PATHFINDER RESOURCES LTD.

GEOLOGICAL, GEOCHEMICAL & GEOPHYSICAL REPORT ON THE STARR PROPERTY

093786

Yukon Territory
NTS 105G/5,6,12; 105F/8,9
61°27' North Latitude 131°43' West Longitude

Prepared for

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This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of $ 13,650.

M.B[illegible]

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT ON THE STARR PROPERTY

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1.0 INTRODUCTION

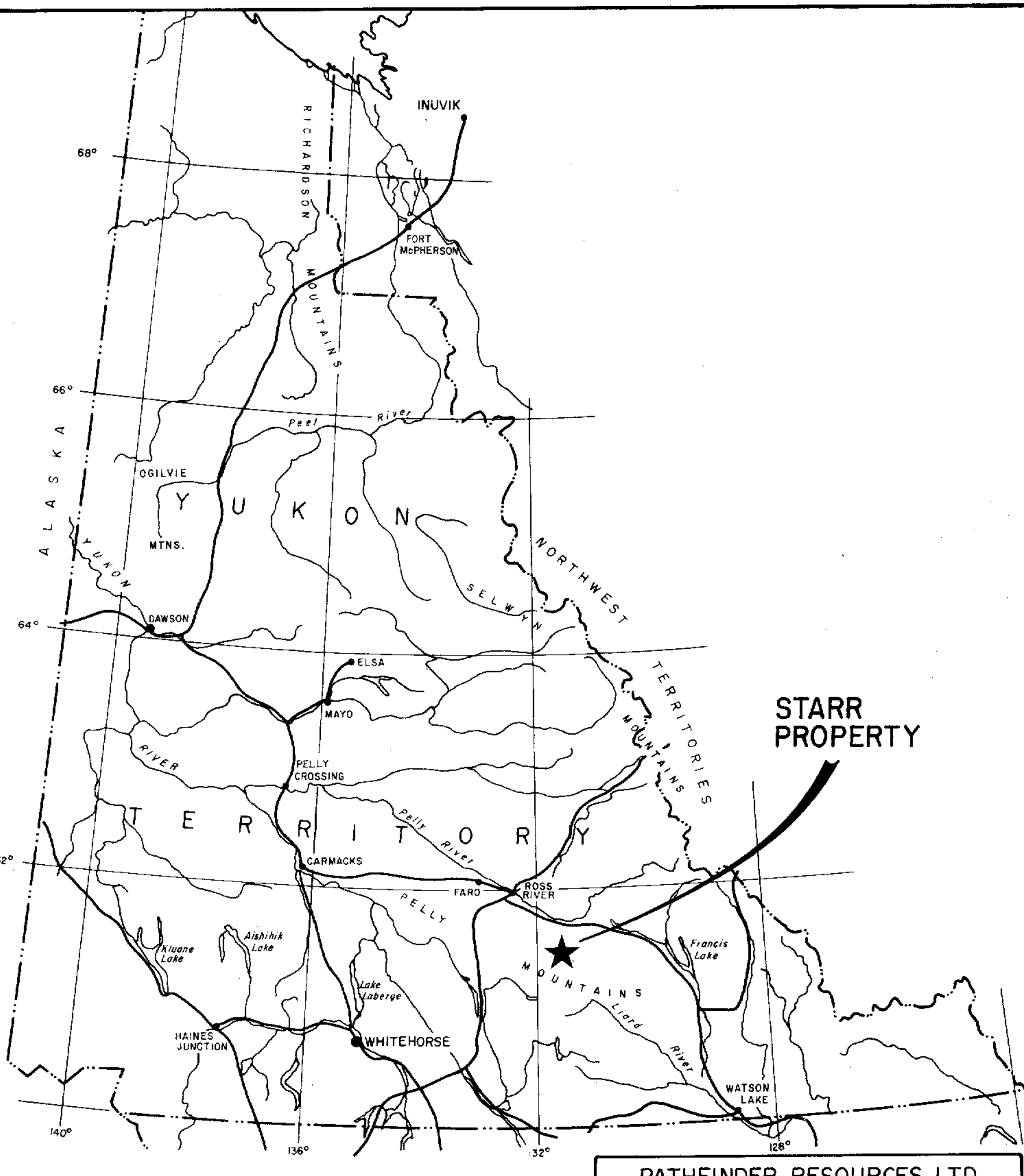
The 440 unit Starr property is located in the south-eastern Yukon, approximately 75 kilometres southeast of Ross River, in the Watson Lake Mining District (Figure 1). The property has experienced little exploration activity other than sporadic exploration for massive sulphides on the adjoining Wolf and Lynx properties to the Southeast. The region northeast of the Starr, and on the opposite side of the Tintina Fault Zone, has recently been the focus of intense VMS exploration, which has led to significant discoveries at Kudz Ze Kayah, Wolverine, Fyre Lake and the Ice deposit. In late 1997 Atna Resources announced a significant discovery on their Wolf property, where they intersected 25.2 metres of massive sulphides that graded 6.9% zinc, 2.8% lead and 138.6 g/t silver. They subsequently drilled 8 more holes into the massive sulphide lens before the end of the program. It was this discovery which led to Pathfinder acquiring the Starr property through staking of the remaining favourable stratigraphy. The Starr property is underlain by late Devonian alkaline felsic volcanic rocks, herein referred to as the McNeil Belt, equivalent to those which host the Wolf massive sulphide discovery. In the fall of 1997 a three day reconnaissance prospecting and sampling program was completed on the Starr property. This work was completed by Equity Engineering Ltd. for Pathfinder Resources Ltd., who has also been retained to report on the results of the fieldwork. This brief reconnaissance confirmed that the property was underlain by equivalent stratigraphy to that hosting the Wolf, and that alteration and mineralization including massive strata-bound pyrite showed strong similarities to the Wolf. Collection of silt samples also indicated that numerous drainages on the Starr property are strongly anomalous in lead, zinc and silver. The completion of an airborne geophysical survey over the property resulted in the definition of several conductive bodies that have no known cause. The results of this initial program are considered very positive and indicate the excellent potential for the Starr property to host significant volcanogenic massive sulphide (VMS) mineralization.

2.0 MINERAL CLAIMS

The Starr property is comprised of 440 Yukon mineral claims in three separate blocks; the Lone block, the Cry/Den block and the Pup block. The property is located in the Watson Lake Mining District (Figure 2). Government records indicate that the claims are wholly owned by Pathfinder Resources Ltd. Claim data for the Starr Property is tabulated below in Table 2.0.1.

Table 2.0.1
List of Claims

Claim Name	Grant Number	# of Claims	Expiry Date
Lone 1 - 64	YB90057 - YB90120	64	March 29, 2001*
Cry 1 - 68	YB90121 - YB90188	68	March 29, 2001*
Cry 69, 70	YB90189, YB90190	2	June 29, 2001*
Cry 71 - 82	YB90191 - YB90202	12	March 29, 2001*
Cry 83 - 162	YB90203 - YB90282	80	June 29, 2001*
Den 1 - 84	YB90283 - YB90366	84	March 29, 2001*
Den 85 - 98	YB90367 - YB90380	14	June 29, 2001*
Den 99 - 120	YB90381 - YB90402	22	March 29, 2001*
Den 121 - 136	YB90403 - YB90418	16	June 29, 2001*
Den 137 - 144	YB90419 - YB90426	8	March 29, 2001*
Den 145, 146	YB90427, YB90428	2	June 29, 2001*



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STARR PROJECT

LOCATION MAP

EQUITY	Date FEB. 1998	Scale As shown	Figure
	U.T.M. Zone 8/9	Mining Dist. Watson Lake	1.
	N.T.S. 105G/5,6,12 105F/8,9	State/Prov. YUKON	

Table 2.0.1 (continued)
List of Claims

Claim Name	Grant Number	# of Claims	Expiry Date
Den 147 - 158	YB90429 - YB90440	12	March 29, 2001*
Den 159 - 174	YB90441 - YB90456	16	June 29, 2001*
Den 175 - 190	YB90457 - YB90472	16	March 29, 2001*
Den 191 - 206	YB90473 - YB90488	16	June 29, 2001*
Pup 1 - 8	YB90049 - YB90056	8	March 29, 2001*
		440	

*Subject to approval of assessment work covered in this report.

3.0 LOCATION, ACCESS AND GEOGRAPHY

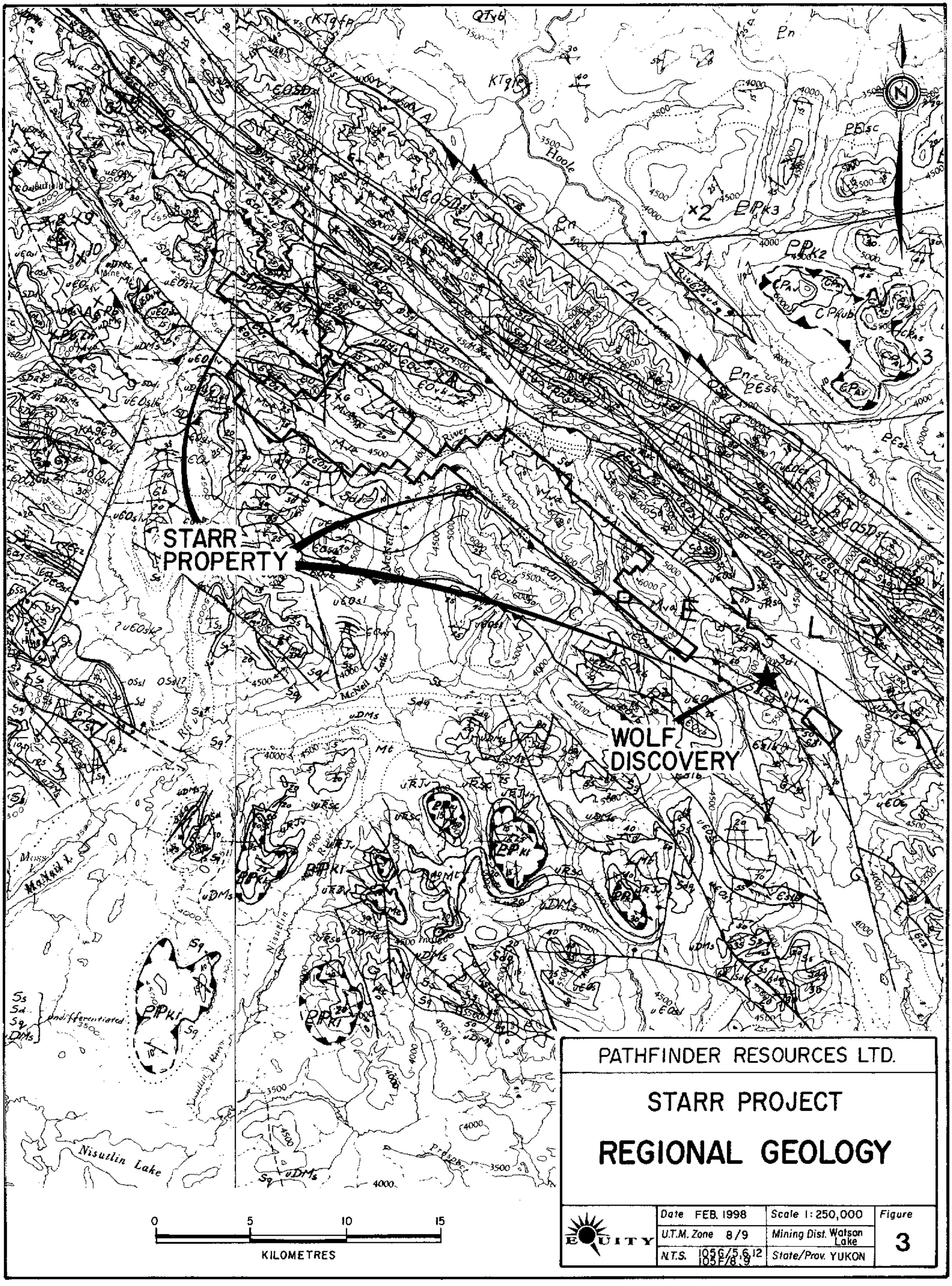
The Starr property is located approximately 80 kilometres southeast of Ross River, Yukon within the St. Cyr Range of the Pelly Mountains. The property lies on the south side of the Tintina Trench. The approximate co-ordinates for the centre of the Starr property are 61°27' north, 131°43' west on NTS map sheet 105G/5. Elevations vary from 1200 to 1900 metres. The area is mountainous with steep alpine, often non-vegetated, cliffs and talus slopes with tree and scrub filled valley bottoms. Outcrop in the low-lying areas averages less than 10%, restricted to stream beds, but outcrop may be as high as 20-40% in areas above tree line. The area has a continental climate with moderate levels of precipitation and a wide temperature range. Summers are typically pleasant with long daylight hours, whereas winters are long and may be very cold. Most of the snow cover disappears by the start of June and may return by the beginning of October.

This year's work on the property was accessed by helicopter from Ross River. In future it may be possible to base a helicopter supported operation from the facilities at the old Ketza mine. During the 1970's or early 1980's a cat road from the junction of Mink Creek and the Robert Campbell Highway was put in to the present Wolf property. The current condition of this road is not known, however, a Nodwell tracked vehicle was taken into the Argus property in the winter of 1993. The Argus property is roughly 20 kilometres north of the Wolf and at about half way along the access road from Mink Creek.

4.0 REGIONAL AND PROPERTY EXPLORATION HISTORY

The Starr Group of claims and adjacent areas has a fairly limited exploration history. Below is a brief description of the exploration histories of some of the occurrences in the area. These fall into four groups based on mineralization type: 1) vein copper hosted in Ordovician-Silurian basalts of the Cassiar Platform; 2) Mississippi valley type lead-zinc, hosted in Silurian-Devonian dolomites; 3) Sedex lead-zinc deposits hosted in Ordovician shales and 4) lead zinc-bearing volcanogenic massive sulphide mineralization (VMS) hosted in Mississippian (latest Devonian) felsic alkali volcanics.

<u>(Ord-Sil) Vein Copper</u>
The Axe occurrence consists of a number of small copper vein showings located 3 kilometres north of the G10 gossan. It was first staked in 1954 as the Axe claims and was optioned to Berens River Minerals, a subsidiary of Newmont. It has since been restaked frequently as the Rum in 1956 by L. Romfo and W. McKinnon; as the Jacobs by P. Poggenburg in 1963, and as the Bell in 1968 by W. Hyde. The Bell claims were optioned during 1970 by the Caltor Syndicate (Rayrock Minerals; Canadian Industrial Gas & Oil; Ashland Oil Canada), who performed geochemical sampling, mapping and hand trenching. It was restaked as the Ram claims in 1983 by A. Mercier. These claims were allowed to lapse and the showing is currently unstaked.


STARR PROPERTY
WOLF DISCOVERY
Hoole
FAULT
River
McNeil Lake
Nisutlin Lake
N
0 5 10 15
KILOMETRES
Ss
Sd
Sq
DMs
undifferentiated
PATHFINDER RESOURCES LTD.
STARR PROJECT
REGIONAL GEOLOGY
EQUITY
Date FEB. 1998
Scale 1: 250,000
Figure 3
U.T.M. Zone 8/9
Mining Dist. Watson Lake
N.T.S. 105G/5,6,12 105F/8,9
State/Prov. YUKON

GEOLOGICAL LEGEND (to accompany figure 3)

PELLY-CASSIAR PLATFORM

Upper Triassic and Jurassic

uRJv Dark green, massive, volcaniclastic sandstone; minor tuff.

uRsc Dark grey and buff weathering, recessive, thin-bedded bioclastic limestone with interbedded sandy or silty limestone, calcareous siltstone and shale; commonly finely cross-laminated.

Mississippian latest Devonian

Mva Heterogeneous, rusty, black, white and orange weathering lapilli and sand sized tuff, volcanic breccia and flow rocks ranging from trachyte to andesite in composition; black argillaceous slate and siliceous pale grey and pale green "cherty tuff" locally abundant; minor finely crystalline buff limestone; locally includes abundant trachyte dykes; locally highly pyritic; weakly sericitized and commonly strongly foliated so that primary textures are masked.

Mt Rusty orange weathering, resistant, apple green and dark grey thin bedded chert and cherty tuff; may include minor Mv undifferentiated.

Upper Devonian and Mississippian

uDMs Black recessive weathering, with rusty streaks, thin bedded black siliceous slate with minor interbedded chert grain greywacke and chert granule grit; includes lenses of intermediate to **acid volcaniclastic** rocks undifferentiated; includes interbedded dark grey **barite** undifferentiated.

Silurian and lower Devonian

Sd Resistant, light grey and white weathering, massive, medium grey, medium bedded, laminated to sucrose, dolomite; minor sandy dolomite.

Sd1 Resistant, thick-bedded to massive, red weathering, coarsely sucrose dolomite; minor sandy dolomite.

Ss Tan, medium grey, and very locally deep maroon weathering; light grey, thin-bedded to platy dolomitic siltstone, dolomitic fine-grained sandstone and minor silty dolomite.

Upper Cambrian and Ordovician (Silurian, Devonian)

COSDsl Orange-brown weathering, recessive, thin bedded, medium to dark grey, calcareous shale, siltstone and argillaceous limestone; includes slate and phyllitic slate.

OSsl Recessive, black, locally calcareous, fissile, graptolitic slate; includes thin sills or flows of dark green, basalt undifferentiated; includes Sv undifferentiated; rarely includes lenses or large blocks of algal-laminated dolomite: grades upward into Ss and laterally into uCOsl, uCOslv and uCOc.

uCOsl Medium grey, recessive weathering, chlorite muscovite quartz phyllite and slaty phyllite, locally calcareous; in places includes lenses sills and flows of olive to dark green basalt and basaltic tuff **COv** and **COvb**; grades laterally to **UCOc**.

uCOc Orange to orange-brown weathering, recessive, medium grey, thinly interlaminated calcareous shale and silty limestone or calcareous siltstone; proportion of carbonate to clastic material varies widely; includes slaty and phyllitic equivalents; includes distinctive red weathering quartz ankerite "sweats"; locally includes thin layers of olive green tuff undifferentiated; laterally gradational to **uCOsl.**

COv Olive green, sandy and finer grained tuff and tuffaceous slate; commonly strongly foliated and metamorphosed to greenschist facies - equivalents include chlorite phyllite and chlorite amphibolite.

COvb Resistant, dark weathering, massive, dark green and dark maroon amygdaloidal basalt; calcite fills amygdules; locally strongly foliated and amygdules are chlorite patches; may include **COv** undifferentiated.

Geology after D.J. Tempelmen-Kluit (1977).

The Connolly showing, located 2 kilometres northwest of the Axe, is a poorly documented copper occurrence that was originally staked in 1956. No work was ever recorded and the area is presently unstaked.

<u>(Sil-Dev) Carbonate Hosted Pb-Zn</u>
The Zimmer showing is located 2 kilometres north of the northeast boundary of the Lone group of claims. The breccia hosted mineralization was staked in 1976 by Newmont, and explored by hand trenching and EM surveys in 1977. These claims were allowed to lapse and no further work has been recorded on the showings.

<u>(Ord) Sedex in Ordovician Shales</u>
The Fairbank occurrence lies at the south edge of the Lone block of claims. Hydrozincite and minor sphalerite mineralization were discovered after follow-up of anomalous silt results. The occurrence was staked by Noranda Minerals in 1976 as the NMT claims. Noranda performed reconnaissance mapping and sampling later in the same year.

<u>(Miss) VMS hosted in Felsic Alkali Volcanics</u>
The Coope occurrence, located in the area of the G13 and G17 gossans, was staked as the JAC claims in 1977 by Newmont. Newmont identified the target by follow-up of an anomalous stream sediment, but filed no further work and the claims lapsed. Examination of the area in this year's program revealed an extensive area of pyritic gossans with associated barite and fluorite mineralization.

The Whit occurrence is equivalent to the G4 gossan referred to in this report. It was staked as the Whit claims by D. Halstead, who added the Guy claim in 1986. Pyrite-fluorite veins cut felsic volcanics pervasively altered by quartz-ankerite-sericite-pyrite. No assessment work was filed, but the claims remain in good standing.

The Wolf, Fox and Lynx properties lie at the south end of the current Star property. Newmont discovered the showings in 1955 and eventually staked the FH claims in 1966. In 1967, the company constructed a tote road to within two kilometres of the showing and explored with mapping, soil sampling and hand trenching. The claims were allowed to lapse and were restaked as the Rover claims in 1972 by F. Hasselberg and as the Sip claims in 1974 by Hesca Resources Ltd., which drilled two x-ray holes (61 m), both of which failed to reach their target. The area was again restaked as the Joe claims in 1976 by Newmont and Asamera Oil Corp. Ltd., which explored with geochem, EM and mag surveys, mapping, and hand trenching. The property was enlarged in 1977, and a program of trenching and 528 metres of diamond drilling in three holes was completed in 1978. Again, the property lapsed and was restaked as the Zap & Zoo claims in 1982 by Amax, which transferred its interest to Canamax Resources Incorporated, and performed mapping and geochem sampling in 1983. The original Joe showing was restaked as the Wolf claims by YGC Resources Ltd. in 1990. Cominco immediately followed by staking the surrounding Fox claims. YGC later in the same year tied on the Lynx claims. Both Cominco and YGC conducted geochemical surveys in 1990. Cominco optioned the Wolf and Lynx claims from YGC in 1991 and performed contour and grid soil sampling and minor geological mapping. In 1992, Cominco completed UTEM and magnetic surveys over the Wolf claims, but later dropped their option. In 1995 Atna Resources Ltd. optioned the Wolf property from YGC and in 1996 carried out a program of mapping, geochemistry and the drilling of 3 holes from a single setup (350 metres). In 1997, Atna carried out a property wide mapping program prior to the drilling of 12 holes (2956 metres). In their seventh hole of the program, targeted on the UTEM anomaly defined by Cominco, they made a significant discovery by intersecting 25.2 metres of massive sulphides that graded 6.9% zinc, 2.8% lead and 138.6 g/t silver. An additional 8 holes intersected the massive sulphides, but were of narrower widths and generally lower grades.

5.0 1997 EXPLORATION PROGRAM

In 1997 after the discovery of the Wolf deposit by Atna Resources, Pathfinder embarked on an aggressive staking program acquiring all of the remaining McNeil Belt of felsic volcanics in the St. Cyr Range. After final staking in September, a three man, three day, reconnaissance examination of the claim group was undertaken. The primary tasks were to make brief examinations of all noted gossanous areas and to obtain silt samples in areas not covered by the government regional geochemical survey (GSC open file no. 1648). Gossans were prospected, sampled and reconnaissance mapped at 1:20,000 scale.

A total of 49 rock samples were collected and analysed for 24 elements by ICP, with additional analyses performed for barium, fluorine and gold. One sample was assayed for zinc. Rock sample sites were marked in the field with orange and blue flagging and numbered aluminium tags. Detailed descriptions of rock samples were taken in the field and can be found in Appendix D. A total of 29 silt samples were collected from the active portions of small drainages. Silts were placed in kraft envelopes and the sample site marked with orange flagging. The sampler recorded notes pertaining to sample, colour, texture, local outcrop and stream characteristics. Four soil samples were also taken of gossanous soil and ferricrete. These samples were also placed in kraft envelopes, the site marked with orange flagging and a tyvek tag, and notes were taken on soil characteristics. Silt and soil samples were partially air-dried in camp and then shipped to Chemex Labs of North Vancouver, B.C. for sample preparation and analysis. A complete set of analytical results for silts, soil and rock samples can be found in Appendix E.

A declination of 28° 6'E, (annual decrease of 12.5') for the location 61°25' north, 131°45' west, was obtained from the Geological Survey of Canada, Geomagnetic Laboratory, and was used in all compass work.

6.0 REGIONAL GEOLOGY

The region lying southwest of the Tintina Trench comprises a portion of the Cassiar Platform (Figure 3). The geology on the northeast side of the Tintina Trench belongs to the Yukon Tanana Terrane (YTT). The YTT is considered the innermost of the accreted terranes in the western Canadian Cordillera. It is comprised largely of a Late Devonian-Mississippian volcanic-plutonic, pericratonic arc assemblage that was strongly deformed and metamorphosed in late Triassic time (Mortensen, et. al., 1985). This period of metamorphic and associated intrusive igneous activity probably indicates the time at which the YTT accreted to the North American margin consisting of the Cassiar Platform, Selwyn Basin and Mackenzie platform to the northeast (Mortensen, 1992). The evolution of the Cassiar platform is indicated by the deposition of shallow water sediments during the Upper Proterozoic through Middle Devonian. This sedimentation was onto a positive topographic feature parallel to the Continental margin, but separated from it by the miogeoclinal sequences of the Selwyn Basin. In upper Devonian to approximately middle Mississippian time uplift, block faulting and erosion occurred in the Selwyn basin. Siliciclastic rocks derived from this erosion also spread across the Cassiar Platform, which no longer influenced sedimentation patterns after the Devonian (Tempelman-Kluit et. al., 1976). In the central Pelly Mountains (south of the present position of the Tintina Fault), the Upper Devonian and Mississippian clastic sequence overlying the Cassiar platform strata contains extensive deposits of Mississippian intermediate to felsic alkalic volcanic rocks (McNeil Belt). Recent uranium-lead dating of a related syenite body returned an age of 363 Ma, which indicates latest Devonian (Mortensen pers. comm, 1998)

From Middle Mississippian through Upper Triassic time, calcareous shales were the principle lithology deposited over the former Cassiar Platform. Factors complicating the stratigraphy are: 1) extensive thrust faulting and metamorphism associated with the obduction, in the Mid-Mesozoic, of the Anvil Allochthon, which is an ophiolitic package possibly equivalent to the Slide Mountain Terrane of British Columbia; 2) emplacement of Cretaceous batholiths; 3) right lateral displacement along the Tintina Fault during the Cretaceous and into the Tertiary.

The general stratigraphy of the Devonian and Mississippian rocks in the Starr property area consists of black shale containing very minor chert granule grit (uDMs), with locally voluminous alkaline-felsic volcanic rocks. These volcanic rocks form coalescing piles of marine deposited volcaniclastic material and local intrusive bodies. Volcanic centres may be evidenced by syenite and trachyte domes and stocks. The volcanic section is capped by an extensive tuffaceous chert horizon (Mt). The thickness of the volcanic section reaches 600 metres, but is generally less than 100 metres. Total thickness of the Upper Devonian to Mississippian sequence ranges from 500 to 800 metres (Mortensen et. al.,1982). The most unique feature of the Devonian-Mississippian volcanics is the alkaline to peralkaline chemistry such that most of the volcanics classify as trachytes. This unusual volcanic chemistry and the overall setting likely indicates formation in a rift environment developed within a previously miogeoclinal area. This package of volcanics is also exposed 50 kilometres to the northwest in the McConnell River area. The geology surrounding the Devonian-Mississippian package consists of a wide variety of lithologies from dolomites to basalts that range in age from Upper Cambrian to Upper Triassic and Jurassic. Units are interlayered parallel to the Tintina trench and are divided by numerous strike-parallel northeast-directed thrust faults that on a local scale thrust older rocks onto younger lithologies. This is exemplified by the south boundary of the Mississippian volcanic sequence (Mva) which is marked by an oblique thrust that puts Cambrian and Ordovician phyllites on top of the Mississippian volcanics.

The Mississippian volcanics of the Cassiar platform have over the years attracted mineral exploration directed at volcanogenic massive sulphide deposits. Including the Wolf discovery, there are three other significant massive occurrences in the McNeil Belt. These are the Bnob, Chzerpnough and the MM. All four appear to share a number of common characteristics: 1) associated with small felsic domes or intrusives; 2) associated with felsic volcaniclastic rocks; 3) metal values are typically zinc>lead>copper; 4) exhalative barite often pyritic and locally contains base metals in close association with massive sulphides. The MM is one of the best described of the four occurrences. Mineralization is closely related to a trachytic dome with flanking volcanic breccia that grades into volcanic tuffs and intercalated carbonaceous sediments. These carbonaceous sediments also form the footwall and hanging wall to the volcanic sequence. The thickest massive sulphide lens (9m) lies immediately above the dome, but lesser syngenetic sulphide lenses occur through 75 metres of the section and extend up to 3 kilometres along strike. Exhalative barite with pyrite predominates over sulphides distally from the dome. Footwall stockwork mineralization consisting of quartz, chlorite, pyrite and chalcopyrite is moderately well developed beneath the biggest massive sulphide lens. Grades encountered to date average about 5% lead plus zinc. The newly discovered Wolf deposit shares several features with the other occurrences. Porphyritic volcanics occur on the property and may be a manifestation of hypabyssal or domal rocks. One significant massive sulphide layer is underlain by two thinner and less zinc-rich massive sulphide layers. Pyrite-barite mudstone forms the footwall to the middle sulphide horizon and extends well out laterally. The deposit occurs at the thickest part of the felsic stratigraphy in the area and has an immediate footwall of quartz-crystal ash tuff and occurs within amygdaloidal trachyte flows and has a hanging-wall of trachyte tuffs and pyritic lapilli tuffs. Overlying the trachytic tuffs is a section of andesite. A possible chalcopyrite-bearing stockwork has been noted in one intersection and lies between the upper and lower sulphide horizons. An important feature of the Wolf massive sulphides is that they appear to be vertically zoned and in the case of the thickest intersection, the upper portion of massive pyrite is virtually barren with respect to base metals. Another feature not unique to the Wolf is the very extensive zone of disseminated pyrite mineralization on the property that forms intense gossans over much of the Wolf property. The mineralization is apparently open in all directions and has so far been defined over a strike length of approximately 500 metres and 200 metres down dip.

7.0 PROPERTY GEOLOGY AND MINERALIZATION

There is effectively no publicly available geological data, for the Starr Property, that goes beyond the detail of the regional geology published by Tempelman-Kluit et. al. (1976) and Gordey et al. (1981). In the brief examination carried out this fall several traverses were completed on or adjacent to gossanous outcrops spotted from aerial reconnaissance. During the reconnaissance work a variety of favourable lithologies were encountered that indicate good potential for VMS-type mineralization.

A total of 20 gossans were noted on the property and of these 15 were briefly examined (Figure 4, 5). Because there isn't necessarily a stratigraphic or causative relationship between the various gossans, each gossan and the sample results from it are discussed separately below.

Gossan 1: Approximately 250 metre wide, moderately intense gossan, consisting of pyritic fine-grained trachytes hosting barite veins and argillaceous crystal-quartz-eye tuffs. Area silts are anomalous in zinc, mercury and barium.

Gossan 2 The main gossan consists of pervasive silicification, and pyritization ± K-feldspar alteration of trachytic flows. Similar less intensely gossanous material forms much of the ridge to the south and comprises gossan 18.

Gossan 3 Gossan 3 is a moderately intense gossanous zone roughly 200 metres across and consists of silicified and pyritic trachytes. Rock samples of this material averaged 1.2% barium (#230846-230848). No silts directly tested the response of this gossan.

Gossan 4 The gossan is exposed over 300 metres in a steep creek exposure. Mineralization consists of disseminated and vein-breccia controlled pyrite-fluorite mineralization. Alteration consists of silicification, and pervasive ankerite-pyrite-fluorite alteration. Rock samples from this area are all geochemically anomalous in fluorine, beryllium and calcium and some are anomalous in all or some of gold, silver, barium, lanthanum, molybdenum and lead (#4920, 4921, 230839, 524501-524502).

Gossan 5 This gossan is comprised of two 200 metre long moderately intense gossans and a 400 metre section of ferricrete in an adjacent stream bed. Pervasive silica-pyrite-ankerite alteration affects trachytic tuffs. A single silt taken downstream is anomalous in silver, barium, fluorine and mercury.

Gossan 7 The gossan consists of a roughly 150 metre long conformable gossan that is semi-continuous over a kilometre to the northwest. Variably disseminated pyrite occurs in laminated cherty ash tuffs. Strong ankerite alteration appears to be peripheral to the strongest pyrite mineralization. Other lithologies include dark green trachyte, amygdaloidal trachyte, and trachyte porphyry. One rock sample of oxidized talus fines was weakly anomalous in lead (#524505), but none of the pyritic samples were anomalous in any of the determined elements. A number of silt samples draining this area were anomalous in silver, fluorine, mercury, manganese, molybdenum, lead, tin, uranium and zinc.

Gossan 9, 11, 12 Gossan 9 consists of a strong zone of ferricrete near the base of a steep south facing slope. Although it is not continuous, it appears that gossans 11 and 12 are at the same structural level. Gossan 12 was not visited but, gossans 9 and 11 both consist of well developed ferricrete associated with a subtle topographic bench. Units exposed in talus above these zones included trachyte-chert-argillite fragmentals, feldspar-quartz-eye crystal tuff, carbonaceous shale, silicified trachyte with quartz-fluorite veinlets, ankerite altered trachyte porphyry and tuffaceous argillite. Some of the rock and soil samples of the ferricrete were anomalous in silver, beryllium, bismuth, manganese, lead and zinc. According to the regional geology map these zones of ferricrete may closely coincide with a major southwest dipping thrust fault as opposed to strata-bound mineralization.

Gossan 10 Gossan 10 is a 300 metre exposure of ferricrete in a stream bed, located outside of the present claim block. The predominant exposed rock type is black argillaceous lapilli tuff and black sooty argillite (uMDs). Tuff fragments consist of felsic and some fine-grained massive pyrite fragments. Most mineralization occurs as massive fine grained pyrite-quartz stockwork and conformable replacements. Some of the rock samples are weakly anomalous in barium, silver, arsenic, copper and lead (#230840-230845).

Gossan 15 Gossan 15 is a roughly 300 metre diameter area of weak gossan on a ridge top. Local outcrop consists of pyrite-silica altered fine-grained trachyte with local fluorite and barite (#524510, 524511).

Gossan 16 Gossan 16 consists of ferricrete at the base of outcrops of argillaceous crystal lithic tuff and weakly gossanous and carbonaceous shale. The lithologies do not appear to be mineralized in place, indicating the ferricrete is likely exotic. A sample of the ferricrete returned anomalous concentrations of manganese uranium, vanadium and zinc (#524504).

Gossan 17 Gossan 17 is one of the largest and visually the most impressive gossan on the property. Pyritic trachytes and argillaceous rocks are easily traced as a homoclinal succession for roughly two kilometres along strike. This gossanous package dips steeply to the southwest and may be continuous with Gossans 6 and 7. Pervasive pyrite-barite and fluorite alteration is the most common alteration style, however, veins having the same mineralogy are also present. One sample contained 3.6% zinc in a quartz stringer (#524556).

Gossan 18 Gossan 18 forms much of the ridge south of gossan 2 and is caused by silica-pyrite alteration of vari-textured trachyte similar to that at gossan 2. Other rock types encountered in the talus include chert-argillite-trachyte lapilli fragmentals, argillaceous trachyte quartz-eye crystal tuffs, and black siliceous shales. Rare massive pyrite fragments were noted in some of the argillaceous lapilli tuffs. Samples of argillaceous lithologies are anomalous in phosphorous and vanadium (#524503) and a tuffaceous sample containing altered fragments is anomalous in fluorine (#4926). Three silt samples from this drainage are anomalous in beryllium, manganese and zinc.

Gossan 20 Gossan 20 is a well developed intense gossan that extends roughly one kilometre along the face of a north facing cirque. Intense quartz-pyrite-K-feldspar and sericite alteration is pervasive. Black argillites occur within this altered zone, but are themselves not visibly altered. The protolith of the intensely altered rocks is likely trachytic tuffs and siliceous and baritic exhalites. Most pyrite is disseminated, however, lensy semi massive concentrations occur throughout the roughly 50 metre thick strongly altered section. Within the middle of the altered section is a 1.2 metre thick conformable interval of massive pyrite exposed over 3 metres. Samples of this are weakly anomalous in silver, arsenic, copper, molybdenum and lead (#4938). Twenty-five metres up section from the massive pyrite is a roughly 10-15 cm horizon of finely laminated massive barite, and pyrite. Other than the high concentration of barite a sample of this horizon is not anomalous in any of the other determined elements (#4937).

Table 7.0.1
1997 Mineralized Samples

Sample Number	Gossan #	Au (ppb)	Ag (ppm)	Ba (%)	Cu (ppm)	F (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
524557	1	<5	<.2	17.6	3	850	<1	2	142
230846		<5	<.2	1.4	1	420	5	10	<2
230847	3	<5	0.2	1.1	4	640	16	42	34
230848		<5	0.2	1	1	360	19	70	<2
4920		<5	0.4	16.2	6	>10000	14	126	4
4921		15	<.2	0.2	2	8600	14	10	18
230839	4	<5	<.2	0.2	3	>10000	7	12	54
524501		<5	0.8	10.5	6	>10000	47	388	8
524502		<5	0.6	0.1	9	>10000	27	146	12
524505	7	<5	<.2	0.2	2	1700	5	206	152
4922	9	<5	<.2	0.3	3	500	23	2	1435
4923		<5	<.2	2.4	5	3400	10	10	6
230840		<5	0.2	2.9	3	300	6	50	<2
230841	10	<5	<.2	1.3	3	470	7	26	<2

Table 7.0.1 (continued)
1997 Mineralized Samples

Sample Number	Gossan #	Au (ppb)	Ag (ppm)	Ba (%)	Cu (ppm)	F (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
230842		<5	0.6	0.1	22	200	7	198	8
230845		<5	3.2	<.1	242	450	3	102	8
524510	15	<5	<.2	2.2	12	4200	18	30	18
524504	16	<5	0.2	<.1	12	2700	18	12	5790
4933		<5	<.2	0.3	7	9750	5	38	6
4935		<5	<.2	44.8	18	1800	3	2	6
4936		<5	<.2	1	6	>10000	6	2	<2
524506	17	<5	<.2	2.9	5	>10000	4	18	10
524553		<5	<.2	1.5	7	>10000	3	22	2
524554		<5	<.2	40.8	3	10000	<1	<2	<2
524555		<5	<.2	1.7	6	>10000	3	28	4
524556		<5	<.2	0.1	39	2400	2	142	>10000
4926	18	<5	<.2	0.2	<1	3000	2	14	<2
4937	20	<5	<.2	22.9	6	1800	3	16	8
4938		<5	1.8	0.4	72	1300	29	630	142

8.0 SOIL AND SILT GEOCHEMISTRY

A total of 29 silt samples were taken during the 1997 program targeting streams draining the favourable felsic stratigraphy and improving on the density of sampling completed in the government regional silt surveys (GSC, Open File 1648). Samples from this year's work as well as results from the government regional stream silt surveys, are shown on figures 4 and 5. Threshold values for the stream sediments were calculated on the combined data sets and are shown in Table 8.0.1. In the discussion of the various gossanous zones, general statements were made on the silt response with respect to all determined elements. In terms of copper, lead, zinc and silver, some of the gossans have a greater response. Considering results equal to or in excess of the 80th percentile, areas that were highlighted are: gossan 9 (Zn); gossan 11(Pb); gossan 7 (Zn); gossan 17 (Pb, Zn); gossan 5 (Cu, Ag); gossans 2, 3, 16, 18 (Zn, Ag); gossan 20 (Pb) and the Lone Claims (Cu, Zn ± Pb, Ag).

Table 8.0.1
Silt Geochemistry: Percentiles

Percentile	Au (ppb)	Ag (ppm)	Ba (ppm)	Cu (ppm)	F (ppm)	Mo (ppm	Pb (ppm)	Zn (ppm)
98th	10	1.0	4251	80	1368	18	60	1177
95th	5	0.8	3742	68	1045	14	46	776
90th	2	0.7	3153	59	955	12	41	602
80th	2	0.5	2290	49	904	8	34	440
70th	2	0.4	1949	42	816	7	29	351
60th	2	0.3	1752	39	776	7	24	298
50th	2	0.2	1500	35	725	6	22	244

*Note: Barium determined using a triple acid digestion

9.0 AIRBORNE GEOPHYSICS

In the late fall of 1997, a helicopterborne electromagnetic and magnetic survey was conducted over the Starr property, and some of the adjacent claims as part of a joint effort with adjacent claim owners. A total of 998 line kilometres were flown at 200 metre line spacing. Detailed descriptions of the survey and the results are contained in Appendix G. Numerous conductive anomalies were defined by the survey and with the paucity of geological data, most, if not all, are without explanation. Clearly a significant proportion of these will be caused by conductive sediments, although such units do not comprise a significant proportion of the McNeil Belt stratigraphy.

10.0 DISCUSSION AND CONCLUSIONS

The primary purpose of the 1997 program was to carry out a property wide reconnaissance of the claims, paying particular attention to the numerous gossans that exist on the property. The objective was to also obtain a general impression of the area to aid in the design of the 1998 summer program.

Silt sampling of streams and rock sampling of the gossanous areas indicated that the Devonian-Mississippian strata underlying much of the claims is anomalous in lead zinc and silver and to a lesser extent, in copper and molybdenum. Prospecting and sampling of gossanous areas revealed a large proportion of the rocks to be comprised of trachytic volcanic flows and volcaniclastics with subordinate fine carbonaceous and locally tuffaceous fine-grained sediments. Units are often pervasively quartz-sericite-pyrite ± fluorite-barite and possibly K-feldspar altered. Fluorite and barite alteration also occur as discrete veins within pervasively altered areas. The appearance of fluorine is consistent with the very alkaline and highly evolved composition of these rocks. Other volatile constituents that could be associated are, lanthanum, boron, lithium and beryllium some of which are reflected in the silt results. In the northwest part of the claim group (Gossan #20) massive pyrite was identified in association with banded pyrite. Although no base metals were observed, a sample of the massive pyrite was anomalous in lead (630 ppm).

The geology of the Starr property is almost exclusively comprised of the same Mississippian package of alkaline volcanics and associated sediments that host the Wolf Deposit. Prior to the discovery of massive sulphides, the Wolf was distinguished by strongly gossanous pyritic exposures, well developed lead soil geochemistry, banded pyritic barite and pyritic and baritic mudstones and a weak UTEM conductor. Narrow sections of massive pyrite and barite locally contained low grades of lead and zinc, but none of these surface results compared with Atna's eventual drill results. It is also important that massive pyrite horizons near the base metal intercepts are virtually barren of base metals. A number of the gossans on the Starr property are visually similar to those at the Wolf, but identification of massive strata-bound pyrite, pyritic banded barite and large areas of pervasive pyrite-silica-sericite±fluorite-barite indicate mineralizing systems potentially like those developed on the Wolf property. Rock and silt sampling indicates the presence of base metals in the area that have as yet no known source. The nature of the pervasive alteration and how it might relate to the massive syngenetic sulphides is uncertain. One peculiar feature is that large areas of pyrite-sericite-silica altered trachyte rocks locally contain sections of unmineralized and unaltered argillaceous rocks. The juxtaposition of such contrasting lithologies and intensities of alteration\mineralization suggests that the argillaceous/carbonaceous sediments may be emplaced along faults. If these "slippery" units are susceptible to structural displacements it is likely that sulphide bodies might similarly be removed from their altered host lithologies and end up in contact with seemingly unprospective lithologies. This observation should serve as a caution in future exploration against downgrading the potential of areas based solely on the absence of alteration.

Further work on the Starr property is highly recommended and should consist of two distinct phases of exploration. In phase one, property-wide mapping and prospecting should be carried out over the entire property. Mapping should focus on the Mississippian volcanic section (Mva), but should also extend into areas underlain by the siliceous felsic volcanic-bearing shales that also contain massive barite (Unit uDMs). These shaley units might be facies equivalents to the felsic package, and represent a more favourable setting for massive sulphide accumulation and preservation. Unit Mt, which is comprised of cherty tuffs, should also be investigated since it may in part contain exhalative members related to syngenetic mineralization. The first phase should include extensive soil sampling along contour lines and on small grids, particularly in gossanous areas. Upon receipt and interpretation of results, a second phase program should be carried out later in the summer to detail the anomalous areas by further mapping, geochemistry and ground geophysics. If these programs can be completed prior to the onset of winter, drill testing of the highest priority targets should be completed.

Respectfully submitted,

Mark E. Baknes, P.Geo.
EQUITY ENGINEERING LTD.

Vancouver, British Columbia
March 27, 1998

APPENDIX A

BIBLIOGRAPHY

BIBLIOGRAPHY

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APPENDIX B

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES
STARR PROPERTY

September 23 to 26 and October 27 to November 10, 1997

CANADA } In the matter of an evaluation program on the Starr Property

I, Mark Baknes for Equity Engineering Ltd., 207 - 675 West Hastings Street, Vancouver, B.C. do solemnly declare that a program consisting of geological mapping, prospecting, staking and airborne geophysics was carried out on the Lone 1 - 64, Cry 1 - 162, Den 1 - 206 and Pup 1 - 8 Mineral Claims from September 23 to 26 and from October 27 to November 10, 1997.
The following expenses were incurred during the course of this work and in the compilation and reporting of results.

PROFESSIONAL FEES AND WAGES:

Henry J. Awmack, P.Eng.		
1.75 days @ $425/day	$ 743.75	
David A. Caulfield, P.Geo.		
2.25 days @ $425/day	956.25	
Mark Baknes, P.Geo.		
17.76 days @ $425/day	7,548.00	
Stewart Harris, P.Geo.		
1.9725 days @ $425/day	838.31	
Tom Bell, Prospector		
5.0 days @ $300/day	1,500.00	
Clerical		
16 hours @ $25/hour	400.00	
		$ 11,986.31

EXPENSES:

Accomodation	$ 873.40
Aircraft Charters	2,470.00
Airfare	399.30
Automotive Fuel	50.85
Bulk Fuel	2,990.32
Camp Food	23.17
Chemical Analyses	1,909.46
Courier	42.45
Drafting	1,167.00
Expediting	100.00
Freight	336.37
Helicopter Charters	6,901.10
Maps and Publications	115.28

EXPENSES (Continued):

Meals	509.77	
Printing and Reproductions	680.47	
Radio Rental	240.75	
Taxis and Airporters	25.44	
Telephone Distance Charges	69.71	
Tolls and Airport Taxes	1.50	
Truck Rental	136.00	
		$ 19,042.34

SUB-TOTAL:	$ 31,028.65
SUB-CONTRACTS:	
Airborne Geophysics	$ 78,131.25
PROJECT SUPERVISION CHARGE:	
12% on sub-total ($ 31,028.65)	$ 3,723.44
SUB-TOTAL:	$ 112,883.34
GST: 7% on sub-total	7,901.83
TOTAL:	$ 120,785.17

And I make this solemn declaration concientiously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared before me at Vancouver in the)
Province of British Columbia this)
9th day of April, 1998)

Notary Public for the Province of British Columbia

IAN J. TALBOT
Barrister & Solicitor
657 · 409 Granville Street
Vancouver, B.C. V6C 1T2

APPENDIX C

LIST OF PERSONNEL

LIST OF PERSONNEL

Field Crew

Mark Baknes (Geologist)
207-675 West Hastings St.
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V6B 1N2

Tom Bell (prospector)
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VOJ 1YO

Peter Lecouteur (Geologist)
1550-409 Granville Street
Vancouver, B.C.
V6C 1T2

APPENDIX D

ROCK SAMPLE DESCRIPTIONS

AK	Ankerite	BI	biotite	CA	calcite
CB	Fe-carbonate	CL	chlorite	CY	clay
EP	epidote	GE	goethite	GL	galena
GR	graphite	HE	hematite	JA	jarosite
KF	potassium feldspar	MG	magnetite	MN	Mn-oxides
MS	sericite	PY	pyrite	QZ	quartz
SI	silica	SP	sphalerite		

ALTERATION INTENSITY

tr	trace	w	weak	m	moderate
		s	strong		

Rock Sample Descriptions

Project Name: Starr **Project: PTH97-02** **NTS: 105 G**

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: sSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230839	UTM N	UTM E	Strike Length Exp: 20	Metallics: 1-7%PY, 1-2%FU	<5	<.2	6	0.2
	Elevation 1160 m	Sample Width: 5 cm	True Width: 5 m	Secondaries: sGE, sJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Felsic volcanics		3	12	54	>10000

Comments: Sample taken in canyon on first stop, 30m above MEB 4920, and on south side of creek.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: mSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230840	UTM N	UTM E	Strike Length Exp:	Metallics: 7-10%PY	<5	0.2	34	2.9
	Elevation 1120 m	Sample Width: cm	True Width: 0 cm	Secondaries: wJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Felsic volcanics		3	50	<2	300

Comments: Sample taken at second stop at gossan G-10. Suboutcrop off east side of creek at lower end of gossan. Ferricrete occurs in creek bank.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: mSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230841	UTM N	UTM E	Strike Length Exp:	Metallics: 2-3%PY	<5	<.2	<2	1.3
	Elevation 1125 m	Sample Width: 100 cm	True Width: 100 cm	Secondaries: mJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Felsic volcanics		3	26	<2	470

Comments: Taken in lower end of G-10 gossan.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230842	UTM N	UTM E	Strike Length Exp:	Metallics: 40-50%PY	<5	0.6	140	0.1
	Elevation m	Sample Width: 0 cm	True Width: 0 cm	Secondaries: wGE, wJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Black argillite		22	198	8	200

Comments: Sample taken in G-10 gossan. Black argillite with 40-50% pyrite in foliated bands and quartz stringers.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: sQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230843	UTM N	UTM E	Strike Length Exp:	Metallics: 75-90%PY	<5	0.2	8	5
	Elevation 1135 m	Sample Width: 50 cm	True Width: cm	Secondaries: mJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Felsic volcanics		9	78	2	310

Comments: Sample taken in G-10 gossan. Several massive pyrite stringers over 10m.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230844	UTM N	UTM E	Strike Length Exp:	Metallics: 100%PY	<5	0.4	50	0.5
	Elevation 1140 m	Sample Width: 1 cm	True Width: 1 m	Secondaries: sGE, sJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Felsic volcanics		14	182	18	180

Comments: Sample taken in G-10 gossan. Lots of 10-20cm wide massive pyrite veins here.

Rock Sample Descriptions

Project Name: Starr **Project:** PTH97-02 **NTS:** 105 G

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230845	UTM N	UTM E	Strike Length Exp:	Metallics: 20-30%PY	<5	3.2	254	<.1
	Elevation 1150 m	Sample Width: 0.5 cm	True Width: 50 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Black shale		242	102	8	450

Comments: Laminated pyrite in G-10 gossan.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: wCB, wSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230846	UTM N	UTM E	Strike Length Exp:	Metallics: 1-2%PY	<5	<.2	10	1.4
	Elevation 1720 m	Sample Width: 2 cm	True Width: 2 m	Secondaries: wGE, mJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Felsic volcanics		1	10	<2	420

Comments: Taken in small gossan over ridge north of G-3.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: wCB, wQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230847	UTM N	UTM E	Strike Length Exp:	Metallics: trPY	<5	0.2	18	1.1
	Elevation 1705 m	Sample Width: 2 cm	True Width: 2 m	Secondaries: sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Felsic volcanics		4	42	34	640

Comments: Sample taken in the top section of the G-3 gossan. Ferricrete and suboutcrop occur here also.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: wCB, wQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230848	UTM N	UTM E	Strike Length Exp: 10	Metallics: 1-2%PY	<5	0.2	32	1
	Elevation 1580 m	Sample Width: 100 cm	True Width: 100 cm	Secondaries: wGE,sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Felsic Volcanics		1	70	<2	360

Comments: Taken in lower section of G-3 gossan.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: mCB, mQZI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230849	UTM N	UTM E	Strike Length Exp: 10	Metallics: 1-3%PY	<5	<.2	8	0.4
	Elevation 1370 m	Sample Width: 2 cm	True Width: 2 m	Secondaries: sGE, sHE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Felsic volcanics		5	16	52	1600

Comments: Sample taken in lower section of G-5 gossan.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: mQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
230850	UTM N	UTM E	Strike Length Exp: 7	Metallics: 40-50%PY	<5	1	14	0.2
	Elevation 1380 m	Sample Width: 5 cm	True Width: 5 m	Secondaries: sGE, sHE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Felsic volcanic		4	66	<2	700

Comments: Sample taken in G-5, directly below ferricrete bed in creek bank.

Rock Sample Descriptions

Project Name: Starr **Project:** PTH97-02 **NTS:** 105 G

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: wCB, sQZ, sFL	**Au (ppb)**	**Ag (ppm)**	**As (ppm)**	**Ba (%)**
4920	UTM N	UTM E	Strike Length Exp: 3	Metallics: 40%PY	<5	0.4	50	16.2
	Elevation 1260 m	Sample Width: 150 cm	True Width: 15 cm	Secondaries: sGE, mJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation 110°/40° S	Vein	Host : Massive pyrite fluorite vein/breccia in silicieous trachyte		6	126	4	>10000

Comments: Narrow breccia vein in greater than 20 to 30 m thick zone of strong quartz-pyrite and potassium feldspar alteration. Overall zone strikes about 080/40 S. Gosson number 4

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: wCB, ?KF, sSI	**Au (ppb)**	**Ag (ppm)**	**As (ppm)**	**Ba (%)**
4921	UTM N	UTM E	Strike Length Exp: 40	Metallics: 4%PY	15	<.2	<2	0.2
	Elevation 1260 m	Sample Width: 18 cm	True Width: 6 m	Secondaries: sGE, wJA	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation 096°/45° S	Joint	Host : Pervasively silicified and pyritized (+/- ankerite) trachyte		2	10	18	8600

Comments: Alteration zone seems to form a halo about the vein breccia in 4920. Zone likely cut off by 116/52 S faults. This alteration could be splay off 116 structures or visa versa. Rough grab over entire outcrop. Gosson number 4.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration:	**Au (ppb)**	**Ag (ppm)**	**As (ppm)**	**Ba (%)**
4922	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	<.2	92	0.3
	Elevation 1600 m	Sample Width: cm	True Width: cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Goethitic ferricrete		3	2	1435	500

Comments: 20m wide talus of goethite ferricrete cements, shale and lithic crystal tuff. Follows along gully running 118 to 122 degrees. This sample labelled as 4903 in field.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: sQZ, sSI, FL	**Au (ppb)**	**Ag (ppm)**	**As (ppm)**	**Ba (%)**
4923	UTM N	UTM E	Strike Length Exp:	Metallics: trPY	<5	<.2	18	2.4
	Elevation 1600 m	Sample Width: 0 cm	True Width: 0 cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Breccia vein with quartz and fluorite		5	10	6	3400

Comments: Purple blebs of fluorite; similar to last sample. Labelled as 4904 in field.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: mKF, sSI	**Au (ppb)**	**Ag (ppm)**	**As (ppm)**	**Ba (%)**
4924	UTM N	UTM E	Strike Length Exp:	Metallics: 6%PY	<5	<.2	<2	0.4
	Elevation 1685 m	Sample Width: 0 cm	True Width: 0 cm	Secondaries: sGE	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Silicified potassium feldspar altered and pyritized trachyte		1	12	8	1000

Comments: Pervasive alteration and mineralization of granular trachyte flow. Pyritic zones come and go in talus.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: BA?	**Au (ppb)**	**Ag (ppm)**	**As (ppm)**	**Ba (%)**
4925	UTM N	UTM E	Strike Length Exp:	Metallics: tPY	<5	0.2	18	<.1
	Elevation 1670 m	Sample Width: cm	True Width: 0 cm	Secondaries: sGE	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
Starr	Orientation		Host : Black silicieous Shale with grey, possibly baritic, laminae		6	44	8	180

Comments: 1 to 4mm diffuse grey laminated tuff or possibly barite.

Rock Sample Descriptions

Project Name: Starr **Project:** PTH97-02 **NTS:** 105 G

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: mKF, mMS, mSI, mTA	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4926	UTM N	UTM E	Strike Length Exp:	Metallics: 4%PY	<5	<.2	<2	0.2
	Elevation 1625 m	Sample Width: 0 cm	True Width: 0 cm	Secondaries: mGE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Grey argillaceous Lithic Tuff		<1	14	<2	3000

Comments: Grey mixed argillaceous tuff matrix with lapilli frags of felsics and crystals. Talc-sericite altered. Some argillite clasts pristine (ie. fels frag altered before deposition?). Minor 1-3mm pyritized fragments.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: ?KF, sSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4927	UTM N	UTM E	Strike Length Exp:	Metallics: 7%PY	<5	<.2	<2	<.1
	Elevation 1585 m	Sample Width: cm	True Width: cm	Secondaries: sGE	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Silicified pyritic trachyte		2	14	<2	850

Comments: Typical of much of the talus; finely disseminated pyrite in a grey, granular, even texured trachyte. Unit appears to overlay blk shales and pinches out to east.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: wSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4928	UTM N	UTM E	Strike Length Exp: 50	Metallics: 4%PY	<5	<.2	12	<.1
	Elevation 1630 m	Sample Width: 8 cm	True Width: 8 m	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 115°/38° S		Host : Black pyritic shale		6	20	74	1180

Comments: Finely disseminated cubic pyrite, < 0.5mm in a 10m thick shale unit causing ferricrete.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: ?KF, wMS, sSI, wTA	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4929	UTM N	UTM E	Strike Length Exp: >100 m	Metallics: sPY	<5	<.2	2	0.1
	Elevation 1720 m	Sample Width: cm	True Width: 0 cm	Secondaries: sGE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Silicified and pyritized, banded fine tuff		3	18	4	1650

Comments: A >30m wide zone of fine, pervasively silicified tuff. Pyrite is disseminated as 1-2mm blebs and rare >1cm masses. Mineralization discordant to bedding.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: wSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4930	UTM N	UTM E	Strike Length Exp:	Metallics: 15%PY	<5	0.2	6	0.2
	Elevation 1660 m	Sample Width: 0 cm	True Width: 0 cm	Secondaries: wGE	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Trachytic crystal tuff		1	30	8	1650

Comments: 1-5mm feldspar crystals in a felspathic groundmass, locally pyrite replaces feldspar up to 15%.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4931	UTM N	UTM E	Strike Length Exp:	Metallics: 20%PY	<5	0.2	8	<.1
	Elevation 1475 m	Sample Width: cm	True Width: 0 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Black argillite with 1 to 3mm possible fragments of msv PY		4	20	<2	1270

Comments: May be breccia, with very fine grained pyrite.

Rock Sample Descriptions

Project Name: Starr **Project: PTH97-02** **NTS: 105 G**

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: wCB, ?KF, wMS, sQZ, sSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4932	UTM N	UTM E	Strike Length Exp: 150	Metallics: 7%PY	<5	<.2	12	0.7
	Elevation 1825 m	Sample Width: cm	True Width: 0 cm	Secondaries: sGE	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 100°/54° S	Foliation	Host : Intensely silica +/- sericite -pyrite altered trachyte tuff.		4	24	10	1550

Comments: Pervasive alteration. Pyrite occuring as fine-grained disseminations and blebs. May be baritic. Subcrop.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: ?KF, wMS, sSI, sFL, sBA	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4933	UTM N	UTM E	Strike Length Exp: >100 m	Metallics: 30%PY	<5	<.2	18	0.3
	Elevation 1810 m	Sample Width: cm	True Width: 0 cm	Secondaries: sGE, mJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 105°/80° N		Host : Pervasively silica-pyrite-fluorite altered trachyte		7	38	6	9750

Comments: Intensely altered; pyrite occuring as fine grained,semi massive masses and as veins with fluorite silica replaced barite. May be a fault controlled zone. Disrupted outcrop.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration: mQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4934	UTM N	UTM E	Strike Length Exp:	Metallics: sPY	<5	<.2	12	0.2
	Elevation 180 m	Sample Width: cm	True Width: 0 cm	Secondaries: sGE, wJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Black carbonaceous argillite		5	28	8	1250

Comments: Sheared carbonaceous to graphitic argillite with irregular masses and stringers of quartz-pyrite. Very locally derived.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: SI, FL, BA	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4935	UTM N	UTM E	Strike Length Exp: 4	Metallics: PY	<5	<.2	14	44.8
	Elevation 1740 m	Sample Width: 10 cm	True Width: 10 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 020°/60° E	Vein	Host : Silicified and pyritic trachyte		18	2	6	1800

Comments: Coarse exhalative barite vein. Pinches and swells intergrown with fluorite.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: ?MS, sSI, mBA, sFL	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4936	UTM N	UTM E	Strike Length Exp:	Metallics: 2%PY	<5	<.2	40	1
	Elevation 1745 m	Sample Width: 0 cm	True Width: 0 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 100°/55° S	Bedding	Host : Intense silica fluorite +/- barite altered trachyte		6	2	<2	>10000

Comments: Pervasive alteration includes barite. This alteration assemblage also forms veins.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: ?KF, mMS, sSI, sBA	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4937	UTM N	UTM E	Strike Length Exp:	Metallics: 7%PY	<5	<.2	6	22.9
	Elevation 1780 m	Sample Width: cm	True Width: 0 cm	Secondaries: sGE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 074°/40° S	Bedding	Host : Silica-barite-pyrite altered trachyte tuff		6	16	8	1800

Comments: Sample is a grab off cliff face. Intensely altered trachyte also includes siliceous pyritic exhalite and 5 to 10cm of barite with banded pyrite. (G-20).

Rock Sample Descriptions

Project Name: Starr   Project: PTH97-02   NTS: 105 G

Sample Number:	Grid North: N	Grid East: E	Type: Chip	Alteration: mCB, mMS, sSI	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
4938	UTM N	UTM E	Strike Length Exp: 2	Metallics: 35%PY	<5	1.8	140	0.4
	Elevation 1770 m	Sample Width: 1.2 cm	True Width: 1.2 m	Secondaries: sGE, mJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 062°/42° S	Bedding	Host : Lensy, massive, granular pyrite in altered trachyte		72	630	142	1300

Comments: Semi-massive and massive stratabound pyrite interbedded with trachytic tuff, carbonate, and disseminated pyrite. Massive sulphide section pinches and swells, but only exposed over 2 to 3m. Note syngenetic barite about 25m up section (G-20).

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: FL	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524501	UTM N	UTM E	Strike Length Exp:	Metallics: PY	<5	0.8	130	10.5
	Elevation m	Sample Width: 0 cm	True Width: 0 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Trachyte		6	388	8	>10000

Comments: Typical sample of 25 cm thick pyritic lens in altered trachyte with purple fluorite.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration: 5%FL	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524502	UTM N	UTM E	Strike Length Exp:	Metallics: PY	<5	0.6	68	0.1
	Elevation m	Sample Width: 10 cm	True Width: 10 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Trachyte		9	146	12	>10000

Comments: Typical of 10 cm vein of pyrite in altered trachyte with 5% fluorite.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524503	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	<.2	36	<.1
	Elevation m	Sample Width: 0 cm	True Width: 0 cm	Secondaries: LI	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Ferricrete		42	20	38	360

Comments: Locally common gossanous blocks of ferricrete in talus slope.

Sample Number:	Grid North: N	Grid East: E	Type: Grab	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524504	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	0.2	122	<.1
	Elevation m	Sample Width: cm	True Width: cm	Secondaries: LI, HE?	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Trachyte		12	12	5790	2700

Comments: Dark red limonite-cemented trachyte at top of seep.

Sample Number:	Grid North: N	Grid East: E	Type: Float	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524505	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	<.2	36	0.2
	Elevation m	Sample Width: 3 m	True Width: 3 m	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation		Host : Trachytic Tuff (?)		2	206	152	1700

Comments: Scraped across 3 m of red soils on ridge spine, trachytic tuff(?)>

Rock Sample Descriptions

Project Name: Starr **Project:** PTH97-02 **NTS:** 105 G

Sample Number	Grid North	Grid East	Type	Alteration	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524506	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	<.2	6	2.9
Starr	Elevation m	Sample Width: 60 cm	True Width: 60 cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
	Orientation		Host : Amygdaloidal volcanic		5	18	10	>10000

Type: Chip. Alteration: SI, FL, BA?

Comments: Yellow-weathering silicified, baritic? volcanic with fluorite.

Sample Number	Grid North	Grid East	Type	Alteration	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524507	UTM N	UTM E	Strike Length Exp:	Metallics: PY	<5	<.2	<2	0.5
Starr	Elevation m	Sample Width: cm	True Width: cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
	Orientation		Host : Trachyte		1	10	2	900

Type: Grab. Alteration: SI

Comments: Silicified, grey, pyritic trachyte.

Sample Number	Grid North	Grid East	Type	Alteration	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524508	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	<.2	6	0.4
Starr	Elevation m	Sample Width: cm	True Width: cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
	Orientation		Host : Volcanic		4	14	14	1300

Type: Grab. Alteration: BA?

Comments: Altered grey, baritic? volcanic.

Sample Number	Grid North	Grid East	Type	Alteration	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524509	UTM N	UTM E	Strike Length Exp:	Metallics:	<5	<.2	6	1.5
Starr	Elevation m	Sample Width: cm	True Width: cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
	Orientation		Host : Volcanic		1	36	<2	850

Type: Grab. Alteration: BA?

Comments: Altered, grey, baritic? volcanic.

Sample Number	Grid North	Grid East	Type	Alteration	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524510	UTM N	UTM E	Strike Length Exp:	Metallics: 10%PY	<5	<.2	30	2.2
Starr	Elevation m	Sample Width: cm	True Width: cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
	Orientation		Host : Trachyte?		12	30	18	4200

Type: Grab. Alteration: BA?, trFL

Comments: Altered, white-grey fine-grained trachyte with 10% fine pyrite, trace fluorite and possible barite.

Sample Number	Grid North	Grid East	Type	Alteration	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524511	UTM N	UTM E	Strike Length Exp:	Metallics: PY	<5	<.2	<2	0.1
Starr	Elevation m	Sample Width: cm	True Width: cm	Secondaries:	**Cu (ppm)**	**Pb (ppm)**	**Zn (ppm)**	**F (ppm)**
	Orientation		Host : Trachyte		1	12	2	900

Type: Grab. Alteration:

Comments: Typical pyritic, altered grey trachyte.

Rock Sample Descriptions

Project Name: Starr **Project:** PTH97-02 **NTS:** 105 G

Sample Number:	Grid North:	N	Grid East:	E	Type: Grab	Alteration: mQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524551	UTM	N	UTM	E	Strike Length Exp: 2	Metallics: 30-40%PY	<5	<.2	8	0.5
	Elevation 1390	m	Sample Width: 3	cm	True Width: 3 m	Secondaries: sGE, sHE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation				Host : Felsic volcanics		4	30	8	250

Comments: Sample taken in G-5 gossan; in creek bank.

Sample Number:	Grid North:	N	Grid East:	E	Type: Grab	Alteration: wQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524552	UTM	N	UTM	E	Strike Length Exp: 10	Metallics: 2-3%PY	<5	<.2	2	0.5
	Elevation 1450	m	Sample Width: 5	cm	True Width: 5 m	Secondaries: sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation				Host : Felsic volcanics		4	6	2	630

Comments: Taken in a gossan in a small dry gully north west of the G-5 gossan.

Sample Number:	Grid North:	N	Grid East:	E	Type: Grab	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524553	UTM	N	UTM	E	Strike Length Exp: 10	Metallics: 2-3%PY, 2-5%FL	<5	<.2	14	1.5
	Elevation	m	Sample Width: 5	cm	True Width: 5 m	Secondaries: sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation				Host : Felsic volcanics		7	22	2	>10000

Comments: Fluorite seen here over a 10m radius. Sample taken in gossan at first stop, G-17.

Sample Number:	Grid North:	N	Grid East:	E	Type: Chip	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524554	UTM	N	UTM	E	Strike Length Exp: 10	Metallics: 1%PY, 50%BA, 49%FL	<5	<.2	2	40.8
	Elevation 1880	m	Sample Width: 0.5	cm	True Width: 50 cm	Secondaries: mJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation 170°/03° SW		Vein		Host : Felsic volcanics		3	<2	<2	10000

Comments: Taken in a gossan at the head of the basin at the first stop. Fluorite seen everywhere so far. G-17.

Sample Number:	Grid North:	N	Grid East:	E	Type: Grab	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524555	UTM	N	UTM	E	Strike Length Exp:	Metallics: 2-5%PY, 2-3%FL	<5	<.2	10	1.7
	Elevation 1885	m	Sample Width: 1	cm	True Width: 1 m	Secondaries: sGE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation				Host : Felsic volcanic		6	28	4	>10000

Comments: Sample taken on ridge line at the first stop (fluorite basin). G-17.

Sample Number:	Grid North:	N	Grid East:	E	Type: Float	Alteration: wQZ	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524556	UTM	N	UTM	E	Strike Length Exp:	Metallics: 3-5%PY, 1%SP	<5	<.2	18	0.1
	Elevation	m	Sample Width: 0	cm	True Width: 0 cm	Secondaries: sGE, sJA	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation				Host : Felsic Volcanic		39	142	36000	2400

Comments: Taken at the head of fluorite basin in subcrop.

Rock Sample Descriptions

Project Name: Starr **Project:** PTH97-02 **NTS:** 105 G

Sample Number:	Grid North:	N	Grid East:	E	Type: Float	Alteration:	Au (ppb)	Ag (ppm)	As (ppm)	Ba (%)
524557	UTM	N	UTM	E	Strike Length Exp:	Metallics:	<5	<.2	2	17.6
	Elevation 1700	m	Sample Width: 0	cm	True Width: 0 cm	Secondaries:	Cu (ppm)	Pb (ppm)	Zn (ppm)	F (ppm)
Starr	Orientation				Host : Barite		3	2	142	850

Comments: Sample taken near bottom of a small basin on the north east side. Lots of barite in talus here. G-1 gossan.

APPENDIX E

CERTIFICATES OF ANALYSIS

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

A9744799

Comments: ATTN: MARK BAKNES CC: VIC TANAKA

CERTIFICATE A9744799

(EIA) - EQUITY ENGINEERING LTD.

Project: PTH97-02
P.O. # : STARR

Samples submitted to our lab in Vancouver, BC.
This report was printed on 6-OCT-97.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	29	Dry, sieve to -80 mesh
202	29	save reject
229	29	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	27	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118	29	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	29	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	29	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121	29	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	29	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	29	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	29	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	29	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2126	29	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	29	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	29	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	29	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	29	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	29	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	29	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	29	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	29	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	29	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	29	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	29	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
2138	29	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	29	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	29	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	29	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	29	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	29	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	29	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
2145	29	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	29	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	29	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	29	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	29	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
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British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 06-OCT-97
Invoice No. : I9744799
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9744799

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
MB97-01	201	202	10	< 0.2	2.00	2	220	0.5	< 2	1.04	2.0	19	69	42	5.19	< 10	1	0.09	60	1.76	1205
MB97-02	201	202	< 5	0.2	0.99	6	250	0.5	< 2	2.91	3.0	9	14	21	3.59	< 10	< 1	0.08	50	0.90	955
MB97-03	201	202	< 5	< 0.2	0.96	10	300	1.0	< 2	0.55	3.0	7	9	19	4.34	< 10	< 1	0.08	110	0.36	1365
MB97-04	201	202	< 5	0.2	0.33	14	460	< 0.5	< 2	0.25	0.5	28	7	29	3.16	< 10	< 1	0.07	10	0.05	295
MB97-05	201	202	< 5	0.2	0.59	< 2	250	0.5	< 2	7.42	3.0	9	7	17	3.12	< 10	2	0.03	80	3.67	1220
MB97-06	201	202	< 5	0.2	0.38	4	200	< 0.5	< 2	4.07	4.5	7	7	22	2.68	< 10	1	0.04	20	2.04	525
MB97-07	201	202	< 5	< 0.2	0.46	16	120	0.5	< 2	0.67	1.5	6	6	16	4.40	< 10	< 1	0.05	80	0.28	1055
MB97-08	201	202	< 5	0.4	0.52	14	310	0.5	< 2	0.35	4.5	10	13	26	3.56	< 10	< 1	0.11	70	0.24	1375
MB97-09	201	202	< 5	< 0.2	2.49	2	50	0.5	< 2	1.53	6.5	14	26	23	3.45	< 10	1	0.04	80	2.23	1160
MB97-10	201	202	< 5	< 0.2	2.37	< 2	90	0.5	< 2	1.64	2.5	14	27	22	3.58	< 10	< 1	0.04	60	2.16	610
MB97-11	201	202	< 5	< 0.2	4.21	6	160	2.0	< 2	1.62	20.0	22	8	25	3.92	< 10	< 1	0.04	100	0.76	2630
MB 12	201	202	< 5	0.8	1.03	12	230	< 0.5	< 2	1.31	0.5	13	23	51	3.08	< 10	< 1	0.09	10	0.97	510
TB97-01	201	202	10	0.2	1.01	2	190	< 0.5	< 2	2.78	0.5	11	33	23	3.09	< 10	< 1	0.05	40	1.81	655
TB97-02	201	202	20	0.2	1.00	10	380	< 0.5	< 2	1.09	2.5	11	23	30	3.18	< 10	1	0.07	40	0.88	605
TB97-03	201	202	< 5	< 0.2	4.81	4	160	2.5	< 2	0.74	12.5	16	8	29	3.41	< 10	< 1	0.03	100	0.41	1640
TB97-04	201	202	< 5	0.6	1.30	22	160	1.0	< 2	0.16	< 0.5	9	35	63	14.10	< 10	< 1	0.22	100	0.30	210
TB97-05	201	202	< 5	< 0.2	0.76	6	230	0.5	< 2	0.39	1.0	6	15	17	3.19	< 10	< 1	0.07	50	0.27	820
TB97-06	201	202	< 5	< 0.2	1.39	16	130	1.5	< 2	0.33	2.0	7	5	16	3.78	< 10	< 1	0.10	220	0.19	1430
TB97-07	201	202	< 5	0.8	0.73	6	1130	< 0.5	< 2	0.29	1.0	12	18	48	2.63	< 10	< 1	0.10	30	0.31	530
TB97-08	201	202	< 5	0.8	0.78	4	520	< 0.5	< 2	3.75	2.5	12	38	44	2.68	< 10	1	0.07	10	2.51	425
TB97-09	201	202	< 5	< 0.2	1.09	6	220	< 0.5	< 2	0.20	< 0.5	14	92	30	8.64	< 10	< 1	0.29	80	0.73	215
TB97-10	201	202	< 5	< 0.2	0.81	10	220	1.5	< 2	0.71	2.5	7	7	17	4.66	< 10	1	0.06	280	0.44	2470
TB97-11	201	202	< 5	0.2	0.40	6	140	0.5	< 2	1.12	2.0	11	5	42	2.62	< 10	< 1	0.08	10	0.61	385
TB97-12	201	202	< 5	0.2	0.59	14	220	0.5	< 2	1.03	1.5	9	14	27	3.63	< 10	1	0.10	80	0.63	795
TB97-13	201	202	< 5	< 0.2	0.35	20	110	0.5	< 2	0.48	1.5	5	4	12	2.48	< 10	< 1	0.08	90	0.08	530
TB97-14	201	202	< 5	< 0.2	0.67	20	650	0.5	< 2	0.59	3.5	10	11	36	3.33	< 10	< 1	0.07	50	0.27	410
TB97-15	201	202	< 5	0.2	2.80	24	270	2.5	< 2	0.31	6.5	38	32	173	4.17	< 10	< 1	0.06	80	0.55	720
TB97-16	201	202	-----	0.2	1.06	26	360	0.5	< 2	0.62	3.0	13	17	54	3.10	< 10	< 1	0.07	110	0.54	640
TB97-17	201	202	-----	0.2	1.58	2	150	0.5	< 2	1.43	3.0	15	28	36	3.36	< 10	< 1	0.06	80	1.54	580

CERTIFICATION:

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 06-OCT-97
Invoice No. : I9744799
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9744799

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
MB97-01	201	202	5	0.01	110	1130	18	< 2	5	46	0.08	< 10	< 10	50	< 10	520
MB97-02	201	202	7	0.01	46	740	18	< 2	1	74	< 0.01	< 10	< 10	18	< 10	324
MB97-03	201	202	8	< 0.01	20	590	24	< 2	1	26	< 0.01	< 10	< 10	11	< 10	308
MB97-04	201	202	6	< 0.01	39	1570	30	< 2	2	73	< 0.01	< 10	< 10	23	< 10	148
MB97-05	201	202	4	0.01	26	680	66	< 2	3	181	< 0.01	< 10	< 10	12	< 10	438
MB97-06	201	202	4	0.01	34	730	24	< 2	3	94	< 0.01	< 10	< 10	14	< 10	364
MB97-07	201	202	14	< 0.01	24	490	24	2	1	22	< 0.01	< 10	< 10	13	< 10	294
MB97-08	201	202	12	< 0.01	74	630	18	2	1	22	< 0.01	< 10	< 10	13	< 10	460
MB97-09	201	202	2	0.01	70	560	10	< 2	3	52	< 0.01	< 10	< 10	14	< 10	442
MB97-10	201	202	2	< 0.01	42	630	12	< 2	3	57	< 0.01	< 10	< 10	16	< 10	212
MB97-11	201	202	7	0.03	81	550	16	< 2	4	33	< 0.01	< 10	< 10	21	< 10	818
MB 12	201	202	6	< 0.01	50	830	10	2	4	51	< 0.01	< 10	< 10	16	< 10	182
TB97-01	201	202	4	< 0.01	37	920	18	< 2	3	60	0.05	< 10	< 10	26	< 10	128
TB97-02	201	202	5	< 0.01	43	1080	28	< 2	3	49	0.03	< 10	< 10	29	< 10	304
TB97-03	201	202	6	0.03	56	720	18	< 2	3	30	< 0.01	< 10	< 10	15	< 10	692
TB97-04	201	202	8	< 0.01	44	1410	18	< 2	4	48	< 0.01	< 10	< 10	25	< 10	134
TB97-05	201	202	4	< 0.01	24	900	16	< 2	1	30	0.01	< 10	< 10	18	< 10	160
TB97-06	201	202	9	< 0.01	27	650	30	< 2	1	45	< 0.01	< 10	< 10	9	< 10	302
TB97-07	201	202	3	< 0.01	62	560	12	< 2	3	28	< 0.01	< 10	< 10	22	< 10	208
TB97-08	201	202	12	< 0.01	66	1270	16	2	4	78	0.04	< 10	< 10	53	< 10	274
TB97-09	201	202	8	< 0.01	59	890	30	< 2	4	55	0.08	< 10	< 10	30	< 10	80
TB97-10	201	202	12	< 0.01	39	490	34	< 2	1	32	< 0.01	< 10	< 10	7	< 10	482
TB97-11	201	202	5	0.01	41	960	18	< 2	2	47	< 0.01	< 10	< 10	16	< 10	378
TB97-12	201	202	11	< 0.01	38	900	28	2	2	42	< 0.01	< 10	< 10	20	< 10	250
TB97-13	201	202	6	< 0.01	14	870	42	< 2	1	30	< 0.01	< 10	< 10	8	< 10	222
TB97-14	201	202	7	0.01	71	860	32	2	3	43	< 0.01	< 10	< 10	22	< 10	402
TB97-15	201	202	7	0.03	106	1100	24	< 2	4	51	0.02	< 10	60	34	< 10	690
TB97-16	201	202	9	0.08	105	980	18	2	3	49	0.01	< 10	< 10	19	< 10	1655
TB97-17	201	202	7	0.01	51	880	22	2	3	47	0.03	< 10	< 10	22	< 10	484

CERTIFICATION:______________

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

A9744832

Comments: ATTN: MARK BAKNES CC: VIC TANAKA

CERTIFICATE A9744832

(EIA) - EQUITY ENGINEERING LTD.

Project: PTH97-02
P.O. # : STARR

Samples submitted to our lab in Vancouver, BC.
This report was printed on 6-OCT-97.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	4	Dry, sieve to -80 mesh
202	4	save reject
229	4	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	4	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
2118	4	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	4	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	4	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121	4	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	4	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	4	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	4	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	4	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2126	4	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	4	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	4	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	4	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	4	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	4	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	4	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	4	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	4	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	4	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	4	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	4	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
2138	4	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	4	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	4	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	4	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	4	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	4	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	4	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
2145	4	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	4	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	4	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	4	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	4	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

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207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 06-OCT-97
Invoice No. : I9744832
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9744832

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
MB97S-01	201	202	< 5	0.2	0.66	22	250	< 0.5	< 2	0.04	< 0.5	3	9	15	4.24	< 10	< 1	0.19	70	0.08	225
MB97S-02	201	202	< 5	0.6	0.18	42	190	2.5	8	2.43	< 0.5	12	< 1	< 1	>15.00	< 10	4	0.01	< 10	0.07	>10000
PL97S-1	201	202	< 5	0.8	0.26	< 2	10	< 0.5	8	0.01	< 0.5	3	< 1	12	>15.00	< 10	3	< 0.01	10	0.01	1960
PL97S-2	201	202	< 5	0.2	0.52	42	220	3.0	< 2	4.59	< 0.5	12	4	5	>15.00	< 10	1	0.04	20	0.26	7240

CERTIFICATION:______________________

Chemex Labs Ltd.

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To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 07-OCT-97
Invoice No. : I9744802
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9744802

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
4920	205	226	< 5	0.4	1.52	50	< 10	0.5	< 2	9.02	< 0.5	1	59	6	9.91	< 10	1	1.51	< 10	< 0.01	< 5
4921	205	226	15	< 0.2	1.01	< 2	280	1.5	< 2	1.31	< 0.5	< 1	63	2	1.70	10	< 1	0.59	150	0.17	325
4922	205	226	< 5	< 0.2	0.33	92	270	3.5	< 2	0.15	< 0.5	8	17	3	>15.00	< 10	3	0.09	10	0.07	1425
4923	205	226	< 5	< 0.2	0.93	18	1010	< 0.5	< 2	0.29	< 0.5	< 1	109	5	0.98	< 10	< 1	0.51	130	0.01	10
4924	205	226	< 5	< 0.2	0.45	< 2	60	< 0.5	< 2	0.01	< 0.5	< 1	36	1	2.80	< 10	< 1	0.31	10	< 0.01	65
4925	205	226	< 5	0.2	0.22	18	280	< 0.5	< 2	< 0.01	< 0.5	< 1	97	6	3.28	< 10	< 1	0.10	< 10	< 0.01	5
4926	205	226	< 5	< 0.2	0.73	< 2	260	< 0.5	< 2	< 0.01	< 0.5	< 1	24	< 1	0.61	< 10	< 1	0.45	< 10	0.02	5
4927	205	226	< 5	< 0.2	0.28	< 2	30	< 0.5	< 2	< 0.01	< 0.5	< 1	34	2	2.19	< 10	< 1	0.24	50	< 0.01	< 5
4928	205	226	< 5	< 0.2	0.38	12	130	< 0.5	< 2	0.02	< 0.5	< 1	36	6	0.93	< 10	< 1	0.17	< 10	0.01	5
4929	205	226	< 5	< 0.2	0.31	2	80	< 0.5	< 2	1.10	< 0.5	2	25	3	2.01	< 10	< 1	0.35	30	0.01	95
4930	205	226	< 5	0.2	0.50	6	20	< 0.5	< 2	< 0.01	< 0.5	< 1	41	1	4.49	< 10	< 1	0.27	40	0.01	< 5
4931	205	226	< 5	0.2	0.47	8	70	< 0.5	< 2	< 0.01	< 0.5	< 1	25	4	1.43	< 10	< 1	0.28	50	< 0.01	5
4932	205	226	< 5	< 0.2	0.46	12	200	< 0.5	< 2	0.01	< 0.5	< 1	44	4	1.92	< 10	< 1	0.21	60	0.01	5
4933	205	226	< 5	< 0.2	2.22	18	10	< 0.5	< 2	1.65	< 0.5	1	38	7	6.95	< 10	< 1	0.97	170	0.03	15
4934	205	226	< 5	< 0.2	0.50	12	140	< 0.5	< 2	0.52	< 0.5	1	114	5	1.42	< 10	< 1	0.23	40	0.01	30
4935	205	226	< 5	< 0.2	0.20	14	80	< 0.5	< 2	1.74	< 0.5	1	4	18	1.05	< 10	< 1	0.08	40	0.02	65
4936	205	226	< 5	< 0.2	2.41	40	410	1.5	< 2	2.96	< 0.5	< 1	49	6	0.64	20	< 1	1.54	140	0.10	5
4937	205	226	< 5	< 0.2	0.24	6	10	< 0.5	< 2	1.44	< 0.5	< 1	22	6	2.69	< 10	< 1	0.12	20	0.06	205
4938	205	226	< 5	1.8	0.21	140	< 10	< 0.5	< 2	5.14	0.5	5	30	72	10.25	< 10	< 1	0.11	70	0.62	465
230839	205	226	< 5	< 0.2	1.56	6	340	0.5	< 2	1.90	< 0.5	< 1	103	3	1.38	10	< 1	0.99	120	0.10	150
230840	205	226	< 5	0.2	0.26	34	10	< 0.5	< 2	< 0.01	< 0.5	< 1	89	3	5.47	< 10	< 1	0.21	< 10	< 0.01	5
230841	205	226	< 5	< 0.2	0.25	< 2	210	< 0.5	< 2	< 0.01	< 0.5	< 1	36	3	0.92	< 10	< 1	0.24	20	< 0.01	< 5
230842	205	226	< 5	0.6	0.11	140	< 10	< 0.5	< 2	0.07	< 0.5	1	85	22	>15.00	< 10	< 1	0.05	< 10	< 0.01	10
230843	205	226	< 5	0.2	0.22	8	< 10	< 0.5	< 2	< 0.01	< 0.5	1	53	9	7.33	< 10	< 1	0.18	< 10	< 0.01	< 5
230844	205	226	< 5	0.4	0.08	50	< 10	< 0.5	< 2	< 0.01	< 0.5	1	23	14	>15.00	< 10	< 1	0.05	< 10	< 0.01	5
230845	205	226	< 5	3.2	0.21	254	< 10	< 0.5	< 2	< 0.01	< 0.5	4	96	242	>15.00	< 10	1	0.11	< 10	< 0.01	15
230846	205	226	< 5	< 0.2	0.30	10	330	< 0.5	< 2	0.01	< 0.5	1	74	1	0.79	< 10	< 1	0.27	60	< 0.01	5
230847	205	226	< 5	0.2	0.47	18	130	< 0.5	< 2	< 0.01	< 0.5	2	31	4	8.19	< 10	< 1	0.62	80	< 0.01	55
230848	205	226	< 5	0.2	0.28	32	60	< 0.5	< 2	< 0.01	< 0.5	< 1	66	1	4.85	< 10	1	1.00	40	< 0.01	< 5
230849	205	226	< 5	< 0.2	0.69	8	120	< 0.5	< 2	0.54	< 0.5	< 1	48	5	2.05	< 10	< 1	0.38	70	0.01	40
230850	205	226	< 5	1.0	0.39	14	< 10	< 0.5	< 2	< 0.01	< 0.5	< 1	70	4	8.45	< 10	< 1	0.23	< 10	< 0.01	< 5
524501	205	226	< 5	0.8	1.57	130	< 10	0.5	< 2	3.28	< 0.5	2	57	6	>15.00	< 10	2	1.74	< 10	0.04	45
524502	205	226	< 5	0.6	2.35	68	10	1.5	< 2	4.04	< 0.5	2	80	9	12.80	< 10	1	2.35	40	0.40	305
524503	205	226	< 5	< 0.2	0.36	36	240	< 0.5	< 2	0.01	< 0.5	1	17	42	>15.00	< 10	< 1	0.10	50	0.01	50
524504	205	226	< 5	0.2	0.79	122	250	1.0	< 2	0.38	>100.0	41	17	12	>15.00	< 10	2	0.15	30	0.03	2260
524505	205	226	< 5	< 0.2	0.49	36	320	< 0.5	< 2	0.01	< 0.5	1	53	2	4.65	< 10	< 1	0.33	60	0.01	55
524506	205	226	< 5	< 0.2	3.18	6	370	2.0	< 2	2.94	< 0.5	< 1	30	5	1.16	10	< 1	2.76	30	0.04	5
524507	205	226	< 5	< 0.2	0.36	< 2	80	< 0.5	< 2	0.01	< 0.5	< 1	53	1	2.25	< 10	< 1	0.27	60	< 0.01	5
524508	205	226	< 5	< 0.2	0.34	6	340	< 0.5	< 2	0.08	< 0.5	< 1	42	4	1.14	< 10	< 1	0.35	90	0.01	40
524509	205	226	< 5	< 0.2	0.29	6	1100	< 0.5	< 2	< 0.01	< 0.5	< 1	53	1	0.27	< 10	< 1	0.26	60	0.01	5

CERTIFICATION:

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CERTIFICATE OF ANALYSIS A9744802

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
4920	205	226	14	0.17	10	20	126	2	< 1	58	< 0.01	< 10	< 10	< 1	< 10	4
4921	205	226	14	0.04	2	200	10	< 2	< 1	22	< 0.01	< 10	< 10	< 1	< 10	18
4922	205	226	23	< 0.01	52	240	2	< 2	< 1	28	< 0.01	< 10	< 10	4	< 10	1435
4923	205	226	10	< 0.01	1	270	10	< 2	< 1	29	< 0.01	< 10	< 10	1	< 10	6
4924	205	226	8	< 0.01	< 1	50	12	< 2	< 1	3	< 0.01	< 10	< 10	< 1	< 10	8
4925	205	226	6	< 0.01	1	170	44	6	< 1	5	< 0.01	< 10	< 10	102	< 10	8
4926	205	226	2	< 0.01	< 1	10	14	< 2	< 1	3	< 0.01	< 10	< 10	1	< 10	< 2
4927	205	226	4	< 0.01	1	90	14	< 2	< 1	3	< 0.01	< 10	< 10	< 1	< 10	< 2
4928	205	226	8	< 0.01	3	280	20	2	< 1	5	< 0.01	< 10	< 10	14	< 10	74
4929	205	226	8	< 0.01	1	400	18	< 2	< 1	37	< 0.01	< 10	< 10	< 1	< 10	4
4930	205	226	4	< 0.01	< 1	50	30	< 2	< 1	2	< 0.01	< 10	< 10	< 1	< 10	8
4931	205	226	17	< 0.01	1	60	20	< 2	< 1	4	< 0.01	< 10	< 10	< 1	< 10	< 2
4932	205	226	9	< 0.01	< 1	210	24	< 2	< 1	8	< 0.01	< 10	< 10	< 1	< 10	10
4933	205	226	5	< 0.01	< 1	560	38	< 2	< 1	22	0.01	< 10	< 10	< 1	< 10	6
4934	205	226	22	< 0.01	3	630	28	< 2	< 1	80	< 0.01	< 10	< 10	3	< 10	8
4935	205	226	3	< 0.01	4	50	2	< 2	< 1	161	< 0.01	< 10	< 10	< 1	< 10	6
4936	205	226	6	0.02	< 1	120	2	< 2	< 1	23	0.01	< 10	< 10	< 1	< 10	< 2
4937	205	226	3	< 0.01	1	80	16	< 2	< 1	45	< 0.01	< 10	< 10	< 1	< 10	8
4938	205	226	29	< 0.01	12	110	630	< 2	1	129	< 0.01	< 10	< 10	2	< 10	142
230839	205	226	7	0.08	2	100	12	< 2	< 1	25	< 0.01	< 10	< 10	< 1	< 10	54
230840	205	226	6	< 0.01	1	10	50	< 2	< 1	5	< 0.01	< 10	< 10	< 1	< 10	< 2
230841	205	226	7	0.02	< 1	90	26	< 2	< 1	15	< 0.01	< 10	< 10	< 1	< 10	< 2
230842	205	226	7	< 0.01	12	500	198	6	< 1	17	< 0.01	< 10	< 10	9	< 10	8
230843	205	226	5	< 0.01	< 1	10	78	< 2	< 1	3	< 0.01	< 10	< 10	< 1	< 10	2
230844	205	226	5	< 0.01	< 1	30	182	< 2	< 1	2	< 0.01	< 10	< 10	< 1	< 10	18
230845	205	226	3	< 0.01	98	10	102	36	< 1	2	< 0.01	< 10	< 10	57	< 10	8
230846	205	226	5	< 0.01	1	130	10	< 2	< 1	26	< 0.01	< 10	< 10	1	< 10	< 2
230847	205	226	16	< 0.01	1	260	42	< 2	< 1	60	< 0.01	< 10	< 10	1	< 10	34
230848	205	226	19	< 0.01	< 1	470	70	< 2	< 1	58	< 0.01	< 10	< 10	< 1	< 10	< 2
230849	205	226	5	< 0.01	4	280	16	2	< 1	87	< 0.01	< 10	< 10	8	< 10	52
230850	205	226	11	< 0.01	4	40	66	< 2	< 1	4	< 0.01	< 10	< 10	1	< 10	< 2
524501	205	226	47	0.06	5	20	388	< 2	< 1	24	< 0.01	< 10	< 10	< 1	< 10	8
524502	205	226	27	0.11	6	120	146	< 2	< 1	34	< 0.01	10	< 10	< 1	< 10	12
524503	205	226	11	< 0.01	< 1	1320	20	2	< 1	5	< 0.01	< 10	< 10	775	< 10	38
524504	205	226	18	< 0.01	113	370	12	< 2	< 1	39	< 0.01	< 10	20	35	< 10	5790
524505	205	226	5	< 0.01	1	290	206	< 2	< 1	10	< 0.01	< 10	< 10	2	< 10	152
524506	205	226	4	0.05	< 1	290	18	< 2	< 1	67	< 0.01	< 10	< 10	1	< 10	10
524507	205	226	7	0.01	1	100	10	< 2	< 1	10	< 0.01	< 10	< 10	< 1	< 10	2
524508	205	226	2	< 0.01	1	200	14	< 2	< 1	27	< 0.01	< 10	< 10	< 1	< 10	14
524509	205	226	11	< 0.01	1	60	36	< 2	< 1	13	< 0.01	< 10	< 10	< 1	< 10	< 2

CERTIFICATION:

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 07-OCT-97
Invoice No. : I9744802
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9744802

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
524510	205	226	< 5	< 0.2	0.59	30	80	< 0.5	< 2	1.43	< 0.5	1	78	12	2.28	< 10	< 1	0.50	40	< 0.01	70
524511	205	226	< 5	< 0.2	0.27	< 2	70	< 0.5	< 2	< 0.01	< 0.5	< 1	52	1	2.74	< 10	< 1	0.23	90	0.01	< 5
524551	205	226	< 5	< 0.2	0.27	8	30	< 0.5	< 2	0.04	< 0.5	< 1	64	4	4.83	< 10	< 1	0.25	10	< 0.01	15
524552	205	226	< 5	< 0.2	0.27	2	60	< 0.5	< 2	0.01	< 0.5	< 1	41	4	3.71	< 10	< 1	0.40	20	< 0.01	5
524553	205	226	< 5	< 0.2	3.00	14	50	< 0.5	< 2	3.45	< 0.5	< 1	35	7	2.11	< 10	< 1	3.00	30	< 0.01	5
524554	205	226	< 5	< 0.2	0.06	2	440	< 0.5	< 2	0.09	< 0.5	< 1	9	3	0.42	< 10	< 1	0.10	< 10	< 0.01	< 5
524555	205	226	< 5	< 0.2	2.24	10	60	< 0.5	< 2	2.14	< 0.5	< 1	59	6	2.00	< 10	< 1	2.34	20	< 0.01	35
524556	205	226	< 5	< 0.2	0.46	18	< 10	< 0.5	< 2	10.65	>100.0	11	28	39	11.05	< 10	12	0.17	20	0.13	640
524557	205	226	< 5	< 0.2	0.34	2	400	< 0.5	< 2	0.64	0.5	1	98	3	0.61	< 10	< 1	0.12	< 10	0.26	65

CERTIFICATION:________________

Chemex Labs Ltd.

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207 - 675 W. HASTINGS ST.
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Certificate Date: 07-OCT-97
Invoice No. : I9744802
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9744802

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
524510	205	226	18	< 0.01	1	370	30	< 2	< 1	139	< 0.01	< 10	< 10	< 1	< 10	18
524511	205	226	5	0.04	< 1	120	12	< 2	< 1	7	< 0.01	< 10	< 10	< 1	< 10	2
524551	205	226	3	< 0.01	5	50	30	2	< 1	8	< 0.01	< 10	< 10	< 1	< 10	8
524552	205	226	7	0.01	< 1	200	6	< 2	< 1	18	< 0.01	< 10	< 10	4	< 10	2
524553	205	226	3	0.04	< 1	1770	22	< 2	< 1	99	< 0.01	< 10	< 10	< 1	< 10	2
524554	205	226	< 1	< 0.01	< 1	90	< 2	< 2	< 1	237	< 0.01	< 10	< 10	< 1	< 10	< 2
524555	205	226	3	0.04	1	650	28	< 2	< 1	38	< 0.01	< 10	< 10	< 1	< 10	4
524556	205	226	2	< 0.01	45	210	142	2	1	239	< 0.01	< 10	< 10	3	< 10	>10000
524557	205	226	< 1	< 0.01	7	330	2	< 2	< 1	94	< 0.01	< 10	< 10	1	< 10	142

CERTIFICATION:________________________

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
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To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Comments: ATTN: MARK BAKNES CC: VIC TANAKA

CERTIFICATE A9745901

(EIA) - EQUITY ENGINEERING LTD.

Project: PTH97-02
P.O. # : STARR

Samples submitted to our lab in Vancouver, BC.
This report was printed on 8-OCT-97.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
244	1	Pulp; prev. prepared at Chemex

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
316	1	Zn %: Conc. Nitric-HCL dig'n	AAS	0.01	100.0

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Page Number : 1
Total Pages : 1
Certificate Date: 08-OCT-97
Invoice No. : I9745901
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9745901

SAMPLE	PREP CODE		Zn %									
524556	244	--	3.60									

CERTIFICATION: [signature]

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

A9746065

Comments: ATTN: MARK BAKNES CC: VIC TANAKA

CERTIFICATE A9746065

(EIA) - EQUITY ENGINEERING LTD.

Project: PTH97-02
P.O. # : STARR

Samples submitted to our lab in Vancouver, BC.
This report was printed on 19-OCT-97.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
244	49	Pulp; prev. prepared at Chemex

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
21	49	F ppm: Carbonate-nitrate fusion	SPECIFIC ION	20	10000
3551	49	Ba %: XRF	XRF	0.1	100.0

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To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 19-OCT-97
Invoice No. : I9746065
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9746065

SAMPLE	PREP CODE		F ppm	Ba XRF %
4920	244	--	>10000	16.2
4921	244	--	8600	0.2
4922	244	--	500	0.3
4923	244	--	3400	2.4
4924	244	--	1000	0.4
4925	244	--	180	< 0.1
4926	244	--	3000	0.2
4927	244	--	850	< 0.1
4928	244	--	1180	< 0.1
4929	244	--	1650	0.1
4930	244	--	1650	0.2
4931	244	--	1270	< 0.1
4932	244	--	1550	0.7
4933	244	--	9750	0.3
4934	244	--	1250	0.2
4935	244	--	1800	44.8
4936	244	--	>10000	1.0
4937	244	--	1800	22.9
4938	244	--	1300	0.4
230839	244	--	>10000	0.2
230840	244	--	300	2.9
230841	244	--	470	1.3
230842	244	--	200	0.1
230843	244	--	310	5.0
230844	244	--	180	0.5
230845	244	--	450	< 0.1
230846	244	--	420	1.4
230847	244	--	640	1.1
230848	244	--	360	1.0
230849	244	--	1600	0.4
230850	244	--	700	0.2
524501	244	--	>10000	10.5
524502	244	--	>10000	0.1
524503	244	--	360	< 0.1
524504	244	--	2700	< 0.1
524505	244	--	1700	0.2
524506	244	--	>10000	2.9
524507	244	--	900	0.5
524508	244	--	1300	0.4
524509	244	--	850	1.5

CERTIFICATION: Hart Bichler

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : PTH97-02
Comments: ATTN: MARK BAKNES CC: VIC TANAKA

Certificate Date: 19-OCT-97
Invoice No. : I9746065
P.O. Number : STARR
Account : EIA

CERTIFICATE OF ANALYSIS A9746065

SAMPLE	PREP CODE		F ppm	Ba XRF %
524510	244	--	4200	2.2
524511	244	--	900	0.1
524551	244	--	250	0.5
524552	244	--	630	0.5
524553	244	--	>10000	1.5
524554	244	--	10000	40.8
524555	244	--	>10000	1.7
524556	244	--	2400	0.1
524557	244	--	850	17.6

CERTIFICATION:________________________

APPENDIX F

GEOLOGIST'S CERTIFICATE

GEOLOGIST'S CERTIFICATE

I, Mark E. Baknes, of 4355 St. Catherines Street, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with offices at Suite 207, 675 West Hastings Street, Vancouver, British Columbia.

2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology and a Master of Science degree in Geology from McMaster University.

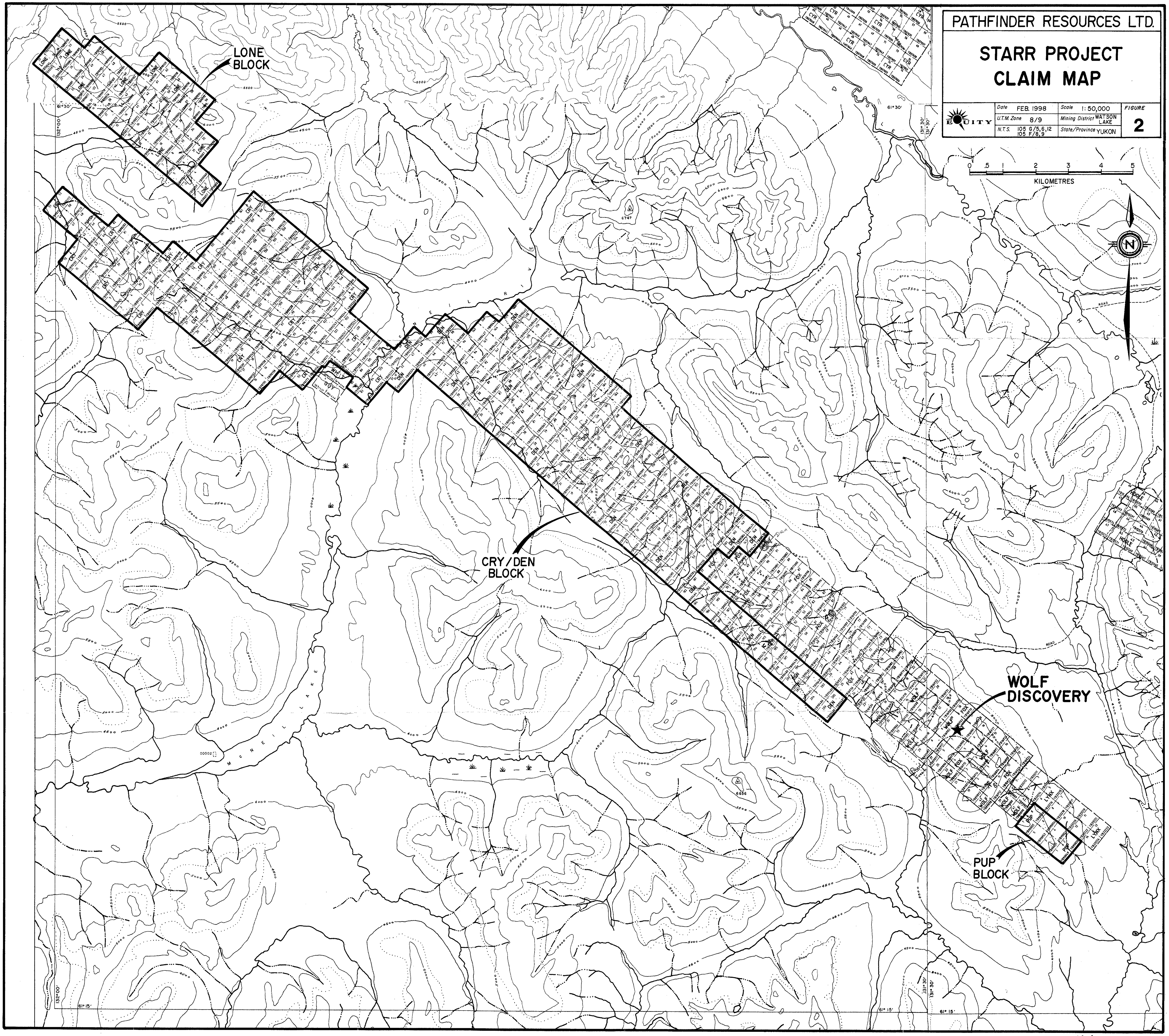
3. THAT I am a Professional Geoscientist registered in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

4. THAT this report is based in part on property work I personally completed and/or directly supervised from September 23 to September 26, 1997, government publications and assessment reports filed with the Yukon.

DATED at Vancouver, British Columbia, this 7th day of April, 1998.

Mark E. Baknes, P.Geo.

093786
VOL. 1



#1

GEOLOGICAL LEGEND

PELLY–CASSIAR PLATFORM

Upper Triassic and Jurassic

uRJv Dark green, massive, volcaniclastic sandstone; minor tuff.

uRsc Dark grey and buff weathering, recessive, thin–bedded bioclastic limestone with interbedded sandy or silty limestone, calcareous siltstone and shale; commonly finely cross–laminated.

Mississippian latest Devonian

Mva Heterogeneous, rusty, black, white and orange weathering lapilli and sand sized tuff, volcanic breccia and flow rocks ranging from trachyte to andesite in composition; black argillaceous slate and siliceous pale grey and pale green ?cherty tuff? locally abundant; minor finely crystalline buff limestone; locally includes abundant trachyte dykes; locally highly pyritic; weakly sericitized and commonly strongly foliated so that primary textures are masked.

Mt Rusty orange weathering, resistant, apple green and dark grey thin bedded chert and cherty tuff; may include minor Mv undifferentiated.

Plz Paleozoic, likely Devonian–Mississippian Yukon Tanana Terrane equivalent

Upper Devonian and Mississippian

uDMs Black recessive weathering, with rusty streaks, thin bedded black siliceous slate with minor interbedded chert grain greywacke and chert granule grit; includes lenses of intermediate to acid volcaniclastic rocks undifferentiated; includes interbedded dark grey barite undifferentiated.

Silurian and lower Devonian

Sd Resistant, light grey and white weathering, massive, medium grey, medium bedded, laminated to sucrose, dolomite; minor sandy dolomite.

Sdq Interbedded, white weathering, resistant, medium bedded, light grey, algal laminated and sparry dolomite, orthoquartzite and sandy dolomite.

Sd1 Resistant, thick–bedded to massive, red weathering, coarsely sucrose dolomite; minor sandy dolomite.

Ss Tan, medium grey, and very locally deep maroon weathering; light grey, thin–bedded to platy dolomitic siltstone, dolomitic fine–grained sandstone and minor silty dolomite.

Upper Cambrian and Ordovician (Silurian, Devonian)

€OSDsl Orange–brown weathering, recessive, thin bedded, medium to dark grey, calcareous shale, siltstone and argillaceous limestone; includes slate and phyllitic slate.

OSsl Recessive, black, locally calcareous, fissile, graptolitic slate; includes thin sills or flows of dark green, basalt undifferentiated; includes Sv undifferentiated; rarely includes lenses or large blocks of algal–laminated dolomite: grades upward into Ss and laterally into uCOsl, uCOslv and uCOc.

u€Osl Medium grey, recessive weathering, chlorite muscovite quartz phyllite and slaty phyllite, locally calcareous; in places includes lenses sills and flows of olive to dark green basalt and basaltic tuff COv and COvb; grades laterally to UCOc.

u€Oc Orange to orange–brown weathering, recessive, medium grey, thinly interlaminated calcareous shale and silty limestone or calcareous siltstone; proportion of carbonate to clastic material varies widely; includes slaty and phyllitic equivalents; includes distinctive red weathering quartz ankerite ?sweats?; locally includes thin layers of olive green tuff undifferentiated; laterally gradational to uCOsl.

€Ov Olive green, sandy and finer grained tuff and tuffaceous slate; commonly strongly foliated and metamorphosed to greenschist facies – equivalents include chlorite phyllite and chlorite amphibolite.

€Ovb Resistant, dark weathering, massive, dark green and dark maroon amygdaloidal basalt; calcite fills amygdules; locally strongly foliated and amygdules are chlorite patches; may include COv undifferentiated.

Geology after D.J. Tempelmen–Kluit (1977).

LITHOLOGIES

ARG undifferentiated argillaceous rocks including carbonaceous shales and phyllites
BSL undifferentiated mafic volcanics, likely trachy–basalts
BSLam amygdaloidal
EXH exhalative rocks, chemical sediments, may include chert
EXHba baritic and pyritic exhalite
EXHsl siliceous exhalite, may include chert, siliceous tuff
TRA undifferentiated trachyte
TRAat ash tuff
TRAbx volcanic breccia
TRAfp feldspar porphyry
TRAlt lapilli

ABBREVIATIONS

GOS Gossan (accompanying number referenced in report)

SYMBOLS

bedding (inclined, vertical)
foliation (inclined, vertical)
lithologic contact (defined, inferred)
Fault
Thrust fault
Outcrop
Gossanous area
Float
Stream sediment sample
Rock samples (float, outcrop)
Soil samples
Minfile occurrence

Silts Northwest Map

SAMPLE	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
1082	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26	545
1083	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	57	1198
1084	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	34	489
1085	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45	670
1086	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	200
1089	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	38	205
1090	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	36	162
1091	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	60	184
1092	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	33	256
1093	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32	123
1094	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	91
1175	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41	199
1176	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	96
1177	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	345
1178	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21	279
1179	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35	1048
1180	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	33	380
1182	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32	448
1183	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45	213
1184	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	46	188
1185	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22	214
1186	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20	168
1188	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	38	170
1189	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26	611
1190	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26	598
1191	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26	255
1192	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20	235
1193	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24	410
1204	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	78	242
1205	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	46	170
1206	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23	352
1207	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30	240
1210	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27	243
1211	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20	178
1212	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28	307
1214	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	56	174
1254	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	172
1255	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	202
1256	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9	81
1257	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	224
1258	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	241
1259	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	130
1260	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23	204
1262	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	204
1264	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30	292
MB97-04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30	148
MB97-05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	66	438
MB97-06	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24	364
MB97-07	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24	294
MB97-09	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	442
MB97-10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12	212
MB97-11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	818
MB97-12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	182
TB97-01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18	128
TB97-02	[illegible]	0.2	10	30	1	5	1080	28	304
TB97-03	[illegible]	<0.1	4	29	1	6	720	18	692
TB97-04	[illegible]	0.6	22	63	1	8	1410	18	134
TB97-08	[illegible]	0.8	4	44	1	12	1270	16	274
TB97-09	[illegible]	<0.1	6	30	1	8	890	30	80
TB97-10	[illegible]	<0.1	10	17	1	12	490	34	482
TB97-12	[illegible]	0.2	14	27	1	11	900	28	250
TB97-13	[illegible]	<0.1	20	12	1	6	870	42	222
TB97-14	[illegible]	<0.1	20	36	1	7	860	32	402
TB97-15	[illegible]	0.2	24	173	1	7	1100	24	690
TB97-16	[illegible]	0.2	26	54	1	9	980	18	1655
TB97-17	[illegible]	0.2	2	36	1	7	880	22	484

Percentiles	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
98th	13	1.0	35	80	340	18	1474	59	1162
95th	5	0.8	30	67	253	14	1340	50	746
90th	<5	0.7	24	58	184	13	1130	41	591
80th	<5	0.5	16	49	133	9	980	34	440
70th	<5	0.4	13	42	105	8	900	29	348
60th	<5	0.3	10	38	70	7	880	25	298
50th	<5	0.2	9	34	50	6	830	23	243

Rocks Northwest Map

SAMPLE	Au ppb	Ag ppm	As ppm	Ba %	Cu ppm	F ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
4920	<5	0.4	50	16.2	6	>10000	14	20	126	4
4921	15	<.2	<2	0.2	2	8600	14	200	10	18
4924	<5	<.2	<2	0.4	1	1000	8	50	12	8
4925	<5	0.2	18	<.1	6	180	6	170	44	8
4926	<5	<.2	<2	0.2	<1	3000	2	10	14	<2
4927	<5	<.2	<2	<.1	2	850	4	90	14	<2
4928	<5	<.2	12	<.1	6	1180	8	280	20	74
4932	<5	<.2	12	0.7	4	1550	9	210	24	10
4933	<5	<.2	18	0.3	7	9750	5	560	38	6
4934	<5	<.2	12	0.2	5	1250	22	630	28	8
4935	<5	<.2	14	44.8	18	1800	3	50	2	6
4936	<5	<.2	40	1.0	6	>10000	6	120	2	<2
4937	<5	<.2	6	22.9	6	1800	3	80	16	8
4938	<5	1.8	140	0.4	72	1300	29	110	630	142
230839	<5	<.2	6	0.2	3	>10000	7	100	12	54
230840	<5	0.2	34	2.9	3	300	6	10	50	<2
230841	<5	<.2	<2	1.3	3	470	7	90	26	<2
230842	<5	0.6	140	0.1	22	200	7	500	198	8
230843	<5	0.2	8	5.0	9	310	5	10	78	2
230844	<5	0.4	50	0.5	14	180	5	30	182	18
230845	<5	3.2	254	<.1	242	450	3	10	102	8
230846	<5	<.2	10	1.4	1	420	5	130	10	<2
230847	<5	0.2	18	1.1	4	640	16	260	42	34
230848	<5	0.2	32	1.0	1	360	19	470	70	<2
230849	<5	<.2	8	0.4	5	1600	5	280	16	52
230850	<5	1	14	0.2	4	700	11	40	66	<2
524501	<5	0.8	130	10.5	6	>10000	47	20	388	8
524502	<5	0.6	68	0.1	9	>10000	27	120	146	12
524503	<5	<.2	36	<.1	42	360	11	1320	20	38
524504	<5	0.2	122	<.1	12	2700	18	370	12	5790
524506	<5	<.2	6	2.9	5	>10000	4	290	18	10
524507	<5	<.2	<2	0.5	1	900	7	100	10	2
524508	<5	<.2	6	0.4	4	1300	2	200	14	14
524509	<5	<.2	6	1.5	1	850	11	60	36	<2
524510	<5	<.2	30	2.2	12	4200	18	370	30	18
524511	<5	<.2	<2	0.1	1	900	5	120	12	2
524551	<5	<.2	8	0.5	4	250	3	50	30	8
524552	<5	<.2	2	0.5	4	630	7	200	6	2
524553	<5	<.2	14	1.5	7	>10000	3	1770	22	2
524554	<5	<.2	2	40.8	3	10000	<1	90	<2	<2
524555	<5	<.2	10	1.7	6	>10000	3	650	28	4
524556	<5	<.2	18	0.1	39	2400	2	210	142	36000
524557	<5	<.2	2	17.6	3	850	<1	330	2	142

NORTHWEST SHEET
SOUTHEAST SHEET

scale: 1:20,000

0 200 400 600 1000
metres

093786
vol.1

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STARR PROJECT
NORTHWEST SHEET GEOLOGY AND GEOCHEMISTRY COMPILATION

Date: March 1998
Scale: 1:20,000
U.T.M. Zone (NAD27)
Mining District: Watson Lake
N.T.S.: 105G/5,6,12 F/8,9
Yukon Territory
Figure 4

#8

GEOLOGICAL LEGEND

PELLY–CASSIAR PLATFORM

Upper Triassic and Jurassic

uRJv Dark green, massive, volcaniclastic sandstone; minor tuff.

uRsc Dark grey and buff weathering, recessive, thin–bedded bioclastic limestone with interbedded sandy or silty limestone, calcareous siltstone and shale; commonly finely cross–laminated.

Mississippian latest Devonian

Mva Heterogeneous, rusty, black, white and orange weathering lapilli and sand sized tuff, volcanic breccia and flow rocks ranging from trachyte to andesite in composition; black argillaceous slate and siliceous pale grey and pale green ?cherty tuff? locally abundant; minor finely crystalline buff limestone; locally includes abundant trachyte dykes; locally highly pyritic; weakly sericitized and commonly strongly foliated so that primary textures are masked.

Mt Rusty orange weathering, resistant, apple green and dark grey thin bedded chert and cherty tuff; may include minor Mv undifferentiated.

Plz Paleozoic, likely Devonian–Mississippian Yukon Tanana Terrane equivalent

Upper Devonian and Mississippian

uDMs Black recessive weathering, with rusty streaks, thin bedded black siliceous slate with minor interbedded chert grain greywacke and chert granule grit; includes lenses of intermediate to acid volcaniclastic rocks undifferentiated; includes interbedded dark grey barite undifferentiated.

Silurian and lower Devonian

Sd Resistant, light grey and white weathering, massive, medium grey, medium bedded, laminated to sucrose, dolomite; minor sandy dolomite.

Sdq Interbedded, white weathering, resistant, medium bedded, light grey, algal laminated and sparry dolomite, orthoquartzite and sandy dolomite.

Sd1 Resistant, thick–bedded to massive, red weathering, coarsely sucrose dolomite; minor sandy dolomite.

Ss Tan, medium grey, and very locally deep maroon weathering; light grey, thin–bedded to platy dolomitic siltstone, dolomitic fine–grained sandstone and minor silty dolomite.

Upper Cambrian and Ordovician (Silurian, Devonian)

€OSDsl Orange–brown weathering, recessive, thin bedded, medium to dark grey, calcareous shale, siltstone and argillaceous limestone; includes slate and phyllitic slate.

OSsl Recessive, black, locally calcareous, fissile, graptolitic slate; includes thin sills or flows of dark green, basalt undifferentiated; includes Sv undifferentiated; rarely includes lenses or large blocks of algal–laminated dolomite: grades upward into Ss and laterally into uCOsl, uCOslv and uCOc.

u€Osl Medium grey, recessive weathering, chlorite muscovite quartz phyllite and slaty phyllite, locally calcareous; in places includes lenses sills and flows of olive to dark green basalt and basaltic tuff COv and COvb; grades laterally to UCOc.

u€Oc Orange to orange–brown weathering, recessive, medium grey, thinly interlaminated calcareous shale and silty limestone or calcareous siltstone; proportion of carbonate to clastic material varies widely; includes slaty and phyllitic equivalents; includes distinctive red weathering quartz ankerite ?sweats?; locally includes thin layers of olive green tuff undifferentiated; laterally gradational to uCOsl.

€Ov Olive green, sandy and finer grained tuff and tuffaceous slate; commonly strongly foliated and metamorphosed to greenschist facies – equivalents include chlorite phyllite and chlorite amphibolite.

€Ovb Resistant, dark weathering, massive, dark green and dark maroon amygdaloidal basalt; calcite fills amygdules; locally strongly foliated and amygdules are chlorite patches; may include COv undifferentiated.

Geology after D.J. Tempelmen–Kluit (1977).

LITHOLOGIES

ARG undifferentiated argillaceous rocks including carbonaceous shales and phyllites
BSL undifferentiated mafic volcanics, likely trachy–basalts
BSLam amygdaloidal
EXH exhalative rocks, chemical sediments, may include chert
EXHba baritic and pyritic exhalite
EXHsi siliceous exhalite, may include chert, siliceous tuff
TRA undifferentiated trachyte
TRAat ash tuff
TRAbx volcanic breccia
TRAfp feldspar porphyry
TRAlt lapilli

ABBREVIATIONS

AK Ankerite
BA Barite
FL Fluorite
PY Pyrite
SI Silicification
SP Sphalerite
QE Quartz eyes
FEC Ferricrete
GOS Gossan (accompanying number referenced in report)

SYMBOLS

bedding (inclined, vertical)
foliation (inclined, vertical)
lithological contact (defined, inferred)
Fault
Thrust fault
Outcrop
Gossanous area
X X Float
Stream sediment sample (4 digit # are RGS samples from GSC open file 1648)
Rock samples (float, outcrop)
Soil samples
Minfile occurrence

Silts Southeast Map

SAMPLE	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
1192	<5	0.5	5	66	105	5	NA	20	235
1193	<5	0.8	9	58	130	18	NA	24	410
1194	<5	0.9	10	66	180	22	NA	22	531
1195	<5	1.0	9	55	145	19	NA	25	420
1196	<5	<0.1	8	26	55	7	NA	40	291
1197	<5	<0.1	3	56	50	3	NA	17	138
1198	<5	0.4	4	73	110	8	NA	16	253
1199	<5	<0.1	1	51	50	1	NA	12	107
1200	<5	0.2	1	45	45	1	NA	12	101
1211	<5	0.5	15	24	65	8	NA	20	178
1212	<5	0.3	8	32	55	9	NA	28	307
1214	<5	0.3	8	17	340	4	NA	56	174
1215	<5	0.7	6	34	105	5	NA	24	238
1216	<5	<0.1	11	41	115	9	NA	29	312
1217	<5	<0.1	3	19	70	1	NA	41	198
1218	<5	<0.1	7	22	85	5	NA	36	1275
1219	<5	<0.1	1	32	50	1	NA	14	94
1220	<5	<0.1	1	33	50	1	NA	17	140
1222	<5	0.3	6	24	80	5	NA	38	1000
1223	<5	<0.1	1	40	30	1	NA	9	82
1234	<5	<0.1	6	25	55	6	NA	21	154
1239	<5	0.4	7	33	165	8	NA	19	431
1242	<5	0.4	6	45	135	3	NA	12	245
1243	<5	0.5	11	39	110	11	NA	22	698
1244	<5	0.5	8	28	115	6	NA	39	564
1245	<5	1.0	11	37	185	8	NA	20	297
1247	<5	0.4	12	36	110	3	NA	15	203
1248	<5	0.4	19	36	85	7	NA	20	358
1250	<5	<0.1	25	41	25	7	NA	27	230
3171	5	0.5	15	69	295	14	NA	22	315
3172	<5	<0.1	1	30	30	1	NA	13	98
3173	<5	0.4	8	39	160	5	NA	17	314
3174	<5	<0.1	2	25	35	1	NA	24	118
3175	<5	0.4	5	41	115	1	NA	18	344
3176	<5	<0.1	1	35	40	1	NA	14	80
3177	<5	<0.1	1	38	35	1	NA	14	92
3179	<5	0.4	7	29	155	2	NA	15	81
3180	<5	<0.1	2	40	40	1	NA	15	107
MB97–01	10	<0.1	2	42	1	5	1130	18	520
MB97–02	<5	0.2	6	21	1	7	740	18	324
MB97–03	<5	<0.1	10	19	1	8	590	24	308
MB97–07	<5	<0.1	16	16	1	14	490	24	294
MB97–08	<5	0.4	14	26	1	12	630	18	460
TB97–05	<5	<0.1	6	17	1	4	900	16	160
TB97–06	<5	<0.1	16	16	1	9	650	30	302
TB97–07	<5	0.8	6	48	1	3	560	12	208
TB97–10	<5	<0.1	10	17	1	12	490	34	482
TB97–11	<5	0.2	6	42	1	5	960	18	378

Percentiles	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
98th	13	1.0	35	80	340	18	1474	59	1162
95th	5	0.8	30	67	253	14	1340	50	746
90th	2	0.7	24	58	184	13	1130	41	591
80th	2	0.5	16	49	133	9	980	34	440
70th	2	0.4	13	42	105	8	900	29	348
60th	2	0.3	10	38	70	7	880	25	298
50th	2	0.2	9	34	50	6	830	23	243

Soils Southeast Map

SAMPLE	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
MB97S–01	<5	0.2	22	15	<1	17	970	72	68
MB97S–02	<5	0.6	42	<1	4	20	100	<2	728
PL97S–01	<5	0.8	<2	12	3	4	80	8	258
PL97S–02	<5	0.2	42	5	1	16	350	2	516

Rocks Southeast Map

SAMPLE	Au ppb	Ag ppm	As ppm	Ba %	Cu ppm	F ppm	Mo ppm	P ppm	Pb ppm	Zn ppm
4922	<5	<.2	92	0.3	3	500	23	240	2	1435
4923	<5	<.2	18	2.4	5	3400	10	270	10	6
4929	<5	<.2	2	0.1	3	1650	8	400	18	4
4930	<5	0.2	6	0.2	1	1650	4	50	30	8
4931	<5	0.2	8	<.1	4	1270	17	60	20	<2
4932	<5	<.2	12	0.7	4	1550	9	210	24	10
4934	<5	<.2	12	0.2	5	1250	22	630	28	8
4935	<5	<.2	14	44.8	18	1800	3	50	2	6
524505	<5	<.2	36	0.2	2	1700	5	290	206	152

NORTHWEST SHEET
SOUTHEAST SHEET

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Vol. 1

scale: 1:20,000
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metres

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GEOLOGY AND GEOCHEMISTRY COMPILATION

#3

EQUITY

Date	Scale	Figure
March 1998	1:20,000	5
U.T.M. Zone: UTM(NAD27)	Mining District: Watson Lake	
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GEOLOGICAL, GEOCHEMICAL & GEOPHYSICAL REPORT ON THE STARR PROPERTY

Volume II Appendix G: Geophysics Report

Yukon Territory
NTS 105G/5,6,12; 105F/8,9
61°27' North Latitude 131°43' West Longitude

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March 1998

APPENDIX G

GEOPHYSICS REPORT

REPORT

ON A

COMBINED HELICOPTER-BORNE
ELECTROMAGNETIC, MAGNETOMETER and VLF-EM
JOINT AERODAT SURVEY
WOLF DEPOSIT AND NEARBY BELT
YUKON TERRITORY

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Consulting Geophysicist

ref: J9795

March 4, 1998

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LIST OF MAPS

The survey data are presented in a set of numbered maps in the following format:

I BLACK LINE MAPS: (Scale 1:20,000)

BASE MAP; screened topographic base map plus survey area boundary, and UTM grid.

INTERPRETATION MAP; with base map, flight path map and EM anomaly symbols with interpretation .

TOTAL MAGNETIC INTENSITY; contours with EM anomaly symbols and flight lines.

VERTICAL MAGNETIC GRADIENT; contours of the vertical magnetic gradient calculated from the TMI with EM anomaly symbols and flight lines.

APPARENT RESISTIVITY; contours of apparent resistivity calculated from the coplanar 861 Hz data, with flight lines and EM anomaly symbols.

APPARENT RESISTIVITY; contours of apparent resistivity calculated from the coplanar 4,765 Hz data, with flight lines and EM anomaly symbols.

TOTAL FIELD VLF; contours of the total horizontal VLF field with flight lines and EM anomaly symbols.

II COLOUR MAPS: (Scale 1:20,000)

HEM OFFSET PROFILES; coplanar 861 Hz and coaxial 912 Hz data with flight lines and EM anomaly symbols.

HEM OFFSET PROFILES; coplanar 4,765 Hz and coaxial 4,365 Hz data with flight lines and EM anomaly symbols.

HEM OFFSET PROFILES; coplanar 33,020 Hz data with flight lines and EM anomaly symbols.

APPARENT RESISTIVITY; calculated from the coplanar 861 Hz data with superimposed contours, flight lines and EM anomaly symbols.

APPARENT RESISTIVITY; calculated from the coplanar 4,765 Hz data with superimposed contours, flight lines and EM anomaly symbols.

TOTAL MAGNETIC INTENSITY; with superimposed contours, flight lines and EM anomaly symbols.

VERTICAL MAGNETIC GRADIENT; contours of the vertical magnetic gradient calculated from the TMI with flight lines and EM anomaly symbols.

TOTAL FIELD VLF; colour map with embedded contours of the total horizontal VLF field.

TOTAL MAGNETIC INTENSITY SHADOW ENHANCEMENT MAP; colour map of Total Magnetic Field shadowed with an illuminated source at 214° declination and 45° inclination.

DIGITAL ELEVATION MODEL; elevation model calculated from the difference between the barometric and radar altimeters, with base map, flight lines and manual fiducials.

SUMMARY

A helicopterborne electromagnetic and magnetic survey was conducted over the Wolf Deposit and nearby belt in southern Yukon Territory, Canada. The survey was jointly conducted for Pathfinder Resources Ltd., Cominco Ltd., Atna Resources Ltd., and YGC Resources Ltd. Total survey coverage is 998 kilometres (908 km survey lines and 90 km tie lines).

The data collected is of use in mapping the geology of the survey area and in delineating areas consistent with the primary targets being sought. The primary targets are Kuroko type VMS mineralisation. They are relatively easy geophysical targets as they are conductive and may be directly detectable with the electromagnetic system. However, the EM responses in area may be due to a myriad of other sources such as the black shales. The magnetics is of use to search for areas of alteration (magnetite destruction) and as a mapping tool. Forty-six targets are located with fifteen targets of high priority which should be followed up first.

Follow up work may start by prospecting of the top ranked anomalies. Ground magnetometer and VLF surveys may be sufficient for geophysical ground follow up, but horizontal loop EM is a more certain EM technique if the prospecting confirms that the targets are in favourable settings or if prospecting can not find the source of the anomalies. Correlation with known geology and geochemistry should be done to reassess the geophysical anomalies as the interpreted setting was used to weigh the anomalies.

Depending on the results, the most favourable of the targets should be considered for drill testing.

REPORT ON A
COMBINED HELICOPTER-BORNE
ELECTROMAGNETIC, MAGNETOMETER and VLF-EM
JOINT AERODAT SURVEY
WOLF DEPOSIT AND NEARBY BELT
YUKON TERRITORY

1. INTRODUCTION

A joint helicopter-borne electromagnetic (EM), magnetometer and VLF-EM survey was flown over the Wolf Deposit and nearby belt in southern Yukon Territory by Aerodat. The participants in the joint survey were Pathfinder Resources Ltd., Cominco Ltd., Atna Resources Ltd., and YGC Resources Ltd. The survey was flown as part of an on-going effort to delineate areas of favourable mineralisation in the vicinity of the Wolf Deposit and nearby belt.

The primary targets are envisaged to be the Kuroko type of VMS deposits similar to the Wolf Deposit and perhaps gold deposits similar to the Ketza River Deposit. The massive sulphides of the VMS targets should be directly detectable by the EM methods if they occur sufficiently close to the surface. However, other EM responses such as those from the black shales of the area can mimic the conductive response of the VMS. The acquisition of magnetometer data was used as a mapping tool. The magnetometer data is also used to search for magnetic intrusives and perhaps for areas of magnetite destruction caused by alteration.

The survey was flown between October 27, and November 10, 1997. Twenty-four flights were required to complete the survey. The base of operations was at Ross River, some 80 kilometres to the north northwest. Survey lines were spaced 200 metres apart and oriented at 40^0 and 220^0 azimuth. Tie lines were flown at 2,000 metre intervals in a direction orthogonal to the survey lines.

Total survey coverage is 998 kilometres. This is distributed as 908 km and 90 km of survey and tie lines respectively. Aerodat's internal reference for this contract is J9795.

Between the time of the data collection in the Yukon, and the completion of this report, Aerodat Inc. was placed into receivership. Subsequently, High-Sense Geophysics Ltd. purchased the assets and then contracted GCT Consulting Services of Toronto (416 694-6974) to complete the processing and reporting.

2. LOCATION, ACCESS AND TOPOGRAPHY

The survey area is located in southern Yukon Territory, some 80 kilometres south, southeast of Ross River and is shown on the attached index map that includes geographic references and coordinates. An index map also appears on all map products. The centre of the survey is located at approximately 61° 15' N and 131° 25' W.

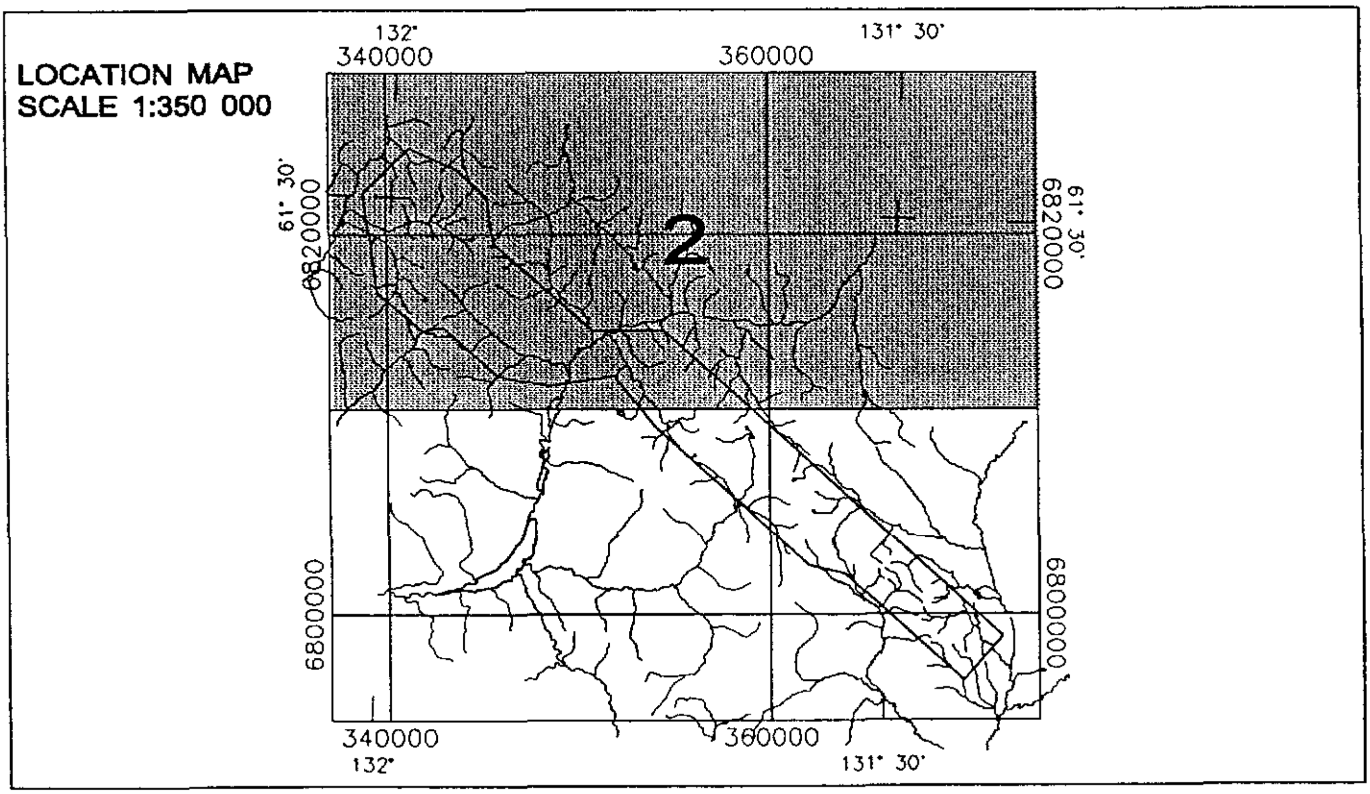
Access to the property at the north end of the survey is provided by the Ketza River Mine road some five kilometres to the northwest. In the southern part of the survey area, access to the Wolf Deposit is provided by a cat trail from the Robert Campbell Highway.

The topography of the area is rugged with an elevation variation of between 1200 metres to just over 2,000 metres above sea-level. Steeply incised drainages and steep slopes are interspersed with wide valley floors abound over the survey area.

The survey boundary is defined by the following points:

Easting	Northing	Easting	Northing
370214	6796486	339514	6816986
363914	6802186	338814	6822236
362014	6802586	341214	6824586
354114	6809786	343714	6823486
351914	6812586	345314	6821986
348414	6812086	345614	6819586
345814	6812586	350714	6814986
342914	6815186	354514	6814986
341814	6814986	372314	6798836

Table 1, Survey boundary coordinates (UTM coordinates)



INDEX MAP: Joint Aerodat Survey, Wolf Deposit and nearby Belt

3. SURVEY PROCEDURES AND THE PHYSICAL SURVEY

3.1 Survey Procedures

Aircraft ground speed is maintained at approximately 60 knots (30 metres per second). An aircraft terrain clearance of 60 metres, which is consistent with the safety of the aircraft and crew, was attempted.

A global positioning system (GPS) consisting of a Magnavox MX 9212 assists in aircraft navigation and flight line control. The receiver antenna is mounted on the magnetometer bird. A base station is used to record static positions for the removal of Selective Availability (a signal degradation technique used by the military to deny the full accuracy of GPS to unauthorised users) from the readings of the helicopter GPS. The base station GPS was located at the base of operations in Ross River, away from cultural effects. Differential processing of the GPS data in the field and in the Mississauga office utilises a PC using software supplied by the manufacturer.

Pathfinder Resources Ltd. provided the UTM coordinates of the survey area corners. These coordinates are programmed into the navigation system along with the survey grid. As a check, the operator enters manual fiducials over prominent topographic features. These manual fiducials are a confirmation of the electronic navigation when plotted on topography maps. Survey lines showing excessive deviation as determined by the in-field processing are re-flown.

Aircraft position is registered by the navigation system. The operator calibrates the geophysical systems at the start, middle (if required) and end of every survey flight. During calibration the aircraft is flown away from ground effects to record electromagnetic zero levels.

In-field processing consisting of data verification, and backups and some raw outputs was conducted using a Pentium based PC and Geosoft software. Differentially corrected flight paths, raw magnetometer, mid frequency coaxial and coplanar EM data, and radar altimeter were outputted in the field. A colour dot matrix printer/plotter was used as the output device.

3.2 The Physical Survey

The survey was flown between October 27, and November 10, 1997. Twenty-four flights were required to complete the survey. The base of operations was at Ross River, some 80 kilometres to the north northwest. At the base of operations, the in-field processing, base station magnetometer, and base station GPS were set up.

Survey lines were spaced 200 metres apart and oriented at 40^0 and 220^0 azimuth. Tie lines were flown at 2,000 metre intervals in a direction orthogonal to the survey lines.

The VLF-EM stations which were used were a combination of Cutler, Seatle, and Annapolis.

4. DELIVERABLES

The maps and report on the results of the survey are presented in three copies. The report includes folded white print copies of the 1:20,000 scale interpretation maps. Three copies of the colour, and colour shadow maps are in an accompanying map tube. The colour maps have a digitised planimetry, plus the UTM grid coordinates and the survey boundary for reference.

The UTM projections are in the North American Datum of 1927 coordinate system which uses the Clarke 1866 spheroid and local datum shifts of dx = -10, dy = 158, dz = 187. A central meridan of 129° West was used for the UTM projections.

The processed digital data, including both the profile and the gridded data, is on CD ROMs (ISO 9660). Profile data is written as columnar ASCII records and the gridded data as standard Geosoft PC grids. A full description of the format is included with the package. All gridded data can be displayed on PCs using the Aerodat AXIS (Aerodat Extended Imaging System) or, via grid conversions, on other imaging software. The complete data package includes all analogue records, base station magnetometer records, and flight path video tape.

5. AIRCRAFT AND EQUIPMENT

5.1 Aircraft

An Aerospatiale AS350B1 (Ecureil) helicopter with Canadian registration C-GKHS owned and operated by Kluane Helicopters was used for the survey. Geophysical and ancillary equipment was installed by Aerodat. The pilot for the surveys was Bill Karman from Kluane Helicopters. Where possible during surveys, the survey aircraft flies at a mean terrain clearance of 60 metres (200 feet) and speed of 60 knots.

5.2 Electromagnetic System

The electromagnetic system is an Aerodat five frequency configuration. The transmitter and receiver coils and electronics are mounted in a rigid kevlar shell termed an EM bird. The survey was flown with the Aerodat bird designated Kestrel. Two vertical coaxial coil pairs and three horizontal coplanar coil pairs are operated at the frequencies and coil separations described below.

	Coaxial 1	Coaxial 2	Coplanar 1	Coplanar 2	Coplanar 3
Frequency (Hz)	912	4,365	861	4,765	33,020
Coil Spacing (m)	6.4	6.4	6.4	6.4	6.4

Inphase and quadrature signals are measured simultaneously for the five frequencies with a time constant of 0.1 seconds. System noise levels are generally less than one ppm excluding spherics. Digital despiking and filtering of the EM signals permit rejection of the spheric noise to less than one ppm. The HEM bird is towed 30 metres below the helicopter.

5.3 Magnetometer

An optically pumped cesium vapour magnetometer sensor manufactured by Scintrex, coupled to a proprietary magnetometer console designed by Aerodat measures the Earth's magnetic field. The sensitivity of this instrument is 0.001 nanoTesla at a sampling rate of 0.1 second. The sensor is towed in a bird 15 metres below the helicopter, nominally 45 metres above the surface.

5.4 VLF System

A Herz Totem IIA VLF system towed 10 m below the helicopter was used. This system uses three orthogonal coils to measure the total field and the vertical quadrature from two transmitting stations. The stations are designated LINE and ORTHO where the line station is ideally in the general strike direction of the targets of interest for the survey. The ortho station would be chosen to yield a direction perpendicular to the line station.

The two stations used were:

Line:	NSS,	Annapolis, Maryland, broadcasting at 21.4 kHz.
Ortho:	NLK,	Jim Creek, Washington, broadcasting at 24.8 kHz.

5.5 In-field Processing

The infield processing unit consisted of an Pentium class PC with the proper tape drives and backup devices to read and backup the data collected during flight. A colour monitor and a colour dot matrix printer/printer was used. Software was Geosoft's Geophysical Processing and Presentation software.

During the survey, in-field processing verified that the data were recorded properly and that the noise specifications were adhered to. Data integrity was ensured via backups. Processing of data using Aerodat and Geosoft software recovered the GPS flight path and performed the differential corrections. Plots of the flight path and raw magnetometer and total count were outputted to determine if the data were within contractual specifications.

5.6 Ancillary Systems

Base Station Magnetometer

A second Scintrex magnetometer sensor and Aerodat console is set up at the base of operations to record temporal variations of the earth's magnetic field. Synchronization of the base station magnetometer's clock with that of the airborne system is done to facilitate later correlation. Recording resolution is 0.01 nT with an update rate of one second. Magnetic field variation data are recorded both digitally and on printer plots. The date and chart settings are given at the start of the hard copy record.

Radar Altimeter

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

Tracking Camera

A Sony colour video camera records the flight path on VHS video tape. The camera operates in continuous mode. The video tape also shows the flight number, 24 hour clock time (to .01 second), and manual fiducial number.

GPS Navigation System

The GPS navigation system in the helicopter consists of a Magnavox MX 9212 with a NavPilot navigation console and a notebook computer to record data. Position information from the airborne GPS receiver is recorded on disk at an update rate of 1.0 seconds. The survey lines are programmed into the navigation console, which receives position information from the airborne receiver and provides left/right guidance information to the pilot. On the ground, a Novatel 3151R GPS receiver and notebook computer datalogger is used to log data for post-flight differential correction of airborne data.

Analogue Recorder

An RMS dot matrix recorder displays the data during the survey. This allows the geophysical operator to scan the data as it is collected to ensure that the system is functioning properly. As the analogue recorder records the raw output of the instrumentation, it is used for visual inspection of the system noise. Record contents are as follows:

LABEL	PARAMETER	CHART SCALE
GEOPHYSICAL SENSOR DATA		
MAGF	Total Magnetic Intensity, Fine	2.5 nT/mm
MAGC	Total Magnetic Intensity, Coarse	25 nT/mm
L9XI	912 Hz, Coaxial, Inphase	2.5 ppm/mm
L9XQ	912 Hz, Coaxial, Quadrature	2.5 ppm/mm
M4XI	4,365 Hz, Coaxial, Inphase	2.5 ppm/mm
M4XQ	4,365 Hz, Coaxial, Quadrature	2.5 ppm/mm
L8PI	861 Hz, Coplanar, Inphase	10 ppm/mm
L8PQ	861 Hz, Coplanar, Quadrature	10 ppm/mm
M4PI	4,765 Hz, Coplanar, Inphase	10 ppm/mm
M4PQ	4,765 Hz, Coplanar, Quadrature	10 ppm/mm
H3PI	33,020 Hz, Coplanar, Inphase	20 ppm/mm
H3PQ	33,020 Hz, Coplanar, Quadrature	20 ppm/mm
VLT	VLF-EM, line station, Total Field	2.5%/mm
VLQ	VLF-EM, line station, Quadrature	2.5%/mm

VOT	VLF-EM, Ortho station, Total Field	2.5%/mm
VOQ	VLF-EM, Ortho station, Quadrature	2.5%/mm

ANCILLARY DATA

RALT	Radar Altimeter	10 ft/mm
BALT	Barometer	50 ft/mm
GALT	GPS Altimeter	50 ft/mm
PWRL	60/50 Hz Power Line Monitor	-
VREF	Voltage Reference	-

The zero level of the radar altimeter is 5 cm from the top of the analogue record. A helicopter terrain clearance of 60 m (200 feet) should therefore be seen some 3 cm from the top of the analogue record.

Chart speed is 2 mm/second. The 24 hour clock time is printed every 20 seconds. The total magnetic field value is printed every 30 seconds. The ranges from the radar, and navigation system are printed every minute.

Vertical lines crossing the record are manual fiducial markers activated by the operator. The start of any survey line is identified by two closely spaced manual fiducials. The end of any survey line is identified by three closely spaced manual fiducials. Manual fiducials are numbered in order. Every tenth manual fiducial is indicated by its number, printed at the bottom of the record. Background calibration sequences are present at the start and end of each flight and at intermediate times where needed.

Digital Recorder

A DGR-33 data acquisition system digitises and records the survey data on magnetic media. Contents and update rates are as follows:

DATA TYPE	SAMPLING RATE	RESOLUTION
Magnetometer	0.1 s	0.001 nT
HEM, coaxial - 912 / 4,365 Hz	0.1 s	0.03 ppm
HEM, coplanar - 861 / 4,765 Hz	0.1 s	0.06 ppm
HEM, coplanar - 33,020 Hz	0.1 s	0.125 ppm
VLF-EM (4 Channels)	0.2 s	0.01%
Position (3 Channels)	0.1 s	0.1 m
Altimeter (2 Channels)	0.2 second	0.05 m
Power Line Monitor	0.2 second	
Manual Fiducial		
Clock Time		

5.7 Equipment Rack and Installation

The power supply and the data acquisition system is mounted on a standard 19 inch equipment rack which is mounted in a floor board and secured to the helicopter. Cables are run through the helicopter to connect on to the tow cable outside. The tow cable supports the EM, magnetometer and VLF-EM birds during flight via a safety shear pin connected to the helicopter hook. The major power and data cables have a quick disconnect safety feature as well. Installation is by Aerodat's crews and must be certified before surveying.

The rack contains the following:

RMS Data Acquisition System/Graphic Recorders
Data Tape Recorder Unit
Video Recording Unit
Flight Path Recording Unit
Power Distribution Unit
Magnavox MX9212 GPS Receiver
Aerodat Magnetometer Console
DSCP-99 EM Console
Herz Totem 2A VLF-EM Console

6. DATA PROCESSING AND PRESENTATION

6.1 In-field Processing

The in-field processing products were generated on site some one or two days after each survey flight. Plots of the radar altimeter data showed where the helicopter was flying too high. The differentially corrected flight paths were used to determine the quality of the line spacing. Raw magnetometer and EM plots were used to assess the quality of the survey and to determine if in fill flying had to be done.

6.2 Base Map

A base map of the area was enlarged from the 1:50,000 scale topography maps published by the Canadian Department of Energy, Mines and Resources. The NTS sheets are: 105 G/6, 105 G/5, 105 G/12, 105 F/8, and 105 F/9.

6.3 Flight Path Map

The flight path record was differentially corrected using the base station GPS and was recorded in geographic coordinates using the WGS84 Spheroid. WGS 1984 latitudes and longitudes are converted to the NAD 1927 datum for Canada, which uses the Clarke 1866 spheroid with local datum shifts of dx=-10 m, dy=158 m and dz=187 m. The positioning data are then converted to the UTM coordinate system using a central meridian of 129°W.

Processing includes speed checks to identify spikes and offsets which are removed. Positions are updated every second and expressed as eastings (x) and northings (y) in metres in the UTM projection. The flight path is drawn using linear interpolation between x,y positions from the navigation system.

The manual fiducials activated by the survey operator are shown as a small circle and labeled by fiducial number. The 24 hour clock time is shown as a small square, plotted every 30 seconds. Small tick marks are plotted every 2 seconds. Larger tick marks are plotted every 10 seconds. The line numbers are given at the start and end of each survey line. Survey lines are denoted as 10XXX series of lines, while tie lines are 80XXX series lines.

The flight path map is merged with the base map by matching UTM coordinates from the base maps and the flight path record. The match is confirmed by checking the position of prominent topographic features as recorded by manual fiducial marks or as seen on the flight path video record.

6.4 Digital Elevation Model

A Digital Elevation Model (DEM), sometimes termed a Digital Topography Map, which is a digital representation of an elevation map has been generated and plotted as a topography map. The elevations in the DEM have been calculated from the difference between the barometric altimeter and the radar altimeter along the flight path positions. The GPS elevations were used to remove the slight drift of the barometric altimeter. There are slight levelling errors in the generated topographic data, mostly noticed by a slight herringbone ripple pattern on slopes perpendicular to the flight lines. This is caused by the radar altimeter being pointed forward slightly and by the helicopter not being horizontal all of the time. In the extreme cases where the radar altimeter has pointed too far down slope (due to the helicopter's nose up maneuver when descending down steep slopes), the data has been edited out.

The DEM maps are at a scale of 1:20,000 and are plotted in a UTM coordinate system.

6.5 Electromagnetic Survey Data

The electromagnetic data are recorded digitally at a sample rate of 10 per second with a time constant of 0.1 seconds. A two stage digital filtering process rejects major sferic events and reduces system noise.

Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional frequency domain filtering procedures. Smoothing or stacking will reduce their amplitude but may leave a broader residual response that can be confused with geological phenomena. A computer algorithm, similar to surgical mutes in digital signal processing, searches out and rejects the major sferic events.

The signal to noise ratio is further enhanced by the application of a low pass digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 0.25 seconds. This low effective time constant gives minimal profile distortion.

Following the filtering process, a base level correction is made using EM zero levels determined during high altitude calibration sequences. The correction applied is a linear function of time that ensures the corrected amplitude of the various inphase and quadrature components is zero when no conductive or permeable source is present. The filtered and levelled data is the basis for the determination of apparent resistivity (see below).

Apparent Conductivity

The apparent conductivity is calculated by assuming a 200 metre thick conductive layer over resistive bedrock. The computer determines the conductivity that would be consistent with the recorded inphase and quadrature response amplitudes at the selected frequency. The apparent conductivity profile data is re-interpolated onto a regular grid at a 50 metres cell size using an Akima spline technique and contoured using logarithmically arranged contour intervals. The minimum contour interval depends on the selected frequency and is in units of log(ohm.m) in logarithmic intervals of 0.1, 0.5, 1.0, 5.0 etc. The colour image palette is in terms of conductivity (the inverse of resistivity) with reds denoting high conductivity and blue denoting low conductivity.

6.6 Magnetic Data

Total Magnetic Intensity

The aeromagnetic data were corrected for diurnal variations by adjustment with the recorded base station magnetic values. This is followed by fine levelling using tie line intersection information. The corrected profile data were interpolated on to a regular grid using an Akima spline technique. A 5 by 5 Hanning filter was passed over the preliminary grid. The grid provided the basis for threading the isomagnetic contours. The minimum contour interval is 5 nT with a grid cell size of 50 m.

Calculated Vertical Magnetic Gradient

The vertical magnetic gradient is calculated from the gridded total magnetic intensity data. The calculation is based on a 17 x 17 point convolution in the space domain. The results are contoured using a minimum contour interval of 0.2 nT/m. Grid cell sizes are the same as those used in processing the total field data.

Colour Shadow Map

The colour shadow map is produced by calculating and displaying the reflectance of a surface defined by the total magnetic intensity grid and the illumination angle. The reflectance of a surface is a measure of the proportion of illuminating light which will be reflected back to an observer from the surface. The reflection at each grid cell is given by the cosine of the angle between the surface normal and a specified illumination source. Changing the illumination source direction emphasizes features normal to the source direction.

The declination and inclination of the illumination source were 214° and 45° respectively.

6.7 VLF-EM Data

The VLF-EM total field data from the line station is levelled using a high-pass roll-off filter applied in the Fourier domain. The filter roll-off begins at a wavelength of 100 seconds and ends at a wavelength of 200 seconds.

The filtered profile data are interpolated onto square grids using an Akima spline technique. The grid cell size is 50 m. A 5 x 5 Hanning grid filter is passed over the final grids. The final grids provide the basis for threading the presented contours. The minimum contour interval is 1%.

The 1:20,000 scale presentation of the VLF-EM total field shows colour fill and superimposed line contours plus flight path and superimposed planimetry and EM anomaly centres.

6.8 EM Anomaly Selection and Analysis

The main purpose of EM anomaly selection is to identify possible targets. The Aerodat automated EM picking algorithm is tuned to vertical conductors. Flat lying or shallowly dipping responses are weighed less because EM responses due to gradual changes from near surface horizontal sources are assumed to be due to lateral variation in overburden thickness or conductivity.

The EM picking algorithm seeks local maximums in the coaxial responses as the coaxial response is a single peak over a vertical conductor. In addition, the width of the conductor must be such that it is due to a discrete source – a conductor, instead of being due to broad lateral variations in near surface conductivity. The depth and the conductance of the anomaly is then derived from a computer subroutine using the assumptions of steep vertical conductivity.

For flat lying targets, the EM anomalies should either be interpreted manually or from geoelectric sections. The contours of apparent resistivity may also be used to outline this type of target. However, the apparent resistivity maps use a uniform Earth as the model for the derivations of the apparent resistivities. The conductance of discrete conductors are "diluted" in this manner and little depth information is obtained.

This is the reason why the steeply dipping conductor models are still used in areas of shallowly dipping conductivity. The automated picks still provide for, admittedly somewhat less precise than one would want, an quantitative estimate of conductance and depth of conductivity. Both of which are useful in the relative sense. The EM anomalies are also listed in digital form with the coordinates in the supplied digital archive.

Characteristic EM responses to a number of simple conductor types are shown in Appendix 2.

Anomaly Selection

EM anomalies were selected using the automated EM picker and then manually screened. The manual screening involved using the offset EM profiles to determine if the anomalies realistic or were due to noise or cultural contamination of the EM signatures. The EM offset profile were also examined for broad, wide responses which may be due to flat lying conductive features. The most conductive of these were added to EM anomalies based on the EM profile responses.

Analysis

The remaining anomalies are characterised by the conductance and depth of burial using a thin vertical sheet like source. A numerical lookup table representing the nomograms presented in Appendix 2 is used to derive the conductance and depth of burial. Note that if the conductive source is not close to being a vertical sheet like body, the quantitative estimates of this analysis will be incorrect as the wrong model Earth would have been used.

All EM anomalies are catalogued in anomaly listings in Appendix 3. The anomaly letter, survey line, location, 4,365 Hz response amplitudes and conductance and depth estimates are also presented in Appendix 3.

7. GEOLOGY

On published geological maps, the survey area is located on the west side of the Tintina Fault in the Pelly-Cassiar Platform (Mortensen and Jilson, 1985). The Pelly-Cassiar Platform is thought to be coeval, and possibly correlative with Yukon-Tanana Terrane in the Finlayson Lake district which hosts the Kudz ze Kayah polymetallic deposit of Cominco, and the Wolverine deposit of Westmin/Atna.

In September of 1997, Atna Resources announced significant drill results on the Wolf Property which is located in the Pelly-Cassiar Platform. The best intersection, in WF97-07, was 25.2 metres grading 6.94% Zn, 2.78% Pb, and 138.6 g/t Ag. Massive sulphide mineralisation on the Wolf Property is hosted by pyritized felsic tuffs. The felsic tuffs are part of a unit of intermediate to felsic volcanic rocks of Mississipian age which define a northwest trending belt approximately 80 kilometres long and up to 25 kilometres wide.

The Mississippian volcano-sedimentary belt is located between Cambrian to Triassic Sediments to the northeast, and Cambrian to Silurian Sediments and Volcanics to the southwest.

7.1 Project Geology and Targets

The Wolf deposit and the favourable belt of felsic volcanics and black shales which hosts the deposit are located in the southern portion of the survey area. It is assumed that the project targets would be economic mineralisation of a similar nature to the Wolf deposit. It is believed that the Wolf deposit is a Kuroko type VMS deposit.

The Kuroko deposits occur on the flanks of rhyolite domes or caldera rims near the termination of a period of bimodal back-arc basalt/rhyolite volcanism. Commonly accompanying the Kuroko-type mineralisation is a well developed stratiform, ferruginous chert exhalite composed of clastic and chemically derived components. The exhalite is a marker bed for the ore-bearing horizon. Previous studies of the area have noted that the deposits in the area are unusual for Kuroko VMS deposits as the volcanics are alkaline and introduced into a tension-rifted black shale basin (in LeCouteur, 1997).

The Ketza River Mine occurs in-between the survey area and the Wolf Deposit. Details on the Ketza River Mine were not readily available to the report writers. It is an oxide gold mine. Secondary targets may be gold mineralisation which is similar to the Ketza River Mine.

8. INTERPRETATION

VMS deposits are amenable to direct detection by electromagnetic methods as the massive sulphides are conductive. The nearby Kudz ze Kayah deposit was easily detected by helicopter EM systems (Holroyd and Klein, 1998). The geophysical response of the Kudz ze Kayah Deposit is that of a good EM, short strike length conductor situated to the south of a band of conductive sediments. It is also magnetic.

For Kuroko VMS deposits in general, there may or may not be an associated magnetic anomaly associated with the deposit. EM and magnetic anomalies may be useful not only in direct detection of the ore, but also to find exhalite horizons or the pyritic pipe which may be followed back to the orebodies. Therefore, any reasonable conductor located by the survey should be carefully considered. However, it should be kept in mind that other sources, including graphite, and in this case, black shales, can produce an EM response which mimics the response of any VMS conductors.

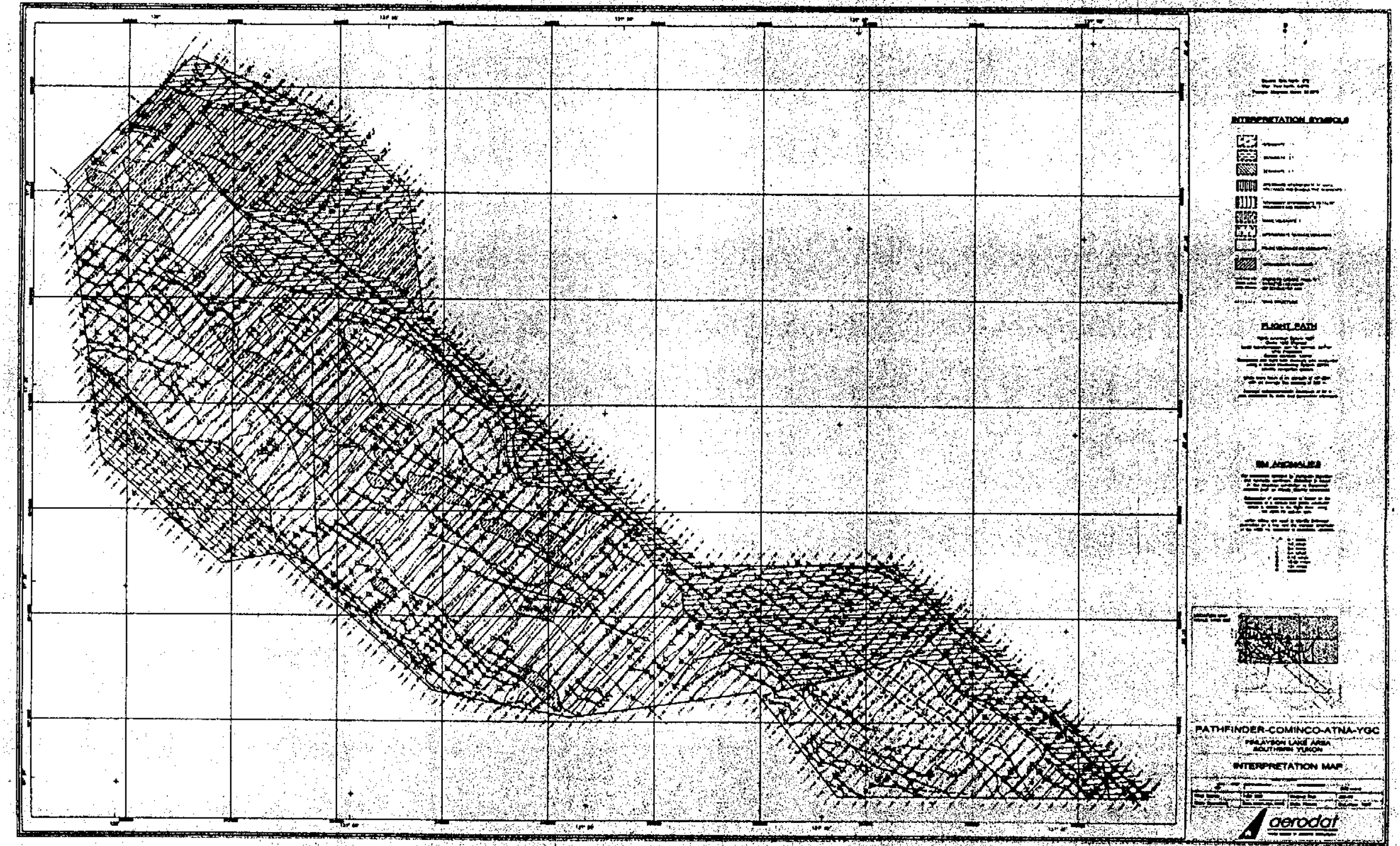
One of the sought after signatures would be fairly isolated, short strike length EM anomalies which are separated from long regional conductors (see Reed, 1981, and Holroyd and Klein, 1998). Shorter strike length anomalies are sought as these are not formational types of conductors representing uniform geological events which are not localised ore forming events. The reason for searching for isolated conductors is that a hiatus after the regional event is required before the start of the volcanism associated with the ore forming event.

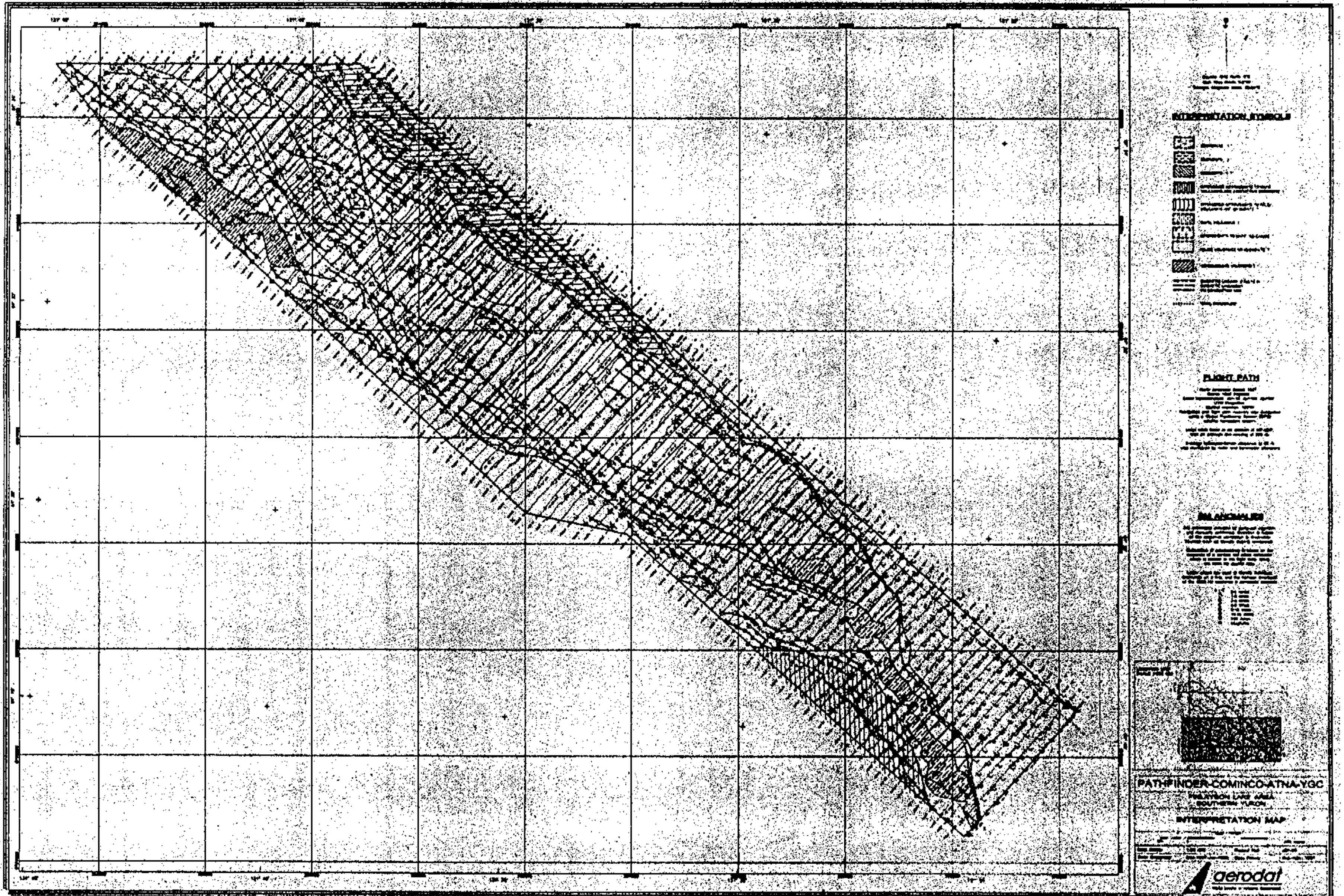
Reduced scale interpretation maps are included in this report for completeness. General interpretation considerations of electromagnetic, magnetic and VLF techniques are briefly presented in Appendix 2.

8.1 Geologic Interpretation

The magnetic intensity in the survey area mostly varies between 57,800 nT to 58,250 nT with some anomalous values outside of this range. The magnetic character of the area varies from active to subdued with a few linear magnetic bodies forming trends in the various regions different magnetic texture. Overall, the geophysics gives a sense of a linear belt of mixed sediments and intermediate to felsic volcanics along with discontinuous and thin basalt flows. The magnetic quiescent areas are interpreted to be due to sediments and perhaps felsic volcanics, while the more active areas have the appearance of felsic to intermediate volcanics. The linear magnetic bodies are basalts or mafic volcanics.

The apparent resistivity values varies between 10 and 2,000 ohm-metres on the 4,765 Hz coplanar data and between 2 and 1,500 ohm-metres on the 861 Hz coplanar data. The high conductance values are indicative of conductive sediments


INTERPRETATION SYMBOLS
FLIGHT PATH
EM ANOMALIES
PATHFINDER-COMINCO-ATNA-YGC
FINLAYSON LAKE AREA
SOUTHERN YUKON
INTERPRETATION MAP
aerodat


INTERPRETATION SYMBOLS
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INTERPRETATION MAP
aerodat

such as black shales. They may also be due to conductive cover, but that has not been reported and does not appear likely due to the conductive areas being located on areas of different elevations and slopes. The low conductance areas are consistent with fresh, unaltered volcanics and certain sediments such as limestones or sandstones.

There does not appear to be a significant correlation to topography or drainage systems, indicating that the EM is mapping the bedrock. There is a slight correlation with elevation at the tops of the highest mountains. The resistivity highs there are for the most part associated with a unit of active magnetic highs.

Given the abundance of long regional conductors in the survey area, the VLF shows more or less the same general trends and structure as the apparent resistivity values. The moderate to higher resistivities of the higher parts of the project area has moderated the normally strong correlation between the VLF signature and topography. Topographic highs are still seen as VLF total field maximums, but not to the degree as seen elsewhere in the world.

Based primarily on the magnetic character and on the apparent resisitivity values, the area has been divided into nine distinct areas of different geophysical responses and which are interpreted to be due to different geologic units.

The first, outlined as **Sediments 1?** is located in the southeast portion of the survey area. It is separated from the other units by a marker unit which is conductive. This marker conductive unit is very continuous and shows a dip to the southwest. The unit is characterised by high apparent resistivities and a quiet magnetic character.

A second unit of sediments, labelled **Sediments 2?** is located in the north west portion of the survey area. It is in an area of TMI low, and is separated from the rest of the units by another conductive marker horizon which also correlates with a magnetic contact. The unit is characterised by low magnetic intensities, and is conductive, perhaps indicating that portions of the unit are mudstones.

The other interpreted sedimentary unit is labelled **Sediments 3?** Located in the southwest portion of the survey, it is distinguished by a semi-circular conductive and magnetic feature which apparently separates this unit from the rest. The unit is interpreted to be due to sediments as it is relatively non-magnetic and resistive. There may be some volcanics, seen as magnetic highs, intermixed with this package.

There are three long, narrow units of intermixed volcanics and sediments which have been interpreted from the geophysics based on the linear nature of the magnetic texture and the linear nature of the conductors within these units.

The first is a package of labelled as **Intermixed Intermediate to Mafic Volcanics and Conductive Sediments?** This unit is located on the northeast side of the survey. It has high magnetic values which is interpreted to be due to the intermediate to mafic volcanics. The abundance of EM conductors and the high conductance of the unit is explained by the conductive sediments (probably black shales) intermixed with the unit. In this package, there is a lack of areas of interest in the interpretation map as it is difficult to distinguish a possible sulphide source from the responses of the black shales.

At the north end of the above package is an area of relatively high magnetic values and lower conductance. It has EM conductors intermixed in the unit, but is not nearly as conductive as the Intermixed Intermediate to Mafic Volcanics and Conductive Sediments? unit. This area has been distinguished as a unit of **Intermediate Volcanics?**

To the west of the first intermixed package is an unit of **Intermixed Felsic to Intermediate Volcanics and Sediments?** Compared to the first intermixed unit, it is characterised by average (for this survey) magnetic intensities and fewer EM conductors. Notice that this unit probably hosts the known Wolf Deposit, although this was not confirmed to the report writer. As such, any EM conductor located in this unit should be examined in further detail at some time in the exploration process.

To the southwest of the survey area, is the third intermixed unit. It has the lowest magnetic values of the three intermixed units. Hence the felsic volcanic interpretation. It is interpreted to be due to a unit of **Intermixed Felsic Volcanics and Sediments?** This unit appears to be on the other side of a marker unit of magnetic highs which separates this unit from the central intermixed volcanic and sediment unit. For this reason, conductors located in this unit may be less favourable than conductors located in the Intermixed Felsic to Intermediate Volcanics and Sediments? unit.

There are two magnetic units which are clearly seen in the data. They are characterised by high magnetic and resistive values. It is possible that these magnetic units can be subdivided with more effort, but the evidence for subdivision based on geophysics is not conclusive.

The first, is a unit of **Mafic Volcanics?** This unit has very high magnetic values and is resistive. In the north and northeast of the survey area, this unit appears to be flat lying and occurs at higher elevations, as if it was a discordant cap on the general stratigraphy. Further south, it has a more linear nature and has more of a steep dip to the southwest perhaps indicating that it is a unit of basalts. To the extreme south of the survey, this unit may be an important marker unit which helps to separate the favourable stratigraphy from less favourable one.

Located in the middle portion of the survey area, and on strike with the Mafic Volcanics? is a unit interpreted to be due to **Intermediate to Mafic Volcanics?** It is less magnetic than the Mafic Volcanics? and also has a flat lying sort of response which varies in thickness. The thickest portions are outlined in the interpretation map. The unit is a magnetic high and resistivity high. Unlike the Mafic Volcanics? which is totally devoid of EM anomalies, several conductors can be seen with this unit. These EM conductors in the Intermediate to Mafic Volcanics? unit may be due to clay and water filled faults as they have a very linear nature to them.

Several magnetic lineaments are also detected and marked on the interpretation map. In general, the lineamens are detected as disruptions in the linear character of the magnetic and electromagnetic responses. These lineaments may be faults, and or fault contacts.

8.2 Electromagnetic Interpretation

The electromagnetic data are presented in terms of levelled profiles of the inphase and quadrature for the low coaxial and coplanar, and medium coaxial and coplanar frequencies and the high coplanar frequency.

There are numerous conductors located by the survey. In the EM interpretation, the conductors or zones of conductivity were interpreted from the profiles of the mid-frequency data first. The low frequency data were then interpreted to determine if a more conductive portion inside areas of widespread conductivity can be identified.

In this survey, the EM anomalies which are interpreted on a profile by profile basis show the grain and texture of the interpreted units. For this reason, select individual EM responses have be connected to emphasize this grain, or general trend of the geology. Such EM anomalies may be due to bedding planes, or to more linear units due to sediments.

In addition, a number of EM anomalies which may be indicative of mineralisation have been outlined and are described below.

8.3 Areas of interest

From an examination of the geophysical anomalies, and the interpreted geology, anomalous areas which warrant various levels of additional examination have been identified. These are all EM responses which are located in the favourable stratigraphy, have shorter strike lengths, with or withour magnetic association, or exhibit complexity indicative of localised structural controls on mineralisation. Forty-six such features are located and are labelled on the interpretation map. The anomalous areas are roughly classified into three priorities or rankings with top priority being a rank of 1.

Anomaly #1 may be the Wolf Deposit as it is a fairly isolated anomaly located in the approximate area. This anomaly is longish and has better conductivity in the middle. It sits 400 to 500 metres off a conductive trend and has a dip to the northeast. There is some indication that there are closely spaced multiple conductors in the EM response. This is a top ranked anomaly due to its conductance and relative isolation from other anomalies.

Anomalies #2 is on strike with #1 and is some 600 metres to the southeast of #1. Anomaly #2 is less conductive and is of shorter strike length. It is a top ranked anomaly due to its association with Anomaly #1.

Anomaly #4 is longer than EM anomaly #2 and is in an en-echelon fashion to #2. Anomaly #3 may be a wider portion of #4. The two are top ranked anomalies.

Anomalies #5 and #6 are short strike length conductors. Both show signs of extension to the north and south. Anomaly #6 is less conductive than anomaly #5. Both are steeply dipping with a slight dip to the southeast. Both are top ranked anomalies based on their proximity to the Wolf Deposit.

Anomaly #7 is just off the conductive trend of the unit Intermixed Intermediate and Mafic Volcanics and Conductive sediments? It has good conductance values and a near vertical dip. It is also a top ranked anomaly due to its good conductance values.

Anomaly #8 is a three line EM anomaly with low conductance values. It is marked as an area of greater interest due to its proximity to Anomalies #5 and 6 and is a second ranked anomaly.

Anomaly #9A and 9B appear to be spatially related with #9A being a short EM anomaly which is steeply dipping to the southeast. Anomaly #9B is a single line anomaly. The two are second ranked anomalies.

Anomaly #10 is a low amplitude response, indicating a thin conductor or that it is farther from the EM bird (deeper, or the EM bird is higher there). It has a steep dip to the southeast. It is a second ranked anomaly due to the lower amplitudes of its response.

Anomaly #11 is a medium length EM anomaly with good conductance values. It is a local magnetic low and is trending 30 degrees across the general trend. This is a top ranked anomaly due to its conductance.

Anomalies #12 and #13 are in an en echelon fashion to #11. Anomaly #12 is a second ranked anomaly while #13 is shorter and a third ranked anomaly.

Anomaly #14 is the first of a set of conductors in a conductive area closest to the conductive sediments. It has the appearance of flat lying conductivity and is a third ranked anomaly.

Anomaly #15 is the most conductive of the set and the longest with a strike direction of northwest - southeast. It may be shallowly dipping to the northeast and is a second ranked anomaly.

Anomaly #16 is shorter than #15 and has good conductance values. Its dip can not be estimated due to the interference from other conductors. It is a third ranked anomaly.

Anomaly #17 is shorter than #16 and has a flat or shallow dipping appearance. It is a third ranked anomaly as the dip is suggestive of near surface conductivity.

Anomaly #18 is also another short conductor on the edge of conductive sediments. It is a third ranked anomalies due to its proximity to the conductive sediments.

Anomaly #19 is a near vertical conductor of medium length. The north end is more conductive in a magnetic average to low area. It is also a fairly isolated anomaly and due to its isolated nature, is a top ranked anomaly.

Anomaly #20 is in an en echelon fashion to #19 and is shorter and less conductive. It is a second ranked anomaly.

Anomaly #21 an area of complex, high conductance responses. The TMI values are about average. This is a top ranked anomaly due to its complexity and higher conductance.

Anomaly #22 is a good conductance anomaly, also in a TMI average area. It is in an area of general complexity and is a second ranked anomaly.

Anomaly #23 is a general area of complexity with good conductance EM anomalies. It is situated in an area of average TMI values on the side of a oval structure or dome like structure. It is a second ranked anomaly.

Anomaly #24 is also a general area complexity with high conductance responses. It appears to be at one of the fold noses of an oval structure or on the flank of a domal structure as determined from apparent resistivity. This is a top ranked target area.

Anomaly #25 is a good conductance EM anomaly. One end may be truncated by a fault. It is a top ranked anomaly due to its high conductance.

Anomaly #26 is a conductive patch, which may consist of a set of en echelon conductors with good amplitude and conductance. It is a third ranked anomaly.

Anomaly #27 is similar to #26 and appears more to be a conductive patch of ground. Some of the individual responses have high conductances. It is a third ranked anomaly.

Anomaly #28 is a collection of EM anomalies. Some appear to be vertical, while others in the same collection appear horizontal. It is a third ranked anomaly.

Anomaly #29 is a very conductive flat lying response. It is a third ranked response as it is flat lying and may be due to conductive overburden.

Anomaly #30A, #30B are two anomalies which appear offset from each other. They are either faulted or in parallel fashion. Some of the individual responses have good conductances. They are second ranked anomalies.

Anomaly #31 is an isolated short strike length EM anomaly with vertical dip. It also has low conductance and is a third ranked anomaly.

Anomaly #32 is a conductor trending at 45 degrees to the regional trend. It is a third ranked anomaly as it may be due to the edge of a conductive region.

Anomaly #33 is a medium length conductor. Like #28, some of the responses are vertical, while others are flat lying. The central portion of the conductor appear wider due to flanking responses. It is second ranked anomaly.

Anomaly #34 is a short strike length EM response. It has weak to moderate conductance and is fairly isolated. It is a second ranked anomaly as the relatively isolated nature increased its ranking.

Anomaly #35 is an isolated short strike length EM anomaly located adjacent to an area of conductive sediments. It is a third ranked anomaly.

Anomaly #36 is a very conductive short strike length response in a unit interpreted to be due to sediments. It is in a magnetic low and is a second ranked anomaly.

Anomaly #37 is a collection of conductive responses located in a sedimentary unit. It is a second ranked anomaly as it is located in a less favourable unit.

Anomaly #38 is a medium length conductor with some portions more conductive than others. It is relatively isolated and is located in-between two areas of high conductance. This is a top ranked anomaly. ?

Anomaly #39 is an isolated EM anomaly with some parts having a vertical response. Its north end may be truncated by a fault and it is a third ranked anomaly.

Anomaly #40 is located in a TMI low and has short strike length. It is a third ranked anomaly.

Anomaly #41 is a thee line response located in an area of average TMI values and is a third ranked anomaly.

Anomaly #42 is a complicated region of EM anomalies to the south east of the magnetic marker unit which downgrades this anomaly. This is a second ranked anomaly.

Anomaly #43 is a medium length EM response located in the same sort of magnetic setting as what is assumed to be the Wolf deposit. It has vertical dip and is flanked by shorter responses and is a top ranked anomaly.

Anomaly #44 is a more conductive area of a conductive area of ground and is on the other side of the magnetic marker horizon. It is also located in a drainage and is a third ranked anomaly.

Anomaly #45 is a shortish, good conductance response. It is located in the less favourable intermixed volcanics and sediments unit. It is a second ranked anomaly.

Anomaly #46 is parallel to #1 and is slightly less conductive. Some parts of this EM anomaly may have thickness judging from the EM profiles. It is a top ranked anomaly.

9. CONCLUSIONS AND RECOMMENDATIONS

A helicopterborne combined electromagnetic, and magnetometer survey was successfully performed over the Wolf Deposit and nearby belt in southern Yukon Territory, Canada. The geophysical data has been processed and presented at a scale of 1:20,000. The data quality exceeds or meets the contractual specifications and represents the geophysical response of the Earth.

The data has then been interpreted to yield structure in terms of magnetic lineaments, and pseudo-geological units based on their geophysical responses and on known geology as supplied by Path Finder Minerals and as presented in Atna Resources' internet website.

Anomalous areas are then interpreted in terms of favourability of being due to mineralisation or indications of mineralisation. Some 46 anomalous areas have been identified which may indicate mineralisation or alteration. The top fifteen areas (areas # 1, 2, 3, 4, 5, 6, 7, 11, 19, 21, 24, 25, 38, 43, 46) should be initially prospected on the ground. The remaining areas should be correlated with known geology and geochemistry to determine if other factors such as anomalous geochemistry or favourable geologic setting will improve the rankings of the anomalies. This correlation and re-interpretation of the geophysics is of importance as many of the rankings are biased by the interpreted geological setting. There is also a lack of areas to follow up in the area of black shales as any VMS target can not be distinguished from the airborne survey alone.

The areas remaining after the initial stages of prospecting and data integration may require other geophysical methods to determine the origin of the anomaly. Ground based, geophysical methods to confirm and delineate the conductivity anomalies are recommended for those anomalies which are not found by initial prospecting. Simple magnetometer and VLF surveys may be sufficient but horizontal loop surveys are more certain to be able to detect the blind conductors.

The best of those targets after ground follow up should then be considered for drill testing.

Respectfully submitted,

Bob Lo, M.Sc., MBA, P.Eng.
Consulting Geophysicist

for

High-Sense Geophysics Ltd.

March 3, 1998

Aerodat reference: J9795

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APPENDIX 1

PERSONNEL

FIELD	
Flown	October 27 to November 10, 1997
Pilot	Bill Karman
Geophysical Operator (s)	Jason Cunningham
Field Geophysicist	Gregory Zimmer, B.A.Sc. Field Geophysicist
OFFICE	
Processing	Andre Lambert, M.Sc., Geophysicist Liana Lambert, M.Sc., Geophysicist
Report	Bob Lo

APPENDIX 2

GENERAL INTERPRETIVE CONSIDERATIONS

Magnetometer Data

The application for magnetometer surveys is the recognition and delineation of structural or stratigraphic environments favourable for mineral deposits. Specifically, this may involve the delineation of volcanic-sedimentary contacts, intrusive bodies, faults, shears and alteration zones.

The physical parameter which the magnetic method maps is based is magnetic susceptibility and/or remanent magnetization. Generally, magnetic susceptibility is lowest in sedimentary and metasedimentary rocks. The average susceptibility of metamorphic rocks is slightly higher, being about 10 times that of sedimentary rocks. Acid igneous rocks are about twice as susceptible on average as metamorphic rocks. Ultrabasic igneous rocks have the highest susceptibilities and are about 100 times more susceptible than sedimentary rocks. The possible range of susceptibilities for any one rock type is very large and dependent upon the actual concentration of magnetic minerals, chiefly magnetite, contained within the rock.

Faults are recognised as linears and by offsets of other magnetic features. Shears and sericitic alteration zones are areas where ground water flow or alteration may have destroyed the magnetite of the host rocks. This can create areas of lower magnetic susceptibility.

The magnetometer data can be further processed in different ways. It is often filtered to produce a calculated vertical gradient map. Hood, (1965), demonstrated that in areas of steep magnetic inclination, the zero vertical gradient contour level defines the contacts of steeply dipping bodies. Vertical gradient is used to help map contacts and near surface features.

Radiometric Data

The ability to detect natural occurring radiation, whether on the ground or from an airborne platform, depends on a number of factors listed as follows:

Count Time and Detector size

Measurements or count rate statistics are more reliable the longer the detector is in position over a particular location. Therefore in airborne surveying, traverse speed is an important factor in detecting radiation sources. For this reason STOL aircraft and helicopters are a favoured platform for radiometric surveys.

The detector crystal volume and thickness determine the sensitivity of the radiometric system to radiation. For accurate measurement and differentiation of higher energy levels of radiation, a large crystal volume (minimum of 16.8 litres) is a pre-requisite.

Distance from Source (Altitude)

The attenuation or absorption of radiation in air, although not a significant factor in ground surveys, is a factor in airborne surveys. Normalization of the radiation amplitude data for altitude variations of the aircraft during the survey is necessary. The attenuation is not significant for large areal sources of radiation but is quite severe for localized point sources.

Overburden Cover

Radiation can be completely masked by one foot of rock or three feet of unconsolidated overburden.

Source Geometry

A large exposed outcrop of slightly radioactive material, such as granite which usually has a high potassium count, will be easily detectable from the air. A small outcrop of highly radioactive material, containing an appreciable amount of pitchblende for instance, may not be detectable unless the sensor passes directly over the outcrop and/or is quite close to it.

Source Characteristics

The type and percentage concentration of radioactive minerals present in the rock will determine radiation amplitudes and therefore the ability of the sensor to measure the radiation.

The above factors must be taken into consideration when evaluating and interpreting radiometric surveys. Variations in radiation amplitudes may only be a factor of overburden cover. As a result, an outcrop map of the survey area is very useful for initial evaluation of radioactive element concentrations.

Shales and felsic intrusives tend to have high potassium and thorium levels. Mafic intrusives, sandstone and especially limestone have concentrations of one half to one tenth of the highest levels. Specific intrusives types, such as pegmatites, can have levels of potassium, uranium and thorium, in the order of three to four times the amounts normally present. Uranium ore can contain concentrations of radioactive minerals one to four orders of magnitude greater than normally encountered.

Thus, interpretation of the source of radioactive anomalies, even when the uranium, thorium and potassium thresholds are separated, can be difficult and ambiguous. In some geological environments, specific rock units have higher or lower potassium/thorium, potassium/uranium or thorium/uranium ratios. Additional diagnostic information is sometimes available when such ratio maps are generated and compared to known geological parameters.

Electromagnetic data

Most sulphides (sphalerite is one exception) are many orders of magnitude more conductive than the surrounding host rocks. A time varying electromagnetic field can induce electrical currents in the sulphides. The secondary electromagnetic field from the induced currents can be measured in a receiver coil which provides a detection method for conductive sulphides (Grant and West, 1965). Other sources can produce a conductive response which mimics the response due to sulphides. Graphite, clays, and water filled shears are examples. Helicopter EM responses from coplanar and coaxial coils over simplified targets are shown in this Appendix.

One of the criteria for the volcanogenic massive sulphide targets to be economically viable is a minimum size. A tabular body of 500 by 500 metres by 10 metres thickness representing an idealized and simplified massive sulphide deposit contains approximately 10 million tonnes of sulphides. Given these dimensions, flight lines spaced 200 metres will cross the hypothetical ore body twice—which is sufficient for confirmation of the EM response.

Apparent resistivity data

A resistivity map portrays all of the EM information for that frequency over the survey area. This is in contrast to an EM anomaly map which only shows the interpreted anomalies from the survey. By representing the response in the form of contour plans, a large dynamic range is represented. Having the values in terms of a physical parameter (resistivity) instead of a field value (ppm of primary field), makes the resistivity parameter a better mapping tool.

In general, sedimentary rocks and unconsolidated materials are more conductive than most of the igneous rocks. This is primarily due to the higher porosity and moisture content of the former. Metamorphic rocks are highly variable due in part to their wide range of porosities and moisture content. Clays and hydrous minerals such as serpentine are generally good conductors and minor amounts of these material will decrease the resistivities. Apparent resistivity data is used in much the way as magnetometer data - that is, to delineate structural or stratigraphic environments favourable for mineral deposits.

VLF data

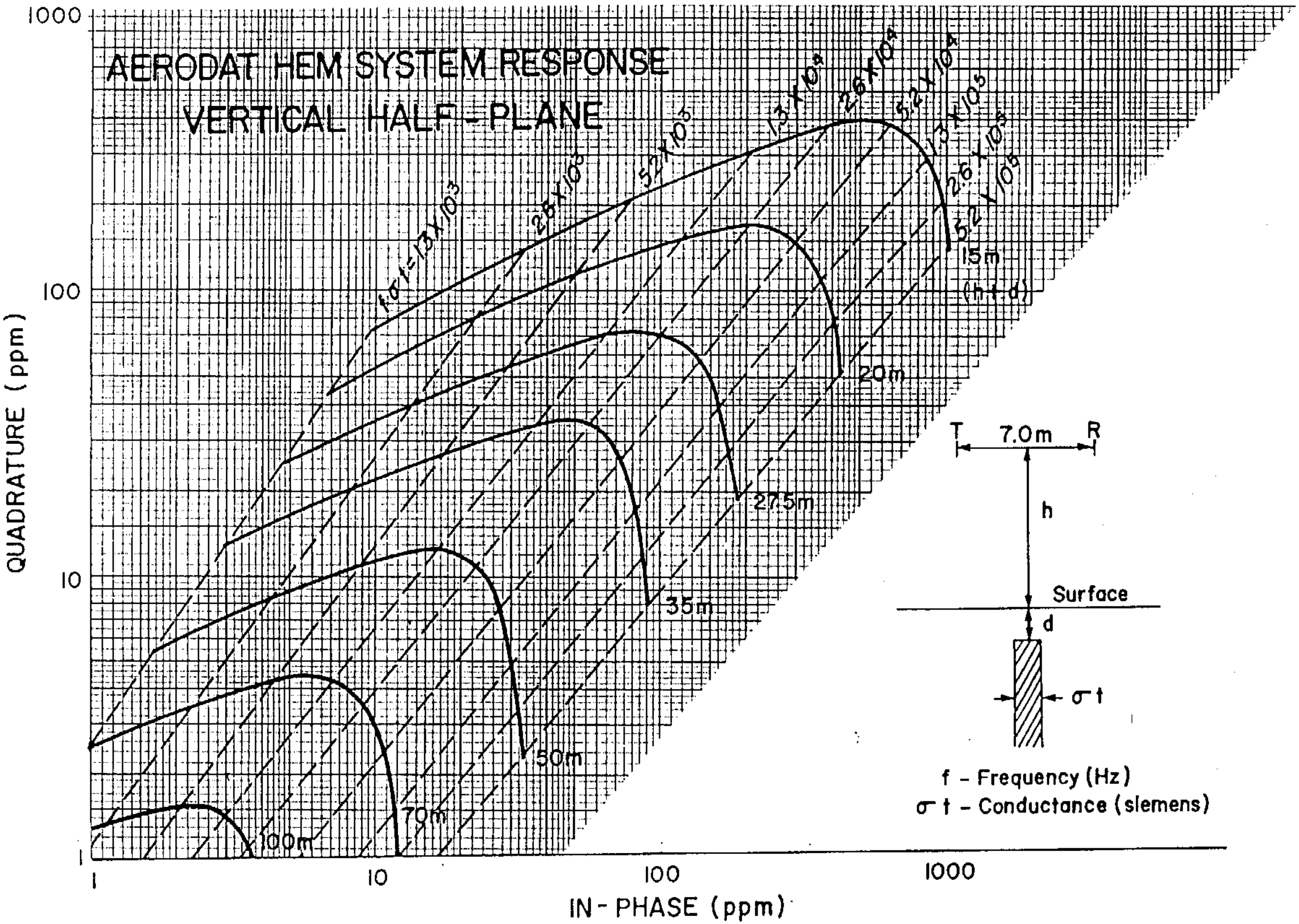
The Very Low Frequency (VLF) method is an electromagnetic method which uses the military radio transmitters as the EM source. The receiver is a Herz Totem system which measures the amplitude of the total horizontal electromagnetic field and the vertical quadrature electromagnetic field.

The best signals are from features which are perpendicular to the time varying magnetic field. For VLF, this is the horizontal direction normal to the direction between the survey area and the transmitting station.

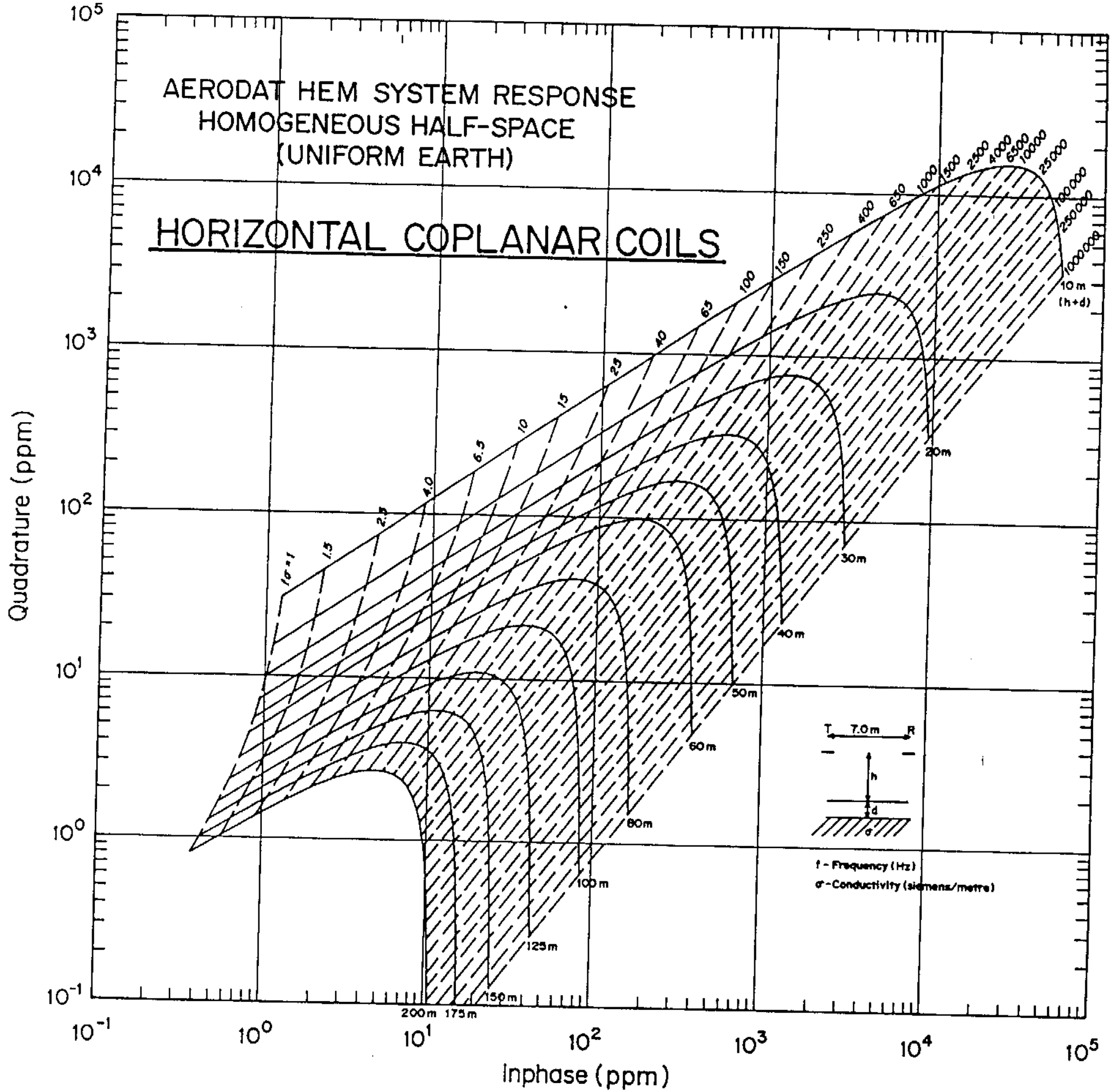
Ideally, a transmitting station can be found which is on strike with the features of interest. This is the Line Station. The VLF station which produces a direction perpendicular to the Line Station is the Ortho Station.

Due to the relatively high frequencies of the VLF field, and to the uniform nature of the field, large regional features response well to the method. If the ground is weakly conductive, the topography influences the VLF data to a significant degree.

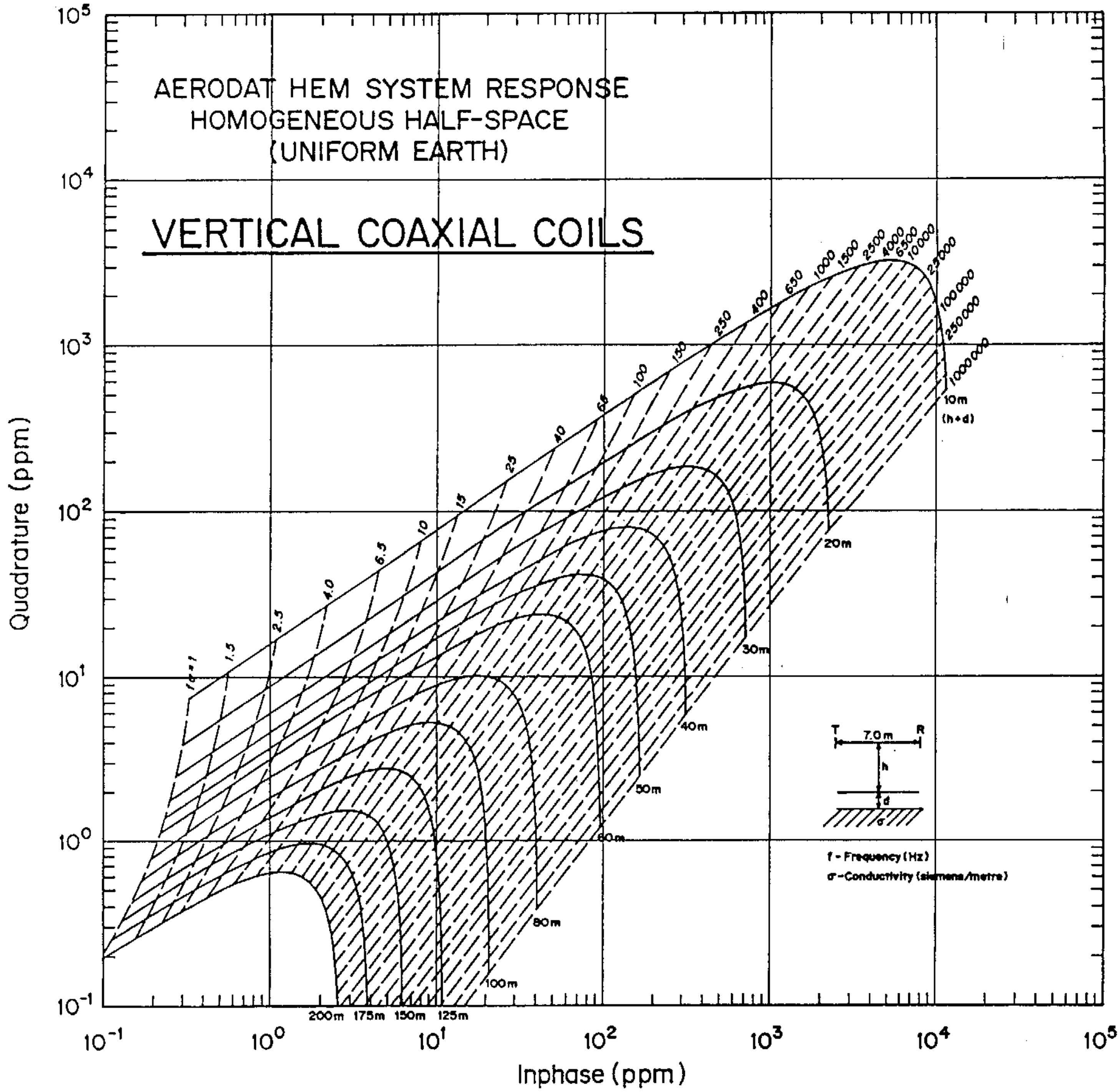
The VLF data is typically presented as contours of the total (EM) field. The VLF total field response to a steeply dipping conductor is a local maximum over the conductor.



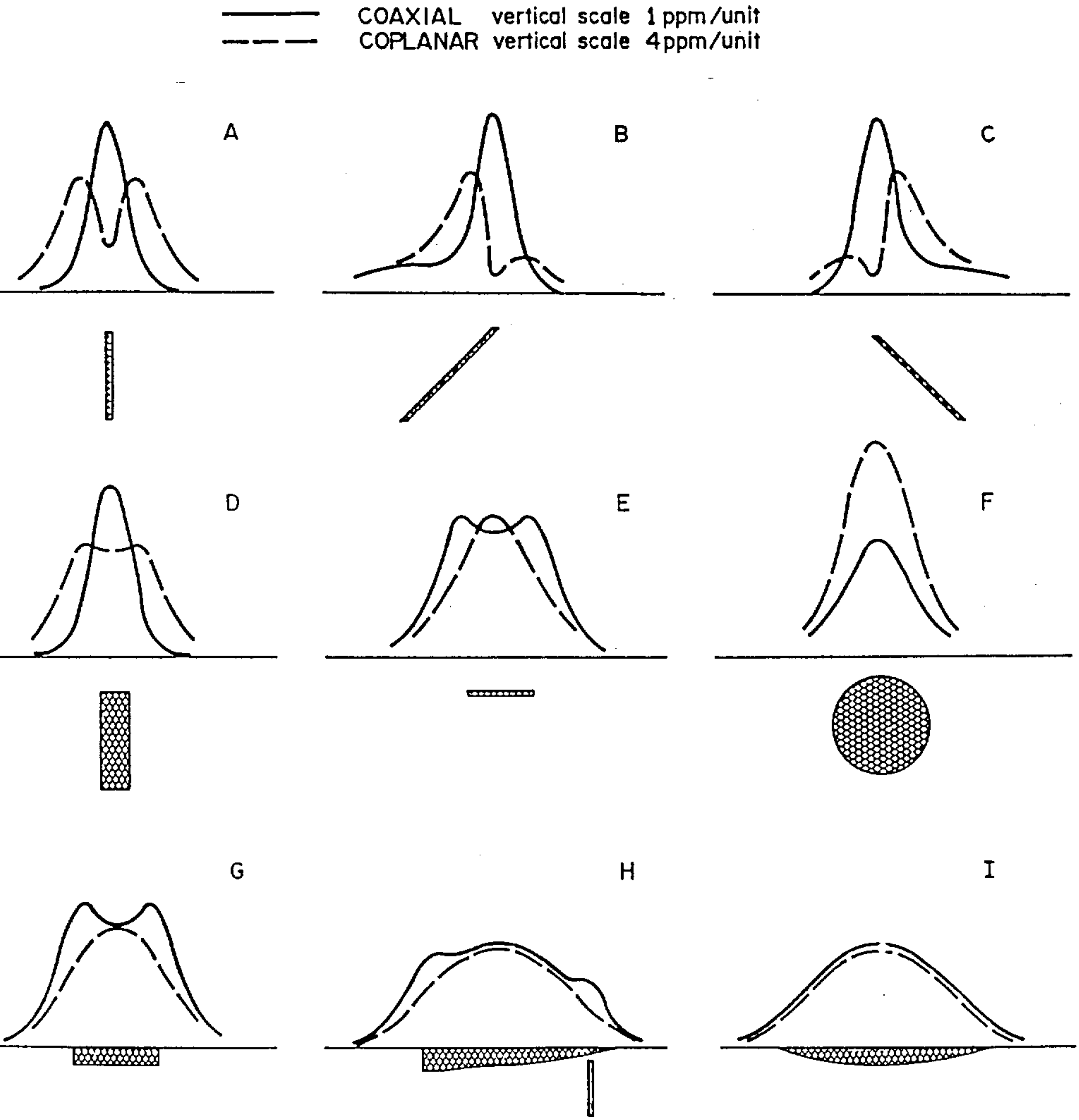
AERODAT HEM SYSTEM RESPONSE
VERTICAL HALF-PLANE
fσt=13X10³
26X10³
52X10³
13X10⁴
26X10⁴
52X10⁴
13X10⁵
26X10⁵
52X10⁵
15m
(h+d)
20m
27.5m
35m
50m
70m
100m
QUADRATURE (ppm)
IN-PHASE (ppm)
1000
100
10
1
T
7.0m
R
h
Surface
d
σt
f - Frequency (Hz)
σt - Conductance (siemens)



AERODAT HEM SYSTEM RESPONSE
HOMOGENEOUS HALF-SPACE
(UNIFORM EARTH)
HORIZONTAL COPLANAR COILS
σ=1
1.5
2.5
4.0
6.5
10
15
25
40
65
100
150
250
400
650
1000
1500
2500
4000
6500
10000
25000
100000
250000
1000000
10 m
(h+d)
20m
30m
40m
50m
60m
80m
100m
125m
150m
200m
175m
T
7.0m
R
h
d
σ
f - Frequency (Hz)
σ - Conductivity (siemens/metre)
Quadrature (ppm)
Inphase (ppm)
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}


AERODAT HEM SYSTEM RESPONSE
HOMOGENEOUS HALF-SPACE
(UNIFORM EARTH)
VERTICAL COAXIAL COILS
f=1
1.5
2.5
4.0
6.5
10
15
25
40
65
100
150
250
400
650
1000
1500
2500
4000
6500
10000
25000
100000
250000
1000000
10m
(h+d)
20m
30m
40m
50m
60m
80m
100m
125m
150m
175m
200m
T
7.0 m
R
h
d
σ
f - Frequency (Hz)
σ - Conductivity (siemens/metre)
Quadrature (ppm)
Inphase (ppm)

HEM RESPONSE PROFILE SHAPE AS AN INDICATOR OF CONDUCTOR GEOMETRY



APPENDIX 3

ANOMALY LISTINGS

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
20	10010	A/	2	52	37.6	2.7	5	28	370312	6796532
20	10010	B/	2	31.3	24.6	2.1	0	51	370425	6796693
20	10010	C	1	19.5	14.5	1.9	0	52	370489	6796769
20	10010	D	0	3.2	4.4	0.3	6	60	371660	6798141
20	10010	E	1	26.8	28.3	1.3	1	35	372310	6798881
20	10020	A	1	41	60.9	1	8	18	372169	6799023
20	10020	B	1	26	30.5	1.1	8	27	372108	6798959
20	10020	C	0	9.3	31.6	0.1	0	29	371538	6798328
20	10020	D	0	9.2	24.8	0.2	1	30	371353	6798115
20	10020	E	0	6	13.7	0.2	0	41	371112	6797861
20	10020	F	1	11.5	11.6	1	6	44	370447	6797118
20	10020	G	0	12.8	17.5	0.7	18	23	370151	6796799
20	10030	A	2	48.9	34.3	2.8	0	47	369916	6796811
20	10030	B	0	14.4	39.6	0.3	0	30	370024	6796941
20	10030	C magnetite	0	-43.1	24.9	0	0	18	370286	6797253
20	10030	D	0	16.8	23.6	0.7	10	27	370343	6797318
20	10030	E	0	11.1	25.2	0.3	1	31	370383	6797364
20	10030	F	0	9.9	27.6	0.2	0	35	371222	6798235
20	10030	G	0	3.2	14.3	0	0	32	371507	6798611
20	10030	H	1	23.2	29.2	1	3	32	371943	6799081
20	10040	A	0	31.1	51.3	0.8	2	25	371856	6799225
20	10040	B	0	11.6	20.5	0.4	0	45	371214	6798521
20	10040	C	0	15.8	36	0.4	0	32	371082	6798369
20	10040	D	0	8	22.3	0.2	6	25	370972	6798247
20	10040	E	1	73.3	92.1	1.5	1	22	370312	6797521
20	10040	F magnetite	0	-35.3	22.4	0	0	17	370158	6797345
20	10050	A	3	50	19	6.3	0	60	369630	6797033
20	10050	B	0	6.6	12.2	0.3	0	43	369912	6797375
20	10050	C	0	12.6	22.5	0.5	7	28	370054	6797513
20	10050	D	0	20	31	0.7	0	45	370273	6797776
20	10050	E	0	12	20.2	0.5	0	43	370316	6797837
20	10050	F	0	8.9	20.9	0.2	0	51	370965	6798519
20	10050	G	0	9.5	22.8	0.2	0	46	371163	6798781
20	10050	H	0	19.7	57.9	0.3	4	18	371609	6799255
20	10050	J	0	21.1	55.7	0.3	4	19	371670	6799339
20	10060	A	1	28.2	28	1.5	0	41	371454	6799382
20	10060	B	0	8.6	16.1	0.4	0	55	371097	6798952
20	10060	C	0	7	18.7	0.2	0	37	370803	6798616
20	10060	D	2	33.8	22.3	2.7	0	50	370273	6798006
20	10060	E	0	21.7	31.8	0.8	12	21	369816	6797484
20	10060	F	0	8.1	12.7	0.4	10	35	369744	6797425
20	10060	G	3	50.4	23.5	4.8	0	54	369490	6797214
20	10070	A	2	37.5	21.6	3.3	0	40	369350	6797261

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
20	10070	B	2	49.6	28.7	3.6	0	49	369418	6797345
20	10070	C	0	33.2	73.9	0.5	0	50	370199	6798311
20	10070	D	0	26.6	54.4	0.5	0	31	371230	6799475
20	10070	E	0	27	66.7	0.4	0	24	371307	6799552
20	10080	A	0	14.3	22.3	0.6	0	41	371134	6799648
20	10080	B	0	10.7	25.7	0.3	0	41	370668	6799139
20	10080	C	2	101.1	70.8	3.5	0	28	370055	6798441
20	10080	D	2	62.5	39.4	3.5	0	32	370017	6798398
20	10080	E	2	51.8	33.5	3.2	0	44	369239	6797523
20	10080	F	1	34.1	38.1	1.3	0	36	369181	6797460
20	10090	A	3	206.7	147.7	4.3	0	26	369084	6797610
20	10090	B	3	187.3	104.2	5.7	0	30	369122	6797654
20	10090	C	0	16.1	22.8	0.7	0	40	369266	6797839
20	10090	D	0	5.9	9.5	0.4	0	56	369917	6798563
20	10090	E	0	15.6	33.6	0.4	0	36	370943	6799755
20	10090	F	0	27	60.9	0.5	0	31	371080	6799909
20	10100	A	0	27.9	46.7	0.7	0	36	370972	6800069
20	10100	B	0	14.7	23.4	0.6	0	44	370858	6799934
20	10100	C	1	14.6	15.1	1.1	3	42	369772	6798695
20	10100	D	0	17.8	55.1	0.2	0	23	369331	6798231
20	10100	E	0	20.4	34.1	0.6	2	29	369288	6798195
20	10100	F	3	140	64.7	6.6	0	40	369112	6797972
20	10100	G	2	130.9	107.9	3.1	0	30	369038	6797874
20	10100	H	0	11.4	46.7	0.1	3	18	368925	6797750
20	10110	A	0	12.2	23.8	0.4	0	38	368853	6797944
20	10110	B	2	31.8	22.9	2.3	0	55	368932	6798028
20	10110	C	3	53.3	22.1	5.7	0	67	369061	6798170
20	10110	D	3	100.8	56.3	4.7	0	42	369137	6798276
20	10110	E	2	118.4	116	2.4	0	24	369212	6798349
20	10110	F	2	129.1	151	2	2	18	369255	6798375
20	10110	G	2	26	16.6	2.6	0	75	369645	6798824
20	10110	H	0	12	29	0.3	0	53	369710	6798916
20	10110	J	0	13.5	18.7	0.7	0	48	370699	6800012
20	10120	A	0	40.4	62.7	0.9	0	30	370725	6800296
20	10120	B	0	16.4	26.2	0.6	0	35	370608	6800142
20	10120	C	3	49.6	24.6	4.4	7	30	369611	6799082
20	10120	D	3	59	28.6	4.8	0	35	369561	6799025
20	10120	E	1	11.6	9.4	1.4	14	40	369452	6798899
20	10120	F	0	13.9	17.4	0.8	7	34	369196	6798588
20	10120	G	1	16.1	16.1	1.2	7	37	369137	6798524
20	10120	H	4	127.8	32.9	13.7	0	58	369001	6798389
20	10120	J	2	39.8	23.9	3.2	0	50	368857	6798236
20	10120	K	0	15.7	18.4	0.9	7	34	368750	6798131

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
20	10131	A	0	8.2	9.5	0.7	0	68	368617	6798282
20	10131	B	2	17	7.4	3.7	0	67	368707	6798375
20	10131	C	3	19.8	7.8	4.5	0	77	368854	6798540
20	10131	D	1	9.5	8.6	1.1	0	79	369202	6798917
20	10131	E	0	42.4	64.9	0.9	0	43	369497	6799245
20	10131	F	0	13.4	25.2	0.4	0	46	370460	6800374
20	10140	A	0	20	27.9	0.8	0	38	370394	6800555
20	10140	B	0	10.8	16.2	0.5	0	46	370004	6800134
20	10140	C	3	21.4	8.5	4.5	2	50	369407	6799411
20	10140	D	2	14.7	6.5	3.5	0	66	369317	6799337
20	10140	E	2	16.3	8.2	3	0	68	369083	6799086
20	10140	F	1	11.4	7.3	1.9	9	50	368982	6798970
20	10140	G	3	38.8	14.1	6.2	0	70	368601	6798531
20	10150	A	2	13.1	7.4	2.4	0	82	368448	6798672
20	10150	B	1	15.5	13.9	1.3	0	63	368794	6799054
20	10150	C	1	12.4	12.1	1.1	0	64	368838	6799094
20	10150	D	1	14.5	10.6	1.7	0	75	369223	6799552
20	10150	E	0	8.3	20.5	0.2	0	39	369866	6800257
20	10150	F	0	20.4	45.5	0.4	0	35	370225	6800656
20	10150	G	0	16.4	32.4	0.4	0	32	370286	6800727
22	10161	A	2	14.4	9.1	2.1	0	65	368276	6798813
22	10161	B	2	12.2	7	2.3	0	77	368312	6798855
22	10161	C	1	12.2	10	1.4	7	45	368450	6798997
22	10161	D	1	16.7	15.3	1.3	4	41	368494	6799066
22	10161	E	1	16.7	15.3	1.3	4	41	368494	6799066
22	10161	F	0	4.7	15	0.1	0	59	368803	6799384
22	10161	G	0	2.7	16	0	0	47	368830	6799414
22	10161	H	0	12.6	15.5	0.8	0	77	369107	6799720
22	10161	J	0	5.9	15.2	0.2	0	47	369748	6800431
22	10161	K	0	11.2	13.9	0.7	0	58	370096	6800898
21	10170	A	0	6.8	12.3	0.3	0	53	369639	6800621
21	10170	B	2	74.6	63.7	2.5	9	18	369147	6800121
21	10170	C	2	64	39.6	3.6	7	25	369041	6799998
21	10170	D	1	20.9	15.5	1.9	0	60	368822	6799728
21	10170	E	1	25	24.9	1.4	0	49	368594	6799499
21	10170	F	1	17.8	16.6	1.3	0	50	368371	6799226
21	10170	G	2	36.7	27.4	2.3	0	52	368298	6799145
21	10170	H	2	45.6	37.1	2.2	0	39	368202	6799056
21	10170	J	0	10.6	13.5	0.7	0	50	368080	6798861
21	10180	A	0	13.3	14.9	0.9	0	45	367726	6798815
21	10180	B	1	13.9	15.4	1	0	47	367778	6798871
21	10180	C	0	18.2	32.1	0.5	0	40	367859	6798954
21	10180	D	3	77.4	33.9	5.9	0	32	368080	6799215
21	10180	E	3	44.5	20.1	4.8	0	50	368134	6799280

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
21	10180	F	2	30.4	19.9	2.6	0	56	368374	6799511
21	10180	G	2	28.3	14.4	3.6	0	63	368413	6799555
21	10180	H	1	31.5	26.2	1.9	0	55	368598	6799756
21	10180	J	1	27	31.5	1.2	0	35	368968	6800194
21	10180	K	0	22.1	31.6	0.8	0	38	369009	6800268
21	10180	M	0	6.6	8.7	0.5	0	59	369086	6800398
21	10180	N	0	5.9	13.7	0.2	0	61	369550	6800814
21	10190	A	1	17.5	20.7	1	0	44	369033	6800582
21	10190	B	1	20.7	22.4	1.2	0	42	369001	6800531
21	10190	C	2	27.7	17.8	2.6	0	51	368427	6799918
21	10190	D	2	26.2	16.7	2.6	0	57	368416	6799899
21	10190	E	2	74.7	49.3	3.5	0	43	368275	6799706
21	10190	F	3	61.1	30.9	4.6	0	42	368137	6799552
21	10190	G	3	60.5	27.8	5.2	0	46	368097	6799513
21	10190	H	3	50.2	24.8	4.5	0	45	368067	6799479
21	10190	J	0	9.9	21.3	0.3	0	41	367698	6799098
21	10190	K	0	18.4	39.2	0.4	1	27	367584	6798982
21	10200	A	0	7.4	16.3	0.2	0	57	367556	6799128
21	10200	B	3	18.4	5.4	6.5	0	81	367889	6799637
21	10200	C	2	48.6	39.2	2.3	0	51	368085	6799838
21	10200	D	2	51.3	40.1	2.5	0	34	368153	6799907
21	10200	E	3	23.8	9.8	4.5	0	76	368268	6800000
22	10211	A	1	10.5	9.8	1.1	0	62	369290	6801429
22	10211	B	1	12.5	9.3	1.6	0	66	368920	6801038
22	10211	C	3	34.4	14.4	4.9	0	65	367956	6799930
22	10211	D	3	44.4	15.1	7	0	58	367831	6799842
22	10211	E	2	20.4	9.8	3.5	0	56	367731	6799733
22	10211	F	0	14.2	37.4	0.3	0	49	367241	6799176
22	10221	A	2	15.5	10	2.1	0	76	367545	6799788
22	10221	B	2	11.9	6.8	2.3	0	66	367731	6800043
22	10221	C	1	21.1	23.3	1.1	0	54	368032	6800382
22	10221	D	0	6.7	19.5	0.1	0	64	368487	6800889
22	10221	E	1	11.4	10.1	1.2	0	88	368783	6801197
22	10221	F	1	22.1	23.3	1.2	0	47	369190	6801650
22	10230	A	2	43.2	37	2.1	4	30	368649	6801357
22	10230	B	1	12.3	8	1.9	2	55	368535	6801224
22	10230	C	0	34.9	87	0.4	3	16	368421	6801096
22	10230	D	0	19.2	46.7	0.4	9	16	368409	6801084
22	10230	E	0	10.3	41.9	0.1	1	21	368393	6801069
22	10230	F	0	9.8	108.1	0	1	10	368373	6801049
22	10230	G	1	8	6.8	1.1	0	76	367936	6800561
22	10230	H	3	24.7	8.3	6	0	97	367473	6800030
22	10230	J	2	26.8	13	3.7	0	61	367373	6799912

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22	10240	A	3	44.3	16.1	6.4	0	86	367203	6800020
22	10240	B	3	15.2	4.9	5.4	0	89	367278	6800145
22	10240	C	2	8.5	3.9	2.7	0	70	367332	6800201
22	10240	D	0	7.5	8	0.8	0	112	368359	6801342
22	10240	E	0	44	75.1	0.8	0	44	368512	6801478
22	10250	A	1	42.1	40.1	1.8	3	29	368431	6801729
22	10250	B	1	41.1	40.1	1.7	1	31	368370	6801663
22	10250	C	1	12.3	10.5	1.3	0	59	368236	6801515
22	10250	D	0	7.5	26.2	0.1	0	39	367803	6801022
22	10250	E	1	11.4	9.6	1.3	2	52	367566	6800745
22	10250	F	3	74.1	36	5.1	0	64	367098	6800213
22	10250	G	3	152	62.1	7.9	0	36	366997	6800136
22	10250	H	3	84	40.2	5.4	0	38	366895	6800015
22	10260	A	3	206.9	111.1	6.1	0	29	366687	6800034
22	10260	B	4	166.4	61	9.3	0	37	366801	6800185
22	10260	C	2	9.9	4.7	2.8	23	43	366952	6800381
22	10260	D	1	22.9	20.3	1.6	0	60	367286	6800777
22	10260	E	2	49	31.8	3.1	0	52	367559	6801050
22	10260	F	0	20	28.9	0.8	0	62	368202	6801768
22	10260	G	1	43.1	45.5	1.6	0	55	368310	6801898
22	10260	H	0	15.9	35.6	0.4	0	41	368362	6801934
22	10270	A	3	20.2	7.5	4.9	0	56	368230	6802097
22	10270	B	1	13.5	14.6	1	1	45	368093	6801939
22	10270	C	0	8.2	8.8	0.8	9	45	368055	6801915
22	10270	D	0	9	13.1	0.5	6	39	368022	6801878
22	10270	E	1	94.6	135.9	1.4	0	27	367463	6801211
22	10270	F	3	123.9	76	4.4	0	28	367431	6801163
22	10270	G	3	73.9	34.7	5.4	0	41	367396	6801117
22	10270	H	2	26.6	20.4	2	0	53	367228	6800930
22	10270	J	2	25.1	15.2	2.7	4	41	367154	6800847
22	10270	K	1	24.2	21.1	1.6	0	62	366832	6800483
22	10270	M	4	190.3	50.9	14.5	0	56	366719	6800372
22	10270	N	4	715.1	311.2	11.3	0	25	366634	6800284
22	10270	O	3	106.1	43.2	7.2	0	29	366510	6800168
22	10270	P	3	71.4	25.1	7.7	0	42	366441	6800091
22	10280	A	3	115	53.6	6.2	0	40	366189	6800130
22	10280	B	4	130.5	42	10.3	0	31	366270	6800245
22	10280	C	4	116.2	35.8	10.6	0	37	366351	6800334
22	10280	D	3	144.1	82.7	5.1	0	36	366505	6800506
22	10280	E	0	16.9	25.1	0.7	0	41	366890	6800954
22	10280	F	0	13.3	21.4	0.5	5	31	366935	6800995
22	10280	G	2	27	17.8	2.5	0	52	367033	6801088
22	10280	H	2	62.1	39.8	3.4	0	35	367148	6801197
22	10280	J	3	90	55.6	4	0	34	367191	6801255
22	10280	K	0	14.1	18.4	0.8	0	76	367923	6802033

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
22	10280	M	1	51.5	62.4	1.4	0	55	368078	6802226
23	10290	A	4	378	139.2	11.7	0	26	366130	6800376
23	10290	B	3	331.8	179	7	0	23	366206	6800468
23	10290	C	2	217.6	210.1	3	0	22	366285	6800557
23	10290	D	1	53.2	56.5	1.7	11	18	366367	6800640
23	10290	E	2	10.5	4.7	3	27	38	366691	6800966
23	10290	F	2	21.7	15.8	2	0	47	366775	6801055
23	10290	G	2	38	20.6	3.6	0	52	366884	6801169
23	10290	H	2	37.1	28.2	2.3	0	36	366983	6801292
23	10290	J	2	79.7	54.9	3.3	1	28	367049	6801384
23	10290	K	0	5.1	10.5	0.2	5	40	367499	6801865
23	10290	M	1	12.7	11	1.3	0	64	367714	6802094
23	10290	N	1	27.8	33.4	1.1	0	66	367755	6802160
23	10290	O	3	122.1	81.3	4	0	53	367931	6802328
23	10290	P	0	51.5	124.7	0.6	0	22	367983	6802390
21	10300	A	0	28.2	46.6	0.7	5	23	367598	6802207
21	10300	B	0	25.7	44.2	0.7	1	27	367557	6802177
21	10300	C	0	18.7	31.5	0.6	2	30	367523	6802146
21	10300	D	0	8.8	28.6	0.1	2	25	367477	6802094
21	10300	E	0	10.2	11.6	0.8	4	45	367278	6801864
21	10300	F	0	8.5	23.9	0.2	0	34	367176	6801748
21	10300	G	2	57.8	43.7	2.7	0	45	366956	6801499
21	10300	H	2	39.7	27.6	2.6	0	43	366865	6801381
21	10300	J	2	49.3	42.6	2.1	0	35	366674	6801209
21	10300	K	1	43.9	43.9	1.7	0	32	366595	6801117
21	10300	M	1	33.8	32.8	1.6	1	34	366534	6801042
21	10300	N	2	34.3	17.9	3.7	0	57	366138	6800602
21	10300	O	4	89.1	30.5	8.5	0	49	365963	6800425
21	10310	A	3	95	35.7	7.7	0	43	365780	6800482
21	10310	B	3	95.4	42.2	6.2	0	41	365816	6800535
21	10310	C	1	18.3	21.3	1	9	30	365937	6800704
21	10310	D	2	35.2	27	2.2	0	37	366122	6800902
21	10310	E	2	100.7	101	2.2	0	32	366388	6801182
21	10310	F	1	94.9	166.7	1.1	0	26	366458	6801266
21	10310	G	2	101.8	88.8	2.7	0	26	366571	6801385
21	10310	H	1	72.7	97.6	1.4	0	25	366657	6801480
21	10310	J	2	88.9	95.1	2	5	18	366713	6801550
21	10310	K	2	63.7	55.6	2.3	0	30	366777	6801673
21	10310	M	0	19.1	42.9	0.4	8	19	366996	6801931
21	10310	N	0	31.2	80	0.4	0	35	367400	6802389
21	10310	O	2	46.9	29.8	3.1	0	55	367616	6802611
21	10320	A	2	53.6	33.5	3.3	0	47	367539	6802795
21	10320	B	3	60.4	30.1	4.7	0	47	367502	6802745
21	10320	C	1	12.9	12.1	1.2	0	50	367287	6802511
21	10320	D	0	19.4	41.9	0.4	2	25	366904	6802080

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
21	10320	E	2	33.1	24.9	2.2	0	41	366586	6801708
21	10320	F	1	23.9	28.1	1.1	0	45	366452	6801562
21	10320	G	1	23.1	25.9	1.1	3	34	366320	6801401
21	10320	H	1	26.2	28.3	1.3	0	40	366272	6801340
21	10320	J	1	14.9	15.9	1	3	41	366200	6801254
21	10320	K	0	12	28.8	0.3	4	26	366072	6801115
21	10320	M	0	9.3	9.5	0.9	10	43	365897	6800924
21	10320	N	3	61	31.3	4.5	0	54	365685	6800689
21	10330	A	3	53.4	23.6	5.3	0	45	365478	6800737
21	10330	B	0	21.1	26.8	0.9	6	30	366133	6801474
21	10330	C	2	52.2	43.3	2.3	0	38	366364	6801777
21	10330	D	1	41.4	46.1	1.4	5	25	366456	6801868
21	10330	E	1	51.4	52.8	1.7	1	28	366492	6801909
21	10330	F	0	18.5	27.7	0.7	0	43	366718	6802217
21	10330	G	1	11.1	9.7	1.2	0	95	367014	6802501
21	10330	H	0	10.2	17	0.5	0	77	367124	6802622
21	10330	J	0	9.4	19.1	0.3	0	46	367155	6802666
21	10330	K	2	81.3	52.7	3.6	0	51	367373	6802903
21	10330	M	1	53.6	53.9	1.8	0	39	367420	6802952
21	10340	A	2	64.7	39.8	3.6	0	36	367316	6803122
21	10340	B	1	17.9	15.6	1.5	0	50	366819	6802634
21	10340	C	0	8.8	28.6	0.1	0	32	366702	6802482
21	10340	D	1	36.1	44	1.2	3	27	366351	6802071
21	10340	E	1	17	19.7	1	0	56	366197	6801892
21	10340	F	0	13.4	28.7	0.4	0	49	365617	6801264
21	10340	G	0	12.6	19.8	0.6	0	60	365586	6801215
21	10340	H	0	15.9	26.3	0.6	0	65	365482	6801058
21	10340	J	0	12.6	22.4	0.5	0	46	365422	6800975
21	10350	A	1	31.6	30.1	1.6	0	38	365299	6801179
21	10350	B	1	36.4	43.1	1.3	0	36	365364	6801245
21	10350	C	1	38.3	40.5	1.5	4	27	365414	6801310
21	10350	D	1	13.9	11.2	1.5	0	68	365554	6801488
21	10350	E	2	29.8	21.9	2.2	0	48	365715	6801700
21	10350	F	0	13.3	20.9	0.6	33	4	365891	6801883
21	10350	G	1	28.8	30.3	1.4	0	37	366023	6801981
21	10350	H	1	22	21.1	1.4	15	25	366077	6802038
21	10350	J	1	15.7	15.4	1.2	0	88	366322	6802284
21	10350	K	0	12.9	16.8	0.7	0	60	366379	6802337
21	10350	M	0	16.5	19.8	0.9	0	72	366670	6802714
21	10350	N	1	25.3	30.2	1.1	0	54	367189	6803276
21	10360	A	2	24.2	18.3	2	0	55	367094	6803430
21	10360	B	0	11.6	20.3	0.5	0	44	366772	6803133
21	10360	C	1	16	15.8	1.2	0	65	366125	6802406
21	10360	D	1	23.7	19.6	1.7	0	75	365919	6802154
21	10360	E	1	18.3	18.6	1.2	0	59	365687	6801947

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
21	10360	F	1	39.7	45.5	1.4	0	49	365591	6801779
21	10360	G	1	63.2	63.6	1.9	0	44	365531	6801715
21	10360	H	1	20.2	22.6	1.1	0	48	365402	6801592
21	10360	J	0	31.6	45	0.9	0	40	365232	6801376
21	10360	K	0	24.8	36.5	0.8	0	43	365178	6801301
21	10360	M	0	19.1	31	0.6	0	43	365116	6801214
21	10370	A	0	27.7	42.7	0.8	0	34	364908	6801344
21	10370	B	1	24.4	28.5	1.1	0	37	364979	6801412
21	10370	C	1	22.4	20.4	1.5	0	41	365112	6801586
21	10370	D	2	36.6	28.3	2.2	6	31	365147	6801649
21	10370	E	2	37.1	31	2	6	30	365186	6801703
21	10370	F	1	12.9	11.4	1.3	25	25	365418	6801993
21	10370	G	0	14.2	16.4	0.9	6	37	365588	6802167
21	10370	H	1	19.1	14.4	1.8	11	36	365681	6802267
21	10370	J	1	16	15.5	1.2	9	36	365855	6802413
21	10370	K	0	12.6	14.8	0.8	22	22	365928	6802480
21	10370	M	0	10.9	14.9	0.6	2	41	365976	6802540
21	10370	N	1	11.4	11	1.1	0	117	366867	6803545
21	10370	O	2	28.4	21.9	2	0	87	366906	6803623
23	10380	A	1	11.2	10.1	1.2	0	75	366385	6803383
23	10380	B	0	9.9	16.3	0.5	0	41	366118	6803081
23	10380	C	0	14.2	26.6	0.4	3	30	366011	6802961
23	10380	D	0	10.7	19	0.4	16	21	365970	6802919
23	10380	E	1	53.3	58.4	1.6	0	34	365810	6802728
23	10380	F	3	18.4	7.8	4	0	68	365488	6802343
23	10380	G	2	27	13.1	3.7	0	73	365301	6802146
23	10380	H	2	26.9	20.2	2.1	3	38	365026	6801850
23	10380	J	2	45	32.1	2.7	0	50	364950	6801775
23	10380	K	0	20.9	27.8	0.9	0	56	364833	6801644
23	10390	A	1	34.1	41	1.2	0	38	364722	6801782
23	10390	B	1	45.2	52.8	1.4	0	33	364780	6801858
23	10390	C	1	32.3	30.7	1.6	8	27	364855	6801965
23	10390	D	1	26.9	29.8	1.2	6	29	365074	6802154
23	10390	E	2	35.9	26.5	2.4	0	49	365153	6802216
23	10390	F	2	89.4	65.1	3.2	0	32	365216	6802267
23	10390	G	3	54.1	25.3	4.9	0	44	365334	6802429
23	10390	H	2	57.8	35	3.6	0	41	365364	6802456
23	10390	J	2	36.6	24.7	2.7	13	25	365453	6802568
23	10390	K	1	38.7	39.1	1.6	0	43	365607	6802765
23	10390	M	2	24.9	16.2	2.5	0	60	365635	6802819
23	10390	N	0	24	79.3	0.2	6	13	365759	6802981
23	10390	O	0	17.2	114	0.1	0	28	365813	6803024
23	10390	P	0	8.3	8.3	0.9	0	85	366067	6803251
23	10390	Q	0	8.6	10.5	0.7	0	67	366207	6803455
23	10390	R	0	19.9	24.6	0.9	0	47	366259	6803522
23	10390	S	3	154.8	77.1	6.2	0	43	366525	6803771

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
23	10390	T	3	165.6	76.8	6.9	0	48	366549	6803795
23	10400	A	3	226.3	113.7	6.8	1	20	366321	6803881
23	10400	B	2	257.6	300.3	2.5	0	17	366134	6803638
23	10400	C	1	150.3	234.9	1.5	0	18	366108	6803609
23	10400	D	2	30.1	20.5	2.5	5	36	365839	6803338
23	10400	E	0	9.6	30.9	0.1	7	20	365661	6803134
23	10400	F	0	24.8	61.9	0.4	3	19	365611	6803057
23	10400	G	1	27.9	24.8	1.7	3	35	365501	6802937
23	10400	H	1	18.1	14.9	1.6	21	25	365379	6802817
23	10400	J	3	127.3	76.5	4.6	0	40	365111	6802491
23	10400	K	3	148	63.2	7.4	0	39	365088	6802471
23	10400	M	2	47.1	33.4	2.7	0	57	364965	6802328
23	10400	N	2	62.6	39.8	3.4	0	49	364916	6802259
23	10400	O	0	19.6	33.5	0.6	0	40	364714	6802037
23	10400	P	0	26.1	41.8	0.7	0	38	364648	6801951
23	10400	Q	2	68.9	56.2	2.6	0	38	364567	6801860
23	10400	R	1	17.7	19.7	1	0	41	364475	6801752
23	10410	A	1	22.4	18.1	1.8	0	44	364364	6801899
23	10410	B	1	20.3	22.5	1.1	0	50	364467	6802038
23	10410	C	1	20.1	18.6	1.4	0	59	364611	6802195
23	10410	D	2	34.6	26.2	2.2	0	44	364710	6802304
23	10410	E	2	32.3	26.1	2	0	37	364760	6802372
23	10410	F	3	58.7	30	4.5	5	30	364864	6802505
23	10410	G	2	65.1	47.2	2.9	3	27	364900	6802544
23	10410	H	1	9.7	9.5	1	0	63	365222	6802936
23	10410	J	2	57.6	48.4	2.3	0	37	365359	6803078
23	10410	K	2	53.9	36.2	3	0	39	365652	6803420
23	10410	M	1	22.7	22.6	1.3	0	48	365769	6803566
23	10410	N	3	49.4	26.3	4	0	53	365896	6803705
23	10410	O	3	57.3	25.6	5.3	0	53	365949	6803763
23	10410	P	3	77.8	29	7.3	0	50	366081	6803921
23	10420	A	3	185.6	87.5	7	0	27	365958	6804086
23	10420	B	2	95.1	96.6	2.2	0	28	365867	6803974
23	10420	C	3	290.5	149.9	7.1	0	25	365783	6803852
23	10420	D	1	27	32.2	1.1	0	38	365667	6803719
23	10420	E	2	101.6	65.7	3.9	7	20	365489	6803563
23	10420	F	0	15.6	43.3	0.3	0	25	365338	6803389
23	10420	G	0	21.6	34.1	0.7	0	35	365297	6803334
23	10420	H	2	27.5	21.6	2	0	45	365231	6803253
23	10420	J	2	38.8	24.6	3	0	44	365170	6803191
23	10420	K	2	36.3	30.3	2	0	39	365145	6803173
23	10420	M	1	25.5	24.8	1.4	16	22	365097	6803132
23	10420	N	1	9.9	9	1.1	30	24	365014	6803033
23	10420	O	2	86	64	3.1	0	43	364707	6802676
23	10420	P	2	78	64.3	2.6	0	36	364574	6802540
23	10420	Q	2	62.7	51.2	2.5	0	39	364498	6802449

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
23	10420	R	1	40.9	36.9	1.9	0	45	364431	6802356
23	10420	S	1	42.2	51.5	1.3	0	32	364353	6802241
23	10420	T	1	40	46.7	1.3	0	44	364197	6802038
23	10430	A	1	37.4	42.6	1.3	3	27	364067	6802218
23	10430	B	1	32.3	31.6	1.6	0	48	364193	6802331
23	10430	C	2	58.1	48.8	2.3	0	31	364275	6802419
23	10430	D	2	71.6	47.7	3.4	0	31	364357	6802531
23	10430	E	2	67.2	40.7	3.7	0	40	364409	6802608
23	10430	F	2	91.4	62.3	3.5	0	29	364497	6802717
23	10430	G	2	105.8	87.6	2.9	0	25	364541	6802767
23	10430	H	1	65.1	78.4	1.5	1	23	364590	6802832
23	10430	J	2	47.8	32.4	2.9	1	34	364667	6802933
23	10430	K	2	23.6	12.7	3.1	0	54	364809	6803112
23	10430	M	2	57	52.4	2.1	0	46	365092	6803372
23	10430	N	0	14.3	38.7	0.3	0	32	365160	6803484
23	10430	O	3	126.9	79.6	4.4	0	28	365351	6803698
23	10430	P	3	375.2	231.1	6.1	0	24	365665	6804042
23	10430	Q	1	103	140.4	1.5	0	21	365708	6804089
23	10430	R	3	140.1	60.5	7.2	0	31	365829	6804214
23	10440	A	3	44	22.8	4	0	39	365756	6804339
23	10440	B	1	22.1	18.5	1.7	5	38	365643	6804215
23	10440	C	3	54.4	25.2	5	0	38	365567	6804140
23	10440	D	2	58.1	40.3	3	0	34	365514	6804102
23	10440	E	2	74.3	55.3	3	5	24	365269	6803830
23	10440	F	0	12.9	14.8	0.9	12	33	364976	6803519
23	10440	G	0	12.7	16.4	0.7	1	41	364915	6803458
23	10440	H	1	17.5	14.9	1.5	0	50	364841	6803372
23	10440	J	1	14.6	14	1.2	12	35	364685	6803209
23	10440	K	2	359	351.2	3.4	0	17	364345	6802823
23	10440	M	3	234.2	140.9	5.5	0	21	364246	6802706
23	10440	N	3	93.3	51.4	4.7	0	29	364176	6802614
23	10440	O	2	25.6	19.3	2	0	53	364063	6802474
23	10440	P	2	78.6	67.9	2.5	0	36	363962	6802348
23	10450	A	1	30.1	31.3	1.4	0	36	363608	6802292
23	10450	B	2	52.9	49.7	2	0	31	363656	6802352
23	10450	C	2	34.8	23	2.7	0	43	363809	6802564
23	10450	D	2	43.7	23.1	3.9	0	55	364051	6802828
23	10450	E	3	69.6	32.6	5.3	0	45	364179	6802953
23	10450	F	2	31.2	21.4	2.5	0	50	364308	6803098
23	10450	G	1	18.8	16.6	1.5	3	41	364384	6803180
23	10450	H	0	7.3	8.7	0.6	18	36	364516	6803323
23	10450	J	0	6.1	26.9	0.1	0	34	364960	6803860
23	10450	K	0	18.1	22.8	0.9	0	56	365142	6804052
23	10450	M	3	70.9	34.1	5.1	0	35	365348	6804260
23	10450	N	1	40	37.1	1.8	3	30	365383	6804309
23	10450	O	1	18.7	16.2	1.5	0	85	365453	6804393

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
23	10450	P	3	76.5	37	5.2	0	68	365574	6804487
23	10450	Q	3	87.8	36.3	6.7	0	60	365591	6804509
19	10460	A	1	36.9	37.5	1.6	0	34	363403	6802407
19	10460	B	2	37.2	29.6	2.2	7	29	363603	6802622
19	10460	C	3	30.5	11.7	5.3	0	57	363833	6802835
19	10460	D	3	60.5	31.4	4.4	0	50	363918	6802938
19	10460	E	2	42.9	22.7	3.9	0	51	364008	6803047
19	10460	F	2	30.8	18.7	2.9	0	51	364169	6803219
19	10460	G	2	26.8	20	2.1	0	55	364294	6803332
19	10460	H	2	29.4	22.8	2.1	0	51	364346	6803390
19	10460	J	1	11	8.9	1.4	12	43	364432	6803509
19	10460	K	0	13	15.4	0.8	0	51	364904	6804054
19	10460	M	1	9.2	9	1	0	74	364981	6804143
19	10460	N	2	31.3	22.6	2.3	0	59	365179	6804341
19	10460	O	1	26	31.8	1.1	0	34	365235	6804411
19	10460	P	2	15	6.7	3.4	0	101	365434	6804593
19	10460	Q	0	9.4	32.2	0.1	0	29	365613	6804901
19	10470	A	3	14.3	4.8	5	6	55	365230	6804812
19	10470	B	2	48.6	42.9	2.1	0	41	364990	6804512
19	10470	C	1	24.2	21.9	1.6	0	50	364845	6804362
19	10470	D	1	18.4	22.1	1	0	46	364794	6804299
19	10470	E	1	22.7	21.6	1.4	0	58	364076	6803420
19	10470	F	2	86	71.4	2.7	0	42	363835	6803161
19	10470	G	2	107.1	92.4	2.8	0	33	363788	6803105
19	10470	H	2	106.3	74.4	3.6	0	31	363758	6803064
19	10470	J	2	40	20.9	3.9	0	54	363641	6802920
19	10470	K	1	20.8	18.7	1.5	15	27	363506	6802767
19	10470	M	1	39.7	52.4	1.1	0	37	363240	6802469
19	10470	N	3	116.2	59.9	5.4	0	43	363139	6802368
19	10480	A	0	18.4	27.2	0.7	0	43	362977	6802517
19	10480	B	1	39.5	45.1	1.4	4	26	363237	6802797
19	10480	C	0	19.9	27.2	0.8	7	28	363285	6802846
19	10480	D	2	76.8	54.6	3.2	0	47	363510	6803130
19	10480	E	2	43.4	24.4	3.6	0	44	363724	6803371
19	10480	F	2	19.3	8.6	3.8	0	57	363848	6803492
19	10480	G	0	12.7	15.4	0.8	0	48	364742	6804574
19	10480	H	0	14.8	16.8	0.9	0	62	364800	6804635
19	10480	J	4	128.5	40.3	10.6	0	57	364974	6804789
19	10480	K	4	141.2	53.3	8.6	0	42	365047	6804870
19	10480	M	0	9.5	20.5	0.3	0	40	365188	6805021
19	10490	A	1	22.6	20.7	1.5	8	33	364989	6805105
19	10490	B	3	172.7	117.9	4.3	0	25	364885	6804968
19	10490	C	0	34.1	60.2	0.7	7	18	364692	6804762
19	10490	D	0	9	10.9	0.7	11	38	363879	6803839
19	10490	E	0	8.5	15.7	0.4	0	40	363812	6803742

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
19	10490	F	2	37.7	22.9	3.1	0	49	363711	6803613
19	10490	G	3	66.1	36.4	4.2	0	46	363625	6803527
19	10490	H	2	58.8	33.5	3.9	0	46	363575	6803471
19	10490	J	2	76.6	72	2.2	0	37	363417	6803301
19	10490	K	2	105.1	113.4	2.1	5	17	363288	6803154
19	10490	M	1	40.1	44	1.4	0	32	363219	6803058
19	10490	N	0	19.5	26.5	0.8	0	39	363077	6802924
19	10500	A	0	5.7	13.5	0.2	0	43	362779	6802885
19	10500	B	0	37.3	103.1	0.4	0	20	362920	6803047
19	10500	C	1	54.6	56.7	1.7	0	30	363064	6803204
19	10500	D	1	42.3	46.5	1.5	0	31	363104	6803250
19	10500	E	2	17.1	7.5	3.7	0	74	363454	6803657
19	10500	F	0	7.4	7.7	0.8	0	73	364350	6804627
19	10500	G	1	15.9	11.6	1.8	0	67	364456	6804810
19	10500	H	0	17.7	22.1	0.9	0	49	364539	6804905
19	10500	J	3	83	30.8	7.5	0	37	364705	6805081
19	10500	K	3	38.2	15.2	5.4	0	65	364813	6805180
19	10510	A	0	9.2	18.3	0.3	0	42	364958	6805566
19	10510	B	2	43.1	30.3	2.7	2	33	364758	6805376
19	10510	C	3	155.9	87.1	5.4	0	34	364572	6805166
19	10510	D	1	37.8	48.3	1.2	0	29	364425	6805006
19	10510	E	1	35.9	33.6	1.7	3	31	364363	6804931
19	10510	F	0	10.1	23.4	0.3	0	35	364241	6804803
19	10510	G	0	17.1	22.4	0.8	2	36	364120	6804664
19	10510	H	0	10.3	12.5	0.7	23	25	363945	6804440
19	10510	J	0	7.6	14.3	0.3	12	29	363892	6804360
19	10510	K	2	49.5	32.1	3.1	0	48	363331	6803738
19	10510	M	2	52.5	41.7	2.4	0	42	363268	6803678
19	10510	N	1	38	46	1.2	0	33	363117	6803537
19	10510	O	1	54.2	57.7	1.7	0	35	363052	6803461
19	10510	P	1	62.3	69.3	1.7	0	32	363000	6803398
19	10510	Q	2	59.7	49.5	2.4	0	34	362934	6803325
19	10520	A	0	20.5	39.1	0.5	0	30	362681	6803336
19	10520	B	2	100	105.3	2.1	0	29	362766	6803447
19	10520	C	2	63.2	50.6	2.6	0	31	362869	6803548
19	10520	D	2	37.6	26.5	2.5	0	50	363098	6803826
19	10520	E	0	11.8	19	0.5	4	35	363523	6804306
19	10520	F	2	57.4	50.4	2.2	0	33	363705	6804508
19	10520	G	0	25.7	47.8	0.6	0	33	363767	6804566
19	10520	H	0	14.1	20.7	0.6	0	39	363920	6804727
19	10520	J	2	15.3	10.3	2	0	61	364150	6804953
19	10520	K	1	14.8	10.7	1.8	0	68	364261	6805080
19	10520	M	3	38.4	16.9	4.8	0	62	364431	6805291
19	10520	N	3	41	21	4	0	58	364505	6805353
19	10520	O	3	40.8	19.7	4.3	0	55	364636	6805484

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
19	10530	A	3	53.6	28.5	4.1	0	38	364525	6805700
19	10530	B	2	58.9	53.1	2.1	0	29	364380	6805542
19	10530	C	2	66.2	40.2	3.7	1	31	364324	6805478
19	10530	D	2	72.4	50.5	3.2	0	36	364263	6805413
19	10530	E	2	26.1	15.3	2.9	5	39	364154	6805298
19	10530	F	1	23.8	18.4	1.9	1	42	364080	6805216
19	10530	G	2	29.9	24	2	0	39	363954	6805082
19	10530	H	0	17.8	21.5	0.9	0	46	363759	6804844
19	10530	J	3	67.8	38.2	4.1	0	34	363540	6804607
19	10530	K	0	13.6	24.4	0.5	0	34	363375	6804399
19	10530	M	2	22.9	17	2	2	42	363090	6804089
19	10530	N	1	23.2	18.5	1.8	0	46	362975	6803971
19	10530	O	2	43.3	31.9	2.5	0	35	362877	6803867
19	10530	P	1	21.4	26	1	0	36	362732	6803711
19	10530	Q	2	40.1	31.3	2.3	0	36	362636	6803623
19	10530	R	1	22.7	17.2	1.9	0	46	362571	6803558
19	10530	S	0	5.8	21	0.1	0	34	362081	6802944
19	10540	A	2	19.5	11.6	2.6	0	54	362376	6803632
19	10540	B	2	34	28.4	2	0	38	362465	6803716
19	10540	C	1	25.4	31.5	1	0	35	362514	6803766
19	10540	D	2	13.9	8.4	2.2	0	58	362630	6803912
19	10540	E	0	9.5	20.2	0.3	0	47	363354	6804767
19	10540	F	0	9.7	21.4	0.3	0	37	363413	6804842
19	10540	G	0	10.9	33.3	0.2	0	30	363553	6804993
19	10540	H	0	18.9	32.2	0.6	2	29	363782	6805236
19	10540	J	2	34.3	27.1	2.1	8	29	363943	6805384
19	10540	K	1	28.7	26.6	1.6	0	38	364041	6805498
19	10540	M	2	83.2	64.3	2.9	0	38	364164	6805619
19	10540	N	2	20.8	10.2	3.4	0	76	364395	6805885
19	10550	A	3	45.2	21.1	4.6	0	50	364258	6806033
19	10550	B	3	46.3	16	6.9	0	50	364238	6805991
19	10550	C	1	115.7	177.9	1.4	5	12	364087	6805855
19	10550	D	2	222.2	178.5	3.8	8	11	364057	6805823
19	10550	E	2	74.4	62.3	2.5	0	34	363963	6805728
19	10550	F	1	27.3	33	1.1	3	30	363885	6805629
19	10550	G	2	52.3	43.6	2.3	6	25	363798	6805537
19	10550	H	0	9.5	30.3	0.2	3	24	363553	6805246
19	10550	J	0	16.9	34.9	0.4	8	21	363331	6804974
19	10550	K	0	13.6	26.3	0.4	4	28	363260	6804892
19	10550	M	1	15.4	11	1.8	0	65	362862	6804418
19	10550	N	0	13.9	17.7	0.8	0	42	362498	6804013
19	10550	O	1	37.9	54.9	1	7	20	362386	6803907
19	10550	P	1	46	44.2	1.8	0	37	362316	6803812
19	10550	Q	1	51.2	51.6	1.8	0	51	362251	6803737
19	10550	R	0	10.3	15.5	0.5	0	68	362088	6803578
19	10550	S	0	5.7	20.6	0.1	0	32	361930	6803378

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
23	10560	A	3	124.7	60.9	6	0	33	364088	6806134
23	10560	B	3	173.1	103.4	5.1	0	23	363965	6805977
23	10560	C	3	170.3	114.3	4.4	0	26	363859	6805871
23	10560	D	2	63.8	55.9	2.3	0	30	363716	6805704
23	10560	E	0	5.6	12.2	0.2	0	43	363419	6805360
23	10560	F	0	10.5	18.7	0.4	6	32	363229	6805140
23	10560	G	0	15.9	27.8	0.5	0	40	363059	6804945
23	10560	H	1	21.5	22.3	1.2	0	45	362750	6804581
23	10560	J	1	31.4	26.8	1.9	0	42	362631	6804468
23	10560	K	2	72.9	71.2	2.1	0	30	362148	6803968
23	10560	M	1	30.8	30.5	1.5	0	50	362044	6803830
23	10560	N	1	32.3	32.1	1.5	0	55	361921	6803674
23	10560	O	0	13.6	37.5	0.2	0	26	361856	6803591
23	10570	A	1	32	33.4	1.4	0	39	361663	6803732
23	10570	B	1	30.8	26.1	1.9	0	64	361737	6803845
23	10570	C	2	35.2	26	2.3	12	26	361982	6804110
23	10570	D	2	29.8	18.5	2.8	19	23	362011	6804181
23	10570	E	1	22.4	17.4	1.9	23	21	362040	6804225
23	10570	F	0	10.4	16.9	0.5	17	23	362151	6804295
23	10570	G	0	9.2	9.8	0.8	12	40	362297	6804521
23	10570	H	0	14.2	17.4	0.8	0	42	362537	6804773
23	10570	J	1	15.6	15.7	1.1	0	51	363596	6805884
23	10570	K	2	44.4	26.6	3.3	0	54	363785	6806062
23	10570	M	2	43	28.3	2.9	0	39	363958	6806325
23	10580	A	3	56.6	21	6.7	0	48	363846	6806460
23	10580	B	1	27.6	34.9	1	0	32	363604	6806240
23	10580	C	2	37.6	21.3	3.4	0	49	363496	6806135
23	10580	D	1	28.9	34.2	1.2	0	33	363338	6805912
23	10580	E	0	21.9	31.9	0.8	2	31	363262	6805831
23	10580	F	0	9.8	17.3	0.4	6	33	363047	6805584
23	10580	G	0	10.6	13.3	0.7	0	51	362892	6805393
23	10580	H	0	9.6	10.8	0.8	14	37	362430	6804862
23	10580	J	3	23.1	9.4	4.5	0	65	361789	6804129
23	10580	K	1	59.8	67	1.6	0	34	361617	6803930
23	10580	M	1	63.2	76.5	1.5	0	27	361541	6803843
23	10590	A	1	44.3	58.5	1.2	5	22	361312	6803896
23	10590	B	1	50.1	47.7	1.9	0	35	361426	6804019
23	10590	C	1	26.5	22.3	1.8	4	35	361608	6804238
23	10590	D	0	12.3	14.2	0.9	12	33	361671	6804280
23	10590	E	1	14.7	14	1.2	15	32	361720	6804309
23	10590	F	1	10.3	8.2	1.3	20	37	361957	6804592
23	10590	G	1	10.3	7.7	1.5	8	49	361995	6804646
23	10590	H	1	21.6	20.8	1.4	0	48	363113	6805935
23	10590	J	3	70.8	39.1	4.3	0	46	363363	6806225
23	10590	K	3	105.9	60.1	4.7	0	35	363404	6806291
23	10590	M	1	22.2	17.6	1.8	0	73	363522	6806424

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
23	10590	N	0	31.2	45.7	0.9	0	53	363589	6806467
23	10590	O	3	56	22.1	6.2	0	53	363647	6806547
23	10590	P	4	105.5	38.1	8.4	0	54	363673	6806588
19	10600	A	1	21.1	24.9	1	3	34	361149	6804009
19	10600	B	1	22.9	26.9	1.1	0	46	361206	6804108
19	10600	C	0	14	25.5	0.5	2	32	361299	6804201
19	10600	D	2	31.1	17.3	3.3	17	26	361464	6804374
19	10600	E	2	15	8.2	2.6	0	56	361589	6804504
19	10600	F	1	10.3	7	1.7	0	60	361788	6804719
19	10600	G	1	17.6	12.7	1.9	0	65	362963	6806104
19	10600	H	3	28.9	10.3	5.8	4	43	363209	6806332
19	10600	J	2	28.7	14.7	3.6	0	48	363284	6806409
19	10600	K	3	41.3	17.4	5.2	0	66	363454	6806752
19	10610	A	3	15.5	6.2	4.1	0	83	363352	6806844
19	10610	B	3	44.2	18.4	5.4	3	36	363153	6806620
19	10610	C	2	83.6	64.6	2.9	3	24	363019	6806480
19	10610	D	4	167.2	59.3	9.8	0	28	362962	6806433
19	10610	E	0	8.9	11.7	0.6	0	49	362766	6806222
19	10610	F	0	8.7	12.8	0.5	0	46	362729	6806180
19	10610	G	0	5.3	12.9	0.2	2	38	362358	6805711
19	10610	H	0	10.7	21.4	0.4	0	57	361761	6805049
19	10610	J	0	9.3	11.2	0.7	0	77	361622	6804879
19	10610	K	0	10.4	12	0.8	0	76	361539	6804804
19	10610	M	0	10.8	11.3	0.9	0	86	361461	6804734
19	10610	N	1	23.5	22.7	1.4	0	66	361333	6804604
19	10610	O	2	41.6	28.6	2.7	0	57	361269	6804549
19	10610	P	0	84.4	160.6	0.9	0	24	361069	6804306
19	10610	Q	1	82.7	118.8	1.3	0	30	361044	6804281
19	10610	R	0	55.3	93.8	0.9	0	38	360950	6804161
19	10610	S	0	6.3	22.4	0.1	0	30	360875	6804033
19	10620	A	2	23.1	15.2	2.4	0	65	360835	6804264
19	10620	B	1	30.4	40.5	1	0	40	360965	6804403
19	10620	C	2	39.4	31.5	2.2	0	53	361172	6804607
19	10620	D	0	18.6	27.5	0.7	22	12	361420	6804873
19	10620	E	1	23.9	19.4	1.8	27	15	361558	6805044
19	10620	F	1	6	4	1.4	0	102	362201	6805754
19	10620	G	0	9.5	11.9	0.7	0	77	362463	6806022
19	10620	H	0	9.5	10.5	0.8	0	62	362639	6806238
19	10620	J	3	44.7	16.4	6.4	8	32	362820	6806468
19	10620	K	1	43.7	64.1	1	0	31	362882	6806543
19	10620	M	2	36.5	26.8	2.4	9	29	362913	6806594
19	10620	N	3	22.1	7.7	5.5	0	83	362974	6806730
19	10620	O	2	22.5	11	3.5	0	89	363156	6806895
19	10620	P	3	15.8	5.4	5.1	0	97	363258	6807048
18	10630	A	2	106.1	71.3	3.8	0	33	360711	6804435

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
18	10630	B	2	28.5	19.6	2.4	6	35	360790	6804541
18	10630	C	1	17.7	19.1	1.1	1	40	360940	6804752
18	10630	D	0	9.7	22.5	0.3	0	50	361563	6805431
18	10630	E	0	17.3	61.9	0.2	0	22	362036	6805964
18	10630	F	1	12.2	12.1	1.1	0	56	362483	6806449
18	10630	G	2	48	33.7	2.8	0	52	362715	6806741
18	10630	H	2	45.5	30.4	2.9	0	50	362771	6806814
18	10630	J	2	13.7	7.6	2.5	0	99	362961	6807012
18	10630	K	2	14.2	7.3	2.8	0	120	363100	6807221
18	10630	M	0	12.7	21.8	0.5	0	64	363151	6807287
18	10640	A	3	10.8	2.7	6.9	1	67	363039	6807366
18	10640	B	3	28.6	11.3	5	0	46	362916	6807224
18	10640	C	2	29.2	14.6	3.7	0	45	362877	6807185
18	10640	D	1	17.7	17.9	1.2	11	32	362779	6807102
18	10640	E	1	30.5	30.7	1.5	19	16	362616	6806919
18	10640	F	1	62.1	72.8	1.5	10	15	362558	6806874
18	10640	G	1	11.9	10.3	1.3	0	81	361744	6805974
18	10640	H	2	22.2	11.5	3.2	0	67	361675	6805891
18	10640	J	1	14.3	14.8	1.1	0	61	361072	6805219
18	10640	K	0	11.5	16.2	0.6	6	35	361011	6805118
18	10640	M	1	10.1	7.6	1.4	15	43	360921	6805059
18	10640	N	0	18.3	24.8	0.8	0	62	360779	6804891
18	10640	O	2	47	26	3.8	0	57	360506	6804567
18	10640	P	2	36.7	23.8	2.8	0	51	360438	6804481
18	10650	A	3	47.5	24.4	4.2	0	52	360376	6804722
18	10650	B	2	25.1	13.3	3.2	0	54	360436	6804832
18	10650	C	1	32.7	45.7	1	5	24	360627	6805017
18	10650	D	1	34.6	31.7	1.7	4	31	360724	6805142
18	10650	E	2	48.4	43.9	2	5	26	360798	6805231
18	10650	F	1	46.8	48.6	1.6	11	18	360907	6805357
18	10650	G	0	23.8	31	0.9	24	10	360975	6805454
18	10650	H	0	17.7	37.2	0.4	0	37	361041	6805528
18	10650	J	0	14.3	37.1	0.3	0	34	361133	6805583
18	10650	K	2	17.1	8.8	3	14	39	361423	6805969
18	10650	M	2	25	14.2	3	11	35	361535	6806095
18	10650	N	2	29.4	23.4	2	0	50	362323	6806958
18	10650	O	2	22.6	12.8	2.9	0	74	362461	6807051
18	10650	P	2	37.7	21.1	3.4	0	54	362698	6807349
18	10650	Q	2	41.9	33	2.3	0	43	362740	6807390
18	10660	A	2	40.5	28.2	2.6	0	48	362453	6807323
18	10660	B	1	13.9	13.1	1.2	14	33	362327	6807177
18	10660	C	3	41.6	21.4	4	1	38	362217	6807070
18	10660	D	2	49.6	44.7	2	2	29	361420	6806194
18	10660	E	2	28.9	18.1	2.7	1	41	361358	6806148
18	10660	F	1	9.9	7	1.6	0	68	361277	6806062
18	10660	G	0	11.4	12.1	0.9	0	49	360832	6805484

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
18	10660	H	1	9.8	7	1.5	0	72	360533	6805232
18	10660	J	0	16.6	25.2	0.7	0	52	360422	6805079
18	10660	K	2	58.3	47.6	2.4	0	40	360285	6804967
18	10660	M	3	67.2	35.7	4.4	0	47	360167	6804839
18	10660	N	2	53.6	40.2	2.6	0	37	360082	6804736
18	10670	A	3	32.3	13.6	4.8	0	55	360046	6804922
18	10670	B	3	29	12.6	4.4	0	65	360089	6804961
18	10670	C	2	23.2	12.4	3.1	0	58	360178	6805048
18	10670	D	1	17.8	14.9	1.5	3	43	360299	6805209
18	10670	E	0	13.9	35.6	0.3	9	18	360724	6805726
18	10670	F	1	13.3	9	1.9	22	32	361185	6806265
18	10670	G	0	17.2	24	0.7	19	17	361264	6806351
18	10670	H	0	6.7	10.9	0.4	0	59	361799	6806945
18	10670	J	0	9.4	10.4	0.8	0	55	361894	6807037
18	10670	K	2	26	15.4	2.8	0	58	362031	6807184
18	10670	M	2	47.5	27.3	3.6	0	43	362126	6807326
18	10670	N	2	37.2	22.8	3	0	57	362209	6807446
18	10670	O	3	35.5	16.9	4.2	0	62	362290	6807534
18	10670	P	3	24	7.8	6.2	0	69	362388	6807625
18	10670	Q	3	25.9	11.4	4.2	0	67	362460	6807706
18	10680	A	3	85.5	34.8	6.7	0	43	362167	6807672
18	10680	B	3	125.3	82.6	4.1	0	31	361993	6807439
18	10680	C	2	74.8	51.3	3.3	6	23	361937	6807370
18	10680	D	3	109.7	53.3	5.8	0	35	361827	6807272
18	10680	E	0	10.8	13.9	0.7	6	39	361707	6807152
18	10680	F	0	11.3	15.5	0.6	10	33	361654	6807075
18	10680	G	0	7.7	9.4	0.6	0	55	361042	6806382
18	10680	H	0	20.9	28.3	0.8	0	43	360632	6805894
18	10680	J	0	14.6	18.4	0.8	0	67	360200	6805403
18	10680	K	2	38.5	32	2.1	0	58	360068	6805215
18	10680	M	2	56.8	35.3	3.4	0	53	360007	6805154
18	10680	N	2	61.2	37	3.6	0	47	359936	6805092
18	10680	O	3	56.3	27.7	4.6	0	47	359859	6805019
18	10690	A	2	43.3	23.4	3.8	0	58	359673	6805140
18	10690	B	2	51.8	29.3	3.8	0	50	359725	6805209
18	10690	C	2	55.6	36	3.2	0	42	359877	6805363
18	10690	D	2	40.5	28.7	2.6	0	38	359918	6805408
18	10690	E	0	20.6	28.6	0.8	8	27	360121	6805683
18	10690	F	2	21.5	15.6	2	0	55	360436	6806026
18	10690	G	0	6.8	6.4	0.9	0	73	360656	6806269
18	10690	H	0	5.4	11.6	0.2	0	45	361052	6806727
18	10690	J	0	6.1	13.3	0.2	0	48	361127	6806797
18	10690	K	0	10.9	26.4	0.3	2	29	361419	6807156
18	10690	M	3	57.4	20.8	7	0	37	361599	6807365
18	10690	N	3	28.3	13.1	4	0	50	361677	6807451
18	10690	O	3	43.3	20.7	4.4	0	50	361750	6807519

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
18	10690	P	2	44.9	25.6	3.6	0	52	361795	6807560
18	10690	Q	2	63.5	39	3.6	0	59	361862	6807634
18	10690	R	3	71.1	40.5	4.1	0	57	361902	6807687
18	10690	S	2	37.7	20.7	3.5	0	47	361983	6807789
18	10690	T	4	59.9	16.8	9.9	0	55	362160	6807992
18	10700	A	3	90.9	41.1	6	0	39	362101	6808136
18	10700	B	4	130.4	50.1	8.2	0	31	362067	6808085
18	10700	C	1	56.4	60.3	1.7	0	28	361884	6807887
18	10700	D	2	259.8	355.9	2.1	0	14	361773	6807763
18	10700	E	2	230.4	317.5	2	3	11	361732	6807717
18	10700	F	3	183.5	95	6.2	3	20	361640	6807622
18	10700	G	2	33.2	19.5	3.1	12	29	361567	6807550
18	10700	H	3	29.9	9.4	6.9	1	46	361470	6807466
18	10700	J	0	10	10.8	0.9	0	57	361381	6807373
18	10700	K	1	11.4	11.9	1	1	48	361272	6807207
18	10700	M	0	11.9	23	0.4	0	58	360504	6806362
18	10700	N	1	19.2	16.7	1.5	0	64	360274	6806110
18	10700	O	1	51.1	64.5	1.3	0	32	360000	6805780
18	10700	P	2	35.1	17.6	3.9	0	65	359761	6805513
18	10700	Q	2	46	25.3	3.8	0	60	359704	6805444
18	10700	R	2	49.9	32.2	3.1	0	53	359652	6805383
18	10700	S	2	28.3	19.9	2.3	0	52	359540	6805247
18	10710	A	2	44.8	27.2	3.3	0	47	359439	6805470
18	10710	B	3	43.4	22.6	4	0	49	359502	6805529
18	10710	C	2	32.9	19.5	3.1	0	54	359613	6805624
18	10710	D	2	40.5	31.2	2.3	0	37	359811	6805846
18	10710	E	1	21.1	23.4	1.1	3	35	359877	6805941
18	10710	F	1	20	17	1.6	15	28	360008	6806051
18	10710	G	1	9.7	9.6	1	0	86	361113	6807287
18	10710	H	0	9.4	11.6	0.7	0	75	361199	6807425
18	10710	J	3	70.8	29.6	6.1	0	52	361352	6807598
18	10710	K	2	64.8	38.3	3.8	0	40	361446	6807680
18	10710	M	2	86.9	61.5	3.3	0	36	361501	6807739
18	10710	N	2	63.1	46.8	2.8	0	40	361562	6807812
18	10710	O	3	49.9	26.7	4	0	47	361608	6807871
18	10710	P	3	55.2	23.6	5.5	0	47	361835	6808168
18	10720	A	3	49.8	17.9	6.7	0	50	361796	6808396
18	10720	B	3	47.6	18.1	6.2	0	40	361678	6808216
18	10720	C	3	35.4	16	4.5	0	59	361346	6807863
18	10720	D	3	33.4	11.8	6.1	0	50	361271	6807770
18	10720	E	3	26.9	10.1	5.3	0	55	361230	6807724
18	10720	F	0	17	37	0.4	0	46	359994	6806380
18	10720	G	1	32.1	35.1	1.3	0	45	359803	6806199
18	10720	H	1	31.4	34.2	1.3	0	44	359763	6806157
18	10720	J	1	23.2	26.3	1.1	0	42	359668	6806041
18	10720	K	1	27.9	25.3	1.6	0	45	359602	6805933

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
18	10720	M	1	17.9	15.8	1.4	0	53	359525	6805808
18	10720	N	2	33.9	22.6	2.6	0	63	359400	6805655
18	10720	O	2	33.9	23.3	2.5	0	57	359333	6805592
18	10720	P	1	19.4	15.6	1.7	0	55	359261	6805534
18	10730	A	2	32.5	16.6	3.7	0	58	359089	6805659
18	10730	B	2	38.8	23.4	3.2	0	54	359142	6805760
18	10730	C	2	29.8	20.4	2.4	0	46	359195	6805848
18	10730	D	1	19.4	14.7	1.8	0	58	359378	6806040
18	10730	E	1	15.7	11.9	1.7	0	61	359517	6806137
18	10730	F magnetite	0	-22.6	3	0	0	11	360496	6807233
18	10730	G	2	39.6	27.2	2.7	12	25	361014	6807831
18	10730	H	3	43.9	20.2	4.7	0	42	361093	6807911
18	10730	J	2	53.6	45.4	2.2	0	46	361185	6808045
18	10730	K	2	58.6	42.7	2.8	0	41	361215	6808097
18	10730	M	2	36.9	27.9	2.3	0	50	361273	6808200
18	10730	N	1	11.5	9.2	1.4	0	76	361384	6808299
18	10730	O	3	180.6	129.1	4.1	0	39	361602	6808540
18	10730	P	2	137.4	133.6	2.6	0	33	361628	6808573
17	10740	A	2	32.9	17.8	3.5	0	62	358914	6805777
17	10740	B	2	67.5	50.8	2.8	0	38	359026	6805898
17	10740	C	2	74.6	64.9	2.4	0	33	359082	6805958
17	10740	D	1	40.6	40.1	1.7	8	24	359273	6806175
17	10740	E	1	20.1	17.2	1.6	0	44	359478	6806364
17	10740	F	2	24.1	14.8	2.6	7	38	359590	6806501
17	10740	G	2	24.1	14.8	2.6	7	38	359590	6806501
17	10740	H	1	16.4	15.6	1.3	0	54	359674	6806628
17	10740	J	1	12.4	12.1	1.1	0	59	359857	6806851
17	10740	K	2	15.4	9.8	2.1	0	55	359952	6806952
17	10740	M	1	14.4	11.2	1.6	0	54	360032	6807052
17	10740	N magnetite	0	-29.2	9.1	0	0	11	360207	6807251
17	10740	O	2	21.2	13.3	2.4	0	49	360829	6807964
17	10740	P	3	28.5	12.8	4.2	0	56	360885	6808032
17	10740	Q	1	30	40.8	1	0	32	361032	6808186
17	10740	R	1	43.1	56.6	1.2	0	30	361065	6808226
17	10740	S	0	44.5	71.6	0.9	0	30	361110	6808272
17	10740	T	0	18.4	26.5	0.7	0	46	361163	6808314
17	10740	U	1	12.4	10.6	1.3	0	77	361227	6808370
17	10740	V	2	14.1	6.6	3.2	0	98	361373	6808529
17	10740	W	2	20.5	10.6	3.1	0	79	361515	6808691
17	10750	A	3	31	10.5	6.3	0	53	361260	6808715
17	10750	B	1	39.7	40.7	1.6	0	36	361154	6808589
17	10750	C	1	125.8	241.1	1.1	0	18	360999	6808351
17	10750	D	1	97.9	113.2	1.8	0	26	360970	6808304
17	10750	E	2	33.8	23.1	2.6	0	46	360873	6808220
17	10750	F	2	36.4	24.1	2.7	6	32	360802	6808142
17	10750	G	2	37	19.4	3.7	8	33	360763	6808111

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10750	H	3	45.1	19.9	5	0	44	360706	6808057
17	10750	J	2	29.3	19.6	2.5	2	39	360669	6808022
17	10750	K	3	19.2	7.5	4.5	1	53	360549	6807896
17	10750	M	1	18.1	19.8	1.1	0	49	359878	6807143
17	10750	N	1	29.3	31.6	1.3	0	53	359851	6807106
17	10750	O	1	30.8	30.2	1.5	0	55	359826	6807071
17	10750	P	1	18.3	21.1	1	0	42	359446	6806654
17	10750	Q	1	28.3	27.1	1.5	0	49	359263	6806467
17	10750	R	1	32	28.7	1.7	0	49	359201	6806395
17	10750	S	2	43.8	35.1	2.3	0	54	358936	6806120
17	10750	T	2	60.4	44	2.8	0	46	358869	6806049
17	10750	U	2	48.8	30.5	3.2	0	46	358793	6805969
17	10750	V	2	48.8	30.5	3.2	0	46	358793	6805969
17	10760	A	2	28.8	18.4	2.6	0	52	358683	6806071
17	10760	B	2	16.8	10.3	2.3	0	61	358745	6806140
17	10760	C	2	23	13.7	2.7	0	47	358986	6806456
17	10760	D	2	23	13.7	2.7	0	47	358986	6806456
17	10760	E	1	23.5	24.7	1.3	0	40	359074	6806554
17	10760	F	2	17.9	12.5	2	9	39	359142	6806643
17	10760	G	0	9.2	9.4	0.9	0	60	359304	6806796
17	10760	H	1	17.3	20.2	1	0	41	359660	6807180
17	10760	J	0	9.3	10.7	0.8	2	48	359779	6807306
17	10760	K	0	4.3	8.9	0.2	24	23	360189	6807803
17	10760	M	1	17.2	14	1.6	0	62	360304	6807936
17	10760	N	2	19.4	10.3	3	0	62	360348	6807984
17	10760	O	4	38.6	10.2	9.4	0	48	360453	6808065
17	10760	P	1	35.2	32.2	1.8	0	48	360711	6808411
17	10760	Q	0	19.6	38	0.5	8	21	360820	6808495
17	10760	R	1	19.8	23.3	1	0	56	360943	6808619
17	10760	S	3	91	44	5.5	0	40	361157	6808900
17	10770	A	4	136.7	37.1	13	0	31	361006	6808975
17	10770	B	1	8.1	5.3	1.6	34	31	360796	6808773
17	10770	C	1	114.8	156.5	1.6	13	6	360753	6808657
17	10770	D	1	106	130.9	1.7	13	7	360737	6808635
17	10770	E	2	122.4	109	2.8	5	18	360612	6808493
17	10770	F	2	28.4	13.9	3.8	2	43	360416	6808315
17	10770	G	3	32.2	10.4	6.8	0	53	360343	6808213
17	10770	H	2	23.1	12.1	3.2	5	43	360235	6808112
17	10770	J	0	9.4	16.4	0.4	0	51	359776	6807618
17	10770	K	0	9.4	16.4	0.4	0	51	359776	6807618
17	10770	M	0	10.3	19.3	0.4	0	50	359614	6807436
17	10770	N	0	11.4	21.6	0.4	0	46	359559	6807388
17	10770	O	0	8.7	21.6	0.2	0	38	359312	6807114
17	10770	P	0	13.6	18.9	0.7	0	57	359181	6806947
17	10770	Q	1	20.2	23.9	1	0	53	359094	6806864
17	10770	R	3	55.7	30.7	4	0	48	358944	6806724
17	10770	S	1	19.2	14.6	1.8	0	68	358745	6806515

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10770	T	1	31	29.6	1.6	0	52	358444	6806211
17	10770	U	0	14.8	34.2	0.3	0	40	358289	6806040
17	10780	A	2	53.7	35.2	3.1	0	46	358346	6806298
17	10780	B	2	47.4	30.2	3.1	0	35	358403	6806365
17	10780	C	2	27.4	17.3	2.6	9	34	358624	6806624
17	10780	D	1	49.2	63.4	1.3	0	26	358830	6806866
17	10780	E	0	16	26	0.6	0	49	359092	6807181
17	10780	F	1	22.7	28.7	1	10	25	359440	6807522
17	10780	G	0	21.2	36.6	0.6	5	25	359480	6807559
17	10780	H	0	11	16.8	0.5	6	35	359555	6807665
17	10780	J	0	12.3	23.8	0.4	1	33	359617	6807745
17	10780	K	0	15.4	18.4	0.9	15	26	360050	6808208
17	10780	M	1	23.4	24	1.3	10	28	360142	6808335
17	10780	N	1	38	38.8	1.6	0	39	360205	6808404
17	10780	O	1	36.4	33.5	1.8	0	45	360233	6808434
17	10780	P	1	32.8	33.1	1.5	0	45	360333	6808598
17	10780	Q	1	32	28.4	1.8	0	45	360371	6808640
17	10780	R	1	30.9	29.8	1.6	0	50	360503	6808754
17	10780	S	0	17.9	50.3	0.3	0	37	360544	6808802
17	10780	T	2	21.7	10.1	3.7	0	51	360698	6809025
17	10780	U	2	14.1	6.3	3.4	0	75	360740	6809081
17	10790	A	3	71.6	34.5	5.1	0	32	360470	6808970
17	10790	B	2	53.6	35.5	3.1	1	32	360449	6808948
17	10790	C	2	39.3	28	2.5	0	50	360351	6808856
17	10790	D	0	19.7	25.9	0.9	0	42	360251	6808752
17	10790	E	0	10.8	11.6	0.9	15	34	360081	6808574
17	10790	F	3	77.4	37.3	5.3	0	46	359939	6808422
17	10790	G	0	12.5	21.6	0.5	0	47	359344	6807720
17	10790	H	1	19.2	20.4	1.1	0	56	359259	6807612
17	10790	J	1	18.2	17.7	1.3	0	59	358608	6806921
17	10790	K	2	39	28.8	2.4	0	57	358221	6806505
17	10790	M	2	30.2	22.5	2.2	0	61	358160	6806452
17	10800	A	2	47	25.4	3.9	0	53	357936	6806421
17	10800	B	2	56.4	40.1	2.9	0	47	358055	6806543
17	10800	C	2	70.3	66	2.2	0	34	358110	6806622
17	10800	D	1	45	46.7	1.6	0	30	358155	6806686
17	10800	E	1	92.4	112.7	1.7	8	13	358390	6806961
17	10800	F	1	49	70.1	1.1	8	17	358473	6807047
17	10800	G	0	9.6	35.5	0.1	9	15	358594	6807203
17	10800	H	1	40.3	38.7	1.7	0	47	358777	6807421
17	10800	J	2	84.9	88.3	2	0	32	358896	6807580
17	10800	K	2	90.1	68.3	3.1	0	37	358962	6807644
17	10800	M	0	12.2	25	0.4	0	40	359152	6807840
17	10800	N	0	12.2	25	0.4	0	40	359152	6807840
17	10800	O	0	6.5	13.9	0.2	0	42	359329	6808028
17	10800	P	0	6.5	13.9	0.2	0	42	359329	6808028

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10800	Q	1	17.4	15.9	1.4	21	24	359538	6808263
17	10800	R	1	17.4	15.9	1.4	21	24	359538	6808263
17	10800	S	3	77.5	38.8	5	10	21	359686	6808426
17	10800	T	3	110.8	48.4	6.6	0	29	359745	6808491
17	10800	U	3	100.3	56.3	4.7	3	25	359776	6808529
17	10800	V	2	141.4	109.2	3.5	7	15	359920	6808704
17	10800	W	0	21.7	54	0.4	14	10	359988	6808800
17	10800	X	0	30.4	53	0.7	0	28	360148	6808928
17	10800	Y	2	95.3	91.6	2.3	0	27	360214	6809003
17	10800	Z	1	47.6	57.7	1.3	0	78	360308	6809135
17	10800	AA	2	18	10.3	2.6	0	63	360487	6809331
17	10810	A	2	18.7	13	2	0	63	360364	6809526
17	10810	B	3	19	8	4	3	50	360280	6809418
17	10810	C	2	64.3	45.6	3	0	42	360046	6809135
17	10810	D	1	71.2	79.2	1.7	0	31	360002	6809078
17	10810	E	1	93.8	111	1.8	2	20	359962	6809031
17	10810	F	2	36.2	22.7	2.9	0	46	359814	6808861
17	10810	G	4	93	32.7	8.3	0	50	359579	6808615
17	10810	H	4	60.9	17.9	9.3	0	55	359516	6808556
17	10810	J	3	35.9	15.5	4.8	0	64	359424	6808449
17	10810	K	2	20.1	13.3	2.2	0	69	359084	6808049
17	10810	M	3	45.9	21.5	4.6	0	63	358926	6807820
17	10810	N	2	35.7	18	3.9	0	50	358838	6807713
17	10810	O	2	32	23.6	2.3	7	32	358657	6807555
17	10810	P	0	24	36	0.8	0	40	358285	6807143
17	10810	Q	0	24	36	0.8	0	40	358285	6807143
17	10810	R	1	21.1	16.4	1.8	0	63	358157	6807006
17	10810	S	2	35.7	28.5	2.1	0	55	357971	6806800
17	10810	T	2	30.1	20.1	2.5	0	61	357898	6806717
17	10820	A	3	216.8	166.9	4	0	28	357523	6806667
17	10820	B	3	209.3	123.7	5.4	0	30	357555	6806707
17	10820	C	1	27.6	24.5	1.7	0	51	357775	6806944
17	10820	D	2	47.8	41.8	2.1	0	32	357894	6807075
17	10820	E	0	14.4	27.2	0.4	17	16	358155	6807329
17	10820	F	0	14.4	27.2	0.4	17	16	358155	6807329
17	10820	G	0	22.8	31.3	0.9	16	17	358326	6807522
17	10820	H	0	22.8	31.3	0.9	16	17	358326	6807522
17	10820	J	2	122	138.9	2	2	18	358476	6807673
17	10820	K	1	166.7	238.2	1.7	0	17	358548	6807749
17	10820	M	3	170.4	108.7	4.7	0	31	358631	6807812
17	10820	N	2	121.3	96	3.2	0	35	358671	6807864
17	10820	O	3	229.1	137.8	5.5	0	28	358736	6807978
17	10820	P	3	133.6	71	5.5	0	29	358791	6808043
17	10820	Q	3	46.8	20.4	5.1	0	57	358871	6808131
17	10820	R	3	41.1	17.7	5	0	74	358930	6808197
17	10820	S	0	14.9	17.3	0.9	0	60	359039	6808304
17	10820	T	3	42.9	21.6	4.1	0	45	359350	6808652

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10820	U	2	36.9	28.5	2.2	4	32	359407	6808728
17	10820	V	2	82.6	68.3	2.7	0	31	359534	6808840
17	10820	W	1	64	86.4	1.3	1	22	359584	6808898
17	10820	X	1	43.1	58.1	1.1	0	27	359689	6809003
17	10820	Y	2	50.7	46.9	2	2	28	359752	6809069
17	10820	Z	2	41.9	31.4	2.4	0	36	359825	6809167
17	10820	AA	2	32	16.1	3.8	0	55	360128	6809540
17	10820	AB	1	24.2	26	1.2	0	60	360197	6809605
17	10820	AC	0	17.6	21.8	0.9	0	47	360366	6809790
17	10830	A	3	45.3	18.6	5.5	0	66	359937	6809663
17	10830	B	3	45.3	18.6	5.5	0	66	359937	6809663
17	10830	C	3	61.8	29.3	5	0	40	359890	6809585
17	10830	D	1	61.8	64.7	1.8	0	33	359779	6809437
17	10830	E	2	100.5	89.2	2.6	0	32	359741	6809399
17	10830	F	2	97.9	65.2	3.7	0	32	359699	6809363
17	10830	G	2	111.6	96	2.8	0	29	359643	6809313
17	10830	H	2	121.9	111.4	2.7	0	28	359593	6809256
17	10830	J	2	116.1	91	3.2	0	35	359541	6809202
17	10830	K	2	35.7	19.1	3.6	0	60	359317	6808963
17	10830	M	2	28.6	18.8	2.5	0	48	359228	6808840
17	10830	N	1	15.5	15.1	1.2	0	48	358911	6808486
17	10830	O	2	44.1	29.5	2.9	0	39	358806	6808374
17	10830	P	2	40.7	27.7	2.7	0	39	358730	6808297
17	10830	Q	3	51.3	25.2	4.5	0	46	358679	6808234
17	10830	R	3	55.7	25.7	5	0	46	358560	6808079
17	10830	S	2	48.7	31.5	3.1	0	41	358514	6808026
17	10830	T	3	103.5	43.7	6.8	0	35	358434	6807947
17	10830	U	2	74	52.7	3.1	0	29	358366	6807867
17	10830	V	3	142.6	64.1	6.9	0	42	358085	6807587
17	10830	W	1	41	58.6	1	0	38	357756	6807221
17	10830	X	1	47.6	48	1.7	0	46	357698	6807155
17	10830	Y	3	90.1	48.7	4.7	0	38	357507	6806898
17	10840	A	2	40.7	29.8	2.5	0	49	357238	6806911
17	10840	B	2	38.6	22.6	3.3	0	66	357341	6807012
17	10840	C	0	10	11.4	0.8	0	66	357586	6807320
17	10840	D	0	16.7	26	0.6	0	37	357718	6807479
17	10840	E	2	76.5	52.8	3.3	9	20	357978	6807715
17	10840	F	2	76.5	52.8	3.3	9	20	357978	6807715
17	10840	G	2	67.9	43.4	3.5	0	39	358285	6808007
17	10840	H	2	101.4	77	3.2	0	40	358409	6808185
17	10840	J	3	125.6	56.5	6.6	0	31	358450	6808226
17	10840	K	2	93.9	74.8	2.9	1	25	358505	6808292
17	10840	M	2	100.9	95.4	2.4	0	26	358545	6808358
17	10840	N	2	61.6	51.6	2.4	0	41	358678	6808517
17	10840	O	1	35.7	47.2	1.1	0	45	358770	6808622
17	10840	P	2	59.2	43.7	2.8	0	44	359083	6808982
17	10840	Q	2	73.1	57.8	2.7	0	36	359137	6809044

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10840	R	2	100.2	76.8	3.1	0	34	359344	6809278
17	10840	S	2	95.5	92.9	2.3	0	29	359440	6809400
17	10840	T	2	103.9	101.7	2.3	0	26	359509	6809477
17	10840	U	2	119.2	137.7	2	0	23	359630	6809581
17	10840	V	2	118.7	82.3	3.8	0	26	359745	6809674
17	10840	W	2	73.8	52.9	3.1	0	34	359797	6809733
17	10840	X	1	31.2	33.8	1.3	0	43	359842	6809790
17	10840	Y	1	23.7	19.5	1.8	0	49	359985	6809987
17	10850	A	1	19.7	14.7	1.9	0	54	359847	6810072
17	10850	B	2	70.9	44.8	3.6	0	44	359669	6809885
17	10850	C	2	63.9	43.1	3.2	0	37	359630	6809845
17	10850	D	3	148.4	81.1	5.4	0	32	359528	6809740
17	10850	E	3	163.6	90.5	5.5	0	35	359436	6809644
17	10850	F	2	92.1	61.4	3.7	0	38	359345	6809556
17	10850	G	3	67.6	26.1	6.7	0	51	359253	6809462
17	10850	H	2	13.7	6.9	2.8	0	66	359007	6809189
17	10850	J	0	9.3	11.6	0.7	1	47	358801	6808947
17	10850	K	1	12.3	10.7	1.3	0	52	358677	6808818
17	10850	M	2	53	41.8	2.5	0	40	358534	6808663
17	10850	N	1	25.2	21	1.8	15	25	358407	6808493
17	10850	O	1	13.2	13.7	1	2	45	358249	6808332
17	10850	P	1	15.7	11.8	1.7	1	48	358062	6808128
17	10850	Q	1	18.2	13.6	1.8	0	75	357828	6807859
17	10850	R	2	17.3	11.1	2.2	0	79	357728	6807740
17	10850	S	1	17.3	20.3	1	0	60	357489	6807463
17	10850	T	1	14.9	12.4	1.5	0	77	357388	6807348
17	10850	U	2	34.7	21.2	3	0	54	357235	6807143
17	10860	B	1	23.9	28.2	1.1	12	24	357523	6807809
17	10860	C	0	21.4	43.6	0.5	12	15	357878	6808174
17	10860	D	0	6.7	11.1	0.4	10	36	358088	6808364
17	10860	E	2	16	9.9	2.3	0	85	358388	6808757
17	10860	F	0	19.8	26.4	0.8	0	57	358537	6808909
17	10860	G	0	38.8	58.3	0.9	0	38	358610	6808997
17	10860	H	2	38.8	22.8	3.3	0	62	359095	6809562
17	10860	J	2	45.6	35.5	2.4	0	44	359136	6809616
17	10860	K	3	46.6	24.5	4	0	44	359199	6809693
17	10860	M	3	35.6	13.4	5.7	0	56	359253	6809760
17	10860	N	1	13.8	14	1.1	0	68	359381	6809910
17	10860	O	2	27.6	18.9	2.4	0	54	359517	6810040
17	10860	P	1	21.8	16.8	1.9	0	56	359704	6810232
17	10870	A	1	17.2	14	1.6	0	58	359574	6810380
17	10870	B	2	19.1	12.7	2.2	0	55	359429	6810179
17	10870	C	1	28.9	34.5	1.1	0	33	359227	6809987
17	10870	D	3	94.8	45.5	5.6	0	41	359086	6809860
17	10870	E	3	96.8	52.4	4.8	0	35	359044	6809820
17	10870	F	2	44.8	30.6	2.8	0	42	358990	6809763

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10870	G	2	77.9	71.9	2.3	0	29	358446	6809092
17	10870	H	1	62.9	70.9	1.6	0	27	358406	6809051
17	10870	J	2	49	42.5	2.1	4	27	358263	6808888
17	10870	K	2	47.8	27.3	3.6	0	47	358151	6808758
17	10870	M	2	32.6	22.9	2.4	0	45	358054	6808669
17	10870	N	1	44.5	58.4	1.2	0	33	357958	6808567
17	10870	O	0	34.1	61.4	0.7	13	12	357887	6808484
17	10870	P	0	22.5	44.1	0.5	7	20	357753	6808300
17	10870	Q	1	16	16.8	1.1	0	50	357523	6808042
17	10870	R	1	16	16.8	1.1	0	50	357523	6808042
17	10870	S	1	23.5	25.8	1.2	0	64	357388	6807880
17	10870	T	1	13.6	13	1.2	0	68	357232	6807706
17	10870	U	2	26.5	17.6	2.4	0	65	356935	6807373
17	10870	V	2	47.4	31.3	3	0	42	356850	6807273
17	10880	A	2	40.6	22.7	3.5	0	73	356714	6807462
17	10880	B	2	25.4	13.4	3.3	0	68	356768	6807545
17	10880	C	2	42	30.6	2.5	0	42	356993	6807804
17	10880	D	1	21.3	24.8	1.1	13	24	357259	6808088
17	10880	E	1	29.3	31.9	1.3	0	38	357670	6808521
17	10880	F	1	21.5	24.6	1.1	0	46	357768	6808633
17	10880	G	1	58.2	57.9	1.9	0	43	358031	6808925
17	10880	H	1	46.7	58.3	1.3	0	35	358097	6809010
17	10880	J	2	55.7	51	2.1	0	35	358227	6809159
17	10880	K	0	8.1	30	0.1	0	26	358639	6809620
17	10880	M	1	19.2	16.2	1.6	0	49	358744	6809786
17	10880	N	1	48.6	56.7	1.4	0	38	358931	6809977
17	10880	O	2	59.5	46.8	2.6	0	34	358980	6810033
17	10880	P	2	57.8	43.9	2.7	0	33	359017	6810080
17	10880	Q	1	15.4	12.1	1.6	0	76	359444	6810589
17	10890	A	3	18.9	7.7	4.2	0	74	359280	6810698
17	10890	B	2	18	9.4	3	0	73	359219	6810614
17	10890	C	2	9.5	4.8	2.5	15	51	359142	6810526
17	10890	D	2	69.9	52.1	2.9	6	24	359002	6810346
17	10890	E	2	79.7	62.6	2.8	0	33	358964	6810301
17	10890	F	2	22.4	15.9	2.1	1	44	358773	6810064
17	10890	G	2	22.4	15.9	2.1	1	44	358773	6810064
17	10890	H	2	12.6	7.4	2.2	4	54	358687	6809951
17	10890	J	0	7.4	23.8	0.1	0	29	358347	6809572
17	10890	K	0	7.4	23.8	0.1	0	29	358347	6809572
17	10890	M	2	41.6	32.8	2.3	0	44	358096	6809290
17	10890	N	2	40.4	27.2	2.8	0	44	358031	6809222
17	10890	O	2	30	23	2.1	0	45	357730	6808859
17	10890	P	2	63.7	62.8	2	0	42	357314	6808437
17	10890	Q	1	33.8	36.1	1.4	0	33	357209	6808282
17	10890	R	1	24.5	26.4	1.2	0	49	357084	6808149
17	10890	S	1	24.5	26.4	1.2	0	49	357084	6808149
17	10890	T	2	68.1	48.5	3	0	33	356675	6807709

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10890	U	3	173.6	124.7	4	0	27	356539	6807546
17	10900	A	2	52.9	30.8	3.7	0	37	356658	6808087
17	10900	B	1	53.5	51.4	1.9	0	34	356758	6808201
17	10900	C	0	32	46.8	0.9	0	30	356871	6808308
17	10900	D	1	40.5	44.9	1.4	4	27	356910	6808349
17	10900	E	0	17.8	25.1	0.7	12	24	356964	6808383
17	10900	F	0	11.8	16.4	0.6	26	16	357005	6808416
17	10900	G	0	18.8	25.4	0.8	16	20	357175	6808606
17	10900	H	0	26.7	36.1	0.9	7	25	357290	6808746
17	10900	J	0	65.1	149.8	0.7	0	19	357358	6808838
17	10900	K	0	62.6	121.8	0.8	0	21	357411	6808895
17	10900	M	2	31.7	16.2	3.7	0	65	357805	6809284
17	10900	N	1	24.9	22.8	1.5	0	48	357941	6809446
17	10900	O	0	14.3	18.4	0.8	0	45	358034	6809588
17	10900	P	2	21.8	12.3	2.8	0	79	358655	6810317
17	10900	Q	3	32.7	14.3	4.6	0	71	358739	6810412
17	10900	R	1	25.4	28.1	1.2	1	35	358874	6810546
17	10900	S	2	32.9	18.6	3.3	0	42	359024	6810692
17	10900	T	2	17	7.4	3.7	0	74	359145	6810789
17	10910	A	3	30.1	10.4	6.1	0	59	358991	6810923
17	10910	B	3	20.3	7	5.4	0	84	358883	6810811
17	10910	C	3	20.3	7	5.4	0	84	358883	6810811
17	10910	D	3	32	13.2	4.9	0	72	358686	6810551
17	10910	E	3	39.6	19.9	4	0	61	358562	6810427
17	10910	F	2	35.2	22.6	2.8	17	22	358485	6810317
17	10910	G	2	39.5	27.9	2.6	7	29	358400	6810209
17	10910	H	1	79.7	91.7	1.7	7	16	358300	6810081
17	10910	J	0	19.4	24.6	0.9	10	27	357918	6809740
17	10910	K	0	19.4	24.6	0.9	10	27	357918	6809740
17	10910	M	0	18.4	39	0.4	9	19	357817	6809635
17	10910	N	3	46.5	18.3	5.9	0	59	357594	6809318
17	10910	O	1	19.8	18.3	1.4	0	48	357422	6809044
17	10910	P	1	26.5	34.6	1	1	31	357348	6809003
17	10910	Q	0	27.7	39.8	0.9	9	21	357329	6808970
17	10910	R	1	26.7	34.4	1	14	18	357302	6808940
17	10910	S	0	18.8	24.7	0.8	22	14	357252	6808896
17	10910	T	1	15.2	17.2	1	24	18	357213	6808845
17	10910	U	1	23.5	30	1	0	55	356771	6808423
17	10910	V	3	88.7	47.3	4.8	0	47	356512	6808111
17	10910	W	2	65	44.2	3.2	0	32	356399	6807983
17	10910	X	2	87.4	66.9	3	0	30	356310	6807885
17	10920	A	2	28.7	16.1	3.1	0	53	356182	6808140
17	10920	B	2	19.1	13.6	2	0	54	356316	6808280
17	10920	C	0	19.7	31.6	0.7	0	42	356393	6808358
17	10920	D	1	14	11.2	1.5	0	84	357130	6809105
17	10920	E	2	12.2	6.4	2.6	0	88	357240	6809256

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
17	10920	F	1	14.1	11.3	1.5	7	44	357408	6809462
17	10920	G	1	14.1	11.3	1.5	7	44	357408	6809462
17	10920	H	1	8.7	7.6	1.1	30	28	357588	6809695
17	10920	J	1	13.7	12.3	1.3	0	73	357725	6809831
17	10920	K	1	13.7	12.3	1.3	0	73	357725	6809831
17	10920	M	1	15.9	18.3	1	0	58	358089	6810248
17	10920	N	1	27.8	28.3	1.4	0	59	358160	6810322
17	10920	O	2	35.7	25.4	2.5	0	61	358257	6810421
17	10920	P	2	53.5	31.9	3.6	0	58	358325	6810492
17	10920	Q	2	101.1	108.9	2	0	40	358431	6810641
17	10920	R	2	74.1	60	2.7	0	38	358530	6810869
17	10931	A	3	25.5	11.2	4.2	5	43	358658	6811194
17	10931	B	2	52.9	43.7	2.3	0	32	358469	6810975
17	10931	C	2	52.9	43.7	2.3	0	32	358469	6810975
17	10931	D	2	47.8	42	2.1	0	34	358331	6810796
17	10931	E	3	82.5	43.1	4.8	0	31	358259	6810726
17	10931	F	3	88.8	36.7	6.7	7	24	358207	6810677
17	10931	G	2	18.7	13.3	2	16	32	358099	6810570
17	10931	H	2	18.7	13.3	2	16	32	358099	6810570
17	10931	J	0	9.3	12.6	0.6	0	66	357191	6809509
17	10931	K	0	9.3	12.6	0.6	0	66	357191	6809509
17	10931	M	1	10	9.1	1.1	0	72	356957	6809234
17	10931	N	2	24.6	16	2.4	0	60	356107	6808211
16	10940	A	2	54.7	30.5	3.9	0	51	355767	6808282
16	10940	B	2	72.2	48.5	3.3	0	37	355820	6808363
16	10940	C	2	76.3	47.6	3.7	0	35	355885	6808438
16	10940	D	0	6.7	17	0.2	7	29	356153	6808716
16	10940	E	0	6.7	17	0.2	7	29	356153	6808716
16	10940	F	1	17.3	18.3	1.1	9	33	356229	6808780
16	10940	G	1	22.7	25.7	1.1	6	31	356262	6808817
16	10940	H	1	14.1	15.6	1	18	26	356370	6808904
16	10940	J	1	12.4	12.8	1	19	28	356505	6809066
16	10940	K	0	4.9	20.4	0	0	45	357403	6810074
16	10940	M	0	4.9	20.4	0	0	45	357403	6810074
16	10940	N	0	7	11	0.4	0	48	357909	6810657
16	10940	O	1	9.7	7	1.5	13	46	358036	6810805
16	10940	P	1	9.7	6.7	1.6	0	70	358102	6810890
16	10940	Q	1	13.2	11.5	1.3	0	78	358298	6811098
16	10950	A	1	95.1	110	1.8	5	17	358237	6811272
16	10950	B	1	78.1	91.7	1.7	0	24	358195	6811226
16	10950	C	1	62.8	64.7	1.8	0	28	358154	6811192
16	10950	D	1	55.9	58.7	1.7	6	22	358125	6811165
16	10950	E	1	37.5	40.4	1.4	6	25	358057	6811094
16	10950	F	1	45.2	42.6	1.8	11	20	358006	6811027
16	10950	G	2	53.6	39	2.7	1	31	357942	6810951
16	10950	H	1	16.7	16.3	1.2	0	44	357770	6810801

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
16	10950	J	0	4.9	20.5	0	6	22	357659	6810691
16	10950	K	0	4.9	20.5	0	6	22	357659	6810691
16	10950	M	0	24.7	42	0.7	0	30	356666	6809618
16	10950	N	0	23	41.9	0.6	8	20	356619	6809510
16	10950	O	0	13.5	20.8	0.6	0	41	356533	6809376
16	10950	P	0	16.1	22.6	0.7	7	30	356373	6809190
16	10950	Q	0	16.1	22.6	0.7	7	30	356373	6809190
16	10950	R	1	16.4	11.6	1.9	0	69	356169	6808997
16	10950	S	0	14.7	20.2	0.7	0	63	356093	6808889
16	10950	T	2	70.7	51.3	3	0	40	355799	6808530
16	10950	U	2	66.1	54.3	2.5	0	38	355748	6808465
16	10960	A	3	42.2	13.7	7.3	0	66	355462	6808549
16	10960	B	3	41.4	15.7	5.9	0	63	355499	6808601
16	10960	C	2	44.7	30.4	2.8	0	43	355690	6808766
16	10960	D	1	68.1	108.6	1.1	2	18	355953	6809070
16	10960	E	1	53.7	57.5	1.7	6	22	355986	6809115
16	10960	F	0	28.1	39.8	0.9	19	11	356104	6809231
16	10960	G	0	18.3	24.8	0.8	0	39	356210	6809323
16	10960	H	1	17.1	13	1.7	0	59	356518	6809685
16	10960	J	1	7.2	4.9	1.5	0	100	357573	6810859
16	10960	K	3	22.2	8.5	4.8	0	75	357769	6811033
16	10960	M	2	22.1	11.3	3.3	0	61	357872	6811196
16	10960	N	1	12.7	12.1	1.1	0	66	358096	6811435
16	10970	A	2	51	42.3	2.3	6	25	358102	6811735
16	10970	B	1	40.8	41	1.6	2	30	358000	6811589
16	10970	C	1	54.9	65.4	1.5	0	31	357960	6811519
16	10970	D	1	44.7	41.8	1.9	0	31	357904	6811440
16	10970	E	2	37.8	31.2	2.1	0	44	357846	6811384
16	10970	F	2	32.8	20.8	2.8	0	49	357706	6811265
16	10970	G	3	31.8	10.1	6.9	0	64	357635	6811188
16	10970	H	1	27.6	26.8	1.5	6	31	357409	6810994
16	10970	J	2	29.4	20.4	2.4	8	33	357362	6810959
16	10970	K	1	18.8	22.3	1	0	63	356458	6809964
16	10970	M	1	18.8	22.3	1	0	63	356458	6809964
16	10970	N	1	20.5	18.5	1.5	0	55	356284	6809773
16	10970	O	1	20.5	18.5	1.5	0	55	356284	6809773
16	10970	P	1	31.6	30.8	1.6	0	68	356077	6809557
16	10970	Q	1	31.6	30.8	1.6	0	68	356077	6809557
16	10970	R	1	64.2	67.6	1.8	1	25	355963	6809380
16	10970	S	1	75.5	79.4	1.9	0	31	355891	6809234
16	10970	T	1	44.3	62.3	1.1	0	29	355855	6809187
16	10970	U	1	32.8	33.7	1.5	0	37	355613	6808905
16	10970	V	2	46.6	30.1	3.1	0	40	355552	6808841
16	10970	W	3	82.4	46.3	4.4	0	37	355438	6808700
16	10970	X	3	105.1	65.4	4.2	0	42	355374	6808627
16	10980	B	3	35.8	17.6	4	0	66	355308	6808957

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
16	10980	C	1	30.2	39.6	1	0	32	355654	6809326
16	10980	D	0	75.3	224.9	0.5	1	12	355809	6809455
16	10980	E	0	55.4	117.2	0.7	7	11	355850	6809492
16	10980	F	1	37.6	40.7	1.4	0	34	355972	6809650
16	10980	G	1	52.6	75.2	1.1	1	23	356115	6809845
16	10980	H	1	58.7	78.4	1.3	2	22	356156	6809903
16	10980	J	0	14.7	29.2	0.4	9	22	356215	6809966
16	10980	K	0	13.6	29.1	0.4	9	22	356268	6810020
16	10980	M	0	16.6	28.7	0.5	8	24	356304	6810053
16	10980	N	0	5.8	12.3	0.2	3	39	356437	6810178
16	10980	O	0	5.8	12.3	0.2	3	39	356437	6810178
16	10980	P	0	12.6	17.5	0.7	2	39	357112	6810944
16	10980	Q	1	21.5	23.3	1.2	0	72	357247	6811121
16	10980	R	0	22.7	34.2	0.8	0	54	357294	6811190
16	10980	S	3	73.8	39.1	4.6	0	37	357434	6811331
16	10980	T	2	55.1	46.7	2.3	0	38	357514	6811428
16	10980	U	1	47.3	51.3	1.6	0	39	357578	6811501
16	10980	V	1	49.9	48.9	1.8	0	48	357801	6811736
16	10980	W	2	93.6	66	3.4	0	40	357892	6811862
16	10980	X	2	109.1	72	3.9	0	37	357940	6811928
16	10990	A	2	25.2	14.6	2.9	0	52	357840	6812012
16	10990	B	2	44.4	27.6	3.2	6	30	357752	6811924
16	10990	C	2	52.4	37.8	2.8	0	33	357691	6811849
16	10990	D	2	85.9	61.3	3.3	0	33	357629	6811782
16	10990	E	2	66.8	51.5	2.7	0	34	357591	6811739
16	10990	F	2	79.7	56.8	3.2	2	27	357432	6811572
16	10990	G	2	74.4	47.1	3.6	3	27	357403	6811544
16	10990	H	3	59.9	32.4	4.2	6	28	357373	6811514
16	10990	J	1	30	26.9	1.7	1	36	357119	6811240
16	10990	K	1	19.7	23.4	1	8	30	357064	6811169
16	10990	M	0	13.2	21.9	0.5	0	56	356300	6810328
16	10990	N	0	24.6	46.6	0.6	0	31	356187	6810193
16	10990	O	1	27.3	27.7	1.4	0	55	355809	6809753
16	10990	P	1	27.3	27.7	1.4	0	55	355809	6809753
16	10990	Q	1	33.2	39.6	1.2	2	29	355612	6809531
16	10990	R	1	37.1	42.9	1.3	5	26	355538	6809425
16	10990	S	2	47.1	27	3.6	0	46	355207	6809039
16	10990	T	3	95.3	42.6	6.2	0	45	355116	6808906
16	11000	B	1	16.2	17.4	1.1	0	47	355193	6809450
16	11000	C	1	31.8	27.9	1.8	0	41	355310	6809561
16	11000	D	1	25.8	26.3	1.4	0	37	355349	6809608
16	11000	E	1	36	48.3	1.1	0	37	355651	6809871
16	11000	F	1	50.6	79.1	1	3	20	355747	6809985
16	11000	G	0	42.8	89.1	0.6	3	17	355788	6810062
16	11000	H	0	69.6	158.3	0.7	3	13	355821	6810125
16	11000	J	0	26.8	51.7	0.6	10	16	355917	6810207
16	11000	K magnetite	0	-6.4	17.9	0	0	15	356701	6811083

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
16	11000	M magnetite	0	-12.5	17.6	0	0	19	356736	6811132
16	11000	N	2	28	18.2	2.6	2	40	357240	6811712
16	11000	O	1	13.1	11	1.4	1	50	357295	6811770
16	11000	P	1	31.4	26.3	1.9	0	63	357507	6812012
16	11000	Q	2	37.7	28.3	2.3	0	37	357563	6812078
16	11000	R	1	11.7	9.8	1.3	11	42	357649	6812193
16	11010	A	1	44.1	46.5	1.6	6	24	357497	6812161
16	11010	B	2	141.1	126.7	2.9	0	21	357436	6812158
16	11010	C	1	153.7	215.7	1.7	2	14	357384	6812125
16	11010	D	2	129.1	131.7	2.4	6	15	357356	6812104
16	11010	E	2	47.3	29.4	3.2	4	32	357288	6812049
16	11010	F	2	45.1	24.6	3.8	0	50	357124	6811906
16	11010	G	3	85.1	34.4	6.8	0	36	357049	6811825
16	11010	H	0	6.3	14.1	0.2	0	42	356005	6810680
16	11010	J	1	43.6	42	1.8	0	59	355548	6810178
16	11010	K	1	38.5	44.4	1.3	0	38	355400	6809991
16	11010	M	1	40.7	58.9	1	0	28	355256	6809801
16	11010	N	1	44.2	58.9	1.2	0	28	355224	6809749
16	11010	O	2	56.9	53.7	2	0	35	355154	6809651
16	11010	P	1	55.3	64.5	1.5	0	32	355068	6809551
16	11010	Q	0	36.7	73.1	0.6	0	24	354738	6809223
16	11020	A magnetite	0	-2.3	25.5	0	0	25	354777	6809607
16	11020	B	1	50.3	74.7	1.1	2	22	354847	6809702
16	11020	C	1	29.5	36.4	1.1	0	36	354948	6809801
16	11020	D	1	34.7	37.2	1.4	0	36	355036	6809884
16	11020	E	1	28.6	37.1	1	0	34	355164	6810027
16	11020	F	1	38	41.1	1.4	0	33	355394	6810253
16	11020	G	2	15.5	8.2	2.8	0	79	356884	6811951
16	11020	H	2	28.5	22.1	2	0	70	357047	6812097
16	11020	J	2	57.4	33.4	3.8	0	53	357146	6812228
16	11020	K	2	63	53.7	2.4	0	37	357200	6812310
16	11020	M	2	51.6	41.7	2.4	0	35	357374	6812498
16	11030	A	1	20.6	18.9	1.4	0	49	357130	6812483
16	11030	B	2	23.1	11.3	3.5	0	50	356992	6812343
16	11030	C	3	32	15.5	4	0	48	356775	6812109
16	11030	D	0	11.9	39.8	0.2	5	19	356554	6811855
16	11030	E	0	11.9	39.8	0.2	5	19	356554	6811855
16	11030	F	0	10.3	39.5	0.1	4	19	356498	6811785
16	11030	G	0	10.3	39.5	0.1	4	19	356498	6811785
16	11030	H	0	14.5	17.2	0.9	0	76	355806	6811063
16	11030	J	0	20.6	30.1	0.8	0	50	355746	6811014
16	11030	K	0	39.8	85.2	0.6	0	30	355262	6810477
16	11030	M	1	77.4	84.3	1.8	0	28	355194	6810396
16	11030	N	1	59.4	69.2	1.5	0	28	355151	6810327
16	11030	O	1	38	51.3	1.1	0	31	355018	6810166
16	11030	P	1	45.7	52.2	1.4	0	30	354830	6809958

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
16	11030	Q	1	46.7	52.6	1.5	0	35	354756	6809882
16	11030	R	1	39.7	43.2	1.5	0	35	354709	6809838
16	11030	S	0	19.8	35.1	0.6	0	30	354427	6809483
16	11040	A magnetite	0	-15.5	17.3	0	0	24	354275	6809634
16	11040	B magnetite	0	-7.5	17.6	0	0	25	354378	6809735
16	11040	C	2	62.3	60.1	2	0	34	354538	6809941
16	11040	D	1	56	59.5	1.7	0	34	354578	6809985
16	11040	E	1	59.6	85.7	1.2	0	29	354659	6810069
16	11040	F	1	61.2	88.3	1.2	0	24	354713	6810122
16	11040	G	1	42.4	52.9	1.2	4	24	354848	6810265
16	11040	H	1	50.9	58.2	1.5	3	25	354963	6810381
16	11040	J	1	52.4	55.5	1.7	2	26	355022	6810442
16	11040	K	1	31.6	34.7	1.3	3	31	355095	6810520
16	11040	M	1	13	9.2	1.7	0	65	355599	6811050
16	11040	N	1	10.1	8.6	1.2	0	93	356407	6811965
16	11040	O	3	38.6	14.9	5.7	0	52	356596	6812159
16	11040	P	1	42.9	54.2	1.2	0	53	356723	6812318
16	11040	Q	0	54	91.4	0.9	0	30	356787	6812396
16	11040	R	1	69.9	86.7	1.5	4	19	356864	6812475
16	11040	S	1	61	68.4	1.6	8	18	356899	6812510
16	11050	A	2	67.3	41.5	3.7	0	43	356977	6812914
16	11050	B	2	307.8	328.3	2.9	2	12	356877	6812839
16	11050	C	3	355.9	304	4	3	12	356856	6812816
16	11050	D	1	91.1	101.9	1.9	6	16	356800	6812762
16	11050	E	0	67.5	127.3	0.9	4	14	356772	6812734
16	11050	F	0	40.6	78.4	0.7	13	9	356698	6812660
16	11050	G	2	28	17	2.8	13	30	356508	6812452
16	11050	H	2	29	15.2	3.5	13	31	356469	6812410
16	11050	J	3	87.1	35.8	6.7	1	30	356391	6812331
16	11050	K	4	71.9	22.2	9.2	4	31	356358	6812292
16	11050	M	3	15.9	4	7.7	4	56	356229	6812135
16	11050	N	0	18.8	32.3	0.6	0	47	355461	6811316
16	11050	O	1	14.5	14.2	1.2	0	49	355336	6811171
16	11050	P	2	27.5	21.2	2	0	62	355217	6811054
16	11050	Q	2	27.3	20.9	2	0	63	355190	6811012
16	11050	R	0	15.7	28.1	0.5	0	49	355002	6810764
16	11050	S	1	24.2	24.9	1.3	0	46	354923	6810652
16	11050	T	1	28.2	26.4	1.6	0	42	354839	6810555
16	11050	U	1	28.6	27.3	1.5	0	46	354766	6810469
16	11050	V	1	29	28.3	1.5	0	39	354507	6810191
16	11050	W	2	34.5	26.3	2.2	0	45	354364	6810032
16	11060	A	1	13	9.4	1.7	0	99	354215	6810180
16	11060	B	2	42.7	31.9	2.5	0	55	354263	6810230
16	11060	C	2	43	34.2	2.3	0	45	354296	6810264
16	11060	D	1	34.5	31.9	1.7	0	42	354365	6810333
16	11060	E	1	34.8	35.3	1.5	0	37	354407	6810381

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
16	11060	F	1	32.6	32.5	1.5	0	36	354571	6810572
16	11060	G	1	30.1	33.3	1.3	0	37	354734	6810760
16	11060	H	0	18.6	23.9	0.9	4	34	354867	6810904
16	11060	J	2	41.9	30.7	2.5	0	37	355003	6811053
16	11060	K	0	11.3	26.9	0.3	14	16	355247	6811323
16	11060	M	0	11.3	26.9	0.3	14	16	355247	6811323
16	11060	N	2	23.8	16.7	2.2	0	73	356124	6812260
16	11060	O	2	32.7	23.6	2.3	0	43	356267	6812437
16	11060	P	2	38.2	30.6	2.2	0	40	356320	6812514
16	11060	Q	1	20.7	15.6	1.9	0	47	356415	6812636
16	11060	R	2	58.8	39.5	3.1	7	26	356669	6812937
16	11060	S	2	64.2	42.7	3.3	2	30	356706	6812991
16	11070	A	1	24.1	21.8	1.6	12	27	356271	6812697
16	11070	B	1	24.1	21.8	1.6	12	27	356271	6812697
16	11070	C	2	21.7	13.8	2.4	14	32	356049	6812484
16	11070	D	2	16.6	8.3	3.1	7	47	355951	6812372
16	11070	E	1	13.4	13.5	1.1	0	78	354853	6811135
16	11070	F	1	15.8	17.9	1	0	62	354802	6811095
16	11070	G	0	13.7	19.4	0.7	0	48	354712	6811022
16	11070	H	1	28.7	33.4	1.2	2	32	354547	6810852
16	11070	J	1	24.3	19.1	1.9	0	51	354328	6810573
16	11070	K	2	37.4	25.7	2.6	2	36	354148	6810364
16	11070	M	3	52.6	24.2	5	0	36	354012	6810232
16	11080	A	2	13.8	7.8	2.4	0	95	353867	6810330
16	11080	B	1	35.7	31.7	1.8	0	39	354012	6810475
16	11080	C	2	31.3	23.6	2.2	0	41	354094	6810581
16	11080	D	1	22.4	23.5	1.2	0	50	354300	6810856
16	11080	E	1	22.5	22.1	1.4	0	44	354366	6810940
16	11080	F	1	17.4	18.7	1.1	0	48	354413	6810994
16	11080	G	1	14.6	15	1.1	0	56	354676	6811230
16	11080	H	0	13.8	18.4	0.7	0	45	354780	6811360
16	11080	J	1	27.8	24.3	1.7	0	40	355849	6812578
16	11080	K	0	16.8	31	0.5	0	35	355917	6812645
16	11080	M	1	12	9.3	1.5	12	43	355984	6812729
16	11080	N	3	14.6	5.6	4.2	0	103	356296	6813057
16	11080	O	3	13.6	3.8	6.3	0	98	356350	6813175
16	11080	P	3	20.1	8.6	4	0	87	356485	6813313
16	11090	A	3	78.9	46.9	4	0	38	356237	6813269
16	11090	B	1	100.7	113.6	1.9	0	26	356120	6813129
16	11090	C	2	113.3	126.8	2	0	23	356085	6813083
16	11090	D	2	64.2	57.8	2.2	0	34	355969	6812937
16	11090	E	3	33.8	15.8	4.2	6	37	355810	6812789
16	11090	F	3	91.5	47.4	5	0	40	355697	6812682
16	11090	G	0	19.4	64.4	0.2	3	17	355524	6812509
16	11090	H	0	19.4	64.4	0.2	3	17	355524	6812509
16	11090	J	0	6.7	14.2	0.2	0	45	354993	6811858

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
16	11090	K	1	22.3	23.3	1.2	0	54	354588	6811445
16	11090	M	1	22.1	23	1.2	0	50	354495	6811328
16	11090	N	0	38	63.5	0.8	0	33	354314	6811086
16	11090	O	1	37.1	53	1	0	29	354203	6810947
16	11090	P	1	27.1	32	1.1	0	40	354096	6810823
16	11090	Q	1	28.5	25.2	1.7	5	33	353996	6810711
16	11090	R	2	35.3	19	3.6	0	43	353895	6810608
16	11090	S	0	12.5	21.1	0.5	14	23	353658	6810331
16	11100	A	1	10.5	9.9	1.1	9	44	353485	6810518
16	11100	B	1	22.9	18.9	1.7	0	72	353612	6810646
16	11100	C	2	20.4	11.4	2.8	0	79	353719	6810750
16	11100	D	1	22.3	23.5	1.2	0	55	354001	6811068
16	11100	E	1	21.3	24.4	1.1	0	46	354070	6811151
16	11100	F	0	12.8	21.9	0.5	0	42	354140	6811236
16	11100	G	0	20	24.8	0.9	1	36	354280	6811394
16	11100	H	1	30	38.6	1	0	35	354408	6811536
16	11100	J	0	7.3	17.8	0.2	0	36	354523	6811664
16	11100	K	0	15.3	29.3	0.4	0	37	355064	6812240
16	11100	M	2	24.8	14.4	2.9	0	68	355573	6812857
16	11100	N	2	24.9	12	3.7	0	78	355698	6813002
16	11100	O	2	57.6	37.5	3.2	0	52	355860	6813219
16	11100	P	2	72.5	45.2	3.7	0	40	356009	6813414
16	11100	Q	2	70.9	63	2.3	0	32	356161	6813619
15	11111	A	0	45.3	99.5	0.6	0	22	353457	6810750
15	11111	B	1	51.8	64.2	1.4	0	28	353501	6810797
15	11111	C	2	70.6	66.4	2.2	0	43	353567	6810863
15	11111	D	1	31.2	37.7	1.2	0	36	353852	6811171
15	11111	E	0	29.3	48	0.7	0	39	353905	6811245
15	11111	F	0	21.8	49.2	0.4	0	32	353956	6811315
15	11111	G	0	25	55.2	0.5	0	26	354096	6811482
15	11111	H	0	25.3	47.1	0.6	0	29	354229	6811622
15	11111	J	0	21.6	45.6	0.5	0	29	354369	6811781
15	11111	K	0	11.4	22.4	0.4	7	27	354802	6812262
15	11111	M	1	31	29.3	1.6	0	60	355493	6812968
15	11111	N	2	40.5	25.7	3	0	52	355599	6813162
15	11111	O	1	53.2	62.8	1.5	0	34	355767	6813404
15	11111	P	1	41.2	36.7	1.9	0	38	355816	6813463
15	11111	Q	2	46	32.9	2.7	0	61	356019	6813703
15	11120	A	2	74.8	63	2.5	0	39	355911	6813767
15	11120	B	1	47.7	46.7	1.8	0	34	355807	6813665
15	11120	C	1	50.4	55.1	1.6	4	24	355676	6813530
15	11120	D	1	42.5	47	1.5	0	35	355522	6813347
15	11120	E	2	47.4	32	2.9	8	27	355493	6813308
15	11120	F	2	47.8	29.9	3.2	7	29	355462	6813283
15	11120	G	1	33.7	42.4	1.1	0	40	354174	6811879
15	11120	H	0	17.4	30.1	0.6	0	38	353990	6811659

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
15	11120	J	0	18.3	30.2	0.6	0	39	353898	6811547
15	11120	K	0	20.9	27.5	0.9	0	41	353778	6811398
15	11120	M	1	21.3	19.2	1.5	0	59	353650	6811244
15	11120	N	1	21.3	19.2	1.5	0	59	353650	6811244
15	11120	O	1	19.7	21.4	1.1	0	47	353537	6811127
15	11120	P	2	43.7	38.9	2	1	31	353449	6811033
15	11120	Q	2	47.8	32.9	2.8	5	29	353408	6810989
15	11120	R	1	58.2	77.8	1.3	0	29	353290	6810853
15	11130	A	1	40.2	45	1.4	0	38	353355	6811248
15	11130	B	1	36	39.1	1.4	0	41	353418	6811322
15	11130	C	0	32.9	59.2	0.7	0	32	353592	6811500
15	11130	D	0	25.5	52.7	0.5	0	28	353634	6811548
15	11130	E	0	16.3	23.2	0.7	1	35	353795	6811735
15	11130	F	2	46.6	37.3	2.3	0	40	353967	6811927
15	11130	G	0	10.6	16.4	0.5	7	34	354455	6812473
15	11130	H	0	26.1	34.9	0.9	0	45	355298	6813442
15	11130	J	0	26.1	34.9	0.9	0	45	355298	6813442
15	11130	K	1	35.9	48	1.1	0	38	355583	6813805
15	11140	A	1	102.8	134.5	1.6	0	21	355596	6814039
15	11140	B	1	133.2	173	1.8	0	19	355569	6814003
15	11140	C	1	110.2	141.9	1.7	0	20	355512	6813951
15	11140	D	2	76.9	72	2.2	0	26	355419	6813866
15	11140	E	1	37.3	41.1	1.4	2	29	355349	6813790
15	11140	F	0	11.6	32	0.2	11	17	355251	6813679
15	11140	G	0	17.6	44.2	0.3	17	8	355223	6813669
15	11140	H	0	21.2	59.4	0.3	16	6	355200	6813631
15	11140	J	0	25.1	52.5	0.5	10	15	355180	6813604
15	11140	K	0	13.1	32.5	0.3	18	10	355161	6813585
15	11140	M	0	9.2	24	0.2	21	10	355139	6813568
15	11140	N	0	13.5	25.5	0.4	0	47	354868	6813302
15	11140	O	0	13.5	25.5	0.4	0	47	354868	6813302
15	11140	P	0	9.3	16.9	0.4	0	50	354301	6812601
15	11140	Q	0	18.7	26.5	0.8	0	41	353895	6812166
15	11140	R	2	47.1	35	2.6	0	47	353787	6812044
15	11140	S	2	44.1	28.4	3	0	45	353762	6811999
15	11140	T	1	18.6	13.8	1.9	0	59	353456	6811597
15	11140	U	1	30.3	25.5	1.9	0	44	353304	6811416
15	11140	V	2	26.5	17.2	2.5	0	47	353164	6811272
15	11140	W	2	31	16.4	3.5	0	50	353116	6811215
15	11150	A	1	27.3	24.1	1.7	0	55	352908	6811347
15	11150	B	0	13.3	15.1	0.9	0	60	352954	6811406
15	11150	C	1	19.8	20.7	1.2	0	49	353044	6811490
15	11150	D	1	19.4	21.4	1.1	0	43	353112	6811576
15	11150	E	1	20.7	22.5	1.1	2	37	353183	6811656
15	11150	F	2	112.3	100.6	2.7	0	28	353654	6812169
15	11150	G	1	55	81.4	1.1	0	26	353683	6812202

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
15	11150	H	0	11	27.7	0.2	8	21	354768	6813369
15	11150	J	0	16.9	33.8	0.4	0	36	354978	6813664
15	11150	K	0	12.4	31.4	0.3	0	36	355017	6813707
15	11150	M	2	79.2	75.3	2.2	0	41	355255	6814007
15	11150	N	1	41.7	38.3	1.9	0	53	355326	6814107
15	11160	A	1	24.8	26.5	1.3	0	50	355336	6814314
15	11160	B	1	60.5	76.2	1.4	2	23	355264	6814235
15	11160	C	2	47.4	38.4	2.3	0	39	355144	6814127
15	11160	D	1	33.4	31	1.7	0	38	355017	6814004
15	11160	E	1	47.3	50.7	1.6	0	29	354824	6813762
15	11160	F	2	85.4	76.6	2.4	0	27	354744	6813670
15	11160	G	2	88.2	71.7	2.8	5	22	354725	6813646
15	11160	H	0	12.5	14.3	0.9	13	32	354610	6813544
15	11160	J	0	12.5	14.3	0.9	13	32	354610	6813544
15	11160	K	1	23.2	21.2	1.5	0	72	354310	6813291
15	11160	M	1	23.2	21.2	1.5	0	72	354310	6813291
15	11160	N	0	8.3	24.5	0.2	0	37	354047	6812963
15	11160	O	0	8.3	24.5	0.2	0	37	354047	6812963
15	11160	P	1	11.1	10.6	1.1	0	68	353889	6812753
15	11160	Q	1	28.2	35.3	1.1	0	49	353574	6812377
15	11160	R	1	28.2	35.3	1.1	0	49	353574	6812377
15	11160	S	2	42	34.4	2.2	0	48	353481	6812275
15	11160	T	1	21.4	19.6	1.5	6	35	352992	6811722
15	11160	U	1	26.7	26.6	1.4	4	33	352935	6811652
15	11160	V	1	26.7	26.6	1.4	4	33	352935	6811652
15	11160	W	1	33.6	30.7	1.7	0	40	352818	6811554
15	11170	A	2	37.8	24.8	2.8	0	53	353292	6812365
15	11170	B	1	21.2	23.6	1.1	0	50	353408	6812505
15	11170	C	1	21.2	23.6	1.1	0	50	353408	6812505
15	11170	D	0	15.5	18.6	0.9	0	49	353444	6812564
15	11170	E	2	26.9	20	2.1	0	52	353835	6813024
15	11170	F	1	23.1	20.8	1.5	14	27	354146	6813313
15	11170	G	1	23.1	20.8	1.5	14	27	354146	6813313
15	11170	H	2	49.6	32.1	3.1	0	47	354460	6813690
15	11170	J	1	37	33.8	1.8	0	57	354612	6813881
15	11170	K	1	16.5	16.4	1.2	16	28	354716	6813989
15	11170	M	1	43.2	41.7	1.8	0	57	354858	6814129
15	11170	N	2	50.1	45.1	2	0	50	354914	6814195
15	11170	O	2	50.1	45.1	2	0	50	354914	6814195
15	11170	P	2	129.4	130.1	2.4	0	22	355028	6814328
15	11170	Q	1	45.7	60.2	1.2	0	36	355102	6814421
14	11180	A	1	38.6	37.2	1.7	0	44	353125	6812486
14	11180	B	1	26.2	32.2	1.1	0	44	353189	6812561
14	11180	C	1	24.7	21.3	1.7	0	46	353478	6812915
14	11180	D	1	19.8	15.6	1.7	0	53	353656	6813109
14	11180	E	2	24.3	16.2	2.4	0	85	354448	6813953

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

APPENDIX 4

STATEMENT OF QUALIFICATIONS

I, Bob B.H. Lo, am a Consulting Geophysicist with BHL Earth Sciences at 28 Nottinghill Road, Markham, Ontario, Canada, L3T 4X9. At the time of the data collection, I was the Chief Geophysicist of Aerodat Inc.

I graduated from the University of Toronto with a Bachelor of Applied Science degree in the Geophysics option of Engineering Science in 1981 and obtained a Masters of Science degree in Physics, also from the University of Toronto in 1985. In 1992, I obtained a Masters of Business Administration degree from Laurentian University in Sudbury, Ontario.

I am a member in good standing of the Professional Engineers of Ontario.

I am a member in the Society of Exploration Geophysicists—SEG (Tulsa), a member of the Canadian Exploration Geophysical Society—KEGS (Toronto), a founding member of the Environmental and Engineering Geophysical Society—EEGS (Denver), and a member of the Prospectors and Developers Association of Canada—PDAC (Toronto).

Since 1981, I have been involved in the use of geophysics for mineral exploration, geothermal site detection, and various engineering and environmental applications. I have either planned, supervised, conducted, interpreted, and reported on geophysical surveys from Canada, the United States of America, South America, South East Asia, Europe and Africa.

The statements contained in this report and the conclusions reached are based upon evaluation and review of maps and information supplied by Aerodat Inc., High-Sense Geophysics, and Pathfinder Minerals.

I have not visited the property nor hold any financial interest in the property.

Signed,

J9795
Markham, Ontario

Bob Lo, M.Sc., MBA., P.Eng.

March 3, 1998

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
14	11180	F	2	24.3	16.2	2.4	0	85	354448	6813953
14	11180	G	1	24.6	19.2	1.9	0	75	354494	6814017
14	11180	H	1	28	27.5	1.5	0	49	354658	6814249
14	11180	J	1	37.6	39.2	1.5	0	51	354814	6814419
14	11180	K	1	31.6	32.8	1.4	0	46	354870	6814483
14	11180	M	1	23.8	25.8	1.2	0	54	354933	6814545
11	11190	A	1	10.7	10.1	1.1	0	66	352482	6812007
11	11190	B	1	10.7	10.1	1.1	0	66	352482	6812007
11	11190	C	1	13.6	11.1	1.4	0	80	352606	6812208
11	11190	D	1	30.8	31.3	1.5	0	45	352961	6812591
11	11190	E	1	24.8	31.9	1	0	42	353030	6812686
11	11190	F	1	30.3	26.7	1.8	0	49	353257	6812969
11	11190	G	1	30.3	26.7	1.8	0	49	353257	6812969
11	11190	H	2	34.4	24.8	2.4	0	48	353364	6813079
11	11190	J	1	28	24.2	1.7	0	48	353429	6813154
11	11190	K	2	19.3	10.2	3	0	52	353569	6813330
11	11190	M	2	19.3	10.2	3	0	52	353569	6813330
11	11190	N	2	47.4	40.6	2.1	0	46	354257	6813976
11	11190	O	2	31.4	22.8	2.3	0	61	354514	6814348
11	11190	P	2	30.6	19	2.8	0	56	354566	6814402
11	11200	A	1	50.3	52.9	1.7	0	47	354656	6814790
11	11200	B	2	49.3	38.7	2.4	0	36	354566	6814696
11	11200	C	2	91.7	65.9	3.3	0	35	354393	6814496
11	11200	D	2	68	59.4	2.3	0	38	354337	6814443
11	11200	E	2	48.3	39.1	2.3	0	49	354160	6814264
11	11200	F	2	44.4	37.2	2.1	0	42	354094	6814184
11	11200	G	2	44.3	36.3	2.2	0	45	353973	6814036
11	11200	H	2	48.2	29.6	3.3	0	46	353850	6813884
11	11200	J	1	48.4	47.1	1.8	0	37	353786	6813799
11	11200	K	1	35.7	34.9	1.6	0	39	353704	6813693
11	11200	M	2	21.4	13.1	2.5	0	60	353500	6813476
11	11200	N	1	34	30.1	1.8	0	53	353209	6813176
11	11200	O	1	33.3	34	1.5	0	49	353103	6813039
11	11200	P	1	27.7	28.7	1.4	0	42	352908	6812769
11	11200	Q	1	25	22.4	1.6	0	45	352846	6812694
11	11200	R	1	16.2	13.4	1.5	0	51	352617	6812460
11	11200	S	1	14.4	9.7	1.9	1	52	352490	6812350
11	11200	T	1	12	7.9	1.9	0	57	352380	6812216
11	11200	U	1	12	7.9	1.9	0	57	352380	6812216
11	11210	A	1	30.4	34.1	1.3	0	36	352210	6812404
11	11210	B	1	29.1	24.7	1.8	0	48	352297	6812522
11	11210	C	2	22.7	16.9	2	0	61	352430	6812673
11	11210	D	2	38.4	21.5	3.5	0	53	352832	6813070
11	11210	E	1	44	45.2	1.6	0	43	352992	6813262
11	11210	F	2	53.5	29.9	3.9	0	45	353186	6813467
11	11210	G	2	48.7	39.9	2.3	0	41	353290	6813608

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
11	11210	H	1	59.2	58.2	1.9	0	35	353347	6813692
11	11210	J	3	42.7	15.5	6.4	0	55	353504	6813916
11	11210	K	3	42.2	18.9	4.8	0	52	353598	6814012
11	11210	M	2	70.6	42.6	3.8	0	40	353729	6814167
11	11210	N	2	46.1	32.3	2.7	0	45	353990	6814401
11	11210	O	2	125.7	100.4	3.2	0	25	354178	6814583
11	11210	P	3	34.1	16.7	4	0	44	354392	6814809
11	11210	Q	2	24.8	15.9	2.5	0	68	354482	6814912
11	11210	R	2	39.1	20.5	3.8	0	57	354545	6815001
11	11220	A	2	29.7	18.2	2.8	0	63	354284	6815006
11	11220	B	2	50.7	29.5	3.6	0	53	354229	6814948
11	11220	C	2	50.1	27.4	3.9	0	42	354175	6814899
11	11220	D	2	70.1	45.1	3.5	0	51	353963	6814616
11	11220	E	3	120.5	65.5	5.1	0	35	353876	6814503
11	11220	F	2	91.7	64.8	3.4	0	35	353681	6814301
11	11220	G	2	58.2	46.5	2.5	0	33	353629	6814247
11	11220	H	3	53.3	28.5	4.1	0	42	353528	6814140
11	11220	J	2	49.1	26.6	3.9	0	47	353404	6813999
11	11220	K	2	50	35	2.8	0	47	353321	6813898
11	11220	M	3	58.6	31.3	4.2	0	47	353184	6813721
11	11220	N	2	29	20.2	2.4	0	49	353028	6813528
11	11220	O	2	62.9	42.2	3.2	0	35	352847	6813330
11	11220	P	2	84.2	56.9	3.5	0	35	352784	6813258
11	11220	Q	2	39.7	21.1	3.8	0	49	352675	6813136
11	11220	R	2	24.3	15.2	2.6	0	59	352374	6812827
11	11220	S	2	24.3	15.2	2.6	0	59	352374	6812827
11	11220	T	2	24.3	15.6	2.5	0	55	352235	6812639
11	11220	U	2	24.3	15.6	2.5	0	55	352235	6812639
11	11220	V	1	13.8	10.5	1.6	0	52	352093	6812471
11	11230	A	0	14.8	16.8	0.9	0	56	351887	6812595
11	11230	B	2	37.4	30.9	2.1	0	51	352048	6812774
11	11230	C	2	44.1	38	2.1	0	45	352185	6812947
11	11230	D	3	60.1	23.1	6.5	0	43	352328	6813114
11	11230	E	2	46.4	26.5	3.6	0	46	352517	6813322
11	11230	F	1	22.2	22	1.3	0	44	352753	6813592
11	11230	G	2	57.6	35	3.5	0	45	352979	6813836
11	11230	H	2	60.6	39.5	3.3	0	42	353057	6813935
11	11230	J	3	56.9	27.8	4.7	0	43	353259	6814166
11	11230	K	3	80	45.6	4.3	0	46	353400	6814323
11	11230	M	2	73.2	53.5	3	0	38	353478	6814416
11	11230	N	3	80.3	39	5.3	0	40	353533	6814479
11	11230	O	3	64.4	24	6.9	0	44	353598	6814546
11	11230	P	3	50.1	24.8	4.4	0	50	353726	6814669
11	11230	Q	3	31.7	14.1	4.4	0	55	353813	6814754
11	11230	R	3	31.4	13.5	4.6	0	60	353981	6814943
11	11230	S	3	30	13.4	4.3	0	60	354035	6815021

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
11	11240	A	2	50.8	27.6	3.9	0	41	353722	6814992
11	11240	B	3	68.5	39.4	4	0	32	353642	6814886
11	11240	C	2	69.4	48	3.2	2	28	353598	6814834
11	11240	D	3	175.2	110	4.8	0	24	353515	6814727
11	11240	E	2	99.4	69.9	3.5	0	30	353401	6814602
11	11240	F	3	86.5	36.2	6.5	0	42	353247	6814427
11	11240	G	3	79.4	32.1	6.6	0	52	353200	6814373
11	11240	H	2	35.8	22.8	2.9	0	55	352805	6813938
11	11240	J	1	31	28.7	1.7	0	46	352731	6813848
11	11240	K	1	32	32.5	1.5	0	37	352574	6813676
11	11240	M	3	29.3	11.2	5.3	0	57	352356	6813433
11	11240	N	3	41.4	17.4	5.2	0	48	352133	6813213
11	11240	O	2	22.7	14.5	2.4	0	49	352041	6813112
11	11240	P	1	16.7	17.3	1.1	4	39	351816	6812836
11	11240	Q	0	8.4	11.4	0.6	0	58	351530	6812513
11	11250	A	1	31.4	29.2	1.7	0	43	351653	6812963
11	11250	B	2	44	36	2.2	0	44	351756	6813073
11	11250	C	2	35.6	26.9	2.3	0	41	351833	6813156
11	11250	D	2	31.8	18.2	3.2	1	41	351941	6813280
11	11250	E	2	24.4	18	2.1	0	50	352058	6813434
11	11250	F	1	20.5	16.8	1.7	0	57	352167	6813581
11	11250	G	2	22.9	17.2	2	0	54	352335	6813781
11	11250	H	1	26.9	22.2	1.8	0	53	352445	6813892
11	11250	J	2	62.4	43.8	3	0	44	352605	6814031
11	11250	K	3	54.2	24.4	5.1	0	49	352788	6814211
11	11250	M	3	56.7	29.8	4.3	0	43	352945	6814406
11	11250	N	2	24.7	16.7	2.3	0	58	353166	6814664
11	11250	O	3	52.1	25.5	4.6	0	54	353264	6814756
11	11250	P	2	35.7	17.9	3.9	0	53	353388	6814875
11	11250	Q	3	35.6	16.9	4.2	0	51	353490	6814987
11	11260	A	2	12.4	6.3	2.7	0	76	353174	6814989
11	11260	B	1	23.3	17.9	1.9	0	52	352903	6814727
11	11260	C	3	37.3	16.7	4.6	0	62	352723	6814553
11	11260	D	3	49.7	25.7	4.2	0	52	352589	6814394
11	11260	E	2	37.9	22.4	3.2	0	50	352421	6814168
11	11260	F	1	36.5	36.6	1.6	0	41	352277	6814008
11	11260	G	1	36.5	31.7	1.9	0	44	352164	6813877
11	11260	H	3	32.8	15.9	4	1	42	352004	6813702
11	11260	J	2	43.8	26.2	3.3	0	37	351897	6813568
11	11260	K	2	44.1	26.6	3.3	0	50	351747	6813392
11	11260	M	1	48.3	46.8	1.8	0	35	351672	6813310
11	11260	N	2	32.8	25.3	2.2	1	37	351591	6813228
11	11260	O	2	32.8	25.3	2.2	1	37	351591	6813228
11	11260	P	1	30.2	34.2	1.2	0	39	351431	6813054
11	11260	Q	1	30.2	34.2	1.2	0	39	351431	6813054
11	11260	R	0	13.7	15.8	0.9	2	42	351295	6812910
11	11260	S	0	13.7	15.8	0.9	2	42	351295	6812910

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
11	11260	T	0	14.1	18.2	0.8	2	38	351124	6812729
11	11260	U	1	18.9	14.5	1.8	0	47	350854	6812429
11	11270	A	2	19.6	12.4	2.3	0	57	350717	6812462
11	11270	B	1	15.1	13.5	1.3	0	57	350951	6812729
11	11270	C	0	10.8	12.9	0.8	0	51	351031	6812816
11	11270	D	2	21.2	15.7	2	0	69	351457	6813336
11	11270	E	2	30.7	15.3	3.8	0	54	351586	6813523
11	11270	F	2	19.2	12.3	2.3	0	52	351825	6813768
11	11270	G	2	27.4	20.1	2.2	0	48	351992	6813945
11	11270	H	1	33.5	29.1	1.9	0	47	352249	6814273
11	11270	J	1	27.1	27.4	1.4	0	45	352362	6814408
11	11270	K	1	24.8	23	1.5	0	48	352534	6814573
11	11270	M	2	22	15.2	2.2	0	46	352789	6814867
11	11270	N	2	16.4	9.5	2.5	0	58	352913	6815029
11	11280	A	1	27.6	33.8	1.1	0	41	352697	6815059
11	11280	B	0	27.1	38.6	0.9	0	46	352509	6814840
11	11280	C	0	27.1	38.6	0.9	0	46	352509	6814840
11	11280	D	1	27.2	27.3	1.4	0	42	352392	6814684
11	11280	E	1	21.1	19.8	1.4	0	42	352278	6814555
11	11280	F	1	23.6	23.5	1.4	0	40	352152	6814408
11	11280	G	2	59	34	3.8	0	49	352040	6814269
11	11280	H	2	30.5	22.4	2.2	0	43	351921	6814132
11	11280	J	1	29.4	24.7	1.8	0	42	351839	6814048
11	11280	K	2	27.8	21.6	2	1	40	351730	6813913
11	11280	M	3	37.3	18.1	4.2	2	39	351475	6813617
11	11280	N	1	29.5	26.8	1.7	0	44	351347	6813466
11	11280	O	1	29.5	26.8	1.7	0	44	351347	6813466
11	11280	P	1	8.6	6	1.5	17	46	351157	6813293
11	11280	Q	1	21	18.1	1.6	0	56	350803	6812866
11	11280	R	2	25.3	17.5	2.3	0	52	350557	6812629
11	11290	A	2	15.5	9	2.4	0	61	350386	6812691
11	11290	B	1	18.5	14.4	1.7	0	53	350683	6813066
11	11290	C	1	11.8	8.9	1.5	0	62	350765	6813182
11	11290	D	3	17.3	6.7	4.4	0	73	351309	6813677
11	11290	E	1	11.5	9.1	1.4	0	66	351499	6813921
11	11290	F	1	12.2	8.4	1.8	0	74	351615	6814048
11	11290	G	2	17.6	8.3	3.4	0	75	351762	6814208
11	11290	H	2	17.6	9.9	2.7	0	77	351881	6814334
11	11290	J	2	15.3	9.6	2.2	0	67	352024	6814496
11	11290	K	1	11.7	9.1	1.5	0	62	352175	6814675
11	11300	A	1	15.2	15.4	1.1	0	54	351917	6814773
11	11300	B	1	15.2	15.4	1.1	0	54	351917	6814773
11	11300	C	2	23.4	16	2.2	0	58	351758	6814578
11	11300	D	3	40.4	20.7	4	0	49	351672	6814464
11	11300	E	1	18.3	15.6	1.5	0	59	351451	6814211

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
11	11300	F	1	20.2	18	1.5	0	49	351253	6813968
11	11300	G	3	66.2	23	7.7	0	46	351110	6813826
11	11300	H	2	16.2	10.7	2.1	0	62	350676	6813307
11	11300	J	2	16.2	10.7	2.1	0	62	350676	6813307
11	11300	K	1	18.5	13.8	1.8	0	59	350499	6813142
11	11300	M	1	18.5	13.8	1.8	0	59	350499	6813142
11	11300	N	2	17.7	7.6	3.8	0	69	350289	6812890
11	11300	O	2	14.2	7.4	2.7	0	67	350140	6812733
11	11310	A	1	14.2	15.4	1	0	46	349611	6812472
11	11310	B	0	12.2	13.1	0.9	0	56	349714	6812603
11	11310	C	3	35.9	14.2	5.4	0	63	349955	6812869
11	11310	D	2	20.6	11	3	0	63	350096	6813069
11	11310	E	1	13.8	9.4	1.9	0	59	350217	6813210
11	11310	F	1	15.9	11.3	1.9	0	63	350699	6813667
11	11310	G	2	21.9	10.8	3.4	0	72	350799	6813797
11	11310	H	2	27.6	15.5	3.1	0	63	350893	6813896
11	11310	J	2	20.9	15	2	0	58	351029	6814040
11	11310	K	1	21.8	16.7	1.9	0	68	351312	6814348
11	11310	M	2	23.9	17.4	2.1	0	61	351407	6814448
11	11310	N	1	30.8	32.2	1.4	0	51	351832	6814961
11	11310	O	1	30.8	32.2	1.4	0	51	351832	6814961
11	11320	A	1	28.7	35.1	1.1	0	37	351448	6814802
11	11320	B	1	20.8	23.1	1.1	0	54	351205	6814547
11	11320	C	1	28	27.5	1.5	0	39	351033	6814387
11	11320	D	2	22.5	13.7	2.6	0	51	350885	6814231
11	11320	E	2	28.9	18.9	2.6	0	59	350777	6814084
11	11320	F	2	31.5	24.7	2.1	0	46	350713	6813995
11	11320	G	1	30.1	28.4	1.6	0	44	350665	6813939
11	11320	H	1	28	27.7	1.5	0	39	350440	6813707
11	11320	J	1	36.9	37.9	1.5	0	43	350306	6813494
11	11320	K	3	23.6	9.4	4.7	0	63	349984	6813139
11	11320	M	2	21.4	10.5	3.4	0	50	349819	6812951
11	11320	N	2	21.4	10.5	3.4	0	50	349819	6812951
11	11330	A	1	28.7	23.4	1.9	0	53	348981	6812349
11	11330	B	1	24.8	22.1	1.6	0	46	349068	6812467
11	11330	C	1	19.7	20.1	1.2	0	47	349126	6812544
11	11330	D	2	22.4	13	2.8	0	47	349564	6813029
11	11330	E	2	22.4	13	2.8	0	47	349564	6813029
11	11330	F	1	10.7	10.5	1	0	70	350391	6813931
11	11330	G	1	21.2	17.9	1.6	0	62	350588	6814107
11	11330	H	2	17.4	12.1	2	0	56	350939	6814494
11	11330	J	2	22.1	15.1	2.2	0	52	351161	6814730
11	11330	K	2	24.4	17.9	2.1	0	48	351348	6814945
11	11340	A	3	62.6	26.5	5.8	0	40	351071	6814995
11	11340	B	3	49.9	26.6	4	0	39	351022	6814940

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
11	11340	C	1	31.4	28.1	1.7	0	39	350905	6814810
11	11340	D	2	43.5	32.4	2.5	0	37	350670	6814539
11	11340	E	1	22.2	24.7	1.1	4	34	350598	6814456
11	11340	F	0	36	66.2	0.7	0	31	350428	6814251
11	11340	G	0	31.5	68.5	0.5	0	24	350342	6814151
11	11340	H	0	25.5	35.9	0.9	0	37	349919	6813676
11	11340	J	1	24.3	24.6	1.3	2	36	349824	6813570
11	11340	K	2	23.2	16.2	2.2	0	46	349637	6813357
11	11340	M	3	18.9	7.5	4.4	0	55	349520	6813217
11	11340	N	1	15.4	10.6	1.9	0	59	348918	6812608
11	11340	O	2	21.7	11.1	3.2	0	54	348755	6812419
11	11340	P	3	25	10.2	4.6	0	64	348577	6812122
11	11350	A	1	15.1	11	1.8	0	70	348595	6812479
11	11350	B	1	10.3	7.9	1.4	0	62	348710	6812623
11	11350	C	2	10.4	5.2	2.6	0	72	349278	6813244
11	11350	D	1	10.3	7.5	1.5	0	84	349514	6813514
11	11350	E	1	14.6	11.3	1.6	0	68	349631	6813671
11	11350	F	1	14.9	13.2	1.3	0	49	350179	6814245
11	11350	G	0	8.9	15.5	0.4	0	47	350298	6814377
11	11350	H	2	16.1	7.8	3.2	5	50	350467	6814563
11	11350	J	1	17.8	19.7	1.1	0	52	350579	6814685
11	11350	K	1	20.6	16.4	1.7	0	48	350694	6814815
11	11350	M	3	41.6	18.6	4.8	0	43	350810	6814955
700	11360	A	2	28.6	22.5	2	0	50	350674	6815183
700	11360	B	2	24.7	18	2.1	0	46	350560	6815083
700	11360	C	2	26.1	14.4	3.1	0	62	350345	6814843
700	11360	D	1	13.4	10.8	1.5	0	61	350248	6814707
700	11360	E	1	13.5	13.2	1.1	0	60	349580	6813828
700	11360	F	2	20.7	14.8	2	0	54	349389	6813698
700	11360	G	2	16.6	10.3	2.3	7	45	349316	6813614
700	11360	H	2	15	8.6	2.4	3	51	349253	6813526
700	11360	J	1	10.6	9.7	1.1	2	51	349179	6813445
700	11360	K	1	15.4	13.7	1.3	0	54	348548	6812768
700	11360	M	2	23.8	14.1	2.7	0	58	348426	6812628
700	11360	N	2	22.4	14.4	2.4	0	61	348360	6812535
700	11360	O	2	21.2	9.5	3.8	0	66	348207	6812328
700	11360	P	3	28.7	12.1	4.6	0	62	348128	6812229
700	11370	A	1	9.5	6.4	1.7	0	140	348004	6812481
700	11370	B	1	24.1	19.1	1.9	0	59	349122	6813736
700	11370	C	2	26.7	20.2	2.1	0	57	349196	6813826
700	11370	D	1	24.8	23.4	1.5	0	53	349277	6813924
700	11370	E	0	12.9	15.2	0.8	0	52	349386	6814051
700	11370	F	1	16.2	12.4	1.7	0	62	350201	6814877
700	11370	G	1	24	18.6	1.9	0	58	350272	6815025
700	11370	H	1	21.8	17.8	1.7	0	62	350324	6815123
700	11370	J	1	15	13.4	1.3	0	67	350379	6815199

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
700	11380	A	2	17.6	12.1	2	0	80	350375	6815415
700	11380	B	2	23.9	17.4	2.1	0	56	350232	6815259
700	11380	C	2	19.4	11.9	2.4	0	56	350165	6815191
700	11380	D	0	10.1	15	0.5	0	60	349849	6814842
700	11380	E	1	16.4	18.1	1	0	56	349177	6814107
700	11380	F	2	24.8	17.2	2.3	0	56	349000	6813894
700	11380	G	1	10.6	9.4	1.2	0	72	348144	6812918
700	11380	H	2	22.5	11.7	3.2	0	62	347861	6812613
700	11380	J	2	22.5	11.7	3.2	0	62	347861	6812613
700	11391	A	0	7.8	8.1	0.8	0	98	347711	6812740
700	11391	B	2	34.4	28.8	2	0	48	348865	6814098
700	11391	C	1	30.3	24.8	1.9	0	49	348904	6814156
700	11391	D	0	11.3	12.8	0.8	0	62	349062	6814321
700	11391	E	0	15	18.3	0.9	0	52	349713	6815016
700	11391	F	1	16.2	17.3	1.1	0	60	349901	6815179
700	11391	G	1	22.6	20.3	1.5	0	64	350071	6815369
700	11400	A	2	16	10.3	2.1	0	68	350071	6815644
700	11400	B	1	15.3	10.5	1.9	0	61	349911	6815494
700	11400	C	0	7.8	8.8	0.7	0	73	349537	6815089
700	11400	D	0	7.8	8.8	0.7	0	73	349537	6815089
700	11400	E	1	25.4	28.9	1.2	0	53	348974	6814463
700	11400	F	1	30.4	41	1	0	38	348857	6814347
700	11400	G	1	33.4	31.3	1.7	0	38	348794	6814286
700	11400	H	2	28.7	22.7	2	0	44	348724	6814221
700	11400	J	0	10.7	13.1	0.7	0	50	348637	6814138
700	11401	A	1	17	17.8	1.1	0	44	347630	6813025
700	11401	B	3	49.3	22.9	4.8	0	43	347446	6812799
700	11401	C	3	37.5	12.3	7	0	45	347364	6812700
700	11410	A	1	23.1	17.9	1.9	0	43	347084	6812646
700	11410	B	2	31.3	20	2.7	0	46	347177	6812733
700	11410	C	2	20.1	13.8	2.1	0	65	347354	6812890
700	11410	D	1	14.8	12.3	1.5	0	70	347485	6813011
700	11410	E	2	34.3	25.7	2.3	0	50	348497	6814224
700	11410	F	1	25.8	26.8	1.3	0	47	348550	6814303
700	11410	G	1	26.7	32.2	1.1	0	41	348625	6814397
700	11410	H	1	24.3	24.4	1.4	3	35	348790	6814562
700	11410	J	1	29.8	26.4	1.7	0	44	349015	6814806
700	11410	K	0	10	13.4	0.6	0	49	349211	6815047
700	11410	M	1	25.6	29.1	1.2	0	39	349344	6815233
700	11410	N	2	42.7	30.6	2.6	3	32	349446	6815367
700	11410	O	2	29	18.3	2.7	0	47	349567	6815478
700	11410	P	1	18.9	14	1.9	0	74	349714	6815587
700	11410	Q	1	11.7	9.9	1.3	0	86	349821	6815667

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
700	11420	A	2	48.8	26.3	3.9	0	38	349695	6815787
700	11420	B	3	55.5	29.7	4.1	3	32	349617	6815705
700	11420	C	2	41.8	24.1	3.4	2	36	349537	6815621
700	11420	D	2	29.2	15.8	3.3	10	33	349466	6815564
700	11420	E	3	31.4	13.8	4.5	0	48	349222	6815349
700	11420	F	1	22.4	27.8	1	0	40	349076	6815174
700	11420	G	0	18.9	25.9	0.8	0	42	349043	6815132
700	11420	H	0	11.8	16.3	0.6	0	47	348894	6814975
700	11420	J	1	19.6	22.1	1.1	0	49	348687	6814790
700	11420	K	1	22.8	22.9	1.3	0	45	348610	6814719
700	11420	M	1	22.8	22.9	1.3	0	45	348610	6814719
700	11420	N	2	14.9	8.5	2.5	0	57	348449	6814542
700	11420	O	2	37.9	24.8	2.8	0	59	348305	6814361
700	11420	P	2	32.2	22.7	2.4	0	59	348241	6814294
700	11420	Q	1	24.9	25.1	1.4	0	49	347251	6813155
700	11420	R	2	61.2	36.4	3.7	0	45	347090	6812986
700	11420	S	2	73.1	46.8	3.6	0	42	347039	6812915
700	11420	T	3	75.1	31.9	6.1	0	41	346975	6812831
700	11430	A	3	22.5	9.2	4.4	0	53	346624	6812675
700	11430	B	2	22.6	10.6	3.7	0	57	346674	6812737
700	11430	C	2	45.6	28.4	3.2	0	58	346798	6812887
700	11430	D	2	50.4	28.8	3.7	0	48	346881	6812991
700	11430	E	1	19.5	20.1	1.2	0	51	347109	6813240
700	11430	F	1	12.3	10.6	1.3	2	50	347288	6813409
700	11430	G	2	29.9	15.5	3.5	0	50	347952	6814143
700	11430	H	3	79.9	33.2	6.4	0	46	348101	6814308
700	11430	J	2	30.7	21.9	2.3	0	43	348213	6814443
700	11430	K	1	24.4	19.4	1.9	2	40	348309	6814563
700	11430	M	1	26.9	35.2	1	0	47	348513	6814783
700	11430	N	0	8.9	15.6	0.4	4	36	348685	6814970
700	11430	O	0	8.9	15.6	0.4	4	36	348685	6814970
700	11430	P	0	13.4	25.1	0.4	1	33	348821	6815119
700	11430	Q	0	29.2	45	0.8	0	34	348991	6815317
700	11430	R	3	85	35.3	6.5	0	40	349083	6815422
700	11430	S	3	80.7	48.4	4	0	38	349134	6815483
700	11430	T	2	25	12.3	3.6	0	82	349404	6815821
700	11430	U	2	27.7	16.8	2.8	0	67	349500	6815920
700	11440	A	1	35.7	31.6	1.8	0	38	349352	6816024
700	11440	B	3	49	24.8	4.3	0	40	349257	6815919
700	11440	C	2	51	27.9	3.9	0	36	349200	6815864
700	11440	D	2	41.6	24.8	3.3	0	41	349131	6815802
700	11440	E	3	40.4	15.5	5.8	0	48	349030	6815712
700	11440	F	0	6.9	9.1	0.5	7	45	348646	6815259
700	11440	G	1	13.4	10.7	1.5	0	70	348346	6814909
700	11440	H	1	13.4	10.7	1.5	0	70	348346	6814909
700	11440	J	2	11	5.9	2.4	0	101	348040	6814669
700	11440	K	2	11	5.9	2.4	0	101	348040	6814669

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
700	11440	M	3	19.2	5.3	7.2	0	97	347763	6814334
700	11440	N	3	19.2	5.3	7.2	0	97	347763	6814334
700	11440	O	2	13.6	5.5	3.8	0	94	347599	6814131
700	11440	P	1	8.6	7.8	1	0	68	347094	6813558
700	11440	Q	2	36.6	28.7	2.2	0	55	346884	6813313
700	11440	R	2	65.6	52.1	2.6	0	37	346710	6813134
700	11440	S	2	58.5	38.3	3.2	0	36	346627	6813052
700	11440	T	3	53.5	20.2	6.5	1	37	346505	6812926
700	11440	U	3	65.1	35.5	4.2	0	40	346394	6812800
700	11440	V	3	52.5	27.1	4.3	1	35	346306	6812706
700	11450	A	2	7.7	3.2	3	0	111	349095	6816054
7	11451	A	3	42.1	18.3	5	0	53	346211	6812792
7	11451	B	2	32.1	15.7	3.9	0	47	346279	6812892
7	11451	C	3	27.8	10.3	5.4	0	61	346421	6813080
7	11451	D	2	27.9	16.9	2.8	0	56	346612	6813272
7	11451	E	0	11.7	13.6	0.8	0	47	346796	6813421
7	11451	F	1	13.6	13.1	1.1	3	45	346960	6813593
7	11451	G	4	35.3	8.5	10.3	0	59	347581	6814360
7	11451	H	2	29.6	14.2	3.9	0	59	347778	6814580
7	11451	J	1	22.4	23	1.3	0	49	347985	6814817
7	11451	K	1	15	14.7	1.2	11	34	348095	6814950
7	11451	M	1	10.4	9.6	1.1	22	32	348135	6814999
12	11460	A	1	28.2	22.8	1.9	0	52	349167	6816474
12	11460	B	3	44.7	23	4.1	0	45	349104	6816396
12	11460	C	2	53.6	34.6	3.2	0	38	349065	6816347
12	11460	D	3	73.4	37.7	4.8	0	37	348853	6816130
12	11460	E	3	94.9	51.1	4.8	0	35	348803	6816080
12	11460	F	3	95.6	48.7	5.2	0	34	348761	6816042
12	11460	G	0	14.3	19.1	0.7	0	41	348033	6815184
12	11460	H	1	20.4	20.4	1.3	0	62	347951	6815078
12	11460	J	0	13.1	23.2	0.5	0	43	347770	6814881
12	11460	K	3	139.2	84.4	4.7	0	41	347567	6814611
12	11460	M	0	7.4	12.6	0.4	0	52	346824	6813846
12	11460	N	0	7.4	12.6	0.4	0	52	346824	6813846
12	11460	O	2	29	21	2.2	0	41	346498	6813502
12	11460	P	2	33.9	18.8	3.4	0	45	346423	6813414
12	11460	Q	2	70.2	51.7	2.9	0	37	346240	6813184
12	11460	R	3	47.3	21.7	4.8	0	45	346085	6812988
12	11460	S	4	166.8	58.7	9.9	0	36	345948	6812846
12	11470	A	2	163.7	128	3.6	0	28	345694	6812956
12	11470	B	2	76.6	59	2.9	0	30	345818	6813099
12	11470	C	3	83.1	47.9	4.3	0	38	346073	6813327
12	11470	D	2	56.5	42.4	2.7	0	37	346156	6813425
12	11470	E	1	42.1	37.6	1.9	0	39	346299	6813591
12	11470	F	0	13.8	16.3	0.9	0	43	346446	6813767

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
12	11470	G	0	9.5	11.6	0.7	0	55	346521	6813844
12	11470	H	3	33.8	13.9	5	0	63	347211	6814575
12	11470	J	3	33.8	13.9	5	0	63	347211	6814575
12	11470	K	2	36.7	22.1	3.1	0	59	347287	6814668
12	11470	M	1	34.4	34.3	1.6	0	47	347373	6814762
12	11470	N	1	17.2	13.4	1.7	6	42	347775	6815192
12	11470	O	1	17.3	18.4	1.1	10	31	347864	6815281
12	11470	P	0	9.8	11.5	0.8	5	44	348044	6815494
12	11470	Q	2	8.5	4.4	2.3	0	143	348298	6815716
12	11470	R	3	49.8	24.1	4.6	0	69	348605	6816162
12	11470	S	3	56.2	20.8	6.7	0	65	348668	6816215
12	11470	T	3	112.9	55.5	5.7	0	46	348821	6816394
12	11470	U	2	86.7	56.4	3.7	0	45	348903	6816475
12	11480	A	3	74.5	33.7	5.6	0	43	348758	6816654
12	11480	B	2	36.8	29.9	2.1	0	42	348568	6816470
12	11480	C	1	42	38.6	1.9	0	40	348513	6816413
12	11480	D	2	68.7	61.3	2.3	0	39	348408	6816319
12	11480	E	2	24.2	18.3	2	0	48	348300	6816140
12	11480	F	3	19	7.7	4.3	0	66	348123	6815956
12	11480	G	0	13	41.3	0.2	0	31	347866	6815615
12	11480	H	1	42	47.2	1.4	0	32	347655	6815383
12	11480	J	1	40.7	36	1.9	0	44	347605	6815324
12	11480	K	1	16.3	13	1.6	0	67	347482	6815192
12	11480	M	1	19.3	22.3	1	0	58	347218	6814854
12	11480	N	1	21.1	17.6	1.7	0	60	347157	6814792
12	11480	O	2	26.3	12.7	3.7	0	69	346993	6814661
12	11480	P	2	17	11.4	2.1	4	46	346257	6813873
12	11480	Q	2	55.6	35.5	3.3	0	41	345981	6813541
12	11480	R	3	81.7	42.2	4.9	0	37	345905	6813450
12	11480	S	3	42.2	14.3	6.9	1	40	345804	6813349
12	11480	T	3	68.7	37.1	4.4	0	38	345695	6813215
12	11480	U	3	63.9	32.6	4.6	0	38	345654	6813163
12	11480	V	3	84.4	48.7	4.3	0	37	345541	6813054
12	11480	W	3	75.4	32.7	6	0	37	345488	6813004
12	11490	A	2	32.6	26.2	2	0	48	345444	6813151
12	11490	B	1	38.4	33.4	1.9	0	40	345572	6813301
12	11490	C	3	89.1	41.5	5.7	0	32	345712	6813453
12	11490	D	2	41.3	22.7	3.6	0	51	345797	6813562
12	11490	E	2	46.4	31.2	2.9	0	43	345922	6813722
12	11490	F	2	28.3	15.5	3.2	0	50	346016	6813825
12	11490	G	1	16.9	11.9	1.9	0	68	346129	6813929
12	11490	H	2	18	12.5	2	0	65	346817	6814732
12	11490	J	0	11.4	14.3	0.7	0	48	347066	6814991
12	11490	K	1	10.6	7.5	1.6	23	35	347377	6815358
12	11490	M	0	11.5	15.8	0.6	11	32	347486	6815524
12	11490	N	2	26.3	14	3.3	0	71	347872	6815938
12	11490	O	1	25.5	22.8	1.6	0	42	348015	6816152

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
12	11490	P	1	34.3	42.3	1.2	1	29	348273	6816380
12	11490	Q	1	40.5	48	1.3	0	30	348338	6816451
12	11490	R	1	54.7	71.3	1.3	0	40	348406	6816528
12	11490	S	1	52.6	61.7	1.5	0	44	348485	6816650
12	11490	T	3	54.8	20.5	6.6	0	66	348697	6816889
12	11500	A	3	34.7	12.4	6.1	0	65	348599	6817007
12	11500	B	1	39.8	41.4	1.5	0	32	348340	6816739
12	11500	C	0	46.6	77.3	0.9	0	29	348210	6816585
12	11500	D	0	17.3	24.5	0.7	0	37	348024	6816339
12	11500	E	3	40.8	19	4.5	0	46	347801	6816084
12	11500	F	0	11.2	12.3	0.9	0	75	346849	6815035
12	11500	G	1	20	15.4	1.8	0	62	346668	6814798
12	11500	H	0	9.2	9.1	0.9	0	58	346085	6814169
12	11500	J	1	13.6	9.7	1.7	4	49	346022	6814081
12	11500	K	2	17.7	9.6	2.8	0	56	345887	6813930
12	11500	M	2	19.6	11.4	2.6	0	61	345783	6813820
12	11500	N	2	24.6	14.3	2.8	0	58	345691	6813737
12	11500	O	3	25	10.7	4.3	0	70	345607	6813665
12	11500	P	2	15.6	9.2	2.4	0	61	345448	6813490
12	11510	A	2	34.5	23.2	2.6	3	36	345246	6813598
12	11510	B	1	57.2	59.5	1.8	0	27	345334	6813687
12	11510	C	1	39.8	44.7	1.4	0	30	345522	6813832
12	11510	D	1	16.4	14.4	1.4	0	68	345665	6814016
12	11510	E	1	12.4	12.1	1.1	0	85	345750	6814146
12	11510	F	0	8.4	10.9	0.6	0	89	345785	6814188
12	11510	G	0	8.4	10.9	0.6	0	89	345785	6814188
12	11510	H	1	15	10.4	1.9	0	60	346438	6814911
12	11510	J	2	25.6	13.2	3.4	0	74	347792	6816465
12	11510	K	2	33.6	19.9	3.1	0	58	347867	6816588
12	11510	M	1	55.1	69.6	1.3	0	39	348089	6816759
12	11510	N	2	61.8	36.8	3.7	0	38	348169	6816827
12	11510	O	3	93.3	43.7	5.8	0	49	348305	6816941
12	11510	P	3	90.3	48.6	4.8	0	49	348357	6816986
12	11510	Q	3	85.2	37.9	6	0	41	348457	6817095
12	11521	A	4	74.6	16.3	14.6	0	50	348336	6817280
12	11521	B	4	58	16.8	9.4	0	49	348232	6817177
12	11521	C	4	51.4	13.9	9.9	0	54	348133	6817075
12	11521	D	4	51.2	13.6	10.1	0	56	347995	6816937
12	11521	E	3	107.2	51.3	5.8	0	40	347795	6816716
12	11521	F	3	126.5	62.1	5.9	0	32	347722	6816631
12	11521	G	3	63.1	30.6	4.9	0	34	347598	6816501
12	11521	H	1	9.1	5.7	1.8	0	69	347118	6815986
12	11521	J	1	8.9	5.4	1.9	16	49	346991	6815806
12	11521	K	2	21.8	11	3.3	0	60	346744	6815506
12	11521	M	1	15.9	18.1	1	0	62	346477	6815261
12	11521	N	1	14.7	15.6	1	0	62	346329	6815067

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
12	11521	O	1	14.7	15.6	1	0	62	346329	6815067
12	11521	P	0	13.2	16.5	0.8	0	63	346252	6814976
12	11521	Q	0	12.5	15.5	0.8	1	43	345577	6814318
12	11521	R	1	34.8	31.9	1.7	0	36	345519	6814230
12	11521	S	2	48.3	37	2.5	1	33	345471	6814170
12	11521	T	1	45.6	49.7	1.5	1	28	345396	6814056
12	11521	U	3	63.6	31.4	4.8	0	34	345240	6813864
12	11521	V	3	19.2	8.2	4	0	70	344979	6813585
10	11530	B	4	84.4	19.8	13.8	0	50	348218	6817396
10	11530	C	4	54.8	16.5	8.8	0	55	348121	6817330
10	11530	D	3	40.2	13.9	6.7	0	63	347890	6817171
10	11530	E	4	53.5	14.9	9.6	0	59	347738	6816883
10	11530	F	3	59.1	21.6	6.9	0	41	347433	6816632
10	11530	G	1	27.2	23.1	1.8	0	42	347305	6816476
10	11530	H	2	18.1	10.6	2.5	1	50	347118	6816285
10	11530	J	2	23.7	12.3	3.3	2	46	346970	6816111
10	11530	K	0	10.9	16.2	0.6	9	33	346808	6815928
10	11530	M	1	19	18.2	1.3	0	57	346634	6815688
10	11530	N	0	9.1	9.1	0.9	0	78	346259	6815356
10	11530	O	1	28.7	24.7	1.8	0	39	345396	6814353
10	11530	P	2	63.4	39.5	3.5	0	32	345272	6814199
10	11530	Q	3	57.6	20.2	7.3	0	47	345047	6813907
10	11530	R	3	29.6	13.4	4.2	0	47	344857	6813688
10	11540	A	2	34.1	22.9	2.6	0	67	345026	6814303
10	11540	B	2	36.6	22.6	3	0	50	345108	6814379
10	11540	C	0	15.7	20	0.8	0	45	346041	6815391
10	11540	D	0	15.2	45.7	0.2	0	24	346591	6815980
10	11540	E	2	28.7	15	3.5	0	79	346767	6816199
10	11540	F	2	26	15.9	2.7	0	68	346856	6816272
10	11540	G	1	27.3	25.2	1.6	0	43	346914	6816340
10	11540	H	2	34.2	22	2.8	0	51	347263	6816778
10	11540	J	2	32	19.5	2.9	0	48	347382	6816894
10	11540	K	2	34.2	23.7	2.5	0	43	347466	6817002
10	11540	M	2	59.8	46.8	2.6	0	39	347679	6817218
10	11540	N	2	60.7	41.9	3.1	0	37	347743	6817286
10	11540	O	2	59.3	42.3	2.9	0	41	347817	6817365
10	11540	P	2	53.3	37.5	2.9	0	45	347874	6817424
10	11540	Q	2	52.5	35.9	3	0	42	347959	6817508
9	11550	A	2	19.6	10.5	2.9	0	59	347878	6817682
9	11550	B	1	27.1	27.7	1.4	0	50	347654	6817455
9	11550	C	2	25.1	19	2	0	49	347545	6817341
9	11550	D	1	31.1	28.3	1.7	0	50	347337	6817087
9	11550	E	2	43.1	26.5	3.2	0	40	347179	6816890
9	11550	F	2	40.7	24.3	3.2	0	45	347035	6816729
9	11550	G	2	33.3	26.7	2.1	0	45	346966	6816662
9	11550	H	2	29.3	16	3.3	6	38	346832	6816556

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
9	11550	J	0	10.8	14.5	0.6	0	65	346055	6815693
9	11550	K	0	9	9.3	0.9	0	77	345927	6815500
9	11551	A	0	6.9	15.5	0.2	0	44	345236	6814668
9	11551	B	2	18.7	11.2	2.5	9	41	345082	6814500
9	11551	C	2	52.6	42.4	2.4	0	43	344934	6814352
9	11551	D	3	54.4	28.8	4.2	0	40	344804	6814232
9	11551	E	3	60.3	32.8	4.2	0	40	344747	6814177
9	11551	F	4	57.5	15.4	10.4	0	42	344690	6814118
9	11551	G	3	33.4	12.9	5.4	0	50	344640	6814068
9	11551	H	3	25.2	10.8	4.3	2	46	344586	6814017
9	11560	A	2	32.4	18.3	3.2	0	64	344294	6814003
9	11560	B	2	28.7	14.3	3.7	0	48	344385	6814122
9	11560	C	1	43.7	39.5	1.9	0	46	344607	6814404
9	11560	D	2	22.4	16.6	2	0	46	344716	6814496
9	11560	E	1	29.3	39.9	1	0	38	344897	6814690
9	11560	F	0	12.6	18.4	0.6	0	41	345064	6814900
9	11560	G	0	13.6	24.8	0.5	0	43	345648	6815490
9	11560	H	0	9.3	17.3	0.4	0	44	345708	6815578
9	11560	J	1	13	12.6	1.1	5	43	345797	6815717
9	11560	K	1	20	17.6	1.5	6	38	345910	6815837
9	11560	M	1	16.7	12.9	1.7	0	99	346457	6816409
9	11560	N	2	18.1	8.9	3.2	0	76	346729	6816697
9	11560	O	2	18.4	7.9	3.9	0	66	346797	6816798
9	11560	P	1	22.9	20.6	1.5	0	48	347063	6817121
9	11560	Q	1	25	23.1	1.5	0	43	347130	6817191
9	11560	R	1	37.3	40.9	1.4	0	37	347303	6817413
9	11560	S	1	27.5	27.7	1.4	8	28	347387	6817513
9	11560	T	1	39.7	49.2	1.2	0	32	347591	6817748
9	11570	A	1	26.3	31.8	1.1	0	36	347594	6817948
9	11570	B	1	16	15.4	1.2	1	44	347467	6817826
9	11570	C	1	13.7	9.5	1.8	0	80	347211	6817578
9	11570	D	1	15.8	12.5	1.6	0	70	347032	6817332
9	11570	E	1	13.6	12.8	1.2	0	58	346715	6817030
9	11570	F	2	15.4	9.8	2.1	0	64	346492	6816847
9	11570	G	1	12.5	8.1	1.9	0	71	346403	6816760
9	11570	H	2	18.4	8.9	3.3	0	68	346312	6816595
9	11570	J	0	12.5	16.9	0.7	0	55	345885	6816076
9	11570	K	0	9.8	11.4	0.8	0	81	345636	6815824
9	11570	M	1	12.2	10.8	1.2	0	66	344947	6815085
9	11570	N	1	14.9	10.6	1.8	0	65	344778	6814843
9	11570	O	2	30.7	19.7	2.7	0	63	344312	6814367
9	11570	P	3	39.9	16.9	5.1	3	38	344203	6814204
9	11570	Q	3	35.4	12	6.6	4	40	344170	6814156
9	11580	A	2	27.4	13	3.9	0	71	344110	6814426
9	11580	B	2	30.3	21.1	2.4	0	48	344190	6814526

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
9	11580	C	0	2.7	8.7	0	3	39	344349	6814708
9	11580	D	0	2.7	8.7	0	3	39	344349	6814708
9	11580	E	1	19.4	20.4	1.2	0	64	344575	6814868
9	11580	F	1	17.3	14.3	1.6	0	76	344628	6814906
9	11580	G	1	17.3	14.3	1.6	0	76	344628	6814906
9	11580	H	1	12.4	10	1.4	0	77	344883	6815221
9	11580	J	0	7.5	18.9	0.2	0	57	345064	6815398
9	11581	A	2	12.5	5.5	3.3	0	132	346118	6816667
9	11581	B	1	8.3	5.3	1.7	0	130	346150	6816693
9	11581	C	2	23.4	15.2	2.4	0	60	346340	6816926
9	11581	D	2	24.1	18	2	0	54	346404	6817001
9	11581	E	1	30.8	34.7	1.3	0	42	346878	6817516
9	11581	F	2	40.9	31.4	2.3	4	31	347027	6817647
9	11581	G	3	167.2	109.3	4.5	0	47	347315	6817945
9	11590	A	3	126.8	50.5	7.8	2	26	347186	6818120
9	11590	B	2	21.7	12.2	2.9	17	31	347073	6817968
9	11590	C	1	18.9	19	1.2	2	39	346799	6817695
9	11590	D	1	9.9	9.1	1.1	0	63	346706	6817600
9	11590	E	1	9	7.5	1.2	0	75	346328	6817215
9	11590	F	0	6	13.9	0.2	0	82	345180	6815858
9	11590	G	0	7	13.2	0.3	0	64	344944	6815612
9	11590	H	1	13	8.9	1.8	0	82	344755	6815393
9	11590	J	2	15.9	8.9	2.6	0	69	344665	6815297
9	11590	K	1	22.3	18.2	1.7	0	55	344370	6814985
9	11590	M	1	16.8	17.1	1.2	0	44	344259	6814826
9	11590	N	2	13.9	7.6	2.5	0	59	344067	6814643
9	11590	O	3	21.7	9.1	4.2	0	73	343932	6814527
9	11590	P	2	8.9	4.1	2.8	0	82	343807	6814390
9	11600	A	2	32.7	21.8	2.6	0	41	343715	6814545
9	11600	B	2	32.7	21.8	2.6	0	41	343715	6814545
9	11600	C	2	43.4	35.9	2.2	1	32	343797	6814633
9	11600	D	1	37	51.4	1	0	39	343928	6814787
9	11600	E	3	186.8	117.5	4.9	0	37	344396	6815305
9	11600	F	3	176.6	92.5	6	0	32	344447	6815398
9	11600	G	3	121.6	68.8	4.9	0	37	344483	6815457
9	11600	H	0	8.3	18.1	0.3	0	51	344775	6815720
9	11600	J	1	18.3	15.8	1.5	0	53	345016	6815986
9	11600	K	0	10.1	10.5	0.9	8	43	345410	6816406
9	11600	M	2	12.1	6.2	2.7	0	90	345777	6816831
9	11600	N	2	27.3	16.1	2.9	0	92	345837	6816927
9	11600	O	1	34.9	34.9	1.6	0	38	346152	6817405
9	11600	P	0	8.3	14.4	0.4	0	62	346499	6817690
9	11600	Q	4	105.5	38.8	8.2	0	43	346796	6817967
9	11600	R	3	86.9	31.5	7.9	0	55	346861	6818056
9	11600	S	3	44.2	21.5	4.4	0	60	346918	6818131
9	11600	T	2	18.3	10.3	2.7	0	66	347054	6818299

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
9	11610	B	3	61.8	27.3	5.5	0	46	346934	6818435
9	11610	C	3	47.2	20.6	5.1	0	47	346872	6818366
9	11610	D	3	70.2	24.6	7.7	0	39	346635	6818082
9	11610	E	2	22.1	10.2	3.7	9	41	346535	6817970
9	11610	F	1	15.5	15.7	1.1	0	48	346335	6817788
9	11610	G	1	37.5	36	1.7	0	53	345967	6817383
9	11610	H	2	11	6.4	2.1	1	60	345655	6817023
9	11610	J	2	50.4	33.5	3	0	55	345255	6816549
9	11610	K	1	19.2	16.6	1.5	0	64	344920	6816191
9	11610	M	1	16.2	17.3	1.1	0	62	344821	6816094
9	11610	N	0	17.1	26.7	0.6	0	58	344730	6815993
9	11610	O	3	63.1	24.2	6.6	0	48	344330	6815519
9	11610	P	3	54.7	23.6	5.5	0	45	344218	6815413
9	11610	Q	1	19.6	19	1.3	0	54	343670	6814807
9	11610	R	1	34.4	31.7	1.7	0	51	343596	6814725
9	11610	S	2	46	28	3.3	0	51	343508	6814634
9	11620	A	3	56.6	30.6	4.1	0	56	344040	6815553
9	11620	B	2	27.9	18.9	2.4	0	60	344130	6815682
9	11620	C	2	24.8	18.3	2.1	0	57	344647	6816170
9	11620	D	1	15.4	16	1.1	0	53	344936	6816549
9	11620	E	3	22.8	8.4	5.1	0	58	345093	6816693
9	11620	F	1	11.1	7.7	1.7	0	95	345496	6817186
9	11620	G	1	23.5	19.1	1.8	0	60	345840	6817527
9	11620	H	1	20.5	15.4	1.9	0	50	345929	6817661
9	11620	J	2	21.2	14.4	2.2	0	70	346158	6817914
9	11620	K	2	82.1	63.3	2.9	0	30	346434	6818188
9	11620	M	2	100.5	75.9	3.2	0	36	346511	6818267
9	11620	N	2	51.1	46.9	2	0	43	346569	6818338
9	11620	O	3	57.6	30.5	4.2	0	41	346678	6818501
9	11620	P	2	53.5	32.4	3.5	0	39	346771	6818637
9	11630	A	3	51.4	20.3	6	0	39	346598	6818763
9	11630	B	3	62.5	28.9	5.2	0	43	346499	6818657
9	11630	C	3	62.3	31.7	4.6	0	45	346373	6818513
9	11630	D	2	8.9	3.2	3.9	7	64	346275	6818355
9	11630	E	1	10.2	8.7	1.2	0	65	345375	6817442
9	11630	F	2	28.6	19.2	2.5	0	42	345274	6817292
9	11630	G	3	18.9	5.1	7.4	0	58	345150	6817100
9	11630	H	1	13.2	8.9	1.9	0	91	344537	6816231
9	11630	J	2	37.8	30.9	2.1	0	44	343971	6815755
9	11630	K	3	69.9	24.7	7.6	0	49	343863	6815648
9	11630	M	3	77.6	29.9	7	0	42	343770	6815550
9	11630	N	2	41.1	32.5	2.2	0	45	343377	6815053
9	11630	O	2	41.2	26.9	2.9	0	51	343335	6815000
9	11641	A	1	35.3	31.1	1.8	0	40	343155	6815124
9	11641	B	1	29.2	24	1.9	5	34	343257	6815237

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
9	11641	C	3	124.6	62.9	5.7	0	33	343562	6815536
9	11641	D	3	108.9	60.5	4.9	0	44	343644	6815678
9	11641	E	1	29.5	30.3	1.4	0	48	343695	6815780
9	11641	F	1	37.2	35.8	1.7	0	43	344286	6816374
9	11641	G	2	30.8	23.9	2.1	0	67	345000	6817159
9	11641	H	1	34.6	34.2	1.6	0	38	345125	6817269
9	11641	J	2	33.6	22.4	2.6	0	44	345317	6817563
9	11641	K	1	30.3	25.4	1.9	0	41	345350	6817610
9	11641	M	2	26.2	17.5	2.4	0	45	346124	6818592
9	11641	N	3	34.1	13.8	5.1	0	60	346227	6818724
9	11641	O	3	50.3	21.6	5.4	0	51	346347	6818819
9	11641	P	3	67.3	27	6.4	0	40	346453	6818917
8	11650	A	2	40.1	28.7	2.5	0	38	342927	6815172
8	11650	B	2	45	32.8	2.6	0	51	343210	6815521
8	11650	C	2	69.4	49.2	3.1	0	47	343329	6815637
8	11650	D	0	11.6	16.9	0.6	0	41	343529	6815867
8	11650	E	0	10.1	18.7	0.4	0	38	343606	6815978
8	11650	F	0	6.3	10.1	0.4	0	52	343735	6816148
8	11650	G	0	7.7	14.1	0.3	0	53	344050	6816450
8	11650	H	1	12.1	8.3	1.8	0	73	344670	6817168
8	11650	J	2	20.3	11.7	2.7	0	61	344721	6817220
8	11650	K	3	36.4	17.8	4.1	0	54	344839	6817333
8	11650	M	2	39.5	29.1	2.4	0	47	345022	6817558
8	11650	N	2	38.9	25.1	2.9	0	45	345063	6817613
8	11650	O	2	24.9	16.6	2.4	2	42	345117	6817679
8	11650	P	4	60.5	18.9	8.6	0	51	346087	6818741
8	11650	Q	4	41.4	11.2	9.3	0	60	346122	6818793
8	11650	R	4	87	26.9	9.7	0	46	346222	6818934
8	11650	S	4	84.1	28.8	8.4	0	41	346273	6818995
8	11660	B	3	42.4	17.5	5.4	0	52	346167	6819134
8	11660	C	3	17.7	5.8	5.5	0	77	345888	6818777
8	11660	D	2	26.3	12.2	3.9	0	84	344873	6817693
8	11660	E	3	39.6	19.9	4	0	53	344756	6817569
8	11660	F	3	34.9	14.7	4.9	0	54	344650	6817450
8	11660	G	1	15	15.4	1.1	0	47	344429	6817170
8	11660	H	0	6.7	10	0.4	0	55	343616	6816227
8	11660	J	0	15	26.9	0.5	0	39	343150	6815775
8	11660	K	2	27.6	19.8	2.2	0	48	342939	6815544
8	11660	M	2	37.2	22.9	3	0	51	342765	6815284
8	11660	N	2	43.3	34.3	2.3	0	46	342673	6815176
8	11670	A	2	66.5	45.3	3.2	0	36	342379	6815173
8	11670	B	2	41.1	31.2	2.4	2	33	342523	6815376
8	11670	C	2	62.1	46	2.8	0	42	342744	6815606
8	11670	D	0	17.2	29	0.6	1	32	342972	6815844
8	11670	E	0	32.9	54.3	0.8	0	33	343122	6816013
8	11670	F	0	8.6	27	0.1	0	36	343287	6816225

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
8	11670	G	0	12.2	27.7	0.3	7	24	343327	6816295
8	11670	H	0	8.9	19.9	0.3	0	37	343385	6816392
8	11670	J	0	13.7	23.9	0.5	0	41	343769	6816797
8	11670	K	1	18.7	15.8	1.6	0	45	344153	6817209
8	11670	M	3	67.9	31.4	5.3	3	30	344463	6817511
8	11670	N	3	63.8	36.1	4	1	32	344500	6817558
8	11670	O	1	19.5	15.5	1.7	9	36	344672	6817757
8	11670	P	2	32.7	24.2	2.3	0	45	344784	6817875
8	11670	Q	2	28.3	22.6	2	4	36	344833	6817922
8	11670	R	3	46.5	19.3	5.5	0	45	345816	6819011
8	11670	S	3	33.6	14.4	4.7	0	49	345890	6819095
8	11680	A	2	31.7	15.5	3.9	0	43	345820	6819305
8	11680	B	3	31.5	15.2	4	0	57	345605	6819085
8	11680	C	2	28.8	14.3	3.7	0	48	345567	6819059
8	11680	D	0	12	36.8	0.2	0	43	343959	6817228
8	11680	E	0	18.4	32.9	0.5	0	50	343703	6816930
8	11680	F	2	16.8	11.3	2	0	70	342547	6815701
8	11680	G	1	9.6	8.5	1.1	2	53	342356	6815491
8	11680	H	0	8.5	10.4	0.7	0	51	342294	6815422
8	11680	J	2	52.5	30.8	3.6	0	57	342019	6815130
8	11690	A	2	42.3	25.9	3.2	0	49	341937	6815214
8	11690	B	3	32.4	15.2	4.2	0	47	341992	6815269
8	11690	C	2	11.9	7.5	2	11	47	342161	6815431
8	11690	D	0	14.2	16	0.9	5	39	342351	6815706
8	11690	E	1	14.9	14.1	1.2	1	46	342380	6815744
8	11690	F	1	14.2	13.4	1.2	0	57	342575	6816013
8	11690	G	1	22.1	25.7	1.1	0	54	343524	6817066
8	11690	H	0	11.8	15.8	0.7	0	43	343907	6817440
8	11690	J	0	10.7	14	0.7	14	31	344085	6817698
8	11690	K	3	29.5	12.4	4.7	0	70	344486	6818195
8	11690	M	2	19.7	10.3	3	0	79	344624	6818308
8	11690	N	3	12.9	4.4	4.7	0	94	345322	6819051
8	11690	O	3	26.9	9	6.1	0	82	345436	6819162
8	11690	P	3	32.3	15.6	4	0	67	345539	6819319
8	11690	Q	2	30.3	16.1	3.4	0	60	345585	6819416
8	11690	R	2	41	34.4	2.1	0	46	345741	6819629
8	11700	A	2	58.3	45.9	2.5	0	42	345518	6819609
8	11700	B	2	50.3	32.2	3.2	0	40	345439	6819515
8	11700	C	3	46.7	17.5	6.3	0	45	345374	6819430
8	11700	D	5	17.7	2.2	20.7	0	80	345227	6819258
8	11700	E	2	15.4	9.1	2.4	17	37	344690	6818647
8	11700	F	0	12.5	15.1	0.8	0	57	343514	6817321
8	11700	G	0	10.1	11.3	0.8	0	70	343411	6817208
8	11700	H	0	14	21.6	0.6	8	29	342058	6815747
12	11710	A	2	37.5	23.8	2.9	0	40	341445	6815265

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
12	11710	B	0	7.3	9.9	0.5	0	86	343097	6817172
12	11710	C	1	8.5	8.1	1	0	62	343379	6817454
12	11710	D	0	8.3	19.6	0.2	2	32	343593	6817727
12	11710	E	2	30.3	18.3	2.9	0	52	344291	6818578
12	11710	F	2	19.6	11.1	2.7	0	71	344365	6818662
12	11710	G	3	17.1	5.8	5.2	0	94	345179	6819441
12	11710	H	3	17.2	5.3	6	0	95	345211	6819505
12	11710	J	1	9.6	9	1	0	95	345423	6819771
12	11720	A	1	38.4	53.1	1	0	31	345346	6819954
12	11720	B	3	84.1	40.1	5.5	1	30	345186	6819750
12	11720	C	3	58.6	23.6	6.1	0	36	345089	6819653
12	11720	D	2	36.8	19.3	3.7	12	28	345012	6819598
12	11720	E	2	41.8	33.1	2.3	6	29	344941	6819481
12	11720	F	3	100.2	50.4	5.4	0	37	344865	6819407
12	11720	G	3	286	151.4	6.8	0	26	344745	6819286
12	11720	H	3	66.2	26	6.5	0	45	344571	6819057
12	11720	J	1	7.5	4.7	1.7	0	83	344070	6818578
12	11720	K	1	14.7	11.1	1.7	0	86	343153	6817576
12	11720	M	1	12.5	8.3	1.9	0	69	342845	6817179
12	11720	N	1	12.2	8.3	1.8	0	67	342796	6817138
12	11720	O	1	9.5	7.2	1.4	3	57	342713	6817049
12	11720	P	0	22.5	32.4	0.8	0	41	342550	6816890
12	11720	Q	1	11.6	7.7	1.8	0	107	341529	6815794
12	11720	R	2	20.3	14.8	2	0	62	341412	6815672
12	11720	S	2	41.2	29.9	2.5	0	51	341298	6815452
24	11730	A	4	60.7	19.8	8.1	0	41	341129	6815625
24	11730	B	1	44.6	48.3	1.5	0	32	341387	6815806
24	11730	C	1	24.8	27.3	1.2	15	22	341522	6815980
24	11730	D	0	17.6	21.8	0.9	23	16	341559	6816014
24	11730	E	0	16.6	23.6	0.7	26	10	341584	6816035
24	11730	F	0	34.8	97.5	0.4	13	5	341665	6816140
24	11730	G	0	26.8	73.9	0.3	18	3	341681	6816161
24	11730	H	0	31.3	119.9	0.2	10	6	341691	6816246
24	11730	J	0	19.9	44.1	0.4	9	17	341718	6816314
24	11730	K	0	22.8	73.8	0.2	0	21	341796	6816317
24	11730	M	1	10.8	10.5	1	0	56	341869	6816343
24	11730	N	1	12.7	8.5	1.9	0	74	341951	6816446
24	11730	O	2	38.6	31.2	2.1	0	48	342094	6816640
24	11732	A	1	7.8	4.8	1.7	31	36	342524	6817072
24	11732	B	1	9	7.1	1.3	19	41	342581	6817133
24	11732	C	2	12.5	5.1	3.7	0	87	342696	6817247
24	11732	D	1	10.7	9.8	1.1	0	67	342739	6817296
24	11732	E	2	81	60.6	3	0	29	343062	6817684
24	11732	F	2	21	12.8	2.5	0	67	343966	6818728
24	11732	G	3	28.2	12.6	4.2	0	68	344092	6818811
24	11732	H	3	39.5	19.7	4.1	0	68	344174	6818901

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
24	11733	A	3	210.2	95.2	7.6	0	27	344519	6819409
24	11733	B	3	107.2	45.3	6.9	0	41	344686	6819541
24	11733	C	2	73.9	74.4	2	0	26	344837	6819743
24	11733	D	1	50.7	56.5	1.5	11	17	344897	6819784
24	11733	E	0	42.1	65.8	0.9	5	19	345136	6820054
24	11733	F	1	44.1	52.6	1.3	14	14	345196	6820129
24	11733	G	1	29.6	28	1.6	21	16	345223	6820140
24	11733	H	1	21.1	19.2	1.5	19	22	345269	6820169
24	11740	A magnetite	0	-11.2	6.1	0	0	19	345526	6820792
24	11740	B magnetite	0	-0.2	17	0	0	22	345185	6820395
24	11740	C	1	22.5	19.2	1.6	0	52	345064	6820255
24	11740	D	2	31.3	19.7	2.8	0	64	344796	6819924
24	11740	E	3	54	26.2	4.7	0	59	344659	6819755
24	11740	F	4	312.3	148.1	8.1	0	35	344507	6819577
24	11740	G	4	374.1	169.2	9	0	23	344457	6819536
24	11740	H	4	142.3	41	12.2	0	50	344319	6819361
24	11740	J	2	95.2	69.1	3.3	0	42	344260	6819270
24	11740	K	2	45.1	24.5	3.8	7	31	344125	6819121
24	11740	M	3	37.2	13.1	6.3	1	42	344070	6819076
24	11740	N	4	40.4	11.2	8.9	0	51	343873	6818892
24	11740	O	2	48	31.8	3	17	18	343751	6818773
24	11740	P	1	37.6	33.6	1.9	21	13	343719	6818742
24	11740	Q	0	11.9	24.5	0.4	4	29	343301	6818248
24	11740	R	0	12.4	47.7	0.1	0	23	343197	6818164
24	11740	S	2	54.8	33.9	3.4	0	53	342809	6817750
24	11740	T	1	29.3	30.6	1.4	4	31	341962	6816838
24	11740	U	2	57	49.6	2.2	2	28	341881	6816747
24	11740	V	1	50.9	56.6	1.5	3	25	341690	6816558
24	11740	W	0	29.9	41.8	0.9	8	22	341629	6816489
24	11740	X	1	44.3	59.9	1.1	7	19	341548	6816379
24	11740	Y	1	116.6	219	1.1	0	25	341321	6816151
24	11740	Z	1	121.2	206.1	1.2	0	21	341277	6816100
24	11740	AA	1	69.2	71.8	1.9	0	30	341207	6816042
24	11740	AB	4	415.7	161.7	11.2	0	27	341012	6815816
24	11740	AC	4	266.7	95	11.1	0	28	340965	6815752
24	11750	B	1	26.9	32.9	1.1	3	30	340844	6815872
24	11750	C	1	70.3	75.8	1.8	0	31	340911	6815958
24	11750	D	1	66.3	81.8	1.5	2	22	341003	6816062
24	11750	E	1	78.7	101.2	1.5	0	26	341113	6816164
24	11750	F	1	60.3	73	1.5	2	23	341195	6816268
24	11750	G	0	10.9	36.8	0.1	7	18	341383	6816448
24	11750	H	0	9.8	14	0.6	0	77	341651	6816760
24	11750	J	1	11.5	10.7	1.1	0	72	341684	6816798
24	11750	K	0	9.5	49.9	0.1	0	22	342342	6817566
24	11750	M	0	8.1	30.9	0.1	0	41	342372	6817619
24	11750	N	2	78.2	76	2.1	0	26	342674	6817905

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
24	11750	O	0	8.4	15.7	0.3	9	31	342872	6818148
24	11750	P	0	10.4	20.1	0.4	8	28	342935	6818206
24	11750	Q	1	8.6	5.3	1.8	1	64	343187	6818505
24	11750	R	3	140.1	56.8	7.8	0	41	343467	6818807
24	11750	S	3	79.9	33.7	6.3	2	30	343629	6818966
24	11750	T	4	241.3	80	11.8	0	32	344034	6819385
24	11750	U	3	155.8	71.6	6.9	0	37	344211	6819580
24	11750	V	3	69.4	37.7	4.4	6	26	344291	6819682
24	11750	W	3	45.5	22.3	4.4	0	55	344537	6819945
24	11750	X	2	46.8	36.8	2.4	0	45	344630	6820064
24	11750	Y magnetite	0	-16	15.5	0	0	16	345048	6820556
13	11760	A	1	19.6	15.8	1.7	0	53	344451	6820167
13	11760	B	2	28.2	16.4	3	0	56	344383	6820082
13	11760	C	2	41.6	24.4	3.3	0	59	344280	6819977
13	11760	D	4	212.2	71.9	11.1	0	34	343950	6819602
13	11761	A	3	11.5	3.1	6.3	0	83	343319	6818951
13	11761	B	0	13.2	15.1	0.9	0	81	341790	6817219
13	11761	C	2	27	19.7	2.2	0	55	341737	6817112
13	11761	D	2	21.3	10.9	3.2	0	63	341530	6816896
13	11761	E	1	8	7.5	1	12	46	341401	6816783
13	11761	F	1	28.4	32	1.2	0	46	341047	6816390
13	11761	G	1	32.1	40.4	1.1	0	44	341005	6816328
13	11761	H	0	22.6	37.3	0.7	0	41	340947	6816242
13	11761	J	2	41.2	35.1	2	0	37	340811	6816089
13	11770	A	1	19.3	21.2	1.1	1	38	340500	6816118
13	11770	B	0	14.6	20.2	0.7	0	46	340577	6816190
13	11770	C	1	26.2	32.6	1	0	35	340662	6816272
13	11770	D	0	17.1	21.3	0.9	0	50	340906	6816523
13	11770	E	3	44.2	21.9	4.3	0	48	341139	6816775
13	11770	F	2	32.3	16.6	3.7	0	52	341193	6816845
13	11770	G	2	22.9	15.2	2.3	0	69	341414	6817068
13	11770	H	1	15.4	15.4	1.1	0	60	341597	6817273
13	11770	J	1	11.3	8.3	1.6	0	73	342528	6818381
13	11770	K	2	21.9	11.2	3.3	0	76	343145	6819132
13	11770	M	2	41	29.8	2.5	0	53	343357	6819331
13	11770	N	3	67.7	25.6	6.9	0	69	343428	6819412
13	11770	O	2	19.6	10.9	2.8	0	60	343571	6819635
13	11770	P	3	39.1	15	5.7	0	54	343986	6820075
13	11770	Q	2	33.3	20.9	2.8	0	49	344060	6820164
13	11780	A	1	11.8	12.1	1	5	43	344359	6820802
13	11780	B	2	14.4	8.6	2.3	0	73	344150	6820442
13	11780	C	2	29.2	16.7	3.1	0	68	344090	6820377
13	11780	D	2	57.5	38.3	3.1	0	46	343948	6820217
13	11780	E	3	79.2	43.9	4.4	0	40	343884	6820125

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Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
13	11780	F	3	38.1	17	4.7	0	52	343810	6820031
13	11780	G	4	38.6	11.5	8	0	54	343527	6819788
13	11780	H	4	96.4	34.8	8.1	0	49	343362	6819613
13	11780	J	3	102.5	38.7	7.8	0	41	343326	6819582
13	11780	K	3	27.7	11.9	4.4	2	44	342992	6819214
13	11780	M	2	10.1	5.2	2.5	4	60	342804	6818978
13	11780	N	2	69.2	52.2	2.8	0	32	341226	6817232
13	11780	O	1	65.1	68.4	1.8	0	28	341071	6817030
13	11780	P	0	16.1	20.4	0.8	0	51	340548	6816456
13	11792	A	4	43.5	13.3	8	0	64	343081	6819634
13	11792	B	3	28.9	8.2	7.8	0	78	343465	6820090
13	11792	C	3	97.6	40.5	6.8	0	44	343706	6820337
13	11792	D	3	88.4	33.7	7.4	0	37	343777	6820396
12	11793	A	3	59	24.5	5.9	0	40	340152	6816298
12	11793	B	0	12.2	14.6	0.8	0	45	340256	6816440
12	11793	C	0	9.5	17.4	0.4	0	45	340407	6816592
12	11793	D	0	7.4	14.8	0.3	0	43	340563	6816722
12	11793	E	1	11.1	8.1	1.6	12	45	340715	6816851
12	11793	F	2	25.6	12.6	3.6	0	50	340947	6817120
12	11793	G	0	29.4	44.3	0.8	3	25	341107	6817293
12	11793	H	1	9.1	6.9	1.4	0	63	341371	6817639
6	11800	A	2	12.6	6.7	2.6	2	56	345144	6822231
6	11800	B magnetite	0	-8.7	16.5	0	0	19	344733	6821685
6	11800	C magnetite	0	-10.3	4.3	0	0	18	344611	6821504
6	11800	D magnetite	0	-38.2	5.2	0	0	12	344497	6821326
6	11800	E	3	12.8	4.9	4	0	92	344089	6820890
6	11800	F	3	9.1	2.5	5.7	0	112	343865	6820666
6	11800	G	4	26	6.4	9.2	0	79	343607	6820450
6	11800	H	4	29.7	8	8.5	0	77	343328	6820153
6	11800	J	3	21.4	7	5.9	0	53	342889	6819701
6	11800	K	0	7.9	8.9	0.7	0	93	341297	6817778
6	11800	M	1	14.5	11.8	1.5	0	58	340802	6817281
6	11800	N	1	9.9	9.8	1	0	61	340580	6817022
6	11810	A	1	19.4	22.3	1	3	35	340305	6817047
6	11810	B	2	235.1	189.4	3.8	0	24	340520	6817328
6	11810	C	1	42.8	54.6	1.2	1	27	340607	6817433
6	11810	D	1	6.9	4.7	1.4	29	39	340807	6817670
6	11810	E	2	30.8	15.5	3.7	1	43	341154	6817999
6	11810	F	3	23.1	7.7	5.9	14	37	341217	6818071
6	11810	G	2	32.2	22.4	2.5	0	42	341430	6818330
6	11810	H	2	34.4	19.5	3.3	0	42	341514	6818388
6	11810	J	2	14.8	9	2.2	15	39	341741	6818656
6	11810	K	3	31.1	9.8	7	0	55	342315	6819321
6	11810	M	4	40	9.4	11.1	0	52	342387	6819410
6	11810	N	4	43.1	11.4	9.7	0	67	342536	6819567

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
6	11810	O	4	164.4	50.2	11.8	0	47	342819	6819796
6	11810	P	4	128.5	37.3	11.7	0	51	342888	6819858
6	11810	Q	5	101	22.8	15.2	0	52	342973	6819971
6	11810	R	4	66.8	15.9	12.6	0	60	343113	6820169
6	11810	S	3	60.1	22.9	6.6	0	43	343377	6820446
6	11810	T	5	106.5	22.3	17	0	36	343443	6820518
6	11810	U	3	71.2	31	5.8	0	38	343530	6820640
6	11810	V	2	30.9	21.5	2.4	0	44	343753	6820909
6	11810	W	2	18.4	11.3	2.4	0	50	343887	6821066
6	11810	X	1	10.7	8.8	1.3	6	50	343978	6821158
6	11810	Y	2	16.4	9.1	2.6	11	42	344724	6821921
6	11810	Z	2	41.3	29.2	2.6	0	48	344863	6822087
6	11810	AA	2	44.3	24.4	3.7	0	45	344939	6822214
6	11810	AB	2	14.4	6.4	3.4	6	53	344991	6822308
24	11821	A	3	137.5	62	6.8	0	35	343175	6820628
24	11821	B	3	251	129.1	6.8	0	23	343335	6820777
24	11821	C	2	74.1	48.9	3.5	10	19	343506	6820968
24	11821	D	1	60.7	68.1	1.6	0	34	343630	6821110
24	11821	E	1	52.5	49.8	1.9	0	39	343714	6821203
24	11821	F	1	41.4	40.5	1.7	0	40	343766	6821265
24	11821	G	0	11	16.1	0.6	4	37	344127	6821633
24	11821	H	1	22.6	18.6	1.7	0	53	344384	6821927
24	11821	J	2	22.4	13.1	2.7	2	45	344479	6822013
24	11822	A	2	91.8	77.3	2.7	0	31	340184	6817183
24	11822	B	5	359.5	91.6	18.4	0	30	340376	6817439
24	11822	C	3	104.7	57.4	4.9	0	36	340449	6817555
24	11822	D	1	36.5	50.7	1	0	32	340935	6818105
24	11822	E	2	53.7	50.7	2	0	35	341004	6818189
24	11822	F	1	27.5	28	1.4	3	33	341187	6818351
24	11822	G	1	20.9	19.7	1.4	0	41	341273	6818433
24	11822	H	1	14.8	11.1	1.7	0	100	342508	6819897
5	11830	A	1	9.6	7.5	1.3	1	58	339595	6816848
5	11830	B	2	24.7	12.2	3.5	2	46	339928	6817210
5	11830	C	4	38.5	10.7	8.8	0	61	340028	6817339
5	11830	D	3	24.6	10.2	4.5	0	74	340111	6817436
5	11830	E	3	28.8	9.4	6.5	0	70	340340	6817690
5	11830	F	1	19.1	17.3	1.4	0	56	340820	6818289
5	11830	G	1	21.6	16.5	1.9	0	51	340891	6818376
5	11830	H	2	13.6	8.8	2	2	52	340968	6818472
5	11830	J	2	12.5	6.8	2.5	0	63	341129	6818680
5	11830	K	2	11.3	7	2	15	44	341377	6818917
5	11830	M	4	55.2	14.2	10.8	0	57	343023	6820787
5	11830	N	3	47.5	23.7	4.3	0	46	343243	6821064
5	11830	O	2	56.5	41.4	2.8	0	51	343603	6821373
5	11830	P	2	41.1	30.3	2.5	0	41	343848	6821653
5	11830	Q	2	50.9	41.5	2.3	0	41	343948	6821760

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
5	11830	R	4	78.4	25.9	8.6	0	35	344150	6821979
5	11830	S	4	61.7	20.1	8.2	0	39	344189	6822029
5	11830	T	3	41.2	12.7	7.8	0	44	344251	6822109
5	11830	U	3	49.2	16.7	7.2	0	41	344329	6822207
5	11830	V	2	25.2	15.5	2.7	0	78	344461	6822366
5	11830	W	3	32.5	13	5.1	0	78	344533	6822448
4	11842	A	2	18.3	12.9	2	0	72	339791	6817293
4	11842	B	4	57.5	14.6	11.1	0	64	339942	6817444
4	11842	C	3	37.4	14.8	5.4	0	67	340192	6817845
4	11842	D	1	18.1	16.2	1.4	0	52	340660	6818371
4	11842	E	1	17.5	12.8	1.9	0	52	340971	6818729
4	11842	F	0	10.3	15.4	0.5	1	41	341219	6819022
4	11842	G	1	10.8	9.2	1.2	21	33	341584	6819418
4	11842	H	4	30.5	7.9	9	0	81	342052	6819812
4	11842	J	3	31.8	9.7	7.3	0	71	342146	6819949
4	11842	K	2	15.7	7	3.5	0	86	342389	6820264
4	11842	M	3	27.4	10	5.5	0	74	342480	6820380
4	11842	N	2	28.8	14.2	3.7	0	65	342553	6820471
4	11842	O	3	40.3	19.6	4.2	0	58	342798	6820722
4	11842	P	3	52	23.8	5	0	52	342871	6820783
4	11842	Q	3	52.8	26.7	4.4	0	43	343159	6821083
4	11842	R	1	75.2	133	1	0	34	343449	6821485
4	11842	S	1	28.4	35.3	1.1	0	35	343546	6821587
4	11842	T	2	53.4	44.6	2.3	12	19	343648	6821701
4	11842	U	2	59.6	45.7	2.7	8	23	343670	6821731
4	11842	V	2	74	55.3	2.9	0	28	343710	6821772
4	11842	W	2	79	61.2	2.9	0	33	343755	6821833
4	11842	X	3	99.8	59.9	4.3	9	19	343814	6821916
4	11842	Y	1	29.5	24.2	1.9	14	25	343844	6821981
4	11842	Z	1	33.4	45.9	1	0	30	343892	6822076
4	11842	AA	2	79.2	68.3	2.5	3	24	344005	6822251
3	11850	A	3	22.4	9.5	4.2	0	67	339629	6817451
3	11850	B	3	26.6	8.5	6.5	0	68	340044	6817901
3	11850	C	3	23.8	10	4.4	0	77	340107	6817989
3	11850	D	1	23.5	18.6	1.8	0	54	340566	6818562
3	11850	E	1	24.3	20.2	1.8	0	50	340630	6818628
3	11850	F	2	31.5	17.5	3.3	0	46	340775	6818771
3	11850	G	0	19.4	24	0.9	7	31	341191	6819267
3	11850	H	3	121	69.7	4.8	0	39	341572	6819710
3	11850	J	3	44	22.1	4.2	0	50	341779	6819907
3	11850	K	1	14.4	11.8	1.5	0	63	342421	6820619
3	11850	M	2	49.7	39.1	2.4	0	42	342649	6820914
3	11850	N	3	48.2	22.1	4.8	0	45	342821	6821125
3	11850	O	3	32	10.3	6.8	10	36	342943	6821241
3	11850	P	2	11.7	5.2	3.2	39	24	343149	6821444
3	11850	Q	1	20.3	15.1	1.9	0	56	343313	6821665
3	11850	R	1	60.9	100.5	1	2	19	343411	6821796

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
3	11850	S	1	47	56.8	1.3	1	26	343441	6821841
3	11850	T	1	29.3	34.4	1.2	6	27	343513	6821918
3	11850	U	0	19	42	0.4	6	21	343556	6821948
3	11850	V	2	95.2	90.2	2.4	6	18	343687	6822033
3	11850	W	0	61.9	222.4	0.3	0	14	343816	6822143
3	11850	X	1	89	121.5	1.4	13	7	343878	6822245
3	11850	Y	1	67.1	70.5	1.8	14	11	343890	6822267
3	11850	Z	1	37.6	50.6	1.1	0	32	343912	6822311
3	11850	AA	2	11.3	6.9	2	0	70	343964	6822432
3	11850	AB	2	16.7	9.3	2.6	0	99	344042	6822526
3	11850	AC	1	13.5	9.1	1.9	0	96	344176	6822636
3	11860	A	1	28.4	24.3	1.8	0	41	344055	6822789
3	11860	B	1	26.4	23.8	1.6	0	41	343954	6822699
3	11860	C	1	10.1	7.7	1.4	24	34	343885	6822589
3	11860	D	2	33.7	25.7	2.2	0	39	343853	6822522
3	11860	E	2	50.3	33.9	3	0	42	343563	6822223
3	11860	F	2	64.1	49.3	2.7	0	40	343504	6822160
3	11860	G	1	41.4	44.5	1.5	0	50	343178	6821814
3	11860	H	1	39.6	39.8	1.6	0	37	343100	6821705
3	11860	J	3	14.9	5.9	4.1	0	61	342938	6821472
3	11860	K	3	32.6	11.4	6.1	0	63	342752	6821335
3	11860	M	2	23.8	16	2.3	0	63	342610	6821131
3	11860	N	2	28.1	19	2.4	0	54	342512	6821002
3	11860	O	1	27.6	22.4	1.9	0	48	342440	6820929
3	11860	P	3	205.1	92.5	7.6	0	35	342274	6820787
3	11860	Q	3	139.2	86.8	4.5	0	33	342207	6820730
3	11860	R	3	59.3	32.4	4.1	0	36	342108	6820632
3	11860	S	2	53	42.7	2.4	3	29	341614	6819992
3	11860	T	3	68.1	38	4.2	9	23	341557	6819920
3	11860	U	3	47.4	21.9	4.8	0	63	341481	6819840
3	11860	V	0	27.3	42.3	0.8	0	51	341041	6819410
3	11860	W	2	38.2	27.8	2.4	0	39	340524	6818823
3	11860	X	2	36.1	25.6	2.5	0	41	340439	6818728
3	11860	Y	3	46.6	15.2	7.5	0	47	339979	6818129
3	11860	Z	3	31.7	11.8	5.6	0	45	339919	6818065
3	11860	AA	0	1.7	12.2	0	3	25	339615	6817751
3	11860	AB	3	78	33	6.2	0	38	339445	6817572
3	11860	AC	3	126.1	53.8	7.1	0	40	339366	6817476
2	11871	A	2	39.6	32.9	2.1	0	42	339369	6817820
2	11871	B	1	64.9	83.9	1.4	0	27	339391	6817863
2	11871	C	1	43.7	62.2	1.1	0	27	339499	6817963
2	11871	D	3	62.8	24.4	6.5	0	43	339764	6818309
2	11871	E	3	55.9	22.2	6.1	0	51	339801	6818349
2	11871	F	3	64	32.9	4.6	0	48	340217	6818816
2	11871	G	2	30.9	17.6	3.2	0	56	340336	6818958
2	11871	H	0	15.5	17.8	0.9	0	50	340765	6819412
2	11871	J	1	13.3	8.9	1.9	7	48	340951	6819611

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
2	11871	K	2	89	58.8	3.7	0	47	341368	6820068
2	11871	M	0	12.5	14.3	0.9	0	59	341892	6820661
2	11871	N	1	22.5	17.7	1.8	0	49	341995	6820775
2	11871	O	1	20.5	17.1	1.6	0	44	342137	6820926
2	11871	P	2	31.3	20	2.7	0	46	342340	6821128
2	11871	Q	3	32.5	13	5.1	9	35	342545	6821330
2	11871	R	3	49.4	20.1	5.7	0	43	342607	6821396
2	11871	S	3	126.9	80.3	4.3	0	36	342736	6821579
2	11871	T	2	58.3	38.6	3.2	0	37	342807	6821666
2	11871	U	1	31.9	28.7	1.7	0	45	342914	6821770
2	11871	V	0	27.5	46.2	0.7	3	25	343013	6821881
2	11871	W	1	28.4	23.7	1.8	0	43	343099	6821994
2	11871	X	1	35.4	45.5	1.1	7	22	343238	6822167
2	11871	Y	3	75.7	30.4	6.6	0	42	343397	6822335
2	11871	Z	3	40.9	17.3	5.1	0	46	343534	6822478
2	11871	AA	1	19.3	14	1.9	0	90	343745	6822777
2	11871	AB	2	54.5	33.6	3.4	0	56	343860	6822913
2	11880	A	3	28.5	10.1	5.8	0	63	343996	6823247
2	11880	B	4	53.9	16.2	8.7	0	53	343924	6823183
2	11880	C	3	52.4	20	6.3	0	40	343814	6823094
2	11880	D	2	24.4	16.3	2.4	1	43	343614	6822891
2	11880	E	2	18.7	9.3	3.2	4	48	343492	6822725
2	11880	F	4	10	2.2	8	14	57	343439	6822673
2	11880	G	3	62.5	33.4	4.3	0	42	343192	6822429
2	11880	H	2	27.8	19.3	2.3	0	66	343045	6822272
2	11880	J	2	17.7	11.5	2.2	0	70	342600	6821789
2	11880	K	3	15.6	4	7.4	0	92	342329	6821536
2	11880	M	4	17.5	4.2	8.4	0	95	342278	6821482
2	11880	N	1	69.7	88.9	1.4	0	25	341329	6820402
2	11880	O	1	70.3	74.9	1.8	2	24	341264	6820330
2	11880	P	3	155.4	102.8	4.3	0	26	341124	6820152
2	11880	Q	2	38.4	23.1	3.2	0	44	340844	6819778
2	11880	R	1	29.4	27.9	1.6	0	41	340784	6819693
2	11880	S	1	28.2	35	1.1	0	44	340661	6819541
2	11880	T	1	21.4	19.6	1.5	0	45	340308	6819206
2	11880	U	2	32.2	24.1	2.2	0	46	340204	6819095
2	11880	V	3	64	30.7	5	0	39	340096	6818936
2	11880	W	3	66.5	30.8	5.3	0	39	340033	6818847
2	11880	X	3	47.5	24.9	4	0	40	339993	6818793
2	11880	Y	3	50.1	17	7.3	4	34	339673	6818482
2	11880	Z	1	17.5	16.2	1.3	23	21	339378	6818135
2	11880	AA	2	25.1	13.7	3.1	4	42	339336	6818096
2	11890	A	2	25.6	16.1	2.6	0	50	339397	6818519
2	11890	B	3	32.9	12.7	5.4	0	61	339443	6818619
2	11890	C	2	33.6	20.3	3	0	67	339756	6818910
2	11890	D	3	36	17.8	4	0	65	339910	6819034
2	11890	E	1	37.2	32.4	1.9	0	48	340074	6819214

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
2	11890	F	1	36.1	32.9	1.8	0	45	340142	6819299
2	11890	G	0	16.5	22.6	0.8	0	41	340270	6819443
2	11890	H	1	25.8	25.4	1.4	0	41	340544	6819684
2	11890	J	2	52.5	35.1	3	0	37	340705	6819844
2	11890	K	2	70.8	43.2	3.8	0	36	340779	6819919
2	11890	M	3	56.9	29	4.4	0	42	341079	6820187
2	11890	N	2	32.5	25.1	2.1	0	40	341287	6820407
2	11890	O	3	95.6	35.6	7.8	0	39	342242	6821595
2	11890	P	3	56.2	23.2	5.8	8	28	342350	6821722
2	11890	Q	3	66.6	27.8	6	0	37	342406	6821786
2	11890	R	2	47.9	39.1	2.3	0	33	342491	6821854
2	11890	S	1	50.1	48.9	1.8	13	17	342605	6821940
2	11890	T	2	20.7	14.3	2.1	3	43	342785	6822156
2	11890	U	2	22	14	2.4	0	56	342835	6822305
2	11890	V	2	29.7	17.7	2.9	0	56	342870	6822391
2	11890	W	2	35.4	19.5	3.5	0	50	343031	6822604
2	11890	X	4	54	12	13	0	66	343687	6823241
2	11890	Y	3	25.1	9.7	5	0	68	343831	6823391
2	11900	A	2	51.8	31.7	3.4	4	31	343632	6823518
2	11900	B	2	50.6	44.6	2.1	3	28	343598	6823477
2	11900	C	3	51.4	17.9	7.1	0	41	343480	6823349
2	11900	D	1	16.6	12.3	1.8	0	50	343281	6823092
2	11900	E	2	26.4	18.7	2.2	0	72	342946	6822702
2	11900	F	2	27.7	16.4	2.9	0	67	342836	6822543
2	11900	G	1	13.6	9.1	1.9	0	64	342627	6822278
2	11900	H	2	12.5	6.9	2.4	21	37	342538	6822206
2	11900	J	2	52.3	34.3	3.1	0	55	342146	6821864
2	11900	K	3	56.3	28.1	4.6	0	49	342058	6821727
2	11900	M	3	73.1	35.9	5	0	34	340985	6820487
2	11900	N	4	58.3	18.8	8.1	0	43	340781	6820271
2	11900	O	3	116.9	73.9	4.2	0	34	340617	6820087
2	11900	P	1	72.7	82.1	1.7	0	25	340531	6819991
2	11900	Q	2	30	23.4	2.1	1	38	340416	6819859
2	11900	R	1	24.9	28.8	1.1	0	38	340107	6819563
2	11900	S	2	38.5	29	2.3	0	45	339934	6819389
2	11900	T	2	44.8	38.5	2.1	0	35	339764	6819195
2	11900	U	3	82.2	34.5	6.4	0	35	339688	6819085
2	11900	V	2	51	32.1	3.3	0	36	339616	6818978
2	11900	W	0	13.1	17.1	0.7	0	43	339484	6818815
2	11900	X	3	85.5	37.5	6.1	0	31	339356	6818681
2	11900	Y	3	46.2	21.9	4.6	0	39	339268	6818608
2	11910	A	4	44.7	13	8.6	0	59	339183	6818777
2	11910	B	2	63.5	47	2.8	0	43	339347	6819011
2	11910	C	3	61.9	32.8	4.3	0	43	339475	6819122
2	11910	D	2	19.5	10.8	2.8	0	65	339703	6819309
2	11910	E	1	15.3	15	1.2	0	54	339839	6819480
2	11910	F	2	21.6	15.9	2	0	54	339912	6819587

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
2	11910	G	1	28.4	26	1.6	0	38	340015	6819725
2	11910	H	1	26.3	30.4	1.2	1	34	340186	6819904
2	11910	J	1	34.5	29.3	1.9	0	44	340380	6820080
2	11910	K	2	74.8	46.2	3.8	0	38	340510	6820195
2	11910	M	3	69.3	25.4	7.3	0	38	340668	6820358
2	11910	N	3	69	24	7.8	0	42	340804	6820502
2	11910	O	2	38.5	20.4	3.7	0	44	340937	6820637
2	11910	P	0	9.9	12.9	0.7	14	32	341713	6821553
2	11910	Q	3	56.2	24.1	5.5	3	33	341917	6821847
2	11910	R	3	14.4	5.4	4.3	0	60	342106	6822072
2	11910	S	2	78.9	50.9	3.6	0	42	343152	6823195
2	11910	T	2	25.5	14.3	3	0	73	343330	6823394
2	11910	U	3	26.5	7.3	7.9	0	81	343389	6823502
2	11910	V	3	19.3	7.6	4.4	0	79	343469	6823621
2	11920	A	3	76.4	42.2	4.4	0	39	342962	6823285
2	11920	B	0	17.4	29	0.6	0	32	342821	6823143
2	11920	C	0	30.3	106.4	0.3	0	29	342668	6822947
2	11920	D	1	26.6	34.9	1	0	41	342577	6822852
2	11920	E	2	22.8	16.2	2.1	0	63	342456	6822758
2	11920	F	0	11.1	14.7	0.7	0	67	342259	6822508
2	11920	G	2	10.1	6.1	2	0	67	342167	6822426
2	11920	H	2	10.9	6.3	2.2	0	78	342003	6822205
2	11920	J	2	25.2	12.4	3.6	3	44	341840	6822007
2	11920	K	1	22.2	18.3	1.7	2	40	341786	6821961
2	11920	M	2	14	9.2	2	0	64	340792	6820887
2	11920	N	2	14.3	5.9	3.8	3	56	340689	6820759
2	11920	O	3	40	16.7	5.2	0	59	340425	6820488
2	11920	P	3	38.8	16.2	5.1	0	55	340360	6820418
2	11920	Q	2	22.9	14.5	2.5	0	51	340216	6820257
2	11920	R	1	29.8	25.9	1.8	0	39	339986	6819980
2	11920	S	2	25.2	17.5	2.3	4	39	339915	6819892
2	11920	T	2	25.3	13.4	3.3	0	46	339833	6819791
2	11920	U	1	21	21.3	1.3	0	45	339655	6819577
2	11920	V	2	39.6	29.9	2.4	0	38	339404	6819318
2	11920	W	3	54.6	26	4.8	0	47	339275	6819163
2	11931	A	2	19.9	8.9	3.8	0	82	339137	6819324
2	11931	B	3	39.1	17	4.9	0	63	339451	6819724
2	11931	C	3	48.6	22.1	4.9	0	58	339510	6819794
2	11931	D	3	58.3	31.1	4.2	0	40	339622	6819920
2	11931	E	2	24	17	2.2	0	44	339768	6820075
2	11931	F	2	29.7	21.7	2.2	0	46	340001	6820317
2	11931	G	3	48.1	19.9	5.5	0	47	340137	6820474
2	11931	H	3	51.4	21.4	5.6	0	51	340194	6820542
2	11931	J	2	28.8	18	2.7	0	50	340309	6820677
2	11931	K	2	14.6	6	3.8	0	94	341605	6822213
2	11931	M	2	27.7	20.1	2.2	0	62	341874	6822502
2	11931	N	2	30.6	23.5	2.1	1	38	342018	6822705

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
2	11931	O	1	43.7	45.5	1.6	0	37	342296	6822897
2	11931	P	1	42.7	59.3	1.1	0	41	342669	6823244
2	11931	Q	1	29.8	29.2	1.5	0	44	342757	6823366
2	11931	R	2	25.8	18.2	2.2	9	33	342855	6823501
2	11931	S	2	41.8	33	2.3	0	43	343066	6823718
2	11931	T	2	34.6	21.9	2.8	0	43	343117	6823767
2	11940	A	1	20.3	18.2	1.5	0	48	342945	6823889
2	11940	B	1	37.8	38.8	1.5	0	37	342884	6823823
2	11940	C	2	42.1	27.1	3	0	58	342811	6823755
2	11940	D	2	39.5	25.6	2.9	0	61	342729	6823690
2	11940	E	3	44.9	20.8	4.7	0	54	342578	6823550
2	11940	F	2	41.3	31.8	2.3	0	40	342487	6823438
2	11940	G	1	15.1	12.7	1.4	1	47	342402	6823317
2	11940	H	0	20.6	26	0.9	0	56	342267	6823144
2	11940	J	2	60.1	40.5	3.1	0	47	341854	6822718
2	11940	K	2	37.8	26.4	2.6	0	40	341771	6822574
2	11940	M	3	10.9	3.1	5.8	0	78	341539	6822294
2	11940	N	3	24.6	10.6	4.3	0	77	339987	6820705
2	11940	O	1	19.7	23.4	1	0	50	339802	6820457
2	11940	P	3	52.7	25	4.8	0	42	339635	6820244
2	11940	Q	2	46.3	28.2	3.3	0	36	339427	6820029
2	11940	R	3	62.8	34.8	4.1	0	42	339330	6819928
2	11940	S	3	98.4	62.3	4	0	35	339239	6819814
2	11940	T	3	105.3	66.5	4.1	0	33	339186	6819740
2	11940	U	2	77.8	52	3.5	0	34	339110	6819638
2	11950	A	3	33.6	13.7	5.1	0	58	339184	6819985
2	11950	B	3	43	20.3	4.5	0	46	339399	6820221
2	11950	C	1	15.4	14.1	1.3	0	56	339597	6820458
2	11950	D	3	27.7	10.6	5.2	0	65	339860	6820727
2	11950	E	3	44.5	19.1	5.2	0	54	339928	6820794
2	11950	F	2	11.9	6.4	2.5	0	90	341412	6822504
2	11950	G	2	12.5	6.4	2.7	0	109	341566	6822677
2	11950	H	1	11.7	8.1	1.7	4	52	342242	6823400
2	11950	J	2	36.8	19.1	3.8	0	60	342418	6823596
2	11950	K	3	40.5	19.4	4.3	0	51	342524	6823738
2	11950	M	3	46.5	24.1	4.1	0	49	342551	6823775
2	11950	N	3	34.8	16.5	4.2	0	44	342632	6823867
2	11950	O	2	40	32.6	2.1	0	36	342715	6823931
2	11960	A	2	16.1	9.6	2.4	0	90	342446	6824007
2	11960	B	2	17.1	7.9	3.4	0	96	342359	6823904
2	11960	C	2	23.2	12.8	3	0	54	342216	6823689
2	11960	D	2	26.1	14.3	3.1	0	49	342182	6823640
2	11960	E	2	22.4	11.4	3.3	0	59	342087	6823525
2	11960	F	1	40.9	44.5	1.5	0	42	341820	6823166
2	11960	G	1	45.1	44.6	1.7	0	41	341776	6823091
2	11960	H	2	22.4	10.8	3.6	0	71	341388	6822705

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
2	11960	J	2	20.3	9.6	3.5	0	63	341252	6822568
2	11960	K	1	19.1	16.2	1.6	9	35	341174	6822459
2	11960	M	2	12	6.7	2.3	0	101	339724	6820880
2	11960	N	0	13.3	15.2	0.9	0	66	339547	6820668
2	11960	O	1	18.8	19	1.2	0	57	339479	6820580
2	11960	P	0	13	15.5	0.8	0	50	339387	6820465
2	11960	Q	2	31.8	15.7	3.9	0	47	339231	6820291
2	11970	A	1	46.2	43.6	1.9	0	31	339008	6820450
2	11970	B	3	58.1	22.5	6.4	0	41	339157	6820617
2	11970	C	3	41.8	19.8	4.4	0	42	339201	6820670
2	11970	D	1	32.6	27.6	1.9	0	41	339332	6820810
2	11970	E	1	22.7	20.5	1.5	0	47	339380	6820854
2	11970	F	2	20.1	13.8	2.1	0	49	339528	6820983
2	11970	G	0	6.2	17.3	0.1	6	28	340243	6821740
2	11970	H	1	10.3	7.7	1.5	0	71	341037	6822570
2	11970	J	2	10.4	4.9	2.8	0	125	341181	6822721
2	11970	K	1	23.9	22.3	1.5	0	68	341494	6823214
2	11970	M	1	33.1	42.2	1.1	0	40	341564	6823311
2	11970	N	0	22.5	30	0.9	0	34	341723	6823488
2	11970	O	3	92.7	46.3	5.3	0	44	341840	6823592
2	11970	P	2	39.7	27.6	2.6	0	48	341919	6823660
2	11970	Q	2	51.1	30.6	3.5	0	46	342271	6823944
2	11970	R	2	46	37.9	2.2	0	38	342372	6824023
2	11970	S	2	34.4	27.6	2.1	1	36	342417	6824056
2	11980	A	2	14.9	7.3	3	0	88	341971	6824072
2	11980	B	2	30.8	18.2	3	0	68	341509	6823619
2	11980	C	1	39.2	42.8	1.4	0	43	341429	6823524
2	11980	D	1	25.6	28.5	1.2	9	27	340835	6822878
2	11980	E	1	21.5	21	1.3	16	24	340793	6822820
2	11980	F	0	26.5	40.7	0.8	3	26	340724	6822741
2	11980	G	1	12.6	10.3	1.4	0	79	339296	6821021
2	11980	H	2	28.4	22	2	0	56	339217	6820909
2	11980	J	3	32.5	15.5	4.1	0	48	339060	6820719
2	11990	A	1	33.1	32	1.6	0	38	338914	6820945
2	11990	B	2	14.4	8.6	2.3	0	80	341109	6823219
2	11990	C	2	10.7	6.6	2	0	89	341163	6823280
2	11990	D	2	11.3	6.7	2.1	0	97	341214	6823336
2	11990	E	1	19.5	16.6	1.6	0	61	341350	6823523
2	11990	F	2	25.4	14.9	2.8	0	65	341426	6823629
2	11990	G	2	28.2	15.8	3.1	0	45	341865	6824165
2	12000	A	2	13.8	7	2.8	0	94	341682	6824377
2	12000	B	4	29.9	6.6	11.1	0	82	341413	6824076
2	12000	C	2	29	18.4	2.7	0	56	341207	6823839
2	12000	D	1	22.9	27.5	1	0	47	340964	6823586
2	12000	E	1	47	48.2	1.7	2	28	340830	6823421

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
2	12000	F	1	69.7	78.4	1.7	0	38	340700	6823260
2	12000	G	2	53	45.1	2.2	0	47	340590	6823126
2	12000	H	2	48.3	27.1	3.7	1	36	340503	6823016
2	12000	J	1	57.7	72.1	1.4	9	16	340380	6822875
2	12000	K	1	19.4	15.7	1.7	18	27	340299	6822787
2	12010	A	1	18.3	19.6	1.1	0	48	338883	6821550
2	12010	B	2	35.6	25.8	2.4	4	33	340196	6822933
2	12010	C	2	20.8	9.9	3.5	0	70	340318	6823090
2	12010	D	2	14.8	8.1	2.6	0	85	340424	6823226
2	12010	E	0	32.4	56.2	0.7	0	34	340589	6823506
2	12010	F	1	31.6	38.5	1.2	0	43	340701	6823630
2	12010	G	1	41.9	58.9	1.1	0	29	340826	6823722
2	12010	H	2	53.1	33.2	3.3	10	24	341012	6823883
2	12010	J	2	40.4	30	2.4	0	44	341118	6823966
2	12010	K	4	61.1	14.8	12	0	51	341287	6824149
2	12010	M	4	60.6	14.5	12.2	0	49	341361	6824232
2	12010	N	2	7.8	3.1	3.2	44	29	341477	6824391
2	12020	A	3	34.4	14	5.1	0	70	341262	6824398
2	12020	B	3	31	9.7	7	0	76	341242	6824302
2	12020	C	1	26.6	32.2	1.1	0	45	341096	6824084
2	12020	D	2	57.4	49.4	2.3	0	31	341011	6824005
2	12020	E	1	24.2	29.2	1.1	0	36	340898	6823906
2	12020	F	0	19.7	28.4	0.8	0	47	340703	6823746
2	12020	G	0	29	47.9	0.7	0	39	340629	6823690
2	12020	H	1	40.8	46.3	1.4	0	36	340331	6823455
2	12020	J	2	65	63.9	2	0	29	340275	6823410
2	12020	K	1	42.5	52.9	1.2	2	26	340136	6823272
2	12020	M	1	45.5	49.5	1.5	5	24	340107	6823238
2	12020	N	2	54.4	48.3	2.1	13	17	340042	6823154
2	12020	O	2	35.2	29.7	2	0	45	339705	6822743
2	12020	P	1	12.8	9.3	1.7	9	45	339482	6822504
2	12030	A	1	35.8	30.7	1.9	8	28	339313	6822521
2	12030	B	2	46.3	36.8	2.3	1	32	339381	6822591
2	12030	C	2	53.2	40.2	2.6	0	34	339533	6822745
2	12030	D	2	59.1	39.5	3.2	7	25	339875	6823118
2	12030	E	2	25.9	19.2	2.1	1	41	340047	6823277
2	12030	F	2	60.2	55.2	2.1	0	49	340200	6823453
2	12030	G	1	47.1	47.3	1.7	0	48	340243	6823507
2	12030	H	1	28.9	36.5	1.1	0	47	340394	6823708
2	12030	J	0	39.2	73.9	0.7	0	31	340544	6823881
2	12030	K	1	30.4	31.7	1.4	10	24	340635	6823993
2	12030	M	2	32.2	16.8	3.6	0	44	340725	6824112
2	12030	N	2	32.9	19.6	3	0	48	340770	6824179
2	12030	O	2	27.5	14.6	3.3	0	52	340806	6824240
21	81010	A	1	14	12.9	1.2	3	45	354424	6814917

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
21	81010	B	1	22	20.6	1.4	0	53	354604	6814715
21	81010	C	1	34	33.7	1.6	0	42	355090	6814331
21	81010	D	1	40.1	47.2	1.3	0	38	355192	6814226
21	81010	E	1	20.2	20.7	1.2	0	51	355589	6813913
21	81010	F	3	27.2	10.3	5.2	0	77	356060	6813449
21	81010	G	2	117.6	126	2.2	0	23	356192	6813286
21	81010	H	2	64.9	54.2	2.4	0	30	356325	6813148
21	81010	J	2	29.4	18.7	2.7	8	34	356458	6813041
21	81010	K	1	50.7	72.3	1.1	0	27	356793	6812730
21	81010	M	1	29.7	33.9	1.2	8	26	357029	6812523
21	81010	N	2	74.6	72.6	2.1	0	33	357296	6812248
21	81010	O	2	81.5	76.2	2.3	0	25	357353	6812190
21	81010	P	1	19.1	16.3	1.5	0	51	357510	6812077
21	81010	Q	1	12.1	9.3	1.5	0	81	357591	6812014
21	81010	R	0	20.7	46.5	0.4	0	36	357937	6811665
21	81010	S	0	42.1	76.2	0.8	6	17	358006	6811582
21	81010	T	0	35.2	59.2	0.8	3	22	358058	6811482
21	81010	U	0	23.3	47.1	0.5	4	22	358097	6811446
21	81010	V	0	7.6	16.6	0.3	0	46	358596	6811015
21	81010	W	0	49.1	84.2	0.9	0	31	358915	6810692
21	81010	X	2	104.4	92	2.7	1	23	359009	6810619
21	81010	Y	1	10.9	9.9	1.1	11	41	359233	6810391
21	81010	Z	0	9.7	14	0.6	0	60	359538	6810099
21	81010	AA	0	8.7	20.3	0.2	0	40	359824	6809885
21	81010	AB	1	23.7	22.9	1.4	0	47	360100	6809642
21	81010	AC	2	30.9	18.3	3	0	49	360274	6809488
21	81010	AD	2	35.5	18	3.9	0	46	360325	6809434
21	81010	AE	3	38	15.6	5.2	0	54	360721	6809053
21	81010	AF	4	43.9	13.5	8	0	61	360832	6808970
21	81010	AG	2	30.7	22.1	2.3	0	42	361303	6808538
21	81010	AH	3	90.9	54.7	4.1	0	34	361732	6808153
21	81010	AJ	4	57.7	17.6	8.7	0	51	362117	6807852
21	81010	AK	2	45.8	24.7	3.9	0	51	362250	6807735
21	81010	AM	2	28.6	17.5	2.8	0	53	362486	6807521
21	81010	AN	2	35.5	25.7	2.4	0	48	362574	6807436
21	81010	AO	2	56	51.7	2	0	35	362761	6807261
21	81010	AP	1	46.1	42.8	1.9	0	47	363099	6806947
21	81010	AQ	1	49.8	48.3	1.8	0	33	363201	6806823
21	81010	AR	1	14.9	11.2	1.7	0	59	364606	6805593
21	81010	AS	2	34.2	21.1	2.9	0	48	366602	6803816
21	81010	AT	3	67.6	33.7	4.8	0	40	366719	6803688
21	81010	AU	2	56.5	31.5	3.9	0	42	366838	6803564
21	81010	AV	2	17.5	9.7	2.7	0	75	367167	6803225
21	81010	AW	2	24.6	16.7	2.3	0	61	367247	6803162
21	81010	AX	0	20.4	33.3	0.6	0	33	371208	6799611
21	81010	AY	0	45.1	74.7	0.9	0	26	371389	6799407
20	81020	A	0	11.2	12.7	0.8	0	73	341128	6823474
20	81020	B	1	14.4	11.7	1.5	0	50	342006	6822700

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
20	81020	C	0	14.6	108.3	0	0	14	342311	6822493
20	81020	D	0	22.6	57	0.4	7	16	342304	6822433
20	81020	E	1	14.8	12.7	1.4	0	84	342761	6821988
20	81020	F	0	15.9	24.1	0.6	0	61	342848	6821902
20	81020	G	1	7	5.6	1.1	25	40	343189	6821578
20	81020	H	2	11.1	6.2	2.3	29	32	343298	6821434
20	81020	J	2	12.3	7.4	2.1	27	31	343386	6821361
20	81020	K	2	34.7	23.8	2.6	0	66	343550	6821148
20	81020	M	1	47.1	46.2	1.8	0	34	343624	6821055
20	81020	N	3	33.2	15.5	4.2	0	55	343803	6820857
20	81020	O	2	18.6	9.7	3	20	32	344002	6820712
20	81020	P	2	25.8	14.2	3.1	14	32	344052	6820678
20	81020	Q	1	6.6	4.4	1.5	45	25	344250	6820502
20	81020	R	0	9.1	10.6	0.7	17	34	344343	6820441
20	81020	S	1	14.8	11.3	1.6	10	41	344419	6820368
20	81020	T	1	30.3	38.6	1.1	0	42	344529	6820279
20	81020	U	0	62.6	117.3	0.8	0	20	344578	6820225
20	81020	V	0	52.3	94.1	0.8	3	18	344608	6820194
20	81020	W	1	30.7	36.3	1.2	0	36	344665	6820149
20	81020	X	1	26	26.4	1.4	0	49	344724	6820092
20	81020	Y	1	21.8	16.5	1.9	0	64	344945	6819914
20	81020	Z	2	58.5	39.1	3.2	0	32	345082	6819792
20	81020	AA	2	54.9	36.9	3.1	0	35	345285	6819539
20	81020	AB	2	39.9	33.3	2.1	0	42	345358	6819474
20	81020	AC	3	73.1	36.3	5	0	35	345675	6819233
20	81020	AD	3	131.6	67.8	5.7	0	35	345792	6819119
20	81020	AE	3	493	436.8	4.2	0	18	345830	6819078
20	81020	AF	3	622.1	475	5.4	2	11	345854	6819057
20	81020	AG	3	52.1	17.6	7.4	0	57	345947	6818954
20	81020	AH	3	113.9	48	7	0	40	346127	6818766
20	81020	AJ	3	72.8	34.3	5.3	0	41	346267	6818660
20	81020	AK	4	45	10.7	11.3	0	63	346900	6818128
20	81020	AM	1	12.5	10.2	1.4	0	66	347363	6817677
20	81020	AN	1	27.2	26	1.5	0	61	347538	6817492
20	81020	AO	3	43.9	15.3	6.8	0	67	348004	6817121
20	81020	AP	3	82.9	38.3	5.7	0	43	348250	6816934
20	81020	AQ	1	41.3	56.4	1.1	0	32	348374	6816830
20	81020	AR	1	57	63.9	1.6	0	31	348642	6816549
20	81020	AS	2	92.3	59.8	3.8	0	35	348727	6816443
20	81020	AT	2	51.9	35.8	2.9	0	42	348887	6816276
20	81020	AU	2	60.3	36.3	3.6	1	32	349035	6816143
20	81020	AV	4	118	43.3	8.5	0	29	349137	6816067
20	81020	AW	2	20.4	14.2	2.1	0	47	349318	6815928
20	81020	AX	2	21.5	10.5	3.4	0	61	349415	6815833
20	81020	AY	2	12.3	7.7	2	1	56	349665	6815586
20	81020	AZ	1	16.5	11.5	1.9	0	63	350349	6814898
20	81020	BA	1	17.3	16.2	1.3	0	63	350690	6814608
20	81020	BB	1	18.3	18.4	1.2	0	45	350841	6814462
20	81020	BC	1	15.6	12.3	1.6	0	50	350945	6814362

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
20	81020	BD	0	16.1	24.8	0.6	3	32	351244	6814109
20	81020	BE	0	17.5	22.3	0.9	0	42	351416	6813983
20	81020	BF	2	23	15.4	2.3	3	43	351732	6813658
20	81020	BG	2	24.7	11.8	3.7	8	40	351864	6813543
20	81020	BH	2	15.9	9.4	2.4	0	60	352089	6813331
20	81020	BJ	3	22.6	8.5	5	0	61	352266	6813151
20	81020	BK	2	18.5	12	2.2	0	54	352332	6813087
20	81020	BM	1	24.5	21.6	1.6	0	42	353025	6812474
20	81020	BN	0	15.9	21.8	0.7	3	35	353711	6811913
20	81020	BO	0	15.6	25.5	0.6	0	42	354055	6811635
20	81020	BP	0	12.8	21.6	0.5	0	38	354239	6811399
20	81020	BQ	0	8	14.3	0.4	0	51	354807	6810906
20	81020	BR	0	9.8	29.2	0.2	0	37	355219	6810540
20	81020	BS	0	5.6	17	0.1	0	40	355452	6810427
20	81020	BT	0	13.2	19.1	0.6	0	46	355697	6810160
20	81020	BU	0	26.4	48.1	0.6	0	32	355758	6810091
20	81020	BV	0	16.3	27.9	0.5	12	21	355922	6809942
20	81020	BW	0	27.6	66.1	0.4	0	30	356023	6809845
20	81020	BX	0	23.5	33.3	0.8	0	34	356402	6809394
20	81020	BY	0	9.8	19.5	0.3	10	26	356341	6809324
20	81020	BZ	0	12.4	22.3	0.4	12	24	356307	6809248
20	81020	CA	0	14.4	40	0.2	0	26	357237	6808809
20	81020	CB	0	21.9	46.9	0.5	0	28	357293	6808754
20	81020	CC	0	44.1	71.7	0.9	0	41	357345	6808707
20	81020	CD	1	49.5	73.6	1	0	44	357399	6808658
20	81020	CE	1	50.3	49.6	1.8	0	41	357434	6808613
20	81020	CF	1	23.6	26.6	1.1	3	33	357670	6808354
20	81020	CG	0	12	15.9	0.7	17	26	357785	6808279
20	81020	CH	0	16.2	37.6	0.3	2	26	357905	6808185
20	81020	CJ	0	17	23.1	0.8	7	30	357995	6808101
20	81020	CK	1	17.2	18.9	1	0	41	358063	6808041
20	81020	CM	0	14.7	27.6	0.5	2	31	358134	6807979
20	81020	CN	1	18.1	18.3	1.2	2	40	358231	6807872
20	81020	CO	1	43.6	45.8	1.6	3	27	358335	6807701
20	81020	CP	1	18.6	15	1.7	23	23	358461	6807601
20	81020	CQ	2	24.3	18.4	2	5	38	358611	6807513
20	81020	CR	1	53.9	60.6	1.6	0	38	358683	6807434
20	81020	CS	1	39.2	45.5	1.3	0	32	358722	6807389
20	81020	CT	0	20.4	50	0.4	0	31	358797	6807302
20	81020	CU	0	8.7	17.6	0.3	4	34	358876	6807234
20	81020	CV	0	14.1	24.4	0.5	0	40	359257	6806841
20	81020	CW	0	10.5	12.7	0.7	0	54	359512	6806643
20	81020	CX	0	15.9	20.3	0.8	0	49	359744	6806449
20	81020	CY	0	11.2	23.1	0.3	0	41	360074	6806170
20	81020	CZ	0	10.9	22.2	0.3	0	42	360140	6806119
20	81020	DA	0	9.3	14.7	0.5	0	46	360274	6806019
20	81020	DB	0	7	9.7	0.5	8	42	360889	6805467
20	81020	DC	0	8.8	13	0.5	7	38	361017	6805339
20	81020	DD	0	7.1	8.8	0.6	15	38	361813	6804550

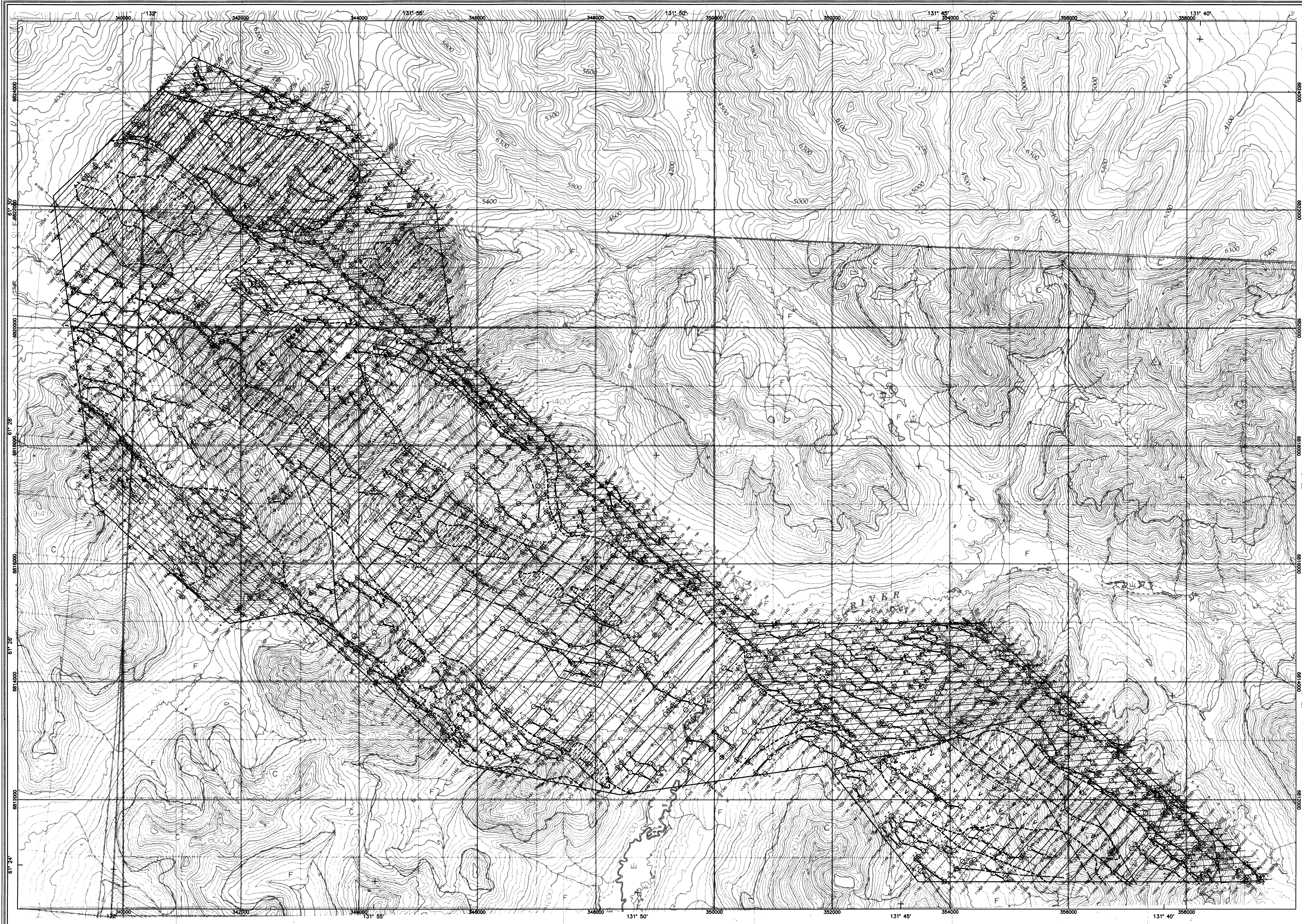
Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
20	81020	DE	0	10.4	11.9	0.8	0	60	362594	6803914
20	81020	DF	0	8.4	12.1	0.5	0	49	362789	6803708
20	81020	DG	0	14.4	17.4	0.9	0	48	363036	6803505
20	81020	DH	1	48.4	72.6	1	0	33	363193	6803337
20	81020	DJ	1	77.1	107.3	1.3	0	25	363262	6803261
20	81020	DK	1	47.2	44.7	1.9	6	25	363364	6803156
20	81020	DM	2	12.4	7.5	2.1	2	56	363568	6802969
20	81020	DN	1	9.9	7	1.6	0	60	363679	6802858
20	81020	DO	1	25.6	27.8	1.2	0	45	363853	6802685
20	81020	DP	1	19.3	19.8	1.2	0	45	363935	6802609
20	81020	DQ	1	27	28.3	1.3	0	49	364142	6802434
20	81020	DR	0	8.4	9.2	0.8	9	45	364400	6802224
20	81020	DS	1	46.2	70.9	1	0	26	364757	6801880
20	81020	DT	1	67.9	71.9	1.8	1	25	364876	6801758
20	81020	DU	1	46.8	54.3	1.4	6	22	364941	6801701
20	81020	DV	0	11.8	20.1	0.5	10	28	365072	6801599
20	81020	DW	0	10.4	22.3	0.3	0	49	365274	6801440
20	81020	DX	1	38.2	55.2	1	2	25	365419	6801316
20	81020	DY	1	36	46.9	1.1	6	23	365474	6801262
20	81020	DZ	2	132.8	109.1	3.1	0	55	366236	6800583
20	81020	EA	3	124.1	72.3	4.7	0	33	366327	6800491
20	81020	EB	4	89.3	21.5	13.5	0	49	366580	6800269
20	81020	EC	3	42.4	15.5	6.3	0	50	366749	6800117
20	81020	ED	3	36.4	12.6	6.4	0	54	366804	6800032
20	81020	EE	0	7.2	12.8	0.3	11	32	367956	6799114
20	81020	EF	0	10.7	11.1	0.9	19	31	368089	6799019
20	81020	EG	0	12.1	13	0.9	8	39	368155	6798954
20	81020	EH	1	23.6	22.4	1.4	0	48	368241	6798864
20	81020	EJ	1	18.2	15.5	1.5	0	48	368290	6798800
20	81020	EK	0	10.3	17	0.5	3	37	368410	6798602
20	81020	EM	0	16	20	0.8	0	48	368454	6798534
20	81020	EN	0	14.1	20.6	0.6	0	53	368520	6798458
20	81020	EO	1	17.2	18.1	1.1	0	49	368576	6798424
20	81020	EP	0	16.9	24.9	0.7	0	42	368727	6798316
20	81020	EQ	1	52.8	69.3	1.3	0	26	368885	6798141
20	81020	ER	2	66.3	54.9	2.5	0	30	368957	6798040
20	81020	ES	3	102.2	55.9	4.9	0	43	369075	6797926
20	81020	ET	2	46.1	27	3.5	0	43	369145	6797870
20	81020	EU	0	9.6	13.4	0.6	2	43	369281	6797753
20	81020	EV	0	9.9	15.9	0.5	0	43	369839	6797415
19	81030	A	0	-2.1	2.1	0	0	29	339741	6821381
19	81030	B	3	20.9	8.1	4.7	0	63	340530	6820719
19	81030	C	4	35.5	9	9.7	0	57	340966	6820268
19	81030	D	3	32.1	9.8	7.3	0	64	341249	6820046
19	81030	E	2	23.1	16.3	2.1	0	54	341351	6819915
19	81030	F	3	79.6	41.4	4.8	0	49	341530	6819696
19	81030	G	3	106.1	50.7	5.8	0	38	341559	6819688
19	81030	H	2	120.6	96.4	3.2	0	25	341610	6819706

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.

Flight	Line	Anomaly	Cat.	Inphase (ppm)	Quadrature (ppm)	Cond. (mhos)	Depth (metres)	EM bird ht. (metres)	UTM Easting (metres)	UTM Northing (metres)
19	81030	J	3	46.7	23	4.4	19	19	341690	6819772
19	81030	K	3	29.9	13.9	4.1	11	34	341748	6819787
19	81030	M	2	21	10.4	3.4	0	50	341814	6819766
19	81030	N	1	12.3	8	1.9	17	40	341914	6819676
19	81030	O	2	8.6	4.7	2.1	25	42	341937	6819656
19	81030	P	2	8.8	5	2	25	41	341982	6819616
19	81030	Q	0	-6	1.5	0	0	31	342478	6818866
19	81030	R	0	9.8	10	0.9	0	52	343794	6817743
19	81030	S	3	29.2	13	4.3	0	54	344275	6817281
19	81030	T	0	14.5	25.1	0.5	9	25	344740	6816873
19	81030	U	0	15.3	20.3	0.8	3	36	344925	6816745
19	81030	V	2	34.1	27.4	2.1	0	42	345149	6816550
19	81030	W	1	12.2	9.1	1.6	0	59	345620	6816118
19	81030	X	0	13.7	15.4	0.9	0	50	346026	6815773
19	81030	Y	1	10.4	10.3	1	5	46	346124	6815682
19	81030	Z	1	16.2	14.8	1.3	10	35	346286	6815553
19	81030	AA	2	21.9	14.1	2.4	0	52	346564	6815300
19	81030	AB	1	19.6	19.6	1.3	0	60	346688	6815182
19	81030	AC	0	14.2	19.5	0.7	0	47	346858	6815032
19	81030	AD	2	25.1	18.7	2.1	0	50	347077	6814837
19	81030	AE	3	31.6	11.8	5.6	0	75	347395	6814511
19	81030	AF	3	37	14	5.8	0	61	347624	6814291
19	81030	AG	4	32.4	8.7	8.7	0	62	347796	6814133
19	81030	AH	0	10.5	12.2	0.8	3	45	349930	6812233
22	81040	A	2	81.2	75.9	2.3	4	22	339447	6818636
22	81040	B	3	94.2	54.1	4.4	4	25	339530	6818565
22	81040	C	3	135.8	86.4	4.4	2	22	339734	6818369
22	81040	D	3	119.4	64.9	5.1	0	36	339984	6818102
22	81040	E	2	89.9	63.3	3.4	0	34	340045	6818043
22	81040	F	2	72.1	44.5	3.7	0	34	340229	6817866
22	81040	G	2	59.5	37.9	3.4	0	38	340304	6817793
22	81040	H	2	15.5	8.6	2.6	0	57	341318	6816895
22	81040	J	2	22.4	15.8	2.1	0	84	342709	6815649
22	81040	K	1	8.5	7.3	1.1	15	44	343168	6815315
22	81040	M	1	17.9	19.6	1.1	2	39	343643	6814816
22	81040	N	1	27.4	24.2	1.7	0	54	343792	6814688
22	81040	O	2	40.5	30.1	2.4	0	56	344000	6814535
22	81040	P	1	20.3	16.6	1.7	0	55	344263	6814309
22	81040	Q	2	25.6	17.9	2.3	0	58	344680	6813896
22	81040	R	2	18.4	12.7	2	0	54	344926	6813690
22	81040	S	1	22.1	22.4	1.3	2	37	345197	6813458
22	81040	T	1	22.9	19.2	1.7	4	38	345233	6813427
22	81040	U	2	29.3	21.7	2.2	0	56	345749	6813018
22	81040	V	2	44.9	32.4	2.6	0	44	345818	6812965

Anomaly parameters are calculated from the response of a vertical conductive half-plane in free using the mid-frequency coaxial amplitudes.



Square: Grid North: 0°E
Star: True North: 0.9°W
Triangle: Magnetic North: 32.96°E

INTERPRETATION SYMBOLS

- SEDIMENTS 1 ?
- SEDIMENTS 2 ?
- SEDIMENTS 3 ?
- INTERMIXED INTERMEDIATE TO MAFIC VOLCANICS AND CONDUCTIVE SEDIMENTS ?
- INTERMIXED INTERMEDIATE TO FELSIC VOLCANICS AND SEDIMENTS ?
- MAFIC VOLCANICS ?
- INTERMEDIATE TO MAFIC VOLCANICS ?
- FELSIC VOLCANICS OR SEDIMENTS ?
- INTERMEDIATE VOLCANICS ?
- MAGNETIC LINEARS (FAULTS ?)
- MAGNETIC LINEAMENT
- EM CONDUCTOR AXIS
- "OVAL STRUCTURE"

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local transformation: dx=-10, dy=158, dz=187
UTM Projection
Central meridian: 129°W
Navigation and flight path recovery was conducted using a Global Positioning System (GPS) satellite navigation system.

Lines were flown at an azimuth of 40°-220°, with an average line spacing of 200 m.

Average helicopter-terrain clearence of 60 m was monitored by radar and barometric altimeters.

EM ANOMALIES

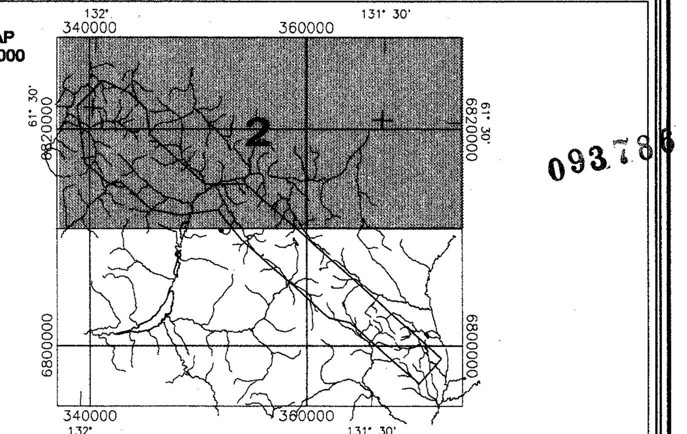
EM anomalies selected by computer algorithm and manually confirmed. Selection is based on the response correlation to theoretical sources such as steeply dipping conductors.

Calculation of conductance is based on the response of a vertical half plane conductor which is normal to the flight lines, using the 4365 Hz coaxial data.

Letter codes are used to identify individual anomalies on a line, and the inphase amplitude of the 4365 Hz response is annotated opposite.

A 2
0-1 mhos
1-2 mhos
2-4 mhos
4-8 mhos
8-16 mhos
16-32 mhos
>32 mhos
Magnetite

LOCATION MAP
SCALE 1:350 000



093786

PATHFINDER-COMINCO-ATNA-YGC

FINLAYSON LAKE AREA
SOUTHERN YUKON

INTERPRETATION MAP

Scale 1 : 20 000
500 0 2000 metres

Map Scale:	1:20 000	Project Ref:	J97-95
Date Compiled:	Dec.1997-Jan.1998	Date Flown:	Oct.-Nov. 1997

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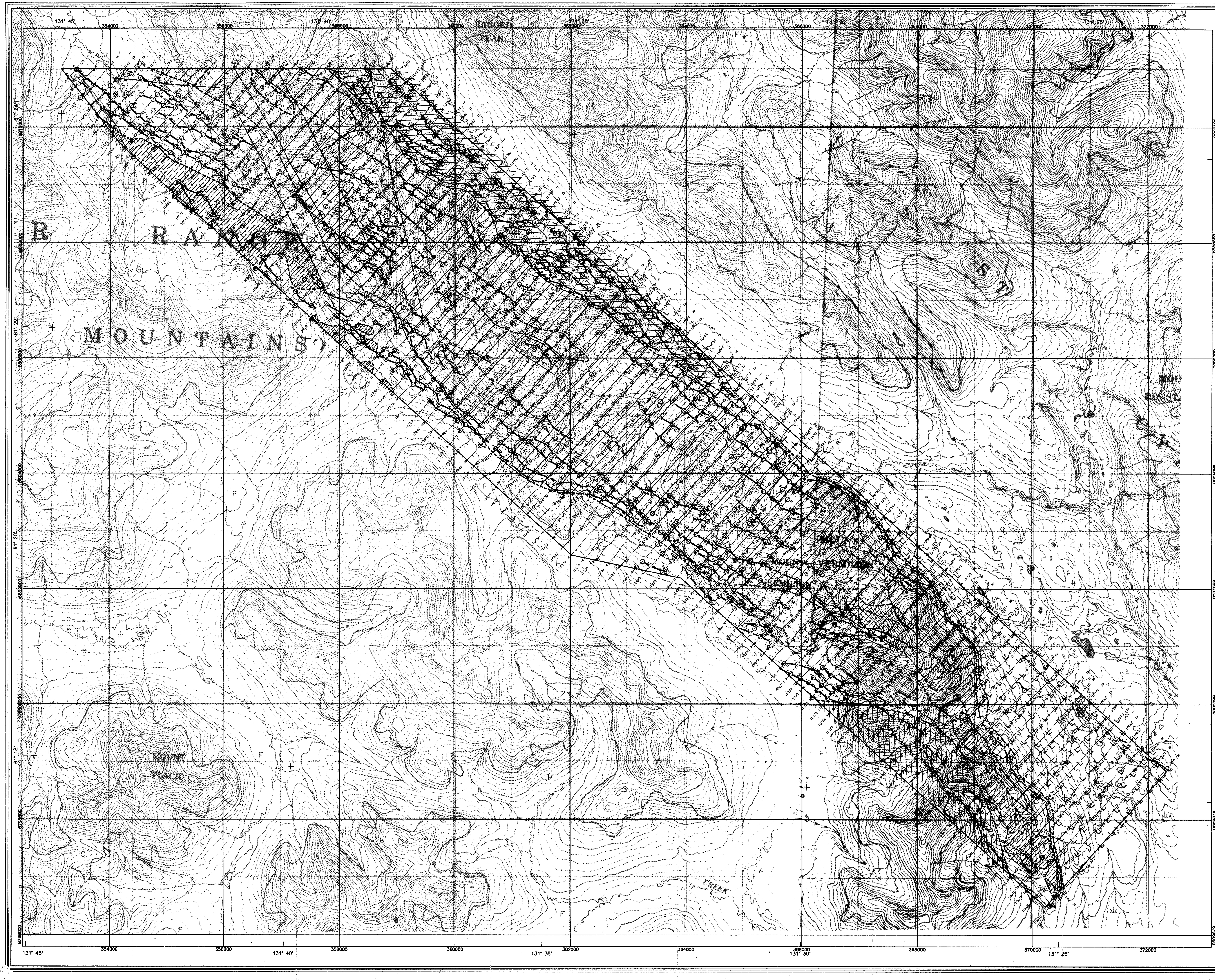
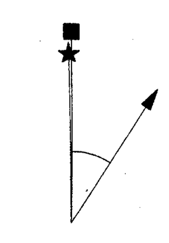




Square: Grid North: 0°E
Star: True North: 0.9°W
Triangle: Magnetic North: 32.96°E

INTERPRETATION SYMBOLS

- SEDIMENTS 1 ?
- SEDIMENTS 2 ?
- SEDIMENTS 3 ?
- INTERMIXED INTERMEDIATE TO MAFIC VOLCANICS AND CONDUCTIVE SEDIMENTS ?
- INTERMIXED INTERMEDIATE TO FELSIC VOLCANICS AND SEDIMENTS ?
- MAFIC VOLCANICS ?
- INTERMEDIATE TO MAFIC VOLCANICS ?
- FELSIC VOLCANICS OR SEDIMENTS ?
- INTERMEDIATE VOLCANICS ?
- MAGNETIC LINEARS (FAULTS ?)
- MAGNETIC LINEAMENT
- EM CONDUCTOR AXIS
- "OVAL STRUCTURE"

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local transformation: dx=-10, dy=158, dz=187
UTM Projection
Central meridian: 129°W
Navigation and flight path recovery was conducted using a Global Positioning System (GPS) satellite navigation system.

Lines were flown at an azimuth of 40°-220°, with an average line spacing of 200 m.

Average helicopter-terrain clearence of 60 m was monitored by radar and barometric altimeters.

EM ANOMALIES

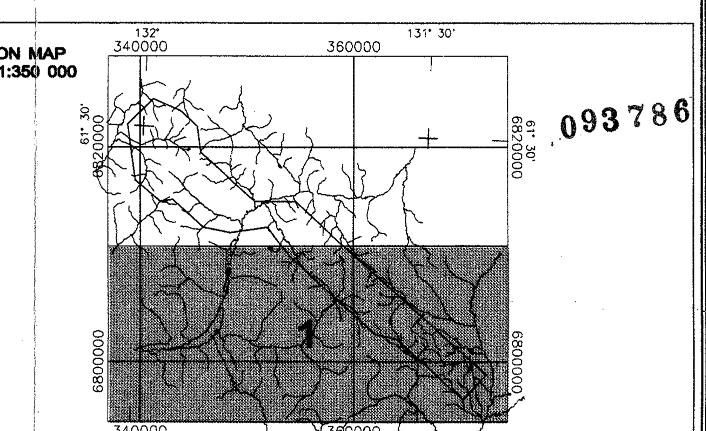
EM anomalies selected by computer algorithm and manually confirmed. Selection is based on the response correlation to theoretical sources such as steeply dipping conductors.

Calculation of conductance is based on the response of a vertical half plane conductor which is normal to the flight lines, using the 4365 Hz coaxial data.

Letter codes are used to identify individual anomalies on a line, and the inphase amplitude of the 4365 Hz response is annotated opposite.

A 2 0-1 mhos
1-2 mhos
2-4 mhos
4-8 mhos
8-16 mhos
16-32 mhos
>32 mhos
M Magnetite

LOCATION MAP
SCALE 1:350 000



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PATHFINDER-COMINCO-ATNA-YGC

FINLAYSON LAKE AREA
SOUTHERN YUKON

INTERPRETATION MAP

Scale 1 : 20 000
500 0 2000 metres

Map Scale:	1:20 000	Project Ref:	J97-95
Date Compiled:	Dec.1997-Jan.1998	Date Flown:	Oct.-Nov. 1997

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