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REPORT #1034

DIGHEM^{III} SURVEY
FOR
GLEN AUDEN RESOURCES LIMITED
KEITH-PENHORWOOD TOWNSHIPS, ONTARIO

NTS 42 B

RECEIVED
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MINING LANDS SECTION

DIGHEM SURVEYS & PROCESSING INC.
MISSISSAUGA, ONTARIO
February, 1988

I-DLM-28

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on this file*

SUMMARY

A total of 896 line-km of survey was flown with a DIGHEM^{III} system in accordance with an agreement dated February 17, 1988, for Glen Auden Resources Limited, over two survey blocks in the Keith and Penhorwood Townships, Ontario.

The EM survey mapped several discrete bedrock conductors. These conductors generally have flanking or direct correlation with magnetic anomalies. The EM 7200 Hz data was used to produce resistivity maps which show the conductive properties of the survey area. The total field and enhanced magnetic contour maps yield valuable information about the magnetic rock units and bedrock structures within the survey area. The VLF data show numerous, moderately strong trends, some of which may reflect narrow, conductive bedrock sources.

The survey area exhibits potential as a host for both conductive massive sulphide deposits and weakly conductive zones of disseminated mineralization. Some features appear to warrant further investigation using surface exploration techniques. A comparison of the various geophysical parameters, compiled with geological and geochemical information, should be useful in selecting targets for follow-up work.

The use of Dighem's imaging workstation may provide additional useful information from the survey. Current processing techniques can yield structural details which may be important in further defining the geologic setting.



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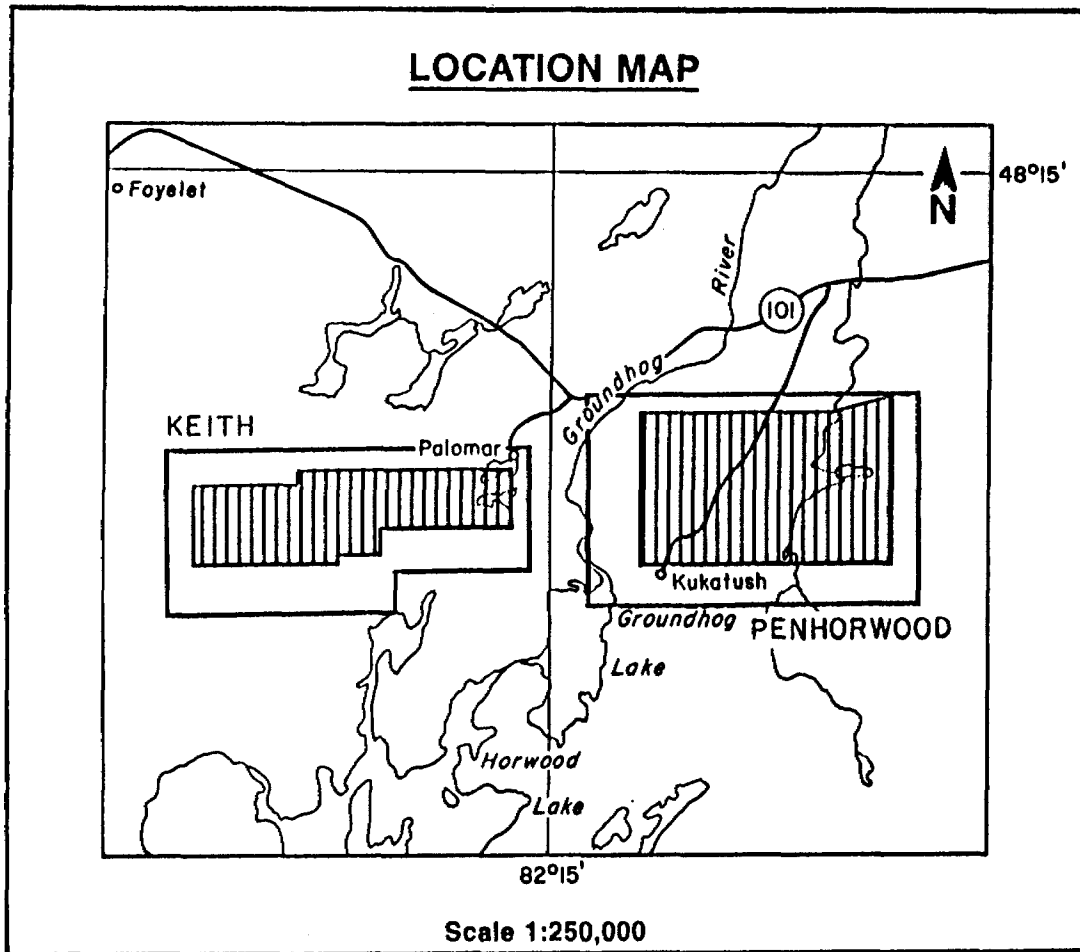


FIGURE 1
THE SURVEY AREA

INTRODUCTION

A DIGHEM^{III} electromagnetic/resistivity/magnetic/VLF survey was flown for Glen Auden Resources Limited, in accordance with an agreement dated February 17, 1988, over survey blocks in the Keith and Penhorwood Townships, Ontario (Figure 1). These blocks are located on NTS sheet 42 B.

Survey coverage consisted of approximately 896 line-km over the blocks. Flight lines were flown with a line separation of 100 metres in an azimuthal direction of 0°/180°. Tie lines were flown perpendicular to the survey line directions.

The survey employed the DIGHEM^{III} electromagnetic system. Ancillary equipment consisted of a magnetometer, radio altimeter, video camera, analog and digital recorders, a VLF receiver and an electronic navigation system.

This report is divided into sections for convenience. Section 2 describes the geophysical results. Section 3 provides details on the equipment used in the survey and lists the recorded data and computed parameters. Section 4 reviews the data processing procedures, with further information on the various parameters provided in Section 5.

Not all of our products have been purchased as part of the survey contract. However, they can be acquired. Our review of these products in Sections 4 and 5 may help you determine if they should be purchased. Our suggestions in this regard are summarized in Table 2-1.

SURVEY RESULTS

SURVEY PRODUCTS

Table 2-1 lists the products which can be obtained from your survey. Those which are part of the contract are indicated in this table by showing the presentation scale. These total 10 maps. Note particularly those products which are recommended for your survey area. The recommendations are based on the information content of products which would contribute to either reducing the cost of follow-up and/or increasing the likelihood of exploration success.

GENERAL DISCUSSION

The survey results are shown on two separate map sheets for each parameter. Tables 2-2 and 2-3 summarize the EM responses on the electromagnetic anomaly maps with respect to conductance grade and interpretation.

The electromagnetic anomaly maps show 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. Bedrock

Table 2-1 Plots Available from your Survey

MAP	NO. OF SHEETS	ANOMALY MAP	PROFILES ON MAP	CONTOURS		SHADOW MAP
				INK	COLOR	
Electromagnetic Anomalies	2	10,000	N/A	N/A	N/A	N/A
Probable Bedrock Conductors	-	*	N/A	N/A	N/A	N/A
Resistivity (900 Hz)	-	N/A	-	-	-	-
Resistivity (7,200 Hz)	2	N/A	-	10,000	**	-
EM Magnetite	-	N/A	-	*	-	-
Total Field Magnetics	2	N/A	-	10,000	***	**
Enhanced Magnetics	2	N/A	-	10,000	**	**
Vertical Gradient Magnetics	-	N/A	-	**	**	*
2nd Vertical Derivative Magnetics-	-	N/A	-	-	-	-
Magnetic Susceptibility	-	N/A	-	-	-	-
VLF (Tx #1) Seattle, Washington	-	N/A	-	-	-	-
VLF (Tx #2) Cutler, Maine	2	N/A	-	10,000	**	-
Apparent Depth (900 Hz)	-	N/A	-	-	-	-
Apparent Depth (7,200 Hz)	-	N/A	-	-	-	-
Overburden Thickness	-	N/A	-	-	-	-
Digital Profiles		Worksheet profiles				10,000
		Interpreted profiles				-

N/A Not available
 *** Highly recommended due to its overall information content
 ** Recommended
 * Qualified recommendation, as it may be useful in local areas
 - Not recommended
 10,000 Scale of delivered map, i.e., 1:10,000

TABLE 2-2

EM ANOMALY STATISTICS FOR THE PENHORWOOD TOWNSHIP AREA, ONTARIO

CONDUCTOR GRADE	CONDUCTANCE RANGE SEIMENS (MHOS)	NUMBER OF RESPONSES
7	> 100	0
6	50 - 100	0
5	20 - 50	4
4	10 - 20	21
3	5 - 10	50
2	1 - 5	126
1	< 1	62
X	INDETERMINATE	104
TOTAL		367

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
D	DISCRETE BEDROCK CONDUCTOR	22
B	DISCRETE BEDROCK CONDUCTOR	59
S	CONDUCTIVE COVER	283
E	EDGE OF WIDE CONDUCTOR	3
TOTAL		367

(SEE EM MAP LEGEND FOR EXPLANATIONS)

TABLE 2-3

EM ANOMALY STATISTICS FOR THE KEITH TOWNSHIP AREA, ONTARIO

CONDUCTOR GRADE	CONDUCTANCE RANGE SEIMENS (MHOS)	NUMBER OF RESPONSES
7	> 100	1
6	50 - 100	9
5	20 - 50	19
4	10 - 20	50
3	5 - 10	74
2	1 - 5	155
1	< 1	120
X	INDETERMINATE	129
TOTAL		557

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
D	DISCRETE BEDROCK CONDUCTOR	112
B	DISCRETE BEDROCK CONDUCTOR	112
S	CONDUCTIVE COVER	319
E	EDGE OF WIDE CONDUCTOR	3
L	CULTURE	11
TOTAL		557

(SEE EM MAP LEGEND FOR EXPLANATIONS)

conductors are indicated by the interpretive symbols "D" (for thin dikes) or "B" (for other conductor geometries). Surficial conductors are identified by the interpretive symbol "S". The symbol "E" denotes the edge of a broad conductive unit.

EM "anomalies" by definition should reflect discrete conductors. Wide bedrock conductors or flat-lying conductive units, whether from surficial or bedrock sources, give rise to broad anomalous responses on the EM profiles. These may not appear on the electromagnetic anomaly maps if they have a regional character rather than a locally anomalous character. These broad conductors, which more closely approximate a half space model, are maximum coupled to the horizontal (coplanar) coil-pair and are clearly evident on the resistivity parameter.

Apparent resistivity maps were prepared from the 7200 Hz coplanar data. Much of the survey area is covered by conductive material. Resistivities of 200 ohm-m are common in water covered areas. Some of the bedrock conductors yield resistivities of about 10 ohm-m, which are lower than the values observed from conductive overburden. Other bedrock conductors, and especially those coincident with magnetite, yield resistivities that are within the range of conductive overburden. Magnetite suppresses the

inphase component of the electromagnetic responses, resulting in overstated resistivities and incorrect depth determinations. In some areas it may not be possible to distinguish bedrock from surficial conductivity on the basis of resistivity alone.

VLF information from the transmitter at Cutler, Maine, was presented as contours of the filtered total field. Trends on the data show a preferred east/west orientation.

Some of the trends that occur in the more resistive areas may reflect narrow, bedrock conductors. VLF trends correlate with conductors such as 10170C-10310D and 20770E-21070D. Trends which parallel the magnetic strikes may be indicative of bedrock stratigraphy or faulted contacts. For example, a moderately strong VLF trend extends from fiducial 5610 on line 20730 to anomaly 20990A. This feature flanks linear magnetic trends, and may reflect conductivity associated with a contact.

Weak or inconsistent transmissions from the VLF station at Cutler resulted in poor data between lines 10700 and 10330 of the Penhorwood area. Data in this line range likely contains little useful information.

Magnetic maps were produced, and provide interesting

information. There is good correlation between magnetic anomalies and conductive units. Most of the bedrock conductors flank or correlate directly with magnetic units.

The magnetic maps show several northwest/southeast striking, dike-like, magnetic features. Both areas also host strongly magnetic, linear units, which trend approximately east/west. Two of these units, which are identified by zones A and B on the electromagnetic anomaly maps, have conductivity associated with them.

There is ample evidence on the magnetic maps which suggests the area has been subjected to moderate 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.

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 maps. 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, should provide valuable information which can be used to effectively map the geology and structure in the survey area. Coloured maps of the total magnetic field should be very helpful in defining the lithology of the property.

CONDUCTOR DESCRIPTIONS

Penhorwood Twp.

Conductor 10010A-10050A

This conductor is indicative of a moderately conductive, narrow, bedrock layer. This layer appears to flank a linear, east/west trending, strongly magnetic unit. The conductivity may be associated with a contact zone.

Zone A

This zone comprises several bedrock conductors associated with a strongly magnetic unit. The zone may be intersected by northwest/southeast striking faults, which have been partially filled by magnetic material. One such feature may extend from fiducial 5400 on line 10130 to anomaly 10171C, and another appears to extend from fiducial 4570 on line 10171 to anomaly 10240B.

Some of the conductive material within this zone may also be magnetic. Conductors 10080B-10150D, 10260C-10280C and anomalies 10280B-10290B have direct magnetic correlation. These conductors may be

indicative of pyrrhotite. Non-magnetic sulphides or graphite may be indicated by the conductors that show no magnetic correlation.

Conductors 10510D-10560E, 10550C-10570D, 10550E-10580F, 10590F-10610F, 10640D-10651D

These conductors appear to reflect several weak, narrow, conductive layers. These layers occur within a relatively non-magnetic unit. The anomaly shapes on the profiles indicate that they dip to the north.

Anomalies 10660C to 10780C appear to be due to conductive lake sediment. Conductivity from this surficial feature may be masking any possible extension of conductor 10640D-10651D.

Conductor 10750D-10780F

This conductor is indicative of a narrow, conductive, magnetic bedrock source. It occurs as a limb of magnetic material extending west from a strongly magnetic, irregularly shaped body. It yields a resistivity low of about 400 ohm-m.

Conductors 10780D-10800D, 10780E-10820D

These conductors are the result of narrow,

moderately conductive, non-magnetic, bedrock sources. Conductor 10780D-10800D appears to dip to the north. These conductors may occur within the same non-magnetic unit as conductors 10510D-10560E to 10640D-10651D.

In addition, some of the "S" and "S?" anomalies may be of interest. Investigation of these may be warranted based on supporting geological or geochemical information.

Anomalies 10700B-10820A have been interpreted as questionable surficial or surficial, but yield resistivities as low as 150 ohm-m. These anomalies flank a strongly magnetic unit, and could be loosely associated with a contact zone.

Keith Twp.

Zone B

This zone comprises numerous bedrock conductors, associated with strong, linear magnetic anomalies. Many of the conductors appear to be magnetic. These include conductors 20380D-20390D, 20420C-20480B, 20530D-20630D, 20610F-20810E, 20900C-20930D and 20900E-21070D. Non-magnetic conductors flank some of these

magnetic, conductive units. Dips within the zone appear to be to the north.

Tight folding or faulting may be inferred in the vicinity of anomalies 20630D and 20610F. There is also evidence on the magnetic maps of a structural break striking northwest/southeast. This may extend from anomaly 20620F to the vicinity of anomaly 20940A, and intersect zone B near anomaly 20760C.

Conductors 20320H-20380F, 20380G

These weak, narrow, bedrock conductors flank a strong, linear, magnetic body on its north side. They reflect north-dipping zones of conductivity possibly within contacts. The VLF contours suggest that a continuous conductive zone may extend as far east as anomaly 20431D.

Conductors 20440C-20470D, 20520B-20550E,
20620F-20640D, 20660F-20680E

These conductors are indicative of weak, north-dipping bedrock layers, which flank a narrow, linear, magnetic unit. This unit may be intersected by a structural break in the vicinity of anomaly 20620F.

Conductors 20410D, 20440D-20450D, 20490F-20510C

These moderately strong, north-dipping conductors flank an east/west trending magnetic source. Conductor 20440D-20450D reflects a weak, isolated conductor that correlates with a limb of magnetic material, which extends northwest of this magnetic source.

Conductors 20530F-20560E, 20550F-20560D

These conductors reflect thin, north-dipping, magnetic sources. A continuous VLF anomaly coincides with these sources and conductors 20440D-20450D and 20490F-20510D.

Conductor 20460C-20490C

This conductor appears to be associated with a weak magnetic trend. The anomalies reflect a narrow, north-dipping source.

Conductors 20510A-20540A, 20680B-20710B, 20710D-20730F,
20730C-27050C, 20980A-21060B, 21010B-21070C,
20540D-20550D, 20890E-20900F, 21030F-21040E

These conductors appear to occur within non-magnetic units, which flank zone B. They reflect weak,

narrow bedrock layers. Conductors 20510A-20540A, 20540D-20550D and 20710D-20730F correlate with VLF anomalies.

Conductors 20580A, 20600A-20630A

These conductors are associated with magnetic bedrock sources. Dip estimations for these anomalies are suspect due to their proximity to the line ends, but north dips can be inferred from the profile shapes.

Conductor 20970D-21060H

This moderately strong conductor is indicative of a thin, north-dipping, bedrock layer. A compositional change may occur in the vicinity of anomaly 20980E. This anomaly correlates with a limb of magnetic material which may be associated with a northwest/southeast trending structural break.

Conductor 20730B-20740B

This conductor reflects an isolated, weak, non-magnetic source. It appears to dip to the north.

Conductor 20900B-20920B

This weak conductor may be associated with a contact zone. It correlates with part of a long, moderately strong VLF trend, which flanks east/west trending linear magnetic highs. There is evidence of a structural break on the VLF and magnetic maps, which may intersect this conductor near anomaly 20920B. This break may strike northeast/southwest from fiducial 530 on line 20830 to anomaly 21020B.

Conductor 21060A-21070A

This conductor is indicative of a moderately conductive, non-magnetic bedrock layer. This layer flanks an irregularly shaped magnetic body.

Several anomalies in the vicinity of anomaly 20920D and anomalies 21060I and 21060F have been labelled "L". These anomalies reflect line sources due to culture.

The electromagnetic anomaly lists, appended to this report, should be consulted to ensure that no responses due to bedrock conductors are overlooked during conductor follow-up.

SURVEY EQUIPMENT AND FLIGHT RECORDS

The geophysical instruments and aircraft employed in the survey were as follows:

Electromagnetic System

Type:	DIGHEM ^{III} System
Coil orientations/frequencies:	coaxial / 900 Hz coplanar/ 900 Hz coplanar/ 7,200 Hz
Channels recorded:	3 inphase channels 3 quadrature channels
Sensitivity:	0.2 ppm at 900 Hz 0.4 ppm at 7,200 Hz
Sample rate:	10 per second

The electromagnetic system utilizes a multi-coil coaxial/coplanar technique to energize conductors in different directions. The coaxial transmitter coil is vertical with its axis 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 inphase and a quadrature channel from each transmitter-receiver coil-pair. The transmitter-receiver coil separation is 8 metres. The electromagnetic sensors are housed in a bird which is towed 30 m below the helicopter.

Excellent resolution and discrimination of conductors is ensured by the fast sample rate. When a common frequency is used on two orthogonal coil-pairs (coaxial and coplanar), inphase and quadrature "difference channel" parameters are obtained. These parameters are useful in discriminating between bedrock and surficial conductors, even though such conductors may exhibit similar conductance values.

Magnetometer

Type: Sonotek PMH-5010
Sensitivity: 1.0 nT
Sample rate: 2 per second

The magnetometer sensor was towed in a bird 15 m below the helicopter.

Magnetic Base Station

Type: Geometrics 826A digital recording proton
precession

Sensitivity: 0.50 nT

Sample rate: once per 5 seconds

The base station magnetometer records the diurnal variations of the earth's magnetic field. The clock of the base station is synchronized with that of the airborne system to permit subsequent removal of diurnal drift.

VLF System

Type: Herz Industries Totem-2A

Sensitivity: 0.1%

Stations: Cutler, Maine; NAA 24.0 kHz
Seattle, Washington; NLK 24.8 kHz

The VLF receiver measures the total field and vertical quadrature components of the secondary VLF field. The receivers were tuned to NAA as the orthogonal station and to NLK as the line station. The VLF sensor was towed in a bird 10 m below the helicopter.

Radar Altimeter

Type: Sperry AA 220

Sensitivity: 1 ft

Analog Recorder

Type: RMS GR33 dot-matrix graphics recorder

The analog profiles were recorded on chart paper in the aircraft during the survey. Table 3-1 lists the geophysical data channels.

Digital Data Acquisition

Type: Scintrex CDI6

Tape Deck: RMS TCR12, 6400 bpi, tape cartridge recorder

The digital data were used to generate a number of computed parameters. Both measured and computed parameters were plotted as "digital profiles" during data processing, as shown in Table 3-2.

In Table 3-2, the log resistivity scale of 0.06 decade/mm means that the resistivity changes by an order of

Table 3-1. The Analog Profiles

Channel Number	Parameter	Sensitivity per mm	Designation on digital profile
CXI	coaxial inphase (900 Hz)	2.5 ppm	CXI (900 Hz)
CXQ	coaxial quad (900 Hz)	2.5 ppm	CXQ (900 Hz)
CP1I	coplanar inphase (900 Hz)	2.5 ppm	CPI (900 Hz)
CP1Q	coplanar quad (900 Hz)	2.5 ppm	CPQ (900 Hz)
CP2I	coplanar inphase (7200 Hz)	5 ppm	CPI (7200 Hz)
CP2Q	coplanar quad (7200 Hz)	5 ppm	CPQ (7200 Hz)
ALT	altimeter	3 m	ALT
VL1T	VLF-total: primary station	2%	
VL1Q	VLF-quad: primary station	2%	
VL2T	VLF-total: secondary stn.	2%	
VL2Q	VLF-quad: secondary stn.	2%	
PMGC	magnetics, coarse	10 nT	MAG
PMGF	magnetics, fine	2 nT	

Table 3-2. The Digital Profiles

Channel Name (Freq)	Observed parameters	Scale units/mm
MAG	magnetics	10 nT
ALT	bird height	6 m
CXI (900 Hz)	vertical coaxial coil-pair inphase	2 ppm
CXQ (900 Hz)	vertical coaxial coil-pair quadrature	2 ppm
CPI (900 Hz)	horizontal coplanar coil-pair inphase	2 ppm
CPQ (900 Hz)	horizontal coplanar coil-pair quadrature	2 ppm
CPI (7200 Hz)	horizontal coplanar coil-pair inphase	4 ppm
CPQ (7200 Hz)	horizontal coplanar coil-pair quadrature	4 ppm
	<u>Computed Parameters</u>	
DIF1 (900 Hz)	difference function inphase from CXI and CPI	2 ppm
DIFQ (900 Hz)	difference function quadrature from CXQ and CPQ	2 ppm
CDT	conductance	1 grade
RES (900 Hz)	log resistivity	.06 decade
RES (7200 Hz)	log resistivity	.06 decade
DP (900 Hz)	apparent depth	6 m
DP (7200 Hz)	apparent depth	6 m

magnitude in 16.5 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.

Tracking Camera

Type: Panasonic Video

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

Navigation System

Type: Del Norte electronic positioning system

Sensitivity: 1 m

Sample rate: once per second

The navigation system uses ground based transponder stations which transmit distance information back to the helicopter. The ground stations are set up well away from the survey area and are positioned such that the signals cross the survey block at an angle between 30° and 150°. After site selection, a baseline is flown at right angles to a line drawn through the transmitter sites to establish an

arbitrary coordinate system for the survey area. The onboard Central Processing Unit takes the two transponder distances and determines the helicopter position relative to these two ground stations in cartesian coordinates.

The cartesian coordinates are transformed to match the base map during data processing. This is accomplished by correlating a number of prominent topographical features with the navigational data points. The use of numerous visual tie points serves two purposes: to correct for any distortions in the photomosaic and to accurately relate the navigation data to the map sheet.

Aircraft

Company: Frontier Helicopters Limited
Type: Aerospatial AS350B
Registration C-GFHP

The helicopter flew at an average airspeed of 110 km/h at a height of 60 m.

DATA PROCESSING PROCEDURES

The following products are available from your survey data. Those which are not part of the survey contract may be acquired later. Refer to Table 2-1 for a summary of these products.

Base Map

The base map of the survey area was prepared from aerial photographs. The base map was used during the course of the survey for visual reference and for subsequent flight path recovery. The geophysical data are presented on duplicate copies of the same base map.

Electromagnetic Anomalies

Anomalous electromagnetic responses are selected and analysed by computer to provide a preliminary electromagnetic anomaly map. This preliminary EM map is used, by the geophysicist, in conjunction with the digital profiles (described below), to produce the final EM anomaly map showing interpreted conductors. These include bedrock, surficial and cultural conductors. A map containing only bedrock conductors can be generated, if desired.

Resistivity

The apparent resistivity in ohm-m may be generated from the inphase and quadrature EM components for any of the frequencies, using a pseudo-layer halfspace 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.

EM Magnetite

The apparent percent magnetite by weight is computed wherever magnetite produces a negative inphase EM response.

Total Field Magnetics

The aeromagnetic data are corrected for diurnal variation using the magnetic base station data. The regional IGRF field is removed from the data if required under the terms of the contract.

Enhanced Magnetics

The total field magnetic data are subjected to a processing algorithm. This algorithm enhances the response of magnetic bodies in the upper 500 m and attenuates the response of deeper bodies. The resulting enhanced magnetic map provides a better definition and resolution of

near-surface magnetic units. It also identifies weak magnetic features which may not be evident on the total field magnetic map. However, regional magnetic variations, and magnetic lows caused by remanence, are better defined on the total field magnetic map. The technique is described in more detail in Section 5.

Magnetic Derivatives

The total field magnetic data may be subjected to a variety of filtering techniques to yield:

vertical gradient

second vertical derivative

magnetic susceptibility with reduction to the pole

upward/downward continuations

All these filtering techniques improve the recognition of near-surface magnetic bodies with the exception of upward continuation. Any of the above parameters can be produced at your request. Dighem's proprietary enhanced magnetic technique (described immediately above) is designed to provide you with a general "all-purpose" map, combining the more useful features of the above parameters.

VLF

The VLF data are digitally filtered to remove long wavelengths such as those caused by variations in the

transmitted field strength.

Digital Profiles

Distance-based profiles of the digitally recorded geophysical data are generated and plotted by computer. These profiles also contain the calculated parameters which are used in the interpretation process. These can be produced both as a worksheet prior to interpretation, and also in the final corrected form after interpretation. The corrected profiles display electromagnetic anomalies with their respective interpretive symbols. The differences between the worksheets and the final corrected form occur only with respect to the calculated parameters. The measured geophysical data are the same for both the worksheet and corrected profiles.

Contour, Colour and Shadow Map Displays

The geophysical data are interpolated onto a regular grid at a 2.5 mm interval using a cubic spline technique. The resulting grid is suitable for generating a contour map of excellent quality.

Solid color maps are produced by interpolating the grid down to the pixel size. The parameter is then color coded based on amplitude to provide a solid color "contour" map.

Dighem software provides several shadowing techniques. Both monochromatic (commonly green) or polychromatic (full color) maps may be produced. Monochromatic shadow maps are often preferred over polychromatic maps for reasons of clarity.

Spot Sun

The spot sun technique tends to mimic nature. The sun occupies a spot in the sky at a defined azimuth and inclination. The surface of the data grid casts shadows. This is the standard technique used by industry to produce monochromatic shadow maps.

A characteristic of the spot sun technique is that shadows are cast in proportion to how well the sunlight intersects the feature. Features which are almost parallel to the sun's azimuth may cast no shadow at all. To avoid this problem, Dighem's hemispheric sun technique may be employed.

Hemispheric Sun

The hemispheric sun technique was developed by Dighem. The method involves lighting up a hemisphere. If, for example, a north hemispheric sun is selected, features of all strikes will have their north side in sun and their south side in shadow. The hemispheric sun lights up all features, without a bias caused by strike. The method yields sharply defined monochromatic shadows.

The hemispheric sun technique always improves shadow casting, particularly where folding and cross-cutting structures occur. Nevertheless, it is important to center the hemisphere perpendicular to the regional strike. Features which strike parallel to the center of the hemisphere result in ambiguity. This is because the two sides of the feature may yield alternating patterns of sun and shadow. If this proves to be a problem in your survey area, Dighem's omni sun technique may be employed.

Omni Sun

The omni sun technique was also developed by Dighem. The survey area is centered within a ring of sunlight. This lights up all features without any strike bias. The result is brightly defined monochromatic features with diffuse shadows.

Multi Sun

Two or three spot suns, with different azimuths, may be combined in a single presentation. The shadows are displayed on one map by the use of different colors, e.g., by using a green sun and a red sun. Some users find the interplay of colors reduces the clarity of the shadowed product.

Polychromatic Maps

Any of the above monochromatic shadow maps can be combined with the standard contour-type solid color map. The result is a polychromatic shadow map. Such maps are esthetically pleasing, and are preferred by some users. A disadvantage is that ambiguity exists between changes in amplitude and changes in shadow.

Monochromatic shadow maps 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, as shown in Figure 4-1. The various shadow techniques may be applied to total field or enhanced magnetic data, magnetic derivatives, VLF, resistivity, etc. Of the various magnetic products, the shadow of the enhanced magnetic parameter is particularly suited for defining geological structures with crisper images and improved resolution.

BACKGROUND INFORMATION

This section provides background information on parameters which are available from your survey data. Those which are not obtained as part of the survey contract may be generated later from raw data which is available on your digital archive tape.

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 sulfide lenses and steeply dipping sheets of graphite and sulfides. The broad class consists of wide anomalies from conductors having a large horizontal surface such as flatly dipping graphite or sulfide 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 electromagnetic map 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 sulfide bodies.

Geometric interpretation

The geophysical interpreter attempts to determine the geometric shape and dip of the conductor. Figure 5-1 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 mhos of a vertical sheet model. This is done regardless of the interpreted geometric shape of the conductor. This is not an unreasonable

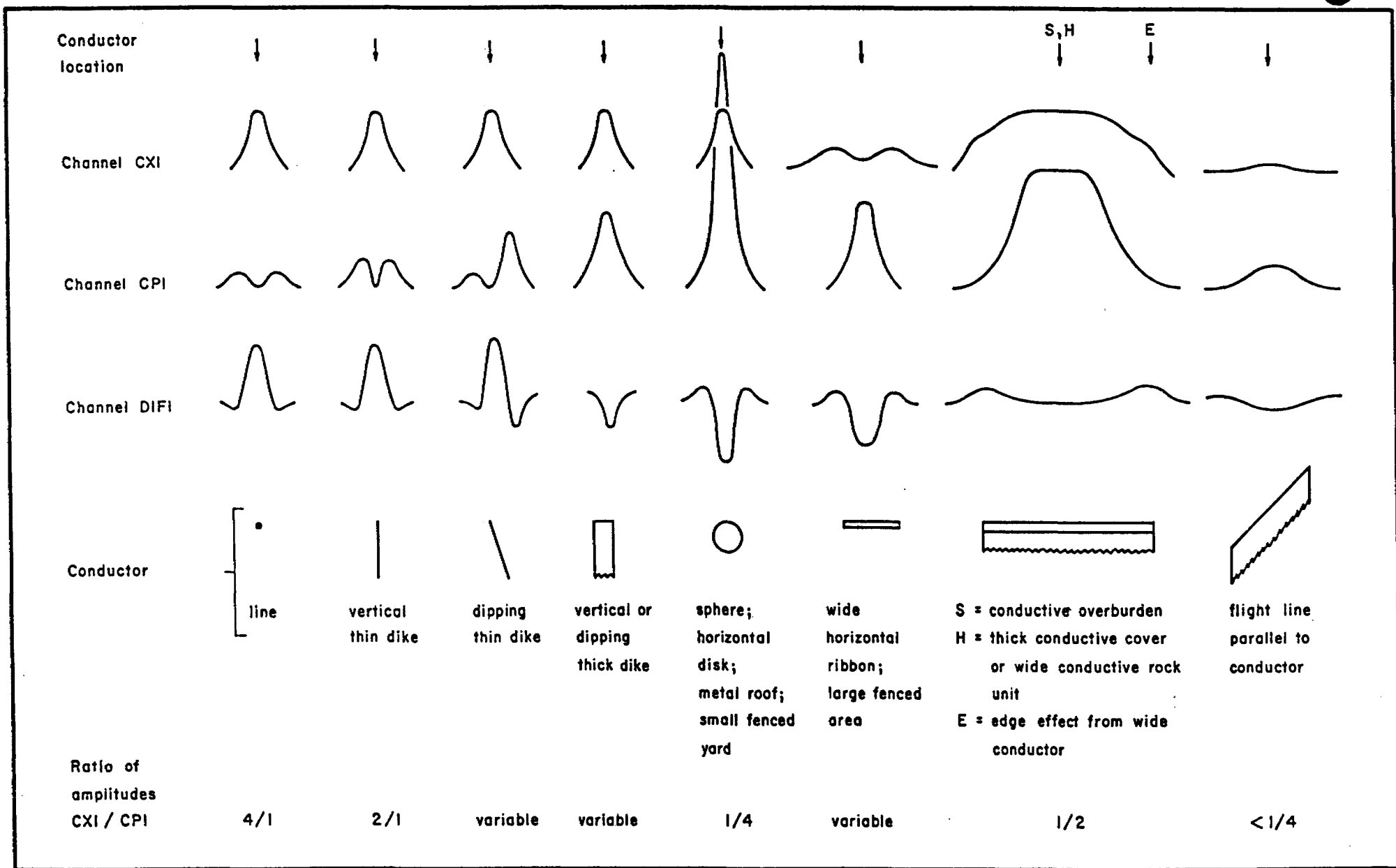


Fig. 5-1 Typical DIGHEM anomaly shapes

procedure, because the computed conductance increases as the electrical quality of the conductor increases, regardless of its true shape. DIGHEM anomalies are divided into six grades of conductance, as shown in Table 5-1 below. The conductance in mhos is the reciprocal of resistance in ohms.

Table 5-1. EM Anomaly Grades

<u>Anomaly Grade</u>	<u>Mho Range</u>
6	> 99
5	50 - 99
4	20 - 49
3	10 - 19
2	5 - 9
1	< 5

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.¹ 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.

Conductive overburden generally produces broad EM responses which may not be shown as anomalies on the EM

¹ This statement is an approximation. DIGHEM, with its short coil separation, tends to yield larger and more accurate conductance values than airborne systems having a larger coil separation.

maps. However, patchy conductive overburden in otherwise resistive areas can yield discrete anomalies with a conductance grade (cf. Table 5-1) of 1, or even of 2 for conducting clays which have resistivities as low as 50 ohm-m. In areas where ground resistivities can be 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 map (see legend on the EM map).

For bedrock conductors, the higher anomaly grades indicate increasingly higher conductances. Examples: DIGHEM's New Inco copper discovery (Noranda, Canada) yielded a grade 4 anomaly, as did the neighbouring copper-zinc Magusi River ore body; Mattabi (copper-zinc, Sturgeon Lake, Canada) and Whistle (nickel, Sudbury, Canada) gave grade 5; and DIGHEM's Montcalm nickel-copper discovery (Timmins, Canada) yielded a grade 6 anomaly. Graphite and sulfides 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 5 and 6) are characteristic of massive sulfides or graphite. Moderate conductors

(grades 3 and 4) typically reflect graphite or sulfides of a less massive character, while weak bedrock conductors (grades 1 and 2) can signify poorly connected graphite or heavily disseminated sulfides. Grade 1 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 1 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 and 2). 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.

On the interpreted electromagnetic map, 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. 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 inphase 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.

Flight line deviations occasionally yield cases where two anomalies, having similar conductance values but

dramatically different depth estimates, occur close together on the same conductor. Such examples illustrate the reliability of the conductance measurement while showing that the depth estimate can be unreliable. 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. 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 anomalies, which is

based on a comparison of anomaly shapes on adjacent lines. This provides conductor axes which 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 maps 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 (see below). The accuracy is comparable to an interpretation from a high quality ground EM survey having the same line spacing.

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 sulfide 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.

X-type electromagnetic responses

DIGHEM maps contain x-type EM responses in addition to EM anomalies. An x-type response is below the noise

threshold of 3 ppm, and reflects 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 that have the appearance of valid bedrock anomalies on the flight profiles are indicated by appropriate interpretive symbols (see EM map legend). 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 (crescents). For base metal exploration in steeply dipping geology, thick conductors can be high priority targets because many massive sulfide 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

Areas of widespread conductivity are commonly encountered during surveys. 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 inphase and quadrature channels which 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 trends in the bedrock and those patterns typical

of 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 resistivity profile (see table in Appendix A) and the resistivity contour map present the apparent resistivity using the so-called pseudo-layer (or buried) half space model defined by Fraser (1978)². This model consists of a resistive layer overlying a conductive half space. The depth channel (see Appendix A) gives 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 apparent depth parameter must be interpreted cautiously

² Resistivity mapping with an airborne multicoil electromagnetic system: Geophysics, v. 43, p. 144-172.

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 inphase 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. 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.

The resistivity map often yields more useful information on conductivity distributions than the EM map. In comparing the EM and resistivity maps, keep in mind the following:

- (a) The resistivity map portrays the absolute value of the earth's resistivity, where resistivity = $1/\text{conductivity}$.
- (b) The EM map portrays anomalies in the earth's resistivity. An anomaly by definition is a change from the norm and so the EM map displays anomalies, (i) over narrow, conductive bodies and (ii) over the boundary zone between two wide formations of differing conductivity.

The resistivity map might be likened to a total field map and the EM map to a horizontal gradient in the direction of flight³. Because gradient maps are usually

³ The gradient analogy is only valid with regard to the identification of anomalous locations.

more sensitive than total field maps, the EM map therefore is to be preferred in resistive areas. However, in conductive areas, the absolute character of the resistivity map usually causes it to be more useful than the EM map.

Interpretation in conductive environments

Environments having background resistivities below 30 ohm-m cause all airborne EM systems to yield very large responses from the conductive ground. This usually prohibits the recognition of discrete bedrock conductors. The processing of DIGHEM data, however, produces six channels which contribute significantly to the recognition of bedrock conductors. These are the inphase and quadrature difference channels (DIFI and DIFQ), and the resistivity and depth channels (RES and DP) for each coplanar frequency; see table in Appendix A.

The EM difference channels (DIFI and DIFQ) eliminate up to 99% of the response of conductive ground, leaving responses from bedrock conductors, cultural features (e.g., telephone lines, fences, etc.) and edge effects. An edge effect arises when the conductivity of the ground suddenly changes, and this is 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 two resistivity channels (RES). The most favourable situation is where anomalies coincide on all four 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 both 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.

The conductance channel CDT identifies discrete conductors which have been selected by computer for appraisal by the geophysicist. Some of these automatically selected anomalies on channel CDT are discarded by the geophysicist. The automatic selection algorithm is intentionally oversensitive to assure that no meaningful responses are missed. The interpreter then classifies the anomalies according to their source and eliminates those that are not substantiated by the data, such as those arising from geologic or aerodynamic noise.

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 above that the EM difference channels (i.e., channel DIFI for inphase and DIFQ for quadrature) tend to eliminate the response of conductive overburden. This marked a unique development in airborne EM technology, as DIGHEM is the only EM system which yields channels having an exceptionally high degree of immunity to conductive overburden.

Magnetite produces a form of geological noise on the inphase channels of all EM systems. Rocks containing less

than 1% magnetite can yield negative inphase anomalies caused by magnetic permeability. When magnetite is widely distributed throughout a survey area, the inphase 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 inphase 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 response and magnetic permeability response. The secondary field resulting from conductive eddy current flow is frequency-dependent and consists of both inphase 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 inphase component which is negative in sign. When magnetic permeability manifests itself by decreasing the measured amount of positive

inphase, its presence may be difficult to recognize. However, when it manifests itself by yielding a negative inphase 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.

A magnetite mapping technique was developed for the coplanar coil-pair of DIGHEM. The technique yields a channel (designated FEO) which displays apparent weight percent magnetite according to a homogeneous half space model.⁴ 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 steeply 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.

⁴ Refer to Fraser, 1981, Magnetite mapping with a multi-coil airborne electromagnetic system: Geophysics, v. 46, p. 1579-1594.

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 indicated by anomalies in the magnetite channel FEO.

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 CXS and CPS (see Appendix A) measure 50 and 60 Hz radiation. An anomaly on these channels shows

that the conductor is radiating cultural 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 center-peaked coaxial anomaly and an m-shaped coplanar anomaly.⁵ When the flight crosses the cultural line at a high angle of intersection, the amplitude ratio of coaxial/coplanar (e.g., CXI/CPI) is 4. 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 2 rather than 4. Consequently, an m-shaped coplanar anomaly with a CXI/CPI amplitude ratio of 4 is virtually a guarantee that the source is a cultural line.

3. A flight which crosses a sphere or horizontal disk yields center-peaked coaxial and coplanar anomalies

⁵ See Figure 5-1 presented earlier.

with a CXI/CPI amplitude ratio (i.e., coaxial/coplanar) of 1/4. In the absence of geologic bodies of this geometry, the most likely conductor is a metal roof or small fenced yard.⁶ 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 center-peaked coplanar anomaly. In the absence of geologic bodies of this geometry, the most likely conductor is a large fenced area.⁶ 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, 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

⁶ 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.

above. If, instead, a center-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 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 CXS and CPS, and on the camera film.

MAGNETICS

The existence of a magnetic correlation with an EM anomaly is indicated directly on the EM map. In some geological environments, an EM anomaly with magnetic correlation has a greater likelihood of being produced by

sulfides than one that is non-magnetic. However, sulfide 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).

The magnetometer data are digitally recorded in the aircraft to an accuracy of one nT (i.e., one gamma) for proton magnetometers, and 0.01 nT for cesium magnetometers. The digital tape is processed by computer to yield a total field magnetic contour map. When warranted, the magnetic data also may be treated mathematically to enhance the magnetic response of the near-surface geology, and an enhanced magnetic contour map is then produced. The response of the enhancement operator in the frequency domain is illustrated in Figure 5-2. This figure shows that the passband components of the airborne data are amplified 20 times by the enhancement operator. This means, for example, that a 100 nT anomaly on the enhanced map reflects a 5 nT anomaly for the passband components of the airborne data.

The enhanced map, which bears a resemblance to a downward continuation map, is produced by the digital bandpass filtering of the total field data. The enhancement is equivalent to continuing the field downward to a level

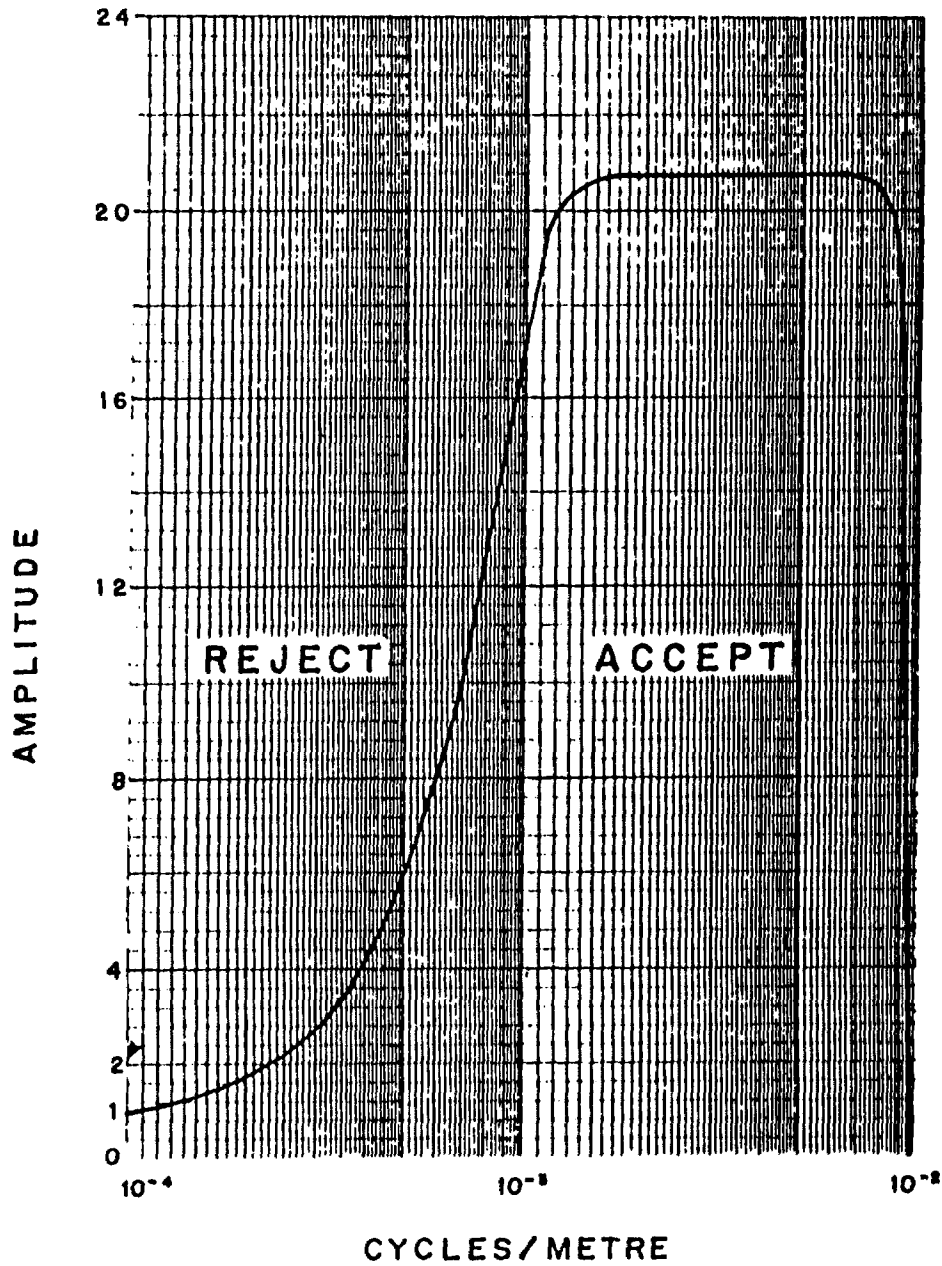


Fig. 5-2 Frequency response of magnetic enhancement operator for a sample interval of 50 m.

(above the source) which is $1/20$ th of the actual sensor-source distance.

Because the enhanced magnetic map bears a resemblance to a ground magnetic map, it simplifies the recognition of trends in the rock strata and the interpretation of geological structure. It defines the near-surface local geology while de-emphasizing deep-seated regional features. It primarily has application when the magnetic rock units are steeply dipping and the earth's field dips in excess of 60 degrees.

Any of a number of filter operators may be applied to the magnetic data, to yield vertical derivatives, continuations, magnetic susceptibility, etc. These may be displayed in contour, color or shadow.

VLF

VLF transmitters produce high frequency uniform electromagnetic fields. However, VLF anomalies are not EM anomalies in the conventional sense. EM anomalies primarily reflect eddy currents flowing in conductors which have been energized inductively by the primary field. In contrast, VLF anomalies primarily reflect current gathering, which is

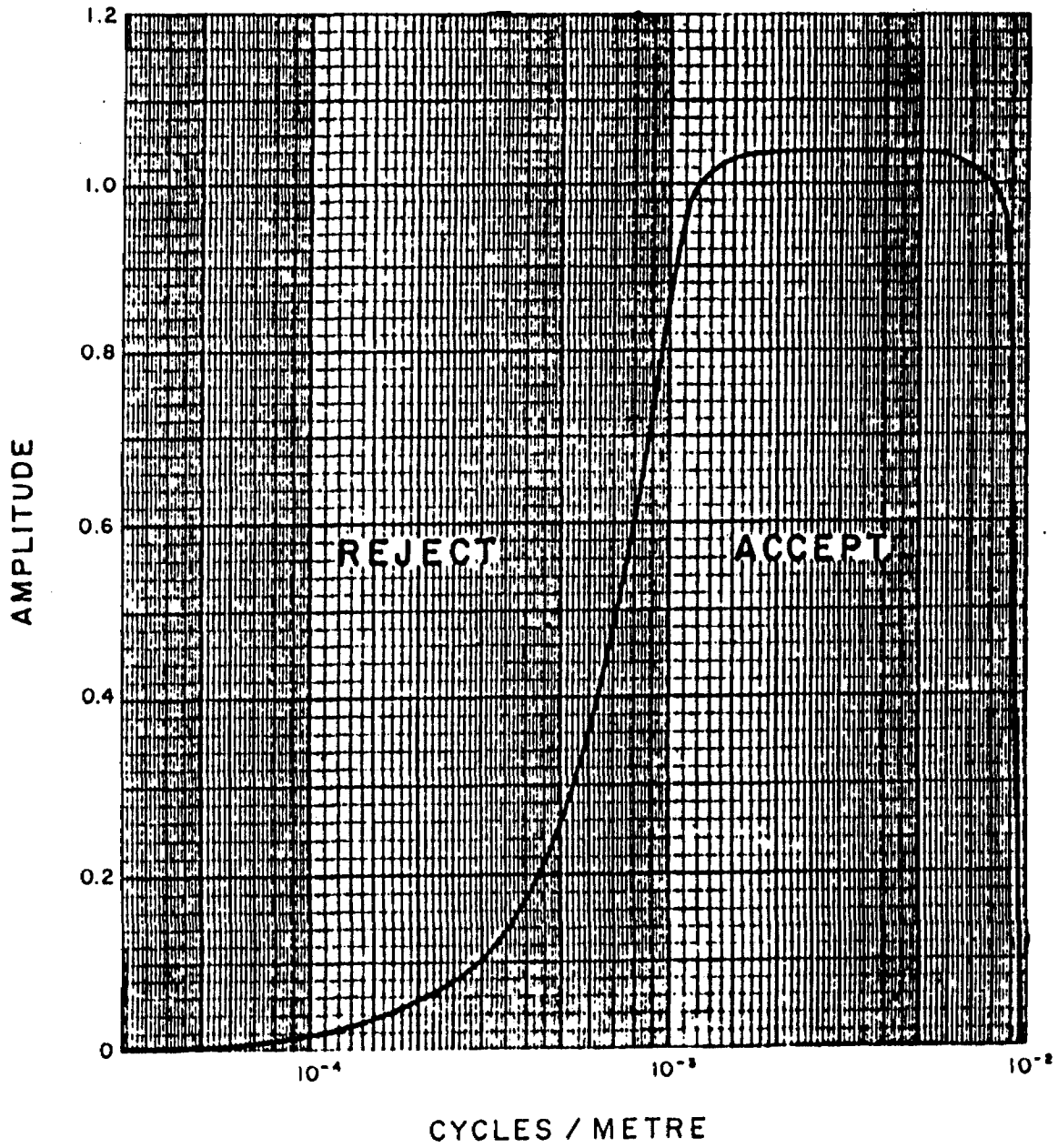


Fig. 5-3 Frequency response of VLF operator.

a non-inductive phenomenon. The primary field sets up currents which flow weakly in rock and overburden, and these tend to collect in low resistivity zones. Such zones may be due to massive sulfides, shears, river valleys and even unconformities.

The VLF field is horizontal. Because of this, the method is quite sensitive to the angle of coupling between the conductor and the transmitted VLF field. Conductors which strike towards the VLF station will usually yield a stronger response than conductors which are nearly orthogonal to it.

The Herz Industries Ltd Totem VLF-electromagnetometer measures the total field and vertical quadrature components. Both these components are digitally recorded in the aircraft with a sensitivity of 0.1 percent. The total field yields peaks over VLF current concentrations whereas the quadrature component tends to yield crossovers. Both appear as traces on the profile records. The total field data also are filtered digitally and displayed on a contour map, to facilitate the recognition of trends in the rock strata and the interpretation of geologic structure.

The response of the VLF total field filter operator in the frequency domain (Figure 5-3) is basically similar to

that used to produce the enhanced magnetic map (Figure 5-2). The two filters are identical along the abscissa but different along the ordinant. The VLF filter removes long wavelengths such as those which reflect regional and wave transmission variations. The filter sharpens short wavelength responses such as those which reflect local geological variations.

Respectfully submitted,

Doug McConnell

D.L. McConnell
Geophysicist

Robert S. Minner

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APPENDIX A

LIST OF PERSONNEL

The following personnel were involved in the acquisition, processing, interpretation and presentation of data, relating to a DIGHEM^{III} airborne geophysical survey carried out for Glen Auden Resources Limited, over properties in the Keith and Penhorwood Townships, Ontario.

Bill Cooke	Survey Operations Supervisor
Allan Henschel	Senior Geophysical Operator
Ben Rook	Pilot (Frontier Helicopters Ltd.)
Gord Smith	Computer Processor
Paul A. Smith	Interpretation Supervisor
Douglas McConnell	Geophysicist
Gary Hohs	Draftsman
Mary Anne Gravelle	Word Processing Operator

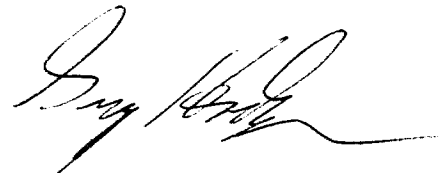
The survey consisted of 896 km of coverage. Geophysical data were compiled utilizing a VAX 11-780 computer.

All personnel are employees of Dighem Surveys & Processing Inc., except for the pilot who is an employee of Frontier Helicopters Ltd.

DIGHEM SURVEYS & PROCESSING INC.

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I-DLM-28

APPENDIX B

STATEMENT OF QUALIFICATIONS

I, Douglas L. McConnell of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geophysicist, residing at 740 Windermere Avenue, Toronto, Ontario M6S 3M3.
2. I am a graduate of Queens University, Kingston, Ontario, with a B.Sc. Engineering, Geophysics (1984).
3. I have been actively engaged in geophysical exploration since 1986.
4. I was personally responsible for the interpretation of the geophysical data described in this report.

Doug McConnell

D.L. McConnell
Geophysicist

Robert S. Middleton

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A P P E N D I X C

EM ANOMALY LIST

	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN	M	COND DEPTH SIEMEN	M	RESIS OHM-M	DEPTH M

LINE 10010	(FLIGHT 5)																		
A 3242 D	20	12	12	9	17	8	19	16	1	150	523	46							
B 3180 B?	5	8	9	24	43	15	4	6	1	47	777	0							
C 3176 D	11	12	9	24	43	18	6	8	1	42	455	0							
D 3166 B?	1	2	1	2	2	4	-	-	-	-	-	-							
E 3155 S	2	4	0	8	20	1	2	16	1	40	717	0							
F 3134 S	1	5	2	5	11	5	1	0	1	23	436	0							
G 3112 S	0	2	0	0	2	4	-	-	-	-	-	-							

LINE 10020	(FLIGHT 5)																		
A 2891 D	9	6	4	4	7	9	13	17	1	158	596	38							
B 2945 B	1	2	1	2	2	4	-	-	-	-	-	-							
C 2963 S	2	2	0	4	7	22	<1	0	1	37	372	11							
D 2981 S	1	2	1	2	2	4	-	-	-	-	-	-							

LINE 10030	(FLIGHT 5)																		
A 2709 D	6	6	7	6	13	7	9	23	1	118	147	67							
B 2637 S?	2	4	3	5	13	19	3	30	1	75	158	31							
C 2611 S	1	2	1	2	2	4	-	-	-	-	-	-							
D 2588 S	3	4	9	12	6	5	5	23	1	63	106	25							

LINE 10040	(FLIGHT 5)																		
A 2260 D	8	5	6	6	11	10	13	30	1	141	1035	0							
B 2336 S	3	5	6	9	21	8	4	21	1	60	220	16							

LINE 10050	(FLIGHT 5)																		
A 2149 B	1	2	0	2	2	4	-	-	-	-	-	-							
B 2081 S?	1	2	0	2	2	4	-	-	-	-	-	-							
C 2047 S	2	4	3	6	16	30	3	38	1	50	549	2							
D 2017 S	1	6	2	10	8	5	1	0	1	36	728	0							

LINE 10060	(FLIGHT 5)																		
A 1744 S	3	3	0	5	2	25	<1	0	1	33	439	7							
B 1759 B?	5	5	0	1	10	17	6	38	1	124	1035	0							
C 1781 S?	1	2	0	2	2	4	-	-	-	-	-	-							
D 1803 S	1	7	0	12	26	70	<1	0	1	30	699	0							
E 1816 S	2	7	0	6	13	47	2	12	1	32	704	0							

LINE 10071	(FLIGHT 5)																		
A 1543 S	1	2	0	2	2	4	-	-	-	-	-	-							
B 1522 B	5	9	0	4	12	13	2	17	1	111	1029	6							
C 1475 S	1	2	1	2	2	4	-	-	-	-	-	-							

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* .SIEMEN	M	COND DEPTH .SIEMEN	M	RESIS OHM-M	DEPTH M
LINE 10071	(FLIGHT 5)											
D 1461 S	2	3	2	5	3	17	3	24	1	10	516	0
LINE 10080	(FLIGHT 5)											
A 933 S	1	2	0	1	2	4	-	-	-	-	-	-
B 957 B	9	7	2	5	8	9	8	26	1	93	966	0
C 1004 S	1	5	1	2	30	31	1	0	1	25	190	5
LINE 10090	(FLIGHT 5)											
A 773 S	1	2	0	2	2	4	-	-	-	-	-	-
B 734 D	20	15	11	12	11	31	14	20	1	34	543	0
C 725 S	1	2	1	2	2	4	-	-	-	-	-	-
D 692 S	4	2	0	4	4	37	<1	0	1	17	207	0
E 668 S	2	2	1	5	13	5	3	49	1	15	415	0
LINE 10100	(FLIGHT 5)											
A 429 S	1	2	0	2	2	4	-	-	-	-	-	-
B 459 B	9	6	5	6	9	11	11	25	1	65	714	0
C 492 S	4	5	1	2	4	8	<1	0	1	19	189	0
D 505 S	2	7	1	5	21	4	1	0	1	24	158	5
LINE 10110	(FLIGHT 4)											
A 5994 S	0	2	1	2	2	4	-	-	-	-	-	-
B 5955 B	9	7	6	8	15	13	10	26	1	71	211	26
C 5947 S	0	2	1	2	2	4	-	-	-	-	-	-
D 5930 S	1	3	3	2	9	10	<1	0	1	38	273	15
E 5914 S	1	2	2	13	27	69	1	19	1	34	275	0
F 5885 S	2	2	2	2	6	10	6	59	1	32	293	0
LINE 10120	(FLIGHT 4)											
A 5674 S	0	4	1	7	20	11	<1	4	1	64	661	0
B 5691 S	1	4	2	7	20	11	2	4	1	44	336	0
C 5702 D	16	8	13	11	25	15	19	16	1	81	65	45
D 5739 S	0	5	4	1	13	5	1	0	1	25	159	5
E 5753 S	0	5	1	1	15	11	1	0	1	17	257	0
F 5772 S	0	2	0	5	10	25	3	25	1	65	890	0
LINE 10130	(FLIGHT 4)											
A 5532 S	1	4	0	7	14	37	1	18	1	89	903	5
B 5503 S	0	16	1	31	67	85	<1	0	1	2	427	0
C 5489 D	30	19	30	32	55	48	18	11	2	63	30	37
D 5459 S	2	4	3	5	10	39	<1	0	1	41	303	17

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN	M	COND DEPTH SIEMEN	M	RESIS OHM-M	DEPTH M
LINE 10130	(FLIGHT 4)																		
E 5431 S	1	3	3	9	18	53								3	37	1	33	492	0
F 5420 S	0	6	3	3	9	23								<1	0	1	29	286	8
LINE 10140	(FLIGHT 4)																		
A 5276 S	1	14	6	5	12	6								2	0	1	3	244	0
B 5289 D	9	8	8	7	16	18								11	12	1	62	874	0
C 5296 S	4	4	2	8	14	46								4	19	1	72	226	24
LINE 10150	(FLIGHT 4)																		
A 5145 S	1	2	0	2	2	4								-	-	-	-	-	-
B 5115 S	2	4	0	6	8	39								2	25	1	54	763	0
C 5099 S	4	10	2	13	126	182								2	0	1	0	313	0
D 5077 D	10	12	6	11	20	15								7	17	1	98	972	2
E 5071 B?	2	8	1	12	25	64								1	0	1	63	831	0
F 5043 S	2	4	0	0	8	36								<1	0	1	35	324	12
G 5023 S	0	2	0	2	2	4								-	-	-	-	-	-
H 5010 S	2	2	0	6	9	3								2	35	1	59	790	0
LINE 10160	(FLIGHT 4)																		
A 4830 E	4	9	2	14	29	81								2	0	1	38	531	0
B 4834 S	0	7	2	1	15	81								<1	0	1	22	432	0
C 4850 S	4	18	2	33	59	169								1	0	1	0	385	0
D 4866 D	19	14	19	25	41	33								12	14	1	61	67	29
E 4886 S	3	8	0	16	33	79								1	0	1	11	595	0
LINE 10171	(FLIGHT 4)																		
A 4696 S	1	11	0	4	44	116								<1	0	1	13	608	0
B 4672 S	6	4	0	8	19	16								4	26	1	32	710	0
C 4653 B	4	17	2	46	41	41								4	2	1	9	425	0
D 4649 B	19	15	17	46	26	41								8	7	1	8	440	0
E 4622 S	5	10	1	2	26	76								<1	0	1	6	238	0
F 4606 S	0	8	1	14	25	84								<1	0	1	14	522	0
LINE 10180	(FLIGHT 4)																		
A 3855 S	1	8	0	21	44	106								<1	0	1	11	598	0
B 3891 B	18	20	17	38	43	35								12	4	1	0	383	0
C 3894 B	9	10	17	28	43	9								7	4	2	55	51	25
D 3923 S	1	17	0	34	89	197								<1	0	1	0	342	0
E 3929 S	1	14	0	34	90	155								<1	0	1	0	333	0
LINE 10190	(FLIGHT 4)																		
A 3764 S	3	10	0	24	42	135								<1	0	1	13	552	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE	COND DEPTH* M	HORIZONTAL SHEET		CONDUCTIVE EARTH		RESIS OHM-M	DEPTH M
	PPM	PPM	PPM	PPM	PPM	PPM			SIEMEN	SIEMEN	M	M		
LINE 10190	(FLIGHT 4)													
B 3725 B	49	23	93	59	124	34	36	7	3	48	17	28		
C 3722 B	11	12	93	59	124	8	22	8	3	75	19	51		
D 3701 S	2	3	0	8	8	29	<1	0	1	38	710	0		
E 3683 S	2	18	0	12	32	225	<1	0	1	0	327	0		
LINE 10200	(FLIGHT 4)													
A 3368 B	3	6	1	8	19	10	8	7	1	27	763	0		
B 3408 S	0	2	0	2	2	4	-	-	-	-	-	-		
LINE 10210	(FLIGHT 4)													
A 3135 B	0	6	0	5	28	17	8	30	1	61	822	0		
B 3129 B	4	5	3	5	26	15	5	13	1	28	754	0		
C 3118 S	1	2	2	6	12	30	2	32	1	28	529	0		
D 3105 S	1	2	1	2	2	4	-	-	-	-	-	-		
LINE 10220	(FLIGHT 4)													
A 2900 B	0	9	8	18	43	24	10	10	1	54	814	0		
B 2904 B	8	9	8	18	43	7	6	3	1	40	307	0		
LINE 10230	(FLIGHT 4)													
A 2682 B	6	14	27	18	64	36	8	3	1	14	614	0		
B 2676 B	14	9	27	19	63	2	18	7	1	46	142	8		
LINE 10240	(FLIGHT 4)													
A 2460 B	0	11	35	8	61	43	9	20	1	33	700	0		
B 2465 B	12	4	38	18	61	11	36	4	2	59	34	31		
LINE 10250	(FLIGHT 4)													
A 2051 B	0	12	36	35	82	38	9	16	1	20	509	0		
B 2045 B	41	30	89	68	139	42	23	5	4	42	8	26		
C 2026 S	3	0	0	5	13	25	6	62	1	20	539	0		
D 2012 S	3	6	0	5	8	33	2	26	1	26	561	0		
LINE 10260	(FLIGHT 4)													
A 1821 B	1	2	1	2	2	4	-	-	-	-	-	-		
B 1825 B	19	21	44	46	78	8	12	0	3	35	19	13		
C 1827 B	19	18	44	46	78	8	13	0	1	21	75	0		
LINE 10270	(FLIGHT 4)													
A 1624 D	12	23	38	43	89	41	8	9	1	43	55	16		
B 1622 D	12	27	38	51	89	8	7	0	2	28	39	4		

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1034 AREA A

PENHORWOOD TP, ONT.

	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND SIEMEN	DEPTH* M	COND SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M
LINE 10270	(FLIGHT	4)										
C 1621 D	12	27	38	51	89	44	7	0	1	0	355	0
D 1589 S	1	0	1	2	2	4	-	-	-	-	-	-
LINE 10280	(FLIGHT	4)										
A 1377 B	16	20	47	110	87	53	7	0	1	4	438	0
B 1380 B	20	37	70	110	154	53	8	0	1	0	142	0
C 1382 B	0	37	70	110	154	53	9	0	1	0	195	0
LINE 10290	(FLIGHT	4)										
A 1195 B	1	23	0	44	44	55	6	4	1	22	584	0
B 1192 B	1	13	0	44	44	55	9	0	1	2	485	0
C 1163 S	1	3	1	5	12	17	<1	0	1	23	234	2
LINE 10300	(FLIGHT	4)										
A 916 S	2	4	0	7	18	32	1	9	1	51	797	0
B 932 S	2	6	0	8	9	50	2	0	1	52	846	0
C 945 B?	0	8	0	14	0	21	<1	0	1	76	949	0
LINE 10310	(FLIGHT	4)										
A 594 S	0	5	2	7	12	30	1	0	1	31	418	0
B 575 S	1	5	0	5	14	50	1	2	1	41	777	0
C 563 B?	0	2	0	0	0	4	-	-	-	-	-	-
D 557 B?	0	5	0	12	0	40	4	15	1	52	804	0
LINE 10321	(FLIGHT	4)										
A 271 S	1	4	0	7	21	1	<1	0	1	32	775	0
B 301 S?	0	5	0	6	0	13	8	19	1	60	867	0
C 332 S	0	2	1	2	2	4	-	-	-	-	-	-
D 353 S	0	5	0	2	6	45	<1	0	1	11	618	0
LINE 10330	(FLIGHT	3)										
A 6565 S	1	2	1	2	2	4	-	-	-	-	-	-
B 6486 S	1	2	1	2	2	4	-	-	-	-	-	-
C 6469 S	3	3	2	6	11	27	5	41	1	56	722	0
LINE 10340	(FLIGHT	3)										
A 6277 S	6	4	2	3	5	22	<1	0	1	24	505	0
B 6311 S	0	2	0	7	0	20	6	30	1	149	1035	0
C 6320 S	3	4	0	4	5	12	<1	0	1	17	541	0
D 6347 S	4	2	3	9	5	9	6	38	1	22	588	0
LINE 10350	(FLIGHT	3)										
A 6127 S	1	2	1	2	2	4	-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD		COND DEPTH*	COND DEPTH	RESIS	DEPTH	
FID/INTERP	PPM	PPM	PPM	PPM	PPM	PPM	PPM	SIEMEN	M	SIEMEN	M	OHM-M	M
LINE 10350	(FLIGHT	3)											
B 6080 S	1	2	1	2	2	4		-	-	-	-	-	-
LINE 10360	(FLIGHT	3)											
A 5839 S	1	2	0	2	2	4		-	-	-	-	-	-
B 5885 S?	1	4	0	6	0	42		7	25	1	143	1035	0
C 5913 S	1	2	1	2	2	4		-	-	-	-	-	-
D 5937 S	1	4	1	1	23	36		<1	0	1	23	332	0
LINE 10370	(FLIGHT	3)											
A 5726 S	3	7	2	5	23	14		2	11	1	27	660	0
B 5699 S?	1	3	0	5	0	30		2	24	1	200	1035	0
C 5673 S	4	3	0	8	19	30		3	18	1	17	638	0
D 5651 S	4	4	0	6	21	25		4	27	1	33	722	0
LINE 10380	(FLIGHT	3)											
A 5344 S	3	11	3	11	21	55		2	8	1	25	314	0
B 5412 S	0	3	2	6	11	24		3	34	1	39	272	1
C 5427 S	0	3	2	7	20	26		2	16	1	34	461	0
LINE 10390	(FLIGHT	3)											
A 5232 S	3	4	4	8	2	11		4	14	1	52	174	9
B 5166 S	1	4	1	8	19	34		2	20	1	42	428	1
C 5148 S	1	2	1	2	2	4		-	-	-	-	-	-
D 5142 S?	1	1	1	2	2	4		-	-	-	-	-	-
LINE 10400	(FLIGHT	3)											
A 4951 S	1	2	1	2	2	4		-	-	-	-	-	-
LINE 10410	(FLIGHT	3)											
A 4829 S	1	2	0	2	1	1		-	-	-	-	-	-
B 4780 S	1	1	0	2	2	4		-	-	-	-	-	-
LINE 10420	(FLIGHT	3)											
A 4570 S	1	2	0	2	2	2		-	-	-	-	-	-
B 4623 S	1	1	0	2	2	4		-	-	-	-	-	-
LINE 10430	(FLIGHT	3)											
A 4318 S	1	4	1	7	18	13		<1	0	1	40	801	0
B 4268 S	1	1	0	2	1	3		-	-	-	-	-	-
C 4236 S	1	2	0	2	2	4		-	-	-	-	-	-
LINE 10440	(FLIGHT	3)											
A 4054 S	1	3	3	1	3	30		<1	0	1	17	530	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD		COND DEPTH*		RESIS DEPTH		
FID/INTERP	PPM	PPM	PPM	PPM	PPM	PPM	PPM	SIEMEN	M	SIEMEN	M	OHM-M	M
LINE 10440	(FLIGHT	3)											
B 4122 S	1	2	0	2	2	4		-	-	-	-	-	-
LINE 10450	(FLIGHT	3)											
A 3963 S	1	2	0	2	2	4		-	-	-	-	-	-
B 3933 S	1	2	1	2	2	4		-	-	-	-	-	-
C 3872 S	1	2	1	2	2	4		-	-	-	-	-	-
D 3864 S	1	2	1	2	2	4		-	-	-	-	-	-
LINE 10460	(FLIGHT	3)											
A 3639 S	2	5	1	9	11	40		3	10	1	56	828	0
B 3674 S	1	2	1	2	2	4		-	-	-	-	-	-
C 3764 S	1	2	1	2	2	4		-	-	-	-	-	-
D 3776 S	1	1	1	2	2	4		-	-	-	-	-	-
LINE 10470	(FLIGHT	3)											
A 3558 S	3	7	0	12	20	63		4	13	1	56	819	0
B 3551 S	0	2	0	3	5	22		6	47	1	178	1035	0
C 3531 S	2	2	0	4	5	5		6	51	1	149	1035	0
LINE 10480	(FLIGHT	3)											
A 3246 S	0	18	0	35	52	196		<1	0	1	3	429	0
B 3283 S	3	2	0	4	3	6		6	44	1	170	1035	0
C 3380 S	2	4	2	2	3	5		6	42	1	202	1035	0
LINE 10490	(FLIGHT	3)											
A 3174 S	3	20	0	51	111	258		<1	0	1	0	347	0
B 3140 S	5	3	0	5	3	4		7	32	1	97	1006	0
LINE 10500	(FLIGHT	3)											
A 2870 S	2	17	0	34	67	179		<1	0	1	0	416	0
B 2895 S	1	2	0	2	2	4		-	-	-	-	-	-
C 2919 S	4	3	0	4	4	28		4	40	1	83	913	0
D 2949 S	1	2	0	2	0	4		-	-	-	-	-	-
E 2968 S	1	2	0	2	0	4		-	-	-	-	-	-
F 2997 S	1	2	0	2	0	4		-	-	-	-	-	-
LINE 10510	(FLIGHT	3)											
A 2617 S	0	6	0	11	26	59		<1	0	1	21	717	0
B 2597 S	0	5	1	9	9	55		<1	0	1	38	781	0
C 2578 S	1	2	1	2	2	4		-	-	-	-	-	-
D 2549 S	0	2	0	2	2	4		-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN M	COND DEPTH SIEMEN M	RESIS OHM-M	DEPTH M
LINE 10510	(FLIGHT 3)																
E 2505 S	0	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-
LINE 10520	(FLIGHT 3)																
A 2329 S	0	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-
B 2356 S	2	10	2	20	31	118	1	0	1	17	604	0					
C 2376 S	1	6	2	10	17	60	2	16	1	55	787	0					
D 2406 S	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-	-	-
LINE 10530	(FLIGHT 3)																
A 2239 S	0	6	3	2	1	83	<1	0	1	6	358	0					
B 2227 S	0	2	1	2	2	4	-	-	-	-	-	-	-	-	-	-	-
C 2198 B?	4	6	3	13	21	56	4	0	1	40	301	0					
D 2191 S	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-	-	-
LINE 10540	(FLIGHT 3)																
A 2021 S	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-	-	-
B 2029 S	1	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-
C 2057 D	11	11	17	25	23	67	9	7	1	58	78	24					
D 2087 S	1	2	0	2	0	4	-	-	-	-	-	-	-	-	-	-	-
E 2100 S	0	2	1	2	1	4	-	-	-	-	-	-	-	-	-	-	-
LINE 10550	(FLIGHT 3)																
A 1883 S	0	7	2	13	30	44	<1	0	1	19	229	0					
B 1873 S	3	9	4	4	30	31	1	0	1	5	440	0					
C 1849 B	8	19	16	42	76	120	4	0	1	23	244	0					
D 1844 B	5	18	3	32	72	52	2	0	1	31	82	2					
E 1841 B	7	13	12	32	72	52	4	0	1	64	88	26					
F 1829 S	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-	-	-
G 1814 S	0	4	0	7	4	54	4	18	1	73	908	0					
LINE 10560	(FLIGHT 3)																
A 1637 S	1	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-
B 1666 S	1	11	1	22	9	103	<1	0	1	11	271	0					
C 1678 S	0	9	2	17	35	21	<1	0	1	12	506	0					
D 1704 B	6	12	11	2	57	18	7	8	1	21	287	0					
E 1709 B	6	4	8	5	6	86	<1	0	1	17	194	0					
F 1711 B	5	14	7	28	6	86	2	0	1	34	128	1					
G 1721 S	1	5	1	8	12	50	1	2	1	30	659	0					
LINE 10570	(FLIGHT 3)																
A 1556 S	0	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH							
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND .SIEMEN	DEPTH* M	COND .SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M	

LINE 10570	(FLIGHT	3)											
B 1533 S	2	3	3	10	8	89	2	11	1	16	281	0	
C 1516 S	1	7	0	8	23	50	3	7	1	18	647	0	
D 1496 D	3	15	9	19	13	120	2	0	1	20	277	0	
E 1490 D	8	14	11	20	46	57	5	2	1	27	172	0	

LINE 10580	(FLIGHT	3)											
A 1114 S	4	5	0	2	4	6	<1	0	1	5	749	0	
B 1147 S	2	16	3	21	13	97	<1	0	1	3	382	0	
C 1164 S	4	6	0	15	23	94	2	2	1	55	811	0	
D 1175 S	1	11	0	22	35	136	<1	0	1	17	588	0	
E 1190 S?	3	11	2	17	11	80	1	0	1	34	597	0	
F 1199 B	8	9	3	11	26	85	4	8	1	34	377	0	
G 1210 S	0	2	0	2	2	4	-	-	-	-	-	-	

LINE 10590	(FLIGHT	3)											
A 1045 S	4	8	0	15	24	88	2	1	1	18	604	0	
B 1014 S	8	8	1	18	41	19	4	4	1	11	588	0	
C 996 S	1	2	0	2	2	4	-	-	-	-	-	-	
D 987 S	2	5	0	11	8	72	2	7	1	25	695	0	
E 976 S	4	9	0	15	32	122	2	0	1	11	543	0	
F 964 D	12	13	10	18	34	67	7	0	1	28	170	0	
G 953 S	2	8	2	10	18	78	2	0	1	21	668	0	

LINE 10600	(FLIGHT	3)											
A 706 S	2	7	0	14	21	87	<1	0	1	19	652	0	
B 731 S	5	5	0	10	11	69	1	0	1	32	730	0	
C 744 S	6	7	2	1	44	87	<1	0	1	13	270	0	
D 786 S	3	9	1	9	30	84	1	0	1	13	624	0	
E 796 D	14	13	13	20	40	63	9	0	1	28	191	0	
F 808 S	1	6	1	12	16	82	<1	0	1	24	573	0	

LINE 10610	(FLIGHT	3)											
A 641 S	4	4	0	7	14	39	3	12	1	39	792	0	
B 621 S	5	6	0	10	16	64	2	1	1	31	738	0	
C 608 S	5	8	0	16	36	79	2	0	1	11	654	0	
D 590 S	1	2	0	2	2	4	-	-	-	-	-	-	
E 571 S	8	8	2	17	29	4	4	0	1	20	704	0	
F 563 B	13	12	5	18	31	62	7	0	1	14	418	0	
G 552 S	3	3	0	10	11	53	2	4	1	53	843	0	
H 532 S	3	3	0	8	6	27	<1	3	1	70	878	0	

LINE 10622	(FLIGHT	3)											
A 314 S	2	2	0	3	11	19	<1	0	1	0	1085	0	

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD REAL QUAD REAL QUAD . COND DEPTH* . COND DEPTH RESIS DEPTH FID/INTERP PPM PPM PPM PPM PPM PPM .SIEMEN M .SIEMEN M OHM-M M					
LINE 10622 (FLIGHT 3)												
B 336 S	5	6	0	12	14	63	2	0	1	29	729	0
C 351 S	8	8	0	19	34	89	3	1	1	14	622	0
D 370 S	5	4	0	7	4	38	4	24	1	115	1035	0
E 392 S	1	2	0	2	2	4	-	-	-	-	-	-
F 400 S	1	10	1	1	32	97	<1	0	1	10	416	0
G 419 S	1	2	0	2	2	4	-	-	-	-	-	-
H 435 S	7	5	0	9	8	61	4	19	1	54	814	0
LINE 10630 (FLIGHT 2)												
A 2351 S	0	5	0	6	12	38	<1	0	1	48	797	0
B 2334 S	1	4	0	10	7	46	2	5	1	32	735	0
C 2323 S	3	6	0	9	15	45	2	0	1	59	858	0
D 2307 S	1	2	0	2	2	4	-	-	-	-	-	-
E 2282 S	6	3	2	17	28	82	4	27	1	46	531	0
LINE 10640 (FLIGHT 2)												
A 2025 S	6	5	0	12	6	72	4	21	1	52	779	0
B 2042 S	1	2	0	2	2	4	-	-	-	-	-	-
C 2066 S	1	2	0	2	0	4	-	-	-	-	-	-
D 2094 B?	6	12	0	13	4	17	2	0	1	25	695	0
E 2143 S	3	6	0	12	11	69	2	0	1	61	860	0
LINE 10651 (FLIGHT 2)												
A 1926 S	1	2	0	2	2	4	-	-	-	-	-	-
B 1920 S	3	6	0	7	26	81	1	0	1	27	733	0
C 1898 S	1	2	0	2	2	4	-	-	-	-	-	-
D 1871 B?	8	19	0	32	54	138	2	0	1	5	485	0
E 1847 S	1	2	0	2	2	1	-	-	-	-	-	-
F 1836 S	1	2	0	1	1	1	-	-	-	-	-	-
G 1815 S	2	7	3	2	9	85	<1	0	1	0	892	0
LINE 10660 (FLIGHT 2)												
A 1335 S	1	7	2	8	8	6	1	0	1	12	589	0
B 1362 S	0	7	3	17	22	113	2	0	1	22	570	0
C 1393 S	3	2	1	35	65	160	2	0	1	2	424	0
D 1418 S	0	2	0	2	2	4	-	-	-	-	-	-
LINE 10670 (FLIGHT 2)												
A 1187 S	4	4	0	1	17	48	5	33	1	33	746	0
B 1165 S	2	3	0	10	7	64	1	0	1	45	768	0
C 1137 S	4	10	1	2	44	112	3	1	1	2	540	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL QUAD PPM	REAL QUAD PPM	REAL QUAD PPM	REAL QUAD PPM	COND DEPTH* SIEMEN	COND DEPTH M	RESIS OHM-M	DEPTH M

LINE 10681	(FLIGHT	2)													
A 862 S	3	6	1	10	11	4	2	0	1	38	745	0			
B 891 S	1	2	0	2	0	4	-	-	-	-	-	-			
C 923 S	5	14	2	27	24	25	2	0	1	7	514	0			
D 938 S	1	2	0	2	0	4	-	-	-	-	-	-			

LINE 10690	(FLIGHT	2)													
A 638 S	1	2	0	2	2	4	-	-	-	-	-	-			
B 589 S	9	10	0	12	21	102	4	3	1	22	702	0			
C 564 S	1	2	0	2	2	4	-	-	-	-	-	-			

LINE 10700	(FLIGHT	2)													
A 332 S	1	4	0	6	12	37	1	2	1	43	787	0			
B 349 S?	1	2	0	2	2	4	-	-	-	-	-	-			
C 390 S?	1	2	0	2	2	4	-	-	-	-	-	-			
D 420 S	4	5	0	10	12	8	2	6	1	49	801	0			

LINE 10710	(FLIGHT	1)													
A 2983 S	0	4	0	6	3	24	<1	0	1	93	1035	0			
B 2964 S	1	2	0	2	0	4	-	-	-	-	-	-			
C 2945 S	3	10	0	17	26	60	1	0	1	23	728	0			
D 2922 S	3	4	0	3	8	48	<1	0	1	0	1357	0			

LINE 10720	(FLIGHT	1)													
A 2594 S	0	2	1	2	1	4	-	-	-	-	-	-			
B 2618 S	0	2	0	2	2	4	-	-	-	-	-	-			
C 2638 S	0	2	0	2	2	2	-	-	-	-	-	-			
D 2684 S	0	16	0	30	43	181	<1	0	1	10	475	0			
E 2705 S	1	2	0	2	2	4	-	-	-	-	-	-			

LINE 10730	(FLIGHT	1)													
A 2512 S	0	3	0	5	10	19	<1	0	1	35	773	0			
B 2471 S	3	8	0	14	23	75	1	0	1	15	732	0			
C 2411 S	1	2	1	1	2	4	-	-	-	-	-	-			

LINE 10740	(FLIGHT	1)													
A 2208 S	0	2	0	2	2	4	-	-	-	-	-	-			
B 2224 S	0	6	0	3	5	6	<1	0	1	7	493	0			
C 2269 S	5	13	3	27	63	144	2	0	1	3	374	0			
D 2277 S	1	1	1	2	2	4	-	-	-	-	-	-			
E 2319 S	1	2	1	2	2	4	-	-	-	-	-	-			
F 2338 S	4	7	0	15	16	74	2	8	1	32	670	0			

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL QUAD PPM	REAL QUAD PPM	REAL QUAD PPM	REAL QUAD PPM	COND DEPTH* SIEMEN	COND DEPTH M	RESIS OHM-M	DEPTH M
LINE 10750	(FLIGHT	1)													
A 2092 S?	0	2	0	2	2	4	-	-	-	-	-	-	-	-	-
B 2053 S?	4	16	2	29	70	153	1	0	1	9	302	0			0
C 2040 S	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-
D 2009 B	8	5	11	6	11	5	15	28	1	121	69	80			
E 1998 S	1	5	2	10	13	68	2	0	1	41	444	0			
LINE 10760	(FLIGHT	1)													
A 1810 S	0	2	0	2	2	4	-	-	-	-	-	-	-	-	-
B 1824 S?	0	12	0	4	79	91	3	0	1	0	481	0			0
C 1827 S?	1	17	0	4	79	99	<1	0	1	0	429	0			0
D 1864 S	4	12	5	21	57	97	2	0	1	10	688	0			0
E 1879 S	5	3	0	5	7	26	7	33	1	107	1035	0			0
F 1910 B	7	10	10	19	31	6	5	0	1	52	211	8			
LINE 10770	(FLIGHT	1)													
A 1633 S?	1	13	1	16	57	62	2	0	1	0	489	0			0
B 1598 S?	5	15	4	32	78	138	2	0	1	2	297	0			0
C 1554 B	6	12	12	22	41	104	5	14	1	72	240	26			
LINE 10780	(FLIGHT	1)													
A 1272 S?	0	14	1	22	62	60	3	0	1	0	524	0			0
B 1281 S	1	6	1	7	13	45	3	13	1	57	831	0			0
C 1310 E	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-
D 1315 D	14	12	29	19	41	89	16	3	2	50	43	22			
E 1322 B	3	3	13	16	33	19	7	27	1	75	97	37			
F 1356 B?	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-
G 1359 S	0	5	7	13	10	64	1	5	1	67	158	26			
LINE 10790	(FLIGHT	1)													
A 1130 S?	0	4	1	9	22	40	6	18	1	11	616	0			0
B 1091 D	13	14	25	29	41	20	10	0	2	47	46	19			
C 1084 B?	20	23	72	58	110	30	16	4	5	51	6	35			
D 1042 S	2	4	2	4	9	28	<1	0	1	9	1126	0			
LINE 10800	(FLIGHT	1)													
A 805 S	1	1	1	0	2	4	-	-	-	-	-	-	-	-	-
B 854 S	0	6	0	11	12	62	2	0	1	30	729	0			0
C 868 S	1	2	1	2	2	4	-	-	-	-	-	-	-	-	-
D 905 B?	7	5	5	1	7	20	14	38	1	78	157	34			
E 913 B?	9	9	12	24	41	18	6	11	1	53	77	20			
F 946 S	0	4	3	4	11	13	<1	0	1	59	640	25			

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN	M	COND DEPTH SIEMEN	M	RESIS OHM-M	DEPTH M
LINE 10800	(FLIGHT 1)																		
G 958 S	0	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
LINE 10810	(FLIGHT 1)																		
A 685 S?	2	6	0	6	34	63	2	0	1	13	649	0							
B 678 S?	0	7	0	3	19	8	1	0	1	21	506	0							
C 646 S	2	7	2	12	10	44	2	0	1	35	379	0							
D 634 D	6	11	19	31	55	55	6	0	1	52	86	17							
E 592 S	2	2	0	14	42	17	1	0	1	9	556	0							
LINE 10820	(FLIGHT 1)																		
A 384 S?	0	14	0	17	41	70	2	0	1	0	479	0							
B 395 E?	4	9	1	16	25	65	2	0	1	78	927	0							
C 428 S	3	9	2	11	12	86	1	0	1	28	393	0							
D 441 B?	7	7	7	0	7	39	14	24	1	48	140	9							
E 479 S	1	3	1	2	54	41	6	43	1	22	624	0							
LINE 19010	(FLIGHT 5)																		
A 3544 S	0	6	0	7	15	5	<1	2	1	60	814	0							
B 3579 S	0	3	0	6	11	10	2	31	1	75	860	0							
C 3611 S	0	2	0	2	2	4	-	-	-	-	-	-							
D 3639 S	0	2	0	2	2	4	-	-	-	-	-	-							
LINE 19021	(FLIGHT 5)																		
A 4369 S	1	5	0	4	11	12	1	0	1	29	179	9							
B 4361 S	0	5	0	2	6	36	<1	0	1	16	272	0							
C 4354 S	3	3	0	3	22	43	4	34	1	56	822	0							
D 4327 S	0	3	0	8	9	39	<1	5	1	92	927	4							
E 4228 S	1	2	0	2	2	4	-	-	-	-	-	-							
F 4199 B?	4	7	9	17	33	57	4	4	1	29	646	0							
G 4183 S	0	5	2	9	19	49	4	4	1	34	790	0							

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND SIEMEN	DEPTH* M	COND SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M

LINE 20010	(FLIGHT	6)										
A 623 S	2	8	0	3	20	90	<1	0	1	10	367	0
B 635 S	1	7	2	13	31	73	<1	0	1	9	442	0
C 649 S	2	9	0	7	25	92	1	6	1	8	404	0
D 658 S	2	6	0	9	22	55	1	7	1	5	390	0
E 670 S	1	3	0	6	7	22	1	16	1	3	397	0
F 701 S	1	5	0	1	29	22	1	0	1	12	209	0

LINE 20020	(FLIGHT	6)										
A 895 S	2	7	0	15	25	23	<1	0	1	23	602	0
B 880 S	2	10	0	20	35	126	1	0	1	9	428	0
C 861 S	2	7	0	8	11	93	<1	5	1	10	462	0
D 839 S	1	11	0	22	33	128	<1	0	1	11	422	0
E 801 S	1	1	0	4	12	4	1	0	1	16	293	0

LINE 20030	(FLIGHT	6)										
A 955 S	2	6	3	15	18	81	1	0	1	38	348	0
B 964 S	0	2	1	2	2	4	-	-	-	-	-	-
C 974 S	1	3	1	6	18	34	1	16	1	14	535	0
D 992 S	2	7	0	3	5	16	<1	0	1	7	693	0
E 1022 S	1	2	0	2	2	4	-	-	-	-	-	-
F 1028 S	3	3	0	4	11	18	<1	0	1	15	416	0
G 1037 S	1	2	0	2	2	4	-	-	-	-	-	-

LINE 20040	(FLIGHT	6)										
A 1214 S	0	2	0	2	2	4	-	-	-	-	-	-
B 1198 S	1	5	0	7	18	61	<1	0	1	12	487	0
C 1158 S	0	4	0	8	21	44	<1	0	1	29	698	0
D 1144 S	1	2	0	2	2	4	-	-	-	-	-	-
E 1126 S	1	2	1	2	2	4	-	-	-	-	-	-

LINE 20050	(FLIGHT	6)										
A 1271 S	0	7	0	15	23	88	<1	0	1	14	494	0
B 1280 S	0	4	0	7	16	38	1	12	1	15	543	0
C 1291 S	0	2	0	5	9	22	<1	0	1	8	396	0
D 1323 S	0	6	0	19	37	76	<1	0	1	17	560	0
E 1335 S	0	5	0	9	17	60	1	0	1	32	719	0
F 1352 S	1	2	0	2	2	4	-	-	-	-	-	-

LINE 20060	(FLIGHT	6)										
A 1547 S	0	13	0	38	61	230	<1	0	1	6	353	0
B 1532 S	0	9	0	12	20	108	1	2	1	14	496	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD		COND DEPTH*		RESIS DEPTH	
FID/INTERP	PPM	PPM	PPM	SIEMEN	SIEMEN	OHM-M	PPM	PPM	M	M	M	M
LINE 20060	(FLIGHT	6)										
C 1520 S	0	7	0	1	12	51	<1	0	1	8	466	0
D 1504 S	0	3	0	6	14	36	<1	5	1	36	741	0
E 1480 S	0	3	0	13	20	6	<1	3	1	17	546	0
F 1463 S	0	6	0	13	24	71	<1	0	1	20	574	0
LINE 20070	(FLIGHT	6)										
A 1604 S	0	6	1	13	11	71	<1	0	1	18	630	0
B 1618 S	0	6	0	11	22	62	1	0	1	29	715	0
C 1659 S	0	3	0	3	15	31	<1	0	1	13	383	0
D 1701 S	0	4	0	7	14	29	2	14	1	28	708	0
LINE 20080	(FLIGHT	6)										
A 1981 S	0	8	0	13	28	82	<1	0	1	20	632	0
B 1964 S	0	3	0	8	6	40	<1	0	1	20	628	0
C 1936 S	0	12	0	1	18	24	<1	0	1	10	214	0
D 1892 S	0	4	0	6	11	32	<1	0	1	26	694	0
E 1874 S	1	4	2	3	8	18	<1	0	1	12	170	0
LINE 20090	(FLIGHT	6)										
A 2062 S	1	3	0	7	15	16	1	4	1	33	738	0
B 2075 S	1	2	0	2	2	4	-	-	-	-	-	-
C 2098 S	2	5	0	1	8	2	1	0	1	14	277	0
D 2134 S	1	6	0	12	5	60	<1	0	1	19	634	0
E 2151 S	2	7	0	14	43	64	<1	0	1	5	496	0
LINE 20100	(FLIGHT	6)										
A 2321 S	0	2	0	2	2	4	-	-	-	-	-	-
B 2288 S	0	2	0	1	2	4	-	-	-	-	-	-
C 2268 S	0	3	0	6	12	27	2	22	1	32	707	0
D 2244 S	1	5	0	11	18	42	<1	0	1	10	526	0
LINE 20110	(FLIGHT	6)										
A 2453 S	1	2	0	2	2	4	-	-	-	-	-	-
B 2480 S	0	2	0	4	12	18	<1	0	1	16	441	0
C 2498 S	0	6	0	1	16	15	1	0	1	13	213	0
LINE 20121	(FLIGHT	7)										
A 361 S	2	6	0	3	2	19	<1	0	1	7	320	0
B 302 S	3	5	0	8	13	53	3	22	1	22	610	0
C 289 S	1	2	0	2	2	4	-	-	-	-	-	-
LINE 20130	(FLIGHT	7)										
A 412 S	5	7	0	11	2	18	2	2	1	15	620	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN	M	COND DEPTH SIEMEN	M	RESIS OHM-M	DEPTH M
LINE 20130	(FLIGHT 7)																		
B 430 S	1	2	0	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
C 500 S	1	3	0	3	12	30	<1	0	1	13	671	0							
LINE 20140	(FLIGHT 7)																		
A 711 S	0	2	1	4	11	19	<1	0	1	17	790	0							
B 654 S	0	2	0	2	2	4	-	-	-	-	-	-							
C 615 S	0	2	0	1	2	4	-	-	-	-	-	-							
LINE 20150	(FLIGHT 7)																		
A 771 S	0	2	1	2	2	4	-	-	-	-	-	-							
B 854 S	0	4	1	8	21	18	<1	7	1	38	722	0							
LINE 20160	(FLIGHT 7)																		
A 1038 S	0	2	0	2	2	4	-	-	-	-	-	-							
B 1006 S	0	2	1	2	2	4	-	-	-	-	-	-							
C 988 S	0	7	1	6	40	16	<1	0	1	3	446	0							
D 965 S	0	0	0	2	19	11	1	0	1	10	488	0							
E 939 S	0	4	0	9	2	5	<1	4	1	18	589	0							
LINE 20170	(FLIGHT 7)																		
A 1231 S	0	2	1	2	2	4	-	-	-	-	-	-							
B 1284 S	1	10	2	3	12	28	<1	0	1	11	165	0							
C 1305 S	1	0	1	3	5	14	3	82	1	14	517	0							
LINE 20181	(FLIGHT 7)																		
A 1553 S	0	15	2	7	30	160	<1	0	1	0	296	0							
B 1534 S	2	5	3	9	77	68	2	15	1	2	365	0							
LINE 20190	(FLIGHT 7)																		
A 1691 S	1	5	0	11	29	49	<1	0	1	11	598	0							
B 1707 S	3	0	0	1	2	25	<1	0	1	12	168	0							
C 1725 S	1	2	0	2	2	4	-	-	-	-	-	-							
LINE 20200	(FLIGHT 7)																		
A 1885 S	1	2	0	2	2	4	-	-	-	-	-	-							
B 1867 S	2	11	0	17	14	90	1	0	1	12	475	0							
C 1851 S	0	4	0	35	82	172	<1	0	1	0	352	0							
D 1842 S	0	2	0	6	27	67	<1	13	1	2	375	0							
E 1817 S	1	2	1	2	2	4	-	-	-	-	-	-							
LINE 20210	(FLIGHT 7)																		
A 2026 S	0	2	2	4	13	11	1	0	1	15	287	0							

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND .SIEMEN	DEPTH* M	COND .SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20210	(FLIGHT	7)										
B 2039 S	2	7	3	16	41	37	2	0	1	6	481	0
C 2048 S	2	10	0	5	16	19	<1	0	1	13	211	0
D 2070 S	2	3	1	6	5	28	2	21	1	49	787	0
LINE 20220	(FLIGHT	7)										
A 2207 S	2	6	0	10	8	56	2	11	1	18	540	0
B 2173 S	1	8	0	10	7	12	<1	0	1	4	401	0
C 2152 S	1	4	0	9	13	49	<1	0	1	47	783	0
D 2136 B?	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20230	(FLIGHT	7)										
A 2321 S	2	6	1	14	19	31	1	0	1	8	564	0
B 2334 S	0	2	1	6	10	17	1	7	1	13	617	0
C 2349 S	2	6	0	9	18	53	<1	0	1	16	647	0
D 2357 S	3	6	0	10	16	61	1	0	1	35	744	0
E 2366 S	1	2	0	2	2	4	-	-	-	-	-	-
F 2379 S	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20240	(FLIGHT	7)										
A 2527 S	1	2	1	2	2	4	-	-	-	-	-	-
B 2509 S	0	3	3	6	14	21	1	6	1	7	486	0
C 2490 S	1	6	0	1	27	18	1	0	1	15	241	0
D 2467 S	0	10	0	18	26	101	1	0	1	19	593	0
E 2456 S	0	2	0	2	2	4	-	-	-	-	-	-
F 2446 S	0	5	0	8	11	54	<1	4	1	49	752	0
G 2441 S	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20251	(FLIGHT	7)										
A 2825 S	0	8	3	19	49	64	<1	0	1	10	476	0
B 2835 S	0	5	2	12	20	81	<1	0	1	1	413	0
C 2850 S	1	4	1	6	12	24	1	0	1	10	505	0
D 2890 S	0	4	4	6	10	26	1	6	1	85	218	35
LINE 20260	(FLIGHT	7)										
A 3059 S	1	2	1	8	10	15	2	31	1	8	408	0
B 3049 S	1	4	2	6	20	16	1	7	1	0	385	0
C 3029 S	1	4	1	8	22	3	1	0	1	2	514	0
D 2996 S	0	4	0	8	9	47	<1	0	1	38	742	0
E 2959 S	0	2	0	2	2	4	-	-	-	-	-	-
LINE 20270	(FLIGHT	7)										
A 3398 S	1	5	0	12	11	26	<1	0	1	7	481	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN	M	COND DEPTH SIEMEN	M	RESIS OHM-M	DEPTH M

LINE 20270	(FLIGHT	7)										
B 3406 S	3	7	0	14	36	64	<1	6	1	12	427	0
C 3419 S	2	6	0	8	39	22	2	5	1	3	482	0
D 3447 S	2	4	0	8	17	4	1	0	1	42	804	0
E 3472 S?	1	2	1	2	2	4	-	-	-	-	-	-

LINE 20280	(FLIGHT	7)										
A 3637 S	3	3	0	9	3	16	<1	1	1	14	572	0
B 3614 S	2	5	0	1	5	5	<1	0	1	13	180	0
C 3579 S	1	2	0	2	2	4	-	-	-	-	-	-

LINE 20291	(FLIGHT	7)										
A 3821 S	1	6	2	2	4	5	<1	0	1	29	160	10
B 3841 S	1	8	1	16	15	66	<1	0	1	7	504	0

LINE 20300	(FLIGHT	7)										
A 4046 S	2	2	0	9	3	10	3	21	1	4	512	0
B 4019 S	3	0	0	17	14	12	2	9	1	1	472	0
C 3953 S	2	4	0	8	1	31	3	18	1	91	972	0

LINE 20310	(FLIGHT	7)										
A 4123 S	2	8	0	19	7	57	<1	0	1	6	499	0
B 4131 S	2	6	0	13	38	37	<1	0	1	11	494	0
C 4142 S	1	2	0	2	2	4	-	-	-	-	-	-
D 4151 S	0	13	0	26	70	104	<1	0	1	0	358	0
E 4161 S	1	2	0	2	2	4	-	-	-	-	-	-
F 4193 S?	3	6	0	8	7	52	1	4	1	104	1029	0
G 4209 S	2	2	0	5	0	15	<1	0	1	7	4204	0

LINE 20320	(FLIGHT	7)										
A 4462 S	1	1	0	1	4	10	<1	0	1	26	156	8
B 4451 S	3	7	0	3	44	32	1	0	1	18	200	0
C 4435 S	2	8	0	14	6	71	<1	0	1	10	485	0
D 4419 S	2	6	0	11	35	45	<1	0	1	3	429	0
E 4409 S	2	7	0	18	34	85	<1	0	1	11	480	0
F 4390 S	2	6	0	8	13	46	1	7	1	28	658	0
G 4380 S?	4	6	0	8	11	5	2	8	1	78	913	0
H 4359 B	2	4	0	7	7	20	2	19	1	121	1035	0

LINE 20330	(FLIGHT	7)										
A 4553 S	3	2	1	12	8	14	3	14	1	7	530	0
B 4561 S	0	6	0	9	36	55	<1	0	1	10	492	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD		COND DEPTH*	COND DEPTH	RESIS	DEPTH		
FID/INTERP	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	SIEMEN	M	SIEMEN	M	OHM-M	M
LINE 20330	(FLIGHT	7)												
C 4581 S	1	2	0	2	2	4	.	-	-	-	-	-	-	-
D 4591 S	1	5	1	10	31	33	.	<1	0	1	6	492	0	0
E 4601 S	1	3	0	7	14	89	.	2	19	1	14	511	0	0
F 4613 S	3	6	0	12	21	73	.	2	8	1	19	600	0	0
G 4623 B?	1	2	1	2	1	4	.	-	-	-	-	-	-	-
H 4641 B	1	5	0	5	6	12	.	<1	0	1	53	1290	13	13
LINE 20340	(FLIGHT	7)												
A 4794 S	1	3	0	18	5	2	.	<1	0	1	7	464	0	0
B 4748 S	1	1	0	16	1	13	.	<1	2	1	6	413	0	0
C 4732 S	0	5	0	10	13	68	.	<1	7	1	16	473	0	0
D 4714 S	1	2	1	19	26	20	.	1	0	1	12	524	0	0
E 4686 B	1	3	0	0	2	16	.	1	33	1	209	1035	0	0
LINE 20350	(FLIGHT	7)												
A 5098 S	2	5	0	12	1	42	.	1	2	1	19	577	0	0
B 5145 S	3	4	1	7	28	22	.	2	13	1	10	555	0	0
C 5160 S?	1	2	0	2	2	4	.	-	-	-	-	-	-	-
D 5177 S	2	10	2	20	35	84	.	1	0	1	14	612	0	0
E 5195 D	5	5	2	6	10	3	.	4	19	1	168	1035	0	0
LINE 20360	(FLIGHT	7)												
A 5514 S	2	3	1	14	15	27	.	1	5	1	14	552	0	0
B 5507 S	1	2	1	2	2	4	.	-	-	-	-	-	-	-
C 5480 S	1	2	1	2	2	4	.	-	-	-	-	-	-	-
D 5467 S	2	3	1	6	17	18	.	2	24	1	8	492	0	0
E 5439 S	2	4	2	7	14	40	.	2	17	1	21	595	0	0
F 5428 S	3	12	3	24	49	116	.	1	0	1	14	391	0	0
G 5408 D	5	5	1	5	6	12	.	4	20	1	89	961	0	0
H 5389 S	0	2	0	2	2	4	.	-	-	-	-	-	-	-
LINE 20370	(FLIGHT	7)												
A 5647 S	2	3	3	11	20	14	.	3	15	1	9	462	0	0
B 5662 S	1	7	0	15	4	14	.	<1	0	1	12	505	0	0
C 5676 S	1	2	0	2	2	4	.	-	-	-	-	-	-	-
D 5694 S	1	10	1	5	13	10	.	<1	0	1	14	558	0	0
E 5699 S	1	2	0	2	2	4	.	-	-	-	-	-	-	-
F 5713 D	1	5	2	8	8	23	.	2	2	1	72	913	0	0
G 5732 S	1	2	1	2	1	4	.	-	-	-	-	-	-	-
LINE 20380	(FLIGHT	7)												
A 5952 S	1	3	1	6	22	16	.	2	12	1	14	551	0	0

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD		COND DEPTH*		RESIS DEPTH	
FID/INTERP	PPM	PPM	PPM	SIEMEN	M	SIEMEN	M	OHM-M	M	M	M	M
LINE 20380	(FLIGHT 7)											
B 5924 S	2	5	1 11	26	5	2	12	1	8	427	0	
C 5902 S	1	6	0 11	20	59	<1	0	1	13	481	0	
D 5880 B	3	5	2 8	11	11	6	30	1	22	598	0	
E 5863 S	0	6	0 11	27	54	<1	4	1	13	426	0	
F 5843 B	2	7	7 14	17	27	3	8	1	56	648	0	
G 5839 D	8	9	9 11	17	12	7	18	1	103	87	62	
H 5824 S	0	6	0 13	6	85	<1	0	1	42	761	0	
LINE 20390	(FLIGHT 7)											
A 6074 S	1	3	0 5	15	27	<1	0	1	19	341	0	
B 6100 S	1	1	1 11	19	68	2	19	1	12	555	0	
C 6116 S	1	6	1 9	11	18	<1	0	1	10	512	0	
D 6131 B	3	3	3 7	15	19	4	32	1	28	688	0	
LINE 20400	(FLIGHT 7)											
A 6458 S	1	3	0 6	20	24	3	35	1	10	468	0	
B 6439 S	1	6	0 4	9	3	1	0	1	17	239	0	
C 6420 S	0	2	0 2	2	4	-	-	-	-	-	-	
D 6400 S	0	5	0 3	5	45	<1	0	1	11	458	0	
LINE 20410	(FLIGHT 7)											
A 6674 S	1	2	0 2	2	4	-	-	-	-	-	-	
B 6717 S	2	5	0 1	20	50	<1	0	1	15	282	0	
C 6735 S	2	4	0 13	9	16	1	0	1	26	714	0	
D 6755 D	7	2	9 4	11	23	43	36	2	151	61	108	
LINE 20420	(FLIGHT 7)											
A 6956 S	1	6	0 2	13	21	<1	0	1	15	236	0	
B 6910 S	1	4	0 7	12	18	<1	4	1	16	591	0	
C 6901 S?	1	2	0 2	2	4	-	-	-	-	-	-	
D 6893 S	2	4	0 11	18	56	<1	0	1	14	497	0	
E 6874 S	1	7	0 5	35	24	2	10	1	21	593	0	
LINE 20431	(FLIGHT 7)											
A 7163 S	0	7	1 4	17	60	<1	0	1	19	235	0	
B 7221 B	3	7	5 9	13	15	8	22	1	26	675	0	
C 7240 S?	1	2	1 2	2	4	-	-	-	-	-	-	
D 7248 S	0	7	0 7	24	27	<1	0	1	19	685	0	
LINE 20440	(FLIGHT 8)											
A 379 S	2	8	0 10	8	46	<1	0	1	23	693	0	

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LINE 20440	(FLIGHT 8)																		
B 325 D	5	4	6	5	10	10								10	30	1	35	739	0
C 305 D	10	8	9	12	21	4								10	14	1	28	619	0
D 269 S?	4	4	0	6	10	22								4	18	1	114	1035	0
LINE 20450	(FLIGHT 8)																		
A 487 S	1	2	0	2	2	4								-	-	-	-	-	-
B 535 D	7	4	14	6	18	7								21	21	1	51	717	0
C 557 D	4	8	4	8	17	8								3	12	1	43	769	0
D 596 D	10	6	9	9	15	2								12	20	1	104	1003	0
LINE 20460	(FLIGHT 8)																		
A 761 S	1	3	0	6	3	1								1	11	1	43	781	0
B 716 B?	1	5	1	6	14	30								5	23	1	53	819	0
C 700 B	1	2	1	2	2	4								-	-	-	-	-	-
D 694 D	2	6	1	8	20	22								2	8	1	63	840	0
E 684 S	1	2	0	2	2	4								-	-	-	-	-	-
LINE 20470	(FLIGHT 8)																		
A 921 B	0	3	0	3	8	2								6	26	1	87	1014	0
B 936 D	7	6	12	10	20	15								11	21	1	61	370	10
C 939 B	1	1	1	2	2	4								-	-	-	-	-	-
D 942 B?	1	2	1	2	2	4								-	-	-	-	-	-
E 947 S	0	2	0	4	17	1								1	0	1	19	521	0
F 978 S	2	3	0	3	2	23								3	24	1	191	1035	0
LINE 20480	(FLIGHT 8)																		
A 1159 S	1	2	0	2	2	4								-	-	-	-	-	-
B 1109 D	0	6	1	12	16	2								3	9	1	62	860	0
C 1095 D	1	2	1	2	2	4								-	-	-	-	-	-
D 1078 S	0	5	0	9	18	48								<1	0	1	49	794	0
LINE 20490	(FLIGHT 8)																		
A 1233 S	0	2	0	2	2	4								-	-	-	-	-	-
B 1287 S	0	2	0	2	2	4								-	-	-	-	-	-
C 1299 B	1	2	1	2	2	4								-	-	-	-	-	-
D 1307 E?	0	2	0	2	2	4								-	-	-	-	-	-
E 1311 S	0	6	0	11	17	63								<1	0	1	42	763	0
F 1344 B	0	4	0	6	6	19								1	9	1	121	1035	0
LINE 20500	(FLIGHT 8)																		
A 1458 S	0	2	0	2	2	4								-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND SIEMEN	DEPTH* M	COND SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20500	(FLIGHT 8)																		
B 1433 S	0	6	0	12	14	77	<1	0	1	49	775	0							
C 1422 B	0	2	1	2	2	4	-	-	-	-	-	-							
D 1402 D	6	4	5	3	4	12	12	34	1	200	1035	0							
LINE 20510	(FLIGHT 8)																		
A 1611 B	1	7	0	6	10	19	1	0	1	159	1035	0							
B 1667 S?	1	2	1	2	2	4	-	-	-	-	-	-							
C 1690 D	6	5	2	6	4	23	7	42	1	215	1035	0							
LINE 20520	(FLIGHT 8)																		
A 1814 B	3	10	3	9	12	43	2	0	1	80	949	0							
B 1773 D	6	11	8	16	25	16	4	0	1	54	251	8							
C 1762 D	5	8	9	14	22	17	5	7	1	43	399	0							
LINE 20530	(FLIGHT 8)																		
A 1957 S	0	2	0	2	2	4	-	-	-	-	-	-							
B 1974 S	0	2	0	2	2	4	-	-	-	-	-	-							
C 1996 B	2	8	2	7	11	31	2	6	1	108	1035	0							
D 2010 D	24	16	35	23	43	16	22	1	1	38	335	0							
E 2040 D	14	18	23	22	37	26	10	0	1	68	153	25							
F 2068 S?	0	2	0	2	2	4	-	-	-	-	-	-							
LINE 20540	(FLIGHT 8)																		
A 2218 B	3	3	1	2	4	9	6	23	1	182	1035	0							
B 2208 D	14	8	25	21	34	14	17	0	1	21	645	0							
C 2205 D	15	11	25	21	34	14	16	0	1	89	76	49							
D 2199 B	5	5	3	4	6	8	6	15	1	126	181	69							
E 2179 D	5	11	12	18	27	22	4	1	1	48	430	0							
F 2153 D	17	6	23	11	28	20	35	16	3	104	23	75							
LINE 20550	(FLIGHT 8)																		
A 2424 B	1	2	1	2	2	4	-	-	-	-	-	-							
B 2435 D	23	19	44	33	54	22	18	0	1	19	581	0							
C 2438 D	24	19	44	33	54	22	19	0	1	34	569	0							
D 2445 B	5	7	10	7	7	16	8	16	1	111	113	64							
E 2468 S?	1	2	1	2	2	4	-	-	-	-	-	-							
F 2495 D	53	15	87	31	78	22	79	0	7	60	4	45							
G 2497 B	53	15	87	31	78	22	79	3	14	57	1	48							
LINE 20560	(FLIGHT 8)																		
A 2617 D	9	16	16	23	31	20	6	0	1	57	895	0							

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND .SIEMEN	DEPTH* M	COND .SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20560	(FLIGHT	8)										
B 2614 D	8	13	16	23	31	20	6	0	1	61	273	11
C 2577 S	1	2	1	2	2	2	-	-	-	-	-	-
D 2560 D	21	8	76	25	65	9	58	4	6	85	5	67
E 2559 D	20	8	76	25	65	9	57	0	10	58	2	47
LINE 20570	(FLIGHT	8)										
A 2738 S	1	2	1	2	2	4	-	-	-	-	-	-
B 2751 S	1	2	1	2	2	4	-	-	-	-	-	-
C 2781 D	2	10	4	11	15	13	6	0	1	114	1035	0
D 2785 D	3	4	5	11	15	13	7	14	1	122	1035	0
E 2826 S	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20580	(FLIGHT	8)										
A 3012 B?	8	7	9	11	18	25	9	17	1	105	433	29
B 2953 B	4	3	5	7	7	9	6	10	1	98	94	53
C 2951 B	4	3	9	7	7	9	10	14	1	100	1035	0
D 2901 S	1	2	1	2	1	4	-	-	-	-	-	-
LINE 20590	(FLIGHT	8)										
A 3133 S	0	2	1	2	2	4	-	-	-	-	-	-
B 3164 D	3	7	11	8	11	9	7	5	1	173	1035	0
C 3169 D	16	8	14	8	14	7	25	4	1	94	133	46
LINE 20600	(FLIGHT	8)										
A 3386 B?	2	3	5	3	7	14	6	34	2	159	44	119
B 3363 S	1	2	1	2	2	4	-	-	-	-	-	-
C 3340 D	3	5	8	5	12	3	7	0	1	173	888	18
D 3334 D	9	6	16	6	13	5	23	2	4	109	14	82
LINE 20610	(FLIGHT	8)										
A 3472 B	5	4	9	6	8	17	10	24	1	142	118	91
B 3488 S	1	2	0	2	2	4	-	-	-	-	-	-
C 3497 S	1	2	0	2	2	4	-	-	-	-	-	-
D 3516 S	1	2	0	2	2	4	-	-	-	-	-	-
E 3529 D	7	10	15	12	24	11	9	3	1	130	1035	0
F 3534 D	20	13	21	13	25	6	20	8	1	65	216	19
LINE 20611	(FLIGHT	8)										
A 3591 S	0	6	0	11	20	40	<1	0	1	57	801	0
LINE 20620	(FLIGHT	8)										
A 3735 B	5	4	3	4	6	35	7	17	1	68	414	5

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL QUAD PPM	REAL QUAD PPM	REAL QUAD PPM	REAL QUAD PPM	COND DEPTH* SIEMEN	COND DEPTH M	RESIS SIEMEN	DEPTH M	OHM-M	DEPTH M		

LINE 20620	(FLIGHT	8)										
B 3716 S	0	4	0	8	15	43	<1	0	1	39	765	0
C 3697 S	0	2	1	2	2	4	-	-	-	-	-	-
D 3688 B	2	4	11	8	15	5	6	16	1	193	1035	0
E 3683 B	6	6	11	8	15	4	10	15	1	91	802	0
F 3648 B?	1	3	2	6	14	18	4	14	1	82	999	0

LINE 20630	(FLIGHT	8)										
A 3778 S?	0	4	4	9	12	1	1	8	1	61	241	16
B 3799 S	0	5	3	2	17	29	<1	0	1	6	544	0
C 3815 S	0	2	1	2	2	4	-	-	-	-	-	-
D 3841 D	4	7	9	8	15	8	6	27	1	151	398	62
E 3846 D	7	11	16	8	17	10	10	23	1	70	840	0
F 3883 S?	0	3	4	6	10	21	1	2	1	84	167	36

LINE 20640	(FLIGHT	8)										
A 4055 S	0	4	1	7	11	48	1	0	1	51	831	0
B 4046 S	1	2	1	2	2	4	-	-	-	-	-	-
C 4019 S?	1	2	1	2	2	4	-	-	-	-	-	-
D 3990 D	3	4	10	10	15	6	7	12	1	116	127	65

LINE 20650	(FLIGHT	8)										
A 4284 S	1	4	0	9	14	14	<1	0	1	35	781	0
B 4327 B	3	3	0	1	7	13	6	34	1	190	1035	0
C 4334 S	1	2	0	2	2	4	-	-	-	-	-	-

LINE 20660	(FLIGHT	8)										
A 4513 S	3	3	0	5	14	10	1	0	1	10	528	0
B 4493 S	1	2	0	2	2	4	-	-	-	-	-	-
C 4478 B?	0	5	5	11	20	17	8	21	1	200	1035	0
D 4476 D	1	2	1	2	2	4	-	-	-	-	-	-
E 4470 S	1	2	0	2	2	4	-	-	-	-	-	-
F 4446 B	5	5	0	6	9	29	2	5	1	109	1035	0

LINE 20670	(FLIGHT	8)										
A 4601 S	1	2	0	2	2	4	-	-	-	-	-	-
B 4631 S	1	6	0	7	11	54	<1	0	1	78	938	0
C 4652 D	2	10	0	2	10	5	8	17	1	194	1035	0
D 4658 S	3	6	0	10	20	2	2	1	1	46	785	0
E 4688 D	9	15	2	22	34	35	3	0	1	107	1035	0

LINE 20680	(FLIGHT	8)										
A 4826 S	1	1	0	0	2	3	-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND .SIEMEN	DEPTH* M	COND .SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20680	(FLIGHT	8)										
B 4805 S?	1	2	0	2	2	4	-	-	-	-	-	-
C 4790 D	4	5	0	7	11	44	8	11	1	174	1035	0
D 4786 S	2	4	0	7	13	4	1	0	1	67	903	0
E 4759 D	5	13	12	32	48	41	3	0	1	45	312	0
LINE 20690	(FLIGHT	8)										
A 4929 S	4	3	1	2	1	1	8	43	1	46	785	0
B 4954 B	3	7	2	7	9	42	2	0	1	86	605	4
C 4973 D	0	9	3	13	16	59	7	6	1	56	850	0
LINE 20700	(FLIGHT	8)										
A 5117 S?	4	7	1	5	6	41	3	17	1	103	1029	0
B 5101 S?	1	2	1	0	2	3	-	-	-	-	-	-
LINE 20710	(FLIGHT	8)										
A 5233 S	1	1	4	8	16	45	3	33	1	43	420	0
B 5283 S?	4	8	1	9	12	54	2	0	1	61	668	0
C 5302 B?	2	3	2	3	2	10	6	28	1	191	1035	0
D 5307 S?	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20720	(FLIGHT	8)										
A 5446 B?	1	4	3	2	4	3	6	24	1	185	1035	0
B 5440 B?	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20730	(FLIGHT	8)										
A 5568 S	0	2	0	6	15	11	2	23	1	36	751	0
B 5594 D	2	6	7	8	11	16	6	10	1	93	231	38
C 5617 D	0	5	2	6	5	16	7	21	1	165	1035	0
D 5624 B?	2	4	7	9	13	2	6	23	1	160	142	104
E 5629 D	7	19	8	17	13	18	11	4	1	74	899	0
F 5639 B	0	6	5	7	3	19	2	18	1	182	1035	0
LINE 20740	(FLIGHT	8)										
A 5827 S	0	3	0	6	13	29	<1	0	1	57	831	0
B 5809 B	0	5	0	5	6	14	<1	0	1	101	1035	0
C 5801 S	0	5	0	7	13	43	1	7	1	79	891	0
D 5787 B?	0	2	1	2	2	4	-	-	-	-	-	-
E 5783 D	1	6	8	6	13	3	4	14	2	111	38	77
F 5779 D	0	4	8	4	12	3	7	25	1	192	1035	0
LINE 20750	(FLIGHT	8)										
A 5914 S	0	2	1	2	2	4	-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ REAL QUAD		COND DEPTH*		RESIS DEPTH	
FID/INTERP	PPM	PPM	PPM	SIEMEN	M	SIEMEN	M	OHM-M	M	M	M	M
LINE 20750	(FLIGHT	8)										
B 5948 S	0	4	2	9	11	25	<1	0	1	37	474	0
C 5965 D	1	8	7	14	23	23	3	15	1	82	899	0
D 5968 D	2	8	8	9	17	23	3	16	1	98	98	57
E 5975 B	0	8	4	4	8	9	8	30	1	183	1035	0
F 6016 S	1	9	0	4	12	14	<1	0	1	16	399	0
LINE 20760	(FLIGHT	8)										
A 6135 S	0	5	4	10	16	49	<1	0	1	48	270	3
B 6117 D	4	7	11	10	18	15	6	20	1	98	227	45
C 6113 B	0	5	11	5	14	3	4	24	2	106	61	68
D 6110 B	2	7	10	5	14	9	8	19	1	113	1035	0
E 6072 D	3	9	5	6	10	14	3	6	1	50	713	0
LINE 20770	(FLIGHT	8)										
A 6375 B?	1	2	0	2	2	4	-	-	-	-	-	-
B 6398 E	1	2	1	2	2	4	-	-	-	-	-	-
C 6405 D	2	9	7	9	28	19	3	1	1	65	101	26
D 6408 D	5	10	7	10	28	22	9	17	1	87	943	0
E 6410 D	12	13	14	10	23	22	10	18	1	52	771	0
F 6417 D	1	2	1	2	2	4	-	-	-	-	-	-
G 6452 D	4	13	7	10	23	30	3	11	1	60	324	14
LINE 20780	(FLIGHT	8)										
A 6582 S	1	2	0	2	2	4	-	-	-	-	-	-
B 6551 D	2	9	6	8	13	8	3	3	1	96	94	54
C 6548 D	5	9	6	14	13	19	10	12	1	75	903	0
D 6546 D	3	13	19	19	27	19	8	1	1	25	717	0
E 6536 S	1	2	1	2	0	4	-	-	-	-	-	-
F 6508 B	2	5	3	5	8	9	3	24	1	108	702	13
LINE 20790	(FLIGHT	8)										
A 6693 D	4	2	3	4	5	24	11	53	1	165	1035	0
B 6703 S	0	2	0	2	2	4	-	-	-	-	-	-
C 6746 D	4	8	6	13	23	21	4	12	1	177	120	122
D 6754 D	16	18	59	24	69	31	22	9	1	80	895	0
E 6756 D	25	34	59	44	69	25	14	3	1	9	457	0
F 6764 S	1	2	1	2	2	4	-	-	-	-	-	-
G 6797 S?	3	5	0	2	5	6	4	34	1	123	1035	0
LINE 20800	(FLIGHT	8)										
A 6932 B?	1	2	1	2	2	4	-	-	-	-	-	-

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	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* M	COND DEPTH SIEMEN	RESIS M OHM-M	DEPTH M
LINE 20800	(FLIGHT 8)																
B 6896 D	3	5	5	7	12	12	4	20	1	179	83	129					
C 6889 D	6	7	30	13	32	12	18	10	1	72	917	0					
D 6887 D	15	13	30	15	32	12	19	4	1	62	153	19					
LINE 20810	(FLIGHT 8)																
A 7057 S	1	2	0	2	2	4	-	-	-	-	-	-					
B 7073 D	11	13	19	23	33	20	9	7	1	83	99	42					
C 7075 D	12	7	19	23	33	20	13	15	2	77	35	47					
D 7079 D	5	3	19	8	20	16	19	29	3	153	26	119					
E 7082 D	5	11	8	18	20	16	10	15	1	73	867	0					
F 7085 D	35	19	48	24	51	17	33	4	1	24	668	0					
LINE 20820	(FLIGHT 8)																
A 7248 B	1	2	1	2	2	4	-	-	-	-	-	-					
B 7242 B	5	3	7	5	12	6	11	25	2	139	38	101					
C 7236 D	28	11	60	24	56	22	48	5	2	63	24	38					
LINE 20830	(FLIGHT 9)																
A 602 S	1	2	0	2	2	4	-	-	-	-	-	-					
B 584 S	1	2	0	2	2	4	-	-	-	-	-	-					
C 572 D	10	11	12	17	26	21	7	16	1	71	585	6					
D 567 B	6	2	11	17	25	14	10	32	1	157	121	105					
E 566 B	6	7	3	5	5	14	<1	0	1	112	849	68					
F 561 D	62	15	98	28	81	35	106	0	1	10	530	0					
G 549 S	1	1	0	2	0	4	-	-	-	-	-	-					
LINE 20840	(FLIGHT 9)																
A 716 S	1	2	0	2	2	4	-	-	-	-	-	-					
B 744 D	24	18	38	26	46	12	20	15	1	96	95	55					
C 750 B	5	8	14	2	4	14	<1	0	1	114	1085	68					
D 752 B	1	2	1	2	2	4	-	-	-	-	-	-					
E 755 D	40	14	71	27	61	32	59	2	1	10	537	0					
LINE 20850	(FLIGHT 9)																
A 916 S	1	3	0	7	11	36	<1	0	1	54	797	0					
B 882 D	5	5	6	9	9	7	6	21	1	115	116	68					
C 874 D	0	5	1	7	14	12	8	27	1	129	1035	0					
D 872 D	14	6	16	8	14	12	29	18	1	78	917	0					
E 864 S?	3	2	2	5	9	13	4	42	1	117	572	28					
LINE 20860	(FLIGHT 9)																
A 1044 S	1	1	0	2	2	4	-	-	-	-	-	-					

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE	COND DEPTH* M	HORIZONTAL SHEET		CONDUCTIVE EARTH	
	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM			SIEMEN	COND SIEMEN	DEPTH M	RESIS OHM-M
LINE 20860	(FLIGHT 9)											
B 1080 D	4	5	7	8	9	8	6	34	1	211	1035	0
C 1087 B?	0	2	0	2	0	4	-	-	-	-	-	-
D 1091 B	12	6	20	11	18	10	24	17	1	63	850	0
E 1119 S	1	2	1	2	2	4	-	-	-	-	-	-
LINE 20870	(FLIGHT 9)											
A 1251 S	1	2	1	2	2	4	-	-	-	-	-	-
B 1218 B?	1	2	1	2	2	4	-	-	-	-	-	-
C 1212 D	3	4	3	5	4	15	<1	0	1	129	815	83
D 1207 D	25	10	49	19	40	15	45	18	1	69	161	28
E 1190 S	1	2	0	2	2	4	-	-	-	-	-	-
F 1174 S	1	4	0	11	21	23	2	10	1	35	725	0
LINE 20880	(FLIGHT 9)											
A 1399 S	0	4	0	10	9	64	2	8	1	56	814	0
B 1434 B	0	2	1	2	2	4	-	-	-	-	-	-
C 1440 B	2	8	4	7	8	11	2	2	1	83	315	28
D 1444 D	19	8	36	14	31	11	38	12	1	79	94	40
E 1458 S	1	6	2	9	16	71	<1	0	1	41	552	0
LINE 20890	(FLIGHT 9)											
A 1618 S	0	4	1	10	11	57	<1	0	1	62	850	0
B 1586 D	6	8	12	10	18	7	9	22	1	136	1035	0
C 1578 B	6	6	44	18	40	14	24	14	1	96	992	0
D 1575 D	23	10	44	18	40	14	40	12	2	69	55	37
E 1566 B?	1	2	1	2	2	4	-	-	-	-	-	-
F 1559 S	0	6	0	12	20	61	<1	0	1	28	714	0
LINE 20900	(FLIGHT 9)											
A 1745 S	0	2	1	2	2	4	-	-	-	-	-	-
B 1767 B	1	2	0	2	2	4	-	-	-	-	-	-
C 1785 B?	1	2	0	2	2	4	-	-	-	-	-	-
D 1789 B	3	3	0	5	3	17	7	36	1	180	1035	0
E 1797 D	42	14	73	28	60	21	60	9	2	62	26	38
F 1804 B	1	2	1	2	2	4	-	-	-	-	-	-
G 1812 S	1	3	0	14	16	34	<1	0	1	21	628	0
LINE 20910	(FLIGHT 9)											
A 1969 D	2	10	2	9	18	39	2	7	1	134	1035	0
B 1959 L	17	17	62	57	82	15	14	1	3	82	24	56
C 1957 L	11	10	62	57	82	15	15	4	3	82	21	56

* 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 OVERBURDEN EFFECTS. .

	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* M	COND DEPTH SIEMEN	RESIS OHM-M	DEPTH M
LINE 20910	(FLIGHT 9)																
D 1953 L	7	5	27	29	41	9	11	7	1	89	83	49					
E 1948 D	0	8	0	13	22	22	3	7	1	103	1014	0					
F 1937 D	35	10	53	23	48	21	58	4	2	61	38	32					
G 1916 S	2	11	1	8	23	28	<1	0	1	10	540	0					
LINE 20920	(FLIGHT 9)																
A 2134 B	1	2	0	2	2	4	-	-	-	-	-	-					
B 2144 L	4	2	7	8	15	5	10	37	1	115	424	36					
C 2145 L	4	2	7	8	15	5	9	32	1	148	114	96					
D 2147 L	4	5	27	28	44	10	9	6	1	103	383	32					
E 2149 L	5	6	27	28	44	10	9	12	2	101	50	66					
F 2154 D	2	6	1	6	15	15	4	21	1	165	1035	0					
G 2155 D	2	6	0	6	15	15	2	5	1	66	890	0					
H 2165 B	9	7	10	9	14	18	12	16	1	43	781	0					
I 2185 S	0	6	2	7	21	37	<1	0	1	15	506	0					
LINE 20930	(FLIGHT 9)																
A 2333 S	0	2	0	2	2	4	-	-	-	-	-	-					
B 2307 L	7	7	38	45	68	28	10	3	2	106	57	68					
C 2305 L	7	9	38	45	68	28	9	4	2	90	49	56					
D 2297 B	0	6	0	8	18	17	2	14	1	158	1035	0					
E 2295 B	0	6	0	8	18	25	<1	0	1	71	899	0					
F 2285 D	16	8	17	8	19	9	26	20	1	89	949	0					
G 2272 S?	1	6	0	11	28	55	<1	0	1	39	767	0					
H 2263 S	0	4	0	8	13	34	<1	0	1	26	700	0					
I 2251 S	6	8	4	9	21	39	5	14	1	25	346	0					
LINE 20940	(FLIGHT 9)																
A 2536 S	1	2	0	9	14	31	<1	0	1	53	819	0					
B 2572 S?	0	6	0	8	13	24	<1	1	1	83	890	1					
C 2583 D	0	11	4	8	6	13	9	22	1	135	1035	0					
D 2603 S	0	5	0	5	10	49	<1	0	1	13	467	0					
E 2614 S	12	5	6	15	29	86	11	18	1	40	161	3					
LINE 20950	(FLIGHT 9)																
A 2776 S?	3	6	1	8	8	41	2	3	1	97	815	0					
B 2766 B	0	9	8	11	7	12	9	15	1	175	1035	0					
C 2747 S	2	3	2	11	16	28	2	2	1	45	328	0					
LINE 20960	(FLIGHT 9)																
A 3003 S?	1	6	2	10	17	43	<1	0	1	59	775	0					

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OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT
LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN M	COND DEPTH SIEMEN M	RESIS OHM-M	DEPTH M
LINE 20960	(FLIGHT 9)																
B 3006 B?	1	2	1	1	2	4	-	-	-	-	-	-	-	-	-	-	-
C 3013 B	17	16	13	9	11	16	13	4	1	103	1035	0					
D 3031 S	6	7	9	12	28	39	7	13	1	57	111	19					
LINE 20970	(FLIGHT 9)																
A 3129 S	3	10	2	6	41	95	2	5	1	16	577	0					
B 3118 D	23	18	25	17	24	28	18	17	1	50	747	0					
C 3105 S	1	1	1	6	36	96	2	27	1	28	362	0					
D 3099 D	14	15	20	27	41	6	9	5	1	50	78	18					
LINE 20980	(FLIGHT 9)																
A 3348 B	1	2	1	1	2	4	-	-	-	-	-	-					
B 3357 S	2	6	0	9	30	52	1	0	1	28	490	0					
C 3365 B	16	10	16	12	19	13	19	18	1	94	966	0					
D 3377 S	2	4	4	28	63	139	2	0	1	20	260	0					
E 3382 D	11	5	21	21	63	91	16	11	1	58	61	26					
LINE 20990	(FLIGHT 9)																
A 3523 S	1	2	1	2	2	4	-	-	-	-	-	-					
B 3497 B	6	9	5	9	15	19	5	10	2	184	39	143					
C 3487 S	3	8	1	8	17	59	2	0	1	56	244	10					
D 3477 D	7	8	7	7	10	8	9	20	1	201	1035	0					
E 3462 S	3	15	7	34	28	142	2	0	1	17	199	0					
F 3455 D	13	8	19	23	5	7	13	11	1	44	86	12					
LINE 21000	(FLIGHT 9)																
A 3707 B	2	6	4	3	2	4	3	15	1	192	178	114					
B 3717 S?	1	11	4	7	18	38	2	0	1	66	887	0					
C 3725 B	2	5	4	3	3	5	7	23	1	193	1035	0					
D 3732 E?	1	2	1	2	2	4	-	-	-	-	-	-					
E 3736 S	3	17	5	44	107	164	1	0	1	19	187	0					
F 3743 B	10	13	12	20	17	27	7	4	1	44	101	10					
LINE 21010	(FLIGHT 9)																
A 3854 B	4	6	2	4	9	7	3	33	1	110	245	55					
B 3842 B?	3	5	3	5	2	18	3	15	1	63	588	0					
C 3838 B	1	2	1	2	2	4	-	-	-	-	-	-					
D 3832 B	0	5	4	4	8	5	7	23	1	195	1035	0					
E 3818 S	3	18	7	40	104	138	1	0	1	14	156	0					
F 3810 D	9	6	13	17	14	47	10	15	1	39	116	5					
LINE 21020	(FLIGHT 9)																
A 4059 B	2	6	2	4	2	11	2	17	1	82	342	27					

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LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH	ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND DEPTH* SIEMEN M	COND DEPTH SIEMEN M	RESIS OHM-M	DEPTH M
LINE 21020	(FLIGHT 9)																
B 4068 B	3	6	3	8	16	29	.	4	4	.	1	61	290	10			
C 4079 B	0	5	3	5	5	7	.	7	29	.	1	201	1035	0			
D 4092 S	3	20	5	43	110	164	.	<1	0	.	1	14	206	0			
E 4097 D	8	13	21	10	110	163	.	10	13	.	1	40	129	6			
LINE 21030	(FLIGHT 9)																
A 4330 S	1	2	1	2	2	4	.	-	-	.	-	-	-	-			
B 4290 B	6	5	4	8	19	27	.	6	22	.	1	72	256	22			
C 4284 S	1	2	3	10	30	36	.	2	0	.	1	33	204	0			
D 4280 B	6	6	4	10	16	36	.	6	3	.	1	84	90	43			
E 4266 B	3	8	4	4	9	9	.	8	26	.	1	168	1035	0			
F 4259 B	1	2	1	2	2	4	.	-	-	.	-	-	-	-			
G 4253 B?	4	16	3	33	72	163	.	1	0	.	1	21	220	0			
H 4246 B	12	10	15	15	37	2	.	12	15	.	1	49	171	10			
LINE 21040	(FLIGHT 9)																
A 4480 B	7	8	4	12	50	92	.	5	12	.	1	38	453	0			
B 4486 S?	2	7	4	18	52	120	.	2	0	.	1	21	210	0			
C 4492 D	18	19	13	33	62	65	.	7	0	.	1	30	104	0			
D 4503 D	3	11	8	10	19	17	.	10	23	.	1	92	932	3			
E 4511 B?	1	2	1	2	2	4	.	-	-	.	-	-	-	-			
F 4514 B?	2	11	2	19	34	94	.	1	0	.	1	28	266	0			
G 4523 B	9	6	12	10	21	54	.	12	10	.	1	58	91	20			
LINE 21051	(FLIGHT 9)																
A 4717 B	9	8	5	21	46	99	.	5	6	.	1	31	641	0			
B 4712 S	5	10	3	22	48	118	.	2	0	.	1	17	311	0			
C 4700 D	12	10	9	14	28	67	.	9	7	.	1	32	249	0			
D 4695 D	13	8	17	10	26	19	.	19	11	.	1	104	67	65			
E 4690 B	5	7	17	10	26	9	.	10	13	.	1	85	966	0			
F 4680 S	2	10	2	23	61	113	.	1	0	.	1	13	295	0			
G 4670 B	6	7	6	7	3	28	.	6	19	.	1	48	252	6			
LINE 21060	(FLIGHT 9)																
A 4863 B	6	4	4	4	5	2	.	12	38	.	1	143	71	99			
B 4903 B?	1	7	3	14	37	47	.	1	3	.	1	23	481	0			
C 4905 S	1	4	3	14	2	74	.	2	2	.	1	31	302	0			
D 4918 D	17	11	16	12	22	26	.	17	0	.	1	55	220	9			
E 4923 B	6	3	16	5	16	24	.	28	36	.	1	106	116	61			
F 4927 B	0	8	7	4	19	24	.	8	21	.	1	66	867	0			
G 4937 S	2	10	2	17	29	107	.	<1	0	.	1	16	546	0			

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LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

	COAXIAL 900 HZ	COPLANAR 900 HZ	COPLANAR 7200 HZ	VERTICAL DIKE	HORIZONTAL SHEET	CONDUCTIVE EARTH						
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND .SIEMEN	DEPTH* M	COND .SIEMEN	DEPTH M	RESIS OHM-M	DEPTH M

LINE 21060	(FLIGHT	9)										
H 4950 B?	3	14	5	19	44	54	2	0	1	17	334	0
I 4952 L?	4	14	5	19	44	54	2	0	1	37	756	0

LINE 21070	(FLIGHT	9)										
A 5088 B	8	8	14	12	13	12	11	25	2	99	41	66
B 5043 S	1	4	2	3	4	5	<1	0	1	25	233	4
C 5028 D	18	16	22	25	45	32	12	11	1	69	105	31
D 5016 B	1	3	5	4	13	12	7	43	1	116	1035	0
E 5005 S	1	8	1	13	18	78	<1	0	1	27	578	0
F 4990 L?	14	35	12	29	54	55	4	0	1	25	137	0

LINE 29010	(FLIGHT	9)										
A 5817 S	2	5	1	4	3	1	1	0	1	15	337	0
B 5835 S	1	4	0	9	27	28	<1	0	1	18	643	0
C 5863 S	1	4	4	6	12	18	3	19	1	64	280	15
D 5921 S	2	4	0	2	23	34	<1	0	1	16	338	0
E 5944 B?	4	4	6	11	21	11	6	14	1	39	298	0
F 6032 B	6	1	12	2	10	1	83	49	3	194	21	160
G 6039 B	7	1	15	5	14	3	59	32	8	102	3	87
H 6049 B	3	2	17	9	16	10	17	27	5	98	8	77

LINE 29020	(FLIGHT	9)										
A 5671 S	1	2	0	2	2	4	-	-	-	-	-	-
B 5608 S	1	5	0	2	1	4	<1	0	1	19	198	0
C 5567 S	3	7	1	10	24	14	2	2	1	14	595	0
D 5534 S	2	4	0	8	18	38	1	3	1	33	729	0

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OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT
LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

SCHEDULE "A" - 178 claims in the Porcupine Mining Division
to which 80 days airborne geophysics credits are applied:

639978 - 639983 inclusive; → 20 days only - maximum
 is reached.
 899883 ✓
 899885 - 899887 inclusive; ✓
 899997 - 899998 inclusive; ✓
 924185 - 924184 inclusive; → 20 days only - maximum
 is reached.
 948185 - 948215 inclusive; ✓
 948234 ✓
 948318 - 948329 inclusive; ✓
 948789 - 948803 inclusive; ✓
 950020 - 950034 inclusive; ✓
 951801 - 951803 inclusive; ✓
 969707 - 969708 inclusive; ✓
 973446 - 973447 inclusive; ✓
 988109 - 988117 inclusive; ✓
 990869 - 990873 inclusive; ✓
 995929 ✓
 996651 ✓
 al. 996809 - 996810 inclusive; ✓
 996846 - 996885 inclusive; ✓
 997201 - 997204 inclusive; ✓
 1027908 - 1027920 inclusive; ✓



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

Type of Survey(s) AIRBORNE EM & MAGNETICS
Township or Area PENNINGTON & KETCHICUMS
Claim Holder(s) GORHAM RESOURCES INC
MIKE WAAANJ
Survey Company ROSE S. MINNLETON EXCAVATION SOL LTD.
Author of Report G. HUGHES, D.L. McCOWELL
Address of Author P.O. Box 1637, Timmins Ont P4N 7W8
Covering Dates of Survey 2/03/89
Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically
Table with columns for prefix and number. Includes 'ATTACHED' entry and 'TOTAL CLAIMS' at the bottom.

SPECIAL PROVISIONS CREDITS REQUESTED
Table with columns for Geophysical and DAYS per claim. Includes categories like Electromagnetic, Magnetometer, Radiometric, Other, Geological, and Geochemical.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer 40 Electromagnetic 40 Radiometric _____
(enter days per claim)

DATE: 25/3/88 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 2.5919

Previous Surveys
Table with columns: File No., Type, Date, Claim Holder

OFFICE USE ONLY

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SCHEDULE "A" - 178 claims in the Porcupine Mining Division
to which 80 days airborne geophysics credits are applied:

639978 - 639983 inclusive;
699883;
699885 - 699887 inclusive;
699997 - 699998 inclusive;
924165 - 924184 inclusive;
M-310 { 946195 - 946215 inclusive;
946234;
948318 - 948329 inclusive;
948789 - 948803 inclusive;
950020 - 950034 inclusive;
951801 - 951803 inclusive;
969707 - 969708 inclusive;
973446 - 973447 inclusive;
988109 - 988117 inclusive;
990669 - 990673 inclusive;
995929;
996651;
996809 - 996810 inclusive;
996846 - 996885 inclusive;
997201 - 997204 inclusive;
1027908 - 1027920 inclusive.

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____
(type, depth -- include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) MAGNETIC ELECTROMAGNETIC

Instrument(s) DIGHEM III (EM) SONOTEK PMH 5010 (Mag)
(specify for each type of survey)

Accuracy 0.2 mT - 0.4 mT 1.0 nT
(specify for each type of survey)

Aircraft used AEROMATIALE AS 350B

Sensor altitude 30 m

Navigation and flight path recovery method DEL NORTE ELECTRONIC POSITIONING

Aircraft altitude 60 m Line Spacing ~ 100 m

Miles flown over total area 896 km Over claims only ~ 285 km

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

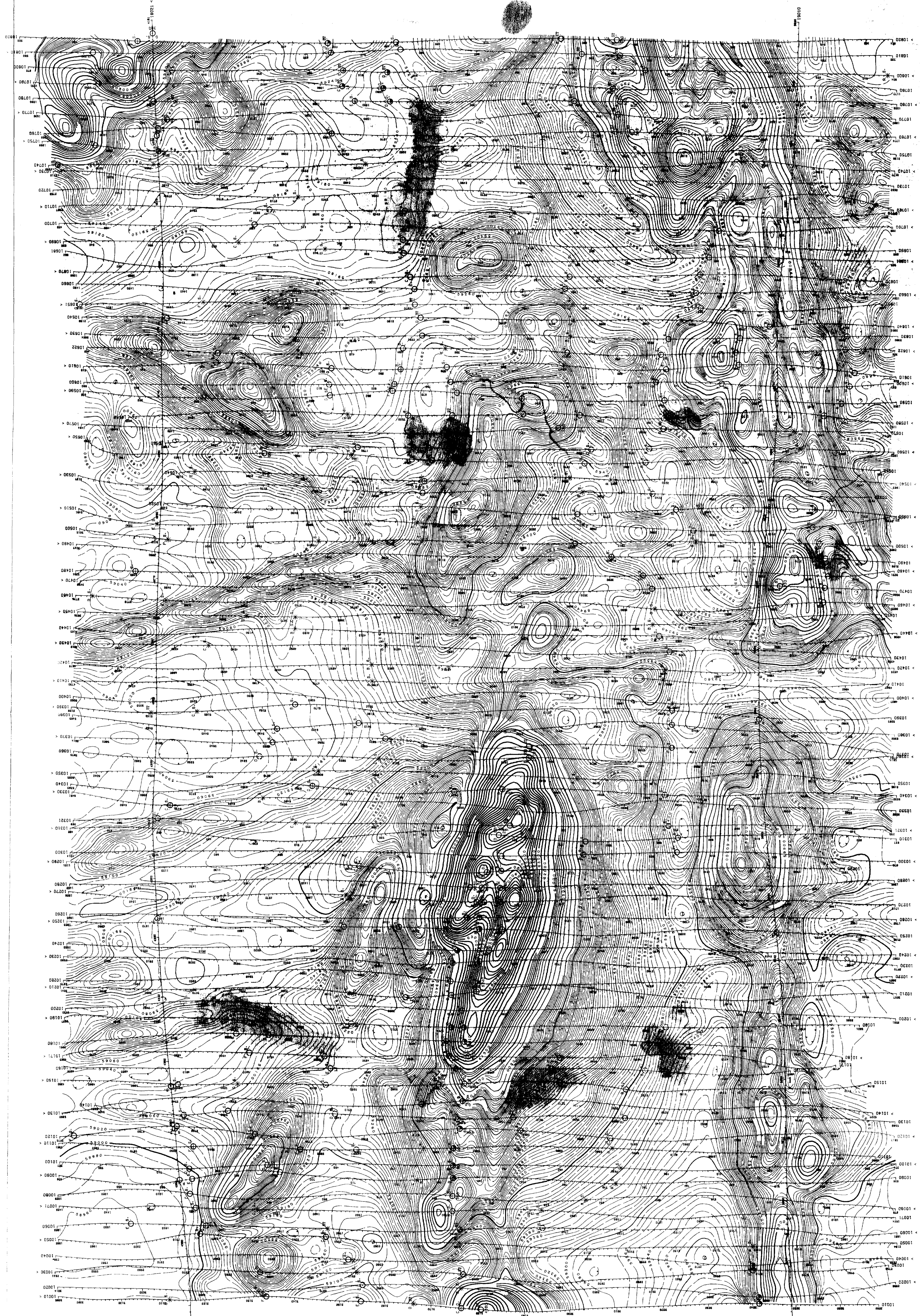
General _____

H TWP.



L. Mooney O.L.S. 1921

949851
949852
949855
949856
949859



GLEN AUDEN RESOURCES LTD.
KEITH PENHORWOOD SURVEY AREA
PENHORWOOD TWP.

TOTAL FIELD MAGNETICS
BY DIGHEM SURVEYS & PROCESSING INC.

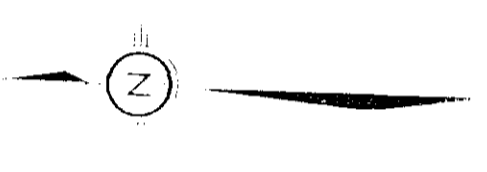
DIGHEM SURVEYS & PROCESSING INC.
DATE: APRIL 1988
JOB: T004
SHEET: 1
Scale: 1:10,000
0 1 Km
0 0.5 Mi

LEGEND

Contour lines (magnetic field)

Flight lines

Magnetic intensity within the survey area 10



FLIGHT LINES WITH EM ANOMALIES

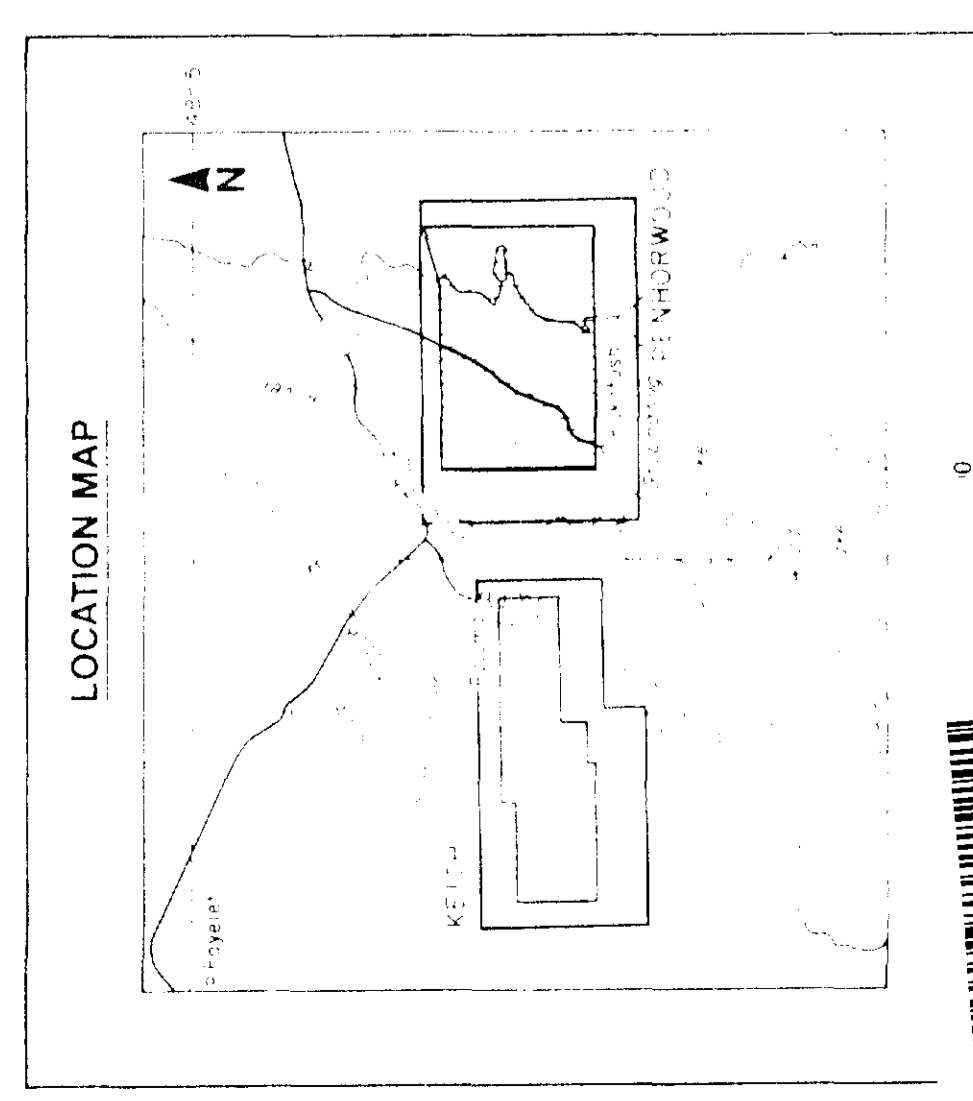
Flight direction

Flight line number

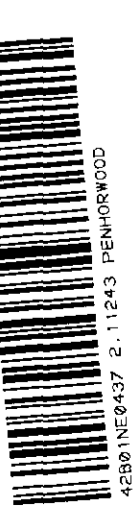
Profile locations

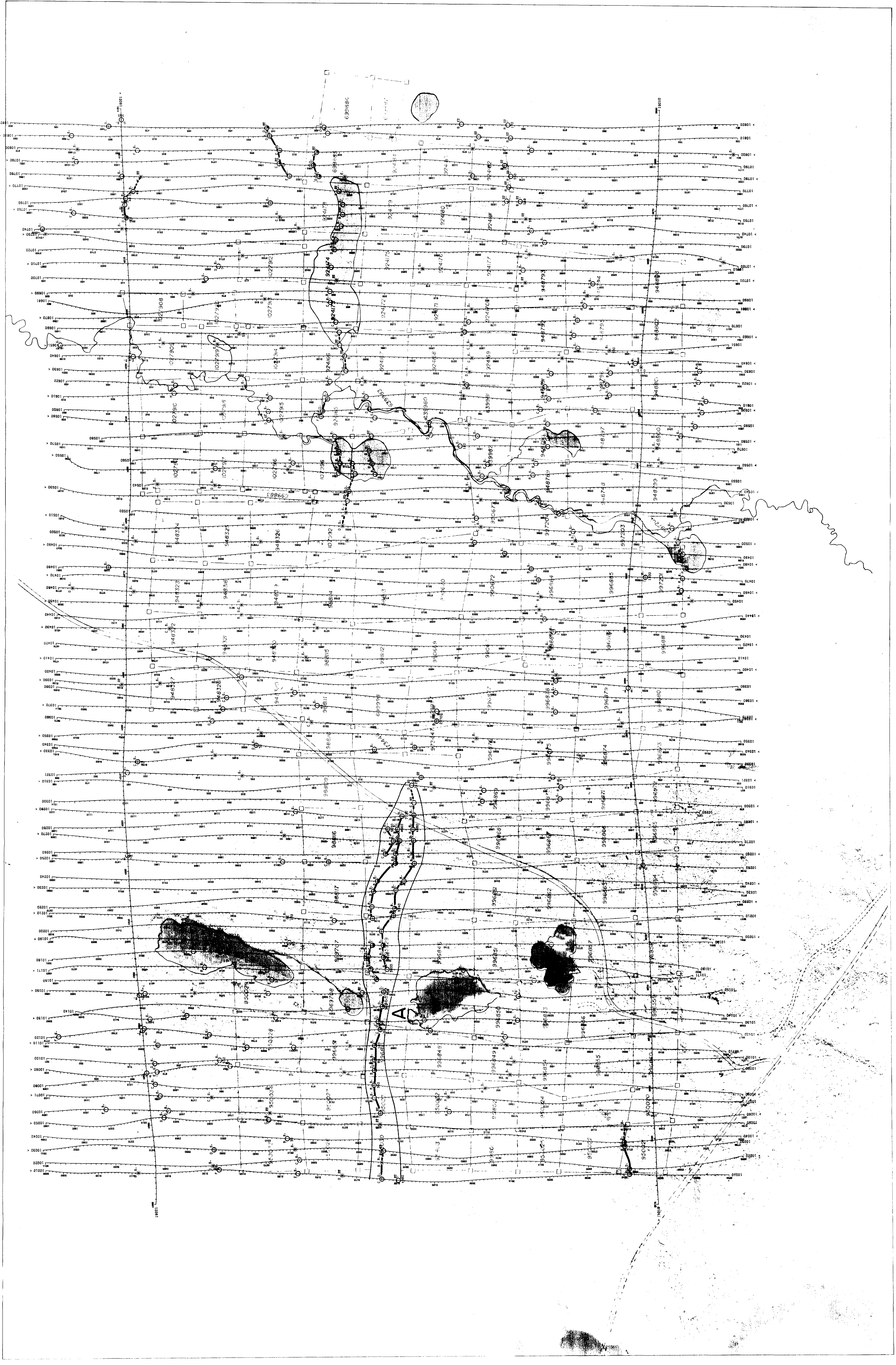
EM anomaly

Magnetic correlation in CT (gamma)



2.11213



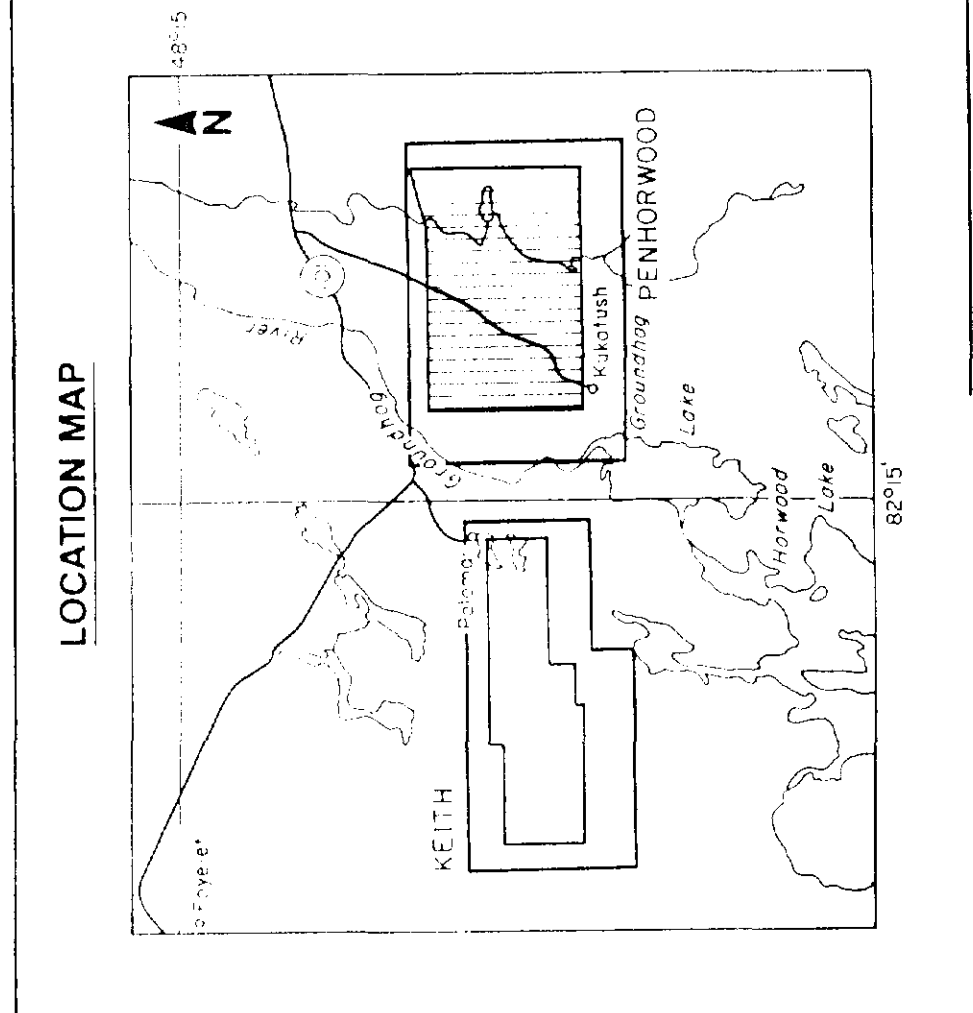
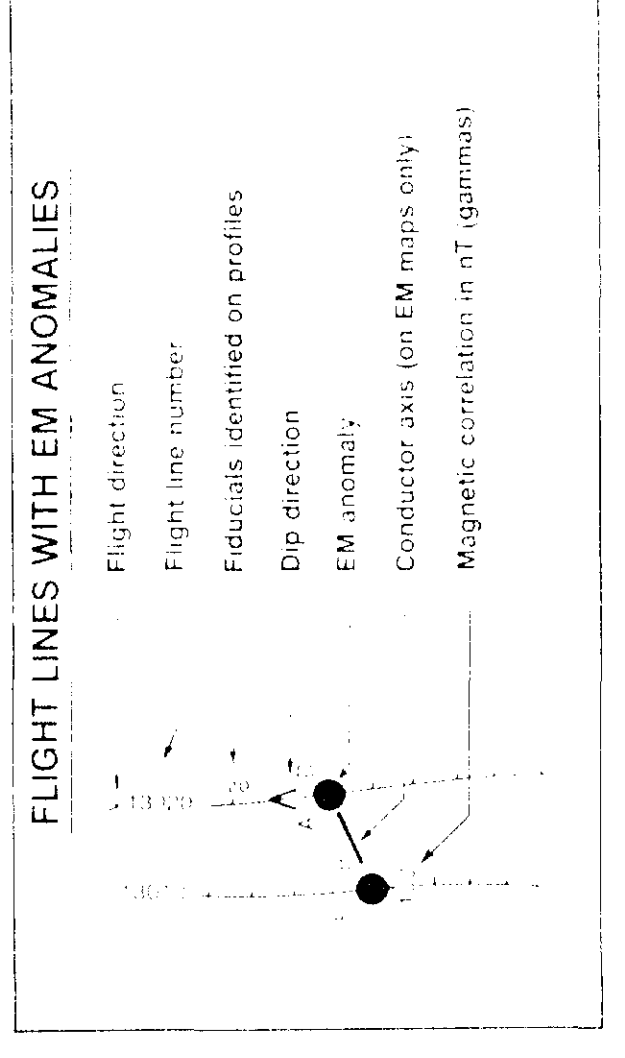
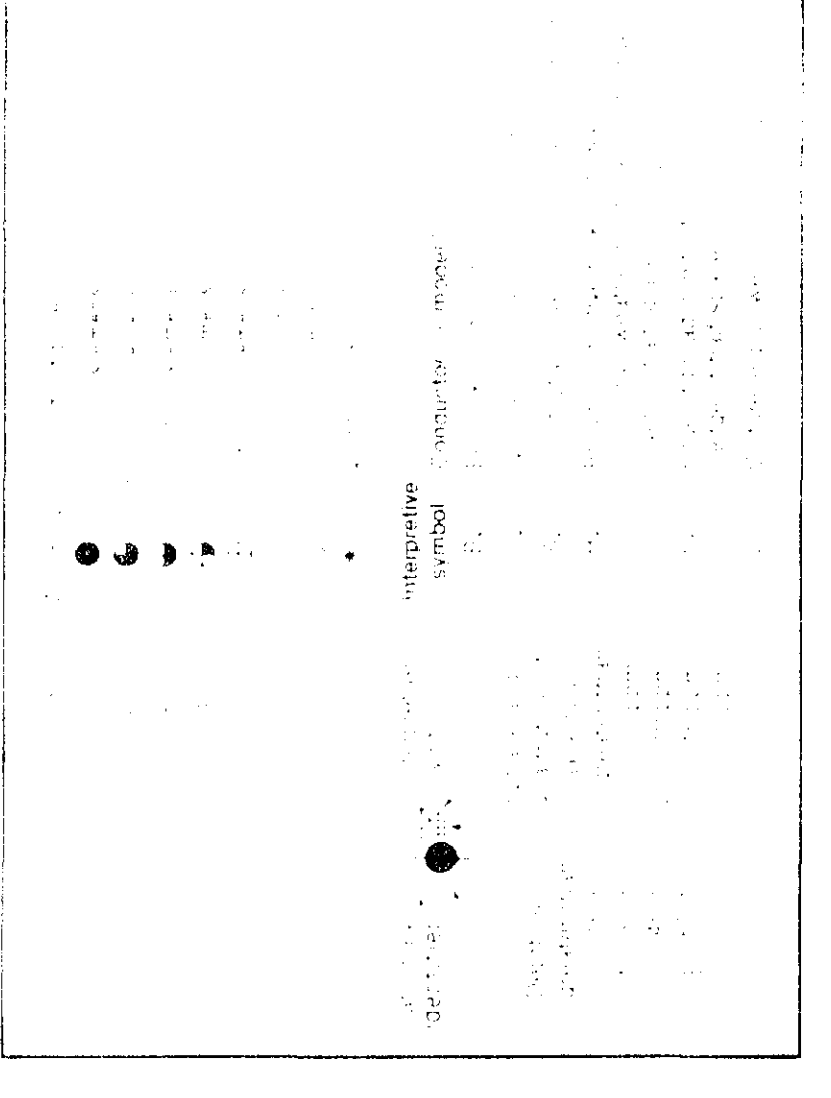


GLEN AUDEN RESOURCES LTD.
 KEITH PENHORWOOD SURVEY AREA
 PENHORWOOD TWP.

ELECTROMAGNETIC ANOMALIES
 BY DIGHEM SURVEYS & PROCESSING INC.

PROJECT NO. 2001-004
 SHEET 2 OF 4
 DATE 11/11/01

2.11243



GLEN AUDEN RESOURCES LTD.
 KEITH-PENHORWOOD SURVEY AREA
 KEITH TWP
 ELECTROMAGNETIC ANOMALIES
 BY DIGHEM SURVEYS & PROCESSING INC.
 DIGHEM SURVEY G.E.M. UNITING BY G.L.
 DATE: APR. 1988 3 M 1:100,000 SHEET

2.11243

