature Coplanar 7235 Hz, absolute amplitude
12	CPI2	0.10	ppm	Inphase Coplanar 874 Hz, absolute amplitude
13	CPQ2	0.10	ppm	Quadrature Coplanar 874 Hz, absolute amplitude
14	LET	0.10	n/a	Anomaly Identifier
15	SYM	0.10	n/a	Anomaly Interpretation Symbol

\*\*\*\*\*  
ISSUE DATE :December 16, 2002  
FOR WHOM :Redstar Gold Corp.

BY WHOM :FUGRO AIRBORNE SURVEYS CORP.  
2270 ARGENTIA ROAD, UNIT 2  
MISSISSAUGA, ONTARIO,  
CANADA L5N 6A6  
TEL. (905) 812-0212  
FAX (905) 812-1504



SURVEY DATA FORMAT:

-----  
 NUMBER OF DATA FIELDS : 29

#	CHANNAME (16LONG)	TIME	UNITS / DESCRIPTION	BYTES	decimal
1	X	0.10	m UTME-NAD83	10	2
2	Y	0.10	m UTMN-NAD83	11	2
3	FID	1.00	n/a Synchronization Counter	10	1
4	DATE	0.10	Date	10	0
5	FLT	0.10	n/a Flight Number	6	1
6	RMAG	0.10	nT Uncorrected Total Magnetic Intensity	10	3
7	DIURNAL	0.10	nT Daily Variations of Magnetic Field	10	3
8	MAG	0.10	nT Corrected Total Magnetic Intensity	10	3
9	ALTBIRDM	0.10	m Em Bird to Earth-Surface	9	2
10	GALT	0.10	m Height above ellipsoid	9	2
11	BARO	0.10	m Barometric Altimeter	9	2
12	CPI900	0.10	ppm Inphase-Coplanar 874 Hz	10	2
13	CPQ900	0.10	ppm Quad-Coplanar 874 Hz	10	2
14	CXI1000	0.10	ppm Inphase-Coplanar 1090 Hz	10	2
15	CXQ1000	0.10	ppm Quad-Coplanar 1090 Hz	10	2
16	CXI5500	0.10	ppm Inphase-Coaxial 5780 Hz	10	2
17	CXQ5500	0.10	ppm Quad-Coaxial 5780 Hz	10	2
18	CPI7200	0.10	ppm Inphase-Coplanar 7235 Hz	10	2
19	CPQ7200	0.10	ppm Quad-Coplanar 7235 Hz	10	2
20	CPI56K	0.10	ppm Inphase-Coplanar 56500 Hz	10	2
21	CPQ56K	0.10	ppm Quad-Coplanar 56500 Hz	10	2
22	RES900	0.10	ohm·m Apparent Resistivity 874 Hz	10	2
23	RES7200	0.10	ohm·m Apparent Resistivity 7235 Hz	10	2
24	RES56K	0.10	ohm·m Apparent Resistivity 56500 Hz	10	2
25	DEP900	0.10	m Apparent Depth 874 Hz	10	2
26	DEP7200	0.10	m Apparent Depth 7235 Hz	10	2
27	DEP56K	0.10	m Apparent Depth 56500 Hz	10	2
28	DIFI	0.10	ppm Inphase Difference Channel	10	2
29	DIFQ	0.10	ppm Quadrature Difference Channel	10	2

\*\*\*\*\*

ISSUE DATE :December 16, 2002  
 FOR WHOM :REDSTAR GOLD CORP.

BY WHOM :FUGRO AIRBORNE SURVEYS CORP.  
 2270 ARGENTIA ROAD, UNIT 2  
 MISSISSAUGA, ONTARIO,  
 CANADA L5N 6A6  
 TEL. (905) 812-0212  
 FAX (905) 812-1504



Date: 2003-JUL-08

GEOSCIENCE ASSESSMENT OFFICE  
933 RAMSEY LAKE ROAD, 6th FLOOR  
SUDBURY, ONTARIO  
P3E 6B5

REDSTAR GOLD CORP.  
SUITE 611 - 675 WEST HASTINGS ST.  
VANCOUVER, BRITISH COLUMBIA  
V6B 1N2 CANADA

Tel: (888) 415-9845  
Fax:(877) 670-1555

**Submission Number:** 2.25505  
**Transaction Number(s):** W0320.00716

Dear Sir or Madam

**Subject: Approval of Assessment Work**

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

PLEASE NOTE: Duplicate copies of the Declaration of Assessment Work forms are no longer required.

If you have any question regarding this correspondence, please contact BRUCE GATES by email at [bruce.gates@ndm.gov.on.ca](mailto:bruce.gates@ndm.gov.on.ca) or by phone at (705) 670-5856.

Yours Sincerely,



Ron Gashinski  
Senior Manager, Mining Lands Section

**Cc:** Resident Geologist

Perry Vern English  
(Claim Holder)

Redstar Gold Corp.  
(Claim Holder)

Assessment File Library

Rubicon Minerals Corporation  
(Claim Holder)

Redstar Gold Corp.  
(Assessment Office)



52M01SE2028 2.25505 TODD

200

ONTARIO  
CANADA

MINISTRY OF NORTHERN  
DEVELOPMENT AND MINES  
PROVINCIAL MINING  
RECORDERS' OFFICE

Mining Land Tenure  
Map

Date / Time of Issue: Thu Jul 10 10:00:55 EDT 2003

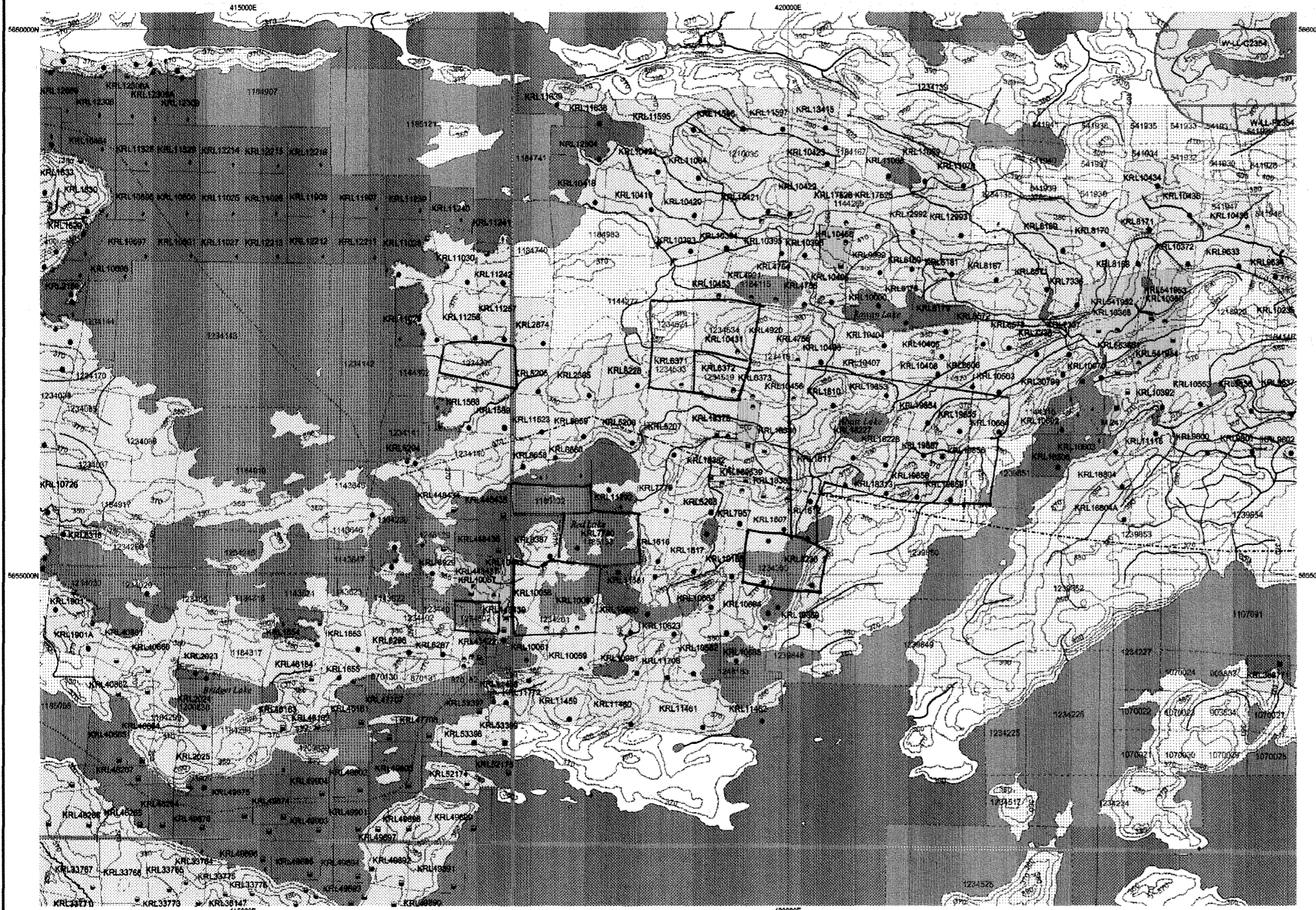
TOWNSHIP / AREA  
TODD

PLAN  
G-1789

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division  
Land Titles/Registry Division  
Ministry of Natural Resources District

Red Lake  
KENORA  
RED LAKE

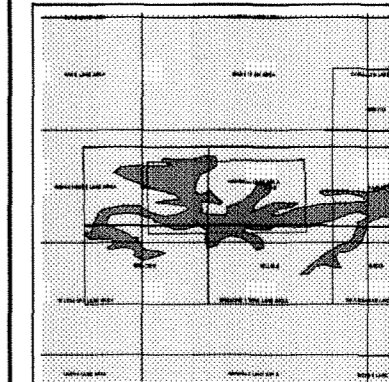


TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit & Pile
- Contour
- Mine Shafts
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

- Freehold Patent**
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Leasehold Patent**
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- License of Occupation**
  - Uses Not Specified
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
  - Land Use Permit
  - Order In Council (Not open for staking)
  - Water Power Lease Agreement



- LAND TENURE WITHDRAWALS**
- Areas Withdrawn from Disposition
  - Mining Act Withdrawal Types**
    - Surface And Mining Rights Withdrawn
    - Surface Rights Only Withdrawn
    - Mining Rights Only Withdrawn
  - Order In Council Withdrawal Types**
    - Surface And Mining Rights Withdrawn
    - Surface Rights Only Withdrawn
    - Mining Rights Only Withdrawn
  - IMPORTANT NOTICE



LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
266	Wsm	Jan 1, 2001	PENDING APP.FOR EXPLORATORY LICENSE OIL NATURAL GAS (
8940	Wsm	Jan 1, 2001	M.N.R. RESERVE FILE NO.188535 DATE 9 MARCH, 1976
W-LL-C2354	Wsm	Feb 26, 2002	<a href="http://www.mndm.gov.on.ca/MNDMMINES/LANDS/livleg/bi">
W-LL-F2354	Wsm	Feb 26, 2002	<a href="http://www.mndm.gov.on.ca/MNDMMINES/LANDS/livleg/bi">
W-LL-F2370	Wsm	Aug 29, 2002	<a href="http://www.mndm.gov.on.ca/MNDMMINES/LANDS/livleg/bi">
W-LL-P2370	Wsm	Aug 29, 2002	<a href="http://www.mndm.gov.on.ca/MNDMMINES/LANDS/livleg/bi">
159	Wsm	Jan 1, 2001	WOODLAND CARIBOU PROVINCIAL PARK

UTM Zone 15  
5000m grid

General Information and Limitations

Contact Information:  
Provincial Mining Recorders' Office  
Willot Green Miller Centre 933 Ramsey Lake Road  
Sudbury ON P3E 6B5  
Home Page: [www.mndm.gov.on.ca/MNDMMINES/LANDS/mismpgpe.htm](http://www.mndm.gov.on.ca/MNDMMINES/LANDS/mismpgpe.htm)

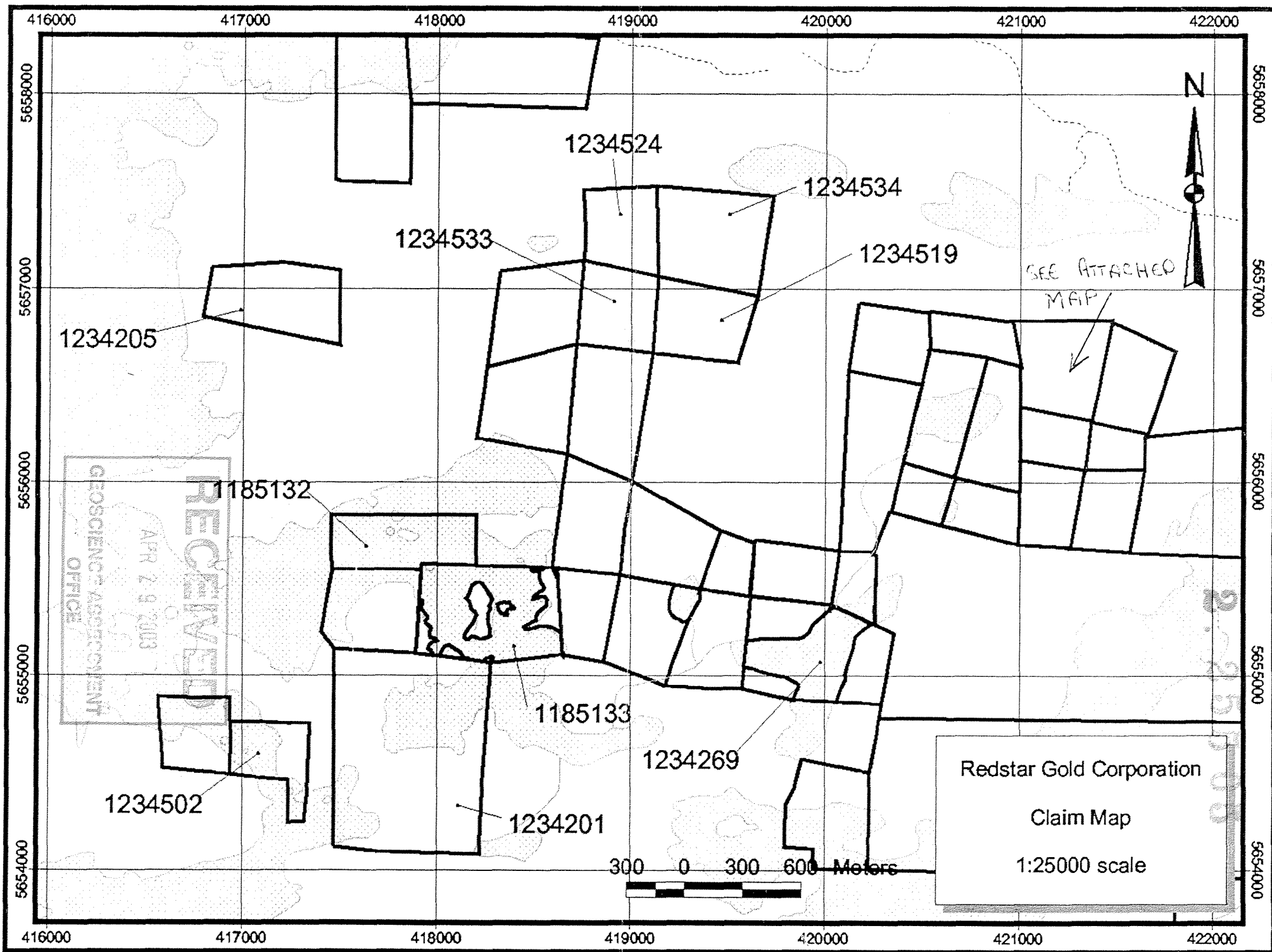
Toll Free  
Tel: 1 (888) 415-9845 ext 5789  
Fax: 1 (877) 670-1444

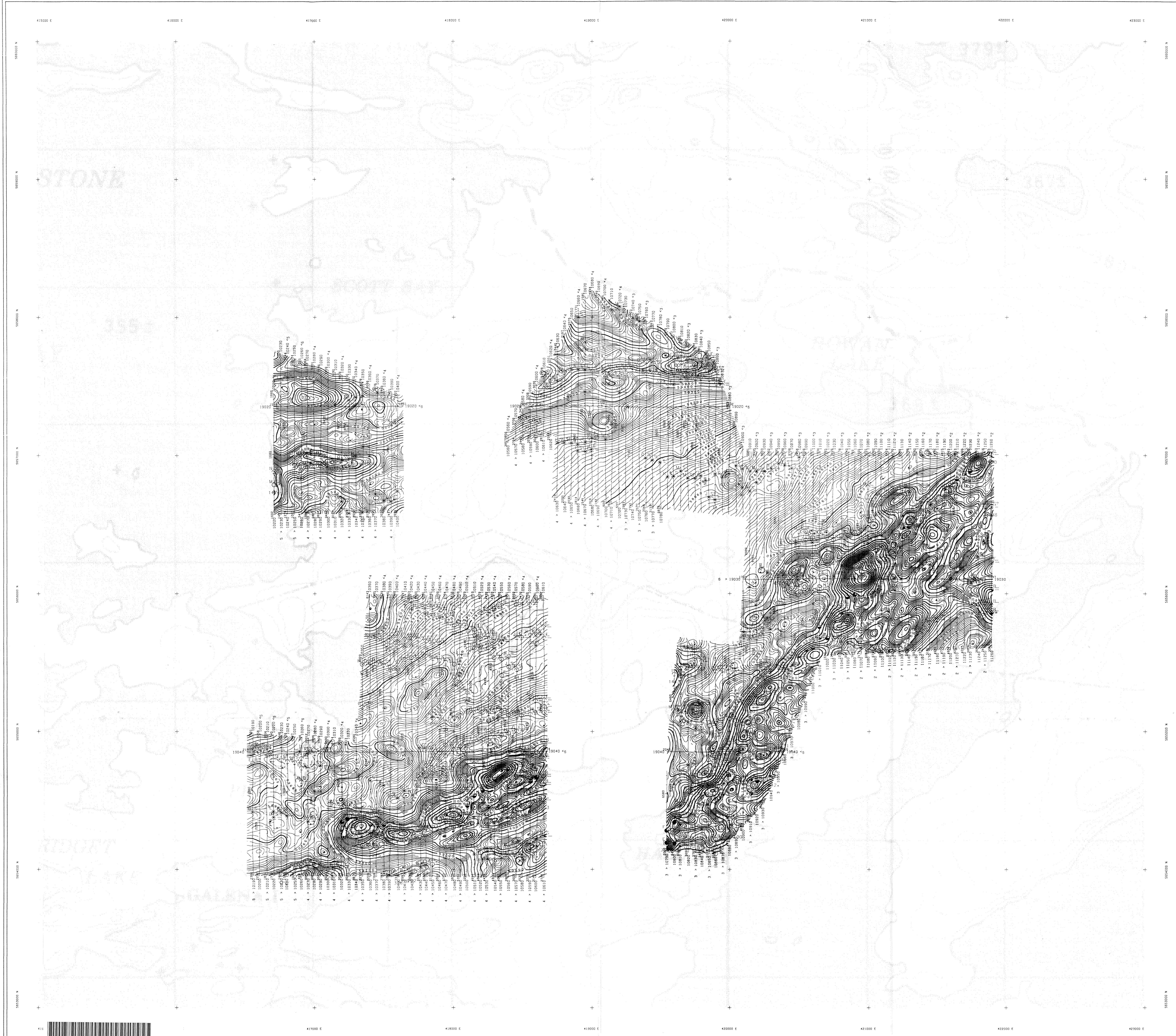
Map Datum: NAD 83  
Projection: UTM (6 degree)  
Topographic Data Source: Land Information Ontario  
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licenses, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

2.25505  
AMAG  
AEM

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site



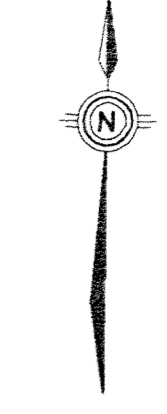


**TECHNICAL SUMMARY**

Navigation	Differentially-corrected GPS
Date reduction grid interval	12.5 metres
Terrain clearance	Helicopter 5.7 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
500 Hz	.12 ppm	Vertical coaxial
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
50000 Hz	.60 ppm	Horizontal coplanar



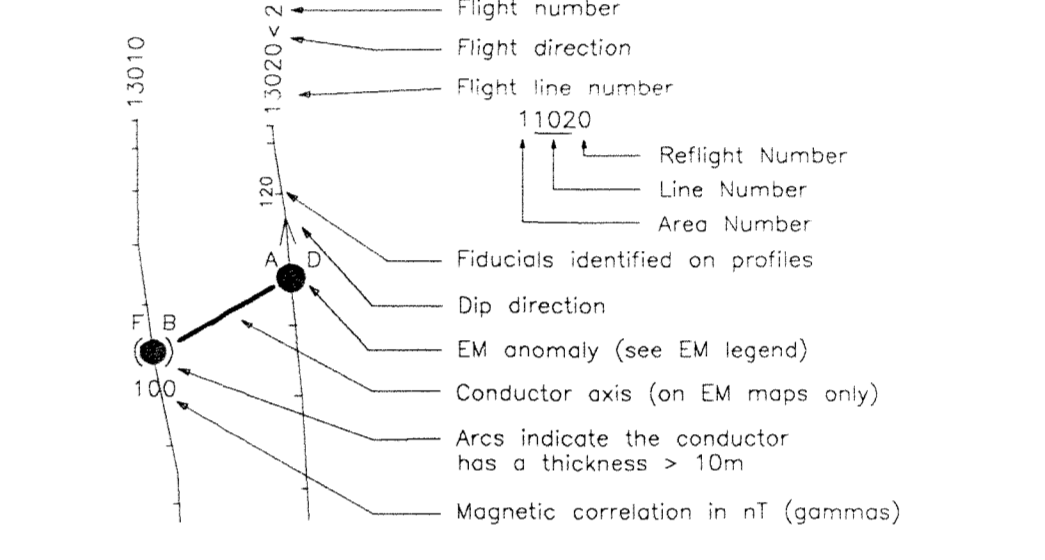
**ELECTROMAGNETIC ANOMALIES**

Grade	Anomaly	Conductance
7	●	>100 siemens
6	●	50-100 siemens
5	●	20-50 siemens
4	●	10-20 siemens
3	●	5-10 siemens
2	●	1-5 siemens
1	●	<1 siemens
-	*	Questionable anomaly

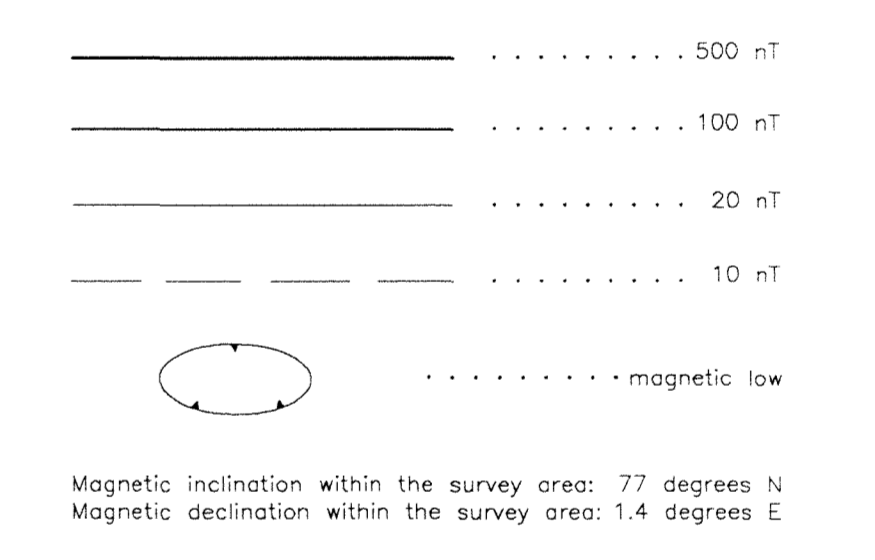
  

Interpretive symbol	Conductor ("mode")
B	Bedrock conductor
D	Narrow bedrock conductor ("thin dike")
S	Conductive cover ("horizontal thin sheet")
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	Edge of broad conductor ("edge of half space")
L	Culture, e.g. power line, metal building or fence

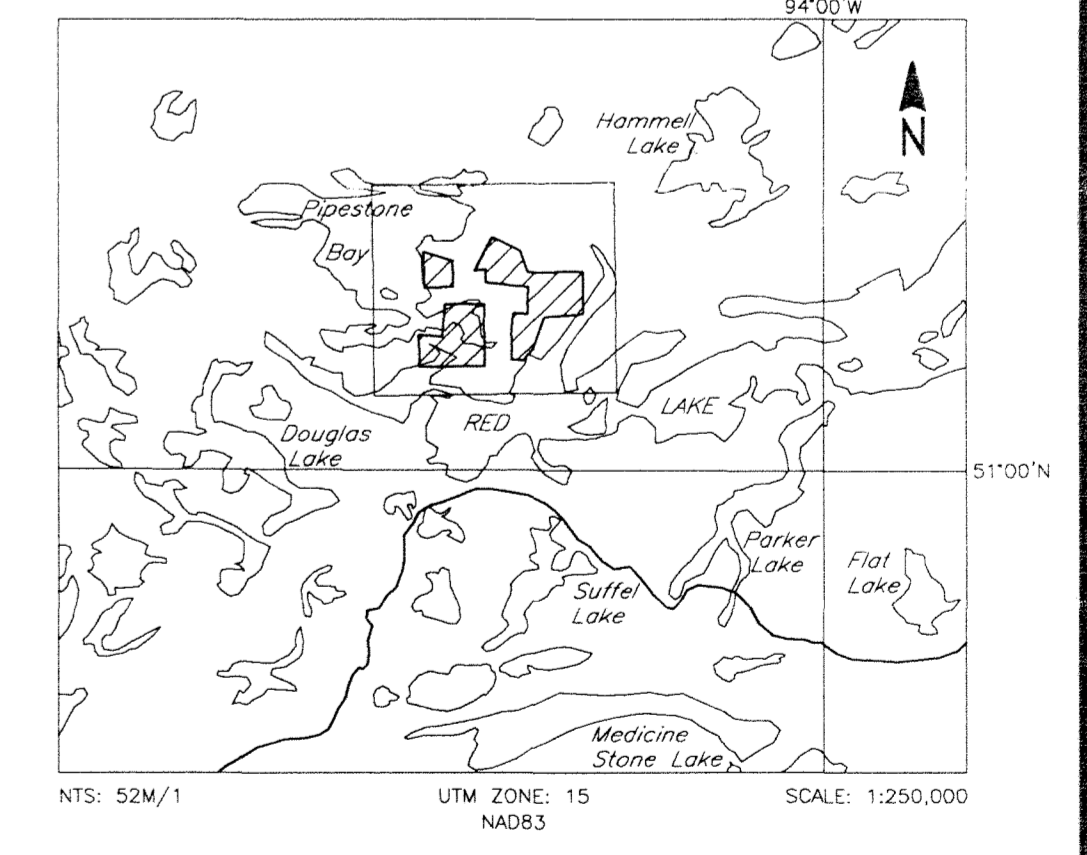
**FLIGHT LINES WITH EM ANOMALIES**



**TOTAL MAGNETIC FIELD CONTOURS**



**LOCATION MAP**

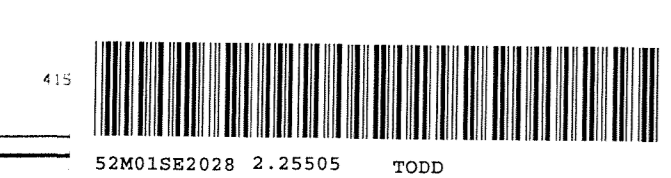
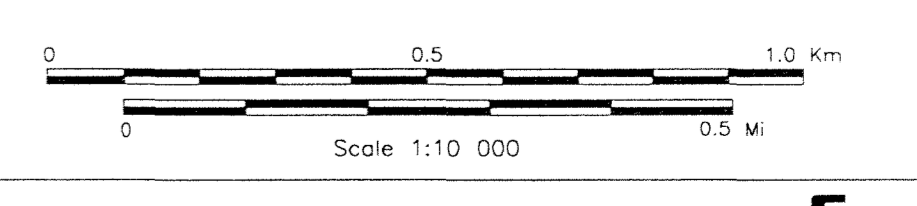


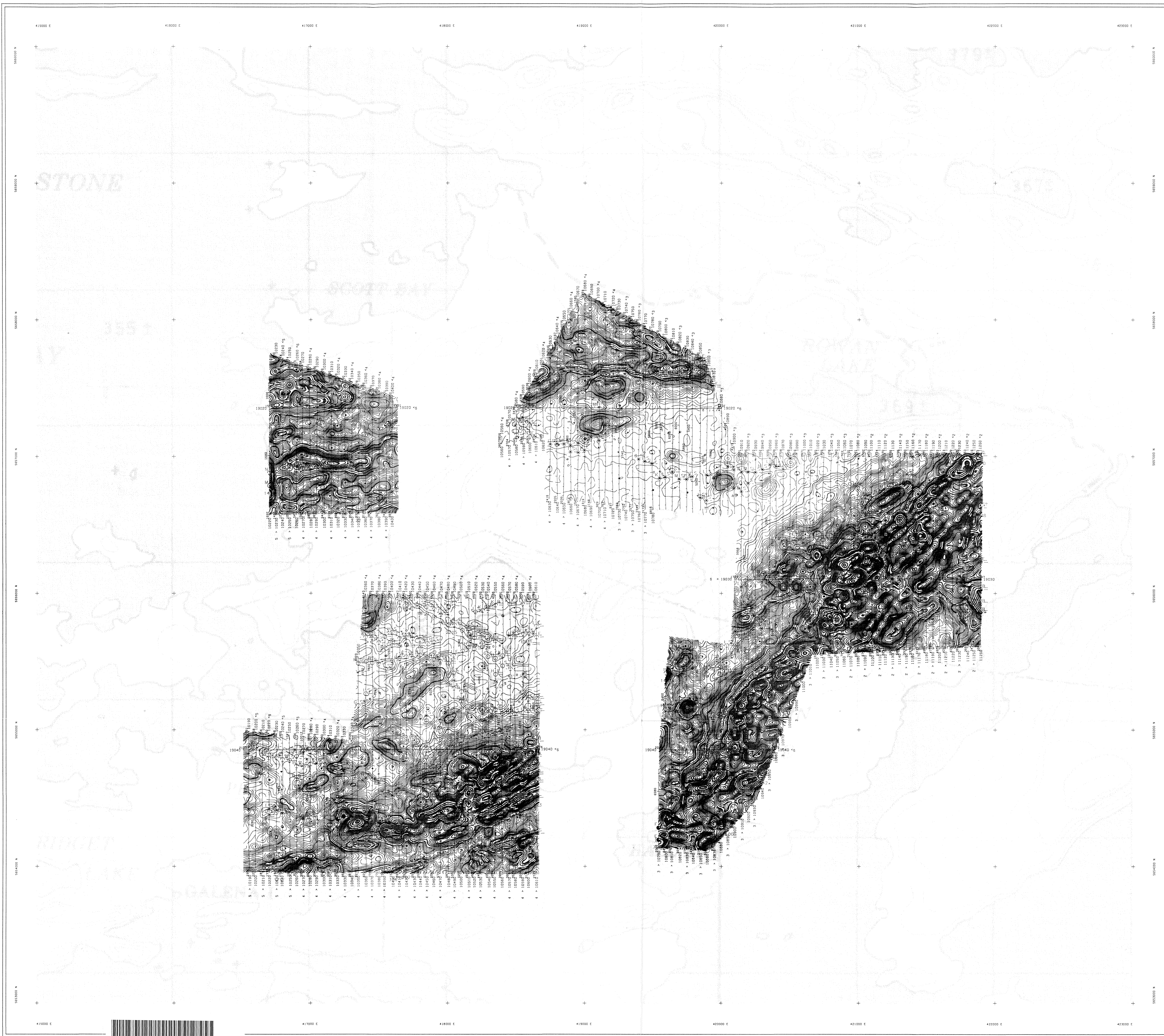
**REDSTAR GOLD CORP.**  
RED LAKE AREA, ONTARIO

**TOTAL MAGNETIC FIELD**

FUGRO DIGHEM SURVEY	NTS: 52M/1	GEOPHYSICIST: <i>RB</i>
DATE: NOVEMBER, 2002	JOB: 2123	SHEET: 1

Fugro Airborne Surveys

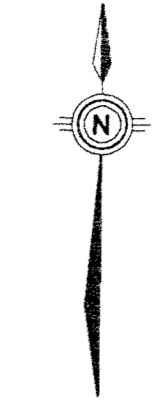




**TECHNICAL SUMMARY**

Navigation ..... Differentially-corrected GPS  
 Data reduction grid interval ..... 12.5 metres  
 Terrain clearance ..... Helicopter 57 m  
 ..... Electromagnetic sensor 30 m  
 ..... Magnetometer 30 m  
 Data sampling interval ..... 0.1 seconds  
 Magnetometer / sensitivity ..... Cesium / 0.01 nT  
 Electromagnetic system ..... DIGHEM<sup>®</sup>

Frequency	Sensitivity	Coil Orientation
1000 Hz	06 ppm	Vertical coaxial
5500 Hz	12 ppm	Vertical coaxial
900 Hz	12 ppm	Horizontal coplanar
7200 Hz	24 ppm	Horizontal coplanar
56000 Hz	60 ppm	Horizontal coplanar

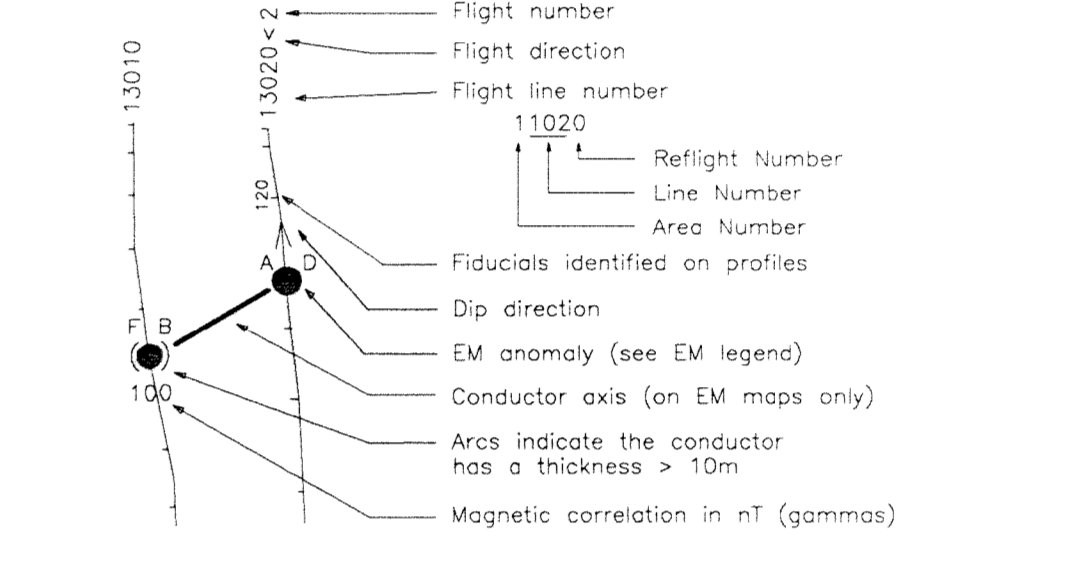


**ELECTROMAGNETIC ANOMALIES**

Grade	Anomaly	Conductance
7	●	>100 siemens
6	●	50-100 siemens
5	●	20-50 siemens
4	●	10-20 siemens
3	●	5-10 siemens
2	●	1-5 siemens
1	●	< 1 siemens
-	*	Questionable anomaly

Anomaly identifier	Interpretive symbol	Conductor ("model")
B	○	Broad conductor
D	○	Narrow bedrock conductor ("thin die")
S	○	Conductive cover ("horizontal thin sheet")
H	○	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	○	Edge of broad conductor ("edge of host space")
L	○	Culture, e.g. power line, metal building or fence

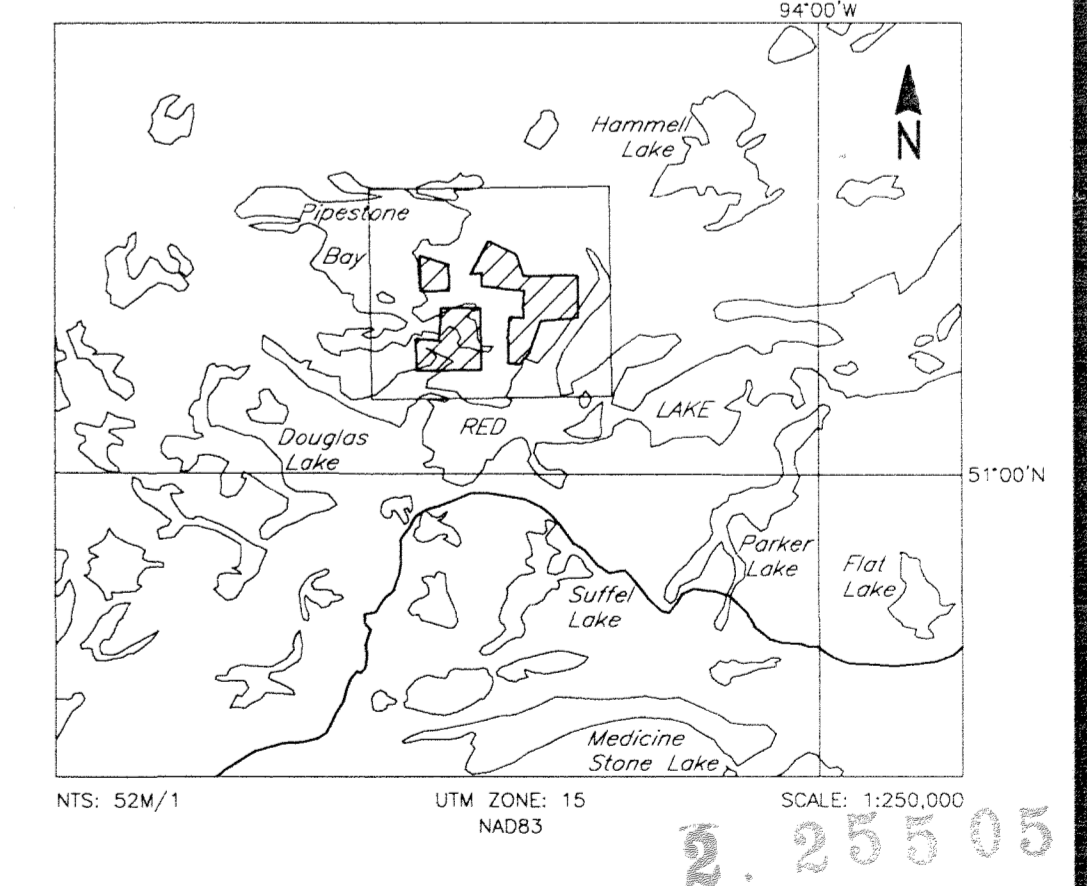
**FLIGHT LINES WITH EM ANOMALIES**



**CALCULATED VERTICAL GRADIENT CONTOURS**

—————	10.0 nT/metre
—————	2.0 nT/metre
—————	0.4 nT/metre
—————	0.2 nT/metre

**LOCATION MAP**

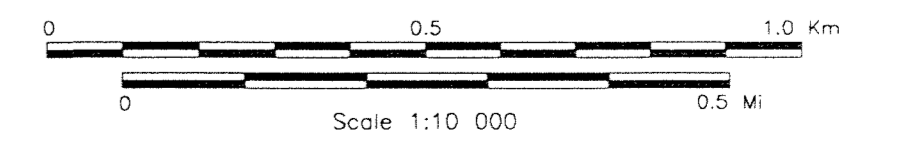


**REDSTAR GOLD CORP.**  
 RED LAKE AREA, ONTARIO

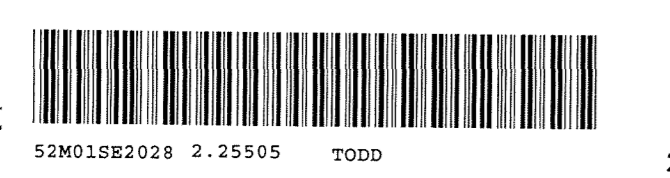
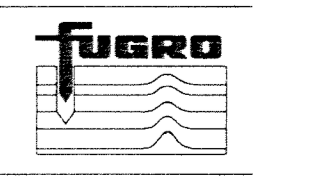
**CALCULATED VERTICAL MAGNETIC GRADIENT**

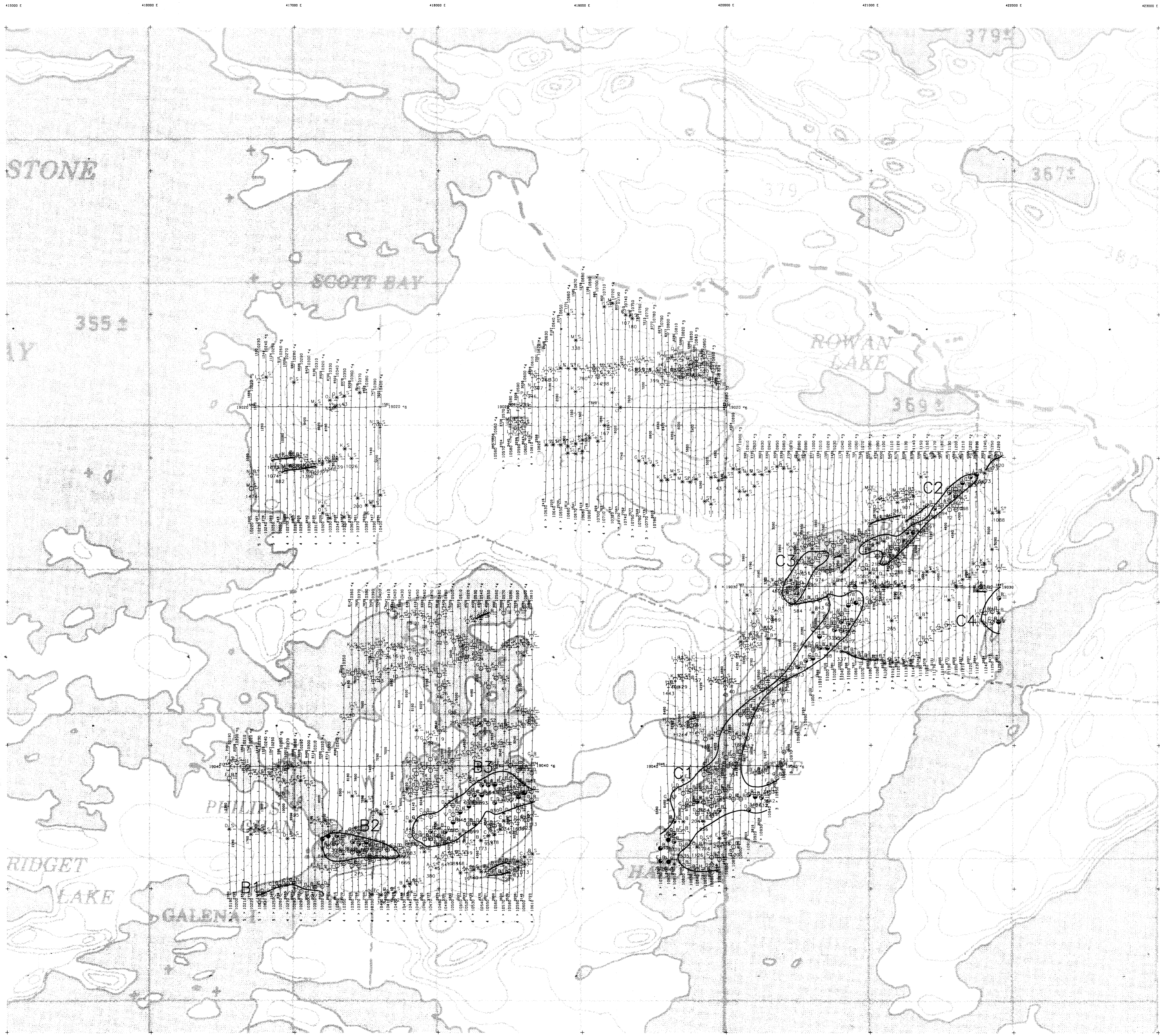
FUGRO DIGHEM <sup>®</sup> SURVEY	NTS: 52M/1	GEOPHYSICIST: <i>[Signature]</i>
DATE: NOVEMBER, 2002	JOB: 2123	SHEET: 1

Fugro Airborne Surveys



FUGRO AIRBORNE SURVEYS

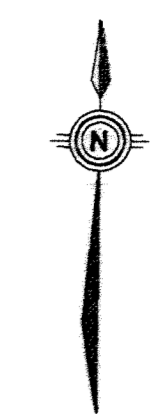




**TECHNICAL SUMMARY**

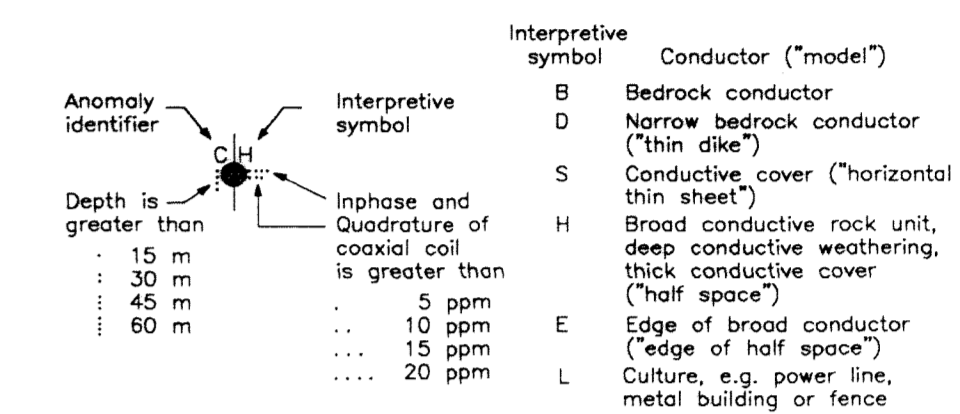
Navigation ..... Differentially-corrected GPS  
 Data reduction grid interval ..... 12.5 metres  
 Terrain clearance ..... Helicopter 57 m  
 ..... Electromagnetic sensor 30 m  
 ..... Magnetometer 30 m  
 Data sampling interval ..... 0.1 second  
 Magnetometer sensitivity ..... Caesium / 0.01 nT  
 Electromagnetic system ..... DIGEM™

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coplanar
5000 Hz	.12 ppm	Vertical coplanar
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

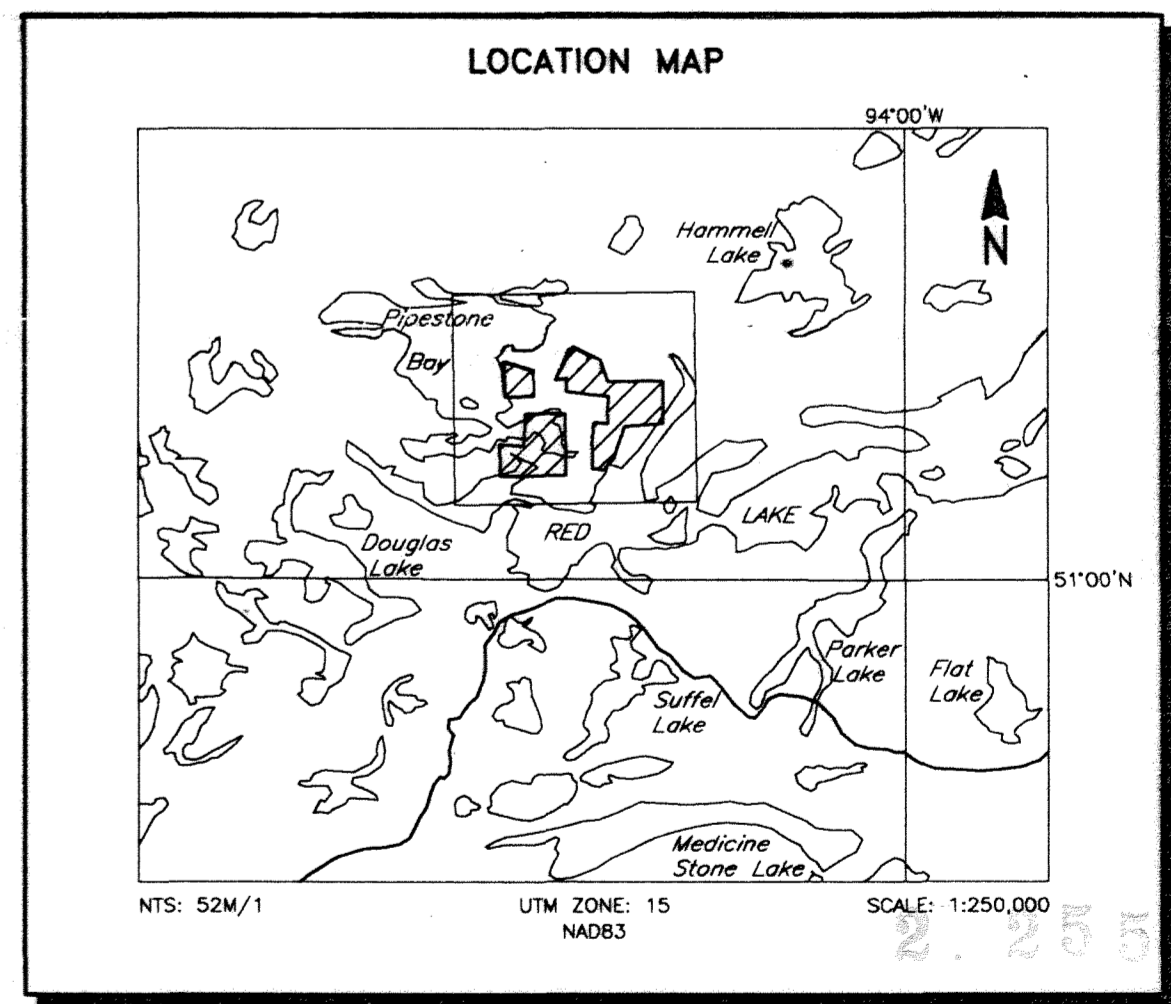
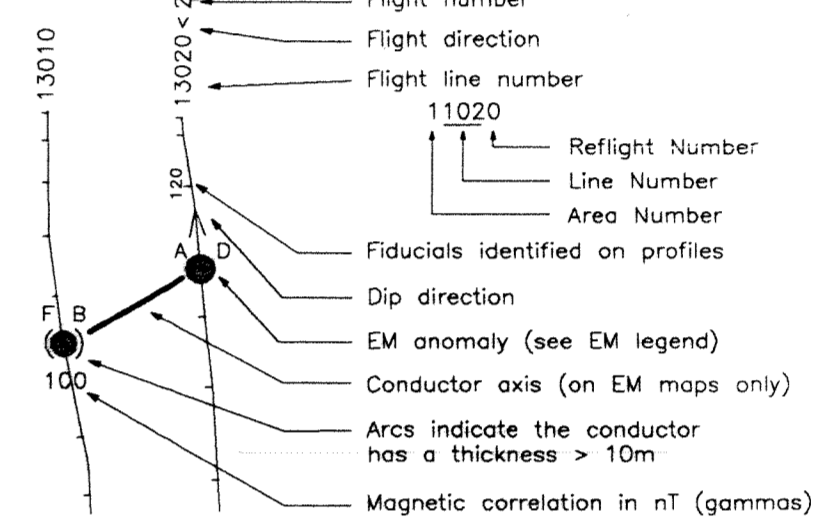


**ELECTROMAGNETIC ANOMALIES**

Grade	Anomaly	Conductance
7	●	>100 siemens
6	●	50-100 siemens
5	●	20-50 siemens
4	●	10-20 siemens
3	●	5-10 siemens
2	●	1-5 siemens
1	●	< 1 siemens
	*	Questionable anomaly



**FLIGHT LINES WITH EM ANOMALIES**

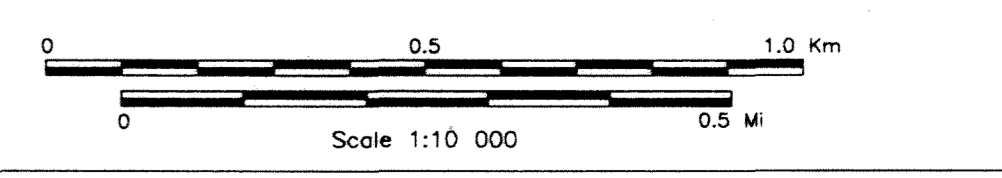


**REDSTAR GOLD CORP.**  
 RED LAKE AREA, ONTARIO

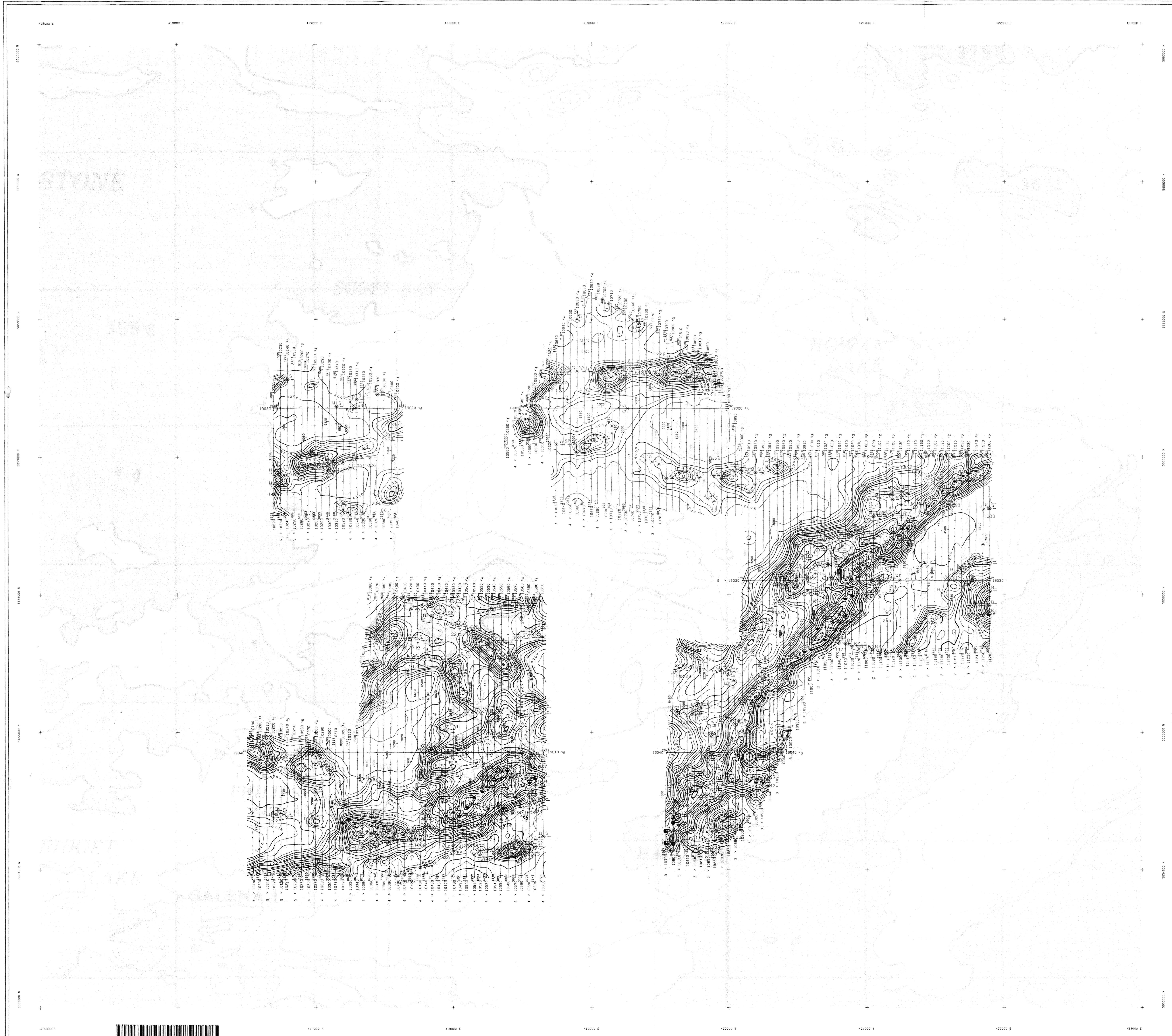
**ELECTROMAGNETIC ANOMALIES**

FUGRO DIGEM™ SURVEY NTS: 524/1 GEOPHYSICIST: *AS*  
 DATE: NOVEMBER, 2002 JOB: 2123 SHEET: 1

Fugro Airborne Surveys



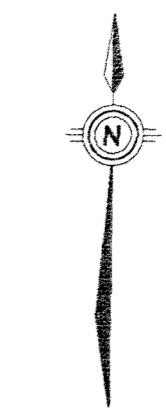




**TECHNICAL SUMMARY**

Navigation: Differentially-corrected GPS  
 Data reduction grid interval: 12.5 metres  
 Terrain clearance: Helicopter 57 m  
 Electromagnetic sensor: 30 m  
 Magnetometer: 30 m  
 Data sampling interval: 0.1 second  
 Magnetometer / sensitivity: Cesium / 0.01 nT  
 Electromagnetic system: DIGHEM

Frequency	Sensitivity	Coil Orientation
1000 Hz	06 ppm	Vertical coplanar
5000 Hz	12 ppm	Vertical coplanar
300 Hz	12 ppm	Horizontal coplanar
7000 Hz	24 ppm	Horizontal coplanar
56000 Hz	60 ppm	Horizontal coplanar

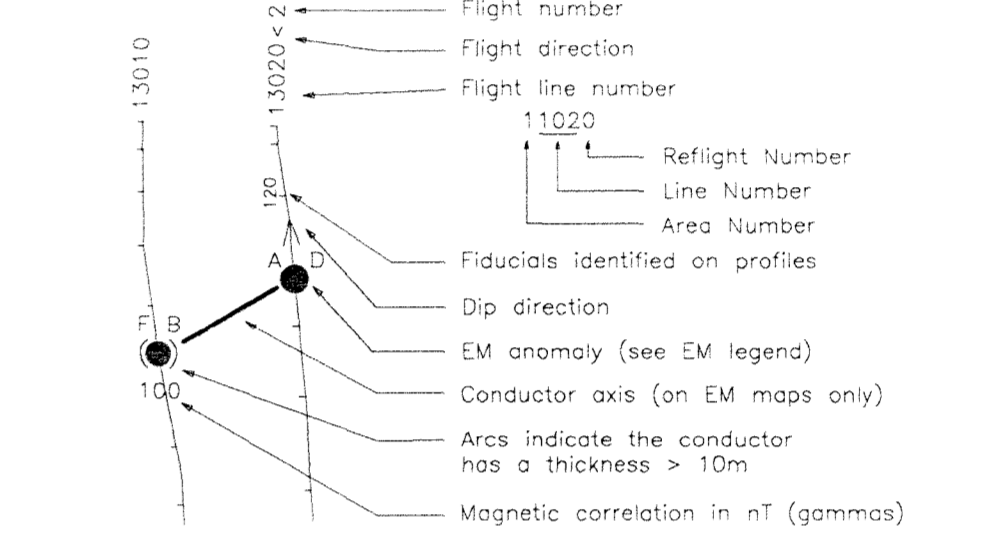


**ELECTROMAGNETIC ANOMALIES**

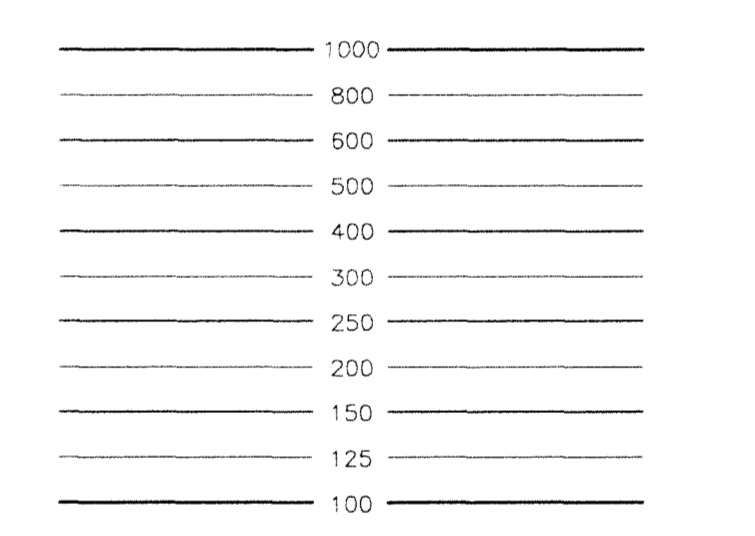
Grade	Anomaly	Conductance
7	●	> 100 siemens
6	●	50-100 siemens
5	●	20-50 siemens
4	●	10-20 siemens
3	○	5-10 siemens
2	○	1-5 siemens
1	○	< 1 siemens
-	*	Questionable anomaly

Anomaly identifier	Interpretive symbol	Interpretive Conductor ("mode")
B	●	Broad conductor
D	○	Narrow bedrock conductor ("thin dike")
S	○	Conductive cover ("horizontal thin sheet")
H	○	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	○	Edge of broad conductor ("edge of half space")
L	○	Culture, e.g. power line, metal building or fence

**FLIGHT LINES WITH EM ANOMALIES**

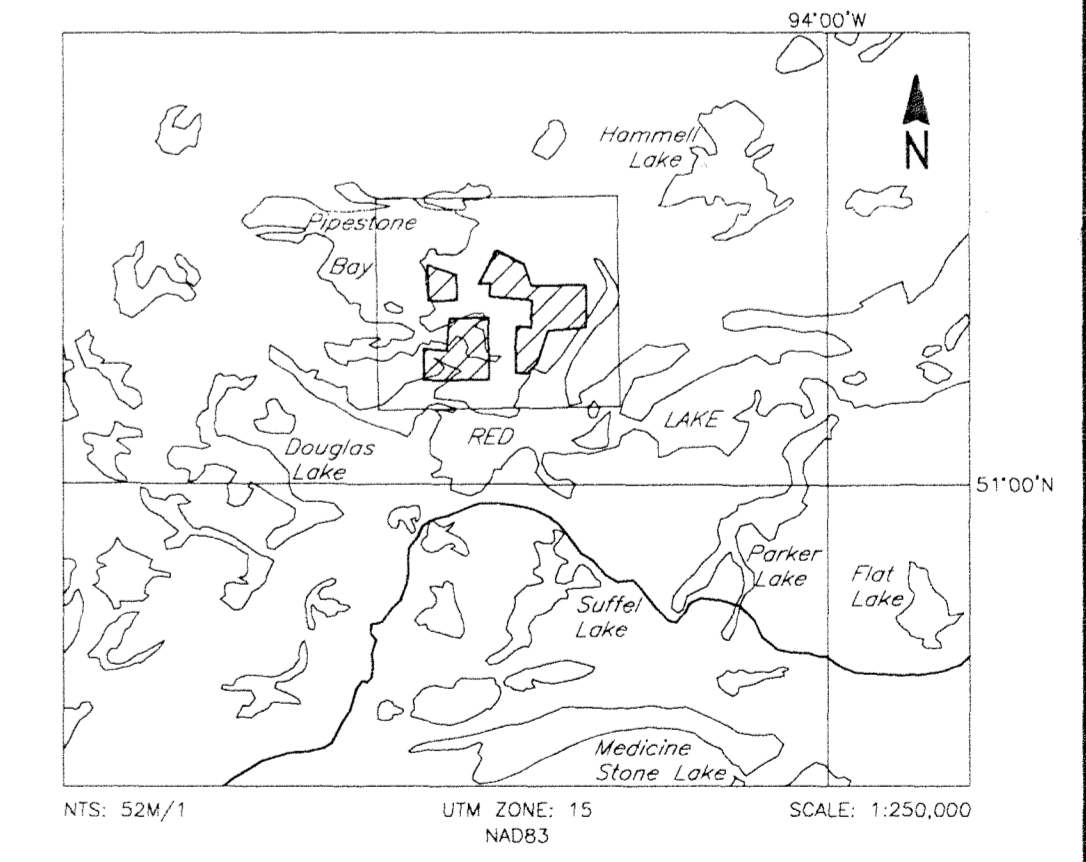


**RESISTIVITY CONTOURS**



Contours in ohm-m at 10 intervals per decade.  
 Apparent resistivity calculated using a pseudo-layer half-space model (Fraser 1978).

**LOCATION MAP**

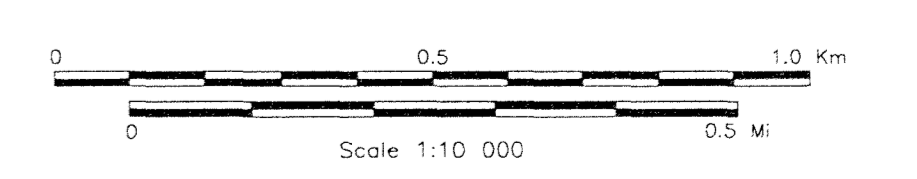


**REDSTAR GOLD CORP.**  
 RED LAKE AREA, ONTARIO

**APPARENT RESISTIVITY  
 7200 Hz COPLANAR**

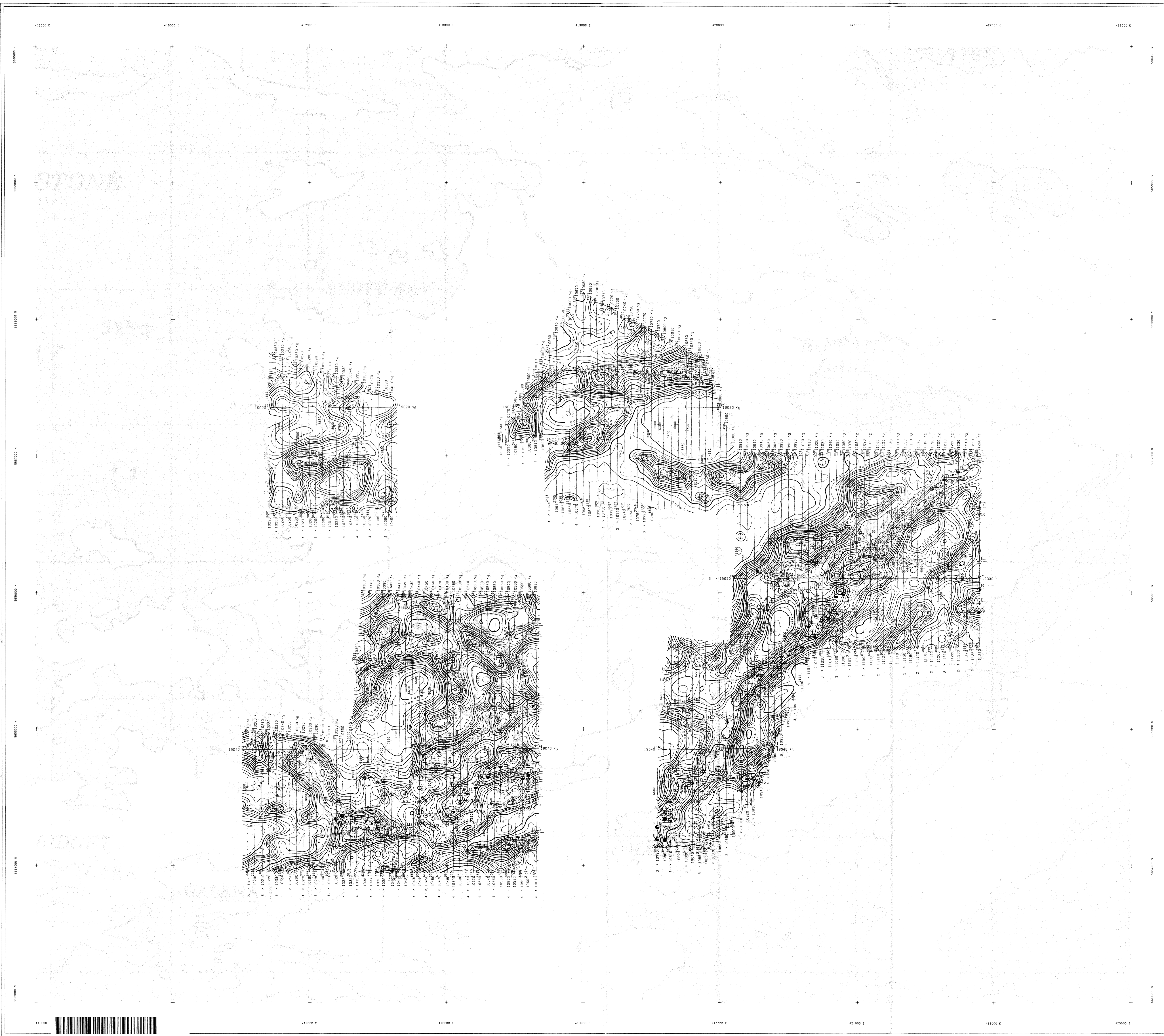
FUGRO DIGHEM SURVEY	NTS: 52M/1	GEOPHYSICIST: [Signature]
DATE: NOVEMBER, 2002	JOB: 2123	SHEET: 1

Fugro Airborne Surveys



FUGRO AIRBORNE SURVEYS

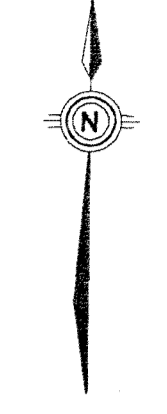




**TECHNICAL SUMMARY**

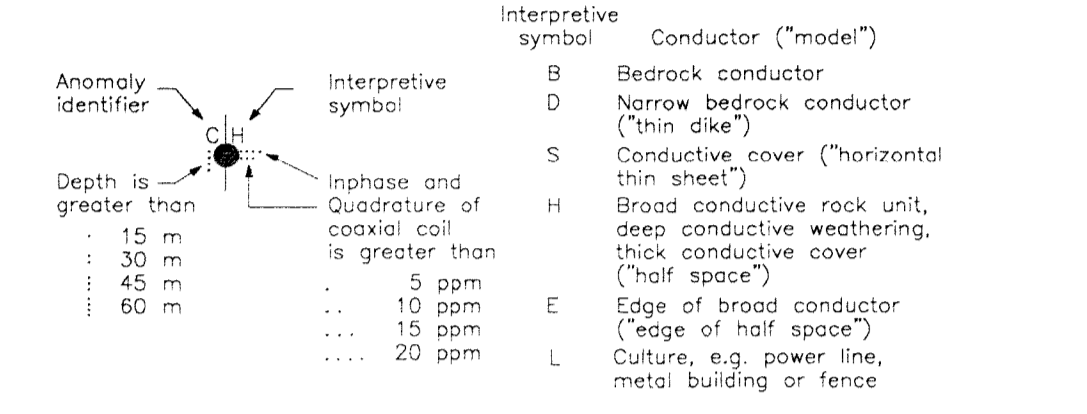
Navigation . . . . . Differentially-corrected GPS  
 Date reduction grid interval . . . . . 12.5 metres  
 Terrain clearance . . . . . Helicopter 57 m  
 . . . . . Electromagnetic sensor 30 m  
 . . . . . Magnetometer 30 m  
 Data sampling interval . . . . . 0.1 seconds  
 Magnetometer / sensitivity . . . . . Caesium / 0.01 nT  
 Electromagnetic system . . . . . DIGHEM™

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
9500 Hz	.12 ppm	Vertical coaxial
950 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

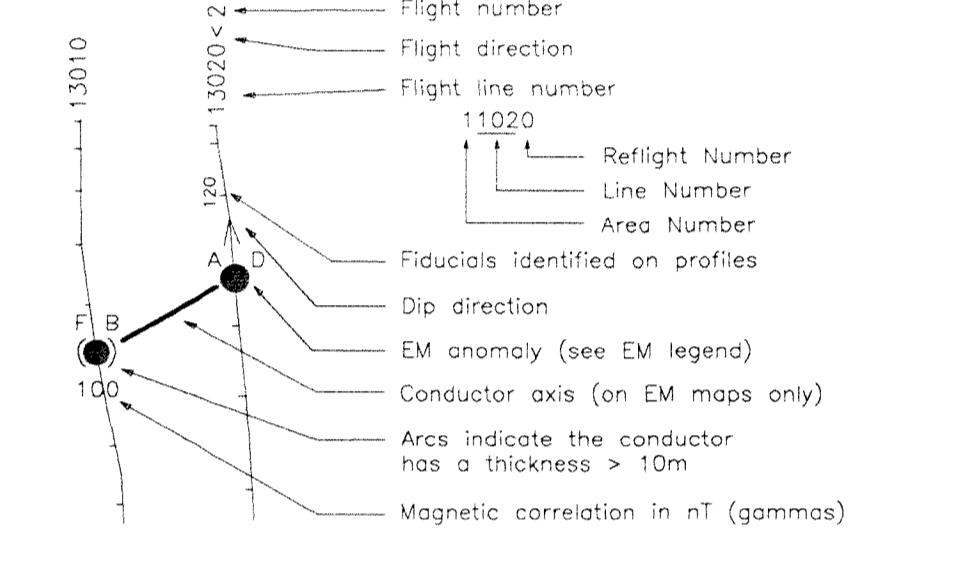


**ELECTROMAGNETIC ANOMALIES**

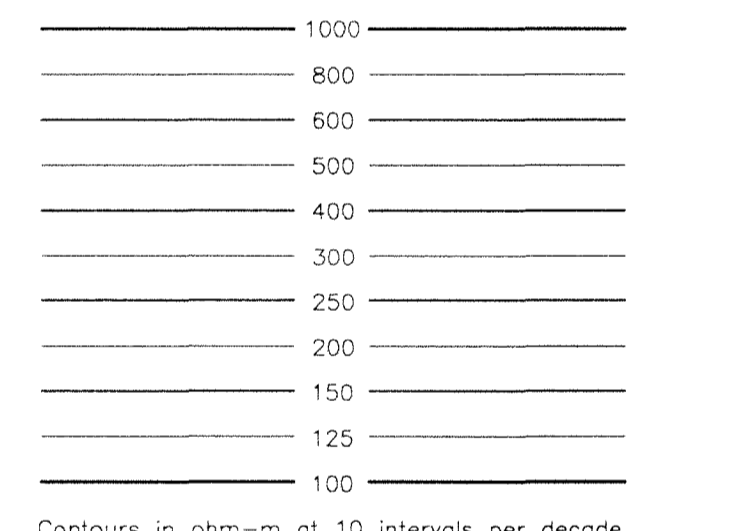
Grade	Anomaly	Conductance
7	●	>100 siemens
6	●	50-100 siemens
5	●	20-50 siemens
4	○	10-20 siemens
3	○	5-10 siemens
2	○	1-5 siemens
1	○	<1 siemens
-	*	Questionable anomaly



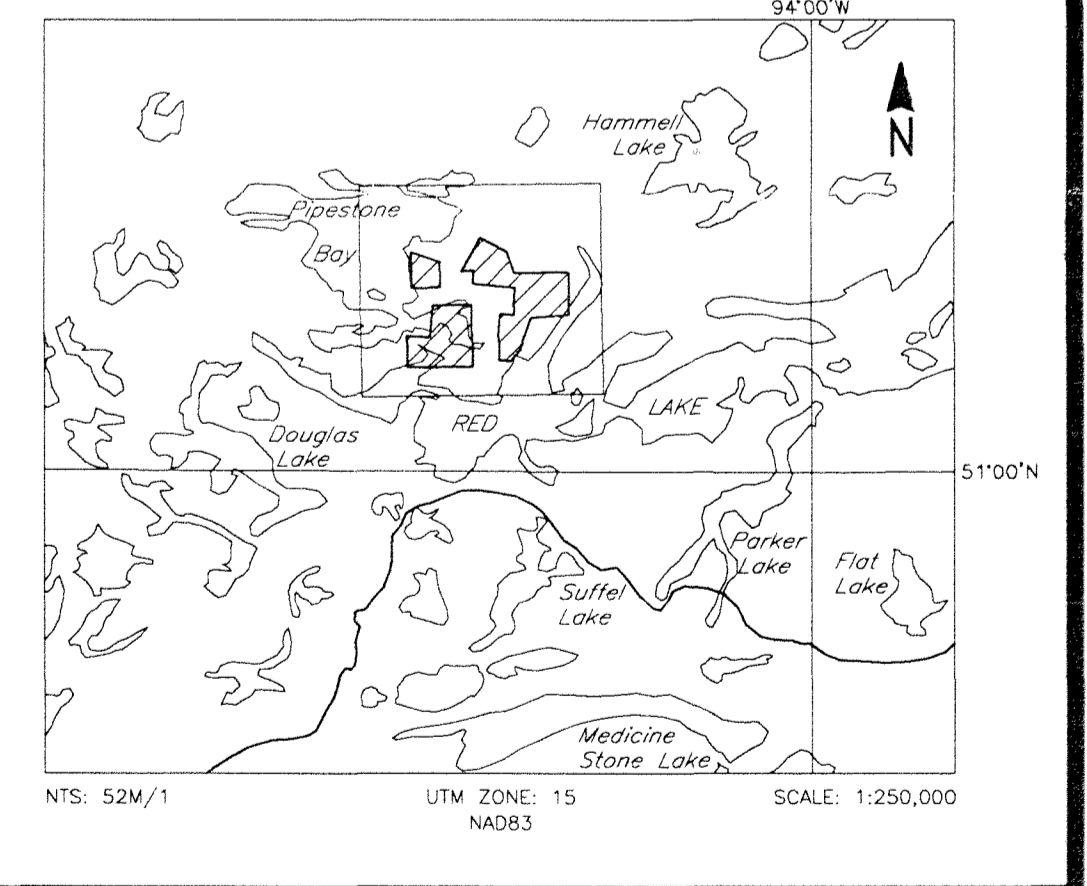
**FLIGHT LINES WITH EM ANOMALIES**



**RESISTIVITY CONTOURS**



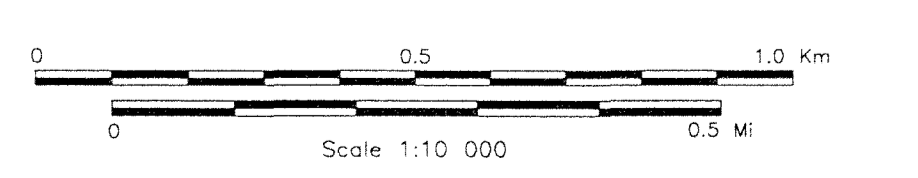
**LOCATION MAP**



**REDSTAR GOLD CORP.**  
 RED LAKE AREA, ONTARIO

**APPARENT RESISTIVITY**  
 56,000 Hz COPLANAR

FUGRO DIGH-EM SURVEY	NTS: 52M/1	GEOPHYSICIST: <i>JLB</i>
DATE: NOVEMBER, 2002	JOB: 2123	SHEET: 1
Fugro Airborne Surveys		



FUGRO AIRBORNE SURVEYS

