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# REPORT ON
# COMBINED HELICOPTER BORNE
# MAGNETIC, ELECTROMAGNETIC AND VLF
# SURVEY
# SANGOLD PROJECT
# PORCUPINE MINING DIVISION, ONTARIO

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for
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by
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# TABLE OF CONTENTS

## LIST OF MAPS

(Scale 1:10,000)

MAPS: (As described under Appendix "A" Section I. - 'Basic Products' - of the Agreement)

0. PHOTOMOSAIC BASE MAP;
prepared from an uncontrolled photo laydown, showing registration crosses corresponding to NTS co-ordinates on survey maps.

1. AIRBORNE ELECTROMAGNETIC SURVEY INTERPRETATION MAP;
showing flight lines, fiducials conductor axes and anomaly peaks along with inphase amplitudes and conductivity thickness ranges for the 4600 Hz coaxial coil system.

2. TOTAL FIELD MAGNETIC CONTOURS;
showing magnetic values contoured at 5 nanoTesla intervals, flight lines, fiducials and anomaly peaks.

3. VLF-EM TOTAL FIELD CONTOURS;
showing relative contours of the VLF Total Field response, flight lines, fiducials and anomaly peaks.

(Note: The Colour Products described under Section II., Appendix "A" of the Agreement are not discussed in this report.)

# 1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Gail Resources by Aerodat Limited. Equipment operated included a three frequency electromagnetic system, a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a video tracking camera, an altimeter and an electronic positioning system. Electromagnetic, magnetic and altimeter data were recorded both in digital and analog form. Positioning data were stored in digital form and recorded on tape as well as being marked on the flight path mosaic by the operator while in flight.

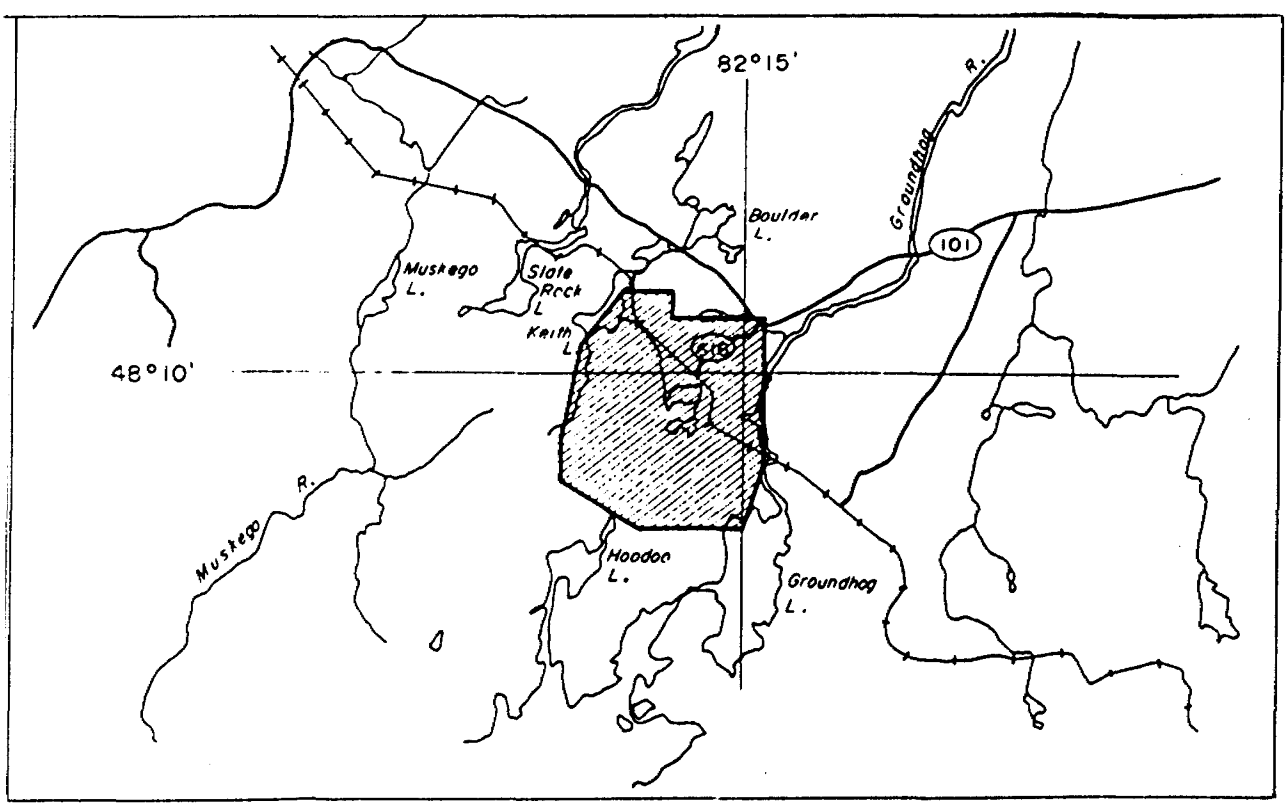
The survey area, comprising a block of ground in the Porcupine Mining Division, Porcupine South District of northern Ontario and situated about 15 kilometres south east of the village of Foleyet, was flown during the period of May 1st to 4th, 1987. Five flights were required to complete the survey with flight lines oriented at Azimuths of 000-180 degrees and flown at a nominal spacing of 100 metres. Coverage and data quality were considered to be well within the specifications described in the contract.

The purpose of the survey was to record airborne geophysical data over and around ground that is of interest to Gail Resources.

A total of 435 kilometres of the recorded data were compiled in map form and are presented as part of this report according to specifications outlined by Gail Resources.

## 2. SURVEY AREA LOCATION

The survey area is depicted on the index map shown below. It is centred at Latitude 48 degrees 10 minutes north, Longitude 82 degrees 17 minutes west, approximately 15 kilometres south east of the village of Foleyet in northern Ontario (NTS Reference Map No. 42 B/1). The area is accessed by all weather roads and trails off Ontario Highway #101 (paved) that cuts the extreme north east corner of the survey area. The main Canadian National Railway line from Sudbury cuts almost diagonally through the area.



# 3. AIRCRAFT AND EQUIPMENT

## 3.1 Aircraft

An Aerospatiale A-Star 350D helicopter, (C-GJIX), owned and operated by Lakeland Helicopters Limited, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a mean terrain clearance of 60 metres.

## 3.2 Equipment

### 3.2.1 Electromagnetic System

The electromagnetic system was an Aerodat 3-frequency system. Two vertical coaxial coil pairs were operated at 935 Hz and 4600 Hz and a horizontal coplanar coil pair at 4175 Hz. The transmitter-receiver separation was 7 metres. Inphase and quadrature signals were measured simultaneously for the 3 frequencies with a time constant of 0.1 seconds. The electromagnetic bird was towed 30 metres below the transmitter.

### 3.2.2 VLF-EM System

The VLF-EM System was a Herz Totem 2A. This instrument measures the total field and quadrature components of two selected transmitters, preferably oriented at right angles to one another. The sensor was towed in a bird 12 metres below the helicopter. The transmitting stations monitored were NAA, Cutler, Maine for the 'Line' station and NSS, Annapolis, Maryland for the 'Ortho' station broadcasting at 24.0 and 21.4 kHz respectively. NLK, Jim Creek, Washington at 24.8 kHz was used as the 'Line' station for the fifth flight.

### 3.2.3 Magnetometer

The magnetometer employed a Scintrex Model VIW-2321 H8 cesium, optically pumped magnetometer sensor. The sensitivity of this instrument was 0.1 nanoTeslas at a 0.2 second sampling rate. The sensor was towed in a bird 12 metres below the helicopter.

### 3.2.4 Magnetic Base Station

An IFG-1 proton precession magnetometer was operated at the base of operations to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation.

### 3.2.5 Radar Altimeter

A King KRA-10 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

### 3.2.6 Tracking Camera

A Panasonic video flight path recording system was used to record the flight path on standard VHS format video tapes. The system was operated in continuous mode and the flight number, real time and manual fiducial numbers were registered on the picture frame for cross-reference to the analog and digital data.

### 3.2.7 Analog Recorder

An RMS dot-matrix recorder was used to display the data during the survey. In addition to manual and time fiducials, the following data were recorded:

| Channel | Input | Scale |
|---|---|---|
| ALT | Altimeter (150 m at top of chart) | 3 m/mm |
| CXI1 | Low Frequency Inphase | 2 ppm/mm |
| CXQ1 | Low Frequency Quadrature | 2 ppm/mm |
| CXI2 | High Frequency Inphase | 2 ppm/mm |

| Channel | Input | Scale |
|---|---|---|
| CXQ2 | High Frequency Quadrature | 2 ppm/mm |
| CPI1 | Mid Frequency Inphase | 8 ppm/mm |
| CPQ1 | Mid Frequency Quadrature | 8 ppm/mm |
| VLT | VLF-EM Total Field, Line | 2.5 %/mm |
| VLQ | VLF-EM Quadrature, Line | 2.5 %/mm |
| VOT | VLF-EM Total Field, Ortho | 2.5 %/mm |
| VOQ | VLF-EM Quadrature, Ortho | 2.5 %/mm |
| MAGF | Magnetometer, fine | 2.5 nT/mm |
| MAGC | Magnetometer, coarse | 25 nT/mm |
| MAGN | Magnetometer, noise | 0.025 nT/mm |

### 3.2.8 Digital Recorder

A DGR 33 in conjunction with a DAC/NAV 2 data system recorded the survey on magnetic tape. Information recorded was as follows:

| Equipment | Recording Interval |
|---|---|
| EM system | 0.1 seconds |
| VLF-EM | 0.2 seconds |
| Magnetometer | 0.2 seconds |
| Altimeter | 0.2 seconds |
| NAV System | 0.2 seconds |

### 3.2.9 Radar Positioning System

A Motorola Mini-Ranger (MRS III) radar navigation system was used for both navigation and flight path recovery. Transponders sited at fixed locations were interrogated several times per second and the ranges from these points to the helicopter measured to a high degree of accuracy. A navigational computer triangulates the position of the helicopter and provides the pilot with navigation information. The range/range data was recorded on magnetic tape for subsequent flight path determination.

# 4. DATA PRESENTATION

## 4.1 Base Map

A photomosaic base at a scale of 1:10,000 was prepared by enlargement of aerial photographs of the survey area.

## 4.2 Flight Path Map

The flight path was derived from the Mini-Ranger radar positioning system. The distance from the helicopter to two established reference locations was measured several times per second and the position of the helicopter calculated by triangulation. It is estimated that the flight path is generally accurate to about 10 metres with respect to the topographic detail of the base map. The flight path is presented with video camera reference marks, ten second time marks and navigator's manual fiducials for cross reference to both the analog and digital data.

## 4.3 Airborne Electromagnetic Survey Interpretation Map

An interpretation map was prepared showing flight lines, fiducials, peak locations of anomalies and conductivity thickness range along with the Inphase amplitudes. These values were computed from the 4600 Hz coaxial response. Individual conductors, conductive zones and conductive areas have been delineated on the Interpretation Map. The data are presented on a Cronaflex overlay of the photomosaic base map.

## 4.4 Total Field Magnetic Contours

The aeromagnetic data were corrected for diurnal variations by adjustment with the digitally recorded base station magnetic values. No correction for regional variation was applied. The corrected profile data were interpolated onto a regular grid at a 20 metre true scale interval using a cubic spline technique. The grid provided the basis for threading the presented contours at a 5 nanoTesla interval.

The aeromagnetic data have been presented with flight path and electromagnetic anomaly information on a Cronaflex overlay of the photomosaic base map.

## 4.5 VLF-EM Total Field Contours

The VLF-EM signals from NAA, Cutler Maine as the 'Line' station and NSS, Annapolis Maryland, as the 'Ortho' station, broadcasting at 24.0 and 21.4 kHz respectively, were compiled in contour map form at a 1% Total Field contour interval and presented on a Cronaflex overlay of the photo base map along with flight lines and anomaly information.

# 5. INTERPRETATION

## 5.1 Geology

The Ontario Division of Mines 1:253,440 Geologic Compilation Series Map No. 2221 (Chapleau - Foleyet) shows the area to be underlain largely by an assemblage of Archean metavolcanics and metasediments with a portion of a small granodiorite mass in the south east corner. A much larger granodiorite/quartz diorite intrusive lies to the south east of the area.

The predominant rock types shown on the compilation map are mafic to intermediate metavolcanics (basalts, andesites and occasional amphibolites) with felsic rocks in the south west, along a disjointed central band and across the very northern boundary of the area. A metasedimentary belt - largely greywackes, quartzites and conglomerates - occurs just south of this northern felsic band and over the north eastern quarter of the area. Iron formation with sulphide mineralization (sulphides facies I.F.?) was mapped to the north of the central felsic band. Mafic to ultramafic intrusives (gabbros and peridotites) occur in the northern third and are noted at several points throughout the area. A north-south to north northwesterly fault is mapped roughly through the centre of the area and a fairly recent, parallel, lamprophyre dike in the western third of the area. North northwesterly diabase dikes occur quite frequently both to the north and south of the survey block but none have been indicated within the surveyed area.

The New Joburke Mine - a former gold producer - was located within the central felsic belt. One other gold, several sulphide (base metal) and graphite occurrences were also mapped within the survey block.

No geologic data were supplied to Aerodat by Gail Resources and no other published data was available to the writer. Also, types of targets sought have not been discussed or identified by Gail Resources although it is generally assumed that the primary interest is in gold mineralization.

## 5.2 Magnetics

The magnetic data from the high sensitivity cesium magnetometer provided virtually a continuous magnetic reading when recording at two-tenth second intervals. The system is also noise free for all practical purposes.

The sensitivity of 0.1 nT allows for the mapping of very small inflections in the magnetic field, resulting in a contour map that is comparable in quality to ground data. Both the fine and coarse magnetic traces were recorded.

The Total Field Magnetic Map shows two dominant magnetic belts extending the length of the survey in an east-west to slightly east northeasterly direction. Moderately strong but narrow magnetic trends parallel these magnetic belts to the north and south. The magnetic relief over the northern most quarter of the area is relatively flat with only a moderate to weak (200 nT) magnetic trend across the most northerly projection of the survey.

The strong central magnetic belt corresponds to the iron formation shown on the geologic map. Anomalous magnetic values along this trend vary up to about 8,000 nT (Line 10470) above the background level of about 58,700 nT. A second strong magnetic zone, still considered to be part of the central magnetic belt but some 400 to 800 metres to the south of the main iron formation band, shows values from 5,700 to 7,000 nT (Line 10011) above background.

Anomalous magnetic readings along the more southerly of the strong magnetic belts range up to about 3,000 nT. This has been mapped as mafic to intermediate metavolcanics with no iron formation bands or ultramafic sills indicated on the geologic map. From the general conformation of the magnetic patterns and the amplitudes of the magnetic anomalies, ultramafics are the expected source rather than iron formation. The quiet magnetic zone between the dominant magnetic belts corresponds to the felsic to intermediate volcanic belt shown on the geology. Similarly, sediments appear to underlie the flat magnetic relief over the northern quarter.

The mafic intrusives to the north appear to correspond to moderately strong magnetic trends although a more detailed geologic map (at say 1:20,000) would be needed for correlation of the smaller magnetic features with geology. North and south felsic contacts are marked by the narrow magnetic trend along the north and the broad, 200 nT magnetic trend along the south. This trend lies to the south of the expected contact and suggests that the rocks are more dacitic than rhyolitic (i.e., more magnetic in this instance).

No direct correlation with the lamprophyre dike was noted on the magnetic data but two north northwesterly diabase dikes were interpreted. The more easterly of the two is much weaker and trends more along a north-south direction. This may be a lamprophyre although no lateral displacements are evident across this dike. A series of north westerly faults have been interpreted from the magnetic data and are shown on the Interpretation map together with two east northeasterly faults in the northern half. A north-south fault trend near the west boundary may be a lamprophyre along a magnetic low (!).

## 5.3 Electromagnetics

The electromagnetic data was first checked by a line-by-line examination of the analog records. Record quality was generally-very good with occasional minor sferic interference, although one flight had to be aborted due to increasingly high sferic levels (i.e., Flight #4, only Lines 10520 to 10541 could be completed). Sferic noise was readily removed from the traces by an appropriate de-spiking filter. Instrument noise was within specifications. Geologic noise, in the form of surficial responses, is present on the higher frequency channels and to a minor extent, on the low frequency quadrature channel. This latter occurs mostly over lakes, swamps and rivers.

Anomalies were picked off the analog traces of the low and high frequency coaxial responses and then validated on the coplanar profile data. These selections were then checked with a proprietary computerized selection program which can be adjusted for ambient and instrumental noise. The data were then edited and re-plotted on a copy of the of the profile map. This procedure ensured that every anomalous response spotted on the analog data was plotted on the final map and allowed for the rejection - or inclusion if warranted - of obvious surficial conductors.

Each conductor or group of conductors was evaluated on the bases of magnetic (and lithologic, where applicable) correlations apparent on the analog data and man made or surficial features not obvious on the analog charts.

RESULTS: The survey detected a large number of individual conductors within the central portion of the area. From a study of the magnetics and geology, it was apparent to the writer that most of the conductors occurred in what has been indicated as mafic to intermediate volcanics and that the majority of the conductors in this stratigraphic unit were concentrated in a 500 metre band along and to the south of the iron formation (i.e., from the iron formation to the mafic/felsic contact) as determined from the magnetic map. This suggested a grouping of conductors within geologically identifiable stratigraphic units although the separation between groups I and II was arbitrarily set according to the spatial relationship to the iron formation cited above. For these reasons, individual conductors or conductive zones have not been enumerated; rather, the discussion is confined to the probable significance of each group of conductors relative to their geologic setting.

GROUP I: Group I consists of at least seven discontinuous conductive bands generally conformable - though not necessarily coincident - with magnetic trends. The iron formation itself appears to be conductive, to some degree, along its entire length although the conductor axis often appears to be along the north contact of the iron formation band(s). The remainder of the Group I conductors, that is between the iron formation and the mafic/felsic contact, are characteristic of conductive, interbedded sediments within the mafic belt. Conductance is likely due to graphite/sulphide mineralization. The gold showing marked on the geologic map to the north west of the Joburke mine probably occurs along one of the conductors in this group but specific correlation with a 1:250,000 scale map is not possible. Conductances are generally high to moderate; dip is vertical or steep to the north.

GROUP II: As stated, the demarcation between Groups I and II was arbitrary. Its bases were the lower levels of activity observed on both the electromagnetic and magnetic maps, particularly the latter. However, the conductors are probably similar to those of Group I that are located to the south of the iron formation. The sediment/volcanic contact is marked by a series of intermittent conductive bands. Conductances and response amplitudes are slightly lower than for the Group I conductors. Dips are again to the north though perhaps relatively shallow.

GROUP III: The Group III conductors coincide with the interpreted mafic intrusive (gabbro?) that lies within the northern portion of the mafic volcanic belt. From the magnetics, these latter appear to be sediments. The zones are of moderate (to low) conductance with consistent north dip. It should also be noted that no bedrock conductors were recorded over the arkosic sediments except over these magnetic (intrusive) trends.

GROUP IV: The Group IV anomalies are associated with the magnetic anomalies of the southerly magnetic belt but the conductive bands occur well off the peaks of the magnetic trends. In fact, the strongest responses over the eastern zone of Group IV fall along a magnetic low, sandwiched between two strong magnetic bands. The copper occurrence noted on the geologic map is probably associated with this anomaly. Conductances are high to moderate and dips are vertical or to the north. The lack of magnetic inversion over the eastern zone suggests remnant magnetization, probably from altered ultramafics (serpentinized peridotites?).

GROUP V: Several weak, moderate to low conductance bedrock anomalies were located within the interpreted felsic metavolcanic zone. Highest responses and conductances appear to occur in the vicinity of the interpreted north westerly faults. The conductors show no magnetic correlation. Their most likely source are mineralized tuffs interbedded with the massive rhyolites. The New Joburke Mine is situated within the felsic belt and although no geologic information on it is available to the writer, encouragement may be drawn from the proximity of north westerly faulting and a conductive trend off to the east. However, the writer feels that any conductors within this stratigraphic unit are a potential exploration target.

## 5.4 VLF-EM Total Field

The VLF data shows general conformity to the resistivity data and to a limited degree, corroborates the interpretation of north westerly structures from the magnetic data. Apart from that, little or no additional information is provided to the interpretation of the survey data. The stronger VLF trends tend to emphasize the VLF transmitter station direction.

## 5.5 Conclusions

The majority of the strong conductive bands are associated with mafic metavolcanic stratigraphy, particularly along or coincident with iron formations, and mafic to ultramafic intrusives. Weak, low conductance zones were mapped within the felsic (i.e., rhyolitic as opposed to dacitic) stratigraphy. The intersections of these weak conductors with the interpreted transverse fault structures are considered to be favourable exploration target areas. The Joburke mine lies within the felsic band near one of these faults, however, more geologic information on this deposit is needed to correlate the geologic and geophysical data.

The conductive bands within the mafics are probably stratabound conductors in sediments and tuffs. The high conductance is likely due to graphite with sulphides (pyrrhotite and pyrite). Nevertheless, with the reported gold 'showing' in the mafic rocks, the intersections with transverse structures may also be important along several of these conductors.

## 5.6 Recommendations

It is recommended that all geologic data be compiled on a copy of either a magnetic or resistivity map together with any structural or stratigraphic interpretation. This should establish the relationship between the conductive zones and the volcanic and sedimentary stratigraphy far better than the writer has been able to do with limited geologic data.

Conductors of Group V, particularly in the vicinity of the interpreted north westerly faults, should be checked out on the ground, with mapping, geophysics (Max Min II with 60 to 100 metre coil spacing) and, hopefully, drilling. The Group I and IV conductors are regarded and second priority targets with possibly some geochemistry required to outline areas of interest.

REGISTERED PROFESSIONAL ENGINEER
G. PODOLSKY
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George Podolsky
for
AERODAT LIMITED
July 7, 1987

J8713

# APPENDIX I

## GENERAL INTERPRETIVE CONSIDERATIONS

### Electromagnetic

The Aerodat three frequency system utilizes two different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at two widely separated frequencies and the horizontal coplanar coil pair is operated at a frequency approximately aligned with one of the coaxial frequencies.

The electromagnetic response measured by the helicopter system is a function of the "electrical" and "geometrical" properties of the conductor. The "electrical" property of a conductor is determined largely by its electrical conductivity, magnetic susceptibility and its size and shape; the "geometrical" property of the response is largely a function of the conductor's shape and orientation with respect to the measuring transmitter and receiver.

### Electrical Considerations

For a given conductive body the measure of its conductivity or conductance is closely related to the measured phase shift between the received and transmitted electromagnetic field. A small phase shift indicates a relatively high conductance, a large phase shift lower conductance. A small phase shift results in a large inphase to quadrature ratio and a large phase shift a low ratio. This relationship is shown quantitatively for a non-magnetic vertical half-plane model on the accompanying phasor diagram. Other physical models will show the same trend but different quantitative relationships.

The phasor diagram for the vertical half-plane model, as presented, is for the coaxial coil configuration with the amplitudes in parts per million (ppm) of the primary field as measured at the response peak over the conductor. To assist the interpretation of the survey results the computer is used to identify the apparent conductance and depth at selected anomalies. The results of this calculation are presented in table form in Appendix II and the conductance and inphase amplitude are presented in symbolized form on the map presentation.

The conductance and depth values as presented are correct only as far as the model approximates the real geological situation. The actual geological source may be of limited length, have significant dip, may be strongly magnetic, its conductivity and thickness may vary with depth and/or strike and adjacent bodies and overburden may have modified the response. In general the conductance estimate is less affected by these limitations than is the depth estimate, but both should be considered as relative rather than absolute guides to the anomaly's properties.

Conductance in mhos is the reciprocal of resistance in ohms and in the case of narrow slab-like bodies is the product of electrical conductivity and thickness.

Most overburden will have an indicated conductance of less than 2 mhos; however, more conductive clays may have an apparent conductance of say 2 to 4 mhos. Also in the low conductance range will be electrolytic conductors in faults and shears.

The higher ranges of conductance, greater than 4 mhos, indicate that a significant fraction of the electrical conduction is electronic rather than electrolytic in nature. Materials that conduct electronically are limited to certain metallic sulphides and to graphite. High conductance anomalies, roughly 10 mhos or greater, are generally limited to sulphide or graphite bearing rocks.

Sulphide minerals, with the exception of such ore minerals as sphalerite, cinnabar and stibnite, are good conductors; sulphides may occur in a disseminated manner that inhibits electrical conduction through the rock mass. In this case the apparent conductance can seriously underrate the quality of the conductor in geological terms. In a similar sense the relatively non-conducting sulphide minerals noted above may be present in significant consideration in association with minor conductive sulphides, and the electromagnetic response only relate to the minor associated mineralization. Indicated conductance is also of little direct significance for the identification of gold mineralization. Although gold is highly conductive, it would not be expected to exist in sufficient quantity to create a recognizable anomaly, but minor accessory sulphide mineralization could provide a useful indirect indication.

In summary, the estimated conductance of a conductor can provide a relatively positive identification of significant sulphide or graphite mineralization; however, a moderate to low conductance value does not rule out the possibility of significant economic mineralization.

Geometrical Considerations

Geometrical information about the geologic conductor can often be interpreted from the profile shape of the anomaly. The change in shape is primarily related to the change in inductive coupling among the transmitter, the target, and the receiver.

In the case of a thin, steeply dipping, sheet-like conductor, the coaxial coil pair will yield a near symmetric peak over the conductor. On the other hand, the coplanar coil pair will pass through a null couple relationship and yield a minimum over the conductor, flanked by positive side lobes. As the dip of the conductor decreased from vertical, the coaxial anomaly shape changes only slightly, but in the case of the coplanar coil pair the side lobe on the down dip side strengthens relative to that on the up dip side.

As the thickness of the conductor increases, induced current flow across the thickness of the conductor becomes relatively significant and complete null coupling with the coplanar coils is no longer possible. As a result, the apparent minimum of the coplanar response over the conductor diminishes with increasing thickness, and in the limiting case of a fully 3 dimensional body or a horizontal layer or half-space, the minimum disappears completely.

A horizontal conducting layer such as overburden will produce a response in the coaxial and coplanar coils that is a function of altitude (and conductivity if not uniform). The profile shape will be similar in both coil configurations with an amplitude ratio (coplanar:coaxial) of about 4:1*.

In the case of a spherical conductor, the induced currents are confined to the volume of the sphere, but not relatively restricted to any arbitrary plane as in the case of a sheet-like form. The response of the coplanar coil pair directly over the sphere may be up to 8* times greater than that of the coaxial pair.

In summary, a steeply dipping, sheet-like conductor will display a decrease in the coplanar response coincident with the peak of the coaxial response. The relative strength of this coplanar null is related inversely to the thickness of the conductor; a pronounced null indicates a relatively thin conductor. The dip of such a conductor can be inferred from the relative amplitudes of the side-lobes.

Massive conductors that could be approximated by a conducting sphere will display a simple single peak profile form on both coaxial and coplanar coils, with a ratio between the coplanar to coaxial response amplitudes as high as 8*.

Overburden anomalies often produce broad poorly defined anomaly profiles. In most cases, the response of the coplanar coils closely follows that of the coaxial coils with a relative amplitude ratio of 4*.

Occasionally, if the edge of an overburden zone is sharply defined with some significant depth extent, an edge effect will occur in the coaxial coils. In the case of a horizontal conductive ring or ribbon, the coaxial response will consist of two peaks, one over each edge; whereas the coplanar coil will yield a single peak.

* It should be noted at this point that Aerodat's definition of the measured ppm unit is related to the primary field sensed in the receiving coil without normalization to the maximum coupled (coaxial configuration). If such normalization were applied to the Aerodat units, the amplitude of the coplanar coil pair would be halved.

## Magnetics

The Total Field Magnetic Map shows contours of the total magnetic field, uncorrected for regional variation. Whether an EM anomaly with a magnetic correlation is more likely to be caused by a sulphide deposit than one without depends on the type of mineralization. An apparent coincidence between an EM and a magnetic anomaly may be caused by a conductor which is also magnetic, or by a conductor which lies in close proximity to a magnetic body. The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite. Conductive and magnetic bodies in close association can be, and often are, graphite and magnetite. It is often very difficult to distinguish between these cases. If the conductor is also magnetic, it will usually produce an EM anomaly whose general pattern resembles that of the magnetics. Depending on the magnetic permeability of the conducting body, the amplitude of the inphase EM anomaly will be weakened, and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign.

VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is elliptically polarized in the vicinity of electrical conductors. The Herz Totem uses three coils in the X, Y, Z configuration to measure the total field and vertical quadrature component of the polarization ellipse.

The relatively high frequency of VLF (15-25) kHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce measureable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground the depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically, it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field response is an indicator of the existence and position of a conductivity anomaly. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

The vertical quadrature component over steeply dipping sheet-like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the depth.

The amplitude of the quadrature response, as opposed to shape is function of target conductance and depth as well as the conductivity of the overburden and host rock. As the primary field travels down to the conductor through conductive material it is both attenuated and phase shifted in a negative sense. The secondary field produced by this altered field at the target also has an associated phase shift. This phase shift is positive and is larger for relatively poor conductors. This secondary field is attenuated and phase shifted in a negative sense during return travel to the surface. The net effect of these 3 phase shifts determine the phase of the secondary field sensed at the receiver.

A relatively poor conductor in resistive ground will yield a net positive phase shift. A relatively good conductor in more conductive ground will yield a net negative phase shift. A combination is possible whereby the net phase shift is zero and the response is purely in-phase with no quadrature component.

A net positive phase shift combined with the geometrical cross-over shape will lead to a positive quadrature response on the side of approach and a negative on the side of departure. A net negative phase shift would produce the reverse. A further sign reversal occurs with a 180 degree change in instrument orientation as occurs on reciprocal line headings. During digital processing of the quadrature data for map presentation this is corrected for by normalizing the sign to one of the flight line headings.

APPENDIX II

ANOMALY LIST

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 1 | 10011 | A | 0 | 18.2 | 23.2 | 0.9 | 7 | 30 |
| 1 | 10011 | B | 1 | 23.9 | 24.4 | 1.3 | 0 | 39 |
| 1 | 10011 | C | 0 | 14.9 | 39.6 | 0.3 | 0 | 30 |
| 1 | 10011 | D | 0 | 7.8 | 15.7 | 0.3 | 0 | 39 |
| 1 | 10011 | E | 2 | 21.6 | 11.2 | 3.2 | 3 | 46 |
| 1 | 10011 | F | 0 | 7.6 | 17.6 | 0.2 | 0 | 36 |
| 1 | 10011 | G | 0 | 6.4 | 20.9 | 0.1 | 0 | 35 |
| 1 | 10011 | H | 1 | 9.6 | 8.1 | 1.2 | 1 | 56 |
| 1 | 10011 | J | 1 | 13.7 | 11.2 | 1.4 | 0 | 59 |
| 1 | 10011 | K | 0 | 8.2 | 22.4 | 0.2 | 0 | 37 |
| 1 | 10021 | A | 0 | 2.2 | 20.3 | 0.0 | 0 | 50 |
| 1 | 10021 | B | 1 | 28.3 | 30.5 | 1.3 | 0 | 40 |
| 1 | 10021 | C | 1 | 29.5 | 24.5 | 1.9 | 0 | 43 |
| 1 | 10021 | D | 0 | 8.6 | 33.1 | 0.1 | 0 | 36 |
| 1 | 10021 | E | 0 | 7.4 | 31.8 | 0.1 | 0 | 35 |
| 1 | 10021 | F | 2 | 62.9 | 36.8 | 3.8 | 0 | 36 |
| 1 | 10021 | G | 0 | 11.9 | 33.8 | 0.2 | 0 | 35 |
| 1 | 10021 | H | 0 | 15.2 | 41.7 | 0.3 | 0 | 33 |
| 1 | 10021 | J | 0 | 8.3 | 40.9 | 0.1 | 0 | 30 |
| 1 | 10021 | K | 0 | 18.0 | 45.0 | 0.3 | 0 | 32 |
| 1 | 10021 | M | 0 | 12.9 | 32.4 | 0.3 | 0 | 35 |
| 1 | 10030 | A | 0 | 2.3 | 17.7 | 0.0 | 0 | 44 |
| 1 | 10030 | B | 1 | 19.0 | 20.6 | 1.1 | 0 | 42 |
| 1 | 10030 | C | 0 | 13.5 | 19.2 | 0.7 | 1 | 38 |
| 1 | 10030 | D | 0 | 16.6 | 23.0 | 0.7 | 4 | 33 |
| 1 | 10030 | E | 0 | 13.4 | 33.0 | 0.3 | 0 | 28 |
| 1 | 10030 | F | 0 | 23.6 | 32.7 | 0.9 | 3 | 29 |
| 1 | 10030 | G | 2 | 71.5 | 46.3 | 3.5 | 0 | 31 |
| 1 | 10030 | H | 0 | 9.5 | 28.9 | 0.2 | 0 | 32 |
| 1 | 10030 | J | 0 | 12.8 | 27.4 | 0.3 | 0 | 32 |
| 1 | 10030 | K | 2 | 37.4 | 24.3 | 2.8 | 4 | 35 |
| 1 | 10030 | M | 2 | 50.2 | 28.0 | 3.8 | 0 | 41 |
| 1 | 10030 | N | 0 | 3.0 | 14.8 | 0.0 | 0 | 42 |
| 1 | 10040 | A | 1 | 32.2 | 28.6 | 1.8 | 3 | 34 |
| 1 | 10040 | B | 0 | 10.6 | 25.5 | 0.3 | 0 | 33 |
| 1 | 10040 | C | 0 | 12.0 | 28.0 | 0.3 | 0 | 34 |
| 1 | 10040 | D | 1 | 37.8 | 33.0 | 1.9 | 4 | 31 |
| 1 | 10040 | E | 0 | 9.6 | 20.7 | 0.3 | 3 | 32 |
| 1 | 10040 | F | 1 | 25.1 | 29.0 | 1.1 | 6 | 29 |
| 1 | 10040 | G | 0 | 11.6 | 15.2 | 0.7 | 4 | 39 |
| 1 | 10040 | H | 2 | 22.7 | 16.7 | 2.0 | 5 | 39 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 1 | 10040 | J | 2 | 21.9 | 15.0 | 2.2 | 7 | 39 |
| 1 | 10040 | K | 0 | 3.4 | 14.3 | 0.0 | 0 | 38 |
| 1 | 10050 | A | 0 | 3.9 | 15.1 | 0.0 | 0 | 44 |
| 1 | 10050 | B | 1 | 17.2 | 15.7 | 1.4 | 6 | 39 |
| 1 | 10050 | C | 0 | 9.0 | 23.0 | 0.2 | 0 | 39 |
| 1 | 10050 | D | 0 | 9.2 | 25.0 | 0.2 | 0 | 39 |
| 1 | 10050 | E | 0 | 12.0 | 27.0 | 0.3 | 0 | 35 |
| 1 | 10050 | F | 0 | 6.6 | 17.0 | 0.2 | 0 | 38 |
| 1 | 10050 | G | 0 | 17.3 | 20.5 | 0.9 | 2 | 38 |
| 1 | 10050 | H | 0 | 6.2 | 23.8 | 0.1 | 0 | 39 |
| 1 | 10050 | J | 0 | 5.3 | 23.5 | 0.0 | 0 | 36 |
| 1 | 10050 | K | 0 | 4.9 | 27.1 | 0.0 | 0 | 40 |
| 1 | 10050 | M | 0 | 1.5 | 7.5 | 0.0 | 0 | 47 |
| 1 | 10050 | N | 1 | 4.5 | 2.9 | 1.3 | 52 | 29 |
| 1 | 10060 | A | 0 | 0.0 | 24.9 | 0.0 | 0 | 43 |
| 1 | 10060 | B | 0 | 5.8 | 26.3 | 0.0 | 0 | 30 |
| 1 | 10060 | C | 0 | 6.4 | 22.0 | 0.1 | 0 | 34 |
| 1 | 10060 | D | 0 | 6.1 | 19.4 | 0.1 | 0 | 41 |
| 1 | 10060 | E | 0 | 5.4 | 12.7 | 0.2 | 1 | 39 |
| 1 | 10060 | F | 0 | 11.6 | 14.9 | 0.7 | 8 | 36 |
| 1 | 10060 | G | 0 | 10.3 | 20.0 | 0.4 | 0 | 37 |
| 1 | 10060 | H | 0 | 12.3 | 23.7 | 0.4 | 0 | 34 |
| 1 | 10060 | J | 0 | 10.6 | 18.4 | 0.4 | 0 | 39 |
| 1 | 10060 | K | 0 | 4.8 | 19.7 | 0.0 | 0 | 43 |
| 1 | 10060 | M | 1 | 17.6 | 14.8 | 1.5 | 11 | 35 |
| 1 | 10070 | A | 0 | 8.1 | 18.0 | 0.3 | 0 | 44 |
| 1 | 10070 | B | 0 | 7.1 | 19.9 | 0.2 | 0 | 47 |
| 1 | 10070 | C | 0 | 8.6 | 17.8 | 0.3 | 0 | 45 |
| 1 | 10070 | D | 0 | 5.3 | 20.6 | 0.1 | 0 | 42 |
| 1 | 10070 | E | 0 | 2.8 | 19.7 | 0.0 | 0 | 35 |
| 1 | 10070 | F | 0 | 5.7 | 25.4 | 0.0 | 0 | 40 |
| 1 | 10070 | G | 0 | 16.1 | 25.6 | 0.6 | 0 | 40 |
| 1 | 10070 | H | 0 | 11.8 | 21.1 | 0.4 | 4 | 32 |
| 1 | 10070 | J | 0 | 2.5 | 22.3 | 0.0 | 0 | 36 |
| 1 | 10070 | K | 0 | -0.6 | 18.4 | 0.0 | 0 | 38 |
| 2 | 10080 | A | 0 | 1.1 | 11.0 | 0.0 | 0 | 40 |
| 2 | 10080 | B | 0 | 5.0 | 15.7 | 0.1 | 0 | 41 |
| 2 | 10080 | C | 2 | 25.6 | 15.1 | 2.8 | 9 | 36 |
| 2 | 10080 | D | 1 | 13.9 | 10.9 | 1.5 | 18 | 33 |
| 2 | 10080 | E | 2 | 35.0 | 20.6 | 3.1 | 0 | 44 |
| 2 | 10080 | F | 0 | 14.9 | 23.5 | 0.6 | 0 | 40 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | AMPLITUDE (PPM) QUAD. | CONDUCTOR CTP MHOS | CONDUCTOR DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10080 | G | 0 | 7.8 | 17.6 | 0.2 | 5 | 31 |
| 2 | 10080 | H | 1 | 12.7 | 13.4 | 1.0 | 12 | 35 |
| 2 | 10080 | J | 0 | 5.6 | 11.1 | 0.3 | 11 | 33 |
| 2 | 10080 | K | 0 | 9.4 | 13.9 | 0.5 | 10 | 34 |
| 2 | 10080 | M | 1 | 15.3 | 12.0 | 1.6 | 6 | 44 |
| 2 | 10080 | N | 0 | 11.8 | 18.1 | 0.6 | 0 | 40 |
| 2 | 10080 | O | 0 | 10.8 | 15.6 | 0.6 | 11 | 31 |
| 2 | 10080 | P | 0 | 8.4 | 32.4 | 0.1 | 0 | 35 |
| 2 | 10090 | A | 0 | 6.8 | 22.0 | 0.1 | 0 | 36 |
| 2 | 10090 | B | 0 | 12.1 | 19.8 | 0.5 | 7 | 30 |
| 2 | 10090 | C | 0 | 16.2 | 21.8 | 0.8 | 5 | 33 |
| 2 | 10090 | D | 1 | 24.7 | 26.4 | 1.3 | 4 | 33 |
| 2 | 10090 | E | 0 | 6.4 | 9.5 | 0.4 | 11 | 39 |
| 2 | 10090 | F | 0 | 3.9 | 10.4 | 0.1 | 3 | 39 |
| 2 | 10090 | G | 0 | 4.7 | 9.5 | 0.2 | 7 | 39 |
| 2 | 10090 | H | 0 | 7.2 | 9.4 | 0.6 | 17 | 34 |
| 2 | 10090 | J | 0 | 9.6 | 13.2 | 0.6 | 7 | 38 |
| 2 | 10090 | K | 0 | 8.9 | 14.7 | 0.4 | 0 | 41 |
| 2 | 10090 | M | 1 | 22.4 | 17.0 | 1.9 | 8 | 36 |
| 2 | 10090 | N | 2 | 39.8 | 20.8 | 3.8 | 6 | 33 |
| 2 | 10090 | O | 3 | 47.5 | 19.1 | 5.7 | 0 | 39 |
| 2 | 10090 | P | 2 | 24.5 | 12.6 | 3.4 | 12 | 35 |
| 2 | 10090 | Q | 0 | 5.1 | 14.3 | 0.1 | 0 | 47 |
| 2 | 10090 | R | 0 | 4.8 | 23.9 | 0.0 | 0 | 36 |
| 2 | 10090 | S | 0 | 4.4 | 4.4 | 0.7 | 38 | 32 |
| 2 | 10100 | A | 2 | 29.7 | 17.5 | 3.0 | 2 | 40 |
| 2 | 10100 | B | 0 | 8.1 | 18.3 | 0.3 | 9 | 27 |
| 2 | 10100 | C | 0 | 3.9 | 23.0 | 0.0 | 0 | 39 |
| 2 | 10100 | D | 0 | 4.1 | 23.3 | 0.0 | 0 | 36 |
| 2 | 10100 | E | 1 | 19.9 | 23.2 | 1.0 | 2 | 36 |
| 2 | 10100 | F | 2 | 35.8 | 28.8 | 2.1 | 0 | 37 |
| 2 | 10100 | G | 0 | 14.8 | 22.4 | 0.6 | 0 | 43 |
| 2 | 10100 | H | 0 | 9.4 | 22.8 | 0.2 | 0 | 43 |
| 2 | 10100 | J | 0 | 4.3 | 16.3 | 0.1 | 0 | 45 |
| 2 | 10100 | K | 0 | 3.8 | 23.0 | 0.0 | 0 | 38 |
| 2 | 10100 | M | 0 | 24.2 | 40.2 | 0.7 | 0 | 35 |
| 2 | 10100 | N | 0 | 14.3 | 38.5 | 0.3 | 0 | 32 |
| 2 | 10100 | O | 0 | 9.3 | 33.4 | 0.1 | 0 | 30 |
| 2 | 10110 | A | 0 | 3.8 | 21.1 | 0.0 | 0 | 37 |
| 2 | 10110 | B | 0 | 5.8 | 20.0 | 0.1 | 0 | 33 |
| 2 | 10110 | C | 0 | 7.8 | 16.6 | 0.3 | 0 | 42 |
| 2 | 10110 | D | 0 | 5.3 | 15.6 | 0.1 | 1 | 34 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10110 | E | 0 | 1.9 | 21.8 | 0.0 | 0 | 33 |
| 2 | 10110 | F | 0 | 12.5 | 24.2 | 0.4 | 0 | 41 |
| 2 | 10110 | G | 1 | 22.9 | 26.1 | 1.1 | 0 | 42 |
| 2 | 10110 | H | 2 | 35.3 | 21.5 | 3.0 | 6 | 34 |
| 2 | 10110 | J | 1 | 16.8 | 12.5 | 1.8 | 9 | 40 |
| 2 | 10110 | K | 0 | 7.7 | 20.0 | 0.2 | 0 | 37 |
| 2 | 10111 | A | 0 | 5.1 | 23.4 | 0.0 | 0 | 37 |
| 2 | 10111 | B | 0 | 14.7 | 19.4 | 0.8 | 7 | 32 |
| 2 | 10111 | C | 3 | 58.8 | 21.3 | 7.0 | 1 | 35 |
| 2 | 10111 | D | 3 | 48.9 | 18.0 | 6.5 | 7 | 31 |
| 2 | 10120 | A | 0 | 6.4 | 15.2 | 0.2 | 0 | 44 |
| 2 | 10120 | B | 0 | 18.2 | 31.0 | 0.6 | 5 | 27 |
| 2 | 10120 | C | 0 | 19.1 | 28.9 | 0.7 | 4 | 29 |
| 2 | 10120 | D | 0 | 4.8 | 28.4 | 0.0 | 0 | 37 |
| 2 | 10120 | E | 0 | 7.0 | 32.9 | 0.0 | 0 | 37 |
| 2 | 10120 | F | 3 | 45.9 | 23.0 | 4.2 | 7 | 31 |
| 2 | 10120 | G | 2 | 47.2 | 26.8 | 3.6 | 6 | 30 |
| 2 | 10120 | H | 1 | 27.3 | 32.7 | 1.1 | 0 | 36 |
| 2 | 10120 | J | 1 | 27.2 | 28.7 | 1.3 | 0 | 35 |
| 2 | 10120 | K | 0 | 10.1 | 23.2 | 0.3 | 0 | 37 |
| 2 | 10120 | M | 0 | 2.2 | 18.0 | 0.0 | 0 | 35 |
| 2 | 10120 | N | 0 | 5.3 | 17.8 | 0.1 | 0 | 35 |
| 2 | 10120 | O | 0 | 9.3 | 24.5 | 0.2 | 0 | 34 |
| 2 | 10120 | P | 0 | 7.4 | 23.9 | 0.1 | 1 | 28 |
| 2 | 10130 | A | 0 | 8.4 | 34.4 | 0.1 | 0 | 32 |
| 2 | 10130 | B | 0 | 3.5 | 29.0 | 0.0 | 0 | 31 |
| 2 | 10130 | C | 0 | -1.4 | 22.9 | 0.0 | 0 | 29 |
| 2 | 10130 | D | 1 | 47.9 | 52.2 | 1.6 | 0 | 33 |
| 2 | 10130 | E | 1 | 35.8 | 50.0 | 1.0 | 0 | 34 |
| 2 | 10130 | F | 0 | 16.9 | 28.1 | 0.6 | 6 | 27 |
| 2 | 10130 | G | 0 | 21.8 | 28.3 | 0.9 | 7 | 28 |
| 2 | 10130 | H | 0 | 6.6 | 35.3 | 0.0 | 0 | 29 |
| 2 | 10130 | J | 0 | 7.4 | 37.9 | 0.0 | 0 | 42 |
| 2 | 10130 | K | 0 | 6.0 | 22.5 | 0.1 | 0 | 30 |
| 2 | 10130 | M | 0 | 7.8 | 24.1 | 0.1 | 0 | 35 |
| 2 | 10140 | A | 0 | 7.4 | 14.4 | 0.3 | 10 | 31 |
| 2 | 10140 | B | 3 | 38.8 | 18.4 | 4.3 | 7 | 34 |
| 2 | 10140 | C | 0 | 10.9 | 40.9 | 0.1 | 0 | 39 |
| 2 | 10140 | D | 0 | 27.9 | 38.1 | 0.9 | 0 | 31 |
| 2 | 10140 | E | 2 | 53.2 | 41.7 | 2.5 | 3 | 28 |
| 2 | 10140 | F | 1 | 34.1 | 34.8 | 1.5 | 0 | 37 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10140 | G | 0 | 23.4 | 35.5 | 0.8 | 0 | 34 |
| 2 | 10140 | H | 0 | 5.2 | 30.4 | 0.0 | 0 | 30 |
| 2 | 10140 | J | 0 | 6.0 | 38.1 | 0.0 | 0 | 33 |
| 2 | 10140 | K | 0 | 17.1 | 34.6 | 0.4 | 0 | 34 |
| 2 | 10140 | M | 0 | 3.4 | 19.8 | 0.0 | 0 | 31 |
| 2 | 10140 | N | 0 | 7.1 | 38.7 | 0.0 | 0 | 32 |
| 2 | 10150 | A | 0 | 9.0 | 42.7 | 0.1 | 0 | 35 |
| 2 | 10150 | B | 0 | 2.6 | 20.5 | 0.0 | 0 | 37 |
| 2 | 10150 | C | 1 | 18.4 | 20.9 | 1.0 | 0 | 40 |
| 2 | 10150 | D | 0 | 15.8 | 32.0 | 0.4 | 0 | 33 |
| 2 | 10150 | E | 0 | 4.5 | 21.7 | 0.0 | 0 | 34 |
| 2 | 10150 | F | 0 | 13.7 | 21.2 | 0.6 | 2 | 35 |
| 2 | 10150 | G | 2 | 34.4 | 28.7 | 2.0 | 0 | 38 |
| 2 | 10150 | H | 2 | 29.5 | 22.9 | 2.1 | 7 | 33 |
| 2 | 10150 | J | 0 | 9.2 | 33.6 | 0.1 | 0 | 33 |
| 2 | 10150 | K | 0 | 16.3 | 48.5 | 0.2 | 0 | 39 |
| 2 | 10150 | M | 3 | 33.4 | 14.5 | 4.6 | 9 | 34 |
| 2 | 10150 | N | 0 | 3.0 | 9.5 | 0.1 | 11 | 30 |
| 2 | 10160 | A | 0 | 1.1 | 9.3 | 0.0 | 0 | 31 |
| 2 | 10160 | B | 4 | 48.3 | 12.5 | 10.3 | 0 | 42 |
| 2 | 10162 | A | 0 | 7.2 | 23.5 | 0.1 | 0 | 30 |
| 2 | 10162 | B | 0 | 10.7 | 28.6 | 0.2 | 0 | 44 |
| 2 | 10162 | C | 0 | 8.6 | 23.5 | 0.2 | 0 | 39 |
| 2 | 10162 | D | 2 | 26.5 | 19.2 | 2.2 | 9 | 32 |
| 2 | 10162 | E | 1 | 17.7 | 17.5 | 1.2 | 3 | 40 |
| 2 | 10162 | F | 1 | 16.1 | 16.4 | 1.1 | 3 | 40 |
| 2 | 10162 | G | 0 | 9.2 | 14.0 | 0.5 | 7 | 36 |
| 2 | 10162 | H | 0 | 6.7 | 17.1 | 0.2 | 3 | 32 |
| 2 | 10162 | J | 1 | 22.7 | 25.7 | 1.1 | 4 | 33 |
| 2 | 10162 | K | 0 | 6.9 | 12.0 | 0.4 | 6 | 38 |
| 2 | 10162 | M | 2 | 32.2 | 17.7 | 3.4 | 8 | 34 |
| 2 | 10162 | N | 0 | 5.2 | 8.3 | 0.3 | 15 | 37 |
| 2 | 10162 | O | 0 | 17.7 | 42.7 | 0.3 | 0 | 36 |
| 2 | 10170 | A | 0 | 20.3 | 62.6 | 0.3 | 0 | 33 |
| 2 | 10170 | B | 0 | 14.5 | 49.2 | 0.2 | 0 | 34 |
| 2 | 10170 | C | 1 | 32.2 | 35.2 | 1.3 | 2 | 31 |
| 2 | 10170 | D | 0 | 4.1 | 23.6 | 0.0 | 0 | 34 |
| 2 | 10170 | E | 0 | 13.8 | 30.5 | 0.3 | 0 | 36 |
| 2 | 10170 | F | 0 | 7.6 | 22.7 | 0.1 | 0 | 33 |
| 2 | 10170 | G | 1 | 20.2 | 23.6 | 1.0 | 0 | 38 |
| 2 | 10170 | H | 0 | 11.1 | 23.8 | 0.3 | 0 | 36 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | AMPLITUDE (PPM) QUAD. | CONDUCTOR CTP MHOS | CONDUCTOR DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10170 | J | 0 | 17.5 | 23.9 | 0.8 | 1 | 36 |
| 2 | 10170 | K | 0 | 9.4 | 37.0 | 0.1 | 0 | 40 |
| 2 | 10170 | M | 0 | 6.3 | 30.2 | 0.0 | 0 | 31 |
| 2 | 10170 | N | 2 | 30.1 | 16.4 | 3.3 | 7 | 36 |
| 2 | 10170 | O | 4 | 42.0 | 11.4 | 9.3 | 10 | 32 |
| 2 | 10170 | P | 0 | 2.7 | 5.1 | 0.2 | 26 | 33 |
| 2 | 10180 | A | 3 | 39.4 | 15.8 | 5.4 | 12 | 30 |
| 2 | 10180 | B | 0 | 11.6 | 35.7 | 0.2 | 0 | 36 |
| 2 | 10180 | C | 0 | 11.8 | 34.2 | 0.2 | 0 | 38 |
| 2 | 10180 | D | 0 | 8.7 | 16.5 | 0.3 | 7 | 32 |
| 2 | 10180 | E | 0 | 6.1 | 11.1 | 0.3 | 12 | 33 |
| 2 | 10180 | F | 1 | 14.6 | 15.7 | 1.0 | 0 | 46 |
| 2 | 10180 | G | 0 | 3.5 | 24.4 | 0.0 | 0 | 35 |
| 2 | 10180 | H | 0 | 17.9 | 36.4 | 0.4 | 0 | 33 |
| 2 | 10180 | J | 0 | 7.3 | 27.6 | 0.1 | 0 | 34 |
| 2 | 10180 | K | 1 | 27.8 | 33.8 | 1.1 | 0 | 34 |
| 2 | 10180 | M | 0 | 4.1 | 14.8 | 0.1 | 0 | 35 |
| 2 | 10180 | N | 0 | 22.5 | 60.1 | 0.3 | 0 | 37 |
| 2 | 10180 | O | 0 | 13.6 | 42.0 | 0.2 | 0 | 39 |
| 2 | 10190 | A | 0 | 21.6 | 55.5 | 0.3 | 0 | 37 |
| 2 | 10190 | B | 0 | 5.3 | 20.3 | 0.1 | 0 | 40 |
| 2 | 10190 | C | 2 | 20.2 | 13.1 | 2.3 | 10 | 38 |
| 2 | 10190 | D | 1 | 15.7 | 12.9 | 1.5 | 13 | 35 |
| 2 | 10190 | E | 0 | 22.8 | 30.9 | 0.9 | 0 | 33 |
| 2 | 10190 | F | 0 | 16.0 | 40.4 | 0.3 | 0 | 30 |
| 2 | 10190 | G | 0 | 10.9 | 22.5 | 0.3 | 0 | 34 |
| 2 | 10190 | H | 1 | 13.5 | 9.7 | 1.7 | 14 | 39 |
| 2 | 10190 | J | 0 | 4.1 | 9.3 | 0.2 | 14 | 32 |
| 2 | 10190 | K | 0 | 8.2 | 27.6 | 0.1 | 0 | 38 |
| 2 | 10190 | M | 0 | 2.7 | 18.6 | 0.0 | 0 | 33 |
| 2 | 10190 | N | 1 | 25.0 | 20.0 | 1.9 | 9 | 33 |
| 2 | 10200 | A | 2 | 15.4 | 8.8 | 2.5 | 7 | 47 |
| 2 | 10200 | B | 3 | 16.2 | 5.3 | 5.4 | 16 | 42 |
| 2 | 10200 | C | 0 | 6.0 | 21.2 | 0.1 | 0 | 34 |
| 2 | 10200 | D | 0 | 12.1 | 34.7 | 0.2 | 0 | 35 |
| 2 | 10200 | E | 2 | 25.9 | 17.2 | 2.4 | 7 | 36 |
| 2 | 10200 | F | 1 | 19.9 | 19.1 | 1.3 | 8 | 33 |
| 2 | 10200 | G | 0 | 3.3 | 11.5 | 0.0 | 5 | 33 |
| 2 | 10200 | H | 0 | 8.1 | 30.6 | 0.1 | 0 | 30 |
| 2 | 10200 | J | 1 | 55.1 | 61.2 | 1.6 | 0 | 33 |
| 2 | 10200 | K | 0 | 14.0 | 22.0 | 0.6 | 0 | 37 |
| 2 | 10200 | M | 0 | 10.8 | 20.5 | 0.4 | 1 | 35 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10200 | N | 1 | 20.8 | 18.9 | 1.5 | 12 | 30 |
| 2 | 10200 | O | 0 | 6.9 | 34.1 | 0.0 | 0 | 30 |
| 2 | 10210 | A | 0 | 11.2 | 35.4 | 0.2 | 0 | 37 |
| 2 | 10210 | B | 1 | 13.1 | 13.8 | 1.0 | 16 | 30 |
| 2 | 10210 | C | 0 | 7.7 | 9.9 | 0.6 | 12 | 39 |
| 2 | 10210 | D | 2 | 35.3 | 29.8 | 2.0 | 0 | 41 |
| 2 | 10210 | E | 0 | 15.1 | 20.4 | 0.7 | 0 | 41 |
| 2 | 10210 | F | 0 | 7.8 | 24.7 | 0.1 | 0 | 34 |
| 2 | 10210 | G | 0 | 8.1 | 23.6 | 0.2 | 0 | 34 |
| 2 | 10210 | H | 1 | 9.5 | 8.5 | 1.1 | 13 | 43 |
| 2 | 10210 | J | 2 | 12.7 | 7.3 | 2.3 | 26 | 32 |
| 2 | 10210 | K | 3 | 36.0 | 17.1 | 4.2 | 3 | 38 |
| 2 | 10210 | M | 0 | 9.3 | 20.9 | 0.3 | 0 | 42 |
| 2 | 10210 | N | 0 | 12.0 | 17.2 | 0.6 | 1 | 39 |
| 2 | 10210 | O | 0 | 7.8 | 19.3 | 0.2 | 3 | 31 |
| 2 | 10210 | P | 2 | 10.1 | 5.0 | 2.6 | 31 | 33 |
| 2 | 10220 | A | 0 | 5.4 | 23.1 | 0.0 | 0 | 36 |
| 2 | 10220 | B | 0 | 17.7 | 29.3 | 0.6 | 0 | 41 |
| 2 | 10220 | C | 0 | 9.0 | 39.3 | 0.1 | 0 | 33 |
| 2 | 10220 | D | 0 | 7.6 | 15.5 | 0.3 | 0 | 39 |
| 2 | 10220 | E | 0 | 16.2 | 20.6 | 0.8 | 0 | 41 |
| 2 | 10220 | F | 1 | 19.6 | 16.0 | 1.7 | 4 | 41 |
| 2 | 10220 | G | 0 | 19.5 | 27.4 | 0.8 | 0 | 35 |
| 2 | 10220 | H | 0 | 3.4 | 26.8 | 0.0 | 0 | 34 |
| 2 | 10220 | J | 0 | 22.3 | 75.4 | 0.2 | 0 | 30 |
| 2 | 10220 | K | 0 | 8.4 | 25.7 | 0.2 | 0 | 32 |
| 2 | 10220 | M | 0 | 12.3 | 21.9 | 0.5 | 0 | 38 |
| 2 | 10220 | N | 0 | 8.4 | 18.1 | 0.3 | 5 | 31 |
| 2 | 10220 | O | 0 | 2.4 | 15.9 | 0.0 | 0 | 34 |
| 2 | 10220 | P | 0 | 11.2 | 47.5 | 0.1 | 0 | 30 |
| 2 | 10230 | A | 0 | 8.0 | 28.5 | 0.1 | 0 | 36 |
| 2 | 10230 | B | 0 | 5.0 | 17.7 | 0.1 | 5 | 27 |
| 2 | 10230 | C | 0 | 7.2 | 16.4 | 0.2 | 3 | 34 |
| 2 | 10230 | D | 1 | 21.7 | 23.7 | 1.2 | 1 | 37 |
| 2 | 10230 | E | 0 | 19.4 | 24.5 | 0.9 | 3 | 33 |
| 2 | 10230 | F | 0 | 28.1 | 67.5 | 0.4 | 0 | 33 |
| 2 | 10230 | G | 0 | 5.6 | 9.8 | 0.3 | 13 | 35 |
| 2 | 10230 | H | 0 | 3.3 | 11.7 | 0.0 | 1 | 35 |
| 2 | 10230 | J | 1 | 22.6 | 20.8 | 1.5 | 7 | 34 |
| 2 | 10230 | K | 1 | 10.4 | 8.4 | 1.3 | 20 | 36 |
| 2 | 10230 | M | 2 | 45.7 | 38.3 | 2.2 | 0 | 33 |
| 2 | 10230 | N | 0 | 19.5 | 36.9 | 0.5 | 0 | 32 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10230 | O | 0 | 20.9 | 59.3 | 0.3 | 0 | 31 |
| 2 | 10230 | P | 0 | 18.2 | 22.7 | 0.9 | 4 | 34 |
| 2 | 10240 | A | 0 | 15.1 | 19.7 | 0.8 | 3 | 36 |
| 2 | 10240 | B | 0 | 19.1 | 57.6 | 0.3 | 0 | 34 |
| 2 | 10240 | C | 1 | 26.7 | 29.3 | 1.2 | 0 | 39 |
| 2 | 10240 | D | 1 | 7.8 | 6.6 | 1.1 | 26 | 35 |
| 2 | 10240 | E | 1 | 24.8 | 22.1 | 1.6 | 13 | 27 |
| 2 | 10240 | F | 0 | 8.5 | 12.4 | 0.5 | 8 | 37 |
| 2 | 10240 | G | 0 | 29.3 | 53.5 | 0.6 | 0 | 35 |
| 2 | 10240 | H | 0 | 24.0 | 51.7 | 0.5 | 0 | 34 |
| 2 | 10240 | J | 1 | 22.7 | 24.3 | 1.2 | 6 | 32 |
| 2 | 10240 | K | 0 | 12.9 | 20.9 | 0.5 | 3 | 34 |
| 2 | 10240 | M | 0 | 16.7 | 29.7 | 0.5 | 0 | 34 |
| 2 | 10240 | N | 0 | 8.2 | 29.5 | 0.1 | 0 | 36 |
| 2 | 10250 | A | 0 | 8.0 | 23.1 | 0.2 | 0 | 40 |
| 2 | 10250 | B | 0 | 7.7 | 29.8 | 0.1 | 0 | 37 |
| 2 | 10250 | C | 0 | 23.6 | 31.7 | 0.9 | 0 | 38 |
| 2 | 10250 | D | 0 | 19.2 | 25.6 | 0.8 | 0 | 37 |
| 2 | 10250 | E | 0 | 20.3 | 26.1 | 0.9 | 1 | 35 |
| 2 | 10250 | F | 0 | 31.3 | 59.6 | 0.6 | 0 | 36 |
| 2 | 10250 | G | 0 | 7.5 | 11.0 | 0.5 | 9 | 39 |
| 2 | 10250 | H | 0 | 5.8 | 10.1 | 0.3 | 2 | 45 |
| 2 | 10250 | J | 0 | 6.5 | 13.7 | 0.2 | 6 | 35 |
| 2 | 10250 | K | 0 | 7.7 | 11.8 | 0.5 | 13 | 33 |
| 2 | 10250 | M | 0 | 13.0 | 15.6 | 0.8 | 2 | 42 |
| 2 | 10250 | N | 0 | 10.5 | 12.5 | 0.8 | 7 | 40 |
| 2 | 10250 | O | 0 | 3.6 | 13.4 | 0.0 | 0 | 35 |
| 2 | 10260 | A | 0 | 2.7 | 9.5 | 0.0 | 0 | 40 |
| 2 | 10260 | B | 0 | 12.6 | 13.6 | 0.9 | 12 | 34 |
| 2 | 10260 | C | 0 | 11.8 | 30.0 | 0.3 | 0 | 34 |
| 2 | 10260 | D | 0 | 9.7 | 12.1 | 0.7 | 11 | 36 |
| 2 | 10260 | E | 0 | 11.1 | 19.2 | 0.4 | 9 | 29 |
| 2 | 10260 | F | 1 | 29.4 | 35.6 | 1.1 | 0 | 37 |
| 2 | 10260 | G | 0 | 41.7 | 79.2 | 0.7 | 0 | 32 |
| 2 | 10260 | H | 1 | 32.6 | 42.3 | 1.1 | 1 | 29 |
| 2 | 10260 | J | 0 | 27.6 | 40.1 | 0.9 | 1 | 29 |
| 2 | 10260 | K | 0 | 9.4 | 20.8 | 0.3 | 0 | 35 |
| 2 | 10260 | M | 0 | 11.8 | 21.0 | 0.4 | 4 | 32 |
| 2 | 10260 | N | 0 | 16.2 | 22.4 | 0.7 | 0 | 37 |
| 2 | 10260 | O | 0 | 6.0 | 28.7 | 0.0 | 0 | 33 |
| 2 | 10260 | P | 0 | 7.9 | 31.0 | 0.1 | 0 | 32 |
| 2 | 10260 | Q | 0 | 7.5 | 18.6 | 0.2 | 0 | 43 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10270 | A | 0 | 7.6 | 23.4 | 0.1 | 0 | 33 |
| 2 | 10270 | B | 0 | 6.5 | 23.8 | 0.1 | 0 | 37 |
| 2 | 10270 | C | 0 | 14.7 | 25.0 | 0.5 | 0 | 38 |
| 2 | 10270 | D | 0 | 13.7 | 24.9 | 0.5 | 1 | 32 |
| 2 | 10270 | E | 0 | 11.0 | 25.1 | 0.3 | 0 | 32 |
| 2 | 10270 | F | 0 | 35.3 | 56.0 | 0.8 | 0 | 28 |
| 2 | 10270 | G | 0 | 34.6 | 82.0 | 0.5 | 0 | 30 |
| 2 | 10270 | H | 0 | 36.8 | 57.4 | 0.9 | 0 | 30 |
| 2 | 10270 | J | 0 | 9.6 | 10.7 | 0.8 | 9 | 41 |
| 2 | 10270 | K | 0 | 11.3 | 26.0 | 0.3 | 0 | 37 |
| 2 | 10270 | M | 1 | 18.5 | 16.0 | 1.5 | 8 | 37 |
| 2 | 10270 | N | 0 | 3.6 | 10.3 | 0.1 | 6 | 35 |
| 2 | 10280 | A | 1 | 19.9 | 17.4 | 1.5 | 1 | 42 |
| 2 | 10280 | B | 0 | 23.0 | 54.5 | 0.4 | 0 | 29 |
| 2 | 10280 | C | 0 | 7.2 | 11.8 | 0.4 | 20 | 25 |
| 2 | 10280 | D | 1 | 23.5 | 19.5 | 1.7 | 13 | 28 |
| 2 | 10280 | E | 0 | 25.6 | 85.4 | 0.3 | 0 | 24 |
| 2 | 10280 | F | 0 | 33.6 | 117.1 | 0.3 | 0 | 24 |
| 2 | 10280 | G | 0 | 37.4 | 130.3 | 0.3 | 0 | 22 |
| 2 | 10280 | H | 0 | 36.1 | 56.6 | 0.9 | 0 | 26 |
| 2 | 10280 | J | 1 | 40.3 | 55.2 | 1.1 | 1 | 26 |
| 2 | 10280 | K | 1 | 15.2 | 16.2 | 1.0 | 5 | 38 |
| 2 | 10280 | M | 0 | 3.3 | 16.0 | 0.0 | 0 | 34 |
| 2 | 10280 | N | 0 | 4.8 | 14.8 | 0.1 | 1 | 34 |
| 2 | 10280 | O | 0 | 5.5 | 25.5 | 0.0 | 0 | 34 |
| 2 | 10290 | A | 0 | 6.1 | 28.6 | 0.0 | 0 | 35 |
| 2 | 10290 | B | 0 | 6.0 | 31.0 | 0.0 | 0 | 34 |
| 2 | 10290 | C | 0 | 0.7 | 6.0 | 0.0 | 0 | 45 |
| 2 | 10290 | D | 0 | 10.4 | 12.6 | 0.7 | 5 | 42 |
| 2 | 10290 | E | 0 | 30.2 | 42.9 | 0.9 | 0 | 29 |
| 2 | 10290 | F | 1 | 32.2 | 43.1 | 1.0 | 1 | 29 |
| 2 | 10290 | G | 0 | 18.7 | 61.5 | 0.2 | 0 | 31 |
| 2 | 10290 | H | 0 | 15.4 | 50.9 | 0.2 | 0 | 33 |
| 2 | 10290 | J | 0 | 12.4 | 36.8 | 0.2 | 0 | 32 |
| 2 | 10290 | K | 2 | 20.7 | 10.3 | 3.3 | 16 | 35 |
| 2 | 10290 | M | 0 | 13.2 | 39.6 | 0.2 | 0 | 35 |
| 2 | 10290 | N | 0 | 12.6 | 48.6 | 0.1 | 0 | 31 |
| 2 | 10290 | O | 0 | 2.6 | 17.4 | 0.0 | 0 | 33 |
| 2 | 10290 | P | 0 | 7.3 | 16.3 | 0.2 | 5 | 32 |
| 2 | 10300 | A | 0 | 4.5 | 9.0 | 0.2 | 5 | 42 |
| 2 | 10300 | B | 0 | 4.1 | 11.4 | 0.1 | 0 | 39 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 10300 | C | 0 | 13.6 | 46.2 | 0.2 | 0 | 31 |
| 2 | 10300 | D | 0 | 11.9 | 48.1 | 0.1 | 0 | 28 |
| 2 | 10300 | E | 3 | 33.8 | 13.5 | 5.2 | 7 | 37 |
| 2 | 10300 | F | 0 | 9.4 | 28.2 | 0.2 | 0 | 37 |
| 2 | 10300 | G | 0 | 10.7 | 37.0 | 0.1 | 0 | 33 |
| 2 | 10300 | H | 1 | 40.1 | 38.6 | 1.7 | 1 | 32 |
| 2 | 10300 | J | 1 | 36.3 | 41.2 | 1.3 | 0 | 35 |
| 2 | 10300 | K | 2 | 32.6 | 24.5 | 2.2 | 8 | 30 |
| 2 | 10300 | M | 0 | 3.6 | 17.2 | 0.0 | 0 | 36 |
| 2 | 10300 | N | 0 | 4.1 | 14.4 | 0.1 | 5 | 29 |
| 2 | 10300 | O | 0 | 6.4 | 11.4 | 0.3 | 4 | 41 |
| 2 | 10300 | P | 0 | 7.9 | 34.6 | 0.1 | 0 | 30 |
| 3 | 10310 | A | 0 | 9.4 | 37.5 | 0.1 | 0 | 30 |
| 3 | 10310 | B | 0 | 6.3 | 22.3 | 0.1 | 0 | 36 |
| 3 | 10310 | C | 0 | 24.5 | 35.8 | 0.8 | 0 | 34 |
| 3 | 10310 | D | 0 | 5.6 | 15.8 | 0.1 | 0 | 36 |
| 3 | 10310 | E | 0 | 5.8 | 14.6 | 0.2 | 0 | 41 |
| 3 | 10310 | F | 2 | 36.1 | 30.6 | 2.0 | 4 | 32 |
| 3 | 10310 | G | 0 | 21.7 | 37.8 | 0.6 | 0 | 31 |
| 3 | 10310 | H | 0 | 18.6 | 47.2 | 0.3 | 0 | 27 |
| 3 | 10310 | J | 0 | 9.2 | 42.3 | 0.1 | 0 | 26 |
| 3 | 10310 | K | 2 | 25.4 | 13.1 | 3.4 | 8 | 39 |
| 3 | 10310 | M | 0 | 5.5 | 18.7 | 0.1 | 0 | 37 |
| 3 | 10310 | N | 0 | 6.6 | 22.3 | 0.1 | 0 | 35 |
| 3 | 10310 | O | 0 | 5.2 | 9.5 | 0.3 | 9 | 39 |
| 3 | 10310 | P | 0 | 2.5 | 7.8 | 0.0 | 2 | 42 |
| 3 | 10320 | A | 0 | 1.5 | 10.8 | 0.0 | 0 | 33 |
| 3 | 10320 | B | 0 | 8.2 | 26.4 | 0.1 | 0 | 35 |
| 3 | 10320 | C | 0 | 2.4 | 12.6 | 0.0 | 0 | 39 |
| 3 | 10320 | D | 0 | 16.0 | 24.7 | 0.6 | 6 | 30 |
| 3 | 10320 | E | 0 | 3.6 | 5.4 | 0.3 | 28 | 33 |
| 3 | 10320 | F | 0 | 5.1 | 25.2 | 0.0 | 0 | 31 |
| 3 | 10320 | G | 0 | 11.9 | 31.7 | 0.2 | 0 | 33 |
| 3 | 10320 | H | 0 | 11.1 | 28.1 | 0.2 | 0 | 34 |
| 3 | 10320 | J | 1 | 32.0 | 33.0 | 1.4 | 2 | 32 |
| 3 | 10320 | K | 1 | 33.3 | 35.9 | 1.4 | 1 | 32 |
| 3 | 10320 | M | 0 | 4.3 | 19.7 | 0.0 | 0 | 37 |
| 3 | 10320 | N | 0 | 3.7 | 16.1 | 0.0 | 2 | 28 |
| 3 | 10320 | O | 0 | 11.3 | 18.5 | 0.5 | 0 | 44 |
| 3 | 10330 | A | 0 | 20.5 | 30.8 | 0.7 | 0 | 37 |
| 3 | 10330 | B | 0 | 4.3 | 21.1 | 0.0 | 0 | 34 |
| 3 | 10330 | C | 0 | 4.2 | 20.9 | 0.0 | 0 | 32 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 10330 | D | 1 | 37.2 | 41.2 | 1.4 | 1 | 31 |
| 3 | 10330 | E | 0 | 8.0 | 43.8 | 0.0 | 0 | 29 |
| 3 | 10330 | F | 0 | 6.8 | 26.7 | 0.1 | 0 | 37 |
| 3 | 10330 | G | 0 | 5.8 | 21.0 | 0.1 | 0 | 34 |
| 3 | 10330 | H | 0 | 5.2 | 15.9 | 0.1 | 0 | 37 |
| 3 | 10330 | J | 2 | 13.2 | 5.9 | 3.3 | 13 | 47 |
| 3 | 10330 | K | 0 | 3.9 | 10.9 | 0.1 | 0 | 41 |
| 3 | 10330 | M | 0 | 7.8 | 14.6 | 0.3 | 0 | 42 |
| 3 | 10330 | N | 0 | 3.8 | 10.0 | 0.1 | 11 | 31 |
| 3 | 10340 | A | 0 | 6.1 | 19.6 | 0.1 | 2 | 29 |
| 3 | 10341 | A | 0 | 7.1 | 14.2 | 0.3 | 0 | 41 |
| 3 | 10341 | B | 0 | 0.5 | 9.1 | 0.0 | 0 | 31 |
| 3 | 10341 | C | 0 | 9.2 | 25.0 | 0.2 | 0 | 34 |
| 3 | 10341 | D | 0 | 5.8 | 15.1 | 0.2 | 0 | 42 |
| 3 | 10341 | E | 3 | 22.2 | 8.0 | 5.2 | 7 | 44 |
| 3 | 10341 | F | 0 | 3.4 | 12.4 | 0.0 | 5 | 31 |
| 3 | 10341 | G | 0 | 11.6 | 26.2 | 0.3 | 0 | 34 |
| 3 | 10341 | H | 0 | 8.0 | 25.1 | 0.1 | 0 | 33 |
| 3 | 10341 | J | 0 | 9.1 | 48.0 | 0.0 | 0 | 27 |
| 3 | 10341 | K | 0 | 18.8 | 38.6 | 0.4 | 0 | 28 |
| 3 | 10341 | M | 0 | 24.2 | 36.5 | 0.8 | 0 | 35 |
| 3 | 10350 | A | 0 | 10.8 | 37.6 | 0.1 | 0 | 32 |
| 3 | 10350 | B | 1 | 36.2 | 43.2 | 1.2 | 0 | 38 |
| 3 | 10350 | C | 0 | 8.3 | 27.0 | 0.1 | 0 | 29 |
| 3 | 10350 | D | 1 | 26.0 | 22.7 | 1.7 | 4 | 36 |
| 3 | 10350 | E | 0 | 11.2 | 24.0 | 0.3 | 0 | 34 |
| 3 | 10350 | F | 0 | 13.1 | 26.8 | 0.4 | 2 | 30 |
| 3 | 10350 | G | 0 | 6.5 | 7.5 | 0.6 | 21 | 36 |
| 3 | 10350 | H | 3 | 17.6 | 4.8 | 7.1 | 20 | 37 |
| 3 | 10350 | J | 4 | 15.6 | 2.7 | 12.7 | 24 | 37 |
| 3 | 10350 | K | 1 | 6.5 | 5.6 | 1.0 | 25 | 39 |
| 3 | 10350 | M | 1 | 10.5 | 9.5 | 1.1 | 10 | 44 |
| 3 | 10350 | N | 0 | 6.4 | 0.7 | 18.4 | 35 | 50 |
| 3 | 10350 | O | 0 | 7.7 | -0.3 | 0.0 | 0 | 44 |
| 3 | 10350 | P | 4 | 19.5 | 3.9 | 11.2 | 17 | 40 |
| 3 | 10350 | Q | 3 | 14.5 | 3.6 | 7.6 | 22 | 39 |
| 3 | 10350 | R | 0 | 3.6 | 7.2 | 0.2 | 17 | 34 |
| 3 | 10350 | S | 0 | 12.5 | 16.0 | 0.7 | 13 | 30 |
| 3 | 10350 | T | 0 | 5.7 | 10.8 | 0.3 | 16 | 29 |
| 3 | 10360 | A | 0 | 9.2 | 13.2 | 0.5 | 14 | 31 |
| 3 | 10360 | B | 0 | 10.5 | 18.6 | 0.4 | 5 | 32 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 10360 | C | 0 | 2.7 | 15.7 | 0.0 | 0 | 32 |
| 3 | 10360 | D | 0 | 1.9 | 12.6 | 0.0 | 0 | 35 |
| 3 | 10360 | E | 0 | 6.0 | 26.1 | 0.1 | 0 | 32 |
| 3 | 10360 | F | 0 | 4.5 | 12.5 | 0.1 | 4 | 35 |
| 3 | 10360 | G | 2 | 25.7 | 18.1 | 2.2 | 13 | 30 |
| 3 | 10360 | H | 4 | 63.0 | 18.3 | 9.6 | 6 | 31 |
| 3 | 10360 | J | 3 | 39.9 | 16.8 | 5.1 | 9 | 32 |
| 3 | 10360 | K | 0 | 7.1 | 42.5 | 0.0 | 0 | 28 |
| 3 | 10360 | M | 0 | 13.0 | 57.4 | 0.1 | 0 | 30 |
| 3 | 10360 | N | 0 | 5.7 | 45.1 | 0.0 | 0 | 27 |
| 3 | 10360 | O | 0 | 8.5 | 43.6 | 0.0 | 0 | 28 |
| 3 | 10360 | P | 0 | 17.7 | 47.1 | 0.3 | 0 | 30 |
| 3 | 10360 | Q | 0 | 8.8 | 45.1 | 0.1 | 0 | 33 |
| 3 | 10360 | R | 0 | 24.2 | 52.8 | 0.5 | 0 | 35 |
| 3 | 10370 | A | 0 | 30.8 | 51.1 | 0.7 | 0 | 33 |
| 3 | 10370 | B | 0 | 9.8 | 42.8 | 0.1 | 0 | 31 |
| 3 | 10370 | C | 0 | 9.4 | 44.3 | 0.1 | 0 | 30 |
| 3 | 10370 | D | 0 | 11.9 | 40.7 | 0.2 | 0 | 32 |
| 3 | 10370 | E | 0 | 6.6 | 35.9 | 0.0 | 0 | 31 |
| 3 | 10370 | F | 0 | 7.3 | 40.7 | 0.0 | 0 | 33 |
| 3 | 10370 | G | 0 | 5.2 | 36.8 | 0.0 | 0 | 34 |
| 3 | 10370 | H | 0 | 2.8 | 10.2 | 0.0 | 1 | 37 |
| 3 | 10370 | J | 3 | 34.1 | 12.6 | 5.8 | 5 | 39 |
| 3 | 10370 | K | 2 | 16.1 | 10.9 | 2.0 | 10 | 41 |
| 3 | 10370 | M | 0 | 4.1 | 10.2 | 0.1 | 6 | 37 |
| 3 | 10370 | N | 0 | 3.5 | 15.9 | 0.0 | 0 | 37 |
| 3 | 10371 | A | 0 | 1.7 | 10.4 | 0.0 | 0 | 41 |
| 3 | 10371 | B | 0 | 1.8 | 9.7 | 0.0 | 0 | 38 |
| 3 | 10371 | C | 0 | 8.0 | 17.4 | 0.3 | 0 | 40 |
| 3 | 10380 | A | 0 | 6.0 | 16.0 | 0.2 | 6 | 30 |
| 3 | 10380 | B | 2 | 19.4 | 10.8 | 2.8 | 14 | 36 |
| 3 | 10380 | C | 1 | 9.0 | 8.6 | 1.0 | 16 | 39 |
| 3 | 10380 | D | 3 | 32.8 | 11.8 | 5.9 | 9 | 36 |
| 3 | 10380 | E | 0 | 7.3 | 15.1 | 0.3 | 4 | 35 |
| 3 | 10380 | F | 0 | 5.6 | 37.0 | 0.0 | 0 | 33 |
| 3 | 10380 | G | 0 | 3.3 | 22.0 | 0.0 | 0 | 34 |
| 3 | 10380 | H | 0 | 9.7 | 38.2 | 0.1 | 0 | 32 |
| 3 | 10380 | J | 0 | 8.7 | 40.8 | 0.1 | 0 | 32 |
| 3 | 10380 | K | 0 | 20.3 | 35.7 | 0.6 | 0 | 37 |
| 3 | 10391 | A | 0 | 14.1 | 22.1 | 0.6 | 0 | 48 |
| 3 | 10391 | B | 0 | 9.0 | 40.6 | 0.1 | 0 | 29 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 10391 | C | 0 | 5.2 | 39.0 | 0.0 | 0 | 30 |
| 3 | 10391 | D | 0 | 2.8 | 10.4 | 0.0 | 4 | 33 |
| 3 | 10391 | E | 3 | 25.3 | 7.7 | 6.8 | 10 | 40 |
| 3 | 10391 | F | 1 | 7.3 | 6.6 | 1.0 | 18 | 43 |
| 3 | 10391 | G | 0 | 3.5 | 5.6 | 0.3 | 15 | 44 |
| 3 | 10391 | H | 0 | 5.9 | 7.3 | 0.6 | 17 | 40 |
| 3 | 10391 | J | 0 | 1.8 | 13.0 | 0.0 | 0 | 29 |
| 3 | 10400 | A | 0 | 0.2 | 10.8 | 0.0 | 0 | 32 |
| 3 | 10400 | B | 0 | -0.6 | 10.1 | 0.0 | 0 | 38 |
| 3 | 10400 | C | 0 | 0.1 | 14.9 | 0.0 | 0 | 37 |
| 3 | 10400 | D | 0 | 5.3 | 13.0 | 0.2 | 0 | 42 |
| 3 | 10400 | E | 0 | 4.1 | 36.9 | 0.0 | 0 | 29 |
| 3 | 10400 | F | 0 | 6.4 | 42.9 | 0.0 | 0 | 38 |
| 3 | 10410 | A | 0 | 7.8 | 40.4 | 0.0 | 0 | 38 |
| 3 | 10410 | B | 0 | 6.7 | 27.4 | 0.1 | 0 | 34 |
| 3 | 10410 | C | 2 | 17.8 | 9.2 | 3.0 | 10 | 42 |
| 3 | 10410 | D | 0 | 2.8 | 4.8 | 0.2 | 28 | 34 |
| 3 | 10410 | E | 0 | 4.2 | 7.4 | 0.3 | 15 | 37 |
| 3 | 10410 | F | 0 | 2.2 | 7.1 | 0.0 | 9 | 36 |
| 3 | 10420 | A | 0 | 0.3 | 6.7 | 0.0 | 0 | 36 |
| 3 | 10420 | B | 2 | 14.3 | 9.3 | 2.0 | 21 | 33 |
| 3 | 10420 | C | 0 | 0.1 | 5.2 | 0.0 | 0 | 35 |
| 3 | 10420 | D | 0 | 9.6 | 12.7 | 0.6 | 14 | 32 |
| 3 | 10420 | E | 3 | 37.4 | 11.8 | 7.3 | 15 | 28 |
| 3 | 10420 | F | 0 | 5.4 | 7.2 | 0.5 | 19 | 37 |
| 3 | 10420 | G | 0 | 2.5 | 19.7 | 0.0 | 0 | 31 |
| 3 | 10420 | H | 0 | 6.8 | 16.9 | 0.2 | 0 | 43 |
| 3 | 10420 | J | 0 | 7.0 | 24.3 | 0.1 | 0 | 41 |
| 3 | 10420 | K | 0 | 7.0 | 33.8 | 0.0 | 0 | 33 |
| 3 | 10430 | A | 0 | 5.3 | 15.4 | 0.1 | 0 | 39 |
| 3 | 10430 | B | 0 | 9.2 | 25.4 | 0.2 | 0 | 42 |
| 3 | 10430 | C | 0 | 7.6 | 27.3 | 0.1 | 0 | 33 |
| 3 | 10430 | D | 4 | 34.9 | 8.6 | 10.0 | 7 | 38 |
| 3 | 10430 | E | 0 | 3.4 | 6.5 | 0.2 | 10 | 44 |
| 3 | 10430 | F | 0 | 2.2 | 4.6 | 0.1 | 11 | 49 |
| 3 | 10430 | G | 1 | 12.5 | 9.0 | 1.7 | 9 | 46 |
| 3 | 10430 | H | 0 | 0.7 | 15.4 | 0.0 | 0 | 35 |
| 3 | 10440 | A | 0 | 5.1 | 23.1 | 0.0 | 0 | 30 |
| 3 | 10440 | B | 1 | 25.7 | 22.8 | 1.6 | 7 | 32 |
| 3 | 10440 | C | 1 | 14.5 | 12.3 | 1.4 | 18 | 31 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 10440 | D | 0 | 1.9 | 13.9 | 0.0 | 0 | 34 |
| 3 | 10440 | E | 5 | 79.1 | 14.2 | 19.2 | 4 | 31 |
| 3 | 10440 | F | 0 | 2.2 | 9.5 | 0.0 | 8 | 29 |
| 3 | 10440 | G | 0 | 2.2 | 12.7 | 0.0 | 0 | 34 |
| 3 | 10440 | H | 0 | 6.5 | 18.9 | 0.1 | 0 | 34 |
| 3 | 10440 | J | 0 | 5.2 | 17.8 | 0.1 | 0 | 39 |
| 3 | 10440 | K | 0 | 7.9 | 18.3 | 0.2 | 8 | 27 |
| 3 | 10452 | A | 0 | 6.7 | 7.1 | 0.7 | 0 | 61 |
| 3 | 10452 | B | 0 | 4.6 | 10.0 | 0.2 | 0 | 47 |
| 3 | 10452 | C | 0 | 5.8 | 15.0 | 0.2 | 0 | 41 |
| 3 | 10452 | D | 0 | 6.3 | 15.7 | 0.2 | 0 | 41 |
| 3 | 10452 | E | 0 | 3.6 | 14.7 | 0.0 | 0 | 35 |
| 3 | 10452 | F | 0 | 2.6 | 9.9 | 0.0 | 4 | 34 |
| 3 | 10452 | G | 4 | 58.8 | 12.1 | 14.8 | 2 | 36 |
| 3 | 10452 | H | 0 | 4.2 | 7.8 | 0.2 | 15 | 36 |
| 3 | 10452 | J | 1 | 10.7 | 7.6 | 1.6 | 27 | 31 |
| 3 | 10452 | K | 1 | 11.2 | 8.9 | 1.4 | 19 | 36 |
| 3 | 10452 | M | 1 | 14.5 | 12.3 | 1.4 | 13 | 36 |
| 3 | 10452 | N | 0 | 11.0 | 23.3 | 0.3 | 0 | 33 |
| 3 | 10460 | A | 0 | 13.6 | 25.1 | 0.4 | 3 | 31 |
| 3 | 10460 | B | 0 | 2.9 | 8.1 | 0.1 | 16 | 29 |
| 3 | 10460 | C | 1 | 14.1 | 12.1 | 1.4 | 12 | 37 |
| 3 | 10460 | D | 1 | 15.9 | 11.8 | 1.8 | 10 | 40 |
| 3 | 10460 | E | 1 | 5.3 | 4.1 | 1.1 | 31 | 41 |
| 3 | 10460 | F | 1 | 16.3 | 11.8 | 1.8 | 10 | 40 |
| 3 | 10460 | G | 3 | 47.1 | 16.7 | 6.8 | 3 | 36 |
| 3 | 10460 | H | 0 | 4.5 | 19.0 | 0.0 | 0 | 35 |
| 3 | 10460 | J | 0 | 7.6 | 20.0 | 0.2 | 0 | 35 |
| 3 | 10460 | K | 0 | 6.3 | 18.5 | 0.1 | 0 | 38 |
| 3 | 10460 | M | 0 | 5.6 | 30.9 | 0.0 | 0 | 32 |
| 3 | 10460 | N | 0 | 4.1 | 19.8 | 0.0 | 0 | 31 |
| 3 | 10470 | A | 0 | 3.1 | 27.3 | 0.0 | 0 | 34 |
| 3 | 10470 | B | 0 | 3.7 | 28.1 | 0.0 | 0 | 33 |
| 3 | 10470 | C | 0 | 7.1 | 29.1 | 0.1 | 0 | 36 |
| 3 | 10470 | D | 0 | 6.3 | 23.8 | 0.1 | 0 | 42 |
| 3 | 10470 | E | 0 | 4.2 | 16.0 | 0.1 | 0 | 45 |
| 3 | 10470 | F | 0 | 2.8 | 20.0 | 0.0 | 0 | 34 |
| 3 | 10470 | G | 0 | -0.2 | 17.6 | 0.0 | 0 | 33 |
| 3 | 10470 | H | 0 | 3.0 | 7.9 | 0.1 | 10 | 37 |
| 3 | 10470 | J | 3 | 48.2 | 21.3 | 5.1 | 8 | 30 |
| 3 | 10470 | K | 2 | 24.2 | 15.3 | 2.5 | 13 | 32 |
| 3 | 10470 | M | 0 | 1.5 | 4.0 | 0.0 | 20 | 39 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | AMPLITUDE (PPM) QUAD. | CONDUCTOR CTP MHOS | CONDUCTOR DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 10470 | N | 0 | 5.8 | 7.9 | 0.5 | 12 | 42 |
| 3 | 10470 | O | 0 | 1.1 | 6.3 | 0.0 | 0 | 52 |
| 3 | 10470 | P | 0 | 5.3 | 16.4 | 0.1 | 1 | 33 |
| 3 | 10470 | Q | 0 | 0.7 | 7.6 | 0.0 | 0 | 30 |
| 3 | 10470 | R | 0 | 15.6 | 19.3 | 0.9 | 1 | 39 |
| 3 | 10480 | A | 0 | 13.9 | 19.2 | 0.7 | 2 | 37 |
| 3 | 10480 | B | 0 | 4.8 | 8.4 | 0.3 | 20 | 30 |
| 3 | 10480 | C | 0 | 3.7 | 19.7 | 0.0 | 0 | 35 |
| 3 | 10480 | D | 0 | 3.1 | 9.9 | 0.1 | 2 | 38 |
| 3 | 10480 | E | 0 | 9.9 | 11.9 | 0.7 | 7 | 41 |
| 3 | 10480 | F | 0 | 3.1 | 5.2 | 0.2 | 20 | 40 |
| 3 | 10480 | G | 2 | 29.9 | 17.5 | 3.0 | 8 | 35 |
| 3 | 10480 | H | 3 | 55.8 | 28.0 | 4.5 | 5 | 30 |
| 3 | 10480 | J | 0 | 3.7 | 10.9 | 0.1 | 2 | 37 |
| 3 | 10480 | K | 0 | 5.9 | 23.8 | 0.1 | 0 | 34 |
| 3 | 10480 | M | 0 | 4.6 | 21.1 | 0.0 | 0 | 33 |
| 3 | 10480 | N | 0 | 5.4 | 20.7 | 0.1 | 0 | 37 |
| 3 | 10480 | O | 0 | 7.4 | 34.3 | 0.1 | 0 | 30 |
| 3 | 10480 | P | 0 | 7.0 | 37.6 | 0.0 | 0 | 36 |
| 3 | 10480 | Q | 0 | 8.2 | 37.8 | 0.1 | 0 | 31 |
| 3 | 10480 | R | 0 | 10.8 | 44.0 | 0.1 | 0 | 30 |
| 3 | 10480 | S | 0 | 8.5 | 48.9 | 0.0 | 0 | 27 |
| 3 | 10480 | T | 0 | 7.6 | 43.3 | 0.0 | 0 | 26 |
| 3 | 10490 | A | 0 | 6.8 | 17.2 | 0.2 | 0 | 46 |
| 3 | 10490 | B | 0 | 6.7 | 24.4 | 0.1 | 0 | 34 |
| 3 | 10490 | C | 0 | 8.3 | 46.5 | 0.0 | 0 | 27 |
| 3 | 10490 | D | 0 | 9.9 | 41.3 | 0.1 | 0 | 30 |
| 3 | 10490 | E | 0 | 8.9 | 36.5 | 0.1 | 0 | 31 |
| 3 | 10490 | F | 0 | 8.8 | 36.8 | 0.1 | 0 | 34 |
| 3 | 10490 | G | 0 | 7.0 | 30.2 | 0.1 | 0 | 32 |
| 3 | 10490 | H | 0 | 7.5 | 18.1 | 0.2 | 0 | 35 |
| 3 | 10490 | J | 0 | 2.6 | 13.4 | 0.0 | 0 | 38 |
| 3 | 10490 | K | 0 | 9.7 | 17.7 | 0.4 | 4 | 34 |
| 3 | 10490 | M | 1 | 13.0 | 9.6 | 1.6 | 23 | 31 |
| 3 | 10490 | N | 1 | 30.4 | 31.0 | 1.4 | 7 | 28 |
| 3 | 10490 | O | 1 | 23.6 | 18.3 | 1.9 | 8 | 34 |
| 3 | 10490 | P | 1 | 20.6 | 21.9 | 1.2 | 6 | 34 |
| 3 | 10490 | Q | 0 | 12.7 | 17.3 | 0.7 | 10 | 32 |
| 3 | 10490 | R | 0 | 2.7 | 7.6 | 0.1 | 11 | 35 |
| 3 | 10490 | S | 0 | 2.3 | 10.7 | 0.0 | 0 | 41 |
| 3 | 10490 | T | 0 | 2.8 | 13.9 | 0.0 | 0 | 36 |
| 3 | 10490 | U | 1 | 14.5 | 13.3 | 1.3 | 15 | 33 |
| 3 | 10500 | A | 0 | 12.2 | 21.9 | 0.4 | 0 | 36 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 10500 | B | 0 | 6.3 | 22.4 | 0.1 | 0 | 37 |
| 3 | 10500 | C | 0 | 3.3 | 18.9 | 0.0 | 0 | 32 |
| 3 | 10500 | D | 0 | 13.5 | 18.1 | 0.7 | 11 | 30 |
| 3 | 10500 | E | 0 | 17.8 | 21.8 | 0.9 | 10 | 29 |
| 3 | 10500 | F | 0 | 21.5 | 27.7 | 0.9 | 3 | 32 |
| 3 | 10500 | G | 1 | 26.5 | 26.2 | 1.4 | 5 | 32 |
| 3 | 10500 | H | 2 | 41.3 | 32.8 | 2.2 | 6 | 28 |
| 3 | 10500 | J | 0 | 5.9 | 13.4 | 0.2 | 11 | 29 |
| 3 | 10500 | K | 0 | 25.1 | 34.1 | 0.9 | 8 | 24 |
| 3 | 10500 | M | 0 | 13.5 | 20.9 | 0.6 | 15 | 23 |
| 3 | 10500 | N | 0 | 5.2 | 36.8 | 0.0 | 0 | 30 |
| 3 | 10500 | O | 0 | 5.1 | 41.8 | 0.0 | 0 | 30 |
| 3 | 10510 | A | 0 | 6.9 | 15.3 | 0.2 | 4 | 35 |
| 3 | 10510 | B | 0 | 4.2 | 19.7 | 0.0 | 0 | 34 |
| 3 | 10510 | C | 0 | 3.3 | 12.2 | 0.0 | 0 | 40 |
| 3 | 10510 | D | 0 | 10.9 | 17.1 | 0.5 | 5 | 35 |
| 3 | 10510 | E | 1 | 16.1 | 15.5 | 1.2 | 10 | 35 |
| 3 | 10510 | F | 0 | 5.9 | 9.4 | 0.4 | 13 | 37 |
| 3 | 10510 | G | 1 | 16.5 | 17.8 | 1.1 | 8 | 34 |
| 3 | 10510 | H | 0 | 7.6 | 16.3 | 0.3 | 5 | 33 |
| 3 | 10510 | J | 0 | 7.8 | 25.8 | 0.1 | 0 | 33 |
| 3 | 10510 | K | 0 | 14.5 | 28.9 | 0.4 | 0 | 33 |
| 3 | 10510 | M | 0 | 2.6 | 11.3 | 0.0 | 0 | 40 |
| 3 | 10510 | N | 1 | 14.2 | 9.7 | 1.9 | 27 | 26 |
| 3 | 10510 | O | 0 | 4.8 | 19.9 | 0.0 | 0 | 38 |
| 3 | 10510 | P | 0 | 7.4 | 35.4 | 0.1 | 0 | 31 |
| 3 | 10510 | Q | 0 | 7.5 | 35.0 | 0.1 | 0 | 31 |
| 3 | 10510 | R | 0 | 9.0 | 44.6 | 0.1 | 0 | 30 |
| 3 | 10510 | S | 0 | 8.8 | 36.4 | 0.1 | 0 | 33 |
| 4 | 10520 | A | 0 | 3.1 | 15.7 | 0.0 | 0 | 48 |
| 4 | 10520 | B | 0 | 4.9 | 19.7 | 0.1 | 0 | 40 |
| 4 | 10520 | C | 0 | 5.6 | 31.8 | 0.0 | 0 | 32 |
| 4 | 10520 | D | 0 | 8.3 | 38.2 | 0.1 | 0 | 33 |
| 4 | 10520 | E | 0 | 7.9 | 24.7 | 0.1 | 0 | 39 |
| 4 | 10520 | F | 0 | 5.5 | 17.8 | 0.1 | 0 | 39 |
| 4 | 10520 | G | 1 | 12.7 | 8.4 | 1.9 | 21 | 35 |
| 4 | 10520 | H | 0 | 7.3 | 20.6 | 0.2 | 0 | 39 |
| 4 | 10520 | J | 0 | 1.5 | 4.4 | 0.0 | 22 | 33 |
| 4 | 10520 | K | 0 | 6.7 | 8.6 | 0.6 | 17 | 36 |
| 4 | 10520 | M | 1 | 11.7 | 9.1 | 1.5 | 21 | 33 |
| 4 | 10520 | N | 0 | 7.2 | 8.9 | 0.6 | 15 | 38 |
| 4 | 10520 | O | 0 | 2.5 | 7.7 | 0.1 | 5 | 39 |
| 4 | 10520 | P | 0 | 3.4 | 12.2 | 0.0 | 1 | 35 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | AMPLITUDE (PPM) QUAD. | CONDUCTOR CTP MHOS | CONDUCTOR DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 4 | 10520 | Q | 0 | 4.1 | 14.7 | 0.1 | 0 | 34 |
| 4 | 10530 | A | 0 | 3.9 | 17.9 | 0.0 | 1 | 28 |
| 4 | 10530 | B | 0 | 10.4 | 30.8 | 0.2 | 0 | 34 |
| 4 | 10530 | C | 0 | 1.5 | 17.3 | 0.0 | 0 | 34 |
| 4 | 10530 | D | 0 | 6.7 | 20.9 | 0.1 | 0 | 34 |
| 4 | 10530 | E | 0 | 13.7 | 22.9 | 0.5 | 0 | 37 |
| 4 | 10530 | F | 0 | 1.6 | 21.7 | 0.0 | 0 | 34 |
| 4 | 10530 | G | 0 | 14.5 | 17.9 | 0.8 | 5 | 36 |
| 4 | 10530 | H | 0 | 5.1 | 28.2 | 0.0 | 0 | 36 |
| 4 | 10530 | J | 0 | 5.0 | 28.8 | 0.0 | 0 | 38 |
| 4 | 10530 | K | 0 | 11.6 | 54.9 | 0.1 | 0 | 29 |
| 4 | 10530 | M | 0 | 9.1 | 55.6 | 0.0 | 0 | 28 |
| 4 | 10530 | N | 0 | 5.9 | 42.0 | 0.0 | 0 | 29 |
| 4 | 10541 | A | 0 | 4.0 | 11.4 | 0.1 | 1 | 38 |
| 4 | 10541 | B | 1 | 10.7 | 10.0 | 1.1 | 13 | 40 |
| 4 | 10541 | C | 0 | 3.5 | 7.7 | 0.2 | 14 | 35 |
| 4 | 10541 | D | 0 | 7.0 | 14.4 | 0.3 | 7 | 33 |
| 4 | 10541 | E | 0 | 12.5 | 16.0 | 0.7 | 4 | 39 |
| 4 | 10541 | F | 0 | 8.1 | 14.6 | 0.4 | 0 | 41 |
| 4 | 10541 | G | 0 | 4.4 | 9.9 | 0.2 | 11 | 34 |
| 4 | 10541 | H | 0 | 4.7 | 24.3 | 0.0 | 0 | 32 |
| 4 | 10541 | J | 1 | 14.1 | 13.5 | 1.2 | 1 | 46 |
| 4 | 10541 | K | 0 | 5.3 | 22.9 | 0.0 | 0 | 41 |
| 4 | 10541 | M | 0 | 3.2 | 24.7 | 0.0 | 0 | 34 |
| 4 | 10541 | N | 0 | 9.3 | 34.6 | 0.1 | 0 | 37 |
| 4 | 10541 | O | 0 | 8.5 | 35.6 | 0.1 | 0 | 36 |
| 5 | 10550 | A | 0 | 9.9 | 32.9 | 0.1 | 0 | 39 |
| 5 | 10550 | B | 0 | 9.7 | 30.7 | 0.2 | 0 | 40 |
| 5 | 10550 | C | 0 | 6.0 | 14.8 | 0.2 | 0 | 39 |
| 5 | 10550 | D | 0 | 9.4 | 14.3 | 0.5 | 11 | 32 |
| 5 | 10550 | E | 2 | 23.3 | 16.1 | 2.2 | 3 | 41 |
| 5 | 10550 | F | 0 | 6.2 | 23.9 | 0.1 | 0 | 36 |
| 5 | 10550 | G | 0 | 10.7 | 20.6 | 0.4 | 3 | 33 |
| 5 | 10550 | H | 0 | 1.0 | 10.1 | 0.0 | 0 | 40 |
| 5 | 10550 | J | 0 | 7.0 | 19.4 | 0.2 | 0 | 35 |
| 5 | 10560 | A | 0 | 6.8 | 19.2 | 0.2 | 0 | 42 |
| 5 | 10560 | B | 0 | 4.8 | 11.2 | 0.2 | 2 | 40 |
| 5 | 10560 | C | 0 | 7.3 | 20.5 | 0.2 | 0 | 37 |
| 5 | 10560 | D | 0 | 16.5 | 37.2 | 0.4 | 0 | 30 |
| 5 | 10560 | E | 0 | 11.8 | 21.5 | 0.4 | 4 | 32 |
| 5 | 10560 | F | 0 | 19.0 | 28.5 | 0.7 | 3 | 31 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | AMPLITUDE (PPM) QUAD. | CONDUCTOR CTP MHOS | CONDUCTOR DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 10560 | G | 0 | 6.9 | 27.3 | 0.1 | 0 | 28 |
| 5 | 10560 | H | 0 | 7.4 | 26.6 | 0.1 | 0 | 31 |
| 5 | 10560 | J | 0 | 6.3 | 21.2 | 0.1 | 0 | 34 |
| 5 | 10560 | K | 0 | 13.2 | 54.8 | 0.1 | 0 | 31 |
| 5 | 10560 | M | 0 | 15.4 | 60.5 | 0.1 | 0 | 30 |
| 5 | 10571 | A | 2 | 8.4 | 4.3 | 2.3 | 25 | 43 |
| 5 | 10571 | B | 2 | 8.2 | 4.0 | 2.5 | 31 | 39 |
| 5 | 10571 | C | 0 | 4.6 | 1.7 | 3.0 | 53 | 36 |
| 5 | 10571 | D | 0 | 11.4 | 20.3 | 0.4 | 4 | 32 |
| 5 | 10571 | E | 0 | 11.6 | 13.1 | 0.9 | 12 | 34 |
| 5 | 10571 | F | 0 | 9.7 | 13.7 | 0.6 | 11 | 33 |
| 5 | 10571 | G | 0 | 5.0 | 12.9 | 0.1 | 8 | 31 |
| 5 | 10571 | H | 0 | 3.5 | 12.4 | 0.1 | 0 | 36 |
| 5 | 10571 | J | 0 | 7.2 | 18.4 | 0.2 | 2 | 33 |
| 5 | 10571 | K | 0 | 7.5 | 35.0 | 0.1 | 0 | 34 |
| 5 | 10571 | M | 0 | 6.3 | 33.0 | 0.0 | 0 | 34 |
| 5 | 10580 | A | 0 | 9.6 | 42.4 | 0.1 | 0 | 34 |
| 5 | 10580 | B | 0 | 8.0 | 39.4 | 0.1 | 0 | 31 |
| 5 | 10580 | C | 0 | 10.8 | 34.9 | 0.2 | 0 | 33 |
| 5 | 10580 | D | 0 | 8.9 | 23.6 | 0.2 | 0 | 32 |
| 5 | 10580 | E | 0 | 13.0 | 24.5 | 0.4 | 2 | 32 |
| 5 | 10580 | F | 0 | 6.9 | 27.2 | 0.1 | 0 | 36 |
| 5 | 10580 | G | 0 | 4.8 | 11.9 | 0.2 | 9 | 32 |
| 5 | 10580 | H | 0 | 2.3 | 18.4 | 0.0 | 0 | 34 |
| 5 | 10580 | J | 0 | 8.3 | 27.3 | 0.1 | 0 | 31 |
| 5 | 10580 | K | 0 | 10.0 | 15.3 | 0.5 | 6 | 36 |
| 5 | 10590 | A | 0 | 5.9 | 21.3 | 0.1 | 0 | 36 |
| 5 | 10590 | B | 0 | 3.6 | 23.9 | 0.0 | 0 | 37 |
| 5 | 10590 | C | 2 | 44.1 | 36.5 | 2.2 | 2 | 32 |
| 5 | 10590 | D | 0 | 3.2 | 22.1 | 0.0 | 0 | 39 |
| 5 | 10590 | E | 0 | 4.3 | 27.4 | 0.0 | 0 | 32 |
| 5 | 10590 | F | 0 | 13.8 | 26.2 | 0.4 | 1 | 32 |
| 5 | 10590 | G | 0 | 5.0 | 16.0 | 0.1 | 0 | 33 |
| 5 | 10590 | H | 0 | 4.7 | 24.3 | 0.0 | 0 | 35 |
| 5 | 10590 | J | 0 | 6.1 | 34.0 | 0.0 | 0 | 39 |
| 5 | 10590 | K | 0 | 3.7 | 30.7 | 0.0 | 0 | 40 |
| 5 | 10600 | A | 0 | 7.0 | 39.7 | 0.0 | 0 | 34 |
| 5 | 10600 | B | 0 | 10.9 | 21.4 | 0.4 | 10 | 25 |
| 5 | 10600 | C | 0 | 3.4 | 31.0 | 0.0 | 0 | 37 |
| 5 | 10600 | D | 0 | 13.3 | 17.2 | 0.7 | 2 | 39 |
| 5 | 10600 | E | 0 | 5.0 | 18.7 | 0.1 | 0 | 37 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 10600 | F | 0 | 7.0 | 16.8 | 0.2 | 0 | 39 |
| 5 | 10610 | A | 0 | 3.7 | 10.9 | 0.1 | 5 | 35 |
| 5 | 10610 | B | 0 | 2.3 | 3.3 | 0.3 | 29 | 44 |
| 5 | 10610 | C | 0 | 3.9 | 15.3 | 0.0 | 0 | 35 |
| 5 | 10610 | D | 0 | 9.2 | 14.4 | 0.5 | 7 | 36 |
| 5 | 10610 | E | 1 | 11.4 | 11.6 | 1.0 | 10 | 39 |
| 5 | 10610 | F | 0 | 3.1 | 10.0 | 0.1 | 6 | 34 |
| 5 | 10622 | A | 0 | 2.8 | 11.3 | 0.0 | 2 | 34 |
| 5 | 10622 | B | 0 | 4.4 | 4.8 | 0.6 | 27 | 40 |
| 5 | 10622 | C | 0 | 4.4 | 17.2 | 0.0 | 0 | 33 |
| 5 | 10622 | D | 0 | 3.6 | 8.9 | 0.1 | 16 | 29 |
| 5 | 10622 | E | 0 | 5.6 | 22.6 | 0.1 | 0 | 31 |
| 5 | 10622 | F | 0 | 6.6 | 24.9 | 0.1 | 0 | 31 |
| 5 | 10622 | G | 0 | 12.7 | 14.3 | 0.9 | 9 | 36 |
| 5 | 10630 | A | 0 | 6.7 | 15.4 | 0.2 | 2 | 36 |
| 5 | 10630 | B | 0 | 13.0 | 24.1 | 0.4 | 3 | 31 |
| 5 | 10630 | C | 0 | 3.8 | 15.3 | 0.0 | 0 | 32 |
| 5 | 10630 | D | 0 | 4.3 | 5.8 | 0.4 | 28 | 33 |
| 5 | 10630 | E | 1 | 9.5 | 9.3 | 1.0 | 15 | 39 |
| 5 | 10630 | F | 0 | 2.3 | 7.6 | 0.0 | 8 | 35 |
| 5 | 10630 | G | 2 | 15.6 | 7.0 | 3.5 | 20 | 37 |
| 5 | 10630 | H | 1 | 8.2 | 7.2 | 1.1 | 29 | 30 |
| 5 | 10640 | A | 0 | 8.9 | 12.9 | 0.5 | 4 | 41 |
| 5 | 10640 | B | 0 | 3.0 | 25.4 | 0.0 | 0 | 32 |
| 5 | 10640 | C | 0 | 3.0 | 25.9 | 0.0 | 0 | 31 |
| 5 | 10640 | D | 1 | 15.0 | 10.6 | 1.8 | 7 | 44 |
| 5 | 10640 | E | 1 | 14.2 | 10.8 | 1.6 | 7 | 44 |
| 5 | 10640 | F | 0 | 5.4 | 17.0 | 0.1 | 0 | 42 |
| 5 | 10640 | G | 0 | 3.2 | 20.0 | 0.0 | 0 | 38 |
| 5 | 10640 | H | 0 | 8.7 | 16.6 | 0.3 | 5 | 33 |
| 5 | 10640 | J | 0 | 5.9 | 11.9 | 0.3 | 0 | 45 |
| 5 | 10650 | A | 0 | 7.0 | 11.4 | 0.4 | 0 | 56 |
| 5 | 10650 | B | 0 | 4.6 | 17.5 | 0.1 | 0 | 35 |
| 5 | 10650 | C | 0 | 5.2 | 14.9 | 0.1 | 0 | 42 |
| 5 | 10650 | D | 3 | 33.6 | 14.2 | 4.8 | 16 | 27 |
| 5 | 10650 | E | 1 | 14.0 | 12.6 | 1.3 | 8 | 40 |
| 5 | 10650 | F | 0 | 3.6 | 24.2 | 0.0 | 0 | 31 |
| 5 | 10650 | G | 0 | 4.8 | 36.4 | 0.0 | 0 | 27 |
| 5 | 10660 | A | 0 | 3.8 | 12.3 | 0.1 | 0 | 48 |

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.

E.M. ANOMALY LIST - SANGOLD PROJECT

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 10660 | B | 0 | 3.2 | 22.6 | 0.0 | 0 | 35 |
| 5 | 10660 | C | 1 | 16.0 | 12.8 | 1.6 | 3 | 46 |
| 5 | 10660 | D | 3 | 27.5 | 12.8 | 4.0 | 4 | 42 |
| 5 | 10660 | E | 0 | 5.4 | 14.3 | 0.1 | 2 | 36 |
| 5 | 10670 | A | 0 | 4.4 | 20.0 | 0.0 | 0 | 38 |
| 5 | 10670 | B | 0 | 4.4 | 13.5 | 0.1 | 0 | 41 |
| 5 | 10670 | C | 3 | 25.5 | 10.7 | 4.5 | 2 | 46 |
| 5 | 10670 | D | 1 | 9.4 | 6.9 | 1.5 | 9 | 51 |
| 5 | 10680 | A | 0 | 3.1 | 30.1 | 0.0 | 0 | 29 |
| 5 | 10680 | B | 1 | 7.6 | 6.1 | 1.2 | 10 | 53 |
| 5 | 10680 | C | 1 | 11.3 | 10.2 | 1.2 | 14 | 39 |
| 5 | 10680 | D | 0 | 5.0 | 6.0 | 0.5 | 34 | 27 |
| 5 | 10680 | E | 0 | 2.0 | 5.5 | 0.1 | 20 | 31 |
| 5 | 10691 | A | 0 | 8.7 | 10.9 | 0.7 | 3 | 46 |
| 5 | 10691 | B | 0 | 1.1 | 8.5 | 0.0 | 0 | 39 |
| 5 | 10700 | A | 1 | 14.9 | 13.6 | 1.3 | 11 | 36 |
| 5 | 10700 | B | 1 | 20.0 | 18.9 | 1.4 | 1 | 40 |
| 5 | 10710 | A | 2 | 30.9 | 18.7 | 2.9 | 2 | 40 |
| 5 | 10710 | B | 2 | 40.0 | 24.9 | 3.1 | 0 | 39 |
| 5 | 10710 | C | 0 | 8.8 | 14.6 | 0.4 | 15 | 27 |
| 5 | 10710 | D | 0 | 4.2 | 8.6 | 0.2 | 21 | 27 |
| 5 | 10710 | E | 0 | 0.7 | 7.6 | 0.0 | 0 | 35 |
| 5 | 10710 | F | 0 | 5.8 | 14.7 | 0.2 | 3 | 35 |

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.

## APPENDIX III

## CERTIFICATE OF QUALIFICATIONS

I, GEORGE PODOLSKY, certify that: -

1. I am registered as a Professional Engineer in the Province of Ontario and work as a Professional Geophysicist.

2. I reside at 172 Dunwoody Drive in the town of Oakville, Ontario.

3. I hold a B. Sc. in Engineering Physics from Queen's University, having graduated in 1954.

4. I have been continuously engaged in both professional and managerial roles in the minerals industry in Canada and abroad for the past thirty two years.

5. I have been an active member of the Society of Exploration Geophysicists since 1960 and hold memberships on other professional societies involved in the minerals extraction and exploration industry.

6. The accompanying report was prepared from information published by government agencies, materials supplied by Gail Resources and from a review of the proprietary airborne geophysical survey flown by Aerodat Limited for Gail Resources. I have not personally visited the property but have worked extensively in the immediate area.

7. I have no interest, direct or indirect, in the property described nor do I hold securities in Gail Resources.

8. I hereby consent to the use of this report in a Statement of Material Facts of the Company and for the preparation of a prospectus for submission to the Ontario Securities Commission and/or other regulatory authorities.

Signed,

George Podolsky, P. Eng.

GEOPOD ASSOCIATES INC.

Oakville, Ontario

July 7, 1987

REGISTERED PROFESSIONAL ENGINEER
G. PODOLSKY
PROVINCE OF ONTARIO

Ministry of Northern Development and Mines
Ontario

# Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

98/87

2.10370

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered

42B01NW0038 2.10370 KEITH

900

Type of Survey(s):

Claim Holder(s): GAIL RESOURCES INC. – Marshall

Address: Box 248, FORT ERIE, ONT. L2A 5N9

Survey Company: AERODAT LIMITED,

Date of Survey (from & to): Apr 17 87 – May 5 87

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): AERODAT LIMITED, 3883 NASHUA DRIVE, MISSISSAUGA, ONT. L4V 1R3

## Credits Requested per Each Claim in Columns at right

| Special Provisions | | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | Geophysical | |
| | - Electromagnetic | |
| | - Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Man Days | | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | Geophysical | |
| | - Electromagnetic | |
| | - Magnetometer | |
| | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | 40 |
| | Magnetometer | 40 |
| | Radiometric | |

## Mining Claims Traversed (List in numerical sequence)

LIST OF CLAIMS NUMBERED ON SEPERATE SHEET ENCLOSED WITH THIS REPORT.

RECEIVED JUN 1987 MINING LANDS SECTION

RECORDED MAY 12 1987

## Expenditures (excludes power stripping)

PORCUPINE MINING DIVISION RECEIVED MAY 12 1987

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

| Total Expenditures | | | | Total Days Credits |
|---|---|---|---|---|
| $ | ÷ | 15 | = | |

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 205

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded: 16,400 | Date Recorded: May 12/87 | Mining Recorder: [signature] |
| | Date Approved as Recorded: 1987 10 20 | Branch Director: [signature] |

Date: May 12/87 — Recorded Holder or Agent (Signature): G. Sanford

## Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: Gerald Sanford Box 211 Foleyet Ont. Gail Res

Date Certified: May 12/87 — Certified by (Signature): G. Sanford

1362 (85/12)

CLA[illegible] TO BE SUBMITTED WITH REPORT OF WORK FORM No. 1362

CLAIM No.

| | | | | | |
|---|---|---|---|---|---|
| P-654248 | P-752141 | P-833197 | P-872160 | P-900433 | P-923401 |
| P-654249 | P-752142 | P-867747 | P-872161 | P-900434 | P-923402 |
| P-654250 | P-752143 | P-867748 | P-872162 | P-900435 | P-923403 |
| P-654251 | P-752144 | P-867749 | P-872163 | P-900436 | P-923404 |
| P-654252 | P-752145 | P-867750 | P-872164 | P-900437 | P-923405 |
| P-654253 | P-752146 | P-871697 | P-872165 | P-900438 | P-926003 |
| P-660601 | P-752147 | P-871698 | P-872306 | P-900439 | P-926004 |
| P-660602 | P-752148 | P-871699 | P-872307 | P-900440 | P-926005 |
| P-661517 | P-752149 | P-871700 | P-872308 | P-900441 | P-926006 |
| P-661518 | P-752150 | P-871701 | P-872309 | P-900442 | P-926007 |
| P-683688 | P-752185 | P-871702 | P-872310 | P-900443 | P-926008 |
| P-683689 | P-752186 | P-871703 | P-872311 | P-900444 | P-926009 |
| P-683690 | P-752600 | P-871704 | P-872312 | P-900445 | P-926010 |
| P-688519 | P-752601 | P-871705 | P-872313 | P-916887 | P-926011 |
| P-688520 | P-752602 | P-871706 | P-872314 | P-916888 | P-926012 |
| P-688521 | P-752603 | P-871707 | P-872315 | P-916889 | P-926013 |
| P-688522 | P-753418 | P-871708 | P-872316 | P-916890 | P-926014 |
| P-688523 | P-753420 | P-871709 | P-872317 | P-921784 | P-926015 |
| P-723987 | P-753421 | P-871710 | P-900417 | P-921785 | P-926016 |
| P-723988 | P-753422 | P-871711 | P-900418 | P-921786 | P-926017 |
| P-723989 | P-758049 | P-872146 | P-900419 | P-921787 | P-926018 |
| P-723990 | P-758050 | P-872147 | P-900420 | P-921788 | P-926019 |
| P-724931 | P-758051 | P-872148 | P-900421 | P-921789 | P-926020 |
| P-724932 | P-758052 | P-872149 | P-900422 | P-921790 | P-926021 |
| P-724933 | P-780865 | P-872150 | P-900423 | P-921791 | P-926022 |
| P-724934 | P-789758 | P-872151 | P-900424 | P-921792 | P-926023 |
| P-742762 | P-806963 | P-872152 | P-900425 | P-921793 | P-926024 |
| P-751878 | P-806964 | P-872153 | P-900426 | P-921794 | P-926025 |
| P-751880 | P-806965 | P-872154 | P-900427 | P-921795 | P-926026 |
| P-751881 | P-806966 | P-872155 | P-900428 | P-921796 | P-926027 |
| P-751882 | P-806967 | P-872156 | P-900429 | P-921797 | P-926029 |
| P-751883 | P-806968 | P-872157 | P-900430 | P-921798 | P-926030 |
| P-752139 | P-807175 | P-872158 | P-900431 | P-921799 | P-930902 |
| P-752140 | P-807306 | P-872159 | P-900432 | P-921800 | P-930903 |
| | | | | | P-930004 |
| (34) | (34) | (34) | (34) | (34) | (35) = 205 |

G-3538

2.10370

## REFERENCE

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|
| | | | S.R.O. | 135263 |
| M.N.R. RES. | | | S.R.O. | 22417 |
| SEC. 36/80 | | 7/2/80 | S.R.O. | 188543 |

SAND AND GRAVEL

- M.T.C. PIT
- M.T.C. PIT 3A-15
- M.T.C. PIT 3A-16
- M.T.C. PIT 1085
- GRAVEL FILE 177587
- M.N.R. PIT 3A-1 (M.O.E. WASTE DISP. SITE)

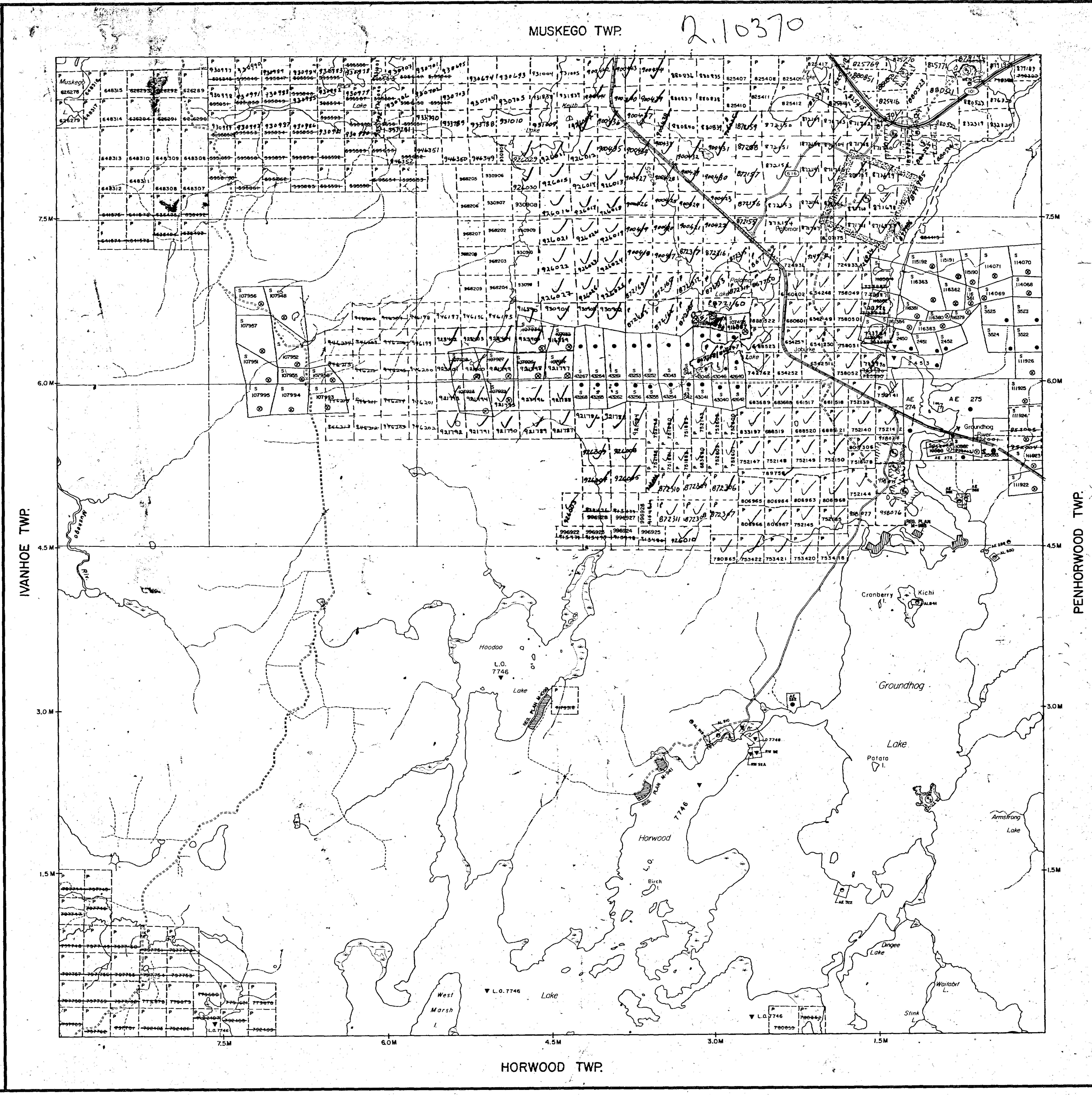
NOTES

SURVEY LINES SHOWN THUS ———— ARE FOR CONTROL ONLY, CLAIMS CLASSIFIED AS BEING IN UNSUBDIVIDED TERRITORY.— March 7, 1947. Surveyor General

FLOODING

Flooded areas on Hoodoo & Horwood Lakes and Groundhog R. to contour elev. 1117' L.O. 7746. File: 75166

PORCUPINE MINING DIVISION RECEIVED SEP 28 1987




## LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " , SURFACE RIGHTS ONLY | ◐ |
| " , MINING RIGHTS ONLY | ◒ |
| LEASE, SURFACE & MINING RIGHTS | ■ |
| " , SURFACE RIGHTS ONLY | ◧ |
| " , MINING RIGHTS ONLY | ⬓ |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | Ⓡ |
| CANCELLED | ⊗ |
| SAND & GRAVEL | Ⓢ |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

# KEITH

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ontario — Ministry of Natural Resources — Land Management Branch

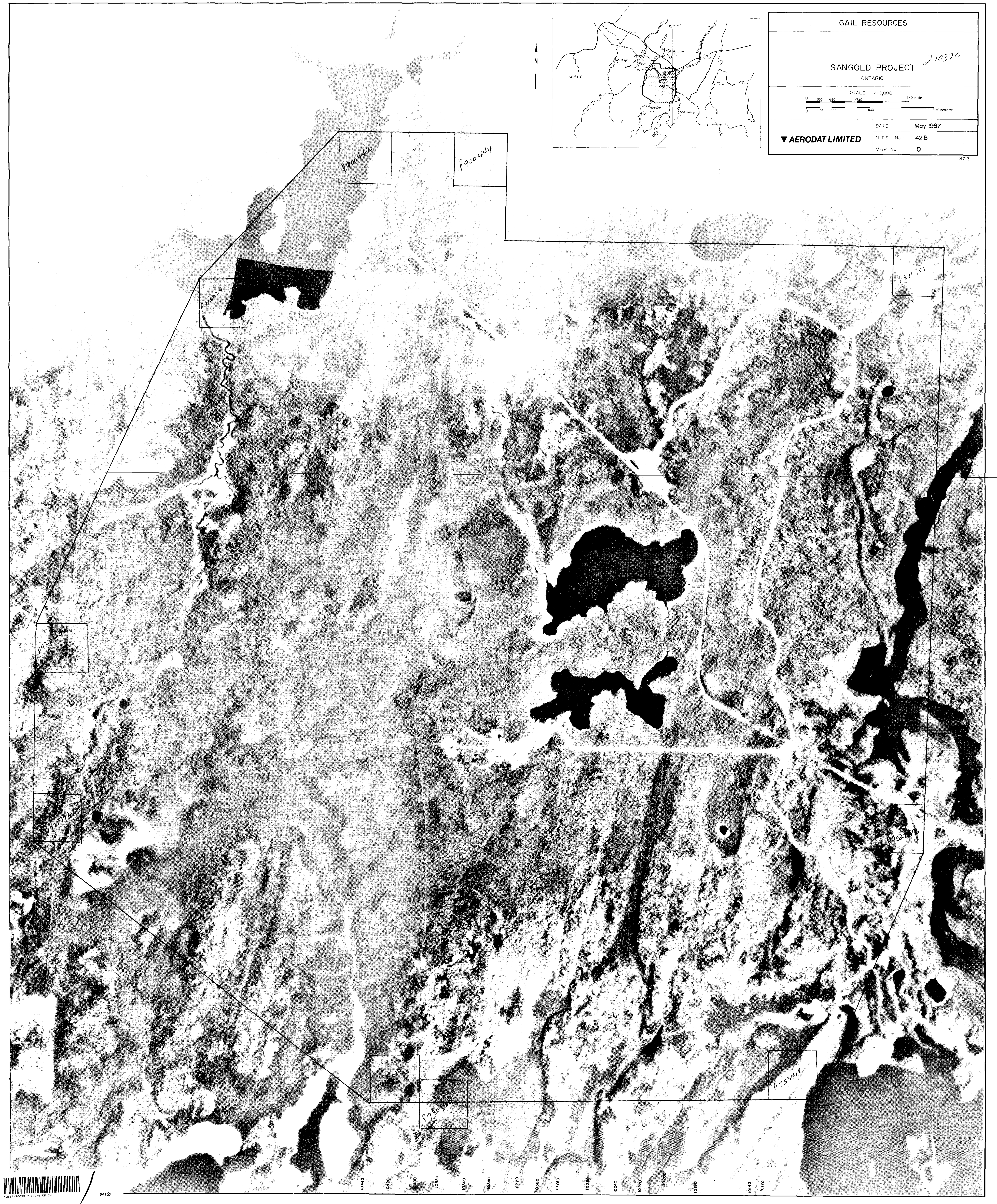
Date APRIL 1985

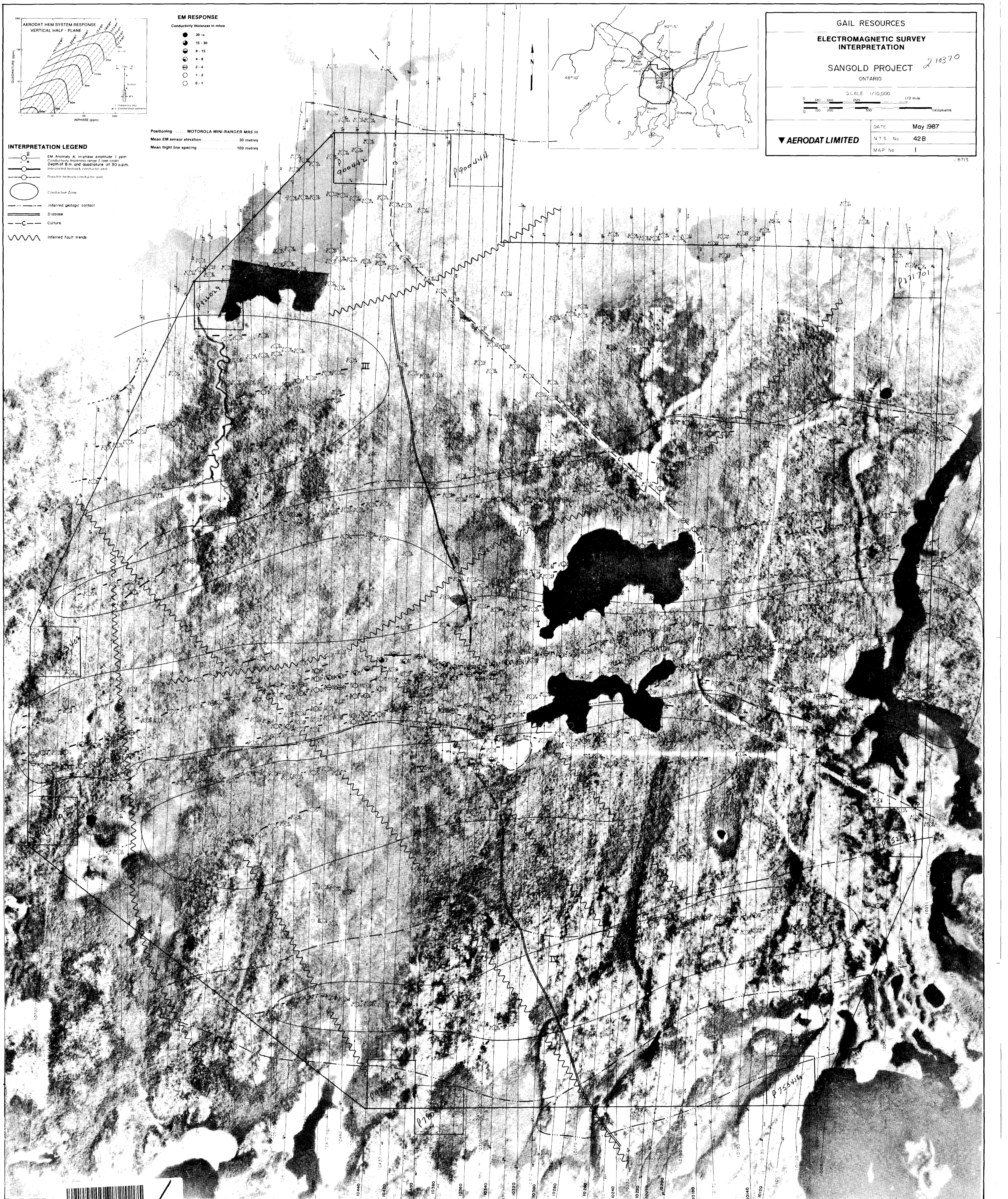
Number G-3238

KEITH TWP.

428B1NW0038 2.10370 KEITH

200


GAIL RESOURCES
SANGOLD PROJECT
ONTARIO
SCALE 1/10,000
0 330 660 1320 1/2 mile
0 100 200 500 1 Kilometre
DATE May 1987
N.T.S. No 42B
MAP No 0
▼ AERODAT LIMITED
J 8713
N
82°15'
48°10'
Muskego L.
Slate Rock L.
Keith L.
Boulder L.
Groundhog R.
101
Muskego R.
Hoodoo L.
Groundhog L.
210



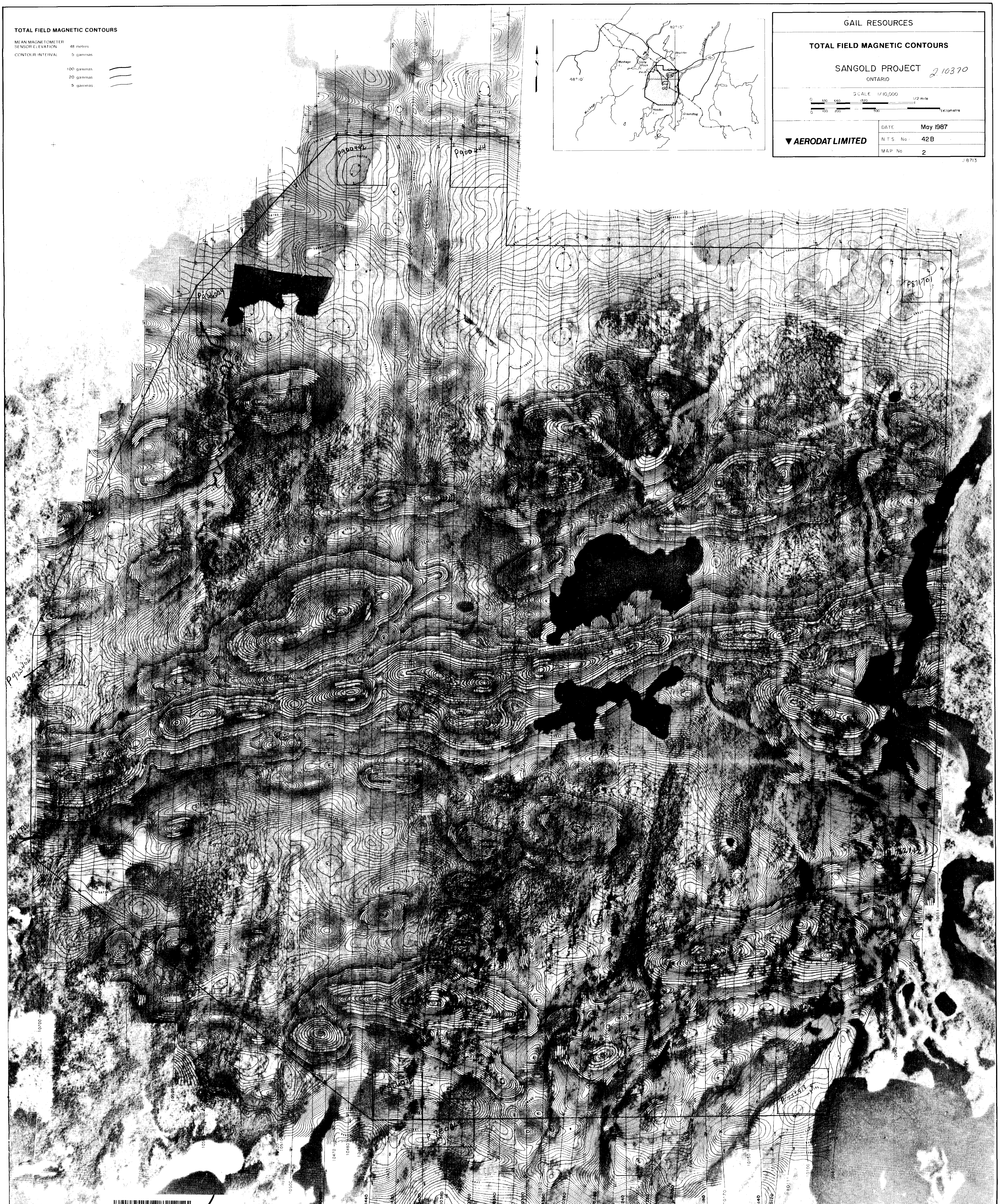
GAIL RESOURCES
ELECTROMAGNETIC SURVEY INTERPRETATION
SANGOLD PROJECT
2 10370
ONTARIO
SCALE 1/10,000
1/2 mile
1 Kilometre
DATE May 1987
N.T.S. No 42B
MAP No 1
▼ AERODAT LIMITED
8713
AERODAT HEM SYSTEM RESPONSE VERTICAL HALF - PLANE
QUADRATURE (ppm)
INPHASE (ppm)
Surface
f - Frequency (Hz)
σ t - Conductance (siemens)
EM RESPONSE
Conductivity thickness in mhos
30 →
15 - 30
8 - 15
4 - 8
2 - 4
1 - 2
0 - 1
Positioning ..... MOTOROLA MINI-RANGER MRS III
Mean EM sensor elevation ..... 30 metres
Mean flight line spacing ..... 100 metres
INTERPRETATION LEGEND
EM Anomaly A, in-phase amplitude 7 ppm
Conductivity thickness range 2 (see code)
Depth of 8 m. and quadrature of 30 p.p.m.
Interpreted bedrock conductor axis
Possible bedrock conductor axis
Conductive Zone
Inferred geologic contact
Diabase
Culture
Inferred fault trends
P900442
P900444
P921029
P871701

**TOTAL FIELD MAGNETIC CONTOURS**

MEAN MAGNETOMETER SENSOR ELEVATION 48 metres

CONTOUR INTERVAL 5 gammas

100 gammas
20 gammas
5 gammas



GAIL RESOURCES

**TOTAL FIELD MAGNETIC CONTOURS**

SANGOLD PROJECT 2.10370

ONTARIO

SCALE 1/10,000

0 330 660 1320 1/2 mile

0 100 200 500 1 Kilometre

▼ **AERODAT LIMITED**

| | |
|---|---|
| DATE | May 1987 |
| N.T.S. No. | 42 B |
| MAP No | 2 |

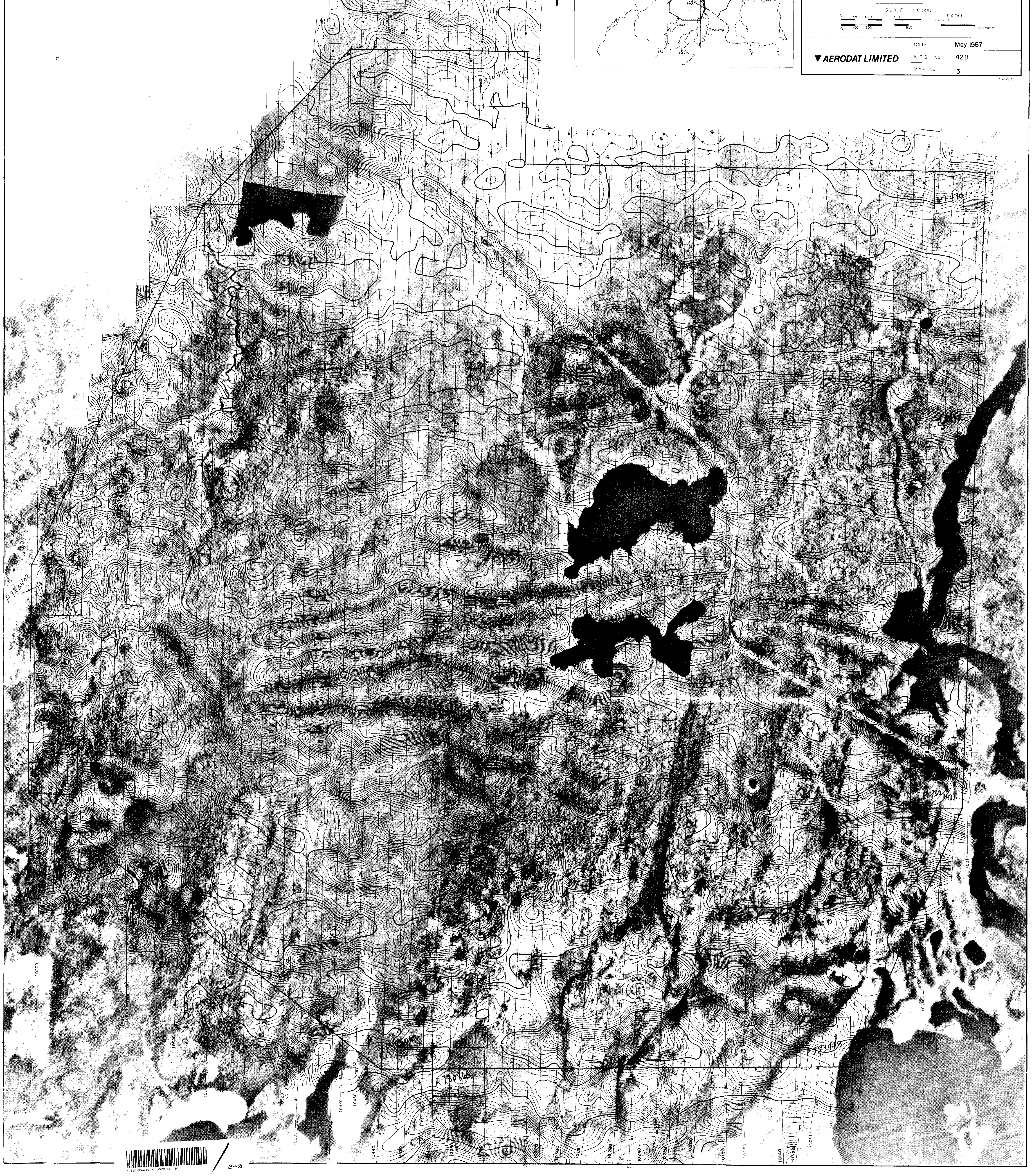
J 8713

230

**VLF-EM TOTAL FIELD CONTOURS**

VLF STATION NAA (Cutler, Maine) 24.0 kHz
MEAN VLF EM
SENSOR ELEVATION 48 metres

CONTOUR INTERVAL
20%
5%
1%



GAIL RESOURCES

**VLF-EM TOTAL FIELD CONTOURS**

SANGOLD PROJECT 210370
ONTARIO

SCALE 1/10,000
0 330 660 1320 1/2 mile
0 100 200 500 1 Kilometre

**▼ AERODAT LIMITED**

| | |
|---|---|
| DATE | May 1987 |
| N.T.S. No. | 42B |
| MAP No. | 3 |

J 8713

240