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WERNECKE JOINT VENTURE (WJV)

DIAMOND DRILL REPORT

IGOR 1-26 CLAIMS

(Y96124-139, Y98050-055 and YA1194-197)

DECEMBER, 1982

Claim Sheet 106E/2

Latitude 65°03'N; Longitude 134°38'W

W.D. Eaton, B.A., B.Sc.

Work done between June 8 and July 7, 1982

091445

BOX 4127, 3125 THIRD AVENUE, WHITEHORSE, Y.T. Y1A 3S9

(403) 667-4415

This [illegible] has been examined by
[illegible] Regional Evaluation Unit
[illegible] Section 53 [illegible] Non Quartz
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] amount
of $ 3,200 —

P Watson

for Regional [illegible] Supervisor and
Geological [illegible] for Commissioner
of [illegible]

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INTRODUCTION

The Igor claims were staked in 1974 as a copper prospect, several weeks before the presence of uranium mineralization was recognized. Exploration that year and in 1975 included geological mapping, grid soil sampling, chip sampling of mineralized exposures, grab sampling of mineralized float trains, hand trenching, and ground and airborne radiometric surveys. This work showed that the mineralization is confined to an Helikian breccia body and outlined three zones of anomalous radioactivity (Zones A, B and C), a 3 by 10 m area of outcrop averaging 2.5% Cu, and extensive uranium, copper and molybdenum soil anomalies.

The property was briefly optioned to Eldorado Nuclear Ltd. during 1976 and was dormant during 1977 and 1978.

In 1979, prospecting identified two additional zones, Zone D (copper-uranium) and Zone E (copper), while five diamond drill holes totalling 485.8 m produced encouraging results, including a 19.7 m intersection grading 4.74% Cu, 1.78 lb/ton U_3O_8 and 0.65 lb/ton Co. Following the drilling, survey grid control was established over the main area of interest and airphotos were flown over the claim block.

In 1980, detailed geological mapping, prospecting and radiometric surveys were done over the whole of the breccia body; hand trenches were cut on a new copper-uranium zone (Zone F); magnetic and test MaxMin EM surveys were conducted over the main area of interest; and, 1969 m of diamond drilling was done in 17 holes. Surface mapping and drill intersections indicated that uranium and copper are closely associated and are best developed in irregular, north-striking, west-dipping, vein-like zones with a carbonate ± barite ± magnetite gangue, while cobalt is most abundant peripheral to copper-uranium zones. Magnetic anomalies

were obtained over some of the copper-uranium zones but profiles suggested a near vertical or easterly dip. The MaxMin survey failed to detect known mineralization.

Exploration in 1981 included resistivity IP, VLF and magnetic surveys plus a small MaxMin EM survey and limited geological mapping peripheral to the breccia body. The geophysical results supported the theory of easterly-dipping mineralized zones and outlined several anomalies that had not been tested by diamond drilling.

The 1982 exploration program consisted of 1043.4 m (3423') of diamond drilling in 9 holes and was designed to test 1981 geophysical anomalies and to determine the orientation of known mineralized zones.

PROPERTY, LOCATION AND ACCESS

The Igor property consists of 26 contiguous mineral claims recorded in the Mayo Mining District as follows:

Claim Name	Grant Numbers	Expiry Date
Igor 1-16	Y96124-Y96139	20 April, 1988
Igor 17-22	Y98050-Y98055	20 April, 1988
Igor 23-24	YA1194-YA1195	20 April, 1988
Igor 25F, 26F	YA1196-YA1197	20 April, 1988

The property is located at latitude 65°03'N and longitude 134°38'W within NTS claim sheet 106E/2, 175 km northeast of Mayo. The closest lake suitable for float-equipped, fixed-wing aircraft is Kiwi Lake 24 km to the north while the closest bush airstrip is on the Bear River 30 km to the southeast.

GEOLOGY

The Igor property is centered on a north-trending ridge (Igor Ridge) flanked by the north-flowing Igor and Boris Creeks. Local elevations range from 1050 m in creek bottoms to 1350 m on the ridge. Outcrop is most abundant near ridge crests and in creek cuts while the hillsides are largely obscured by talus and debris from extinct alpine glaciation. Geomorphology is strongly influenced by underlying geology and most gullies occupy fault traces, as illustrated on Plate I1 on the following page. The property lies above treeline and vegetation is restricted to grass, moss and minor buckbrush on the lower slopes.

The property geology is illustrated on Figure WJV82-I1 in the pocket. The oldest rocks are Helikian or older Quartet Group (Q_2 formation) shales, quartzites, siltstones and phyllites that are folded into a broad, northeast-trending anticline with an irregular 1100 by 1000 m Helikian breccia body in its core. These Proterozoic rocks are unconformably overlain by lower Cambrian strata including brick red to black, basal sandstones and conglomerates and grey to orange weathering dolomites. A low-angle unconformity separates the lower Cambrian rocks from white weathering, Ordovician-Silurian carbonates. The entire section has been mildly deformed by a series of east-trending open folds.

All mineralization on the property is confined to the breccia body which has been subdivided into four units on the basis of mineralogy and texture. These units are described below in what is believed to be the order of formation (unit names used in previous reports have been retained but unit numbers are changed to conform to regional map units).

Plate I1: Geology and Geomorphology

Light green (homoclast) breccia (Hb_1): is a strongly foliated, silvery-grey to brown weathering breccia consisting of light green phyllite, tan limy phyllite, and white to pink quartzite fragments in a tan to pink carbonate matrix. All fragments appear to be derived from adjacent bleached Quartet Group (Q_{2a}). The breccia is fragment supported with matrix rarely exceeding five percent. It forms flaggy talus and weathers recessively compared to the red-brown breccia (Hb_2). The contact between this unit and the Quartet Group rocks is suspected to be gradational although it has not been observed.

Red-brown (heteroclast) breccia (Hb_2): is characterized by a fine-grained carbonate, chlorite, and hematite matrix enclosing variously altered, subrounded Q_{2a} fragments. Some of these fragments are similar to those in Hb_1 breccias but most are not and exhibit a pink to red-brown colour caused by hematization and albitization. This breccia is rarely foliated and varies from matrix to fragment supported with matrix averaging twenty percent. It contains numerous large blocks of Hb_1 and bleached Q_{2a} metasediments, and exhibits sharp contacts with both.

Iron-rich (clast-deficient) breccia (Hb_3): includes two phases that are possibly of different age. The older is well foliated and may be time-equivalent to Hb_1. It has a dark colour and consists of 1 to 2 mm, platey hematite grains, comprising 40 to 90 percent of the rock, mixed with carbonate (either dolomite or ankerite) plus or minus chlorite and pyrite. Contacts between this unit and the surrounding Hb_1 breccia are often gradational. The younger phase occurs as vein- or dyke-like zones that rarely contain breccia fragments and cut all other breccia units. It characteristically contains 5 to 50 percent euhedral magnetite crystals and/or hematite pseudomorphs of magnetite in a matrix of coarse-grained, tan to pink barite and/or carbonate (dolomite and ankerite are most common but calcite, siderite, and rhodonite(?) are locally abundant). This phase is rarely foliated, has sharp contacts, and hosts the highest concentrations of copper, uranium and cobalt.

Chloritic breccia (Hb_4): consists of zones in which iron oxides, sulphides, and carbonates occurring in both breccia fragments and matrix have been pervasively altered to dark green chlorite. The zones have gradational contacts and are closely associated with highly fractured, slickensided rocks suggesting that they represent alteration along post-breccia fault planes.

Q_{2a} phyllites and shales adjacent to the breccia contact are characteristically bleached to a pale green colour and exhibit pervasive, north-south striking and steeply-dipping cleavage which parallels foliation and cleavage in the Hb_1 breccias. The bleached halo extends up to 200 m beyond the breccia contact and is best developed on its eastern and southern margins. The breccia is largely fault bounded and its original shape has been considerably modified. A small rockslide composed of Q_{2a} boulders almost completely obscures the breccia on the west side of Igor Creek. Occasional breccia boulders in talus above the rockslide suggest that small satellite breccias exist west of the main breccia body.

At least four ages of faults are seen on the property. The oldest exhibit north-south trends and steep dips, and are probably associated with major faults in the Bonnet Plume and Wind River valleys that are part of the Richardson Fault Array. These faults were active from Helikian to present and may have been partially contemporaneous with the breccia bodies. A 0.5 m wide, slightly bleached, shear zone occupying the floor of Boris Creek is the best exposed north-trending structure on the property. A second group of structures are east-trending high-angle (50° to 75°) reverse faults that are several metres wide and are probably imbrications along the leading edge of a north-dipping thrust sheet. These structures have thrust the breccia body to within 200 m of Paleozoic carbonates and have considerably shortened its north-south dimension, thus exposing the deepest rocks at its northern end. A few of these faults appear to have undergone normal movement

following a post-orogenic change in the stress regime from compression to extension. The third age of faulting is represented by a large, nearly vertical, normal fault, the trace of which roughly parallels Igor Creek. This structure cuts the breccia body and has transported the east portion of the body obliquely downward and toward the northeast. The youngest fault on the property is an east-trending, steeply-dipping, normal fault which juxtaposes Ordovician-Silurian carbonates at the head of the cirque with Cambrian strata to the north. The absence of good stratigraphic markers below the largely eroded Paleozoic unconformity makes actual measurement of fault offsets difficult; however, at least four faults, including two of the reverse faults, the northeast-trending structure and the young fault at the head of the cirque, exhibit offsets in the range of 50 to 150 m.

MINERALIZATION

Mineralization at the Igor property is confined to the breccia body and includes (in order of abundance) hematite, magnetite, barite, pyrite (often cobaltic), chalcopyrite and pitchblende. These minerals occur in all four breccia units but are most concentrated in late Hb_3 zones. Common gangue minerals are dolomite, ankerite, siderite, calcite and quartz. The distribution and relative abundance of the various minerals is briefly discussed below.

Hematite normally occurs as disseminated, platey, 1 to 4 mm grains and comprises 0 to 20 percent of Hb_1, 5 to 25 percent of unit Hb_2, 40 to 90 percent of early Hb_3 and 0 to 40 percent of Hb_4. The platey crystal habit and complete absence of remnant magnetism suggests that these grains crystallized directly as hematite.

Magnetite is restricted to late Hb_3 zones and occurs as euhedral, occasionally skeletal, 3 to 15 mm crystals that are often wholly or partially replaced by hematite, pyrite, chalcopyrite or chlorite. Magnetite and its pseudomorphs usually make up between 5 and 70 percent of late Hb_3 zones and a prominent 100 by 75 m outcrop of massive hematite (centered at 34+00N and 0+50W) exhibiting magnetite pseudomorphs and weak remnant magnetism is probably an extreme example of this type.

Barite occurs as fine disseminations within the breccia matrix, as veins filling late fractures and as massive lenses or pods up to 3 m wide and 15 m long in the late Hb_3 zones. It usually exhibits a white to tan colour but has a pink to brick red colouration in the vicinity of pitchblende. Unaltered magnetite is most abundant in the barite lenses.

Pyrite is disseminated as fine grains and 1 to 3 mm pyritohedrons in the breccia and locally in the surrounding metasediments but rarely exceeds 10 percent of the rock except in a 10 by 40 m zone at 38+00N and 0+50W where massive pyrite is associated with a strong gossan and a kill zone. Cobalt values in the range of 200 to 500 ppm are common from pyrite-rich areas, particularly those in late Hb_3 zones, however only a moderate correlation exists between abundance of pyrite and cobalt content. Although two colours of pyrite are often present, assays have shown that there is no obvious relationship between colour and cobalt content. The highest cobalt assay obtained from the property to date is 1200 ppm cobalt from a specimen of unit Hb_3 estimated to contain 90 percent pyrite, but values up to 830 ppm cobalt were also obtained from Hb_3 rocks, containing as little as 2 percent pyrite. Microprobe studies of selected cobalt-rich specimens conducted at Queen's University detected cobalt values ranging from 0 to 1.6 percent in pyrite and failed to detect cobalt in other minerals. The cobalt was found to be unevenly distributed with

individual pyrite grains in a single specimen producing different cobalt values, including some instances where a cobalt-bearing grain was surrounded by barren pyrite grains.

Chalcopyrite is the only significant copper mineral on the property. It is widely disseminated throughout the matrix in all breccia phases but is most abundant in unit Hb_3. Chalcopyrite-bearing breccia fragments are rare and where present are similar to weakly mineralized hematized and albitized alteration envelopes surrounding 0.5 to 2 cm wide veins cutting Q_2 argillite on the WJV Pike property 9 km to the southeast. In the late Hb_3 zones, chalcopyrite occurs in several forms including fine disseminations, replacements in the cores and on the rims of magnetite crystals, late fractures with quartz carbonate and/or barite, and occasionally massive, flow-banded lenses with pyrite and magnetite.

The best copper mineralization on surface is found in talus near the north end of the breccia body immediately east of Igor Creek, and includes several zones in which specimens containing greater than 25 percent chalcopyrite are common. A few of these specimens contain a silvery, sectile mineral tentatively identified as chalcocite and most exhibit two to fifty times background radioactivity. Surface oxidation of chalcopyrite-rich float usually results in a black limonite coating although malachite and/or azurite are not uncommon. The highest grab sample assay from the area returned 18.6 percent copper and 0.052% U_3O_8 while a chip sample collected in 1974 by OJV from a non-radioactive 3 by 10 m Hb_3 outcrop assayed 2.5 percent copper. Mineralization of this type often weathers to small fragments that settle to the base of the talus and are covered by blockier weathering material.

Pitchblende and brannerite occur on the property in three modes:

(1) pitchblende associated with yellow secondary uranium minerals, barite and minor chalcopyrite in discontinuous joint-like fractures within units Hb_1 and Hb_3;

(2) pitchblende disseminated in chalcopyrite-rich Hb_3 zones; and,

(3) brannerite occurring as blebs in a few narrow fractures in bleached metasediments adjacent to the breccia.

Pitchblende in fractures is exposed in hand trenches on Zones A, B and C while pitchblende mineralization associated with chalcopyrite-rich material is found in Zone D, in linear float trains on the west side and north end of Igor Ridge, and in small patches on the west side of Igor Creek. Brannerite mineralization has only been identified in two locations on the property, on top of Igor Ridge at the south end of the breccia body, and on the west bank of Boris Creek along the eastern edge of the breccia. Surface sampling of fracture mineralization has returned assays as high as 3.65% U_3O_8 while values up to 0.27% U_3O_8 have been returned from chalcopyrite-rich float.

Drilling in 1979 and 1980 produced several high grade copper-uranium intersections in areas where only limited mineralization was observed on surface. The best intersections were obtained from Holes 79I003 and 80I010 which returned assays of 4.74% Cu, 0.088% U_3O_8 and 325 ppm Co over 19.7 m and 6.14% Cu, 0.89% U_3O_8 and 358 ppm Co over 10.6 m, respectively.

DIAMOND DRILLING

General

The 1982 WJV drilling was contracted to E. Caron Diamond Drilling Ltd, Whitehorse, Yukon and was done using a diesel-powered BBS-1 drill equipped with hydraulic head and wireline attachments. All holes were drilled using BQ equipment with water circulation.

Drilling was relatively trouble free and core recovery exceeded 95 percent. Although permafrost was present in all holes, addition of calcium chloride to the water was only necessary during maintenance. A few bags of mud were required in Hole 82I023 when circulation was temporarily lost in a shallow fracture zone. The core was logged in British units to conform with length of drill rods used but has been converted to metric units on all maps and assay summaries in this report. Drill logs with assays, radiometric logs and sections (Figures WJV82-I2 to I9) are enclosed in the pocket and locations of the drill collars is illustrated on Figure WJV82-I1. Drill core is stored at the Bear River airstrip and will be moved to the H.S. Bostock Core Library in Whitehorse as a back-haul during camp mobilization next spring.

Assays and Radiometric Logging

Radioactive and sulphide-rich sections of drill core were split in the field and sent to Chemex Labs Ltd, North Vancouver, B.C. where they were assayed for copper and geochemically analyzed for uranium, cobalt, and silver in parts-per-million (ppm) and gold in parts-per-billion (ppb). The assay and geochemical techniques used are summarized in Appendix III.

All core was radiometrically logged in the field using a Scintrex BGS-1SL scintillometer. A Model 1000-C Portable Borehole Logger, manufactured by Mount Sopris Instrument Company and loaned to WJV by Chevron Canada Ltd., was to have been used for downhole logging but was damaged during battery charging and was inoperable for the duration of the program.

Drill Results

In 1979, five holes totalling 485.8 m were drilled: four holes (79I001, 2, 4 and 5) were drilled on north-south section lines designed to intersect postulated mineralized east-west structures, while a fifth (79I003) was aimed at a suspected north-south structure. Drilling in 1980 consisted of seventeen holes totalling 1969 metres and including six holes (80I009, 12, 13, 16, 18 and 19) to complete north-south section lines; seven holes (80I007, 8, 15, 17, 20, 21 and 22) on the east-west section lines; three holes (80I006, 10 and 11) to determine the geometry of a zone intersected in hole 79I003; and one hole (80I014) to explore below Zone E, an outlying copper occurrence.

The 1982 drill program totalled 1043.4 m in 9 holes, of which seven holes (80I023, 24, 25, 26a, 26b, 27 and 28) tested geophysical anomalies outlined by IP, VLF and magnetic surveys conducted in 1981; and two holes (82I029 and 30) attempted to trace a north-trending zone intersected in earlier holes across a fault which offsets the zone.

Table 5 on the following page summarizes hole data and assay results for all holes drilled in 1982. Drilling to date has shown that:

(1) the best concentrations of uranium, copper and cobalt are associated with a number of irregular, 30 cm to 15 m wide zones of late Hb_3 breccia which strikes approximately 168°, dips 60° to 90°E, and collectively appears to form a linear zone some 650 m long;

(2) the highest magnetic and chargeability and lowest resistivity values are generally obtained along this linear;

(3) the highest grade intersections commonly exhibit crude metal zonation with the highest copper and uranium values in the core and highest cobalt values on the margin;

(4) major east-west, north-dipping, reverse faults are traceable into subsurface, offset lithology and mineralized structures, but are themselves unmineralized;

(5) smaller east-west faults that form pronounced surface linears and contain minor chalcopyrite with moderately anomalous radioactivity can rarely be traced into subsurface;

(6) the main mineralized linear and the east-west trending faults are offset by a large normal fault striking 025° and dipping nearly vertically;

(7) there is a trend toward increasing uranium and cobalt values toward the south end of the breccia and increasing gold values toward the north; and,

(8) replacement textures in mineralized drill core suggest that magnetite was the first mineral to form followed, in order, by hematite, chalcopyrite and pyrite; and that each successive species wholly or partially replaced the preceeding species. The paragenesis of pitchblende is uncertain, however both it and chalcopyrite have been locally remobilized into late barite-carbonate-quartz veins.

Of the 2321.5 metres of bedrock drilled on the property prior to 1982, 647.9 metres (27.9%) have been split and assayed and have returned an average grade of

71 ppm U_3O_8, 0.41% Cu and 153 ppm Co, including 35.1 metres (5.4%) grading greater than 500 ppm U_3O_8, 75.7 metres (11.7%) grading greater than 1.0% Cu, and 89.57 metres (13.8%) grading greater than 500 ppm Co. Composite sampling of the mineralized sections returned up to 160 ppb Au over 1.5 metres, 6.4 ppm Ag over 12.2 metres and 89 ppm Mo over 4.3 metres. However, the average values are less than 50 ppb Au, 2.0 ppm Ag and 25 ppm Mo.

During 1982, 980.2 metres of bedrock were drilled, of which 325.6 metres (33.2%) were assayed and returned an average grade of 13 ppm U_3O_8, 0.26% Cu, and 188 ppm Co, including 20.0 metres (6.1%) grading greater than 1.0% Cu and 45.8 metres (14.1%) grading greater than 500 ppm Co. None of the 1982 intersections assayed greater than 500 ppm U_3O_8. These samples were not analyzed for molybdenum but gold and silver analyses returned up to 285 ppb Au over 1.5 metres and up to 4.6 ppm Ag over 5.2 metres with the highest gold assays obtained from Holes 82I023, 24 and 28 at the north end of the breccia body.

DISCUSSION AND CONCLUSIONS

To date, 31 holes totalling 3498.2 metres have been drilled on the property, of this 973.5 metres (29.5% of the total excluding overburden) have been split and assayed, and returned an average grade of 0.36% Cu, 165 ppm Co and 52 ppm U_3O_8. Precious metal assays are in the range of 10 to 50 ppb Au and 0.1 to 2.0 ppm Ag, with occasional values up to 289 ppb Au and 6.4 ppm Ag.

Geophysical surveys, particularly resistivity, chargeability and magnetic surveys, have proven to be a useful exploration technique. Seven of the nine holes drilled in 1982 explored below geophysical anomalies. Of these seven, all

but two, which tested a VLF anomaly, produced assays in the range of 0.75 to 1.54% Cu and 300 to 536 ppm Co over widths of 1.5 to 7.0 metres. Unfortunately, none of the holes intersected significant (greater than 500 ppm U_3O_8) uranium mineralization or located new areas of copper mineralization comparable to the intersections obtained in 1979 and 1980 from Holes 79I003 and 80I010.

The drilling and surface work has shown that metals are not uniformly distributed throughout the breccia body and are best concentrated in a number of north-trending, steeply-dipping, late Hb_3 zones which range from 30 cm to 15 m in width and collectively form a linear target some 650 metres in length. These late Hb_3 zones were formed after the homoclast and heteroclast breccia phases, and appear to have been fault-related channelways for late metal-bearing fluids. These conclusions are supported by crosscutting relationships and flow-banding observed in many sulphide-rich intersections. The area of interest is cut by numerous high-angle, reverse and normal faults, some of which exhibit offsets of 50 to 150 m. As a result, it is rarely possible to follow mineralization from one hole to another or from surface into subsurface. Based on all available data (surface mapping, drill results and geophysical surveys), it appears that individual zones have steep (60° to 90°) easterly dips.

Two metal zoning patterns have been recognized and are described below.

The first consists of copper and uranium concentrations in the core of Hb_3 zones with cobalt on the margins. Magnetite (or hematite pseudomorphs) and barite are usually associated with the copper and uranium mineralization, while pyrite is much more common in the cobalt-rich margins.

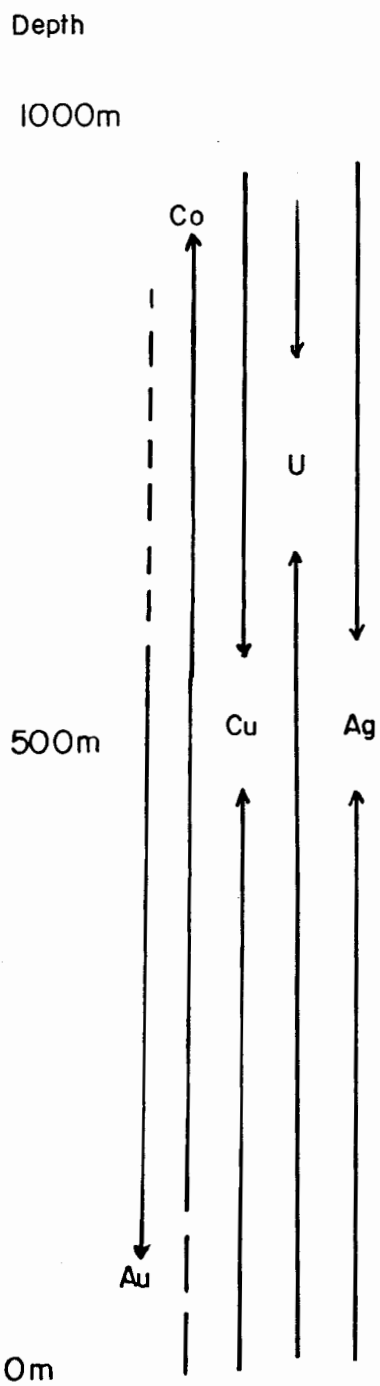
The other pattern is somewhat comparable and involves a larger-scale, vertical zonation that is only evident when assay data from Hb_3 zones on various parts of

the property is compared. The deepest rocks are at the north end of the breccia while the shallower occur near the south end. Mineralized Hb_3 zones have now been observed over a vertical range of approximately 600 m, including 250 m of topographic relief, some 150 m of offset on a series of north-dipping reverse faults, and a 196.6 m vertical hole (82I028) drilled near the north end of the breccia body. Figure WJV82-I10 on the following page is a cartoon illustrating vertical mineral and metal zoning. In general, uranium and cobalt are most abundant near the top of the system, copper and silver near the centre, and gold toward the base. Iron occurs throughout the system in various forms with a gradual transition from oxides to sulphides with increasing depth. For example, a large body of massive hematite lies near the top of the mineralization while massive pyrite zones are found lower in the section.

Mineral paragenesis based on replacement textures in ore minerals indicates that magnetite was the first mineral to form, followed by barite, hematite, pitchblende(?), chalcopyrite and finally pyrite. Some of the barite, pitchblende and chalcopyrite was later remobilized and deposited in veins.

Zones of intense chloritization and weak albitization are associated with many unmineralized, post-breccia faults. These faults are believed to have acted as conduits for pore fluids remobilized by regional metamorphism and the alteration appears to be unrelated to the mineralizing event.

Mineral zoning and replacement textures suggest that the earliest metal deposition occurred in a relatively oxygenated environment near the top of the system, while later and deeper deposition took place in a sulphur-rich environment. This may have resulted from early mixing of sulphur-rich ore fluids (moving up



Minerals

Zones C & F: Magnetite altered to hematite, barite, and minor chalcopyrite, pyrite and pitchblende.

Zones A & B: Barite and pitchblende.

Zone D: Magnetite, hematite, chalcopyrite and pyrite with lesser pitchblende.

Zone E: Pyrite and chalcopyrite but no pitchblend.

Figure WJV82-121

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METAL ZONATION

IGOR PROPERTY

WERNECKE JOINT VENTURE

channelways in the breccia bodies) with oxygenated groundwater. As the system evolved, the groundwater flushed out the system and the oxides were then partially or totally replaced by sulphides. As this zonation model involves dramatic mineralogical variations over a relatively short distance, it suggests that there is potential for other Igor-type copper mineralization in the district below massive magnetite and/or hematite bodies, notably the Pagisteel occurrence.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

/mc

W. Douglas Eaton, B.A., B.Sc.

APPENDICES

APPENDIX I - STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, W. Douglas Eaton, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia, and residential address in Burnaby, British Columbia, do hereby declare:

1. I graduated from the University of British Columbia in 1980 with a B.Sc. and am currently enrolled in a M.Sc. majoring in Geological Sciences.
2. From 1971 to the present, I have been actively engaged in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981, became a partner in Archer, Cathro & Associates (1981) Limited.
3. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.

W. Douglas Eaton, B.A., B.Sc.

APPENDIX II - PERSONNEL

Name	Address	Position
D. Eaton	6108 Burns, Burnaby, B.C.	Geologist
D. Heberlein	2206 Stephens Street, Vancouver, B.C.	Geologist
H. Oiye	301-1655 Chesterfield Street, North Vancouver, B.C.	Geologist
D. Staniforth	81C-1321 Sherbrooke Street, W. Montreal, Quebec.	Cook
B. Sinclair	314-10229 149th Street, Surrey, B.C.	Student Assistant
S. Shalansky	3359 Redfern Place, North Vancouver, B.C.	Student Assistant

APPENDIX III - ANALYTICAL TECHNIQUES

PREPARATION

All soil samples were dried and sieved through an ASTM 35 mesh screen (0.50 mm). The minus 35 mesh fraction was then pulverized and homogenized in a ring grinder to approximately minus 100 mesh (0.15 mm). For drill core and grab and chip rock samples, the entire sample was crushed and split. A sub-sample was then pulverized in a ring grinder to approximately minus 100 mesh.

ANALYTICAL TECHNIQUES

Gold was analyzed by a "combo technique" consisting of a fire assay followed by neutron activation, while uranium, cobalt and silver were all analyzed using a perchloric-nitric acid extraction followed by atomic absorption spectrometry, except uranium which used a fluorometric finish. Copper was assayed using assay techniques.

NORTHERN AFFAIRS

S.M.R. File No.

Date Fwd. 83/3/E3

FROM: Mining Recorder at ..... Mayo .....

TO: REGIONAL MANAGER MINERAL RIGHTS – WHITEHORSE, Y.T.

FOR ACTION ARE:

- [ ] NEW APPL'N for PLACER LEASE to PROSPECT: Name:
- [ ] RENEWAL APPL'N PLACER LEASE to PROSPECT: Name: Lease No. .....
- [ ] AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name: Lease No. .....
- [ ] ASSIGNMENT of PLACER LEASE No. .....
  From: To:
- [ ] GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
  Owner:
- [x] DIAMOND DRILL LOGS:
  Claims: Lee 1-4 Claim sheet no: 116-E-2
- [ ] QUARTZ ASSESSMENT REPORT
  Claims: Claim sheet no.
  Type of report: Submitted by: ARCHER, CATHRO & ASSOCIATES
  Cls. work performed on: $ Req. for ren. application $200.00

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MAR 14 1983
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OFFICE

Signature

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1043-4 M.
LOG STOKED BEAR RIVER ALCTRIP

[redacted] FOR YOUR INFO.

Signature

ARCHER, CATHRO
& ASSOCIATES LIMITED

CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568

1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8

BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 (403) 667-4415

Office of the Mining Recorder
MAR 11 1983
Yukon Territory

RECEIVED
MAR 1983
MINING RECORDER
MAYO, Y.T.

AFFIDAVIT

I, Joan Mariacher, of Vancouver, B.C. make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Igor 1-26 Claims mineral claims on Claim Sheet 106E/2 is accurate.

Joan Mariacher

Sworn before me at Vancouver, B.C.

this 2nd day of

February, 1983

Notary, Yukon Territory

091445

Statement of Expenditures
Diamond Drilling
Igor 1-26 Mineral Claims
January 10, 1983

Contract Drilling

E. Caron Diamond Drilling Co. Ltd.	$61,804.15

E. CARON DIAMOND DRILLING LTD. 7 Roundel Road Whitehorse, Yukon Y1A 3H3 Phone (403) 668-2424 Telex 036-8-337

June 30, 1982

Invoice #- 1201

IN ACCOUNT WITH:

Archer Cathro & Associates (1981) Ltd.,
P.O. Box 4127,
Whitehorse, Y.T.

Drilling Charges June 16 to 30, 1982: (Igor)

Hole #2/50/BQ				
Mud Time				
5 man hrs.	@ $ 27.00 per hr.	= $ 135.00		
2½ mach. hrs.	@ $ 16.50 per hr.	= $ 41.25	$ 176.25	
Coring				
306 - 551 = 245 ft.	@ $ 28.00 per ft.	=	$ 6,860.00	$ 7,036.25
Hole #3/50/BQ				
Moving				
50 man hrs.	@ $ 27.00 per hr.	=	$ 1,350.00	
Waterline				
4 man hrs.	@ $ 27.00 per hr.	=	$ 108.00	
Travelling				
4 man hrs.	@ $ 27.00 per hr.	=	$ 108.00	
Time Not Accounted				
4 man hrs.	@ $ 27.00 per hr.	= $ 108.00		
2 mach. hrs.	@ $ 16.50 per hr.	= $ 33.00	$ 141.00	
Casing				
0 - 10 = 10 ft.	@ $ 28.00 per ft.	=	$ 280.00	
Coring				
10 - 499 = 489 ft.	@ $ 28.00 per ft.	=	$13,692.00	$15,679.00
Hole #4/60/BQ				
Moving				
64 man hrs.	@ $ 27.00 per hr.	=	$ 1,728.00	
Casing				
6 man hrs.	@ $ 27.00 per hr.	= $ 162.00		
3 mach. hrs.	@ $ 16.50 per hr.	= $ 49.50	$ 211.50	
Reaming Cave				
2 man hrs.	@ $ 27.00 per hr.	= $ 54.00		
1 mach. hr.	@ $ 16.50 per hr.	= $ 16.50	$ 70.50	
Mud Time				
6 man hrs.	@ $ 27.00 per hr.	= $ 162.00		
3 mach. hrs.	@ $ 16.50 per hr.	= $ 49.50	$ 211.50	

E. CARON DIAMOND DRILLING LTD. 7 Roundel Road Whitehorse, Yukon Y1A 3H3 Phone (403) 668-2424 Telex 036-8-337

Time Not Accounted				
4 man hrs.	@ $ 27.00 per hr.	= $ 108.00		
2 mach. hrs.	@ $ 16.50 per hr.	= $ 33.00	$ 141.00	
Coring				
0 - 115 = 115 ft.	@ $ 28.00 per ft.	=	$ 3,220.00	$ 5,582.50
Hole #5/70/BQ				
Moving				
6 man hrs.	@ $ 27.00 per hr.	=	$ 162.00	
Casing				
8 man hrs.	@ $ 27.00 per hr.	= $ 216.00		
4 mach. hrs.	@ $ 16.50 per hr.	= $ 66.00	$ 282.00	
Reaming Cave				
4 man hrs.	@ $ 27.00 per hr.	= $ 108.00		
2 mach. hrs.	@ $ 16.50 per hr.	= $ 33.00	$ 141.00	
Mud Time				
2 man hrs.	@ $ 27.00 per hr.	= $ 54.00		
1 mach. hr.	@ $ 16.50 per hr.	= $ 16.50	$ 70.50	
Coring				
0 - 376 = 376 ft.	@ $ 28.00 per ft.	=	$10,528.00	$11,183.50
Hole #6/BQ				
Moving				
38 man hrs.	@ $ 27.00 per hr.	=	$ 1,026.00	
Casing				
8 man hrs.	@ $ 27.00 per hr.	= $ 216.00		
4 mach. hrs.	@ $ 16.50 per hr.	= $ 66.00	$ 282.00	
Reaming Cave				
18 man hrs.	@ $ 27.00 per hr.	= $ 486.00		
9 mach. hrs.	@ $ 16.50 per hr.	= $ 148.50	$ 634.50	
Mud Time				
6 man hrs.	@ $ 27.00 per hr.	= $ 162.00		
3 mach. hrs.	@ $ 16.50 per hr.	= $ 49.50	$ 211.50	
Standby				
48 man hrs.	@ $ 27.00 per hr.	=	$ 1,296.00	
Coring				
0 - 346 = 346 ft.	@ $ 28.00 per ft.	=	$ 9,688.00	$13,138.00
Hole #7/90/BQ				
Moving				
26 man hrs.	@ $ 27.00 per hr.	=	$ 702.00	
Casing				
4 man hrs.	@ $ 27.00 per hr.	= $ 108.00		
2 mach. hrs.	@ $ 16.50 per hr.	= $ 33.00	$ 141.00	
Standby				
8 man hrs.	@ $ 27.00 per hr.	=	$ 216.00	
Coring				
0 - 276 = 276 ft.	@ $ 28.00 per ft.	=	$ 7,728.00	$ 8,787.00

E. CARON DIAMOND DRILLING LTD. 7 Roundel Road Whitehorse, Yukon Y1A 3H3 Phone (403) 668-2424 Telex 036-8-337

Items Consumed & Chargeable				
4 BQ rods	@ $ 86.50 per rod	=	$ 346.00	
	+ 15%	=	$ 51.90	$ 397.90

Total Invoice; $61,804.15

W. Pengelly 82f
Fe/83

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	38+50 N 0+50 E	**Azimuth**	225°
Hole No.	82I023	**Elevation**	1086 m	**Total Depth**	151.2 m (496')
Date Started	10 June, 1982	**Date Completed**	13 June, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
						20	
				110	76%	30	Homoclast Breccia - composed of quartzite fragments in a matrix of sheared grey-green argillite. Quartzite fragments are up to 6 cm in diameter and undeformed. This unit is characterized by euhedral crystals of magnetite (5 mm or less in diameter) and chlorite in microveins which parallel foliation. Small grains of disseminated pyrite are common. Fault zone strongly chloritized.
					40%	40	
				115	95%	50	Homoclast Breccia - with considerably more quartzite than sheared argillite. Colour is a pale greenish-grey. Matrix strongly foliated. Carbonate replaces some fragments and forms tan coloured euhedral crystals in the matrix. Chlorite is present in microveins. Pink barite occurs in irregular veins as well as in the matrix. Magnetite is disseminated throughout.
						60	

Project WJV Page 1 of 7 Hole 82I023

091445

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				115			Fault Zone - strongly chloritized.
						70	Homoclast Breccia - with varying proportions of undeformed quartzite and deformed argillite clasts. Matrix pervasively carbonatized. Chlorite occurs in microveins parallel to foliation. Magnetite is the dominant oxide occurring as disseminations of euhedral crystals. Pyrite is rare. Chalcopyrite not seen.
				110	88%	80	
						90	
				125	100%		
101.5						100	Clast-Deficient Breccia - consisting of a zone of nearly massive magnetite with massive pyrite. Pyrite occurs as streaks and as patches elongated parallel to foliation. Chalcopyrite is generally associated with chloritized microfractures. Pink barite is associated with weak radioactivity. Py 10%, Cp 3-5%, Mg 20-80%
				105			
M01300 106.75	1.54	16.0	47	125			
				105			
M01301 111.50	0.48	5.0	120	130	100%	110	
				100			
M01302 117.0	0.15	1.5	30				
M01303 121.0	0.01	0.5	18	110		120	Homoclast Breccia - with disseminated magnetite. Pervasive carbonatization including crystals in matrix. Py $<\frac{1}{2}\%$, Cp $<\frac{1}{2}\%$
					93%		
						130	Chloritized Fault Zone - with slickensides, dip 15°.
				100			Homoclast Breccia - with disseminated magnetite and up to 20% barite. Occasional small grains of pyrite visible (<0.5%).
					96%		
				105			

Project WJV Page 2 of 7 Hole 82I023

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
145.0				105	96%	140	
					81%		Gradational contact between homoclast breccia and chloritic, clast-deficient breccia.
M01304 150.0	0.17	1.4	30	115	100%	150	Clast-Deficient Breccia - chalcopyrite associated with intense chloritization. Magnetite replaced by hematite. Veins of pink barite also occur with chlorite. Cp 0.5%, Py up to 40%, Ba 5%
M01305 155.0	0.05	5.8	46				
M01306 160.0	0.14	14.0	48	130	100%	160	Clast-Deficient Breccia - abundant sulphides with chlorite and barite. Pyrite in bands parallel to foliation. Chalcopyrite as irregular blebs within pyrite and with chlorite. Py up to 40%, Cp 0.1-1%, Ba 5%
M01307 165.0	0.27	9.5	220	115			
				120			Chloritized Fault Zone
186.0				115	96%	170	Homoclast Breccia - with intense carbonatization and irregular blebs of pyrite, barite disseminated and in veins. Py 10-20%, Cp 0.5%, Ba 5%
				115		180	
M01328 191.0	0.15	5.8	78	115	100%	190	
				135			Clast-Deficient Breccia - with up to 30% massive (foliated) pyrite. Large euhedral magnetite crystals (up to 3 cm) are disseminated throughout. Py 30%, Cp < 0.5%, Mg 10%, CB 20%
				135	94%	200	
				115			Homoclast Breccia - see description on following page.
				115	96%	210	

Project WJV

Hole 82I023

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project WJV Page 4 of 7 Hole 82IO23

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				115			Homoclast Breccia - coarse grained, with quartzite fragments up to 20 cm in diameter. Barite occurs in veins and disseminated throughout the matrix. Sulphides and magnetite occur in trace quantities.
				100		220	
					96%		
				105		230	
				105			
						240	
				100	93%		
						250	
				100			
				120			
				140		260	
266.0				170			Clast-Deficient Breccia - with brown, euhedral carbonate crystals, augened by foliation. Red barite veins are slightly radioactive. Py 40%, Cp <½%, Ba 10%, CB 20%
M01308 271.0	0.09	86.0	300	230	100%		
				170			
				130		270	
M01309 276.0	0.03	108.0	64	245			Homoclast Breccia - hematite replacing magnetite pseudomorphs. Pyrite occurs in streaks and bands along foliation. Red barite veins are weakly radioactive. Py up to 20%, Cp <½%, Ba <5%, CB 30%
				245			
				160			
				240	96%		
M01310 281.0	0.01	14.0	145	160			
				240		280	
M01501 283.0	0.01	200.0	88	150			
M01311	0.02	21.0	140	120			
					92%		

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
288.0							
M01502 291.5	0.03	4.4	13	110	92 %	290	Clast-Deficient Breccia - with almost complete replacement of magnetite by hematite. Carbonate alteration dominant. Disseminated pyrite, usually euhedral. Py 5%, Cp 1%, Mg (Hm) 20%, Ba <1%
M01312 296.0	0.29	2.8	65				
M01313 301.0	0.21	1.0	64	100	86 %	300	
M01314 306.0	0.05	2.5	81		100 %		Chloritic Breccia - possibly heteroclast which has been faulted. Mixed fragment types: quartzite, argillite, red (albitic) quartzite, bleached argillite. Magnetite is disseminated and hematized. Pyrite is widely disseminated. Carbonate alteration intense. Py <1%, Cp <½%, Ba <1%, CB 10%
M01315 311.0	0.11	1.2	93	105	100 %	310	
M01316 316.0	0.03	0.6	74				
M01317 321.0	0.41	4.4	300	105		320	Clast-Deficient Breccia - containing abundant sulphides and oxides plus quartzite fragments.
M01318 326.0	0.76	15.0	200		91 %		
M01319 331.0	<0.01	6.7	65	110		330	Heteroclast Breccia - with pervasive specularite. The matrix is chloritized. Fragments are unaltered and include black argillite, red and brown quartzites and white carbonate-altered fragments. Reaction rims of specularite surround many of the carbonate-altered fragments. Rock is very dark green. Py tr, CB 20%
				115		340	
				115	98 %		
						350	
				105			
				100		360	

Project WJV Page 5 of 7 Hole 821023

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
366.0				100	98%		
M01320 371.0	0.01	2.2	52	100		370	Fault Zone - with chloritic gouge.
M01321 376.0	0.06	2.4	150	100			Transition Zone - between homoclast and carbonate, hematite and chlorite altered heteroclast breccia.
M01322 381.0	0.07	1.2	190			380	Heteroclast Breccia - as previously described.
M01323 386.0	<0.01	3.3	77	105	96%		
M01324 390.0	< 0.01	2.8	56			390	Homoclast Breccia - with hematite and chlorite-rich groundmass. Specular hematite massive in places. No sulphides. Appears to be a transition zone between homoclast and heteroclast breccia. Py tr, Cp tr
M01325 395.0	< 0.01	5.0	50	110			
				145		400	
				135	83%		
				130		410	Heteroclast Breccia - with a chlorite and/or hematite matrix. Pervasive carbonate alteration. Py <1%, Cp tr, CB 10%, Ba 5%
				125			
				100	84%	420	
				110	80%	430	Chloritic Heteroclast Breccia - see description on following page.
					66%		

Project WJV Page 6 of 7 Hole 82I023

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				110	66%		
				115		440	Chloritic Heteroclast Breccia - with carbonate and chlorite bands parallel to foliation. Mineralogy similar to normal heteroclast breccia but with no competent fragments. Strongly foliated. Veins of pink carbonate and barite common. Traces of disseminated sulphides. Py < ½%, Cp < ½%, CB 30%, Ba 1%
				115	97%	450	
457.0							
M01326 462.0	< 0.01	5.4	45	110		460	Heteroclast Breccia - coarsening downwards. Grey quartzite fragments up to 1 cm across, otherwise same as previously described. Some red fragments may be albitized. Py <1%, Cp tr, CB 20%.
M01327 467.0	< 0.01	5.3	70				
				110		470	
				125	96%		
				125		480	
				110		490	
						496	End of Hole.

Project WJV Page 7 of 7 Hole 821023

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	38+50 N 0+50 E	**Azimuth**	315°
Hole No.	82I024	**Elevation**	1086 m	**Total Depth**	168.0 m (551')
Date Started	14 June, 1982	**Date Completed**	18 June, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
						20	
						30	
				60	95%	40	Homoclast Breccia - pale grey-green, with angular to rounded fragments of pink-brown quartzite up to 10 cm across. Strong foliation dipping between 75° and 90°.
				62		50	Fault Zone - characterized by pervasive carbonate alteration. Carbonate occurs as tan to brown patches and euhedral crystals. Chlorite occurs in microveins. Magnetite is disseminated through matrix.
				60		60	Fault Zone - disseminated pyrite more abundant, otherwise similar to other fault zone. Py <1%, Mg <1%, CB up to 30%, Ba 2-5% Homoclast Breccia - as above.

Project WJV

Hole 82I024

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
85.0				60	95%	70	Homoclast Breccia - as previously described.
				64	90%	80	
M01329 90.0	0.40	42.0	285				
M01330 95.0	1.04	3.7	260		93%	90	Clast-Deficient Breccia - with up to 40% pyrite and 20% chalcopyrite locally. Pyrite banded parallel to foliation. Carbonate occurs as interstitial grains. Chalcopyrite occurs in veins and as disseminations. Py 20%, Cp 3%, CB 20%
M01331 100.0	0.74	5.1	365	61			
M01332 104.0	0.79	2.6	145			100	Homoclast Breccia - as previously described except for disseminated chalcopyrite and pyrite. These occur in microveins with white carbonate and barite. Magnetite is partially replaced by pyrite and chalcopyrite. Py 2%, Cp tr, CB 20%, Mg 2%
M01333 109.0	0.74	4.8	140				
M01334 113.0	1.35	13.5	138	60	85%	110	
M01335 120.0	0.06	20.0	250				
						120	
				60	83%	130	

Project WJV Page 2 of 8 Hole 82I024

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				67	83%	140	Homoclast Breccia - as previously described except quartzite being replaced by tan carbonate.
				68		150	
156.0							
M01336	0.05	0.5	102		100%	160	
161.0				65			Clast-Deficient Breccia - with up to 10% disseminated magnetite in a carbonate matrix. Pyrite is disseminated and chalcopyrite occurs as blebs and disseminations. Chalcopyrite replaced magnetite. Py 5%, Cp 2%, Mg < 10%, CB 60%, Ba 1%
					95%	170	
				80			Homoclast Breccia - as above.
				62	95%	180	
						190	
					97%	200	
				60	95%	210	

Project WJV Page 3 of 8 Hole 821024

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				62	95%	220	Homoclast Breccia - as previously described, except matrix generally altered to carbonate and chlorite in various proportions. Barite is widespread and occurs as pink to tan patches and veins that are discordant with foliation. Barite veins cut quartzite fragments and not matrix in some places.
				64		230	
							Magnetite-carbonate veins cutting foliation at 238' resemble small channelway breccias.
				60	93%	240	
						250	
				61	100%	260	Fault
				62		270	
				60	100%	280	

Project WJV Page 4 of 8 Hole 82I024

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				60			
				60	100%	290	Homoclast Breccia - as previously described, except hematite increases toward the bottom of the interval and often replaces magnetite.
				60		300	
				64	97%	310	
				61		320	
				62		330	
				60		340	
				60	87%	350	
				56		360	

Project WJV Page 5 of 8 Hole 821024

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				56	87%	360	
				45	91%	370	Homoclast Breccia - as previously described, except that magnetite decreases and hematite increases. The hematite occurs as specularite and forms interstitial felted masses. Hematite gives rock a steel-grey colour. Sulphides, mainly pyrite and chalcopyrite, occur in trace amounts.
				63	95%	380	
				60	97%	390	
				61		400	
						410	
						420	
						430	

Project WJV Page 6 of 8 Hole 82IO24

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				63	93%	440	Heteroclast Breccia - with fragments of quartzite (red, brown, grey), shale (black) and carbonate (tan) which is probably an intense alteration not primary lithology. Rock is dark-grey to green colour due to chlorite-hematite alteration of matrix. Carbonate-barite veins are common and usually exhibit large euhedral chlorites. Veins have pyritic selvages. Chalcopyrite is associated with highly chloritic areas. Py <1%, Cp tr, CB <20%, Mg <2%, Hm <10%
				60		450	
				45			
				60	99%	460	
				62		470	Clast-Deficient Breccia - with intense chloritic alteration. Carbonate/barite veins contain chalcopyrite and pyrite. These minerals also occur disseminated in chloritic matrix. Py 5-10%, Cp tr, CB 10%, Mg 5%, Ba 5%
				45		480	
					100%		
				54	100%		Heteroclast Breccia - as previously described, except that chalcopyrite and pyrite occur sporadically to the end of the hole.
						490	
				61	100%	500	
				60	100%		

Project WJV Page 7 of 8 Hole 82IO24

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				60		510	
					100%		Heteroclast Breccia - as previously described.
				72		520	
				80			
						530	
				45			
					100%	540	
						550	
						551	End of hole.

Project WJV Page 8 of 8 Hole 82I024

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	37+03 N	1+06 E	**Azimuth** 270°
Hole No.	82I025	**Elevation**	1174 m	**Total Depth** 152.1 m (499')	**Incl.** -50°
Date Started	June 18, 1982	**Date Completed**	June 21, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
				63			Homoclast Breccia - light grey to tan with strong foliation (40°-60° dip with respect to core axis). Fragments predominantly pale green argillite and brown to pink quartzite. They are generally rounded to sub-angular and up to 15 cm in diameter. The matrix is pervasively altered to carbonate which forms brown rhombohedral crystals. Magnetite is disseminated as euhedral grains throughout interval. Sulphides occur in trace amounts, mainly disseminated, and occasionally with chlorite in microveins. Chlorite occurs as lath like crystals up to 15 mm in length. Py <5%, Cp tr, CB 20%, Mg <5%
				65	88%	20	
				70			
26.0							
M01351	0.41	2.0	230	77		30	
31.0							
M01352	0.96	8.6	250	75			
36.0					66%		
M01353	0.05	6.1	190	77		40	
41.0							
M01354	0.44	8.8	375	77			
46.0							
M01355	0.49	6.0	280	78			Clast-Deficient Breccia - composed of magnetite 'blebs' in a carbonate, barite and chlorite matrix. The carbonate is anhedral with occasional tan coloured euhedral crystals. Barite occurs with the carbonate and in pink to white veins. Chalcopyrite is seen to replace the cores of magnetite crystals and inter-grown with them. Pyrite, chalcopyrite and magnetite veins are common.
51.0						50	
M01356	0.42	4.6	240	77	98%		
56.0							
M01357	0.56	3.1	167	75			
61.0						60	
				73	100%		

Project WJV Page 1 of 7 Hole 82I025

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
M01358 66.0	0.39	3.0	84				
M01359 71.0	0.17	2.8	44	76	100%	70	Clast-Deficient Breccia - with magnetite, pyrite and chalcopyrite in a barite-carbonate matrix. Py <25%, Cp<1%, CB 40%, Mg <20%
M01360 76.0	0.54	4.5	84	82			
M01361 81.0	0.10	2.6	88	76		80	
M01362 86.0	0.04	1.8	75	76	100%		Clast-Deficient Breccia - with carbonate as the most abundant alteration mineral. Tan barite occurs disseminated within the carbonate matrix. Euhedral carbonate crystals are abundant. Chalcopyrite replaces magnetite, which occurs in irregular clumps of crystals. Py 5%, Cp 1%, CB 50%, Mg 5%
M01363 91.0	0.19	2.0	81	66		90	
M01364 96.0	0.51	3.0	150	64			
M01365 101.0	0.70	2.2	99	70	100%	100	Clast-Deficient Breccia - with barite, disseminated magnetite and small amounts of sulphide in a carbonate matrix. Py ≤1%, Cp 1%, CB 40%, Mg 5%
M01366 106.0	0.01	1.5	60	70			
M01367 111.0	0.68	9.2	260	76	94%	110	Clast-Deficient Breccia - with carbonate, barite and magnetite. Magnetite ranges from <1% to 20% and occurs as euhedral crystals. Chlorite is disseminated in matrix. Pyrite occurs as disseminated grains, up to 30% in places. Py <30%, Cp 3%, CB <50%, Mg 10%
M01368 116.0	1.10	5.4	365	74			
M01369 121.0	0.47	4.8	345	80		120	
M01370 126.0	0.63	4.7	215	70			
M01371 131.0	0.98	6.1	230	70		130	
M01372 136.0	0.29	18.5	370	78			
				72			

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ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
M01373 141.0	0.28	27.0	515	72		140	Clast-Deficient Breccia - as previously described.
M01374 146.0	0.21	7.3	230	80	94%		
M01375 151.0	0.27	4.2	290	77		150	
M01376 156.0	0.76	3.0	220	74			
M01377 161.0	0.63	2.8	225	70	100%	160	Clast-Deficient Breccia - with magnetite and sulphides disseminated throughout carbonate-barite matrix. Veins of carbonate crosscut matrix at shallow angle (5° to 10°). Py 10%, Cp 2%, CB 40%, Mg 10%
M01378 166.0	0.27	2.0	240	62			
M01379 171.0	0.26	2.1	181	64		170	
M01380 176.0	0.11	1.8	158	72	94%		Chloritic Clast-Deficient Breccia - additional contact with previous interval. Chlorite pervasive in matrix and in microveins. Carbonate is also pervasive. Py 3%, Cp <1%, CB 20%, Mg 2-5%
M01381 181.0	0.02	1.8	59	70		180	
M01382 186.0	0.07	1.0	57	72			Carbonate-Rich, Clast-Deficient Breccia - gradational contact with chloritic breccia. Remnant outlines of altered clasts visible. Carbonate and barite pervasive. Magnetite in matrix as disseminated euhedral crystals. Sulphides are disseminated and associated with magnetite. Py 1%, Cp tr, CB 30%, Ba 10%, Mg 3%
M01383 191.0	0.13	5.8	82	68	97%	190	
M01384 196.0	0.02	1.9	66	68			
M01385 201.0	0.13	2.8	86	70		200	
M01386	0.09	2.4	95	70	96%		Homoclast Breccia - consisting of foliated, pale grey phyllites and quartzites. Contact with above mineralized breccia diffuse, and dips parallel to foliation (-70°). Poorly sorted with subangular to elongated fragments.
				78		210	

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ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
215.0				78			
M01387 220.0	0.07	3.0	155	76	96%	220	Typifying minerals are carbonate, chlorite and magnetite. Carbonate is pervasive with occasional euhedral grains in matrix up to 10 mm in diameter. Sulphides are disseminated. Pink barite in patches. Py 1-3%, Cp ½%, CB 20%, Ba 10%, Mg <1%
M01388 225.0	0.17	5.9	132	90 78			
M01389 230.0	0.18	15.0	156.0	80			
M01390 235.0	0.26	3.4	250		100%	230	Clast-Deficient Breccia - with magnetite and sulphides. Chlorite in microveins and as patches within the matrix. Carbonate occurs in veins up to 2 cm wide and throughout the matrix. Pyrite and magnetite are disseminated. Py 5%, Cp 1%, CB 20%, Ba 5%, Mg 5%
M01391 238.0	0.42	2.5	445				
M01503 243.0	0.07	20.0	73	80		240	
M01504 248.0	0.01	1.2	62		88%		Fault Zone - no dip measurable. Pink barite in microveins.
M01505 253.0	0.08	1.2	124	82		250	Homoclast Breccia - as above.
M01506 258.0	0.17	2.4	93	80			
M01507 263.0	0.03	2.3	49	90	85%	260	
M01392 268.0	0.58	1.4	350	84			Homoclast Breccia - pale grey to pink with subangular quartzite fragments (up to 8 cm) in a foliated, bleached argillite matrix. Although quartzite fragments usually brown to pink in some intervals they look fresh. The pale coloration due to a hard mineral (albite?). Intensity of alteration decreases down interval. Carbonate occurs in veins and throughout matrix. Pink barite generally occurs in a similar fashion to carbonate. Some carbonate veins have selvages and sometimes envelopes of pink barite. Hematite irregularily distributed in matrix and is generally fine grained specularite.
M01393 273.0	0.44	8.6	200	110	68%	270	
M01394 278.0	1.61	12.0	215	84			
M01395 283.0	1.12	96.0	122	110		280	
				90	97%		

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ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				85		290	Homoclast Breccia (cont'd from Page 4)
					97%		Sulphides occur in trace amounts, magnetite decreases down interval.
				82		300	Py 1-3%, Cp 0-tr, CB 2-30%, Mg 0.5-5%, Ba tr-10%
				140		310	
				100			
				250			
				110			
				180	97%	320	
				250			
				110			
				70		330	
				75		340	
				75		350	
					96%		
				75		360	

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ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				75	96%	360	Fault Zone - chloritic.
				100		370	Homoclast Breccia - as above.
				85		380	
				75		390	
				72	95%	400	Homoclast Breccia - dark grey-green with angular to subangular fragments of shale, quartzite and variously altered equivalents. Contact gradational. Matrix chloritized and weakly hematized. Specularite occurs in patches between fragments. Carbonate occurs in microveins and as occasional, tan coloured euhedral crystals in matrix. No sulphides.
				85		410	
				80		420	
				78		430	

Project WJV Page 6 of 7 Hole 82IO25

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				75		440	Homoclast Breccia - pale grey with subrounded and moderately sorted fragments. Chlorite is main alteration mineral and occurs pervasively through matrix. Carbonate occurs in microveins. Only trace amounts of sulphide are present.
				72		450	
				80	99%	460	
				130			
				100		470	Intensly Chloritized Zone - with veins of carbonate. Possible fault.
				110		480	Homoclast Breccia - as described above.
				90	98%	490	
				85			
						499	End of Hole.

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ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	35+50 N 0+13 E	**Azimuth**	292°
Hole No.	82I026A	**Elevation**	1214 m	**Total Depth**	35.1 m (115') **Incl.** -60°
Date Started	22 June, 1982	**Date Completed**	23 June, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
				70		20	
				80		30	Homoclast Breccia - highly fractured and foliated with pale green argillite and pink to grey quartzite fragments in a chlorite-hematite-carbonate matrix. Quartzite decreases toward bottom of interval. There are at least 3 generations of veins beginning with microfractures filled with chlorite, which are cut by quartz-chalcopyrite-chlorite veins, that are themselves cut by barren, brown carbonate veins. Chalcopyrite occurs in veins and also disseminated throughout the matrix. Py tr, Cp <½%, He ½%, CB 3%, Ba <½%
				70	74%	40	
				80		50	
				70			
				85			
				70			
				80		60	
				70	86%		

Project WJV Page 1 of 2 Hole 82I026A

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				70 70 80 85 70	86%	70	Homoclast Breccia - as previously described.
				80		80	Chloritized Heteroclast Breccia - exhibiting pervasive hematization and alignment of fragments subparallel to foliation. Sulphides occur as small disseminated grains in the matrix. Pink barite veins are common and often have specular hematite selvages. Malachite occurs on a few open fractures. Py tr, Cp tr, He 3%, CB 3%, Ba 1%
				90 80 90 90	97%	90	
				130 80 90 100 160		100	Vein - contains red barite, pyrite, hematite, carbonate and gypsum. It is 15 cm wide and exhibits minor radioactivity.
				90 160 70	89%	110	Chloritized Heteroclast Breccia - as above, except decreasing hematite alteration.
							Homoclast Breccia - as previous described.
						120	End of Hole.

Project WJV Page 2 of 2 Hole 82I026A

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	35+50 N	0+13 E	**Azimuth** 292°
Hole No.	82I026B	**Elevation**	1214 m	**Total Depth** 114.6 m (376')	**Incl.** -70°
Date Started	23 June, 1982	**Date Completed**	25 June, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
						20	
						30	
				65	78%	40	Homoclast Breccia - consisting of argillite and rare quartzite fragments. Alteration is restricted to microveins of chlorite and tan coloured carbonate. Specular hematite is present in trace amounts throughout matrix. Pyrite and chalcopyrite occur only within the chloritic microveins in trace quantities.
					53%	50	Heteroclast Breccia - with fragments of argillite and red and brown quartzite in a matrix of carbonate. Pink barite occurs in veins and as irregular blebs within the matrix. Chlorite occurs pervasively and in microveins. Hematite alteration is intense, making up to 30% of the matrix.
						60	

Project WJV

Hole 82I026B

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				60	53%	70	Heteroclast Breccia - as previously described except fragments are smaller with a maximum grain size of 20 mm. Tan coloured barite occurs in veins and with carbonate in matrix. Primary magnetite crystals seen to be partially replaced by chalcopyrite, pyrite and hematite. Py <1%, Cp tr, CB 5%, Ba 3%
						80	
					97%		
						90	
92.0							
M01398 94.0	0.90	1.6	108	65			
M01399	0.58	1.0	109	60	98%		
99.0						100	Homoclast Breccia - pale green grey, sheared argillite breccia with rare quartzite fragments. Matrix mainly carbonate with fine grained hematite. Pink barite occurs in 5 cm veins.
				60	100%		Heteroclast Breccia - as previously described, except matrix is almost entirely hematite with veins of brown barite.
						110	
					100%		
117.0				60			Homoclast Breccia - as previously described. This breccia intersection may be a large fragment within heteroclast breccia. Contacts are sharp and sheared. Chlorite in matrix.
M02001 119.0	0.03	1.2	113				
						120	
					72%		
				62			Heteroclast Breccia - as previously described.
						130	
					96%		Homoclast Breccia - with a matrix of carbonate and barite. The barite also occurs in veins. Gypsum microveins are also present.

Project WJV Page 2 of 6 Hole 82I026B

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						140	Homoclast Breccia - as previously described.
				62	96 %	150	
						160	
172.0						170	Heteroclast Breccia - vein or crosscutting dyke with intense chlorite alteration giving rock a green colour. Trace amounts of pyrite and chalcopyrite seen to replace magnetite.
M02002 177.0	<0.01	2.8	145	80	91%		Heteroclast Breccia - as previously described except for moderate albitization giving a pink colour. This interval is finer grained. Py < 1%, Cp tr, CB 3-5%
M02003 180.5	0.04	8.5	315	100	100%	180	
M01508 187.0	0.02	62.0	111	75	100%		Clast-Deficient Breccia - with relic outlines of clasts. Matrix is mainly carbonate with chlorite microveins. Euhedral magnetites replaced by hematite. Albite occurs pervasively. Py tr, Cp tr, CB 3%, Mg < 1%
M02004 189.0	0.07	1.8	80	60		190	
M02005 193.0	0.05	37.0	350	175			
M02006 195.0	0.01	1.8	43	70	100%		
M02007 200.0	<0.01	1.7	41	65		200	Heteroclast Breccia - as described above. Hematite is most intense alteration mineral occurring throughout matrix. Gypsum present in microveins.
				75	100%	210	

Project WJV Page 3 of 6 Hole 82I026B

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
					100%		Clast-Deficient Breccia - fine grained matrix of carbonate, albite and barite with disseminated pyrite and magnetite. Py <1%, Cp tr, CB 30%, Ab 10%, Mg 3%
						220	Heteroclast Breccia - quartzite fragments in predominantly carbonate matrix. Albite gives core pink colours, chlorite occurs in microveins. Pyrite is finely disseminated. Py <1%, Cp tr, CB 30%, Ab 5%, Mg 3%
				75	100%		
						230	
						240	
242.0							
							Clast-Deficient Breccia - intensely albitized. Carbonate and chlorite occur in microveins. Pyrite is disseminated. Py <1%, Cp tr, Ab 20%, CB 5%, Mg 1%
M02008 247.0	0.01	24.0	270	125			
M02009 251.0	<0.01	0.9	235	80	87%	250	
					100%	260	Heteroclast Breccia - as prevously described.
							Homoclast Breccia - as previously described, except quartzite fragments dominant in this intersection. Py 1%, Cp ½%, CB 3%, Mg 1%, Ab ½%
				70	100%	270	
							Zone of Intense Chloritization.
					100%	280	Clast-Deficient Breccia- mostly carbonate with microveins of barite. Albite pervasive in carbonate matrix.
					92%		

Project WJV Page 4 of 6 Hole 82I026B

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
					92%	290	Clast-Deficient Breccia - see description on previous page.
				70			Clast-Deficient Breccia - magnetite rich with pervasive chlorite. Carbonate forms most of the matrix. Pyrite is disseminated throughout. Py 1%, Cp tr, CB 30%, Mg 10%, Ba ½%
305.0						300	
M02010 307.0	0.01	9.0	43	70			Intense albite alteration Ab 40%
M02011 312.5	<0.01	0.3	71	65	95%	310	Clast-Deficient Breccia - as above. Py <1%, Cp tr
M02012 313.0	<0.01	0.6	110	70			
M02013 318.0	0.03	0.3	275	65			
M02014 321.0	<0.01	4.0	240			320	
M01509 324.0	0.01	5.4	220	60			
M02015 326.0	<0.01	0.3	83	70			
				68		330	Homoclast Breccia - with pervasive carbonate, hematite and chlorite. Pyrite is disseminated. Py ½%, Cp tr, CB 10%, Mg 3%
335.0					91%		
M02016 337.0	<0.01	1.2	18	65			
341.0				65		340	Clast-Deficient Breccia - magnetite in a carbonate matrix. Chlorite moderately intense, occurring in veins and pervasively. More chloritic intervals. Very pyritic. Py 10%, Cp tr, Mg 40%, CB 30%, Cl 10%
M02017 346.0	0.01	1.1	280	70			
M02018 350.0	<0.01	0.8	375	65	98%	350	
M02019 355.0	<0.01	0.8	350	60			
M02020 359.0	<0.01	0.9	220	65		360	

Project WJV Page 5 of 6 Hole 821026B

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
M02021 363.0	<0.01	0.7	93	65	98%		Clast-Deficient Breccia - see description on previous page. Intense chloritization in a possible shear. Py 10%
M02022 367.0	<0.01	0.8	280	65			
370.0				60		370	Homoclast Breccia - pervasive hematite alteration with chlorite in veins and in matrix. Pyrite is disseminated through chloritic intervals. Py 2%, Cp tr, He 20%, CB 5%, Cl 20%
M02023 373.0	<0.01	1.4	32	55	100%		
						380	End of Hole.

Project WJV Page 6 of 6 Hole 82I026B

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	34+01 N	0+04 E	**Azimuth** 270°
Hole No.	82I027	**Elevation**	1333 m	**Total Depth**	105.4 m (346.0') **Incl.** -50°
Date Started	27 June, 1982	**Date Completed**	29 June, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
						20	
24.0			65 75 80 110				
M02024	0.06	22.0	117	75	45%	30	Fault Zone In Clast-Deficient Breccia - pyrite partially oxidized to limonite (usually goethite) which fills cavities (boxworks). Malachite and pyrolusite occur in trace amounts as coatings. Py 1%, Cp tr
36.0							
M02025	0.05	1.4	151	70 100		40	
43.0							Chloritic, Clast-Deficient Breccia - chlorite is pervasively disseminated and concentrated in irregular patches. Carbonate alteration pervasive and in micro-veinlets. Pyrite and chalcopyrite finely disseminated throughout. Hematite occurs as magnetite pseudomorphs.
M02026	0.07	3.3	380	70			
46.0			80				
M02027	0.02	1.5	345	65 75	87%	50	
50.0							
M02028	0.04	0.5	69	80			
55.0							Homoclast Breccia - with intense carbonate alteration. Quartzite clasts are rare. The whole interval is highly fractured. Hematite replaces small, euhedral magnetites.
M01510	0.03	9.4	81	60 70 80	80%	60	
60.0							
M01511	0.13	8.9	154	75			

Project WJV Page 1 of 5 Hole 82I027

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ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)
M01511 70.0	0.13	8.9	154	83 70 80 90	80 %	70
M02029 73.0	0.04	0.7	160	70 80		
M02030 78.0	0.12	5.4	110 510	70 70 115	38%	
M01512 81.0	0.11	39.0	620			80
M02031 83.0	0.14	3.3	680			
M02032 105.0	0.08	20.0	400 500 700 2100 465	350 600 800 500	85 %	90 100
M02033 112.0	0.16	112.0	900 500 550 2000 680	500 150 500 600 1200		110
M02034 116.0	0.18	66.0	685 500 600	400 650 800	100 %	
M02035 119.0	0.18	82.0	500 740	400 1050		
M02036 125.0	0.64	114	800 900 800	400 1500 500		120
M02037 129.5	0.13	5.7	530	300 200	94 %	
M02038 132.5	0.16	35.0	555	600 425		130
M02039 134.0	0.09	7.0	550	150 180		
M02040	0.13	46.0	585	200 100 150	52%	

Geology

Chloritic, Clast-Deficient Breccia - intense chlorite and carbonate alteration with pervasive fine grained hematite. Rare microveins of quartz crosscut foliation.
Py tr, Cp tr, He 20%, CB 3%, Cl 30%

Clast-Deficient Breccia - Oxide breccia with significant amounts of pyrite that occurs in streaks parallel to foliation and also blebs interstitial to magnetite pseudomorphs. Hematite makes up 50% of the rock. Much pyrite has been leached out to form box-works. Azurite coatings are visible on some fractures.
Py 20%, Cp tr, He 50%, CB 3%

Total amount of hematite decreases downwards. 112' to 117' is very radioactive. This zone is highly oxidized; botryoidal goethite and fibrous limonite common in cavities.
Py 20%, Cp tr, He 20%, CB 3%

Project WJV Page 2 of 5 Hole 82I027

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
138.5				1150		140	
M02041	0.05	63.0	440	200	52%		Clast-Deficient Breccia - as previously described. Azurite coatings still present on fractures. Py 5-20%, Cp tr, He 20-90%, Az tr
146.0							
M02042	0.05	3.6	610			150	
152.0							
M02043	0.03	1.3	500				
157.0							
M02044	0.06	2.4	710	110	46%	160	
159.0							
M02045	0.05	4.4	565				
163.0							
M02046	0.06	6.1	430		93%		Heteroclast Breccia - moderately chloritized matrix with tan quartzite fragments. Fine grained hematite occurs in patches. Py <½%, He ½%
167.0							
M02047	0.01	2.1	27		100%	170	
171.0				100			
				140			
M02048	0.02	6.2	29	100	100%		Clast-Deficient Breccia - pink coloured rock, hardness 4-5. Possibly albitized with disseminated Mg. Some with core replaced by Cp. Mg replaced with He adjacent to microveins.
178.0							
M02049	0.01	13.0	26			180	
180.5							
				150			
M02050	0.03	16.0	198		100%		Heteroclast Breccia - as previously described. Chlorite and albite are main alteration minerals. Chlorite occurs in veins, whereas albite is pervasive as patches in matrix. Hematite reduced to trace quantities in matrix. Py <½%
185.0							
M02051	0.01	5.8	93	100		190	
190.0							
M01513							
191.5							
M02052	0.01	0.8	136				Heteroclast Breccia - carbonate alteration with zones of magnetite overgrowing and surrounding pink quartzite fragments. Magnetite crystals partially replaced by chalcopyrite and pyrite. Breccia fragments variably replaced by tan coloured carbonate. Chlorite is pervasive throughout the matrix. Gypsum seen in microveins. Barite also present in veins and with the carbonate in the matrix. Py ½-2%, Cp <1%, Mg<10%, CB 5-10%
195.0				70			
M02053	0.23	1.4	106				
200.0				80		200	
M02054	0.06	0.6	48		100%		
205.0							
				70			
M01514	0.03	3.0	39				
210.0						210	
M01515	0.02	15.0	46				

Project WJV Page 3 of 5 Hole 82I027

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
M01515 214.0	0.02	15.0	46				
M01516 217.0	0.07	4.0	88	70			Heteroclast Breccia - as described above.
M01518 222.0	0.02	8.5	149		100%	220	
				85			
M01519 229.0	0.06	170.0	100 → 610	70			
M02055 231.0	0.25	6.3	450			230	Homoclast Breccia - with occasional, subangular, quartzite fragments in a pale green-grey matrix of altered argillite. Chalcopyrite occurs within pink barite veins (1-2 cm in diameter). At 246' sooty pitchblende occurs in a tan carbonate barite microvein. Py ½-5%, Cp <1%, Mg <5%, Pitchblende tr
M01520 234.0				80			
M02056 236.0	0.10	4.5	820		92%		
M02057 240.0	0.31	1.3	655	150		240	
			90 →	115			
M02058 246.0	0.52	27.0	400 → 120 → 800	850			Clast-Deficient Breccia - 'dyke' crosscutting the homoclast breccia. Mineralogy dominated by magnetite which occurs as euhedral crystals up to 15 mm across. Chalcopyrite is disseminated throughout. Py tr, Cp 5%, Mg 20%
M02059 249.0	0.12	116.0	830				
M02060 251.0	0.44	12.0	650	80		250	
M01521 256.0	0.10	20.0	445		97%		Homoclast Breccia - as described above.
M01522 261.0	0.64	24.0	395	70			
			90 →	80			
			80 →			260	
M01523 268.0	0.12	16.0	380	80			
				90			
M02061 271.0	0.48	37.0	470	200		270	Clast-Deficient Breccia - with pyrite, chalcopyrite and magnetite in a barite, carbonate matrix. Py 20%, Cp 5%, Mg 1%, CB 20%, Ba 40%
M02062 276.0	0.22	2.7	260	100	97%		
M02063 279.0	0.06	2.1	171				Homoclast Breccia - as described above but with more carbonate in the matrix. Barite occurs in veins (<10 mm across). Disseminated magnetite partially replaced by sulphides. Py <1%, Cp <½%, Mg 3%, CB 10%, Ba 3%
M02064 285.0	0.38	4.0	162	70		280	
				80			

Project WJV Page 4 of 5 Hole 821027

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
M02065 290.0	0.21	6.1	192 80 100 80	90		290	Homoclast Breccia - as described on previous page. Py tr, Cp <½%
M02066 295.0	0.12	14.0	175	80	97%		
M02067 302.0	0.04	16.0	127 200 250	85		300	
M02068 305.0	0.78	36.0	230 250 90	80			
M02069 309.0	0.10	7.6	156	70 80	88%	310	
M02070 313.0	0.03	65.0	73 500 100	170 75			Chloritized Fault Zone - with disseminated magnetite. Chlorite alteration is intense. This seems to be peripheral to an albitic zone in and adjacent to the fault. Chalcopyrite occurs in quartz microveins. Py <5%, Cp <1%, Mg 5%, Cl 10%, Ab 1%
M02071 317.0	0.03	2.8	42 90	80 60 70	71%		
M02072 323.0	0.22	6.6	173	70	100%	320	
M01524 325.0	0.06	88.0	47				Heteroclast Breccia - albitized matrix with disseminated pyrite and microveins of magnetite and carbonate. Between 330-339' patches of intense albitic alteration preferentially replace quartzite fragments. Py 3%, Cp <1%, Mg 1%, Ab 20%
M02073 328.0	0.04	0.8	61		76%		
M02074 331.5	0.23	2.5	69			330	
M02075 337.0	0.21	1.8	40	70	100%		
M02076 341.0	0.12	2.3	88			340	
M02077 346.0	0.04	1.3	34		90%		
						350	End of Hole.

Project WJV Page 5 of 5 Hole 821027

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	**Grid Coordinates**	38+50 N	0+50 E	**Azimuth**
Hole No.	82I028	**Elevation**	1086 m	**Total Depth**	196.6 m (645') **Incl.** -90°
Date Started	30 June, 1982	**Date Completed**	3 July, 1982	**Logged by**	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
20.0						10	
						20	
M02078 24.0	< 0.01	0.5	163		100%		
M02079 31.0	0.07	0.3	94	50		30	Homoclast Breccia - with varying proportions of quartzite to argillite fragments. Breccia strongly foliated (dip 40-65°). Argillite carbonatized with tan ankerite(?) which forms euhedral crystals, often augened by foliation. Quartz occurs in veins with carbonate. The latter exhibits cockade textures implying open space filling. Chalcopyrite occurs in the veins and also as blebs in matrix. Mineralization similar to Zone F. Py up to 30%, Cp ½-3%, CB 30%, Ba <½%
M02080 36.0	0.44	0.3	166				
M02081 41.75	0.82	1.1	113	60	100%	40	
M02082 46.0	1.13	1.8	119				
M02083 50.0	0.31	56.0	133	70 125 190	100%	50	Fault - pervasive albitization on hanging wall of fault. Breccia salmon pink colour. Quartzite fragments not pervasively altered. Py 3-5%, Cp ½%
M02084 56.0	0.60	2.0	179	100 60 125			
M02085 60.0	0.36	0.6	145	100	100%	60	Clast-Deficient Breccia - see description on following page..
M02086	0.74	1.1	133	90			

091445

Project WJV Page 1 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
65.0				90			
M02087 70.0	0.34	0.5	180	90		70	Clast-Deficient Breccia - carbonate totally replacing original fragments and matrix. Veins of quartz and carbonate contain large blebs of chalcopyrite. Pyrite and chalcopyrite also present in matrix. Lath-shaped chlorites could be pseudomorphs after an amphibole or primary euhedral chlorites (up to 15 mm in length). Barite occurs in micro veins. Py 10%, Cp ½%, CB 30%, Cl ½%
M02088 75.0	0.05	0.3	141		100%		
M02089 80.0	0.04	0.2	125			80	
M02090 84.0	0.02	0.3	120	80			
M02091 88.0	0.15	0.4	136				
M02092 94.0	1.00	0.8	116		37%	90	
M02093 97.0	1.22	0.3	110	80			
M02094 102.0	0.58	1.0	133		100%	100	sharp contact
M02095 107.0	0.06	0.2	105	70	100%		Homoclast Breccia - pale grey with strong foliation. Magnetite crystals replaced by hematite and/or euhedral pyrite. Albite occurs as pervasive alteration in magnetitic zones, replacing some quartzite fragments. Py tr, Cp tr-2%, CB 5%, Mg 5%
M02096 112.0	0.05	0.7	70	80		110	
M02097 116.0	0.84	2.2	172	65			
M02098 120.0	0.43	0.8	84	70	92%	120	
M02099 125.0	0.27	0.6	112				
				70	100%		Homoclast Breccia - as above, except magnetite crystals replaced by chlorite not hematite. Pyrite usually occurs as fine disseminations but becomes nearly massive in places. Grains parallel foliation (45° dip).
						130	
					100%		

Project WJV Page 2 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)
				70		140
						150
				60	100%	
						160
				125		
				70		170
				150		
				70		
				125	100%	180
193.0						
MO1525	0.18	24.0	170	70		190
197.0						
						200
					100%	
						210

Geology

Homoclast Breccia - with intense carbonate alteration of argillite fragments and matrix. In places quartzite fragments are chloritized around margins. Carbonate crystals are augened in areas of intense foliation (-65°). In these zones chlorite is also abundant (2-5%). Replacement of carbonate by barite can be seen between 173 and 173.50 feet. Quartz-magnetite-chlorite veins are common throughout. They appear to be earlier than quartz-carbonate-chalcopyrite veins. Sulphides are irregularly distributed although pyrite is concentrated in bands paralleling foliation. Pyrite is most abundant from 129.00 to 129.80 and 170.00 to 173.50, where it forms up to 50% of the rock. Chalcopyrite occurs as disseminations in matrix.
Py 5%, Cp <½%, CB 10%, Cl 1%

Project WJV Page 3 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						220	Homoclast Breccia - as previously described.
					100%	230	
				70		240	
						250	
						260	
					100%	270	
						280	

Project WJV Page 4 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				70	100 %	290	Homoclast Breccia - as previously described.
						300	
						310	
				55	98 %	320	
						330	
						340	
346.0							Fault Zone - with disseminated pyrite and trace chalcopyrite.
M01526 351.0	0.02	6.0	275				
M02101 356.0	0.48	0.8	147	70	92%	350	Homoclast Breccia - chloritic alteration becoming more intense downwards. Magnetite and sulphides also increasing. The dominant alteration is carbonate which occurs throughout matrix and in veins. Py <1%, Cp 1%, CB 10%
M02102 359.0	0.84	0.5	167				
360.0	3.72	7.8	350			360	

M02103

Project WJV Page 5 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
M01527 366.0	0.31	18.0	126	90	100%		Homoclast Breccia - with salmon pink to brick red albite in hanging wall of fault. Chalcopyrite occurs with chlorite. Py 10%, Cp 10%, CB 20%, He 5%, Cl 3%
M01528 372.0	0.15	1.6	43		80%	370	
M01529 379.5	0.06	52.0	52	110 150	100%		Chloritic Homoclast Breccia - above fault. Chlorite intense paralleling foliation. Hematite more abundant near fault, replaces magnetite.
M02104 382.0	0.09	0.6	67	90		380	Homoclast Breccia - typical.
				125	100%		Hematized and Chloritized Homoclast Breccia alteration near fault(?) magnetite crystals replaced by chalcopyrite and hematite. Py < ½%, Cp < 0.5%, CB 5%, Cl 20%, He 20%
						390	Homoclast Breccia - with strong foliation. Carbonate and chlorite occur in matrix and microveins, up to 10% in places.
				90		400	
					100%		
						410	
				80			
				120		420	
					100%		
				70		430	
							Vein - of red barite between 431 and 431.50

Project WJV Page 6 of 9 Hole 821028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						440	Homoclast Breccia - as previously described.
						450	
				70	100%		
						460	
						470	
					90%		
						480	
					100%		
						490	
				55	97%		
						500	

Project WJV Page 7 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
				55	91%	510	Homoclast Breccia - as previously described.
516.0							Fault Zone - albite in footwall. Chlorite concentrated in shear zone. Pyrite with chlorite. Py 5%, Cp tr
M01530	0.01	94.0	60		100%		
521.0						520	
				65	100%		Homoclast Breccia - as previously described except for pyritic interval between 550 and 557', where pyrite is finely disseminated parallel to foliation and comprises 1-2% of rock. Py <1%, Cp tr
534.0						530	
M02105 537.0	0.01	0.2	91				
						540	
545.0							
546.0	0.01	0.2	97	78	92%		
M02106							
550.0						550	
M02107 553.0	0.13	0.2	47				
				60			
						560	
							Chloritic Fault Breccia - foliation destroyed by fault zone. Pyrite occurs finely disseminated in chlorite matrix. No chalcopyrite.
					78%	570	
							Homoclast Breccia - as previously described.
						580	

Project WJV Page 8 of 9 Hole 821028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
					92%	590	Possible Fault Zone in Homoclast Breccia - a few highly fractured zones are intensely chloritized, however carbonate is dominant alteration type in this interval. It occurs as fine grains and euhedral crystals in matrix. Sulphides occur in trace amounts.
					100%	600	
				60		610	
					100%		
					100%	620	Homoclast Breccia - below contact breccia dominated by quartzite fragments in argillite matrix (as opposed to argillite with occasional quartzite fragments). Hematization is dominant alteration with specularite reaching 10%. Chlorite accompanies hematite as microveins and disseminations in matrix.
					100%	630	
						640	
						645	End of Hole.

Project WJV Page 9 of 9 Hole 82I028

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	Grid Coordinates	37+66 N	0+46 E	Azimuth
Hole No.	82I029	Elevation	1108 m	Total Depth	30.2 m (99.1')
Date Started	3 July, 1982	Date Completed	4 July, 1982	Logged by	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
				55	98%	20	Homoclast Breccia - pervasive carbonate alteration replaces most of smaller breccia fragments. Carbonate microveinlets common. Weak chloritic alteration occurs in a few irregular patches. Occasional pale yellow to red barite veins are up to 3 mm wide. Py < ½%, Cp tr
						30	
						40	
						50	Homoclast Breccia - chloritic alteration particularly strong in faulted areas where it occurs as micro-veinlets subparallel to weak foliation. Py < ½%, Cp tr
						60	Homoclast Breccia - similar to first interval.

Project WJV Page 1 of 2 Hole 82I029

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	CPS	Core Recovery	Depth (feet)	Geology
	55			Homoclast Breccia - as previously described.
	80		70	
		98%		
	60		80	
				Chloritic Homoclast Breccia
				Homoclast Breccia - as above.
			90	
	50			
				Moderately Chloritic Homoclast Breccia - chlorite occurs in microveinlets.
			100	
				End of Hole.

Project WJV Page 2 of 2 Hole 82IO29

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Project	WJV (IGOR)	Grid Coordinates	37+66 N	0+46 E	Azimuth 270°
Hole No.	82I030	Elevation	1198 m	Total Depth 90.2 m (296')	Incl. -50°
Date Started	4 July, 1982	Date Completed	6 July, 1982	Logged by	D. Heberlein

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						10	Overburden
						20	
				60	64%	30	Homoclast Breccia - with argillite and rare fragments. Interval highly fractured with abundant limonite coatings and boxworks after pyrite imparting an orange colour. Foliation dips at -60°. Alteration dominantly carbonate with chlorite in fractures and in matrix. Brown barite occurs in veins. Sulphides disseminated. Magnetite disseminated. Py ½%, Cp tr, CB 10%, Mg 1%, Cl 1%
						40	
					83%	45.0	
M01531	0.31	1.8	88	52		47.0	
M02108	0.27	0.3	156			50.0	
						50	Homoclast Breccia - as above, except magnetite and pyrite increasingly abundant. Fragments almost totally replaced by carbonate, only ghost outlines remain. Foliation dips at -35°. Magnetite occurs as disseminated, euhedral crystals. Pyrite is also disseminated. Py 10%, Cp tr, Mg 20%, CB 10%, Ba <1%, Cl ½%
					100%	60	

Project WJV Page 1 of 5 Hole 82I030

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)
77.5					100%	70
M01532 85.0	0.07	2.4	86	46		80
M01533 91.0	0.02	2.5	48	47		90
M01534 100.0	<0.01	1.0	52	46	92%	100
M01535 115.0	0.02	0.7	47	44		110
				50	100%	120
				40		130

Geology

Homoclast Breccia - as previously described.

Clast-Deficient Breccia - intense carbonate alteration (tan) with euhedral crystals up to 15 mm in diameter throughout matrix. Magnetite has been pervasively altered to hematite. Hematite (specularite) also occurs as patches in the coarse-grained, pink barite veins.
Py tr, Cp tr, CB 20%, Cl tr, He 40%

gradational contact

Homoclast Breccia- chlorite alteration gives rocks a greenish grey coloration. Carbonate is pervasive and occurs in microveins.
Pr tr, CB 10%, Cl 3%, He ½%

Project WJV Page 2 of 5 Hole 821030

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						140	
					100%		
				40			
						150	Homoclast Breccia - as previously described.
						160	
						170	
					100%		
				50			
						180	
						190	
						200	
					97%		Homoclast Breccia - as described on following page.
						210	

Project WJV Page 3 of 5 Hole 821030

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
						220	Homoclast Breccia - with occasional subangular quartzite fragments. Chlorite occurs interstitially in matrix and in microveinlets. Carbonate is pervasive in matrix and in microveins. Pyrite is disseminated as large euhedral crystals, up to 4 mm in diameter. Foliation dips at -50°. Py 5%, Cp tr, CB 15%, Cl 1%
					97%	230	
				50		240	
					100%	250	
					100%	260	
						270	
274.0							
M01536	<0.01	2.5	156	44	100%	280	

Project WJV Page 4 of 5 Hole 82 I 030

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DIAMOND DRILL LOG

Sample No.	% Cu	ppm U	ppm Co	CPS	Core Recovery	Depth (feet)	Geology
287.0							
						290	Homoclast Breccia - as previously described.
				50	88 %		
						300	End of hole.

Project WJV Page 5 of 5 Hole 82I030

TABLE 5 1982 DRILL SUMMARY

HOLE NUMBER	TARGET	GRID COORDINATES	ELEVATION	DEPTH	DIP	AZIMUTH	NO. OF SAMPLES	METRES SAMPLED	AVERAGE PPM U_3O_8	HIGHEST ASSAY IN LBS U_3O_8	AVERAGE % CU	HIGHEST ASSAY IN % CU	AVERAGE PPM CO	HIGHEST ASSAY IN PPM CO	BEST INTERSECTIONS	COMMENTS
82I023	magnetic, resistivity and chargeability anomalies	38+50N, 0+50E	1086 m	151.2 m	-50°	225°	31	42.3	19	0.47/0.6 m	0.19	1.54/1.5 m	105	300/1.5 m	1.54% Cu/1.5 m	Up to 165 ppb Au over 1.5 m.
82I024	magnetic, resistivity and chargeability anomalies.	38+50N, 0+50E	1086 m	168.0 m	-50°	315°	8	12.2	11	0.10/1.5 m	0.60	1.35/1.2 m	223	350/1.5 m	0.85% Cu, 215 ppm Co, 218 ppb Au/7.0 m	Highest gold assay obtained to date from core, up to 289 ppb Au over 1.5 m.
82I025	magnetic, resistivity and chargeability anomalies.	37+30N, 1+06E	1174 m	152.1 m	-50°	270°	50	78.3	7	0.23/1.5 m	0.36	1.61/1.5 m	181	515/1.5 m	1.10% Cu with 365 ppm Co/1.5 m 1.37% Cu with 169 ppm Co/3.0 m 0.28% Cu with 515 ppm Co/1.5 m	Explored below outcrop which produced a 1974 OJV chip sample that assayed 2.5% Cu over 3 m.
82I026A	chargeability and V.L.F. anomalies	35+50N, 0+13E	1214 m	35.1 m	-60°	292°	--	--	--	---	--	---	--	---	---	Hole lost in badly fractured ground.
82I026B	chargeability and V.L.F. anomalies	35+50N, 0+13E	1214 m	114.6 m	-70°	292°	25	30.0	4	0.09/1.2 m	0.06	0.90/0.6 m	157	375/1.2 m	---	Geophysical anomalies explained by large fault zone.
82I027	magnetic, chargeability, resistivity anomalies	34+01N, 0+14E	1333 m	105.4 m	-50°	270°	68	98.3	22	0.34/2.9 m	0.17	0.78/1.0 m	280	830/0.9 m	0.13% Cu with 518 ppm Co/28.7 m 0.25% Cu with 536 ppm Co/15.6 m	Explored below prominent massive hematite outcrop.
82I028	downdip extensions structure intersected in 82I023 and 82I024	38+50N, 0+50E	1086 m	196.6 m	-90°	--	35	47.9	9	0.22/1.5 m	0.37	3.72/0.3 m	128	275/1.5 m	0.95% Cu, 128 ppm Co/3.0 m 0.96% Cu, 176 ppm Co/2.7 m 1.07% Cu, 114 ppm Co/2.7 m	Intersected downdip extensions of zone in 82I023 and 82I024 plus possible extension zone at 80I014.
82I029	explored below mineralized float train	37+66N, 0+46W	1198 m	30.2 m	-90°	--	--	--	--	---	--	---	--	---	---	Failed to intersect zone.
82I030	explored below mineralized	37+66N, 0+46W	1198 m	90.2 m	-50°	270°	7	16.6	2	0.006/1.5 m	0.04	0.31/0.6 m	88	156/3.9 m	---	Intersected Hb3, but zone did not contain significant copper or uranium mineralization.
TOTALS -				1043.4 m			224	325.6			0.26		188			

* 1979 and 1980 Drill Summary appears in 1980 WJV Final Report

091445

4000 N 3900 N 3800 N 3700 N 3600 N 3500 N 3400 N 3300 N 3200 N 3100 N 3000 N 2900 N 2800 N

400 E — 300 E — 200 E — 100 E — 00 — 100 W — 200 W — 300 W

Baris Creek

Igor Creek

ZONE D

SECTION 3950 N
SECTION 3890 N
SECTION 3850 N
SECTION 3810 N
SECTION 3760 N
SECTION 3720 N
SECTION 3680 N
SECTION 3600 N
SECTION 3520 N
SECTION 3480 N
SECTION 3440 N

801014 821028 801008 801006 821027 801010 791003 791001 791002 801005 821026 801020 801026 801027 801022 821024 821025 821029 791004 801016 791005 801009 801007 801008 821030 801001 801003 801004

1250 1300 1350 1400 1450 1500 1550 1600 1650 1700 1750 1800 1850 1900 1950

Baseline

LOCATION MAP

LEGEND

HELIKIAN

- Hb_3 — Flint deficient breccia; Clast deficient breccia
- Hb_2 — Heteroclast breccia
- Hb_1 — Homoclast breccia

HELIKIAN or Older

- Q_{2s} — Bleached and carbonate altered Quartet Group mudstones, siltstones and quartzites
- Limit of outcrop
- Geological contact (known, inferred)
- Fault (with downthrow)
- Bedding attitude
- 801007 — Diamond drillhole location

Figure: WJV82-11

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY

IGOR PROPERTY (EAST)

WERNECKE JOINT VENTURE

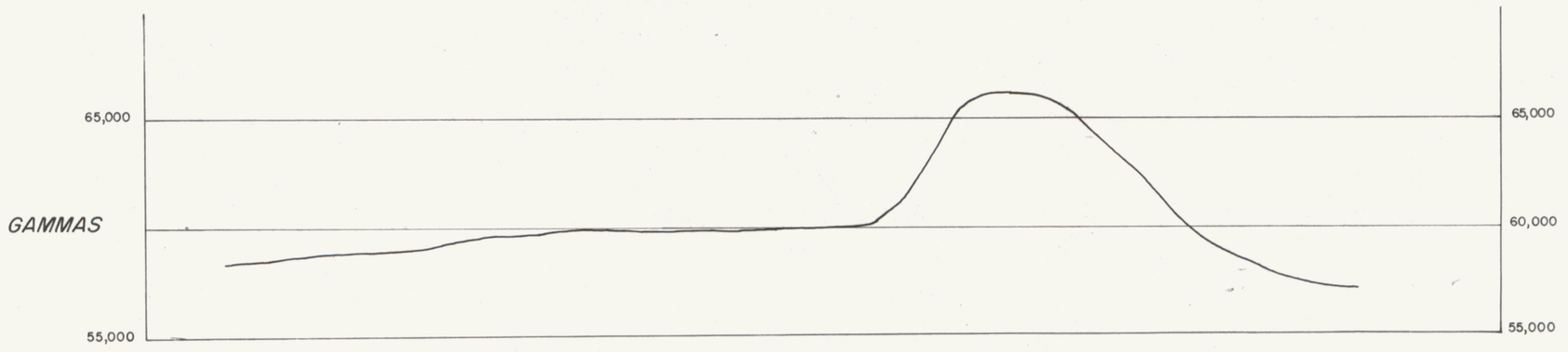
SCALE 1:1000

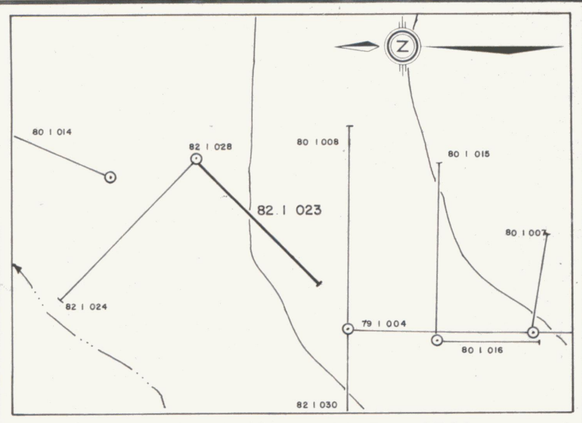
10 0 10 20 30 40 50 60 70 80 90 100 metres

091445

To accompany report dated Dec/82

MAGNETIC PROFILE



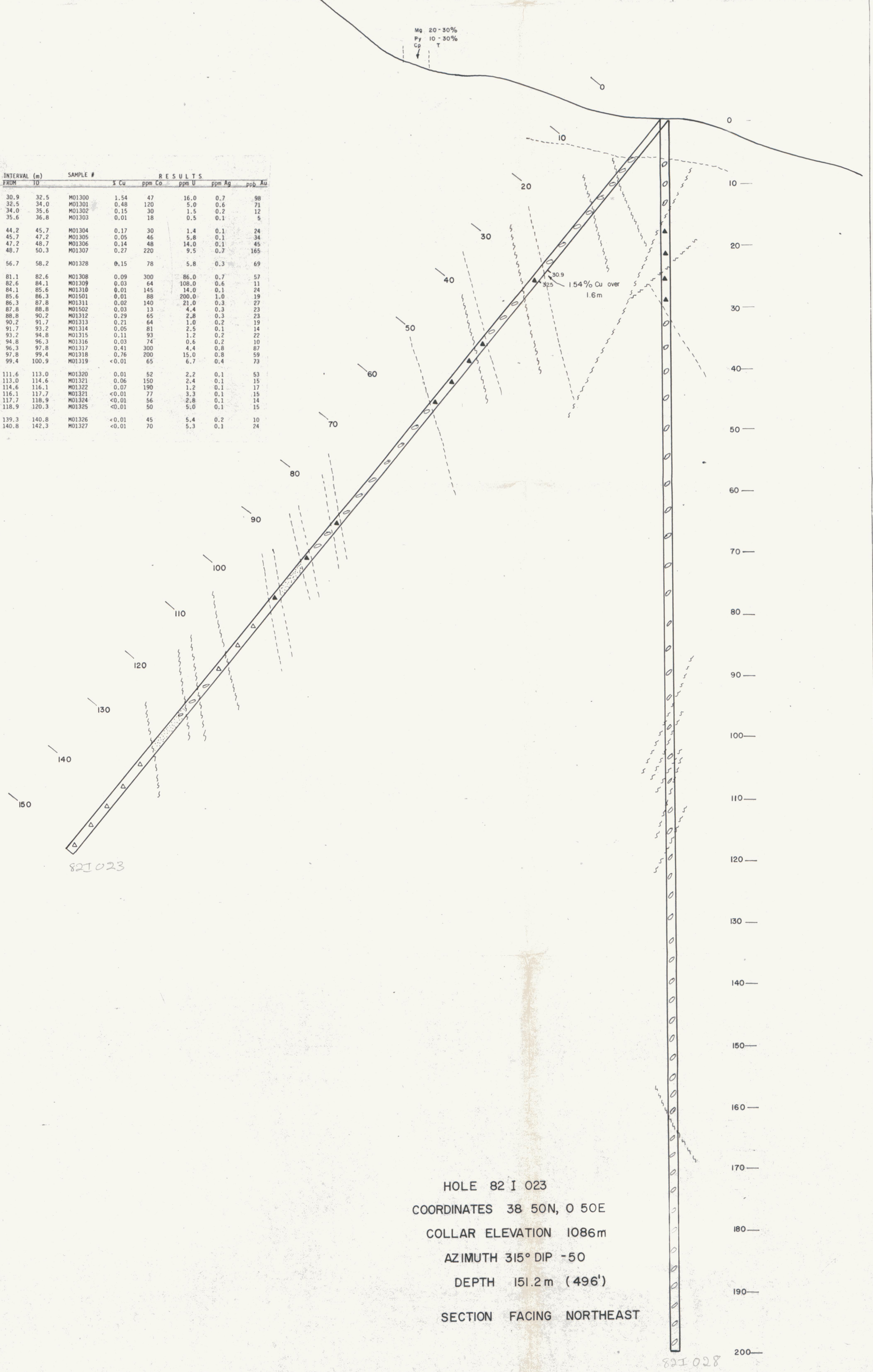


LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES

INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
30.9	32.5	M01300	1.54	47	16.0	0.7	98
32.5	34.0	M01301	0.48	120	5.0	0.6	71
34.0	35.6	M01302	0.15	30	1.5	0.2	12
35.6	36.8	M01303	0.01	18	0.5	0.1	5
44.2	45.7	M01304	0.17	30	1.4	0.1	24
45.7	47.2	M01305	0.05	46	5.8	0.1	34
47.2	48.7	M01306	0.14	48	14.0	0.1	45
48.7	50.3	M01307	0.27	220	9.5	0.7	165
56.7	58.2	M01328	0.15	78	5.8	0.3	69
81.1	82.6	M01308	0.09	300	86.0	0.7	57
82.6	84.1	M01309	0.03	64	108.0	0.6	11
84.1	85.6	M01310	0.01	145	14.0	0.1	24
85.6	86.3	M01501	0.01	88	200.0	1.0	19
86.3	87.8	M01311	0.02	140	21.0	0.3	27
87.8	88.8	M01502	0.03	13	4.4	0.3	23
88.8	90.2	M01312	0.29	65	2.8	0.3	23
90.2	91.7	M01313	0.21	64	1.0	0.2	19
91.7	93.2	M01314	0.05	81	2.5	0.1	14
93.2	94.8	M01315	0.11	93	1.2	0.2	22
94.8	96.3	M01316	0.03	74	0.6	0.2	10
96.3	97.8	M01317	0.41	300	4.4	0.8	87
97.8	99.4	M01318	0.76	200	15.0	0.8	59
99.4	100.9	M01319	<0.01	65	6.7	0.4	73
111.6	113.0	M01320	0.01	52	2.2	0.1	53
113.0	114.6	M01321	0.06	150	2.4	0.1	15
114.6	116.1	M01322	0.07	190	1.2	0.1	17
116.1	117.7	M01321	<0.01	77	3.3	0.1	15
117.7	118.9	M01324	<0.01	56	2.8	0.1	14
118.9	120.3	M01325	<0.01	50	5.0	0.1	15
139.3	140.8	M01326	<0.01	45	5.4	0.2	10
140.8	142.3	M01327	<0.01	70	5.3	0.1	24



HOLE 82 I 023

COORDINATES 38 50N, 0 50E

COLLAR ELEVATION 1086m

AZIMUTH 315° DIP -50

DEPTH 151.2m (496')

SECTION FACING NORTHEAST

LEGEND

- Chloritic breccia (Hb4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb3 fault zones.
- Clast deficient breccia (Hb3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals.
- T Trace.
- Cp Chalcopyrite.
- Py Pyrite.
- Mg Magnetite.
- He Hematite.
- Mo Molochite.
- Az Azurite.
- Ba Barite.
- Sd Siderite.

Figure WJV82-I2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 82I023

IGOR PROPERTY

WERNECKE JOINT VENTURE

C. Downie Feb/83

091445

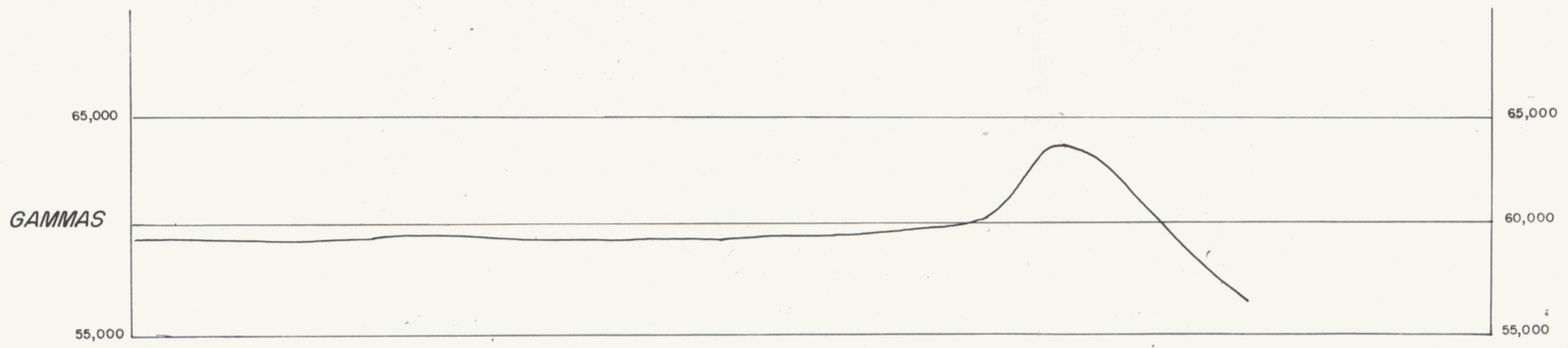
SCALE 1:400

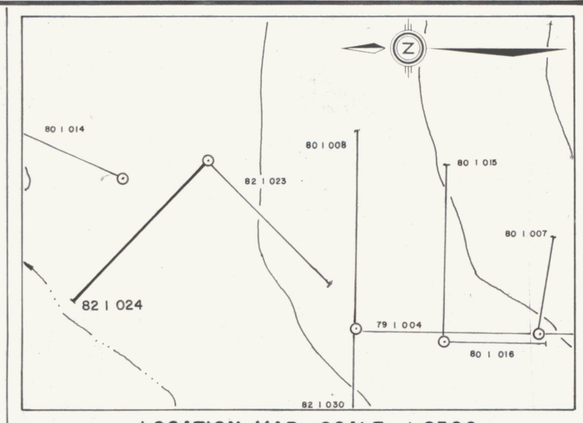
10 8 6 4 2 0 4 8 12 16 20

metres.

To accompany report dated December, 1982.

MAGNETIC PROFILE

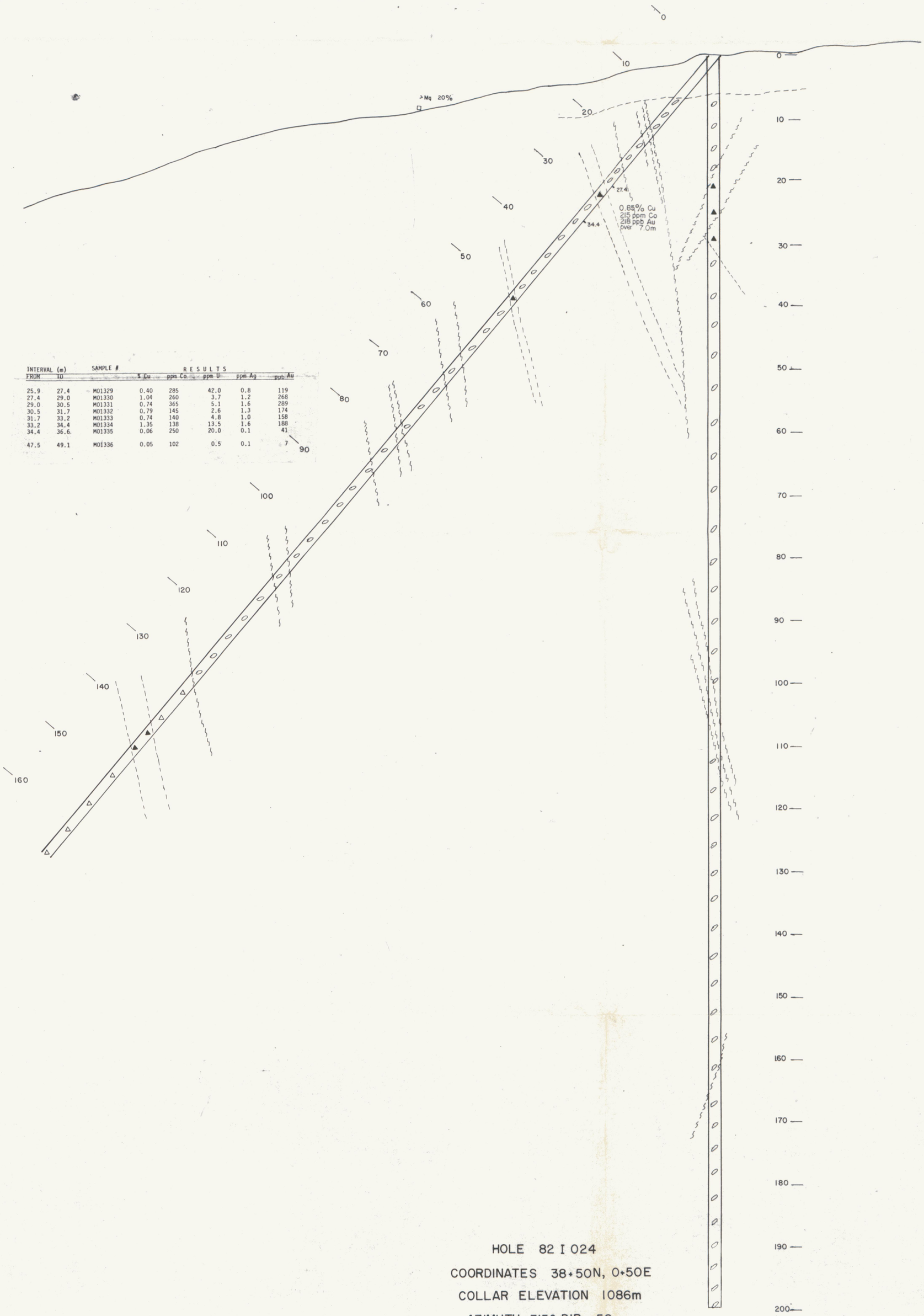




LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES



INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
25.9	27.4	M01329	0.40	285	42.0	0.8	119
27.4	29.0	M01330	1.04	260	3.7	1.2	268
29.0	30.5	M01331	0.74	365	5.1	1.6	289
30.5	31.7	M01332	0.79	145	2.6	1.3	174
31.7	33.2	M01333	0.74	140	4.8	1.0	158
33.2	34.4	M01334	1.35	138	13.5	1.6	188
34.4	36.6	M01335	0.06	250	20.0	0.1	41
47.5	49.1	M01336	0.05	102	0.5	0.1	7

LEGEND

- Chloritic breccia (Hb4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb3 fault zones.
- Clast deficient breccia (Hb3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals.

T	Trace.
Cp	Chalcopyrite
Py	Pyrite.
Mg	Magnetite.
He	Hematite.
Ma	Malachite.
Az	Azurite.
Ba	Barite.
Sd	Siderite.

HOLE 82 I 024

COORDINATES 38+50N, 0+50E

COLLAR ELEVATION 1086m

AZIMUTH 315° DIP -50

DEPTH 168m (551')

SECTION FACING NORTHEAST

Figure WJV82 - I3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 821024

IGOR PROPERTY

WERNECKE JOINT VENTURE

SCALE 1:400

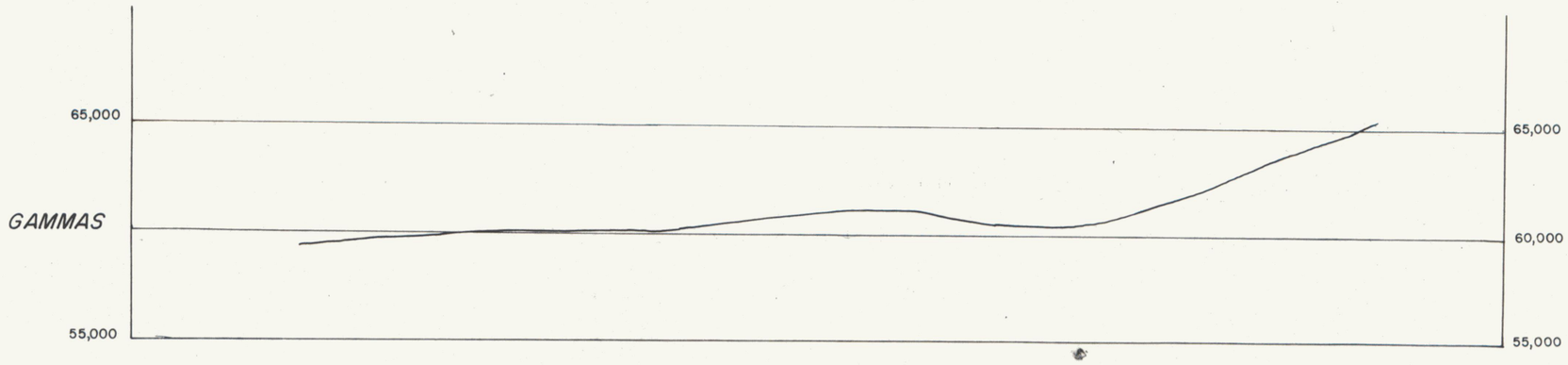
10 8 6 4 2 0 4 8 12 16 20

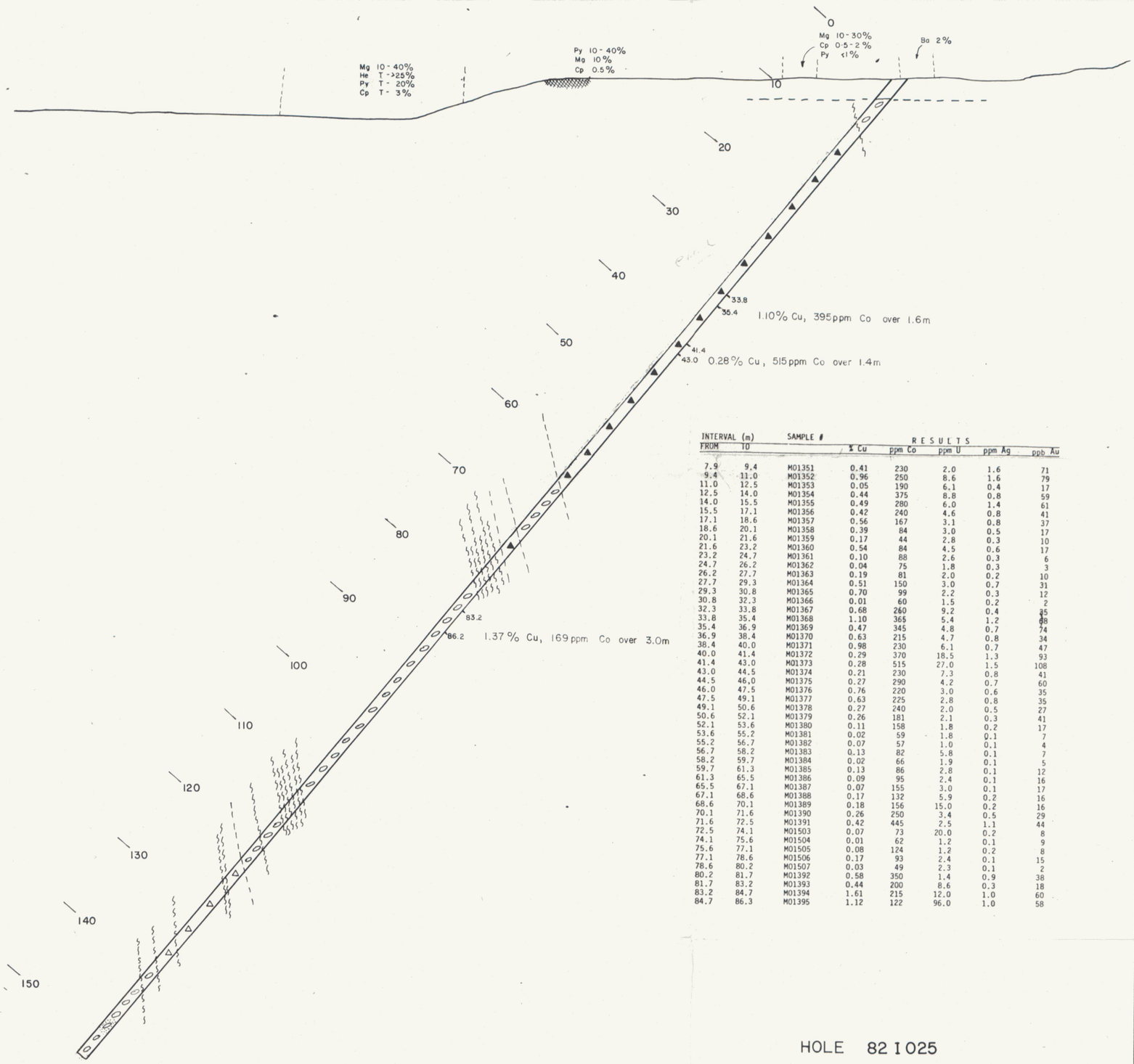
metres

091445

To accompany report dated December, 1982.

MAGNETIC PROFILE





INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
7.9	9.4	M01351	0.41	230	2.0	1.6	71
9.4	11.0	M01352	0.96	250	8.6	1.6	79
11.0	12.5	M01353	0.05	190	6.1	0.4	17
12.5	14.0	M01354	0.44	375	8.8	0.8	59
14.0	15.5	M01355	0.49	280	6.0	1.4	61
15.5	17.1	M01356	0.42	240	4.6	0.8	41
17.1	18.6	M01357	0.56	167	3.1	0.8	37
18.6	20.1	M01358	0.39	84	3.0	0.5	17
20.1	21.6	M01359	0.17	44	2.8	0.3	10
21.6	23.2	M01360	0.54	84	4.5	0.6	17
23.2	24.7	M01361	0.10	88	2.6	0.3	6
24.7	26.2	M01362	0.04	75	1.8	0.3	3
26.2	27.7	M01363	0.19	81	2.0	0.2	10
27.7	29.3	M01364	0.51	150	3.0	0.7	31
29.3	30.8	M01365	0.70	99	2.2	0.3	12
30.8	32.3	M01366	0.01	60	1.5	0.2	2
32.3	33.8	M01367	0.68	260	9.2	0.4	35
33.8	35.4	M01368	1.10	365	5.4	1.2	98
35.4	36.9	M01369	0.47	345	4.8	0.7	74
36.9	38.4	M01370	0.63	215	4.7	0.8	34
38.4	40.0	M01371	0.98	230	6.1	0.7	47
40.0	41.4	M01372	0.29	370	18.5	1.3	93
41.4	43.0	M01373	0.28	515	27.0	1.5	108
43.0	44.5	M01374	0.21	230	7.3	0.8	41
44.5	46.0	M01375	0.27	290	4.2	0.7	60
46.0	47.5	M01376	0.76	220	3.0	0.6	35
47.5	49.1	M01377	0.63	225	2.8	0.8	35
49.1	50.6	M01378	0.27	240	2.0	0.5	27
50.6	52.1	M01379	0.26	181	2.1	0.3	41
52.1	53.6	M01380	0.11	158	1.8	0.2	17
53.6	55.2	M01381	0.02	59	1.8	0.1	7
55.2	56.7	M01382	0.07	57	1.0	0.1	4
56.7	58.2	M01383	0.13	82	5.8	0.1	7
58.2	59.7	M01384	0.02	66	1.9	0.1	5
59.7	61.3	M01385	0.13	86	2.8	0.1	12
61.3	65.5	M01386	0.09	95	2.4	0.1	16
65.5	67.1	M01387	0.07	155	3.0	0.1	17
67.1	68.6	M01388	0.17	132	5.9	0.2	16
68.6	70.1	M01389	0.18	156	15.0	0.2	16
70.1	71.6	M01390	0.26	250	3.4	0.5	29
71.6	72.5	M01391	0.42	445	2.5	1.1	44
72.5	74.1	M01503	0.07	73	20.0	0.2	8
74.1	75.6	M01504	0.01	62	1.2	0.1	9
75.6	77.1	M01505	0.08	124	1.2	0.2	8
77.1	78.6	M01506	0.17	93	2.4	0.1	15
78.6	80.2	M01507	0.03	49	2.3	0.1	2
80.2	81.7	M01392	0.58	350	1.4	0.9	38
81.7	83.2	M01393	0.44	200	8.6	0.3	18
83.2	84.7	M01394	1.61	215	12.0	1.0	60
84.7	86.3	M01395	1.12	122	96.0	1.0	58

HOLE 82 I 025

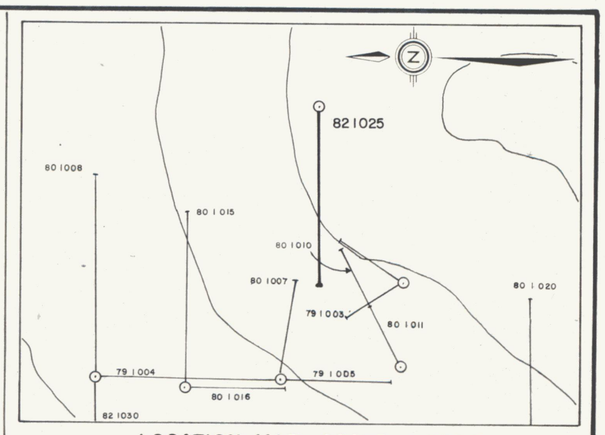
COORDINATES 37+03N, 1+06E

COLLAR ELEVATION 1174m

AZIMUTH 270°DIP -50

DEPTH 152.1m (499')

SECTION FACING NORTH



LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES

LEGEND

- Chloritic breccia (Hb 4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb 3 fault zones.
- Clast deficient breccia (Hb 3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb 2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb 1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals.
- T Trace.
- Cp Chalcopyrite.
- Py Pyrite.
- Mg Magnetite.
- He Hematite.
- Ma Malachite.
- Az Azurite.
- Ba Barite.
- Sd Siderite.

Figure WJV82-I4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 821025

IGOR PROPERTY

WERNECKE JOINT VENTURE

W. Dafoe Eaton Feb/83

SCALE 1:400

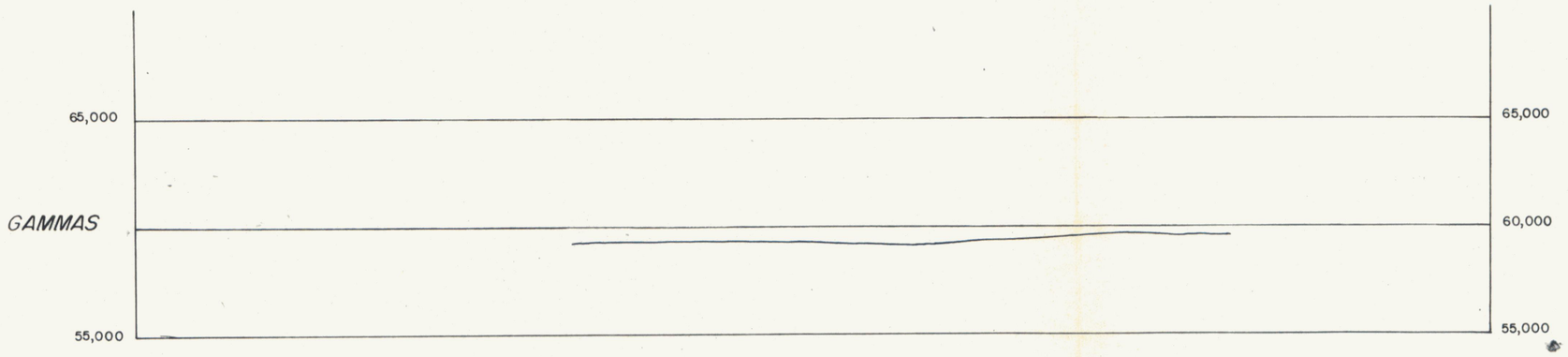
10 8 6 4 2 0 4 8 12 16 20

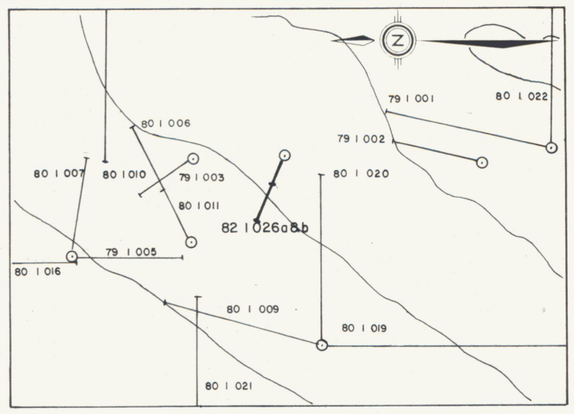
metres.

To accompany report dated December, 1982.

091445

MAGNETIC PROFILE





LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES

INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
28.0	28.7	M01398	0.90	108	1.6	0.1	99
28.7	30.2	M01399	0.58	109	1.0	0.1	137
35.7	36.3	M02001	0.03	113	1.2	0.1	10
52.4	53.9	M02002	0.01	145	2.8	0.1	5
53.9	55.0	M02003	0.04	315	8.5	0.7	36
55.0	57.0	M01508	0.02	111	62.0	0.3	13
57.0	57.6	M02004	0.07	80	1.8	0.1	10
57.6	58.8	M02005	0.05	350	37.0	2.2	36
58.8	59.4	M02006	0.01	43	1.8	0.1	3
59.4	61.0	M02007	<0.01	41	1.7	0.1	1
73.8	75.3	M02008	0.01	270	24.0	0.1	16
75.3	76.5	M02009	<0.01	235	0.9	0.1	8
93.0	93.6	M02010	0.01	43	9.0	0.1	1
93.6	95.0	M02011	<0.01	71	0.3	0.1	1
95.0	95.4	M02012	<0.01	110	0.6	0.1	2
95.4	96.9	M02013	0.03	275	0.3	0.1	15
96.9	97.8	M02014	<0.01	240	4.0	0.6	30
97.8	98.7	M01509	<0.01	220	5.4	0.4	14
98.7	99.4	M02015	<0.01	83	0.3	0.1	6
102.1	102.7	M02016	<0.01	18	1.2	0.1	10
103.9	105.4	M02017	0.01	280	1.1	0.1	13
105.4	106.7	M02018	<0.01	375	0.8	0.1	10
106.7	108.2	M02019	<0.01	350	0.8	0.1	8
108.2	109.4	M02020	<0.01	220	0.9	0.1	12
109.4	110.6	M02021	<0.01	93	0.7	0.1	3
110.6	111.7	M02022	<0.01	280	0.8	0.1	4
112.8	113.7	M02023	<0.01	32	1.4	0.1	9

HOLES 82 I 026 a&b

COORDINATES 35+50N, 0+13E

COLLAR ELEVATION 1214m

AZIMUTH 292°DIP -60°,-70°

DEPTH 35.1m (115'), 114.6m (376')

SECTION FACING NORTH

LEGEND

- Chloritic breccia (Hb 4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb 3 fault zones.
- Clast deficient breccia (Hb 3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb 2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb 1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals

T	Trace
Cp	Chalcopyrite
Py	Pyrite
Mg	Magnetite
He	Hematite
Ma	Malachite
Az	Azurite
Ba	Barite
Sd	Siderite

Figure WJV82 - I5

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 82I026

IGOR PROPERTY

WERNECKE JOINT VENTURE

SCALE 1:400

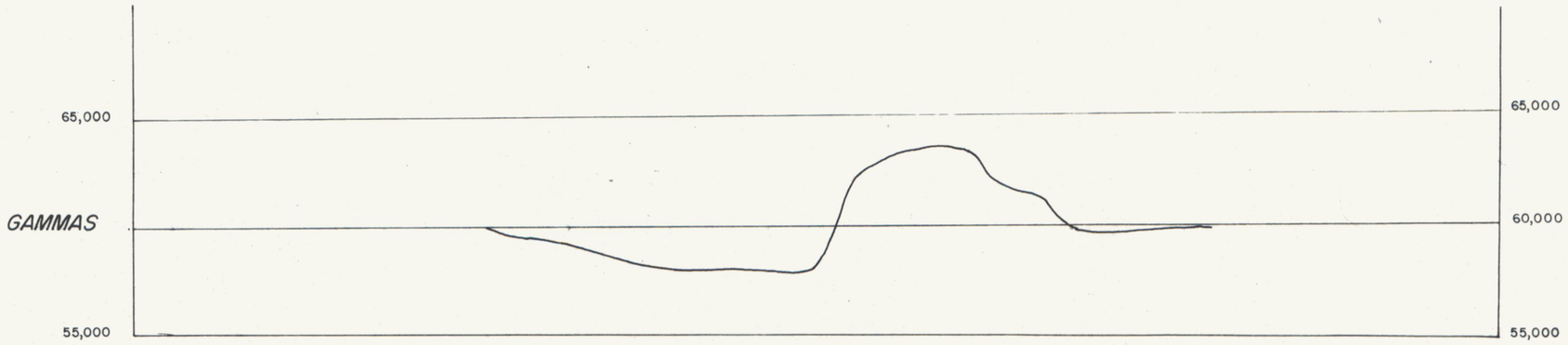
10 8 6 4 2 0 4 8 12 16 20

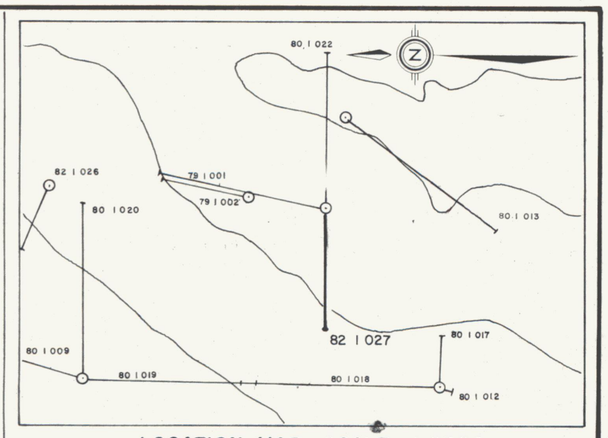
metres.

To accompany report dated December, 1982.

091445

MAGNETIC PROFILE

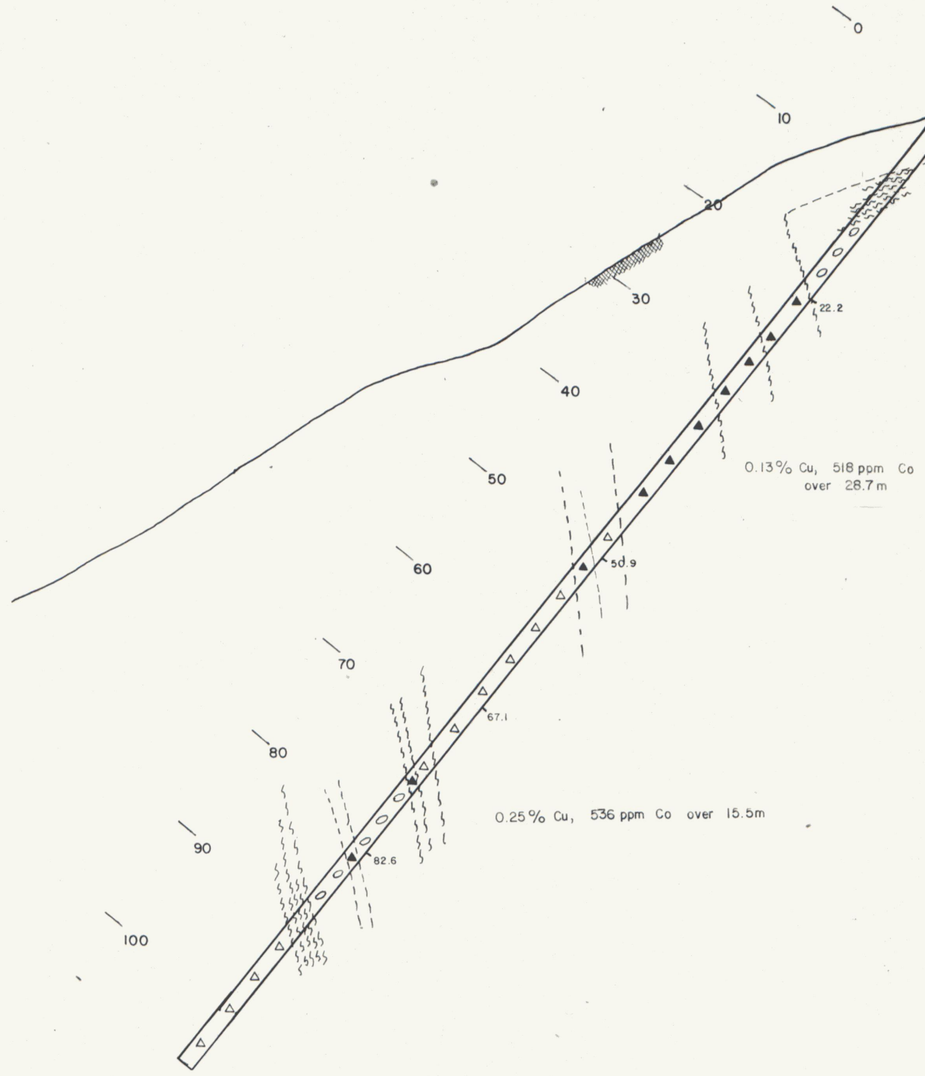




LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES



INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
7.3	11.0	M02024	0.06	117	22.0	0.1	17
11.0	13.1	M02025	0.05	151	1.4	1.2	45
13.1	14.0	M02026	0.07	380	3.3	1.4	55
14.0	15.2	M02027	0.02	345	1.5	1.1	63
15.2	16.8	M02028	0.04	69	0.5	0.1	5
16.8	18.3	M01510	0.03	81	9.4	0.4	14
18.3	21.3	M01511	0.13	154	8.9	1.2	29
21.3	22.2	M02029	0.04	160	0.7	0.9	14
22.2	23.8	M02030	1.12	510	5.4	2.1	104
23.8	24.7	M01512	0.11	620	39.0	2.6	89
24.7	25.2	M02031	0.14	680	3.3	2.5	106
25.2	32.0	M02032	0.08	465	20.0	3.8	77
32.0	34.1	M02033	0.16	680	112.0	3.8	91
34.1	35.4	M02034	0.18	685	66.0	3.6	83
35.4	36.2	M02035	0.18	740	82.0	3.6	76
36.2	38.1	M02036	0.64	800	114.0	5.5	89
38.1	39.3	M02037	0.13	530	5.7	0.6	16
39.3	40.2	M02038	0.16	555	35.0	1.0	18
40.2	40.8	M02039	0.09	550	7.0	0.7	18
40.8	42.2	M02040	0.13	585	46.0	1.5	18
42.2	44.5	M02041	0.05	440	63.0	0.6	10
44.5	46.3	M02042	0.05	610	3.6	0.7	19
46.3	47.9	M02043	0.03	500	1.3	0.7	13
47.9	48.5	M02044	0.06	710	2.4	1.1	35
48.5	49.7	M02045	0.05	565	4.4	1.2	29
49.7	50.9	M02046	0.06	430	6.1	0.9	35
50.9	52.1	M02047	0.01	27	2.1	0.2	1
52.1	54.2	M02048	0.02	29	6.2	0.3	4
54.2	55.0	M02049	0.01	26	13.0	0.1	2
55.0	56.4	M02050	0.03	198	16.0	0.7	33
56.4	57.9	M02051	0.01	93	5.8	1.0	22
57.9	58.3	M01513	<0.01	137	4.8	0.7	17
58.3	59.4	M02052	0.01	136	0.8	1.6	17
59.4	61.0	M02053	0.23	106	1.4	0.1	24
61.0	62.5	M02054	0.06	48	0.6	0.1	8
62.5	64.0	M01514	0.03	39	3.0	0.1	3
64.0	65.2	M01515	0.02	46	15.0	0.2	3
65.2	66.1	M01516	0.07	88	4.0	0.1	7
66.1	67.1	M01518	0.02	149	8.5	0.2	12
67.1	70.0	M01519	0.06	610	170.0	4.3	129
70.0	70.4	M02055	0.25	450	6.3	2.8	54
70.4	71.3	M01520	0.11	350	18.0	2.4	21
71.3	71.9	M02056	0.10	820	3.4	4.5	89
71.9	73.2	M07057	0.31	655	1.3	2.6	38
73.2	75.0	M02058	0.52	800	27.0	6.6	91
75.0	75.9	M02059	0.12	830	116.0	4.7	118
75.9	76.5	M02060	0.44	650	12.0	3.3	70
76.5	78.0	M01521	0.10	445	20.0	0.9	15
78.0	79.6	M01522	0.64	395	24.0	0.9	16
79.6	81.7	M01523	0.12	380	16.0	1.0	12
81.7	82.6	M02061	0.48	470	37.0	3.6	35
82.6	84.1	M02062	0.22	260	2.7	1.0	26
84.1	85.0	M02063	0.06	171	2.1	0.8	19
85.0	86.9	M02064	0.38	162	4.0	1.0	30
86.9	88.4	M02065	0.21	192	6.1	1.1	17
88.4	89.9	M02066	0.12	175	14.0	1.5	14
89.9	92.0	M02067	0.04	127	16.0	0.7	5
92.0	93.0	M02068	0.78	230	26.0	1.2	25
93.0	94.2	M02069	0.10	156	7.6	0.4	8
94.2	95.4	M02070	0.03	73	65.0	0.5	8
95.4	96.6	M02071	0.03	42	2.8	0.3	3
96.6	98.5	M02072	0.22	173	6.6	0.5	21
98.5	99.1	M01524	0.06	47	88.0	0.3	8
99.1	100.0	M02073	0.04	61	0.8	0.1	3
100.0	101.0	M02074	0.23	69	2.5	0.7	36
101.0	102.7	M02075	0.21	40	1.8	0.3	12
102.7	103.9	M02076	0.12	88	2.3	0.2	10
103.9	105.5	M02077	0.04	34	1.3	0.2	1

HOLE 82 I 027

COORDINATES 34+01N, 0+04E

COLLAR ELEVATION 1333m

AZIMUTH 270° DIP -50°

DEPTH 105.4m (346')

SECTION FACING NORTH

LEGEND

- Chloritic breccia (Hb4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb3 fault zones.
- Clast deficient breccia (Hb3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals.

T	Trace.
Cp	Chalcopyrite.
Py	Pyrite.
Mg	Magnetite.
He	Hematite.
Ma	Malachite.
Az	Azurite.
Ba	Barite.
Sd	Siderite.

Figure WJV82 - I6

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 821027

IGOR PROPERTY

WERNECKE JOINT VENTURE

091445

W. Dougan Feb/83

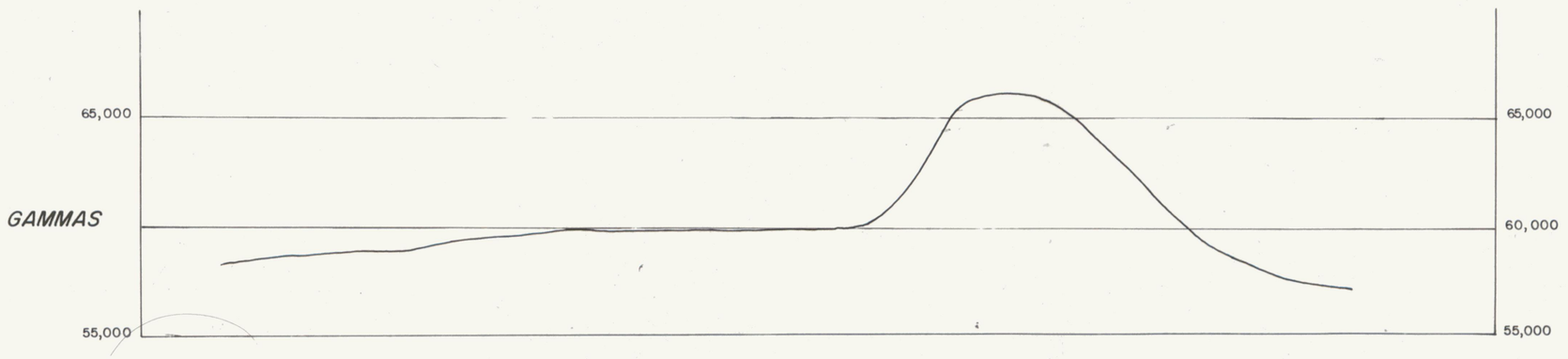
SCALE 1:400

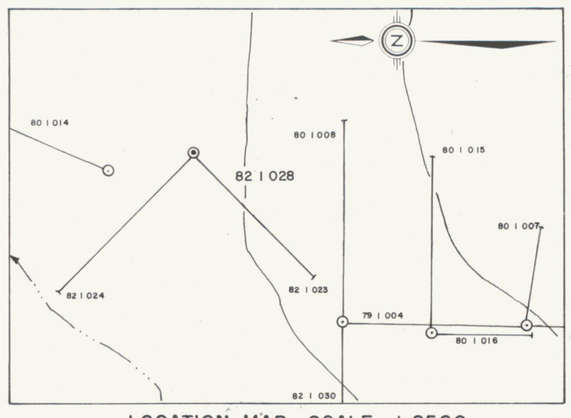
10 8 6 4 2 0 4 8 12 16 20

metres.

To accompany report dated December, 1982.

MAGNETIC PROFILE

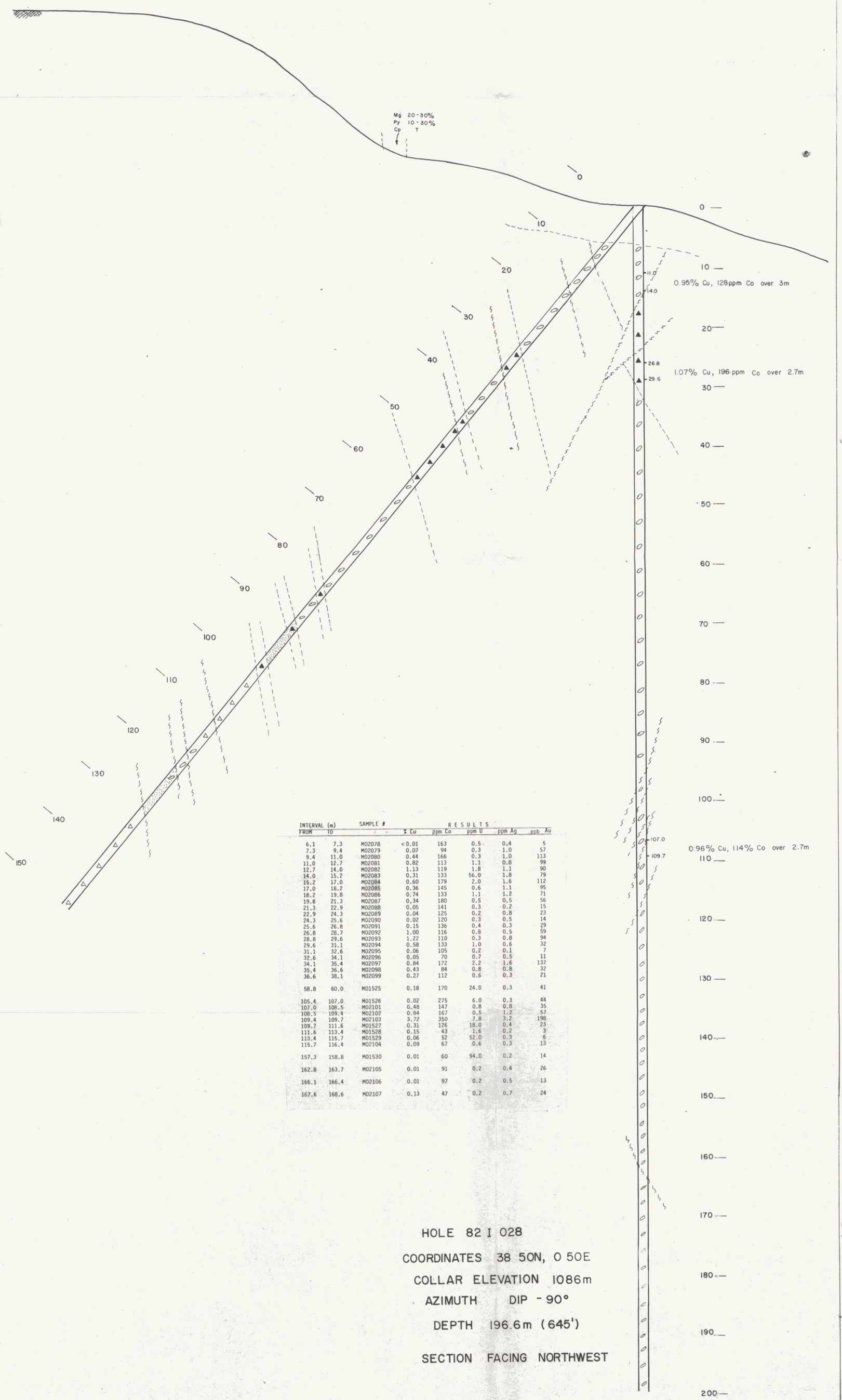




LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES



INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
6.1	7.3	M02078	<0.01	163	0.5	0.4	5
7.3	9.4	M02079	0.07	94	0.3	1.0	57
9.4	11.0	M02080	0.44	166	0.3	1.0	113
11.0	12.7	M02081	0.82	113	1.1	0.8	99
12.7	14.0	M02082	1.13	119	1.8	1.1	90
14.0	15.2	M02083	0.31	133	56.0	1.8	79
15.2	17.0	M02084	0.60	179	2.0	1.6	112
17.0	18.2	M02085	0.36	145	0.6	1.1	95
18.2	19.8	M02086	0.74	133	1.1	1.2	71
19.8	21.3	M02087	0.34	180	0.5	0.5	56
21.3	22.9	M02088	0.05	141	0.3	0.2	15
22.9	24.3	M02089	0.04	125	0.2	0.8	23
24.3	25.6	M02090	0.02	120	0.3	0.5	14
25.6	26.8	M02091	0.15	136	0.4	0.3	29
26.8	28.7	M02092	1.00	116	0.8	0.5	59
28.8	29.6	M02093	1.22	110	0.3	0.8	94
29.6	31.1	M02094	0.58	133	1.0	0.6	32
31.1	32.6	M02095	0.06	105	0.2	0.1	7
32.6	34.1	M02096	0.05	70	0.7	0.5	11
34.1	35.4	M02097	0.84	172	2.2	1.6	137
35.4	36.6	M02098	0.43	84	0.8	0.8	32
36.6	38.1	M02099	0.27	112	0.6	0.3	21
58.8	60.0	M01525	0.18	170	24.0	0.3	41
105.4	107.0	M01526	0.02	275	6.0	0.3	44
107.0	108.5	M02101	0.48	147	0.8	0.8	35
108.5	109.4	M02102	0.84	167	0.5	1.2	57
109.4	109.7	M02103	3.72	350	7.8	3.2	198
109.7	111.6	M01527	0.31	126	18.0	0.4	23
111.6	113.4	M01528	0.15	43	1.6	0.2	3
113.4	115.7	M01529	0.06	52	52.0	0.3	6
115.7	116.4	M02104	0.09	67	0.6	0.3	13
157.3	158.8	M01530	0.01	60	94.0	0.2	14
162.8	163.7	M02105	0.01	91	0.2	0.4	26
166.1	166.4	M02106	0.01	97	0.2	0.5	13
167.6	168.6	M02107	0.13	47	0.2	0.7	24

HOLE 82 I 028

COORDINATES 38 50N, 0 50E

COLLAR ELEVATION 1086m

AZIMUTH DIP - 90°

DEPTH 196.6m (645')

SECTION FACING NORTHWEST

LEGEND

- Chloritic breccia (Hb4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb3 fault zones.
- Clast deficient breccia (Hb3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb 2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb 1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals
- T Trace.
- Cp Chalcopyrite.
- Py Pyrite.
- Mg Magnetite.
- He Hematite.
- Ma Malachite.
- Az Azurite.
- Ba Barite.
- Sd Siderite.

Figure WJV82 - I7

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 821028

IGOR PROPERTY

WERNECKE JOINT VENTURE

SCALE 1:400

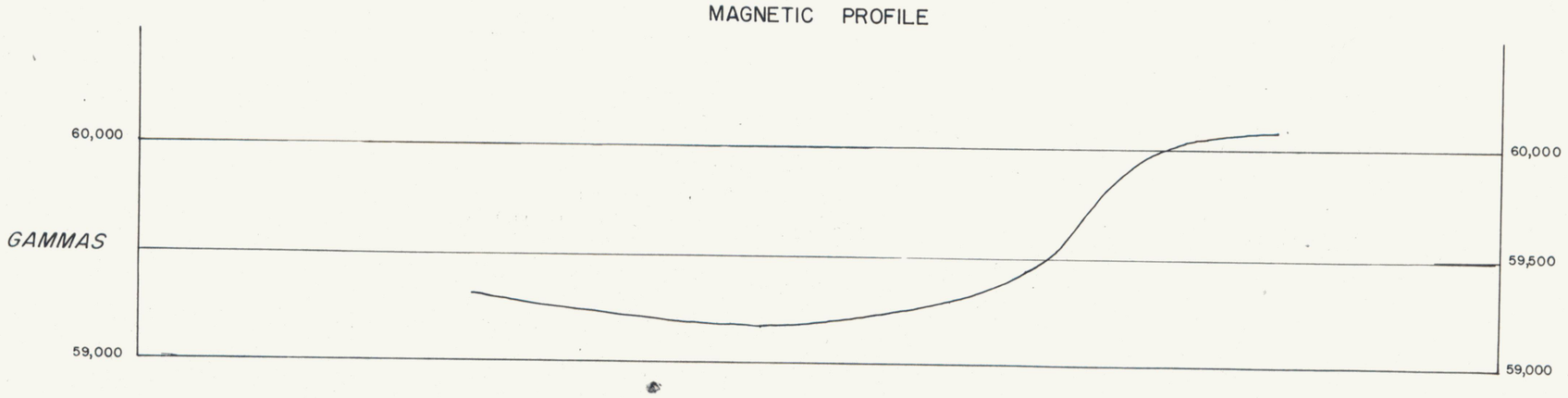
10 8 6 4 2 0 4 8 12 16 20

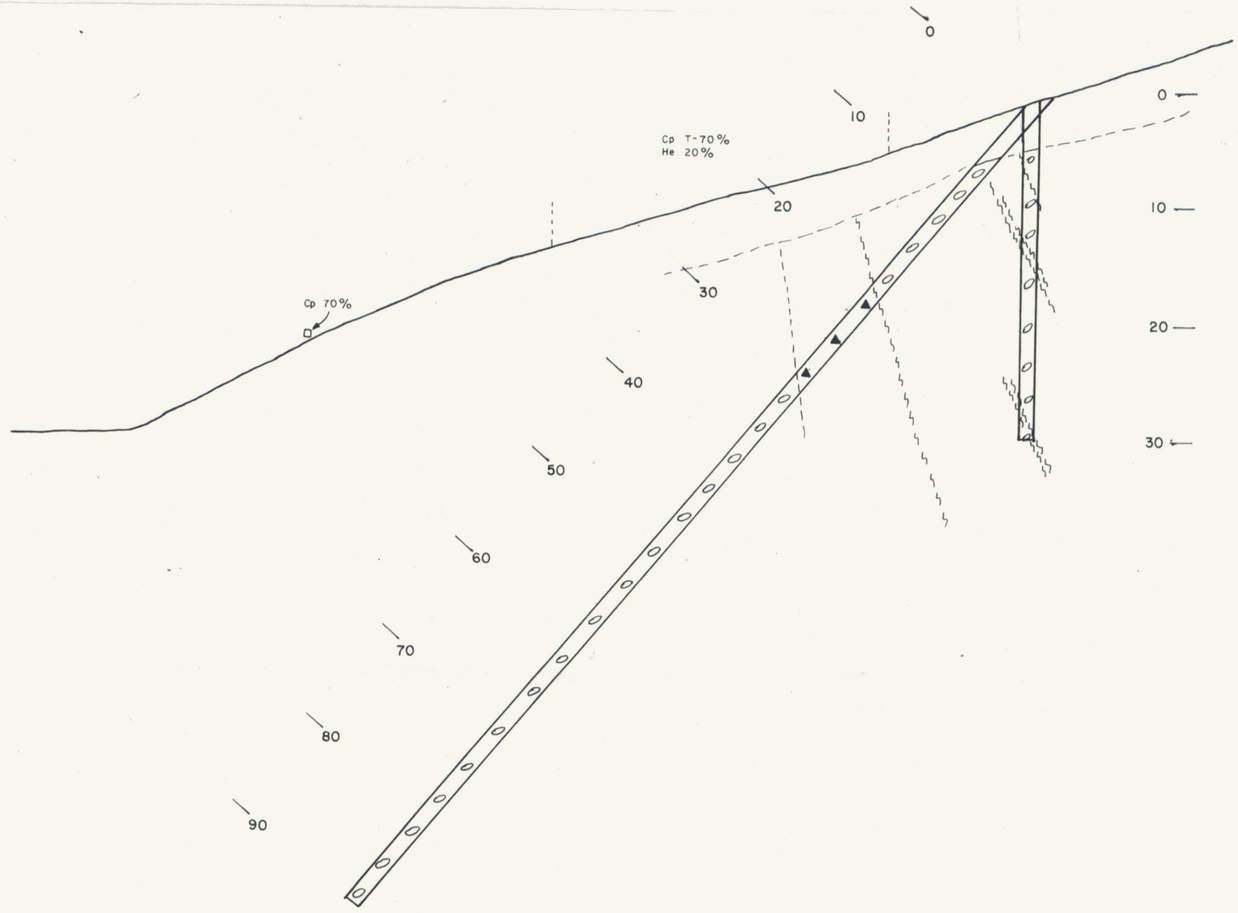
metres.

091445

To accompany report dated December, 1982.

MAGNETIC PROFILE





HOLE 82 I 029

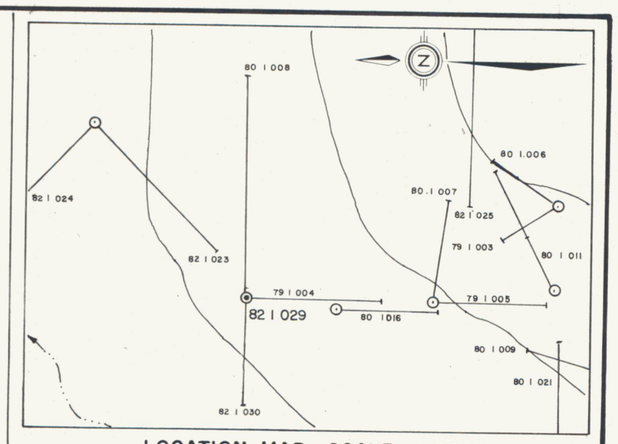
COORDINATES 37+66N, 0+46E

COLLAR ELEVATION 1108m

AZIMUTH DIP -90

DEPTH 30.2m (99.1')

SECTION FACING NORTH



LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES

LEGEND

- Chloritic breccia (Hb4)- dark green chloritic matrix & fragments, often hematitic, associated with Hb3 fault zones.
- Clast deficient breccia (Hb3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
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- Quartet Group (Q2) - siltstones and phyllites.
- Fault.
- Gossan.
- Mineral occurrence.
- Single rock location with % of various minerals.

T	Trace.
Cp	Chalcopyrite
Py	Pyrite.
Mg	Magnetite.
He	Hematite
Ma	Malachite.
Az	Azurite.
Ba	Barite.
Sd	Siderite.

Figure WJV82 - 18

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 821029

IGOR PROPERTY

WERNECKE JOINT VENTURE

W. Pryde Feb/83

SCALE 1:400

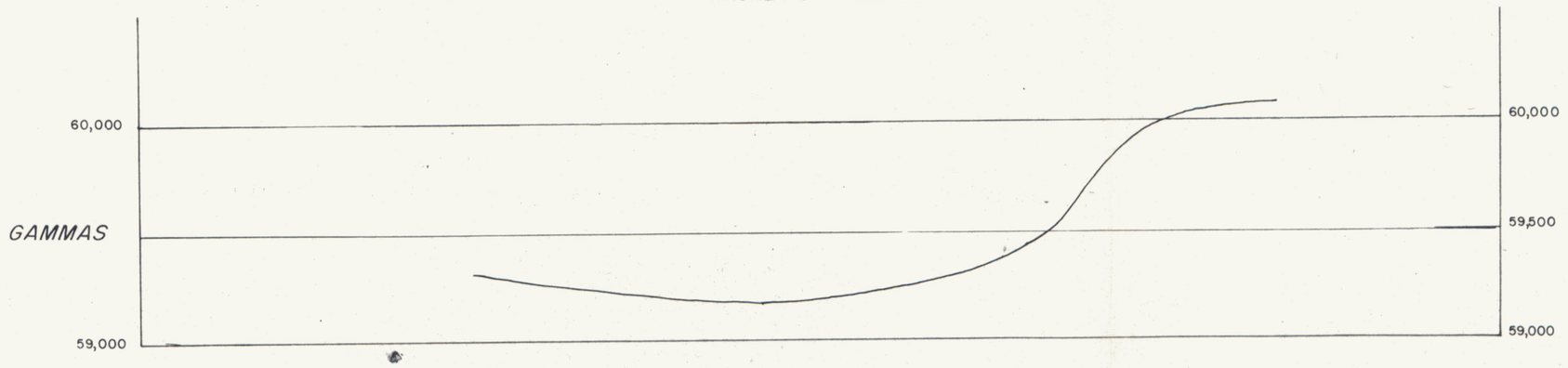
10 8 6 4 2 0 4 8 12 16 20

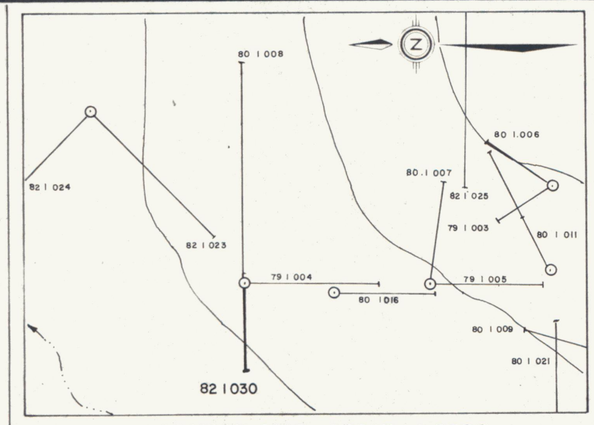
metres.

To accompany report dated December, 1982.

091445

MAGNETIC PROFILE

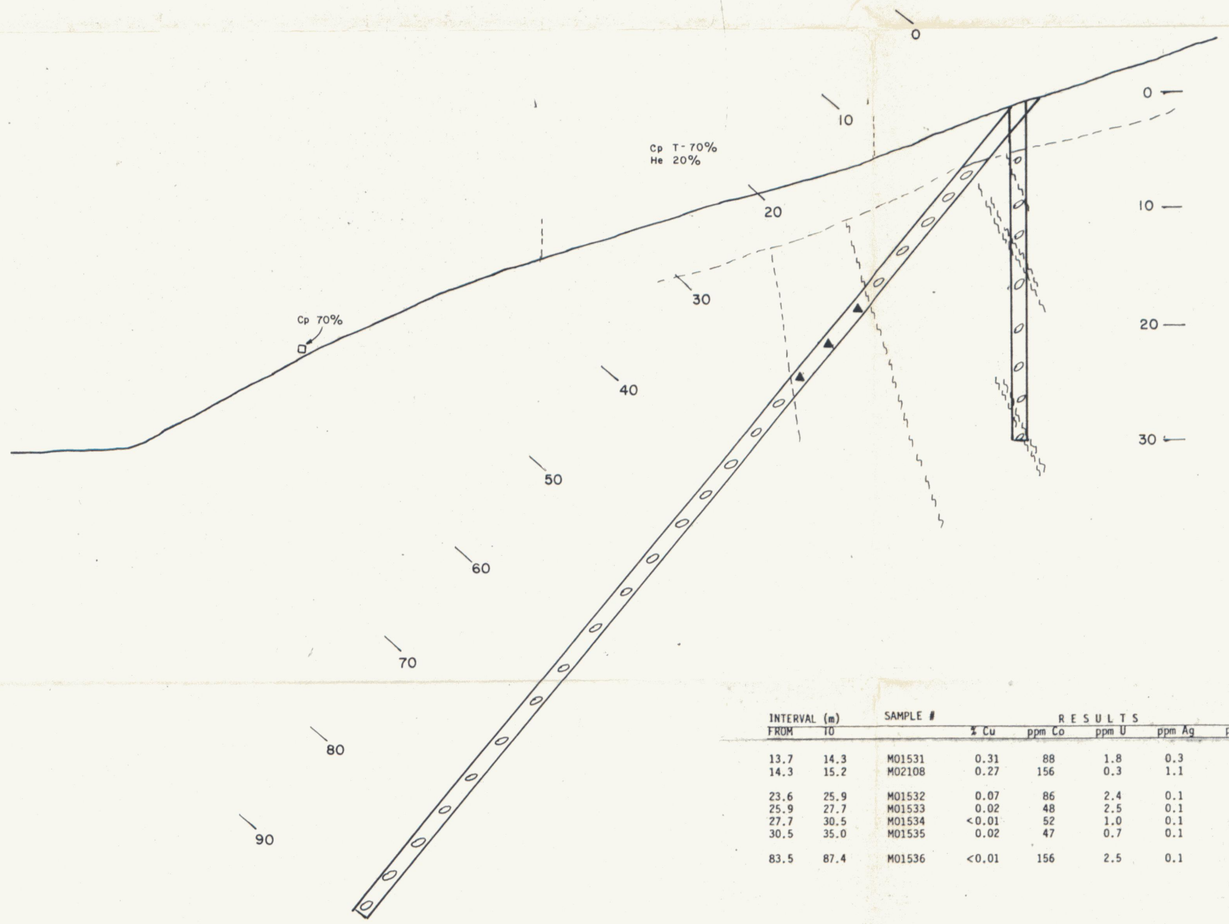




LOCATION MAP SCALE 1:2500

50 25 0 50 100

METRES



INTERVAL (m) FROM	TO	SAMPLE #	RESULTS % Cu	ppm Co	ppm U	ppm Ag	ppb Au
13.7	14.3	M01531	0.31	88	1.8	0.3	77
14.3	15.2	M02108	0.27	156	0.3	1.1	48
23.6	25.9	M01532	0.07	86	2.4	0.1	10
25.9	27.7	M01533	0.02	48	2.5	0.1	6
27.7	30.5	M01534	<0.01	52	1.0	0.1	2
30.5	35.0	M01535	0.02	47	0.7	0.1	5
83.5	87.4	M01536	<0.01	156	2.5	0.1	1

HOLE 82 I 030

COORDINATES 37+66N, 0+46E

COLLAR ELEVATION 1108m

AZIMUTH 270° DIP -50°

DEPTH 90.2m (296')

SECTION FACING NORTH

LEGEND

- Chloritic breccia (Hb4) - dark green chloritic matrix & fragments, often hematitic, associated with Hb3 fault zones.
- Clast deficient breccia (Hb3) - euhedral to massive magnetite, often hematized, associated with pyrite, chalcopyrite, barite and carbonate.
- Heteroclast breccia (Hb2) - with chlorite, albite, hematite, carbonate alteration of rock fragments and matrix.
- Homoclast breccia (Hb1) - strongly foliated and bleached fragments of Q2a in a carbonate matrix.
- Quartet Group (Q2) - siltstones and phyllites.
- Fault
- Gossan
- Mineral occurrence
- Single rock location with % of various minerals
- T Trace
- Cp Chalcopyrite
- Py Pyrite
- Mg Magnetite
- He Hematite
- Ma Malachite
- Az Azurite
- Ba Barite
- Sd Siderite

Figure WJV82 - 19

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SECTION HOLE 821030

IGOR PROPERTY

WERNECKE JOINT VENTURE

W. Pougher Feb/83

SCALE 1:400

10 8 6 4 2 0 4 8 12 16 20

metres

To accompany report dated December, 1982.

091445