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AMERICAN BARRICK RESOURCES CORPORATION LTD.

An Annual Report on Exploration Activity for the Year 1985

on the

Newmex Option

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APR 2.5 1986

MINING LANDS SECTION

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November, 1985



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INTRODUCTION

The NEWMEX Option is located in Harker Township, Ontario, approximately midway between Holtyre, Ontario and Duparquet, Quebec. The optioned property is approximately 4.2 km. west, along strike, from the McDermott Deposit of Barrick Resources.

Access to the property is by gravel road, 1.6 km. south, from highway 101.

HISTORY

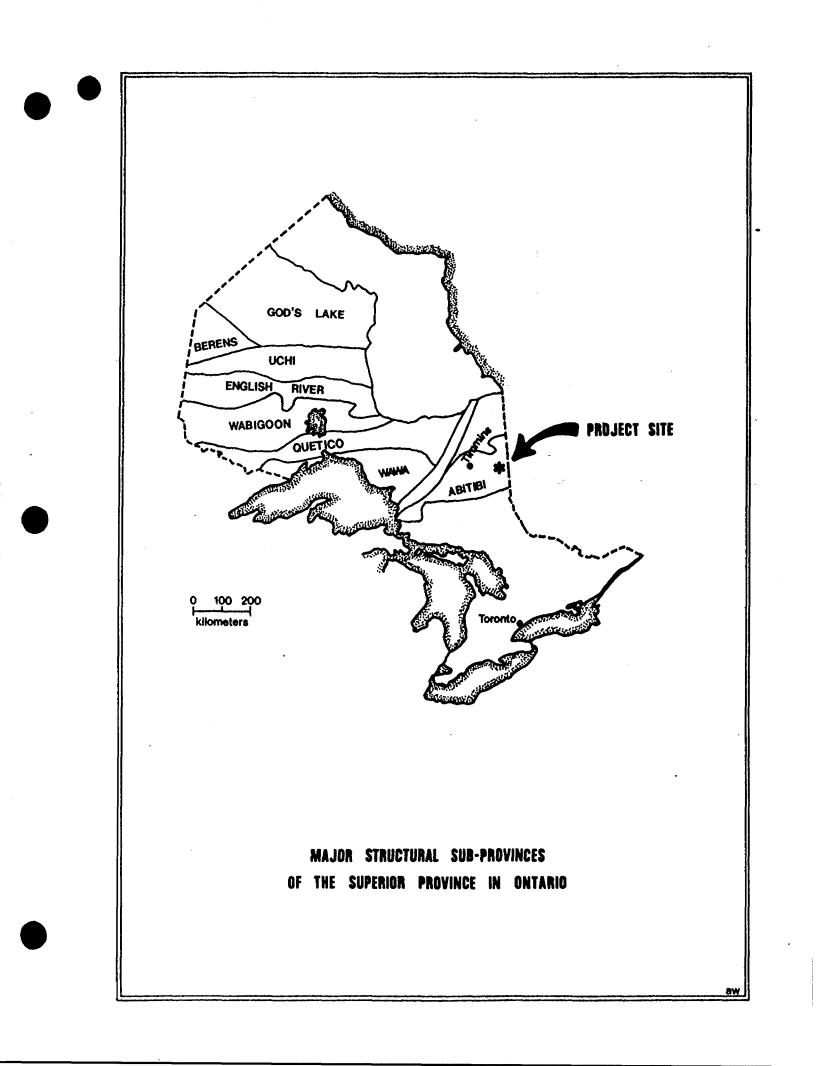
In 1936, Toronto Harker Mines Ltd. reported one diamond drill hole intersecting some schist and greenstone under considerable esker cover. This was carried out in the north-wester corner of the claim block. This claim block is composed of claims L31732 to L31736, and L31740.

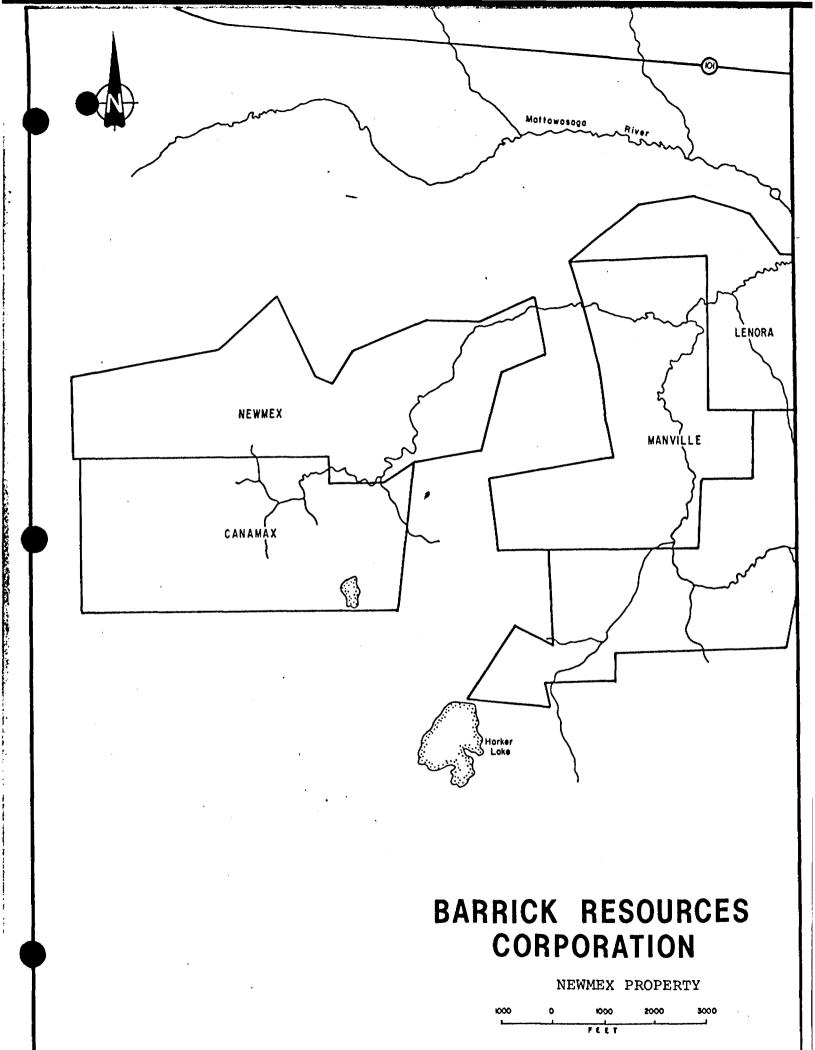
In 1942, surface work and a diamond drilling program of four holes was carried out, by Imperial Reserves Mines Ltd., in the north-eastern corner of the claim block.

In 1947, surface grab samples were taken by F.R. Joubin and returned .01 to .17 ounces of gold per tonne from pyritized sediments on claim L27600. Joubin also reported previous trenching and diamond drilling on claim L113407, which showed two mineralized zones, 8 and 10 ft. wide, with average gold assays of .06 oz./tonne.

Consolidated Mining and Smelting held the ground during the late 1950's, followed by Valhalla Mines in the period from 1961 to 1965.

In 1975, Newmex Gold Resources acquired the land. The company drilled five diamond drill holes, NX-1 to 5, on the claims designated al L430919, L430918, and L4414447. The total cumulative depth of the drill program was 453.5 metres of AQ size drill





core.

In 1978, Amax Potash Ltd. staked claims, L525472 to L525474 around Imperial Lake, based upon input airborn EM survey results.

In 1979, Amax Potash Ltd. conducted a geological and prospecting survey on the above mentioned claims, followed by a geophysical survey in 1980. In 1981, Amax conducted an exploration program on the claim block, which included the eleven claims held under option from Newmex Gold Resources Ltd. The program included nineteen diamond drill holes totalling 1498.8 meters. The option was later dropped.

In 1983, Camflo Mines Ltd. acquired the option, established a grid, conducted ground geophysical surveys and a geological mapping program.

LINE-CUTTING

In order to establish ground control for the purpose of geological mapping during 1985, a portion of the 1983 Camflo grid system was re-established. The grid was recut from line 2800 to 3600 west, with a 50 meter line spacing and 25 meter stations. The lines were orientated at 344 degrees and were approximately 575 meters in length. (Refer to Table 1)

SURVEYING

For the purpose of geological correlation, 1981 diamond drill collars are in the process of being surveyed. The three 1985 drill hole collars, as well as the perimeter of the claim block were surveyed. (Refer to Table 1)

AIRBORNE GEOPHYSICAL SURVEY

The contract was awarded to Geophysical Surveys Inc., of St. Foie, Quebec. The survey was flown in July, 1985, using a helicopter-born gradiometer. Two cesium vapour magnetometers, of 0.005 gamma resolution and vertically separated by 2 meters, were towed under a helicopter at an average height of 45 meters above ground. The average traverse spacing was 200 meters and the flight path recovery was effected using a video tape, recorded by a vertically mounted camera inside the helicopter.

The accessory equipment consisted of:

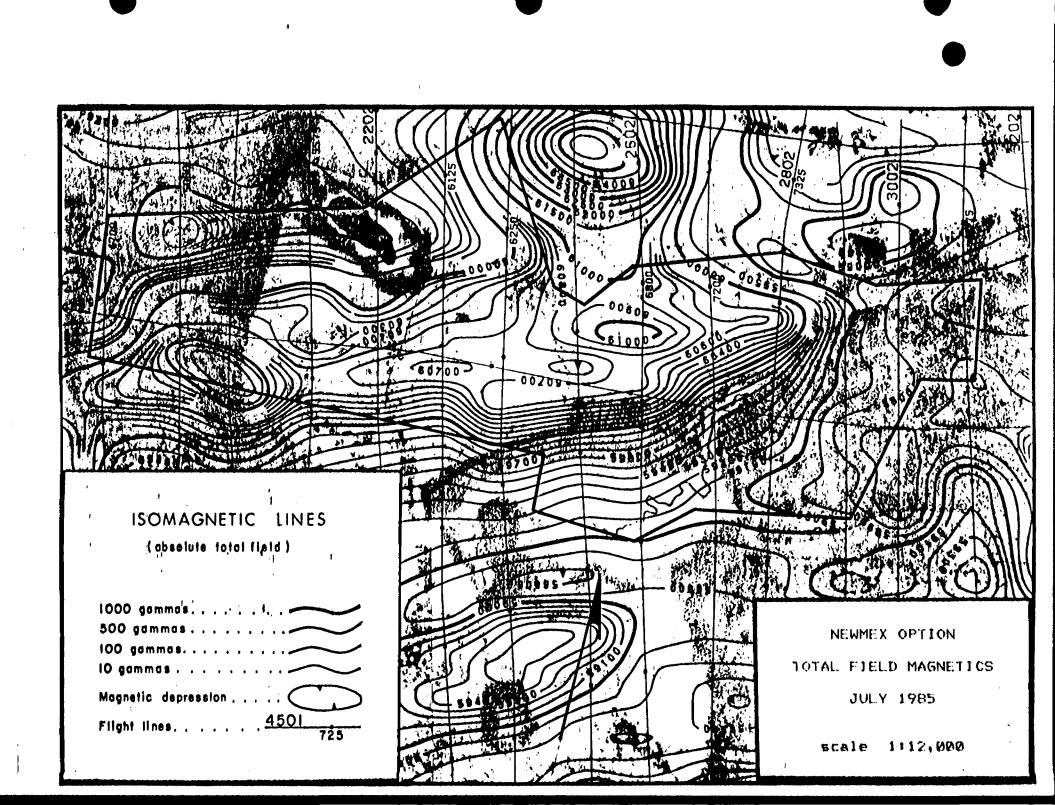
- 1) a VLF-em from Herz Industries, the TOTEM-2A, measuring the total field and quadrature component of the electromagnetic field at two frequencies.
- 2) a Sonotek SDS-1200 digital data acquisition system.
- 3) a radar altimeter, King KRA-10.

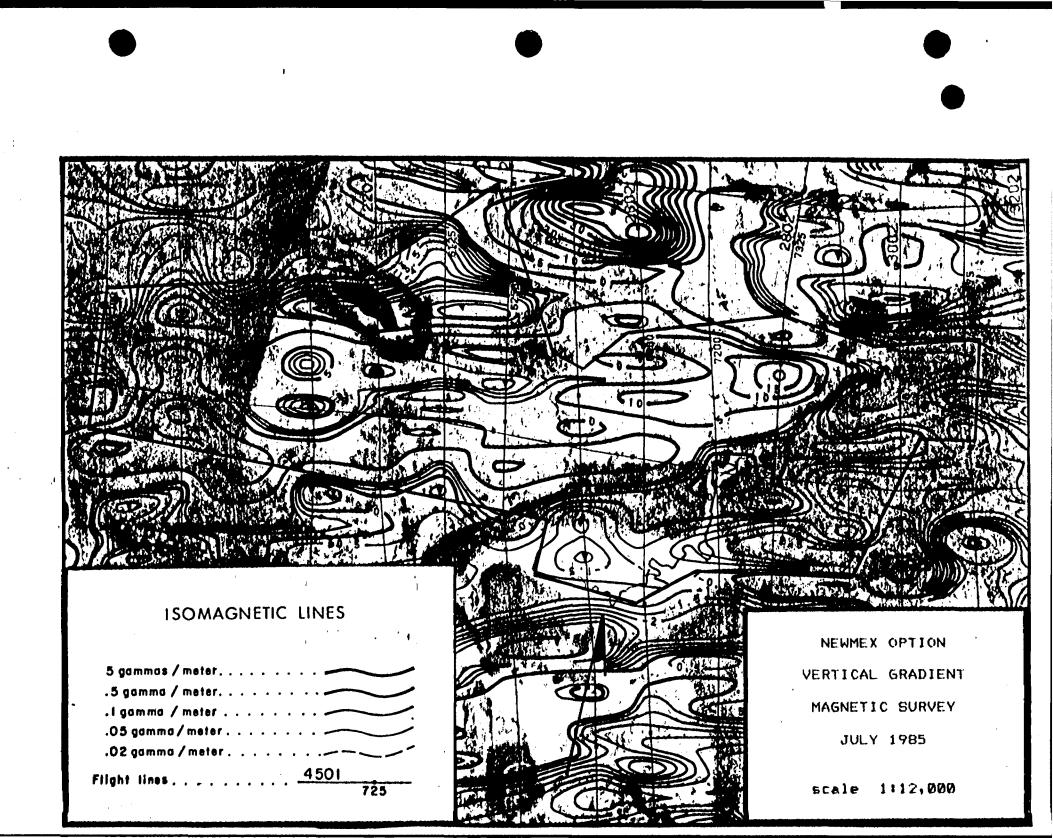
The Newmex option was covered by 8940 meters of flight line.

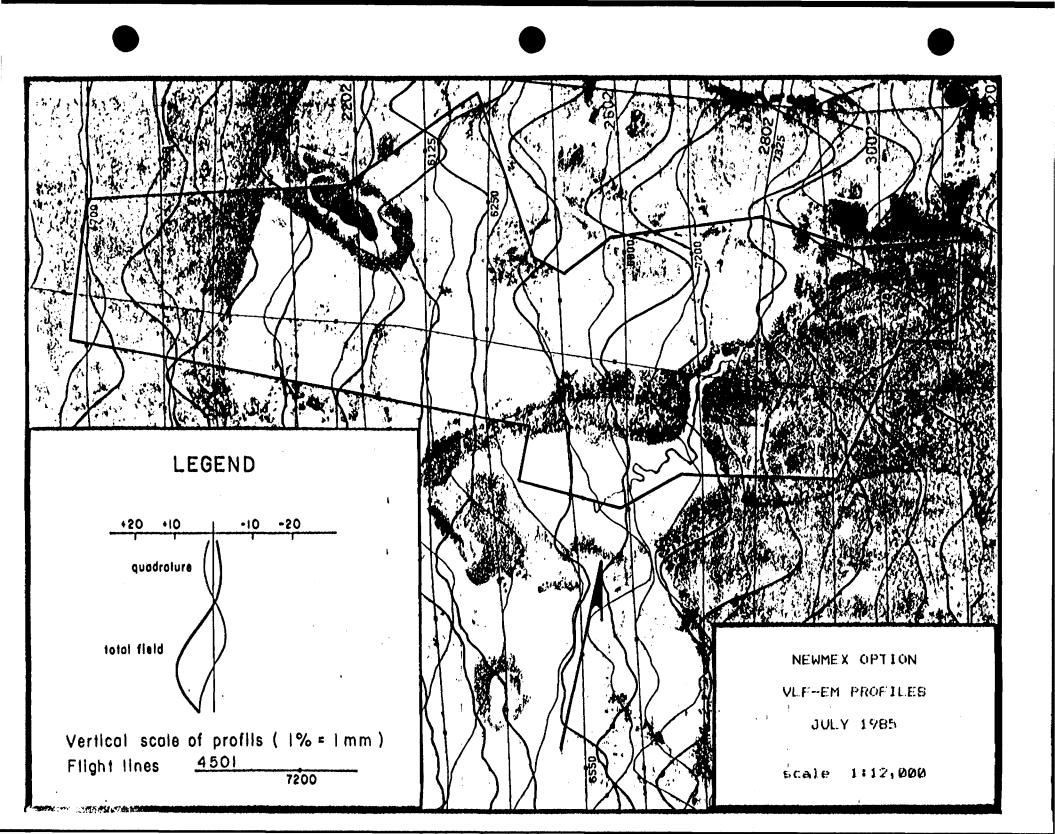
Total Field Magnetics

The total field magnetometer survey indicates a high magnetic profile of greater than 60,000 gammas over much of the Newmex Option. This is undoubtably due to intrusive activity, a fact confirmed by reference to Satterly's Harker Township geological map (1951). A discontinuity is apparent near the eastern margin of the property. It strikes

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195-200 degrees. This is apparently the position of the Teddy Bear Creek Fault.

Gradient Survey

Two striking features are noticeable from this survey: the first is a break in the magnetics which trends 055 degrees from the south central boundary areas to the northeast corner of the property. West of this break might be dominantly intrusive terrain. A similar break, described under "Total Field Magnetics" is confirmed near the eastern property margin.

VLF Survey

A number of relatively strong electro-magnetic cross-overs are noted on this property. They have an apparent strike of about 100 degrees, and probably have a structural affinity. However, their discontinuity is somewhat disturbing, possibly the result of cross-faulting in a north-south direction. These features have been noted on other Barrick properties in the immediate vicinity and remain unexplained. It is unlikely that mineralization will be associated with structures in this direction.

AERIAL PHOTOGRAPHY

Aquarius Flight Inc. have completed a series of flight lines over the Newmex option for Barrick Resources. Air photos were produced on two scales, 1:10,000 and 1:20,000. These photos were used to facilitate ground control for the geological mapping program, and to prepare a photo mosaic for the helicopter-born gradiometer survey.

TOPOGRAPHIC SURVEY

The topographic survey was done in conjunction with the interpretation of the air photos by Northway Map Technology Ltd. The area was mapped digitally and the final cronaflex sheets were plotted at a scale of 1:5000. The map provides 10 meter index

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contours, with a 2 meter contour interval. Contours in areas of heavy relief were limited to a 5 mm spacing.

REGIONAL GEOLOGICAL SETTING

The volcanic rocks of Harker and Holloway Townships are of Archean age and belong to the Superior Province of the Canadian Shield. This particular region is referred to as the Lightning River Area of the Abitibi Belt. The stratigraphy has been sub-divided as follows (Jensen, 1982):

UPPER SUPERGROUP	(Timiskaming Group (Blake River Group (Kinojevis Group (Stoughton-Roquemaure Group		
LOWER SUPERGROUP	(Porcupine Group (Hunter Mine Group (Wakewada Group		

The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkalic volcanism. Each cycle is topped by a dominantly sedimentary (tuffaceous), sequence which reflects relative quiescence in extrusive activity.

The tectonic regime in which the majority of these rocks are located is one of regional subsidence. The formation of a broad, east-west trending synclinal basin is attributable to this subsidence. The Destor-Porcupine Complex forms the north boundary of this basin, and the south side is marked by the Larder Lake Complex.

A few later instrusives have been emplaced into the volcanic succession. Compositionally, these rocks range from pyroxenite, diabase and lamprophyre, to diorite, granite and syenite. The mafic and ultramafic varieties tend to be found as

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narrow dykes whereas the intermediate and felsic varieties are more common as larger, more rounded bodies.

The Destor-Porcupine Complex strikes approximately 075 degrees across Harker and Holloway Townships in the same approximate position as highway 101. Rocks to the south of this complex, or zone of dislocation, have approximately the same strike and dip 75 to 85 degrees south. All units top south - there has been no reported evidence of overturning in this area.

The zone of interest which hosts gold mineralization is of tectonic origin. It crosscuts volcanic stratigraphy at a shallow angle. Present studies indicate that volcanic rocks cut by this zone are iron-rich and magnesium-rich basalts of the Kinojevis Group.

LOCAL GEOLOGY

Surface geology was mapped on a scale of 1:2,500, utilising the surface grid and air photos for control.

The claim block was found to be underlain by tholeiitic basalts and sediments of the Kinojevis Group (Satterly, 1951). The sediments are striking north 70 to 75 degrees east, and are generally dipping steeply to the south.

The area mapped was between line 2800 west and line 3600 west, and north of the baseline as far as tieline 575 north. Particular interest was paid to the east/west trending Imperial fault, located slightly south of the tie line. Anomalous gold assays have been associated with this trend.

The Imperial Fault has been interpreted as a normal, steep southerly dipping fault. Generally, the footwall has been noted to contain chlorite-carbonate schist. Tholeiitic basalts are found further to the north. The hanging wall was composed of strongly magnetic, iron-rich tholeiitic basalts containing an alteration package, directly overlying the Imperial fault.

The host rock to gold mineralization is best described, on a general basis, as a silicified, annealed breccia. The east/west trend of the annealed breccia appears to be slightly disjointed, or possibly displaced across the north/south trending Teddy Bear Creek Fault. The geological characteristics of the alteration and breccia also change abruptly across this fault zone.

The Teddy Bear Creek Fault Zone was noted in the field mapping program to consist of predominantly north/south faulting post dating earlier east/west faulting. This interpreted pattern of block faulting became evident when considering the topography and the stream pattern followed by the Teddy Bear Creek, in conjunction with the structural geological data gathered in the field.

Further characteristics of the local geology are discussed under the section entitled "STRUCTURAL GEOLOGY".

GENERAL LITHOLOGIES

The following broad generalizations can be made with respect to the major rock types.

a) Hanging wall basalts are strongly magnetic, tholeiitic massive and pillowed flows. Compositionally, they are iron-rich. They vary in colour from dark grey to dark green-grey to black, and are very fine to medium grained. Generally, these basalts have a greater inherent hardness than the non-magnetic footwall basalts.

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- b) Footwall basalts are tholeiitic, massive and pillowed flows, which are generally non-magnetic to locally weakly magnetic. These rocks are less iron-rich than the magnetic varieties. They vary in colour from dark green to dark grey, and are usually moderately to strongly chloritized. The transition from magnetic to non-magnetic basalt occurs across the chlorite-carbonate schist horizon, underlying the Imperial fault.
- c) Chlorite-carbonate schist has also been called a foliated basalt, and generally occurs in the footwall directly under the Imperial fault. The rock varies in colour from dark green to pale green, and, according to Allen (1985), it is composed of alternating bands of highly chloritized and sheared basalt and/or quartz diorite, and carbonate veinlets that are elongated in the plane of shearing. Generally the amount of carbonate and the intensity of the foliation decreases down section. This probably reflects a transition from an intrusive (dioritic), lithology to less deformed and altered basalt (greenschist). The lower contact with massive, non-magnetic basalt, is locally sheared in the plane of the foliation; but, it is gradational in its overall appearance.
- d) The Main Mineralized Zone (MMZ) has been used as the name for the complete alteration package, including its three subdivisions or members. The three members are: the Upper Transitionally Silicified Zone (UTSZ), the Main Silicified Zone (MSZ), and the Lower Transitionally Silicified Zone (LTSZ). The MMZ consists of varying amounts of silicified breccia with fragments of variable size and composition. Alteration makes the recognition of original lithologies impossible without detailed petrographic investigation. These fragments may be composed of basalt, diorite, syenitic intrusive, cherty laminated sediments, or possibly tuffaceous sediments. The most highly altered sections are dioritic

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according to Allen (1985). Due to the intensely altered and brecciated nature of the MMZ, it is characterized on a predominantly descriptive basis. The MMZ is subdivided by the amount of silicification present. The TSZ would characteristically contain between 5 and 95 per cent silicification, and the MSZ would be greater than 95 per cent. The MMZ has undergone several phases of alteration, imposed upon a zone of multi-stage brecciation. The alteration and its relationship to the structural geology is further described under the sections entitled "Silicification and Pyritization", "ALTERATION AND MINERALIZATION OF THE NEWMEX OPTION", and "STRUCTURAL GEOLOGY".

e) Sediments in the area have been described as dark to pale grey in colour, aphanitic to very fine grained, and weakly foliated or laminated with alternating cherty and argillaceous bands. These 1-2 mm laminations may be locally contorted and may indicate soft sediment deformation. Locally, some thicker horizons of greywacke have been noted. One horizon in particular is greater than 100 meters in thickness and has formational-style continuity.

NOTE: The following intrusive lithologies have been tentatively identified by the visually observed characteristics. These field terms may not be mineralogically correct.

f) Syenitic intrusives have been described with a pink to reddish- brown, aphanitic to very fine grained, siliceous groundmass, and with up to 50% euhedral to subhedral feldspar phenocrysts. The phenocrysts are usually white to pink in colour and range in size up to 5 mm.

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- g) Monzonitic intrusives are generally described as pinkish-grey colour, with an aphanitic to very fine grained, massive, crystalline texture. Quite often the intrusive is pervasively carbonatized and may have a variable magnetic character.
 - h) Dioritic intrusives are generally a dark green-grey colour, fine to medium grained and locally magnetic. Pervasive carbonatization may also be present. The diorite is identified in the field by the presence of laths of feldspar in a mafic groundmass, forming a sub-ophitic texture. Occasionally, sections of the diorite may contain a decussate texture, formed by randomly orientated chlorite in a finer grained, massive groundmass.

GENERAL ALTERATION AND MINERALIZATION

Varieties of Alteration

Silicification and carbonatization are the most prevalent forms of alteration in the rocks making up the mineralized zone. Albitization, hematization and pyrite formation are also pronounced. All forms of alteration overlap and boundaries are entirely gradational.

The alteration sequence of events is as follows:

- 1) chloritization and the release of iron as magnetite into intergranular spaces;
- 2) replacement of magnetite by bladed hematite;
- silicification as an ongoing multi-stage process coupled with each brecciation event, sulphidation of hematite to pyrite (with probable introduction of gold), albitization; and,
- 4) carbonatization ferroan dolomite near ore and calcite in more distal areas (with leaching and re-distribution of gold).

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Mechanism of Alteration

The development of alteration was dependent upon two factors: firstly, the permeability afforded by brecciation; and secondly, the ability of altering fluids to penetrate radially away from micro-conduits into non-brecciated rocks. It is the former of these two that is critical. Without fine brecciation on a maximum scale of 1 cm., complete alteration is retarded and penetrative fragment rim alteration is the result. Spatially, the higher levels of alteration in stages 3 and 4 are proximal to the actual plane(s), of brecciation and movement within this altered zone. Stages 1 and 2, as well as albitization are found beyond the limitations of extreme brecciation.

Enhanced permeability through multi-stage, brittle deformation, allowed altering hydrothermal fluids better access within diorite than they were afforded in the quartzdiorites. At least 3 early stages of brecciation have been inferred through the examination of breccia fragments. Each stage has been accompanied by silicification, pyritization, and albitization, to form an aphanitic highly siliceous rock.

Silicification and Pyritization

Silicification and pyritization are thought to be the critical elements of alteration with respect to gold content. Hence, for correlation purposes, the alteration zone was sub-divided on the basis of silicification into the Main Silicified Zone with quantitatively greater than 95% silicification, and flanking Transitionally Silicified Zones with lower amounts of silicified rock. These zones are collectively referred to as the Main Mineralized Zone. A well developed Main Silicified Zone is a necessary feature for good mineralization. Pyritized rock is found throughout the Main Mineralized Zone. Pyrite contents can locally reach 30%. These highs are associated with silica flooding in the most highly silicified sections. Within the Main Silicified Zone, pyrite commonly averages 3-5%. It is found as a very fine dissemination, as 1-2 mm. cubes and as 1-3 mm. blebs, often forming aggregates in the siliceous matrix to breccia. Coarse, 1-3 cm. clots are noted which may encompass breccia fragments. Pyrite is common as a filling in healed fractures of various ages. Pyrite was initially deposited throughout the rock as indicated by very finely disseminated grains within early breccia clasts. Later stages of pyrite, including some grains which were subsequently brecciated, were confined largely to the matrix between individual breccia fragments. To some degree, pyrite was probably in a constant state of re-distribution during the brecciation - silicification events.

Albitization

Albitization is evident in thin section as euhedral, twinned plagioclase laths. These crystals could not have survived the stress imparted on this sequence of rocks. Albite has often been partially or completely replaced by carbonate.

Carbonatization

Carbonatization was the final alteration process. Proximal to the relatively higher grade gold mineralization, this event formed dolomite, while in more distal altered sections, calcite was deposited. The availability of iron, which was probably mobile throughout progressive alteration, aided in the formation of ferroan dolomite or ankerite. This carbonate can be easily seen on the weathered bedrock surface as an alteration invading a late brecciation event. In drill core, dolomite is frequently seen as a buff alteration penetrating dark purple-grey silicified breccia in the main silicified zone.

ALTERATION AND MINERALIZATION ON THE NEWMEX OPTION

Locally, the upper transitionally silicified zone and the main silicified zone are contained within the hanging wall of the east/west trending Imperial Fault. The Imperial Fault plane directly underlies the main silicified zone. The lower transitionally silicified zone is generally narrow and contained within the footwall chlorite-carbonate schist horizon, directly under the Imperial Fault plane.

The main mineralized zone is exposed on surface, between line 3250 west and 3300 west, at approximately 560 meters north of the base line. At this locality, the main silicified zone appears to have another east/west trending shear forming the upper boundary within the hanging wall of the Imperial Fault.

On a larger scale, the western portion of the Imperial Fault was found to contain a considerably wider alteration package between lines 3200 west and 3450 west. Silicification and pyrite content also increased significantly to the west. Carbonatization is also noted to be a major component of the alteration process in this immediate area.

The eastern portion of the alteration zone, associated with the Imperial Fault, from lines 2800 west to 3000 west, was noted to be very narrow, and poorly developed on surface. Some of the alteration was postulated to be, at least in part, due to the close proximity of a feldspar porphyry intrusive. This east/west trending dike was identified in the field, on a visual basis, to be of syenitic composition. The contacts of the intrusive with its host rock and the associated alteration, may provide a site for locally improved gold mineralization. This may explain the isolated occurences of anomalous gold assays associated with syenitic intrusive contacts in this area.

STRUCTURAL GEOLOGY

Faulting in the area has been classified by Satterly, (1951), as: a) strike faults trending east/west; and, b) cross faults striking to the east or west of north, which offset the rock formations and strike faults. Recent diamond drill results in the area have shown the east/west striking faults to be crosscutting the stratigraphy at a very small, acute angle. Therefore they can not be termed strike faults in the classical sense.

The Imperial Fault is marked by a gritty, clay fault gouge and represents the latest stage of movement in the earlier, east/west trending annealed tectonic breccia. This earlier stage of brecciation is postulated to be initially caused by brittle shattering or dislocation due to subsidence of the regional volcanic basin. The Imperial Fault may be composed of more than one subparallel fault plane containing gritty, clay gouge.

Locally, the Imperial Fault trend was measured as striking North 68 degrees West, with an 82 degree south-westerly dip. Within close proximity to the south, the shearing or fracture trend, separating the upper transitionally silicified zone and the main silicified zone, was measured as striking North 80 degrees West, with an 84 degree northerly dip. Therefore, the main silicified zone appears to be narrowing with depth and along strike to the east. It must be emphasized at this point that these trends are measured in only one locality on surface and must be considered hypothetical even on a local scale.

A north-easterly trending fault, with a steep north-westerly dip, was noted between lines 3000 west and 2950 west at approximately 465 meters north of the base line. This normal fault offsets the youngest, feldspar porphyry dike of syenitic composition. The hanging wall shows some degree of right lateral movement. Northerly trending cross faults, such as the Teddy Bear Creek Fault, have been postulated to postdate alteration, mineralization, and all previously mentioned fault trends. Although the movement on individual fault planes may be small, the total displacement on a whole series of closely spaced, parallel faults is probably cumulative and quite large. Therefore geological correlation along strike becomes complicated and disjointed.

DIAMOND DRILL PROGRAM

Prior to the start of Barrick's 1985 diamond drilling, the following 1981 drill holes were relogged at the Ontario Ministry of Natural Resources Core Library, Kirkland Lake, Ontario:

839-24-2 to 7, 839-24-9 to 11, and 839-24-14 to 19.

These diamond drill logs are included in the appendix of this report, as well as in a table summarizing the 1981 diamond drilling results and significant assays.

Significant assay results could not be correlated from drill hole to drill hole or from section to section. Therefore, the estimated ore grade of 3.58 grams per tonne over 2.3 meters; and the probable and inferred tonnage of 150,000 tonnes suggested in the earlier report by Amax Minerals cannot be confirmed.

Anomalous gold assays were generally obtained from the following:

- a) Silicified and annealed breccia in the Main Mineralized Zone west of the Teddy Bear Creek Fault.
- b) Contacts between intrusives of syenitic composition and the intruded basalts.
- c) Sheared contacts between the TSZ and the MSZ, or basalt and the TSZ.
- d) Silicified and annealed breccias resulting from initial brecciation and secondary mineral enrichment due to hydrothermal fluid injection; in the magnetic hanging wall basalts.
- e) Late stage, carbonate/quartz veining cross-cutting the MMZ.

Due to the lack of continuity, in the correlation of anomalous assays, emphasis should be placed upon the silicified and annealed breccia of the Main Mineralized Zone. This zone is correlatable over an extended strike length and can be shown to yield anomalous gold assays on a consistant basis. These characteristics provide a larger exploration target.

Thin section petrography (Allen, 1985), has shown relic igneous textures existing, in the least deformed and brecciated patches or pockets, within the Main Mineralized Zone. The original intrusive is thought to be of dioritic composition. Progressive stages of brecciation, silicification and albitization, has left a rock termed an annealed, breccia in the Main Mineralized Zone. Sections of this breccia have a vague 'syenitic' appearance.

The following generalized observations were noted from the relogging of the 1981 diamond drill core:

- A foliated zone, FOZ, was noted in drill holes 839-24-7, 16, and 19 on section 470 East of the Canamax grid system. This foliated zone is correlatable on section and has been tentatively equated with a silicified, brecciated diorite that has been albitized to a "syenitic" composition. No visible basalt characteristics were noted in the drill core.
- 2) The MMZ was also noted to contain interflow sediments. The sediments are generally brecciated and silicified, but what appear to be relic bedding laminations are visible locally. These rocks have been tentatively identified as argillaceous sediments intercolated with cherty, siliceous beds. Anomalous assays may be, in part, associated with increasing sulfide content, due to pyrite replacement of smaller, siliceous (cherty) beds or fragments within the MMZ.
- 3) The basalt flows contain vesicular flow tops and flow breccia textures that indicate the basalt stratigraphy to be younging to the south.
- 4) A high degree of dolomitization or carbonatization has been observed within the MMZ in both the diamond drill logs and the thin section petrology. This late stage alteration post dates most of the silicification and brecciation, and has been postulated (Workman, 1985), to leach out the gold into migrating hydrothermal solutions.
- 5) A feldspar porphyry intrusive of syenitic to monzonitic composition has cut the MMZ. This intrusive is the youngest lithology noted on the property. At the time of intrusion, the tectonic zone (represented by the annealed breccia) was still active, but the intrusive is only fractured by late stage faulting rather than an earlier brecciation event.

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6) Diamond drill holes 839-24-10, 4, and 9, were drilled east of the Teddy Bear Creek Fault. Diamond drill core has shown the MMZ continues east of the fault but is composed of transitionally silicified rock and appears to be a much narrower sequence to the east. This silicification occurs in the chloritecarbonate schist and the silicified, annealed breccia is not present east of the fault.

The 1985 diamond drill program consisted of three holes for a total cumulative depth of 652.1 meters. The three holes were designated Mc.85-242 to 244, and were drilled at an azimuth of 360 degrees, with a dip of minus 50 degrees.

Mc.85-242 and 244 were drilled 50 and 100 meters (respectively) south of Canamax's drill hole 839-24-11. Both holes encountered a single alteration zone, located predominantly in the hanging wall of the east/west trending Imperial Fault. Mc.85-242 intersected a syenitic intrusive with the lower margin assaying 5.14 gm/tonne of gold over 1 meter. Mc.85-244 intersected the same intrusive at depth, but no significant mineralization was associated with the contacts.

Mc.85-243 was drilled 50 meters south of Canamax's drill hole 839-24-6. The core shows several alteration zones, as well as two minor laminated cherty sediment horizons within the above alteration zones. Therefore correlation in an east/west direction between 1985 drill holes was not possible with the information presently available.

The diamond drill core was sampled, split and assayed for gold. A total of 136 samples were sent to Assayers Limited in Rouyn, Quebec, for analysis by the fire assay method.

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CONCLUSIONS AND RECOMMENDATIONS

Anomalous gold assays have been predominantly found in the silicified and annealed breccia of the MMZ, and the contact aureoles of the feldspar porphyry intrusive of syenitic composition.

The higher gold assays could not be correlated from drill hole to drill hole, or from section to section. Therefore, previously estimated grade and tonnage figures could not be reproduced or confirmed. Due to the lack of continuity in the correlation of anomalous assays from diamond drilling results, emphasis during further exploration should be placed upon the larger exploration target provided by the annealed breccia of the MMZ. This zone can be shown to be correlateable over an extended strike length and has produced consistantly anomalous gold assays.

The east/west trend of the MMZ appears to be disjointed, or possibly displaced in a north/south sense across the Teddy Bear Creek Fault zone.

The Teddy Bear Creek Fault was noted, in the process of geological mapping of outcropping bedrock, to consist predominantly of a north/south series of parallel fault planes. This series of fault planes offset earlier, east/west structures. This interpreted fault block pattern is further supported by the course taken by Teddy Bear Creek, local topography, and the measurement of fracture directions that are shown on the 1:2500 scale geology map. The Teddy Bear Creek Fault trend was previously recognized as being northeast/southwest.

In spite of structural complications, diamond drilling data and outcrop data suggest that the MMZ narrows with depth and is generally narrower to the east of Teddy Bear Creek. This fluctuation in the width of the MMZ has been postulated to represent the pinch and swell of the brecciation and alteration, in both the vertical and horizontal planes.

It has been observed that the degree of alteration and brecciation, within the MMZ, proves the area to be appropriate for gold mineralization. The style of mineralization is in accordance with the model provided by the McDermott Project, of Barrick Resources Corp., in Holloway Township.

The MMZ is a zone of multi-stage brecciation which has had several phases of silicification, pyritization, albitization, and carbonatization imposed upon it. The carbonatization was shown to be the latest stage of alteration, penetrating along fractures, in both the diamond drill core and the bedrock geology. It has been suggested (Workman, 1985), that the carbonatization was active in leaching out some of the gold. This may account for the local absence of correlatable, ore grade gold mineralization. Therefore, further core logging or geological mapping should pay particular attention to the limits of this alteration.

The MMZ was locally noted to contain what seem to be interflow sediments, generally brecciated and silicified, but occasionally containing features which resemble relic bedding laminations. Anomalous assays may be, in part, associated with increasing sulfide content, due to pyrite replacement of smaller, siliceous (cherty) beds or fragments within the MMZ. Locally, the UTSZ and the MSZ are contained within the hanging wall of the Imperial Fault. The LTSZ is generally narrower and contained within the footwall of the Imperial Fault, which directly underlies the MSZ.

The Imperial Fault is represented by gritty, clay fault-gouge, representing the latest stage of movement in the earlier, east/west trending annealed breccia of the MMZ.

Between lines 32+50 and 33+00 west, limited outcrop data has suggested that the MSZ is bounded by shear planes. The intersection of these shear planes may have some significant relationship to the regional southwesterly plunge of gold mineralization. Further data should be sought in future geological mapping, to either confirm or deny this postulation.

The western portion of the Imperial Fault Zone was shown to contain a wider alteration package, between lines 32+00 and 34+50 west. Silicification and pyrite content increase to the west as well.

It is recommended that further trenching and detailed geological mapping should take place in the early spring of 1986, since the geological interpretation of structural data would greatly facilitate the proper placement of any future diamond drill holes.

One area where limited overburden exists is along the Imperial Fault trend, between lines 32+00 and 34+50 west. This area would be ideal for further detailed structural analysis, as a significant section across the MMZ could be stripped with minimal trenching. Future diamond drilling should be designed to further delineate the western extension of the MMZ trend, and also the down dip extension. Short step out drilling along strike is recommended, with fences of drill holes orientated at 360 degrees and collar spacing of approximately 50 meters. To facilitate geological correlation, the angle of the diamond drill holes should remain constant at minus 50 degrees.

Prior to any further work, it is strongly recommended that a new grid system be established for ground control. This grid should be orientated at 360 degrees, with 50 meter line spacing and 25 meter stations. This orientation would be parallel to the previous Canamax grid, and would be close to being perpendicular to the geological strike of the MMZ in this area. This orientation would also be coincident with the azimuths of the 1981 and 1985 diamond drill holes. The new grid should cover the entire property.

Evidence from the airborne geophysical survey suggests that, at present, there is no distinctive geophysical signature to the mineralized zone. It is unlikely that this zone can be traced using conventional methods. However, a custom tailored EM-16 survey utilizing a portable transmitter might prove useful in tracing the zone.

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APPENDIX

TABLE 2 - BEDROCK GEOLOGY SAMPLE DESCRIPTION AND ASSAYS

Sample No.	Location	Sample Description	AU Assay gm/tonne
20101	32+94 West at 562 North	Small grab samples taken over 1 meter from LTSZ. CCS is approximately 5 to 15% silicified and brecciated, with pyrite content estimated to be 1%.	0.17
20102	32+94 West at 5+62 North	Small grab samples taken over 1.5 to 2.0 meters from the MSZ. Silicified breccia with estimated pyrite content 3 to 5%.	0.17
20103	32+94 West at 5+62 North	Small grab samples taken over 0.5 meters from the UTSZ. Silicified breccia is approximately 50 to 70% silicified with 2% pyrite content.	trace
20104	33+42 West at 5+72 North	Small grab samples over 1.5 meters from the MSZ. Taken north of hematized shear zone. Pyrite 3%.	trace
20105	33+42 West at 5+72 North	Small grab samples over 1 meter from the MSZ. Taken from the hematized shear zone. Pyrite content 3 to 5%.	1.71
20106	33+42 West at 5+72 North	Small grabs over 1.5 meters from TSZ south of the hematized shear zone with 60 to 70% silicification and 2% pyrite.	trace
20107	33+42 West at 5+72 North	Small grab samples taken over 1.5 meters from TSZ (1.5 to 3.0 m. south of hematized shear) with 40 to 60% silicification and 2% pyrite.	0.17
20108	33+94 West at 5+95 North	Grab sample taken from north side of pit on TL 575 North with 60 to 70% silicification and 5 to 10% pyrite.	0.69
20109	33+94 West at 5+95 North	Grab sample taken from south side pit on TL 575 North with 60 to 70% silicification and 3 to 5% pyrite. Sample taken at qtz. vein contact.	1.03

TABLE 3 - SUMMARY OF 1981 DIAMOND DRILLING RESULTS AND SIGNIFICANT ASSAYS

DDH No.	Section	Interval	Assay (gm/tonne)	Rock Description		Pyrite
839-24-6	1+85 E	59.0-49.45	2.68	Brecciated V7m in hanging wall	sin,cbn	tr
		59.45-60.0	2.68	MMZ upper contact	cbn,sin	1-5%
839-24-2	2+80 E	23.0-24.0	2.36	TSZ: cherty fragments in chld matrix.	cbn,sin	1-2%
		24.0-25.0	1.71	TSZ: cherty fragments in quartz, carbonate matrix	sin,cbn	2-3%
		25.0-26.0	1.28	TSZ (same as above) and TSB	sin	2-3%
		28.0-29.0	1.81	TSZ	sin	tr-1%
839-24-3	2+80 E	51.0-51.35	2.40	TSZ: red massive chert locally brecciated	sin,cbn	1-2%
		51.35-52.0	2.40	Carbonate vein in V7m (Fault block)		tr-1%
		56.0-57.0	1.57	Brecciated V7m (Fault block)	cbn	tr-1%
839-24-11	3+32 E	15.0-16.0	2.07	Brecciated V7M	sin	5-10%
		16.0-17.0	1.29	Brecciated V7m at intrusive contact	cbn ,s in	5-10%
839-24-5	3+75 E	36.0-37.0	1.92	Brecciated V7m and interflow chert	sin	tr-1%
		37.0-38.0	4.80	TSB: magnetic with carbonate/quartz vein	sin,cbn	1-2%
839-24-14	4+38 E	51.0-52.0	2.12	CCS: upper contact with V7m in the hanging wall	cbn	tr-2%
		55.0-56.0	2.55	Contact between upper CCS and TS7	sin,chld	1-2%
839-24-7	4+70 E	5.70-7.0	2.95	TSZ: pyritic syenitic breccia	sin,albn	3-5%
		7.0-8.0	6.70	Same as above	sin,albn	3-5%
		13.0-14.0	4.49	Syenitic breccia with chld fragments in martix	sin,albn	tr

page iii

TABLE 3 - SUMMARY OF 1981 DIAMONDDRILLING RESULTS AND SIGNIFICANT ASSAYS

.

DDH No.	Section	Interval	Assay (gm/tonne)	Rock Description	Altn*	Pyrite
839-24-16	4+70 E	21.0-22.0	4.65	Brecciated V7m in hanging wall	cbn	1-3%
839-24-19	4+70 E	81.05-82.0	1.22	TSZ	cbn,sin	tr
839-24-17	4+95 E	64.0-65.0	3.70	MSZ	sin,cbn	5-10%
839-24-15	5+20 E	55.0-56.0	3.91	Contact between upper TSZ and MSZ	sin	1-4%
		56.0-57.0	3.84	MSZ	sin	1-4%
		57.0-58.0	5.83	MSZ	sin	1-4%
		<i>J</i> 7.0-J0.0	2.02	W152	3111	1-470
839-24-18	5+65 E	28.5-29.5	0.36	Contact between TSZ and syenitic intrusive	sin,albn	tr-2%
		38.0-39.0	0.23	TSZ: chld fragments in matrix	sin,chld	tr-1%
839-24-10	6+25 E	31.0-32.0	1.05	Pyritic quartz/ carbonate vein in V7m (Hanging wall)	cbn	2-3%
		68.0-69.05	1.32	Contact upper TSZ and MSZ (quartz/carbonate breccia and laminated interflow sed.	sin,cbn	tr-2%
839-24-4	7+33 E	16.0-17.5	1.92	TSZ: sin of CCS	sin,cbn, chld	tr-1%
		33.0-34.0	2.30	TSZ: sin of CCS	sin,cbn chld	tr-1%
		34.0-39.0	1.43/	TSZ: same as above	sin,cbn	tr
			4.0 m		chld	
839-24-9	8+75 E	51.0-52.0	3.27	TSZ: sin of CCS, 30% lost core, minor quartz carbonate vein	sin,cbn chld	tr-1%
* sin = silici	fightion	ahld	= chloritizat	ion		
		•···· -	= albitizatio			
con = carb	onatization	albh		11		

A J		BARRICK RESOURCES CORPORATION	
Co-onds: 1	10384.4 5632.2	DIAMOND DRILL RECORD	HOLE NO+1 MC+85-242
Azimuth:	356.7 Des.	Section: 3375W	Property: Newmex
IIIP:	-50.0 Des.	Core Size: BR	Location: 33168W 3+84N
Elevation:	5012.4		
Lensth:	163.4		Date Started: Aus. 7, 1985 Date Completed: Aus. 12, 1985
Measurement:	Metric		Lossed by: D. S. Riddell
Comments:	Casing left in hole		
	Deeth Azimuth Die	Depth Azimuth Dip Depth Azimuth	Ιι j թ-
	60.96 -47.5	5 125+58 372+5 -48+0 160+93	-47.0

-----los Summary------

0,00 4.88 OVERBURDEN,

4,88 53,45 HIGH MAG BASALT.

53,45 68,78 BASAUT.

68.78 80.06 SYENITE,

80,06 95,50 HIGH MAG BASALT,

95,50 112,00 MAIN MINERALIZED ZONE,

95.50 96.08 TRANSETIONALLY SILICIFIED BASALT.

96.08 110.03 MAIN SILICIFIED ZONE.

110.03 112.00 TRANSITIONALLY STRUCTFIED ZONE.

112.00 117.97 FOLIATED BASALT.

117,97 163,35 BASALT,

163.35 END OF HOLE.

4

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Hole No.: MC.85-242 Pase No.: 2

0.00 4.88 OVERBURDEN

4.88 53.45 HIGH MAG BASALT

Highly magnetic massive and pillowed flows,

- 4.88 44.40 Fillowed flow 1 sreen to srew to dark purple. very fine grained rillowed flow. 1 To 5 cm thick, chloritic and carbonate rich selvages are locally weathered out, causing blocky, highly fractured core, locally ground core. Pillow margins are locally vesicular and cut by numerous white carbonate filled shrinkase fractures. The grey to sursle colour of the pillows is attributed to weak to moderate silicification and hematization, increasing in intensity down section. Local brecciated zones are highly silicified and hematized with pyrite concentrations up to 2 to 3%. The strongly magnetic throughout. core ts Pillows becomes less distinct down section carbonate rich seams however westhered persist. The core becomes locally pervasively carbonatized down section, taking on a grey hue. The flow grades down section to a fine grained massive flow, the contact is marked by a 5 cm wide epidotized and siliceous; folisted zone.
- 44.40 53.00 Massive flow : dark green to grew to dark elenue coloured, fine grained, variably moderately to strongly magnetic massive Weakly to moderately silicified and flow. weakly hematized throughout, cut by numerous epidote and carbonate filled fractures, 1 to 27 disseminated euhedral Perite and throughout. Local, dark purple coloured, brecciated and pyritic zones are noted. senerally less than 5 cm thick. The flow coarsens towards the flow centre, coarser varietias are generally less magnetic.
- 53.00 53.45 Flow contact zone, possibly with minor interflow sediment in the lower 15 cm of the zone. Dark purple coloured and weakly brecciated with carbonate filled fractures. The lower 15 cm is pervasively carbonatized with 20 to 30% disseminated pyrite and is non-magnetic.

19387	15,50	16+20	.70	2-3	.17	.12
19388	16,20	17,28	1.08	1	.17	.18
19389	17,28	18.11	.83	1	tr	tr
19390	18.11	19150	1.39	1~2	tr	tr
19391	27.98	29.10	1.12	1-2	tr	tr
19392	29.10	30.12	1+02	1 - 2	tr	tr
19393	30.12	31.00	+88	1 - 2	tr	tr
19394	52,00	53.00	1.00	1	· tr	tr
19395	53.00	53.45	+45	15-20	+34	.15

53,45 68,78 BASALT

4

Hole No.1 MC.85-242 Pase No.1 3

From	Τo	Description	Sai
1 1 1 1 1 1	10	いまでに「よどしまい」	11.45

Flow top breccia : dark green, very fine grained flow top breccia, possibly a flow brecciated pillowed flow. Medium to dark green, rounded to subrounded basaltic fragments generally with dark green to dark sursle coloured reaction rims. Very fine grained, dark green to locally dark surple coloured matrix. Frasments are larger fragments are finely commonly. variolitic, fractured. The unit is non-magnetic with trace to 1% disseminated syrite generally along fractures, Local weak silicification and hematitic streak are noted, non-carbonatized. Below 61.0 meters the degree of brecciation drops off, becoming a very fine grained massive flow with weak flow brecciation. The flow is cut by numerous brown corbonate and euhedral Pyrite filled voids. These voids have distinct rale green. silicified alteration halos 0.5 to 1.5 cm thick, 68.78 meters : share contact with the underlying symple.

68.78 80.06 SYENITE

Fink to red-brown, medium grained to porphyritic sygnific intrusive. Approximately 50% subedral to subhedral, 1 to 3 mm diameter, white feldspar phenocrysts in a red-brown to pink, very fine grained, very hard matrix. Blocky, highly fractured core, locally ground core, cut by numerous carbonate filled fractures. Non-magnetic with trace disseminated pyrite throughout. The intrusive contacts are sharp however no chilled margins are noted.

80.06 95.50 HIGH MAG BASAL1

Massive flow : dark sreen to locally sreu; fine to very fine grained, highly magnetic massive flow. Cut by numerous carbonate filled fractures and minor carbonate; epidote filled fractures. Local highly carbonatized as halos to vugge carbonate veins and breccia zones. Highly magnetic throughout with trace to 1% disseminated purite. Locally weakly to moderately silicified associated with fractured, grey hued ratches. Relow 90.8 meters approximately the core takes on a grey hue due to pervasive carbonatization, and becomess increasingly fractured with 1 to 2% exrite concentrated along fractures.

95.40 95.50 Shear zone : dark purple, very fine stained, faintly lineated strongly purvasively carbonatized material. The upper and lower contacts are very sherr at 35 degrees to the note asis. The shear zone is weakly to moderately magnetic, a share decrease in

Same Le	From	To	Lensth	% Sul	Au	GW	
19396	53+45	54.45	1.00	TR-1	tr	tr	

19397	68.78	69.78	1.00	TR-1	tr	tr,
19398	69.78	70,78	1.00	1R-1	tr	tr
19399	78.09	79.06	.97	TR-1	.17	.16
17400	77.05	80,06	1.00	TR-1	5.14	5.14

18201	93.60	94.50	.90	1-2	tr	tr
18702	94.50	95.50	1,00	1-2	tr	tr

Hole No.: MC.85-242 Pade No.: 4

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Sample From

10 70 4

D/ AD D/ DA

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magnetism is noted across the contact with the overlying carbonatized meters.

MAIN MINERALIZED ZONE : 95,50 112,00 meters.

The zone is based upon amount and degree of silicification and it is composed of three members. All zones are well developed but relatively thin, however this may be normal for the Newmex property. For the values range from 1 to 2% up to 15 to 20% locally, generally as fine disseminations. The McKenna Fault is found at the base of the zone.

95.50 96.08 TRANSITIONALLY SILICIFIED BASALT

Dark Furfle coloured, highly brecciated basalt with minor dark red, highly silicified fragments. Strongly hematized, moderately silicified and pervasively carbonatized throughout. Weakly to moderately magnetic with 1 to 2% disseminated Fyrite. A sharp increase in degree of silicification is noted below 96.08 meters however the colour and texture of the underlying rock remains the same.

96.08 110.03 MAIN SILICIFIED ZONE

11

Dark purple coloured, highly silicified, very finely brecciated material with numerous white, indistinct, subangular, and scale fragments, possibly crystal fragments.

The zone is based on intense silicification however is made up of several distinct lithologies. The upper 2.03 meters is made up of dark purple coloured, weakly to moderately magnetic, precriated basalt which is locally pervasively carbonatized. A monzonitic intrusive is also found within this zone. This unit lacks the white fragments common to much of the zone. Below 98.10 a sudden change is noted and the rock is as described above : a dark purple, highly silicified breccia with abundant white fragments. This unit may be intrusive in origin. This unit is non-magnetic, non-carbonatized and very uniformly textured. Minor satchy sellow to buff coloured alteration is noted with associated pyrite values up to 20%. Pyrite is highly variable from 2 to 20% senerally as fine disseminations. Relow 103.6 meters the rock becomes less uniformly textured and weakly to moderately magnetic, however no abrubt contact is noted.

96.08 96.80 Dark purple, very fine grained, hematized

38704	- A0+08	20+80	· / Z.	3-5	+ 34	+24	
18705	96.80	97,70	۰90	TR-1	,17	.15	
18706	97,70	98.11	. 41	5-7	.34	.14	
18707	98,11	99.11	1.00	2-4	.17	+17	
18708	99.11	100,11	1.00	2-4	tr	tr	
18709	100.11	101.11	1.00	2-4	tr	tr	
18710	101.11	102,11	1.00	2-4	tr	tr	
18711	102.11	103.01	•90	2-4	tr	tr	
18712	103.01	103.80	+79	2-4	tr	tr	
18713	103.80	104.23	+ 43	15-20	.17	.07	
18714	104.23	105.12	• 89	3-5	tr	tr	
18715	105.12	106.14	1.02	5~3	.17	.17	
18716	106.14	107.07	.93	2-3	.17	.16	
18717	107.07	108.07	1.00	10	+17	.17	
18718	108.07	109.16	1.09	5-8	.17	.19	
18719	109.16	110.03	•87	5-6	.17	.15	

20

18703 95,50 96,08 ,58 1-2 ,17 ,10

From	ťα	Description	Sample	Eron -	10
------	----	-------------	--------	--------	----

GW

Au.

Lensth % Sul

and highly silicified, weakly to moderately magnetic basalt. Locally weakly pervasively carbonatized with 3 to 5% disseminated pyrite

- 96.80 97.70 Felsic intrusive monzonitic : red-brown with indistinct dark streen mafics, pervasively carbonatized and weakly to moderately magnetic. Fractured and weakly brecciated with foliated margins. Upper contact at 50 degrees to the core axis, lower contact at 20 degrees to the core axis,
- 97.70 98.11 As described above from 96.08 to 96.80 meters with 5 to 7% disseminated pyrite and minor brown coloured alteration.
- 98.11 103.80 Dark surple, highly silicified breccia with abundant indistinct white fragments throughout, ressibly crystal fragments, Non-carbonatized and non-magnetic with 2 to 4% disseminated syrite throughout. Below 102.6 meters approximately the breccia becomes less uniformly textured and white fragments are less abundant.
- 103.80 105.12 As described above from 96.08 to 96.80 meters and 97.70 to 98.11 meters. Highly brecciated and silicified with syrite values up to 15 to 20%. Variably magnetic from non-magnetic to strongly magnetic, non-carbonatized.
- 105,12 107.07 Approximately 95% highly silicified, grey to surple breccia with minor red coloured highly silicified frequents. Locally cut by 1 to 5 cm thick, white to red quartz dark green, relatively 5% veinlets. material, possibly basaltic, unaltered Generally locally Flood foliated. locally very weakly non-magnetic, magnetic. Purile Senerally 2 to 3% locally up to 5% as fine disseminations.
- 107.07 110.03 Dark Purple coloured, aphanitic, highly silicified and hematized breccia. Minor brown coloured, patchy alteration with pyrite values up to 15 to 20%, generally 5 to 8% as fine disseminations. Non-magnetic and cut by minor white carbonate filled fractures. The lower 85 cm of the zone is disturbed by 15% late stage quartz veining.

110.03 112.00 TRANSITIONALLY SILICIFIED ZONE

4

Highly variable unit made up of foliated material, possibly basaltic, pale yellow to pink breccia and pink silicified fragments in a chloritic matrix and pink to red, bighly silicified zones which are possibly

18720	110.03	110.63	• 60	3~5	.17	.10
18721	110.63	111.69	1.05	2~3	+ 17	.18
18722	111.69	112.00	.31	5-7	, 34	.11

From

10

Sample From

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Τn

Lensth % Sul

Au

GW

intrusive in nature. The foliated units are highly contorted and deformed with weakly silicified patches and fragments. Generally non-magnetic and moderately to strongly pervasively carbonatized throughout. 1 To 2% disseminated pyrite with concentrations up to 5% in thin silicified horizons. Approximately 30% of the core is missing due to grinding, making contacts impossible to determine.

- 110.03 110.63 40% Pale sellow to white to pink, silicified fragments and bands within a green, chloritic matrix. Highly foliated however foliation is brecciated and highly disturbed. Non-magnetic with 3 to 5% disseminated pyrite.
- 110.63 111.66 Very weakly silicified, rele yellow to Fink breccia, Strongly Pervasively carbonatized with minor dark green chlorite along fractures and between breccia fragments, Approximately 40% of core is lost due to grinding.
- 111.69 112.00 70% red brown, aphanitic, highly siliceous material, possibly intrusive, and 30% green to brown, foliated material. Foliated at 70 degrees to the core axis approximately. Pervasively carbonatized with 5 to 7% disseminated pyrite, 112.00 meters ; sharp contact at 60 degrees to the core axis with underlying foliated basalt.

112.00 117.97 FOLIATED BASALT

Breen/ fine grained/ highly foliated basalt/ generally magnetic, locally highly magnetic along moderately magnetite rich bands - seams, Approximately 30 to 40% of the core is wispy white to pink carbonate growth highlighting the foliation, foliation is locally weakly contorted. Amount of carbonate and intensity of down section. Less than 1% foliation decreases. silicification of carbonate laminations is noted. Relow 116.80 meters the magnetism drops off and the foliation is poorly developed. Generally 1 to 2% disseminated Pyrite throughout, Foliation : 112.10 meters at 60 degrees to the core axis, 115.2 meters at 20 degrees to the core axis and 116.75 meters at 60 degrees to the core exis.

18723 112.00	113.00	1.00	1-2	tr	tr
18724 113.00	114.00	1.00	1-2	.17	.17
18725 114.00	115.00	1.00	1 - 2	tr	tr
18726 115+00	116.00	1.00	1-2	+17	.17
18727 116.00	117.00	1.00	1-2	.17	,17
18728 117.00	117.97	.97	TR-1	tr	tr

117,97 163,35 BASALT

-1

Hole No.1 MC.85-242 Page No.1 7

From To _____Description_____

Sample	From	То	Length	% S	Տսչ	Au	GW	
18729	117.97	115,00	1.03	t	-2	tr	tr	

Fine to very fine stained≠ locally carbonatized and epidotized massive flows.

- 117.97 119.50 Brecciated massive flow, possibly a flow top breccia, Dark green to grey hued, very fine grained to aphanitic, highly fractured and locally breccisted massive flow. Local 2 to 3 on thick seams of with minor folisted material. silicification, magnetite and 3 to 5% syrite are noted, possibly interflow Abundant carbonate filled sediment. fractures and minor wisey carbonate growth. Generally non-magnetic with trace to 1% disseminated pyrite.
- 119.50 126.80 Highly weathered blocky, highly fractured core, locally ground core. Green, very fine grained, massive flow to possibly Fillowed flow with 50% rale green, altered patches around brown vudgy carbonate and weathered zones. Abundant late stage white carbonate filled fractures, numerous epidote foliated fractures. Non-magnetic with trace to 1% disseminated pyrite.
- 126.80 143.82 Massive flow to porphyritic flow ; sreen, fine to medium grained, non-magnetic massive flow, Fatchy carbonatization and epidotization tapers off down section, Non-magnetic with trace to 1% disseminated pyrite. Cut by numerous epidote and carbonate filled fractures. The flow is porphyritic from 133.6 to 141.1 meters with 2 mm to 2 cm diameter euhedral feldspar phenocrysts.
- 143.82 143.87 Flow contact zone : very fine grained, sheared flow contact zone, foliated at 50 degrees to the core axis.
- 143.87 158.84 Massive flow : dark green, fine grained, relatively unaltered, non-magnetic massive flow. Minor epidote and carbonate filled fractures, trace to 1% disseminated pyrite.
- 158.84 162.96 Flow top breccia : sreen to pale sreen, aphanitic, weekly to moderately silicified, angular to rounded basaltic fragments in a grey cachonate matrix.
- 162.96 163.35 Massive flow to Fillowed flow : medium sreen, very fine grained besalt.

163,35 END OF HOLE.

4

		BARRICK RESOURCES CORPORATION	4		
Co-ords 1	0407.5 5484.7	DÍAMOND DRILL RECORD		HOLE ND+1	MC+85-243
Azimuth:	358.4 Des.	Section: 35+15W		Property:	Newmex
Dipt	-50.0 Des.	Core Size: BR		Location:	35+15W 4+07N
Elevation:	5008.3			1 - 4 - 1 - 4 - 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	
Lensth:	258+0			Date Started: Date Completed:	
Measurement:	Metric			Lossed by:	N. Downey
Comments:	Casins left in hole				
	Depth Azimuth Dip	Depth Azimuth Dip	Depth Azimuth	Dip	
	61,00 -50,0 123,10 377,0 -50,0	195+70 380+5 ~48+0 252+10 ~46+0			
	Los Summa	ry			
	0.00 12.19 OVERBURDEN.				
	12.19 26.58 TRANSITIONALLY SILICI	FIED ZONE.			
	26.58 74.96 HIGH MAG RASALT.				
	74.96 79.65 SYENITE.				
	79.65 89.50 HIGH MAG RASALT.				
	89.50 107.63 UPPER MINERALIZED 20	NE.			
	89.50 93.36 TRANSITIONALLY SILICI	FIED ZONE.			•
	93.36 99.32 UPPER SILICIFIED ZONE	,			
	99.32 107.63 TRANSITIONALLY SILIC	IFIED ZONE.			
	107.63 131.70 HIGH HAG BASALL.				
Pi	131.70 148.38 MAIN MINERALIZED 20	NE +			
	131,70 148,38 TRANSITIONALLY SILL	CIFIED ZONE.			
5	148,38 152,54 FOLIATED RASALT.				
	152,54 258,04 BASALT,				
	258.04 END OF HOLE.				
			ı.		

Hole No.: MC.85-243 Page No.: 2

GW

0.00 12.19 DVERBURDEN

12.19 26.58 TRANSITIONALLY SILICIFIED ZONE

Pink - sreen silicified zone. Locally laminated 'cherty' rock. Alteration breccia along fractures with carbonate. Silicification is pervasive not breccia related. Strongly magnetic.

- 12,19 14,10 Green Pink massive silicified rock, Carbonate alteration along fractures with chlorite,
- 14.10 15.20 Very fine grained green pink laminated silicified zone. Extensive alteration breccia. Alteration invades rock from fractures. Contorted laminations locally. Laminated 60 degrees to the core axis. 1 To 3% surite as disseminations and bands along fractures.
- 15.20 17.08 Pink sreen very fine stained massive silicified zone. Carbonate alteration alons fractures. Local alteration breccia. 1 to 2% purite.
- 17.08 18.58 Grey grey-green fine grained silicified porphyritic rock. May be synite. Up to 10% white feldspars phenocrysts to 1.5 mm.
- 18,58 21,18 Very fine stained massive Fink strey-streen rock with narrow zones of Fink - strey-streen silicified Forphyritic rock 2 to 4% Fyrite as fracture fillings and disseminations.
- 21.18 26.58 Very fine stained steen Pink silicified rock. Locally intense alteration breccia. Carbonate along fractures with chlorite and epidote. Alteration decreases at base. Buff alteration along fractures.

26.58 74.96 HIGH NAG BASALT

4

Dark green to pale grey; fine grained with both coarse and very fine grained to aphanitic phases. Flow rocks are massive with well zoned coarser centres and chilled; brecciated tops. Brecciated vesicular flow top. Grain size increases down section. Strongly magnetic, Rare carbonate - quartz stringers. Trace pyrite, 27.43 To 29.12 meters : zone of combonate alteration and eridotization. Up to to 2% pyrite as fracture fillings. 54.50 58.67 Grey weathered zone, most intense along fractures. Brown core at top.

19967	12,19	13.19	1.00	1-2	.07	.07
19968	13,19	14,10	. 91	1	nil	ni1
19969	14.10	15.20	1.10	1 - 3	nil	nil
19970	15.20	16.20	1,00	1-2 ,	.07	.07
19971	16.20	12.08	+88	1-2	nil	nil
19972	17.08	18,08	1.00	1-2	ni]	ni l
19973	18.08	18,58	.50	1-2	nil	nil
19974	18.58	19.58	1,00	2-4	.07	.07
19975	19.58	20.58	1.00	2-3	l i n	nil
19976	20.58	21,18	.60	2 3	nil	nil
19977	21,18	22.18	1.00	3-5	nil	nil
19978	22.18	23+28	1.10	2-4	nil	nil
19979	23.28	24,38	1.10	1	ni)	nil
19980	24+38	25.48	1.10	TR-1	nil	nil
19981	25.48	26+58	1.10	1-3	nil	nil

19982	26+58	27+58	1.00	TR-2	ni]	nil
19983	27,58	29.12	1.54	T8-2	nil	nil
19984	29.12	30.12	1.00	TR- 1	• 43	+43

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								Hole No+: Page No+:	MC+85- 3
From	ſo	Description	Sample	From	Τo	Lensth	% Sul	Au	GW
								:	
/4.96	79.65	SYENITE							
,		Svenite, White feldspar phenocrysts to 4 mm form up to 30% of rock, Sharp contacts, Weakly magnetic, No pyrite,							
79 (65	89.50	HIGH MAG BASALT	10005	00 50				(7	
		Medium grained dark surste-grey massive flow.	14485	88+20	89,50	1.00	t	+17	,17
		Continuation of overlying unit, Strongly magnetic, Fines at base to very fine grained, Sharp contact with underlying alteration zone,							
		UPPER MINERALIZED ZONE : 89.50 - 107.63 meters.							
		Zone is centered on a poorly laminated 'chert'. Silicification is pervasive with minor alteration breccia often accompanied by carbonate alteration overprinting. 3 Zones noted on basis of silicification. Up to 10% pyrite in brecciated, laminated zones.							
39.50	93.36	TRANSITIONALLY SILLCIFIED ZONE							
				89.50			1-2		nil
		75% silicified, grey-green locally pink silicified rock. Green unaltered phases resemble very fine grained	19987 19988	90.50 91.50	91,50 92,50	1,00	1~2		·51
		basalt. Strongly magnetic. Carbonate alteration overprinting silicification. A 7 cm zone at 90.0 meters resembles silicified varialites. Possible flow breccia. Base gradational to underlying zone. 1 to 10% pyrite as fine grained disseminations and fracture fillings.		92.50		.85	5-10		.06
93,36	99 ¹ .32	UPPER SILICIFIED ZONE							
		100% silicified. Fink - sree very fine grained massive		93.36 94.36	94,36 95,36	1.00	1 2-3		nil .51
		to laminated (cherts) zone. Dark pink zones are slightly	19992	95.36	96.36	1.00	2-3	.51	.51
		softer. Contorted laminations are noted. Carbonate alteration overprinting silicification in preciated		96,36 97,36	97,36	1.00	5-10 5-10		•07 •07
		zones. Weakly magnetic, 1 to 10% pyrite as disseminations, bands, and fracture fillings.		99,36 98,36		•96	2-5		ni]
29,32	107.63	TRANSTITUNALLY SILICIFIFIC 70NE							
			19996	99.32	100.32	1.00	2-3	f i n	nil

85% silicified. Grey - Pank very fine stained massive silicified zone. Minor precriation. Strongly magnetic.

19996 99,32 100,32 2-3 ារ 1 nil 1.00 19997 100,32 101,32 1,00 1-2 nil nil 1 nil. 19998 101.32 102.32 1.00 nil

Sample From

Hole No.1 MC.85-243 Fase No.1 4

Au

.17

nil

ni1

,17

.07

.43

1

1

1-2

1-2

2-3

1-2

G₩

.17

nil

nil

,17

.05

+27

To

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Carbonate alteration overprinting silicification, White feldspar phenocrysts noted at 120.50 meters. Relatively unaltered zones are very fine grained green basalt. Contacts are gradational. 1 to 3% pyrite as disseminations.

------Description------

107.63 131.70 HIGH MAG BASALT

Dark green massive flow, Strongly magnetic, Fine grained foliated top grades down section to medium grained massive flow, Rare carbonate eridote stringers, Carbonate alteration occurs locally adjacent to fractures, Pervasive carbonate alteration at base, Trace to 1% purite, 110.92 meters ; narrow shear parallel to core axis.

131,70 148,38 MAIN MINERALIZED ZONE,

The zone, based on development of silicification, is composed of only transitional-type alteration. The Main Silicified Zone is not present; individual pockets of silicification seldom exceed 50cm. Average pyrite content is thus much less than normal. Minor increases noted in silicified rock. 146.11 IMPERIAL FAULT PLANE.

131.70 148.38 TRANSITIONALLY SILICIFIED ZONE

Strongly magnetic pink - green brecciated rock with up to 55% silicification.

- 131,70 133,41 45% grey pink silicification of fine grained green basalt, gradational from overlying unit, Rock is coarse breccia with chloritic carbonate matrix, Fink zones may be symmitic, Late stage carbonate fracture filling, Chlorite fracture filling, 1 to 2% pyrite,
- 133.41 135.44 10% grey pink silicification green purple foliated rock. Wispy carbonate alteration along foliation. Foliated 40 degrees to the core axis. Cremulation cleavage noted with flat dip to the SW. 1 to 2% pyrite.
- 135.44 137.32 20% purple silicified zones in a pink -purple-snew non-foliated rock. Rrecciated with chloritic matrix. Pervasive carbonate alteration. Massive zones contain chloritic laths. Possibly diorite. 136.56 Meters 1 4 mm clay-snit seam 50 degrees to the core axis. 10 mm yellow pyrite rich

20008	131.70	132,70	1.00	1-2	۰07	.07
20009	132.70	133.41	.71	1-2	.17	,12
20010	133.41	134.41	1.00	1	,17	.17
20011	134.41	135.44	1.03	1-2	.07	.07
20012	135.44	136.44	1.00	1-2	.17	.17
20013	136.44	137.32	• 88	1-2	1.54	1.36
20014	137.32	138.32	1.00	2-3	.17	.17
20015	138.32	139.32	1.00	1-2	+07	.07
20016	139,32	140.32	1.00	1	.07	.07
20017	140.32	141,40	1.08	1-2 -	.07	,08
20018	141.40	142.40	1.00	1-2	.07	.07
20019	142.40	143.40	1.00	5-3	.34	.34
20020	143.40	144.35	. 95	2-3	.34	.32
20021	144.35	145.35	1.00	TR-1	+34	.34
20022	145.35	146.11	.76	TR-1	.07	.05
20053	146.11	147,21	1.10	1-2	• 6 4	.70
20024	147.21	148.38	1.17	1-2	+17	.20

1

20005	107.63	108.63	1.00	TR-1	• 07	۰07
20005	129.70	130.70	1.00	TR-1	.07	.07
20007	130.70	131.70	1.00	TR	ni]	n i 1

1.00

.68

. 63

Length % Sul

10

19999 102.32 103.32 1.00

20000 103.32 104.32 1.00

20002 105.32 106.32 1.00

20001 104,32 105,32

20003 106.32 107.00

20004 107.00 107.63

Hole No.1 MC.85-243 Pase No.1 5

GW

From To _____Nescription-____

Sample From

Lensth % Sul

10

zone adjacent to fault zone, 1 to 2% pyrite 137.32 141.40 45% silicification in purple foliated to massive brecciated rock. Fervasive carbonate alteration, Rock is finely brecciated chloritic fragments and matrix. Rare yellow-brown alteration zones. Fractures parallel foliation often contain clay. Foliation 40 ~ 50 degrees to the core axis. 1 to 2% pyrite. 138.25 To 139.29 meters 1 0.80 meters core recovered.

- 141.40 144.35 10% silicification. Purple srew with sygnitic fragments. Silicified PINK Pragments in chloritic matrix, Extensive shearing. Silicified breccia fragments at hase. Fervasive carbonate alteration. Magnetite fracture filling, 1 10 3% evrite in fragments and matrix adjacent to 141.51 meters 1 10 mm fault zone. clay-grit seam 60 degrees to the core axis, 143,24 meters : clay-srit seam 60 degrees to the core axis, 143,70 to 144,00 meters : quartz vein.
- 144.35 146.11 15% silicified intensely foliated breccia. Carbonate and silicified fragments in chloritic shear zone matrix. Fragments stretched. Foliation often contorted. Numerous clay-strit seams. Fault zone at 144.42 meters as a clay hall, 145.30 to 146.11 meters : blocky, highly fractured core; 0.70 meters core recovery. Trace to 1% evrite.
- 146.11 148.38 55% silicified purple srew fragments in a green chloritic matrix. Fragments are brecciated foliation bands. Non-magnetic. Pervasive carbonate alteration. Intensely foliated. Foliation is highly contorted; locally forms circular structures. 1 to 2% pyrite as disseminations in fragments and matrix. 146.11 To 146.45 meters ; honey yellow brecciated foliated zone within a purple matrix.

. 148.38 152.54 FOLIATED BASALT

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Fine grained dark green foliated rock with white carbonate alteration along foliation. Wisey to complete carbonate replacement of foliation. Rare silicification of carbonate alteration noted. Non-magnetic. Foliation 60 degrees to the core axis, locally contorted. Foliation decreases down section. Grades to massive basalt.

20025	148.38	149.38	1.00	1	.17	.17
20059	149.38	150.38	1,00	TR = 1	.07	.07
20027	150.38	151.38	1.00	TK-1	ni l	611
20058	151.38	152.54	1,16	TR-1	.07	.08

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.07

Au

From To ------Description-----

152,54 258,04 BASALT

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Pale green to medium grey-green with few dark green phases and usually fine to very fine grained, finer grained pillowed flows and relatively coarser grained massive flows are found in the section. Flows are well structured with vesicular, often angularly brecciated tops and less broken interiors. Vesicular pillowed zones are occasionally found as the uppermost section in otherwise massive flows. These rocks exhibit weak shrinkage-type fracturing locally. The breaks are white carbonate filled. Rocks are non-magnetic with a trace locally.

- 152.54 169.45 Green fine grained massive flow. Foorly developed isolated foliated zones. Fines at base. Minor leucoxene noted. Non-magnetic. Trace to 1% pyrite. 155.97 To 156.66 meters : carbonate - quartz veining with carbonate leached. Blocks, highly fractured core. 159.72 meters : limonite costed fractures with minor clas. 168.41 to 168.80 meters : carbonate veining with euhedral quartz.
- 169,45 173,47 Flow contact zone. Flow breccia with ansular fragments, No reaction rims, Local gas breccia with eridote - carbonate quartz matrix, Non-magnetic,
- 173.47 179.30 Very fine grained medium grained massive flow, Non-magnetic.
- 179.30 184.85 Porphyritic massive flow. Continuation of overlying unit. Feldspar phenocrysts to 30 mm form 1 to 2% of core.
- 184.85 194.79 Green fine ~ medium grained massive flow continuation of overlying unit, Eridote ~ carbonate fracture filling common, Increase in carbonate veinlets towards base
- 194.79 198.13 Dark sreen, very fine fine stained flow contact zone. Non-magnetic, Chlorite and specular hematite fracture fillings. Fink - white carbonate veinlets with chalcopyrite common.
- 198.13 211.21 Dark sreen fine srained massive flow. Minor local flow breccia. Epidote fracture filling, Non-magnetic.
- 211.21 258.04 Bark green very fine grained schanitic pillowed flow. Brecciated flow top. Buff silicification of pillows noted. Chlorite and specular hematite fracture fillings. Pillowed flows exhibit well developed glassy selvages and interiors with well developed vesicles. Nore carbonate quartz stringers with pyrite.

20029 152.54 153.54 1.00 TR .07

Length % Sul

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Sample From

Hole No.1 MC.85-243 Fage No.1 7

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From ToDescription				Samela	From	ľο	Lensth % Sul	Au	GW	_
	From	То	Vescription	ADADHER RAG					ł	

258.04 END OF HOLE.

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Elevation: 5010.5 Lenathi 230.7 Measurement: Metric Comment: Casind left in hole Derth Azimuth Dip Derth Azimuth Dip Derth Azimuth Dip 61.00 -45.5 146.60 -46.0 76.50 37R.5 -47.0 162.900 378.0 -45.5 	Co-ords1	10338.3 5613.7	DIAMOND	DRILL RECORD		HOLE NO.1	MC+85-244
Elevation: 5010.5 Lengthi 230.7 Measurement: Metric Comments: Casing left in hnle Derth Azimuth Dir Nerth Azimuth Dir Derth Azimuth Dir 61.00 -45.5 146.60 -46.0 76.50 378.5 -47.0 162.900 -45.5 121.90 378.0 -45.5 	Azimuth:	361.0 Des.	Sectio	nit 33+75₩		Property;	Newmex
Lensthi 230.7 Date Started: Aug. 12. 1 Date Constructed Aug. 12.	Dipt	-50.0 Des.	Core S	izet BQ		Location	33+86W 3+38N
Lenathi 230.7 Date Completed Aug. 16.1 Measurementi Metric Commentsi Gasinsi left in hole Depth Azimuth Dip Depth Azimuth Dip <u>61.00</u> -45.5 146.60 -46.0 230.70 -43.0 -6.50 121.90 -45.5 214.00 370.0 -45.0 	Elevation:	5010.5				Data Stantod!	Aug. 12. 1985
Neasurement1 Netric Comments: Casind left in hole Deeth Azimuth Dip Deeth Azimuth Dip 01.00 -45.5 146.20 -43.5 230.70 -43.0 21.90 -45.5 146.20 -43.5 -43.0 -43.0 0.00 5.40 0.378.5 -47.0 180.200 -43.5 0.00 6.40 OVERHURDEN. Log Summary	Lensth:	230.7				Date Completed	Aus. 16, 1985
Derth Azimuth Dir Derth Azimuth Dir 61.00 -45.5 146.60 -46.0 230.70 -43.0 76.50 378.5 -47.0 182.90 -43.5 230.70 -43.0 121.90 -45.5 214.00 378.0 -45.0 -43.5 -43.0 0.00 6.40 DVERPURDEN.	Measurement:	Netric				LUBNEG DBY	RTPT INCOUGET
61.00 -45.5 146.60 -46.0 230.70 -43.0 76.50 378.5 -47.0 182.90 -43.5 -43.5 121.90 -45.5 214.00 378.0 -45.5 -43.6 0.00 6.40 DVERBURDEN.	Comments:	Casing left in hole					
76.50 378.5 -47.0 182.90 -43.5 121.90 -45.5 214.00 378.0 -45.0 		Repth Azimuth	Nip Nepth	Azimuth Dip	Depth Azimu	th Die	
0.00 6.40 DVERBURDEN. 6.40 140.56 HIGH MAG BASALT. 140.56 144.19 SYENITE. 144.19 147.55 MONZONJIE. 147.55 151.33 MAIN NINERALIZED ZONE. 147.55 151.33 TRANSITJONALLY SJUICIFIED ZONE. 151.33 163.75 CHUORITE-CARBONATE SCHIST. 163.75 230.73 BASALT.		76.50 378.5	-47+0 182+90	~43.5	230.70	~43,0	
6.40 140.56 HIGH MAG BASALT. 140.56 144.19 SYENITE. 144.19 147.55 MONZONITE. 147.55 151.33 NATH MINEKALIZED ZONE. 147.55 151.33 TRANSITIONALLY SJEICJFIED ZUNE. 151.33 163.75 CHLORITE-CARBONATE SCHIST. 163.75 230.73 BASALT.			og Summary				
6.40 140.56 HIGH MAG BASALT. 140.56 144.19 SYENITE. 144.19 147.55 HONZONITE. 147.55 151.33 HAIN MINEKALIZED ZONE. 147.55 151.33 TRANSITIONALLY 6JHICIFIED ZUNE. 151.33 163.75 CHLORITE-CARBONATE SCHIST. 163.75 230.73 BASALT.							
140.56 144.19 SYENITE. 144.19 147.55 MONZONJTE. 147.55 151.33 MAIN MINEKALIZED ZONE. 147.55 151.33 TRANSITIONALLY SJEICIFIED ZONE. 151.33 163.75 CHLORITE-CARBONATE SCHIST. 163.75 230.73 BASALT.		0.00 6.40 OVERBURDEN.					
144.19 147.55 MONZONJIE. 147.55 151.33 MAIN MINEKALIZED ZONE. 147.55 151.33 TRANSITIONALLY SJEICIFIED ZONE. 151.33 163.75 CHLORITE-CARBONATE SCHIST. 163.75 230.73 BASALT.		6.40 140.56 HIGH MAB BASA	l. T •				
147.55 151.33 MAIN MINERALIZED ZONE. 147.55 151.33 TRANSITIONALLY SILICIFIED ZONE. 151.33 163.75 CHLORITE-CARBONATE SCHIST. 163.75 230.73 RASALT.		140,56 144,19 SYENITE,					
147.55 151.33 TRANSITIONALLY SILICIFIED ZONE. 151.33 163.75 CHLORITE-CARBONATE SCHIST. 163.75 230.73 BASALT.		144.19 147.55 MONZONITE.					
151.33 163.75 CHLORITE-CARBONATE SCHIST. 4 163.75 230.73 BASALT.		147.55 151.33 MAIN MINERA	LIZED ZONE,				
163,75 230,73 BASALT,		147,55 151.33 TRANSITIONA	LLY SILICIFIED ZONE.				
	4	151,33 163,75 CHLORITE-CA	RRONATE SCHIST.				
		163.75 230.73 BASALT.					
230.73 END OF HOLE.	-	' 230.73 END OF HOLE,				• •	
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Hole No.: MC.85-244 Page No.: 2

From	To	Description	Sample	From	Τo	Length % Sul	Au	GW
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0,00 6,40 DVERBURNEN

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6,40 140,56 HIGH MAG BASALT

Strongly magnetic, locally silicified and brecciated basalt containing massive flows and pillowed flows. The flows are dark green to grey, very fine grained to coarse grained at the base of the unit.

- 6.40 35.25 Massive flow : basalt is dark green grey, very fine grained to fine grained, strongly magnetic, moderately chloritized, and weakly to moderately silicified. White to pale green coloured carbonate filled fractures are noted. Minor pyrite is noted in fracture filling and very fine grained disseminated form.
- 35.25 39.43 Silicified 65% breccia 1 60 to silicification. Purite 1%, locally up to 3%. Basalt is a pale to dark gread very fine grained. strongly magnetice locally and silicified massive flow. brecciated increasing brecciation contains Focalla. carbonatization and increasing pyrite Carbonate filled fractures are content. noted. Brecciation has a shattered appearance
- 39.43 64.06 Fillowed flow : basalt is dark grey green, very fine grained, strongly magnetic, with narrow weakly developed selvages. Abundant epidote, carbonate, magnetite, and pyrite are contained in veinlets. Carbonate filled fractures are noted. Interval from 62.66 to 63.56 meters contains silicified breccia, with shattered appearance and abundant epidote and pyrite veinlets.
- 64.06 87.70 Massive flow : basalt is dark green gree, vers fine grained, strongly magnetic, 10ca]1v carbonatized, and contains Pyrite, carbonate in magnetite, and veinlets. Abundant carbonate filled fractures are noted.
- 87.70 88.45 Monzonitic intrusive ; rock is green grey, fine grained, and chloritized, with a decussate texture formed by dark green, strongly chloritized hornblende. Pink, anhedral feldspar phenocrysts are noted, up to 3 mm. Minor veinlets containing pyrite, carbonate, and epidote are noted. Contacts are sharp and irregular.
- 88.45 89.39 Massive flow (dark green greg) very fine grained, strongly magnetic,

18661	34.50	35.25	، 75	· 1	tr	tr
18662	35,25	36.00	.75	2-3	tr	tr
18663	36.00	37.00	1.00	1	tr	tr
18664	37.00	38.00	1,00	1	tr	tr
18665	38,00	39.00	1,00	1-2	tr	tr
18666	39,00	39.43	.43	1	tr	tr
18667	39.43	40.00	+57	TR-1	tr	tr
18668	62.66	63.56	.90	3~4	tr	tr
18669	90.91	91.82	. 91	TR-1	tr	\mathbf{tr}
18670	139.60	140.56	•96	TR-1	tr	tr

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From To	Description	Sample Fro	om To	tensth	% Sul	Au	GW
, , ,	 89.39 90.22 Interflow sediment : sediments are dark grey to black, very fine grained, and foliated at 59 degrees to the core axis. Purite replacement is noted in cherty laminations. Lower contact is sheared at 54 degrees to the core axis. 90.22 140.56 Massive flow : flow is dark green - grey, very fine grained to medium grained, and strongly magnetic. Gradual coarsening trend down-hole. Interval from 90.91 to 91.82 meters contains silicified breccia with abundant overprinting dolomite alteration. Disseminated purite is noted, locally up to 1%. Breccia contains yellow brown to pale grey, angular, dolomitized fragments in a dark green - grey, basalt matrix, Locally a vuggy texture is noted. 						
140,56 144,19	SYENITE						
	Red-brown, fine stained svenitic intrusive with white euhedral feldspar phenocrysts up to 3 mm. Upper and lower contacts are sharp and irregular.	18671 140, 18672 143,			NIL NIL	•17 tr	•16 tr
144,19 147,55	KONZONITE						
ų	Dark grey to dark green - grey, very fine grained to fine grained, strongly magnetic, weakly chloritized and pervasively carbonatized intrusives. Abundant white to red-brown carbonate filled fractures are noted. Pyrite trace to 1%, in disseminated and fracture filling form. Lower contact is chilled, hematized, and silicified. Lower contact is sheared at 65 degrees to the core axis. Intrusive is probably of mafic composition and contains reddish-pink, fine grained, silicified and hematized, pyritic assimilated fragments. Pyrite trace to 2% in disseminated form,	18673 144, 18674 146,			1-2 TR-1	•17 tr	•17 tr
	MAIN MINERALIZED ZONE : 147.55 - 151.33 meters.						
-	The zone is thin at 3.78 meters; and is made up of highly silicified transitional silicified material. Generally 2 to 3% disseminated pyrite throughout.						
147,55 151,33	TRANSITIONALLY SILICIFIED ZONE						
	Park green; very fine grained with selective silicification in carbonatized laminations and clasts;	18675 147. 18676 148. 18677 149.	16 149.00	.84	2-3 1-2 1-2	tr tr ,17	tr tr +17

Hole No.: MC.85-244 Pase No.: 4

From	To	Description	Sample From To Length % Sul. Au	GW
		Carbonatization is indicated by a cream colouration whereas silicification has a grever hue. Hematization	18678 149,99 150,60 ,61 TR-1 ,17 18679 150,60 151,33 ,73 TR-1 tr	.10 •

up to 3% locally in silicified sections. 147.55 148.16 Breccia : 5 to 10% silicification and 2 to 3% pyrite in disseminated form are noted. Matrix is dark green - grey, fine grained, magnetic, chloritized and strongly pervasively carbonatized with both purple very fine grained, silicified, drev. rounded fragments and reddish-pink, very fine srained. silicified; subrounded fragments. Breccia is locally weakly foliated at 66 degrees to the core axis.

accompanies silicification as a purple tint in more highly altered rock. Pyrite content averages 1-2% with

- 148,16 149,99 Breccia : 90% silicification and 1 to 2% Pyrite in disseminated and fracture filling form are noted. The degree of silicification be descibed as # 8 ¥ variable. Breccia is dark grey to purple grey in colour, silicified and pervasively carbonatized) and is locally magnetic. contains dark grey, angular, Breccia silicified fragments, up to 0.5 cm, in a pale grey, very fine grained to aphanitic, dolomitized and silicified matrix. Locally the breccia contains red-brown to pink, aphanitic, angular to subangular fragments, up to 0.3 cm, which may be frasments. of breccisted sygnitic intrusive. A weakly developed foliation is noted at 47 degrees to the core axis.
- 149,99 151,33 Breccia 1 40% silicification and pyrite trace to 1% in disseminated and fracture filling form are noted. Breccia is dark grey to dark green - grey to pale grey in colours variably silicified, locally magnetic and moderately to strongly foliated at 57 degrees to the core axis. Abundant white to rink carbonate veinlets and carbonate filled fractures are noted. Breccia contains dark grey, very fine grained to aphanitic, weakly silicified, fragments in a sale grey. ensular aphanitic, variably silicified matrix.

151.33 163.75 CHLORITE-CARBONATE SCHIST

4

Dark Purple - grey highly foliated zone containing siliceous fragments of possible symmitic composition. Fyrite contents average trace to 1%, locally up to 3%, 159,88 MCKENNA FAULT PLANE,

18680	151.33	152.10	.77 .	TR-1	tr	tr
18681	152,10	152+85	,75	1	tr	tr
18682	152.85	153.85	1.00	TR	tr	tr
18683	153.85	154.85	1.00	ŤŔ	tr	tr
18684	154.85	155.85	1.00	ŤŔ	nil	nil
18685	155.85	156.85	1.00	TR	tr	tr

Sample From

Hole No.1 MC.85-244 Page No.1 5

From To ______Nescription_____

4

Pase No.; 5 To Length % Sul Au GW

- 151.33 152.85 Zone contains dark to purple grey, 2 to alternating bands forming a 3 ilk ih moderately developed foliation at 62 degrees to the core axis. Foliation is and indicates Flastic convolute Zone contains red-brown to deformation. pink) siliceous, subangular to subrounded fragments of possibly brecciated sygnitic intrusive. The rock is pervasively carbonatized, and moderately to strongly chloritized. Hematite alteration is noted in dark grey to surple " grey coloured Locally brecciated sections bands. contain increasing dolomite alteration and **Pyrite** content. Fyrite trace to 1%; locally up to 3%.
- 152,85 158,85 Zone contains dark grey to dark green srey to pale sreen coloured bands, up to 3 做你? forming a strongly developed, convolute folistion. The rock is generally chloritized, with weakly silicified and hematized bands. Pervasive carbonatization . arid carbonate filled fractures are noted. The zone is foliated at 32 degrees to the core axis at 155.13 meters, 44 degrees to the core axis at 156.34 meters, and 35 degrees to the core axis at 157.45 meters. The lower conlact is a mylonitic shear at 62 degrees to the core axis.
- 158.85 159.34 Breccia is foliated at 60 degrees to the core axis and contains red-brown to Pink, angular, lenticular sgenitic fragments in a dark green to Pale green, chloritized matrix. Zone contains hematite alteration, chlorite alteration, and pervasive carbonatization, Pyrite trace to 1% in very fine grained, disseminated form. Zone is similar to the interval from 151.33 to 152.85 meters.
- 159.34 163.75 Zone is strongly folligted at 57 degrees to the core axis and contains alternating 2 to 3 mm bands of chlorite and white to red-brown carbonate. The rock is locally brecciated and pervasively carbonatized with increasing pyrite content associated. Pyrite trace to 1%, locally up to 3% in very fine grained disseminated and fracture filling form. McKenna Fault : clay-grit seam is noted at 159,88 meters at 70 degrees to the core axis. Minor shears are noted at 161,97 meters at 70 degrees to the core axis, at 162.95 meters at 66 degrees to the core axis and at 163.75 meters at 62 degrees to the core

		•				
18686	156.85	157.85	1.00	TR	tr	tr
18687	157.85	158.85	1,00	TR	tr	tr
18688	158,85	159.34	, 49	TR-2	,17	•08
18689	159+34	159.88	.54	TR	.34	.18
18690	159.88	160.90	1.02	TR-1	tr	tr
18691	160.90	161,97	1.07	TR-1	tr	tr
18692	161.97	162,95	,98	TR-1	nil	nil
18693	162.95	163.75	.80	TR-1	tr	tr

Hole No.: MC.85-244 Page No.: 6

From	To	Description	Sample	Fram	To	Length % Sul	Au	GW	
		axis.	•						

163.75 230.73 BASALT

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•

18694 163.75 164.75 1.00 TR nil nil

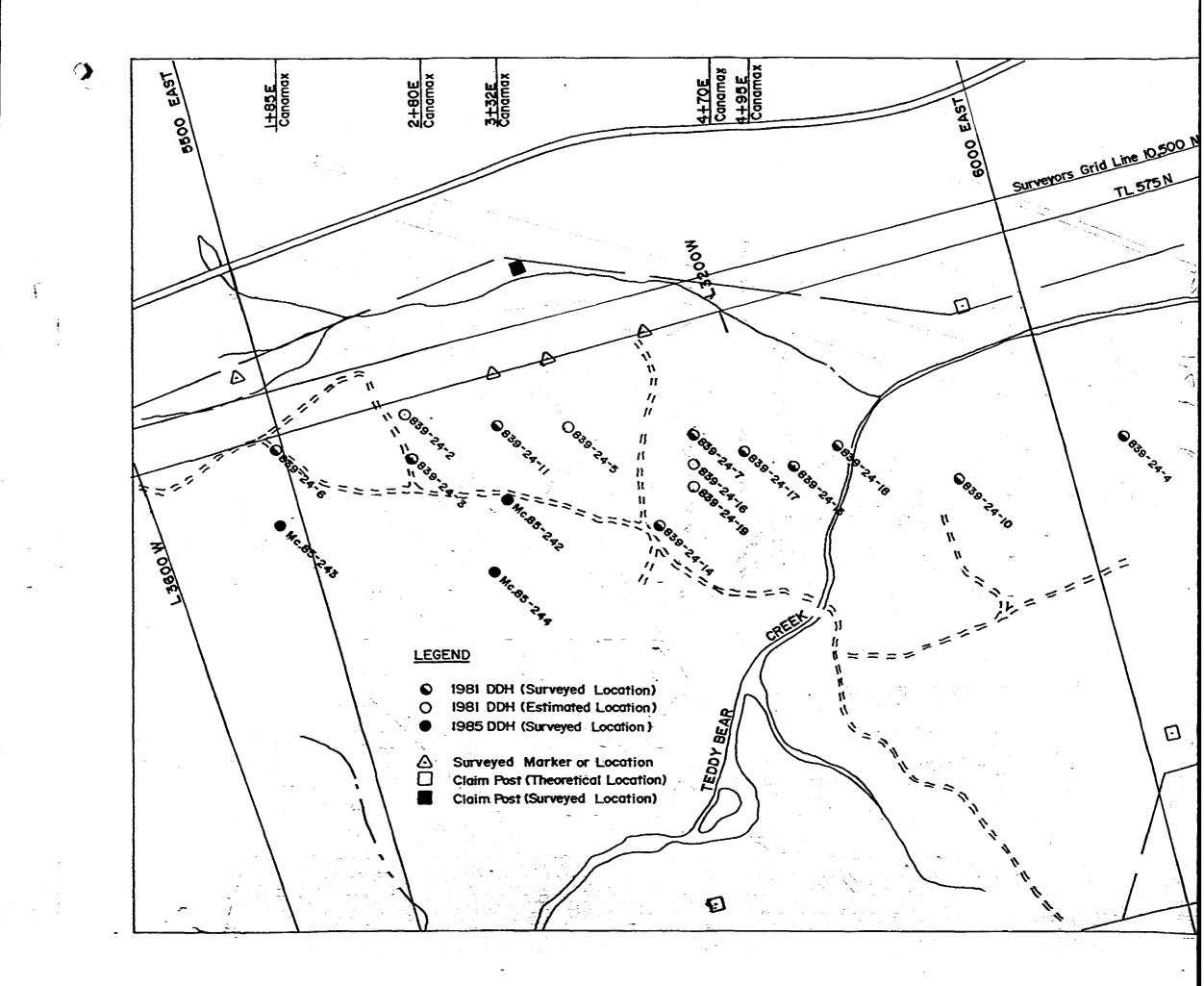
.

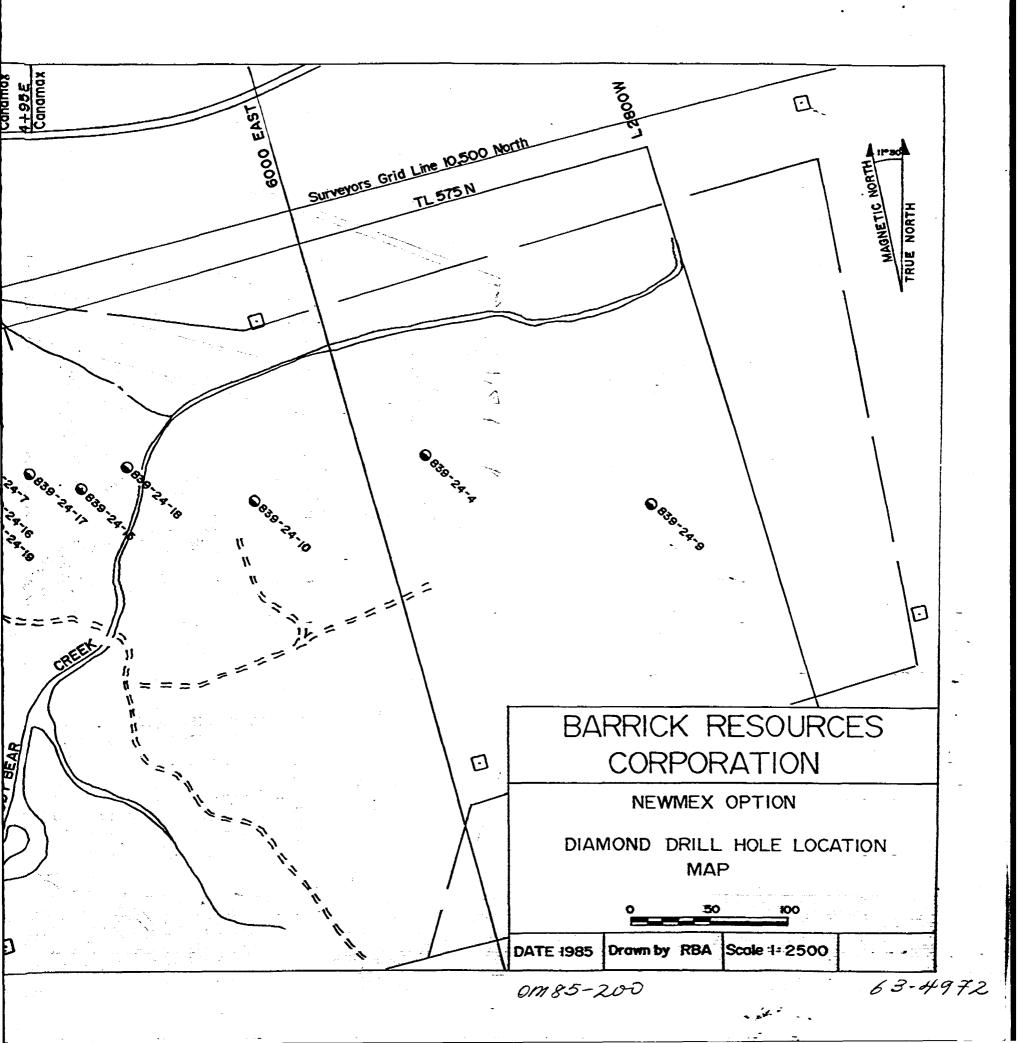
Rocks are dark green - grey, very fine grained to fine grained, chloritized, non-magnetic massive basalts. Abundant carbonate filled fractures and carbonate filled veinlets are noted. Locally hydrothermal injection is present with epidote and chlorite alteration associated. Locally leucoxene overprinting is noted.

- 166.54 167.04 Foliated baselt ; Pale green, aphanitic to very fine grained, angular fragments, up to 2 mm, are contained in a dark green, chloritized, aphanitic matrix. Rocks are foliated at 44 degrees to the core sxis. Upper contact is sheared at 53 degrees to the core axis. Lower contact is sheared at 25 degrees to the core axis.
- 207.00 214.50 Bark grey green, fine grained to medium grained, chloritized massive basalt, containing leucoxene overprinting.
- 215.70 216.70 Dark srew ~ sreen, very fine stained, chloritized basalt containing possible remnant hyaloclastite, with abundant epidote and chlorite filling fractures, Leucoxene overprinting is noted,
- 229.05 230.73 Fillowed flow : dark sreen srey, very fine stained to arbanitic, chloritized basalt containing moderately developed, epidotized and chloritized pillow selvases, up to 1.5 cm. Carbonate filled fractures are noted.

230.73 END OF HOLE.

18694 163.75 164.75 to fine







32005NW0395 63.4972 HARKER

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AMERICAN BARRICK RESOURCES CORPORATION LTD.

An Annual Report on Exploration Activity for the Year 1985

on the

Canamax Option

(in part of Harker Township, Ontario)

RECEIVED

APR 2 5 1986

MINING LANDS SECTION

N.E. Downey A.W. Workman

November 15, 1985



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INTRODUCTION

THE CANAMAX OPTION is a 8 claim block located in Harker Township, Larder Lake Mining Division, District of Cochrane, Ontario. The property is about 50 km. east of the town of Matheson. Access is gained by logging road for 2.5 km. south of highway 101.

Barrick Resources' 1985 exploration program included helicopter-borne magnetic and VLF-EM surveys, aerial photography, diamond drilling and boundary surveys. This report will describe these programs.

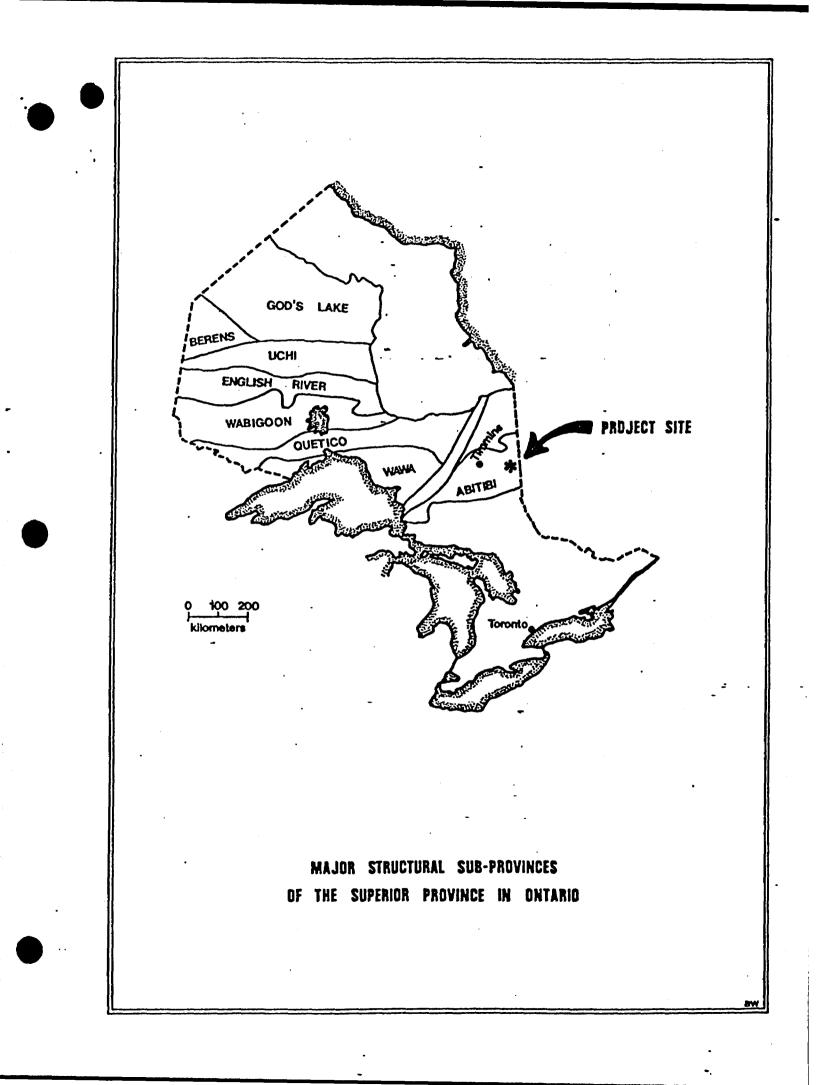
HISTORY

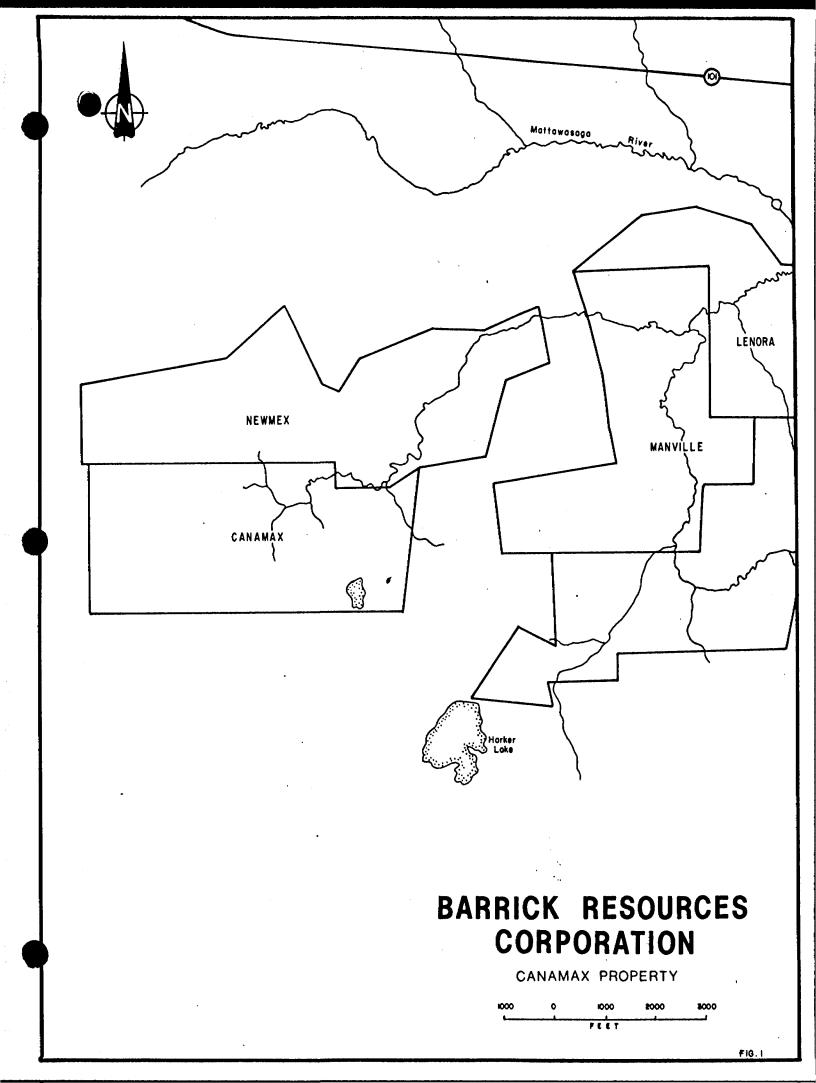
The claim group was staked in the name of Amax Potash Ltd. in December, 1978. Extensive gold exploration activity has taken place in the general area of the property since that late 1930's. Of greatest importance is the activity since the acquisition by Amax. In July of 1979, Amax carried out a geological mapping and prospecting program. This work reported the presence of a 50 metre thick flow breccia or mafic tuff horizon on the southwest corner of the property. In November of 1980, Amax conducted a ground magnetometer survey over the property.

In 1983, Camflo Mines (now Barrick Resources), optioned the property under a joint venture agreement with Lenora Explorations. In 1983, Barrick conducted linecutting, geological, VLF-EM, and magnetic surveys over the property.

REGIONAL GEOLOGICAL SETTING

The volcanic rocks of Harker and Holloway Townships are of Archean age and belong to the Superior Province of the Canadian Shield. This particular region is referred to





as the Lightning River District. The stratigraphy of the Abitibi Belt has been subdivided as follows (Jensen, 1980):

UPPER SUPERGROUP	(Timiskaming Group (Blake River Group (Kinojevis Group (Stoughton-Roquemaure Group
LOWER SUPERGROUP	(Porcupine Group (Hunter Mine Group (Wakewada Group

The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkalic volcanism. Each cycle is topped by a dominantly sedimentary (tuffaceous), sequence which reflects relative quiescence is extrusive activity.

The tectonic regime in which the majority of these rocks are located is one of regional subsidence. The formation of a broad, east-west trending synclinal basin is attributable to this subsidence. The Destor-Porcupine Complex forms the north boundary of this basin, and the south side is marked by the Larder Lake Complex.

A few later intrusives have been emplaced into the volcanic succession. Compositionally, these rocks range from pyroxenite, diabase and lamprophyre, to diorite, granite and syenite. The mafic and ultramafic varieties tend to be found as narrow dykes whereas the intermediate and felsic varieties are more common as larger, more rounded bodies.

The Destor-Porcupine Complex strikes approximately 075 degrees across Harker and Holloway Townships in the same approximate position as highway 101. Rocks to the south of this complex, or zone of dislocation, have approximately the same strike and dip 75 to 85 degrees south. All units top south - there has been no reported evidence of overturning in this area.

- 2 -



AIRBORNE GEOPHYSICS

Geophysical Surveys Inc. of Quebec City, P.Q., carried out a helicopter-borne magnetic and VLF-EM survey of 4.3 line kilometres over the property in July 1985. Survey lines were spaced approximately 200 metres apart.

Instrumentation installed in the Astra helicopter was a vertical magnetic gradiometer, a VLF-EM system, a graphic recorder, a radar altimeter, and a video-tape recording system for flight path recovery. The magnetic and EM senors were towed 30 metres below the helicopter at an average height of 45 metres above ground. The total field and quadrature components of the VLF electromagnetic field were recorded simultaneously from NAA, Cutler, Main, and NSS, Annapolis, Maryland.

The following maps, at a scale of 1:12,000, were prepared from the data:

- Isomagnetic contours of total field
- Isomagnetic contours of the vertical magnetic gradient
- The total field and quadrature profiles of the VLF-EM.

Total Field Magnetics

The Canamax Option is characterized by a generally high magnetic field. In the northern part of the property, contours above 59,500 grams reflect south-westerly striking magnetic basalts. These are very iron-rich tholeiites. An elongated, highly magnetic body in the south-central portion of the property is probably of intrusive origin. Composition is presently unknown.

Gradient Survey

The gradient survey reveals some irregularity in the contacts between highly magnetic rocks and rocks with relatively lower magnetic properties. This irregularity may be due to north-south faulting. One such example strikes approximately 195 degrees and crosses the baseline at about 38+00W. This structure may be on extension of the Teddy Bear Creek Fault.

VLF Survey

In general, the VLF survey offers a confusing picture. Some strong cross-overs and near cross-overs indicate the possibility of conductors striking more east-westerly than north-southerly. Indeed, north-westerly trending conductors have been noted on other Barrick Options and claim blocks. However, these features remain unexplained. Diamond drilling on other properties held by Barrick has failed to adequately explain their affinity. Despite this, these conductors are almost assuredly of structural rather than formational or lithological relation.

AERIAL PHOTOGRAPHY

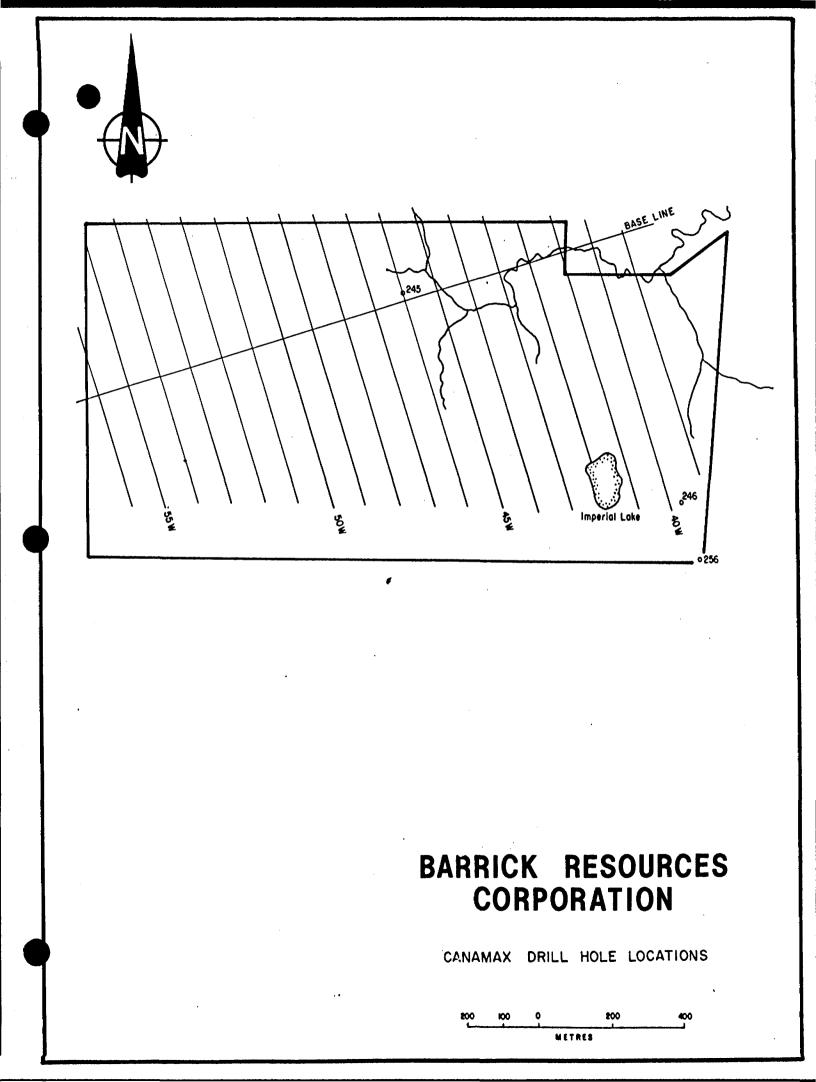
In May of 1985, Aquarius Flight Inc. conducted an airborne photographic survey of the property. The purpose of this program was to develop detailed topographic maps and provide photographs for accurate field control. Air photos at scales of 1:10,000 and 1:20,000 were produced. Mosaics were constructed as a base for the airborne geophysical program. A topographic map at a scale of 1:5,000 was produced by Golder Associates in June of 1985.

DIAMOND DRILLING PROGRAMME

A total of 3 diamond drill holes was completed by Barrick Resources in 1985, for a total of 794.37 meters of drilling. The purpose of the program was to evaluate areas of low magnetics and establish stratigraphic control in an area lacking outcrop. All drilling was conducted by Philippon Diamond Drilling Inc. of Rouyn, P.Q., using BQ wireline equipment.

DDH Mc.85-245 collared at 46+00W., 1+25N., and was drilled to a final depth of 260.36 metres. This hole was collared in a weak magnetic low to evaluate an area of abundant intrusive activity. The hole encountered a series of massive, locally glomeroprophyritic, and pillowed basaltic flows. these were cut by numerous dioritic and granitic intrusives. No significant alteration was encountered. A total of 23 samples were assayed. One sample returned a value of 0.34 gms./ton.

Mc.85-256 was collared at 39+64W., 10+25S., on the southeast corner of the property of evaluate a magnetic low and intersect a suspected sedimentary horizon. the hole was drilled to a final depth of 422.45 metres. The drill hole intersected a series of massive and pillowed basaltic flows, dioritic and monzonitic intrusives. Narrow sections of interflow sediments were encountered above 91.89 metres. Alteration zones were encountered from 62.89 to 65.31 metres and 82.71 to 92.23 metres. These zones were marked by brecciation and silicification with increased pyrite concentrations. A 0.48 metre wide sample taken at 91.41 assayed 4.80 gms/ton. A 1.08 metre sample with quartz veining taken from 238.26 metres gave a value of 2.15 gms./ton. All other samples were less than 0.69 gms. A total of 72 samples were assayed for gold.



DDH Mc. 85-246 was collared at 39+63W., 8+45S. to over cut hole Mc.85-256 and extend the stratigraphic section. The hole was drilled to a final depth of 111.56 metres. The hole encountered a series of massive basaltic flows cut by dioritic intrusives. A narrow breccia horizon was encountered from 100.05 to 110.47 metres. No significant alteration was encountered. One 1.08 metre sample was taken for assay. It returned a gold assay of 0.34 gms/ton.

SURVEYING

To accurately define the location of the claim block Barrick personnel undertook to cut and survey the perimeter of the property. In addition to this surveying, several leveled points were established to provide ground control for the aerial photography.

CONCLUSIONS/RECOMMENDATIONS

An alteration zone was detected by drilling near the south boundary of the property. This zone dips onto adjoining property to the south. Its depth potential on this property is thus limited. Nevertheless, its strike extend is uncertain.

The northern portion of the property overlies the down dip extension of the alteration zone detected on the adjacent property to the north. Additional drilling is required to determine the nature of the alteration zone underlying the northern portion of the property and to determine its gold content.

The location and extension of the zone on the southern boundary can best be determined by surface geological methods.

- 6 -

REFERENCES

Conquer S. and Workman A., Summary Report on the Lenora Exploration Ltd. Harker Township Property, 1985.

Jensen L.S. and Langford F.F., Geology and Petrogenesis of the Archean Abitibi Belt in the Kirkland Lake Area, Ontario; O.G.S. Open File Report 5455, 1983.

Workman A.W., The McDermott Gold Deposit, C.I.M. Distribution, 1985.

			1
Co-ords:	9840+1 4451+2	DIAMOND DRILL RECORD	HOLE NO+1 MC+85-245
Azimuth:	357.7 Des.	Section: 4600W	Property: Canamax
Dip:	-55.0 Des.	Core Size: AR	Location: 45449W 1460S
Elevation:	5000.7		Date Started: Aus. 19, 1985
Lensthi	260+4		Date Completed: Aus. 17, 1765 Lossed by: D. S. Riddell
Measurement:	Metric	·	LUBRED FOR DE OF REGGERE
Comments:	Casing left in hole		
	Depth Azimuth Dip	Depth Azimuth Dip Depth Azimuth	₽i₽
	61,00 -54,0	182,90 -54,0 243,80 -	-48.5
	83,20 360,0 -54,0	239.00 363.0 -50.0 260.36 -	-48.5

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----Los Summery-----

0.00 40.35 OVERBURDEN. 40.35 71.98 BASALT. 71.98 80.52 GRANITE. 80,52 82,28 BASALT. 82,28 84,62 GRANITE: 84,62 89,60 BASALT. 89.60 94.98 GRANITE. 94.98 99.11 BASAL1. 99.11 102.45 GRANITE. 102.45 133.10 BASALT. 133,10 139,27 DJORITE, 139,27 144,23 RASALT. 144.23 152.23 GRANITE. 152,23 173,45 BASALT. 173.45 201.52 HIGH MAG RASALL. 201,52 260,36 BASAUT. 260.36 END OF HOLE.

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Hole No.: MC.85-245 Page No.: 2

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.09

From To ------Description-----Bangle From To Length % Sul Au GW

0.00 40.35 OVERBURDEN

40.35 71.98 BASALT

1

Massive flow possibly basaltic composition intrusive or sub-volcanic intrusive : dark green, fine to medium grained, subedral to subhedral granular, subophitic texture of dark green mafics and fine white interstial feldspar. The granular texture is lost along 1 to 5 cm thick halos to carbonate and epidote filled fractures and alons numerous 0.1 to 20 cm thick granitic, felsic intrusives. Felsic intrusives are pink to red, very fine stained to coarse stained and magnetic with sharp carbonatized halos and trace to 3% contacts. disseminated pyrite. Generally non-magnetic throughout with trace to 1% disseminated pyrite, The core is blocky, highly fractured and locally ground with little core loss. Gradual coarsening trend down-hole. 69.11 to 69.78 meters granitic intrusive at 65 to 75 degrees to the core axis.

71.98 80.52 GRANITE

Granitic composition intrusive ; pink to red; aphanitic to locally resmatitic, siliceous intrusive. Abundant muscovite as subhedral masses and blebs and fine disseminations with associated minor carbonate and quartz noted throughout. Locally larger masses of felted muscovite are invaded by cm scale feldspar crystals - pegmatitic. Flourite and magnetite are noted as accessory minerals, 0 to trace pyrite, Numerous chlorite costed slip faces resulting in blocky, highly The interior of the intrusive becomes fractured core. pale wellow coloured and highly siliceous with a fine white oversrowth - possibly albite. Variably magnetic from non-magnetic to highly magnetic associated with growth of acicular magnetite crystals, Intrusive contacts are share and well developed, chilled margins are noted. Upper contact at 70 degrees to the core axis, lower contact at 40 degrees to the core axis approximately.

10/01	/11/0	74170	1 1 1 1 1	14/7	19.1 1	1177
18732	72.98	73,97	,99	TR-1	nil	nil
18733	78,52	79,52	1.00	TR-1	nil	nil
18734	79.52	80.52	1.00	TR-1	nil	nil.

30 00

1

18730 20.98 71.98 1.00 TR-1

2.28 BASALT

80.52

Dark sreen, medium grained, sub-ophitic textured massive flow - basaltic composition intrusive as described above

Hole No.: MC.85-245 Page No.: 3

Aci

Т

from 40.35 to 71.98 meters. Non-magnetic with trace to 1% disseminated pyrite.

82.28 84.62 GRANITE

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Fink to red, medium strained, stranitic intrusive as described above from 71.98 to 80.52 meters. Unlike the above intrusive no rale sellow coloured, altered centre is noted, the intrusive is relatively uniformly textured throughout. Generally strongly magnetic with magnetite crystals throughout. O to trace ryrite. Upper contact at 45 degrees to the core axis, lower contact at 40 degrees to the core axis. 82.43 To 82.60 meters ; soft, dark green to black, biotite rich, non-magnetic mafic intrusive.

84.62 89.60 BASALT

Medium grained to locally coarse grained; massive flow to baseltic composition intrusive as described above from 40.35 to 71.98 meters. Several thin granitic intrusives are noted including a 45 cm thick intrusive from 88.51 to 88.96 meters at 45 degrees to the core axis approximately.

89.60 94.98 GRANITE

As described above from 71.98 to 80.52 meters including a pale sellow sreen, altered centre and local weakly epidotized zones. Locally pegmatitic with feldspar crystals up to 1.5 cm long. The intrusive centre is indistinctly color banded. Upper contact at 55 degrees to the core axis, lower contact at 50 degrees to the core axis.

94.98 99.11 BASALT

'n

Dark green to black, fine to very fine grained, glomeroporphyritic massive flow. Clusters of white to pale orange, euhedral to anhedral, 1 mm to 1 cm diameter feldspar phenocrysts noted throughout. Relatively unaltered with minor carbonatization along contacts with granitic intrusives and local carbonate filled fractures. Non-magnetic with trace to 1% disseminated pyrite.

GW

Au

99,11 102,45 GRANITE

As described above from 71.98 to 80.52 meters. Benerally non-magnetic with 0 to trace pyrite. Rlocky, highly fractured core and locally ground core obscuring contacts

102.45 133.10 BASALT

Dark green to black, fine to very fine grained, massive flow becoming porphyritic to glomeroporphyritic down section as described above from 94.98 to 99.11 meters. Patches of biotite rich material with included basaltic fragments noted throughout, Indistinct feldspar phenocrysts are noted below 104.2 meters approximately, increasing in size and frequency down section, tapering off again below 113.5 meters. Non-magnetic with trace to 1% disseminated syrite associated with biolite rich zones. Minor carbonate filled fractures and locally carbonate brecciated. Numerous ca scale: Heakly granitic intrusives cut the core, 126,33 to 127,31 and 130.79 to 131.18 meters : granitic intrusives.

133,10 139,27 DIORITE

Hornblende diorite with approximately 70 to 80% matics, predominantly hornblende - appinite. Dark green to black, fine grained with sharp intrusive contacts and poorly developed chilled margins. The upper and lower 50 to 60 cm of the intrusive exhibit distinct, rounded, mm to cm scale, vesicular like bodies filled with granitic material. These are carbonatized and magnetic with acicular magnetite crystals. Numerous 0.5 to 4 cm diameter subrounded basaltic fragments are included throughout, the intrusive. Fervasively carbonatized throughout, non-magnetic becoming weakly magnetic below 137.8 meters approximately. Trace to 1% disseminated pwrite.

- 139.27 144.23 BASALT

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Very fine grained; glomeroporphyritic massive flow as described above from 102.45 to 133.10 meters, Non-magnetic and relatively unaltered with trace disseminated syrite throughout.

10	1.95	199110	124+10	1+00	1121	r.	r r
18	736	134.10	135.10	1.00	TR-1	nil	nil
18	737	137.27	138.27	1.00	T&~1	tr	tr
18	738	138.27	139.27	1,00	TR-1	tr	tr

144.23 152.23 GRANITE

G₩

From ToDescription

Sample From To

Lensth % Sul Au

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Granitic intrusive as described above from 71.98 to 80.52 meters. Highly variable in grain size from fine grained to locally regnatitic with 1 to 2 cm long feldspar crystals. Sudden and frequent changes in grain size suggest the possibility of multiple phases of intrusion. Upper contact at 60 degrees to the core axis and lower contact at 55 degrees to the core axis.

152.23 173.45 BASALT

Continuation of the above glomeroporphyritic flow as described above from 139.27 144.23 meters. Numerous intrusives cut this unit.

- 159,36 160,67 Mafic to intermediate composition intrusive (dark green) fine to medium grained intrusive with indistinct contacts, Relatively unaltered, moderately to strongly magnetic with 2 to 3% pyrite a crystalline blebs,
- 163.66 164.41 Granitic intrusive : moderately magnetic with 0 to trace pyrite. Upper contact at 90 degrees to the core axis: lower contact at 70 degrees to the core axis:
- 164.41 166.39 Intermediate composition intrusive --Diorite : green to locally pink hued; fine to medium grained; moderately magnetic intrusive with a well chloritized lower contact. 2; up to 5% disseminated pyrite throughout. Lower contact at 35 degrees to the core axis.
- 166.39 169.66 Fine grained glomeroporphyritic flow.
- 169.66 170.58 Intermediate composition intrusive -diorite : as described above from 164.41 to 166.39 meters however highly silicified, locally buff to cream coloured with 2% disseminated pyrite. UPPER contact at 30 degrees to the core axis, lower contact at 20 degrees to the core axis.
- 170.5B 172.69 Fine stained, highly sloweroporphyritic massive flow, 20 to 30% clustered feldspar portyroblasts.
- 172.69 173.45 Granitic intrusive 1 as described above from 163.66 to 164.41 meters at 80 to 90 degrees to the core axis. Strongly fractured with carbonate filled fractures. 1 to 2% pyrite along intrusive margins.

10/07	190196	107100	1 1 1 1 1	147 - 1	N 1	1 1
18740	159.36	160.67	1.31	2-3	tr	\mathbf{tr}
18741	160.67	161.67	1.00	TR-1	tr	tr
18742	163.66	164.41	.75	TR-1	.51	• 38
18743	164.41	165.41	1.00	2-4	tr	tr
18744	165.41	166.39	, 98	2-4	tr	tr
18745	169.66	170,58	.92	2	tr	tr

10370 160 7/ 160 7/ 1 00 70.4

173,45 201,52 HIGH MAG BASALT

Ч

Au

From

To _____Description_____

Sample From

Τo

Lensth % Sul

GW

Dark green to black, fine grained becoming medium grained down section, magnetic massive flow, Locally 1 to 5 mm diameter white feldspar phenocrysts are noted. Fine grained chilled margins several meters thick, no flow top or flow bottom brecciation is noted. Variably weakly to strongly magnetic throughout, Relatively unaltered and virtually non-fractured with trace to 1% disseminated pyrite. Several 2 to 30 cm thick granitic intrusives cut the unit.

201.35 201.52 Interflow sediment to 'cherty' sediments. Furple-drey, very fine grained to aphanitic, highly silicified or siliceous, non-foliated interflow sediment. Relatively unaltered, non-magnetic with 3 to 5% pyrite as crystalline lenses and disseminations, Sharp lower contact with underlying pillowed flow at 30 degrees to the core axis.

201.52 260.36 BASALT

14

Green; fine to very fine grained; pillowed; massive and glomeroporphyritic flows; Cut by several granitic intrusives;

201.52 216.71 Fillowed flow | sreen to dark sreen; very fine grained sillowed flow with thin, senerally less than 1 cm thick, epidotic selvases moderately to highly and silicified Fillow cores. Minor carbonate filled fractures and epidotic patches, non-carbonatized senerally and non-magnetic with trace to 1% disseminated 204.97 To 205.75 meters 1 ewrite. granitic intrusive at 60 to 65 degrees to the core axis with 5 to 10 cm thick, carbonatized and pyritized halos in the surrounding basalts. 206.30 To 207.83 meters : highly sheared, fractured and carbonatized basalt with a thin granitic intrusive from 206.83 to 206.95 meters at 85 degrees to the core exis. This zone has a distinct grey hue due to strong carbonatization. Carbonate filled fractures are sub-parallel at 70 degrees the core axis approximately, 1% to specular hematite, moderately magnetic with 2 to 3% disseminated pyrite throughout. Several on scale granitic intrusives are noted between 212,10 and 213.50 meters. Below 213,50 meters, approximately, the degree of carbonate fracturing increases and Fillows are highly disturbed. The bottom 15 cm is a

18746	203,97	204.97	1.00	TR-1	tr	tr
18747	204.97	205.75	,78	TR-1	.17	.13
18748	205,75	206.30	,55	TR-1	,17	.09
18749	206.30	206.95	.65	2-3	.34	+22
18750	206,95	207.83	•88	2-3	+17	.15
18751	207,83	208+83	1.00	TR-1	tr	tr
18752	219.82	220.45	.63	3-4	nil	nil

1

From Τo ----hescription----- Τo

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brecciated and foliated basal flow in sharp contact with the underlying flow at 25 degrees to the core axis.

- 216.71 219.92 Massive flow / green, fine grained, relatively unaltered and non-magnetic massive flow with trace to 1% disseminated pyrite.
- sediment : purple-grew, fine 219.92 220.45 Interflow moderately well foliated and grained, strongly magnetic interflow sediment. Strongly pervasively carbonatized with 3 to 4% disseminated pyrite. Foliated at 80 degrees to the core axis approximately. lost core is ground core with The approximately 10 cm lost.
- 220.45 235.30 Massive flow as described above from 216.71 219.92 meters. Gradual t.n coarsening trend down-hole becoming medium grained down section. Trace to 1% pyrite. Cut by several disseminated granitic intrusives eg. 220.90 to 221.30 meters and 223.38 to 224.80 meters. Relow 233.5 meters sradual fining trend down-hole to a very fine grained flow bottom.
- 235,30 236,86 Glomeroporphyritic flow as described above from 102.45 to 133.10 meters, Locally precciated of flow precciated, senerally highly siliceous throughout.
- 236.86 238.64 Granitic intrusive as described above from 71.98 to 80.52 meters. Upper contact at 35 degrees to the core axis and lower contact at 50 degrees to the core axis.
- 238.64 250.25 Continuation of the above sloweroporphyritic flow from 235,30 to 236.86 meters. Locally fractured with intense patchy pale green, epidotization. Several on scale granitic intrusives noted throushout. No feldspar porphyroblasts are noted in the lower 2.0 meters of the flow.
- 250,25 250,57 Fale green; epidotic flow contact zone; predominantly flow top breccia.
- 250.57 260.36 Massive flow : dark green, very fine grained, relatively unaltered and non-magnetic massive flow. Cut by several granitic intrusives up to 30 cm thick, Trace to 1% disseminated purite.

260,36 END OF HOLE,

1

NOTE: between the 789 and 806 footase markers 3,24 m of core is missing due to mis-marked core..

Lensth % Sul

G₩

From	То	Description	Sample	Fram	To	Lensth % Sul	Au	GW

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The hole ends at 260.36 m however approximately 2 feet of highly ground core is noted below this point..

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Co-ordst	9154.5 5046.6	DIAMOND BRILL RECORD	HOLE NO.1 HC.85-246
Azimutht	364.5 Des.	Section: 3975W	Property: Canamax Option
Dirt	-60.0 Des.	Core Size: BQ	Location: 39+63W 8+448
Elevation:	5004.2		
Lensthi	111.6		Date Started: 17 Sept., 1985 Date Completed: 20 Sept., 1985
Measurement:	Metric		Fowled pri N.Downen
Connents:	Casing left in hole		
	Depth Azimuth Nip	Depth Azimuth Dip Depth Azimuth	Dip
	61.00 -51.0	88.70 358.0 -53.0	

4

0.00 36.56 OVERBURDEN.

36.56 48.31 DIORITE.

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48.31 53.85 BASALT.

53.85 77.54 DIORITE.

77.54 90.15 BASALT,

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90.15 100.05 DIORITE.

; 100.05 111.56 BASALT,

111.56 Meters END OF HOLE.

Hole No.1 MC.85-246 Pase No.1 2

From	To	Description	Samele I	From	To	Lensth % Sul	Au	GW

:t, +

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0.00 36.56 OVERBURDEN

36.56 48.31 DIORITE

1

Medium to coarse grained; dark grea-green - black massive intrusive rock. Chloritized mafics up to 4 mm in felsic matrix. Base is black hornblendite. Sharp contact with underlying basalt. Chilling not evident. Epidote fracture filling. Locally magnetic. Fines at base. Blocky; highly fractured core.

48.31 53.85 BASALT

Fine to very fine grained, dark green massive basalt, Blocky, highly fractured core, grease and mud covered core, Locally weakly magnetic. Quartz and evidote fracture filling. Foliation noted locally. 50.28 50.95 Diorite. Evidotized matrix. Sharp intrusive contacts. Strongly magnetic.

53.85 77.54 DIORITE

Fine to medium grained; dark grew-green massive intrusive rock. Rocks are non-magnetic with a trace locally. Felsic matrix locally epidotized. Rare quartz epidote fracture fillings. As much as 0.61 meters of ground core at 62.79 meters.

77.54 90.15 BASALT

4

Green fine stained massive basalt. Abundant epidote nuartz fracture fillins. Local epidotized zones. Locally magnetic. Ninor local foliated zones. Possible selvases.

90.15 100.05 DIORITE

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Grew-sreen fine grained massive intrusive rock. Non-magnetic, Felsic matrix, Rare carbonate - quartz stringers, Top contact is quartz - carbonate veinlet, Fines at base, 15937 79.85 80,93 1,08 0,5 ,34 .37

Hole No.: MC.85-246 Page No.: 3

From	Το	 Sample From	Τo	Length % Sul	Au	GW

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100.05 111.56 BASALT

Ч

Pale streen to medium streamstreen with few dark streen phases and usually fine to very fine stained, Flow rocks are massive with well zoned coarser centres and chilled, breccisted tors. Lavas are non-magnetic, locally weakly to moderately magnetic (flow margins, selvages, etc.).

- 100.05 110.47 Flow top breccia. Dark green fragments to 6 cm. Matrix is dark green chloritic, often with epidote and carbonate. Upper section contains fractured glassy fragments. Fragments develop reaction rims down section and become indistinct at base. Pale epidotized and silicified zone noted. Non-magnetic. Quartz epidote carbonate stringers.
- 110,47 111,56 Green fine stained massive flow, Gradational to overlying unit, Locally magnetic, Quartz carbonate evidote stringers,

111.56 END OF HOLE.

Co-ords1	8975.5 5036.2	DIAMOND DRILL RECORD	HOLE NO.1	MC+85-256
Azimuthi	359,7 Des.	Section: 3975W	Property:	Canamax Option
Dirl	-60.0 Des.	Core Size: BR	Location;	39+64W 10+255
Elevation:	5008+8		Date Started:	30 AUM - 1005
Lensthi	422.5		Date Completed:	29 Aug., 1985 17 Sept., 1985
Measurement:	Netric		roaged pat	N. Downew

Comments: Hisplaced and grease covered core throughout hole

Derth	Azimuth	Dip	Derth	Azimuth	Dip	Depth	Azimuth Dip
61,00 121,90 182,90	-1	52.5 51.5 51.0	201.50 339.20 381.30	364.0 361.5 363.0	-50.0	420,90	-48.0

0.00 41.15 DVERBURDEN. 41.15 62.89 BASALT. 62,89 65,31 UFPER MINERALIZED ZONE. 62,89 64,37 UPPER SILICIFIED ZONE, 64.37 65.31 TRANSITIONALLY SILICIFIED BASALT, 65.31 75.80 BASALT. 75,80 82,71 CHERTY SEDIMENTS. B2.71 92.23 UPPER MINERALIZED ZONE. B2.71 91.89 TRANSITIONALLY BILICIFIED ZONE. 91.89 92.23 TRANSITIONALLY SILICIFIED BASALT. 92.23 99.20 BASALT. 99.20 100.63 MONZONITE. 100.63 129.24 BASALT. 129.24 151.17 DIORITE. 151.17 292.93 BASALT. 292.93 296.00 LAMPROPHYRE. 296.00 307.34 DIDRITE. 307.34 315.09 BASALT. 315.09 317.05 TRANSITIONALLY SILICIFIED ZONE. 317.05 319.45 MONZONITE. 319.45 353.95 BABALT. 353.95 365.19 DIORITE, 365.19 371.50 BASALT. 371,50 393,37 DIORITE, 393.37 422.45 HIGH MAG BASALT. 422.45 END OF HOLE.

4 1

Hole No.1 MC.85-256 Page No.1 2

From To ------ Sample From To Length % Sul Au GW

0.00 41.15 OVERBURDEN

41.15 62.89 BASALT

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Pale sreen to medium srev-sreen with few dark sreen phases and usually fine to very fine stained. The section is dominantly pillowed flows with few relatively coarser stained massive varieties. Fillowed flows exhibit well developed slassy selvases and interiors with well developed vesicles. Lavas are non-magnetic, locally weakly to moderately magnetic (flow marsins, selvases, etc.). Pillowed flow is moderately to strongly silicified, becoming paler coloured with silicification.

- , 44.45 44.75 Nafic intrusive. Contains biotite and chloritized mafics. Pervasive carbonate alteration. Non-magnetic.
 - 53.89 55.72 Zone of Pervasive carbonatization centered on a brecciated section from 54.29 to 54.71 meters: at 30 degrees to the core axis. Brown dolomitization and rare purple silicification of fragments noted. Less than 1% pwrite in matrix.

62.89 65.31 UPPER MINERALIZED ZONE.

Narrow purple zone of intense silicification. Brown dolomitization adjacent to fractures. Abundant pyrite.

62.89 64.37 UPPER SILICIFIED ZONE

4

Purple silicified breccia. Angular silicified fragments in silicified matrix. Brown dolomitization zone adjacent to fractures decreasing down section. Minor sericite hoted in dolomite zones. Silica dumping decreases down section. Specular hematite on fractures. 2 To 5% pyrite in matrix. highest in dolomitized zones near top. Strongly magnetic.

64.37 65.31 TRANSITIONALLY SILICIFIED BASALT

10% strew silicified zones in very fine stained steen Fillowed flow, Silicification occurs alons fractures; often with quartz - carbonate veinlets, Reactive to HCL, Strongly magnetic, 1% pyrite,

20030	53.89	54+81	.92	0.5	tr	tr
20031	54+81	55.72	۰91	0.5	tr	tr
20032	61.89	62.89	1.00	TR	tr	tr

20033	62,89	63,63	.74	5	nil	nil
20034	63.63	64.37	.74	2-3	nil	nil

20035 64.37 65.31 .94 1-2 nil nil

1

nil

Hole No.1 MC.85-256 Page No.1 3

From	To	 Sample From	To	Lensth % Sul	Au	GW

65.31 75.80 BASALT

Pale green to medium grey-green with few dark green phases and usually fine to very fine grained. The section is dominantly pillowed flows with few relatively stained massive varieties. Fillowed flows coarser exhibit well developed glassy selvages and interiors with well developed vesicles. Lavas are non-magnetic, locally weakly to moderately magnetic (flow marging, selvages, etc.). Fillowed flow is moderately to silicified, becoming rater coloured with strongly silicification. Appanitic foliated flow bottom with 2 to 5% Pyrite as laminations and fracture filling, Sharp contact with underlying sediments. Rare carbonate quartz stringers.

75.80 B2.71 CHERTY SERIMENTS

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Dark grey - grey-green with minor black bands, Narrow green ash beds are noted. Narrow buff bleached carbonate alteration zones occur adjacent to fractures. Laminated 50 degrees to the core axis. Zone does not aprear to be silicified. Graded bedding not present. Trace to 3% pyrite concentrated along laminations. Minor carbonate quartz filled fractures.

81.65 82.71 Dark green very fine grained - fine grained massive flow, Vesicular flow top, Epidote fracture filling, Sharp base with UPPER MINERALIZER ZONE, Non-magnetic, Trace pyrite,

82.71 92.23 UPPER MINERALIZED ZONE.

Zone is dominantly composed of silicified 'cherty' sediments. Pyrite is generally low, but alteration is well developed. Section is non-magnetic. Zone extends into underlying pillowed flow.

82,71 91,89 TRANSITIONALLY SILICIFIED ZONE

Grey - dark green foliated 'cherty' rock. Amount of silicification is unknown because of the original 'cherty' nature of the rock, zone is also grease coated. 82.71 86.41 Possibly 80 to 90% silicification in grey laminated 'cherty' rock. Lamination generally well perserved at 48 degrees to the core axis, Silica dumping common. Only local preciation. Brown dolomitization

20045	82.71	83.71	1.00	1	tr	tr	
20046	83.71	84.71	1.00	2-4	.34	.34	
20047	84.71	85.71	1.00	2-3	.17	.17	
20048	85.71	86.41	.70	2-3	.69	.48	
20049	86.41	87.41	1.00	1-2	.34	.34	
20050	87.41	88,41	1.00	1	tr	tr	
20051	88.41	B9.41	1.00	1-2	.69	.69	
20052	89.41	90.41	1.00	0.5	tr	tr	
20053	90.41	91.41	1.00	2-4	+17	.17	

20038	75.80	76.80	1.00	1-2	tr	tr
20039	76.90	77,80	1.00	1-2	tr	tr
20040	77.80	78.80	1.00	0.5	nil	nil
20041	78,80	79.80	1.00	0.5	tr	tr
20042	79.BO	80.80	1.00	0.5	nil	nil
20043	80.80	81,65	+85	0.5	tr	tr
20044	81,65	82.71	1.06	0.5	tr	tr

20036	65.31	66.31	1.00	TR	tr	tr
20037	74.80	75.80	1.00	1 - 3	ni1	Dil.

Hole No.1 MC.85-256 Page No.1 A

From	To	Description	Sample	From	To	Lensth	% Sul	Au	GW	
		noted adjacent to fractures as an alteration balo. Non-reactive to HCl, except in parrow	20054	91.41	91.89	•48	2-4	4.80	2.30	

halo. Non-reactive to HCl; except in narrow buff carbonate alteration zones. 1 to 4% pyrite as disseminations and lamination replacements.

B6.41 91.89 Possibly 45% silicification in dark green foliated rock. Silicified breccia zones are fracture controlled. Alteration increases at base. Furple breccia fragments with occasional dolomitized rims. Minor sericite noted. Silica dumping occurs near base. Carbonate overprinting of silicification noted. 1 To 5% Furite as blebs and disseminations in matrix of brecciated zones.

91.89 92.23 TRANSITIONALLY SILICIFIED BASALT

40% silicification in very fine grained grey-green variolitic flow top. Continuation of overlying silicification. Grey breccia fragments. Brown dolomitized rims noted. Silica dumping noted. Variolites at top of zone. 1 to 2% pyrite in matrix.

92.23 99.20 BASALT

Verw fine grained - aphanitic dark green pillowed flow. Fillowed flows exhibit well developed glassy selvages and interiors with well developed vesicles. Selvages are varialitic. Fillowed flow is moderately to strongly silicified, becoming paler coloured with silicification. Narrow buff carbonate alteration zones are noted adjacent to fractures. Non-magnetic. Non-reactive to HCL.

99.20 100.63 MONZONITE

Hafic intrusive. Fine grained grea-green, 30% dark green chloritized mafic laths up to 5 mm. Sharp chilled contacts. Non-magnetic. Non-reactive to HCl.

100.63 129.24 BASALT

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Fine grained - aphanitic dark green pillowed flow; continuation of overlying unit. Selvages are generally varialitic. Fillowed flow is moderately to strongly silicified; becoming paler coloured with silicification. Rocks are non-magnetic. Minor quartz veinlets. 107.00 118.43 Selvages are indistinct. 20055 91,89 92,23 ,34 1-2 ,34 ,12

----- Sample From From To

G₩

Au

118.43 118.67 Flow breccia. Fragments are rounded with reaction rims.

129.24 151.17 DIORITE

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Fine grained - medium grained grew-green massive rock. Brain size increases down section. Chloritized mefic laths up to 5 mm in white feldspar matrix, Minor eridote fracture filling. Rare carbonate - quartz veinlets. Non-magnetic.

133.39 135.28 Very fine grained - aphanitic green pillowed flow inclusion. Sharp intrusive contacts. Non-magnetic.

151.17 292.93 BASALT

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Pale sreen to medium srev-sreen with few dark sreen phases and usually fine to very fine grained. Finer grained pillowed flows and relatively coarser grained massive flows are found in the section. Flows are well structured with vesicular, often angularly brecciated tops and less broken interiors. Fillowed flows exhibit well developed glassy selvages and interiors with well developed vesicles. Massive flows are occasionally flow brecciated with rounded, reaction rimmed fragments, These fragments reveal a variety of alteration styles (chiefly silicification) and textures. Flow top breccia is characterized by highly angular clasts and relative uniformity of alteration, Lavas are non-magnetic, locally weakly to moderately magnetic (flow margins, selvages etc.). Fillowed flow is moderately to strongly silicified, becoming paler coloured with silicification.

- 151.17 155.37 Dark green aphanitic very fine grained **pillowed** flow. Selvages contain flow breccia, non-magnetic, Rock is siliceous, Carbonate alteration at base.
- 155.37 159.10 Fault zone, George-type, Intense pervasive carbonate alteration at base, Ground core common with 65% core recovery, Numerous ÷. clay-grit seams at 30 to 40 degrees to the core axis, From 155,62 to 156,00 meters is brecciated quartz - carbonate veining with chloritic matrix, Minor pyrite, An often foliation is noted at 60 brecciated degrees to the core axis below 158,55 meters - pale green in colour.
- 159,10 167,52 Fale green very fine grained aphanitic Fillowed flow. Fillows are often silicified. Ruff silicified zones common. Non-magnetic, Quartz - carbonate veinlets

200	56	155.37	156.37	1.00	0.5	.17	.17	
200	57	156.37	157,37	1.00	1-2	.17	.17	
200	58	157.37	158.37	1.00	0.5	tr	tr	
200	59	158.37	159,10	.73	0.5	tr	tr	
200	60	167.90	168.90	1.00	0.5	tr	tr	
200	61	168,90	169,90	1.00	TR	.17	.17	
200	62	169.90	171.03	1.13	TR	,07	.08	
200	63	171.03	172,10	1.07	0.3	•07	.07	
200	64	227.32	228.32	1.00	TR	.07	,07	
200	65	228.32	229.32	1.00	0.5	.51	.51	
159	01	237.26	238.26	1.00	TR	.07	+07	
159	02	238.26	239.34	1.08	1-2	2.15	2.32	
159	03	253.90	254.90	1.00	1-2	.17	,17	
159	04	262.76	263.09	, 33	2-3	riil	nil	
159	05	286.85	287.85	1.00	3-5	,07	.07	
159	06	287.85	288+85	1.00	2-3	ni 1	nil	
159	07	288,85	289.85	1.00	1-2	lin 🕹	nil	
159	08	289.85	290.85	1.00	0.5	ni 1	nil	
159	09	290.85	291.85	1.00	1-2	nil	nil	
159	10	291.85	292.93	1.08	0.5	.07	.08	

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and carbonate - quartz veinlets common. Pervasive carbonate alteration at base. Grades down section to foliated basalt.

- 167.52 168.90 Foliated basalt. Khaki green, strongly foliated at 38 degrees to the core axis. Intense pervasive carbonate alteration. Minor sericite noted, Contacts gradational to pillowed flow.
- 168.90 171.03 Khaki green pillowed flow. Carbonate alteration along fractures, Non-magnetic, Trace pyrite.
- 171.03 172.10 Carbonate quartz veining parallel to core axis. Trace to 1% pyrite.
- 172,10 177,81 Dark green very fine grained aphanitic flow. Epidotized adjacent to pillowed quartz - carbonate fractures. Minor stringers. Pillows often silicified. Non-magnetic.
- 177,81 178,82 MONZONITE, Dark green porphyritic, White feldspars up to 2 mm. Dark sreen chloritized mafics to 2 mm. Biotite noted. Sharp chill contacts.
- 178.82 185.60 Green very fine grained - aphanitic Selvages are poorly **pillowed** flow. developed and epidotized. Non-magnetic.
- 185.60 189.40 Increased eridotization of selvades. Fillows are silicified.
- 189,40 197,68 Selvages poorly developed and widely spaced. Selvages epidotized.
- 197.68 203.15 Flow breccia, Angular rounded fragments, Larger fragments have reaction rims, Grades down section to massive flow, Zone at 200,40 - 200,87 meters fault gouge: Limonite on fractures, ground core. Approximately 35 degrees to the core axis. 10 cm core recovered.
- 203.15 204.84 Green fine grained massive flow. Non-magnetic. Epidote fracture filling.
- 204.84 206.75 Glomeroporphyritic massive flow, Scattered white feldspar crystals to 20 mm. Non-magnetic.
- 206.75 207.28 Basal breccia. Top contains feldspar phenocrysts, Rounded fragments,
- 207,28 207,70 Flow top preccis, Rounded fragments with chilled marsins. Vesicular fragments noted.
- 207,70 214,90 Fine grained green massive flow, Rare feldsear phenocrysts to 4 0.6. Non-magnetic. Minor epidote fracture filling. Gradational to underlying unit.
- 214,90 226,80 Fale dark green; very fine grained aphanitic pillowed flow, Selvages well develored with epidote and quartz. Non-magnetic. 218,42 To 218,90 meters : carbonate weathered from fractures, Limonite on fractures.

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Τo Lensth % Sul Αu G₩

- 226.80 228.32 Matic intrusive, greenish-pink fine grained. White feldspar phenocrysts to 5 Abundant hasalt fragments. **n**..... Non-reactive to HCl.
- 228.32 237.26 Fine grained schanitic green villowed flow. Selvages well developed. Continuation of overlying unit. Top contains abundant carbonate - quartz veinlets with purite.
- 237,26 239,34 Pillowed flow with brown dolomitization adjacent to quartz - carbonate stringers. White nuartz filled tension fractures, 238.66 To 239.00 meters | brecciated foliated zone of quartz - carbonate veining, 60% of rock is basalt, Trace to 1% pyrite.
- 239.34 288.85 Fine grained aphanitic pillowed flow of overlying unit, Rare continuation narrow bands of carbonate alteration with pyrite. Carbonate - quartz stringers pyrite and chalcopyrite. contain selvages, 254,15 to 254,35 Eridotized meters : carbonate alteration breccia. Minor sericite, 2% pyrite, 262.76 To 263.09 meters | fine grained pinkish-green felsic intrusive. Indistinct white - pink feldspar phenocrysts to 1.5 mm, 2 to 3% pyrite. 267,91 To 268.08 meters 1 monzonite. Fink feldspar phenocrysts to 2 Chloritic matrix, Biotite noted, In Case Pervasive carbonate alteration. Non-magnetic, Trace purite. 268.85 To 288.85 meters 1 zone of intense epidotization. Epidotized spheres at base resembles vesicles. Flow contact not noted. Locally strongly magnetic, 2 to 5% pyrite.
- 288.85 292.93 Dark green fine grained massive basalt. Section is oil covered, Local strongly foliated zones. epidotized Quartz carbonate strinsers contain abundant pyrite, Locally magnetic,

292.93 296.00 LAMPROPHYRE

Medium - fine grained dark green intrusive. Abundant chlorite and biotite, Chloritized matics to 3 mm in felsic matrix - biotite wraped buff green spheres to 6 mm, Pervasive carbonate alteration. Non-magnetic,

15911	292.93	293.93	1.00	0.5	nil	nil
15912	293.93	295.13	1,20	0.5	.04	,05

296.00 307.34 DIORITE

From

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From	ToDescription	Sample	From	To	Lensth %	Sul	Au	GW
		15017	306.34	703 74	1 00	0.5	nil -	nil
	Grew-green fine - medium grained rock, Chloritized mafics to 5 mm in felsic matrix, Narrow bands of lamprophyre occurs near top of unit, Sharp intrusive contacts, Locally foliated, Locally strongly magnetic, Trace to 1% pyrite as disseminations,	13713	306.34	307.34	1.00	0.5	n11	611
307.34 31	5.09 BASALT							
			307.34			1-2	+07	.07
	Fine grained green massive flow, Locally weakly		308.34		-	1-2	oil	nil
	magnetic, Numerous quartz carbonate epidote veinlets		309.34			0.5	nil 	nil
	with up to 2% pyrite. Carbonate filled tension fractures becoming numerous at base.		311.34			1-2	nil +07	nil .07
	314.37 315.09 Svenite - white to pink feldspar		312.34			0.5	.07	+07
	phenocrysts to 2 mm form bulk of rock.	15920	313.34	314.37	1.03	1	nil	nil
	Non-magnetic,	15921	314,37	315.09	.72	0.5	nil	nil
315.09 31	7,05 TRANSITIONALLY SILICIFIED ZONE							
			315,09			2-4 1-3	۰07 ۱07	+07 +07
	20% srew - purple-srew silicification in fine grained green foliated rock. Pervasive carbonate alteration, often wispy replacements along foliation. Carbonate alteration breccia is often silicified. Brown dolomitization noted locally. Rare yellow sericite in highly foliated zones. Foliation is 75 to 80 degrees to the core axis. Strongly magnetic. 1 to 4% pyrite, decreasing down section.	10720		517.05		10		
717 AB 71	9.45 MONZONITE							
21/102 21	7145 HOREDHILE	15924	317.05	318.05	1.00	1-2	.07	.07
	Dark srey-green fine grained intrusive rock. Chloritized	15925	318.05	318.68	,63	1-2	nil	nil
	mefics to 3 mm in felsic matrix, Locally magnetic, 1 To 2% pyrite, Contains narrow syenitic intrusive bands,	15926	318.68	319,45	.77	TR	nil	nil
	318,68 319,45 Syenite. Feldspar phenocrysts to 3 mm form B0% of rock. Stronsly magnetic.							
. 319,45 35	3.95 BASALT							
	Dauly strange to any start days send while that the sense		319,45			0.5	·07	+07
	Dark green to pale greyf fine grained with both coarse and very fine grained to aphanitic phases, Finer grained		320.45		-	1-2 1-2	nil +17	nil ,17
	Fillowed flows and relatively coarser grained massive		329.75			0.5	nil	nil
	flows are found in the section, lavas are non-magnetic,		351.44			1-2	nil	nil
	locally weakly to moderately magnetic (flow margins)		352.44			1-2	nil	nil
	selvages, etc.). Apart from weak to moderate pervasive	15933	352,95	353.95	1.00	0.5	nil	ni1

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chloritization, the rocks are essentially unaltered, 319,45 324,75 Very fine grained - aphanitic green Fillowed flow, Selvages are poorly

Hole No.: MC.85-256 Pase No.1 9

From To -----Description-----

Samele From To

Length % Sul Au

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often with quartz epidote developed; veinlets. Narrow bands of carbonate overlying intrusive occur near top. Carbonate stringers Carry specular hematite. Selvages carry pyrite and chalcopyrite.

- 324.75 326.50 Green fine grained foliated basalt with foliation at 60 degrees to the core axis. Carbonate - quartz stringers with pyrite and chalcopyrite. Numerous narrow swenitic intrusives occur near top; carrying feldspar phenocrysts up to 3 mm in size.
- 326.50 351.44 Fine medium grained green massive basalt. Cut by fine grained basaltic intrusives. Magnetic. Chloritized mafic laths in felsic matrix.
- 351.44 353.95 Zone of pervasive carbonate alteration. Quartz vein at 352.49 to 352.75 meters. Stronsly magnetic adjacent to quartz veining. Zone carries 1 to 2% pyrite as fine disseminations.

353.95 365.19 DIORITE

Fine grained grey-green intrusive rock. Chloritized matics to 1.5 mm in a felsic matrix. Non-magnetic. Non-reactive to HCJ. Rare carbonate - quartz filled fractures.

365.19 371.50 BASALT

Aphanitic - very fine grained dark green pillowed flow, Well developed magnetic selvages, Rare carbonate quartz stringers,

371.50 393.37 DIORITE

44

Dark srew-sreen fine srained massive rock, Very homogeneous, Locally magnetic, increasing down section, Trace to 1% pyrite as disseminations, up to 2% in quartz stringers.

15934 3	389.20	390.20	1.00	0.5	nil	nil
15935 3	390.20	391.20	1.00	0.5	nil	nil
15936 3	391,20	392.40	1.20	1-2	nil	nil

393.37 2.45 HIGH MAG BASALT

Very dark green pillowed flow, Pillowed flows exhibit well developed glassy selvages and interiors with well

Hole	Noit	MC.85-256
Pase	No.1	10

From	To	Description	Sample	From	To	Lensth % Sul	Au	GW	
		developed vesibles. Strendly madratic, Selvades contain	•						

1

developed vesicles. Strongly magnetic. Selvages contain abundant pyrite. Red-brown carbonate occurs in selvages and epidote quartz veinlets.

.

422.45 END OF HOLE.

4



32D05NW0395 63.4972 HARKE

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AMERICAN BARRICK RESOURCES CORPORATION LTD.

An Annual Report on Exploration Activity for the Year 1985

on the

Manville Option

RECEIVED

APR 2 5 1986

MINING LANDS SECTION

A.W. Workman Senior Geologist

November 15, 1985



Page

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INTRODUCTION

Location of Property

THE MANVILLE OPTION is located approximately 50 kilometers east of Matheson, Ontario. It is found in Harker Township about 1.3 kilometers south of Highway 101. The property is composed of nine claims. Access to the property can be gained by a 1.8 kilometer bush trail from the highway. This trail crosses the adjoining Lenora property to the east. Alternately, access can be made across the Newmex and Demers properties, again by bush trail, from the Imperial Lake-Harker Lake haulage road.

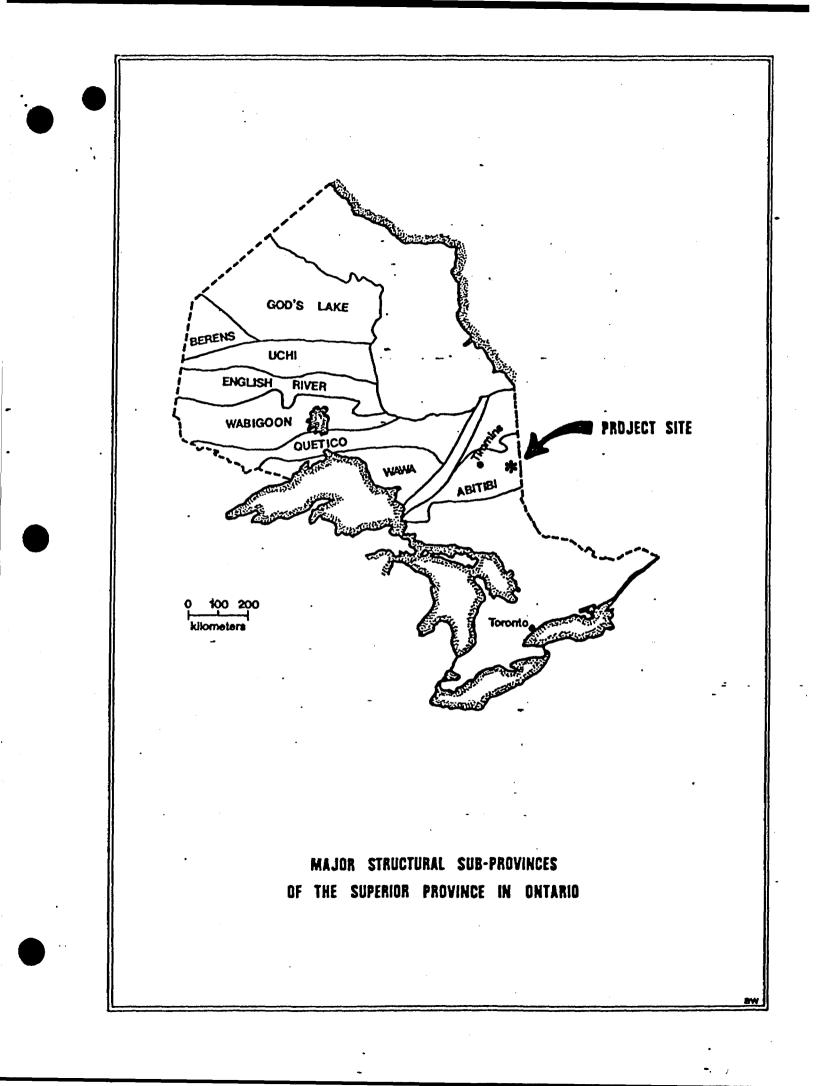
The property is crossed by the Mattawasaga river, and is mostly clay covered.

Summary of Work

During the 1985 exploration programme, three holes were drilled on the Manville Option. A total of 777.66 meters (2,551.38 feet) of BQ diameter drilling was completed. The technical data on each drill hole is listed in Table 1. The purpose of this drilling was to explore for the extension of an altered and mineralized zone previously detected on the adjoining optioned properties.

In addition to this work, an airborne geophysical survey was carried out over the Manville, and other, Barrick Options. The purpose of this survey was to provide information with regards to the extension of the zone of interest and to explore the possibility of other mineralized horizons on the property. This information would be utilized in the planning of future diamond drilling. Approximately 7.4 kilometers were completed over the Manville property.

- 1 -



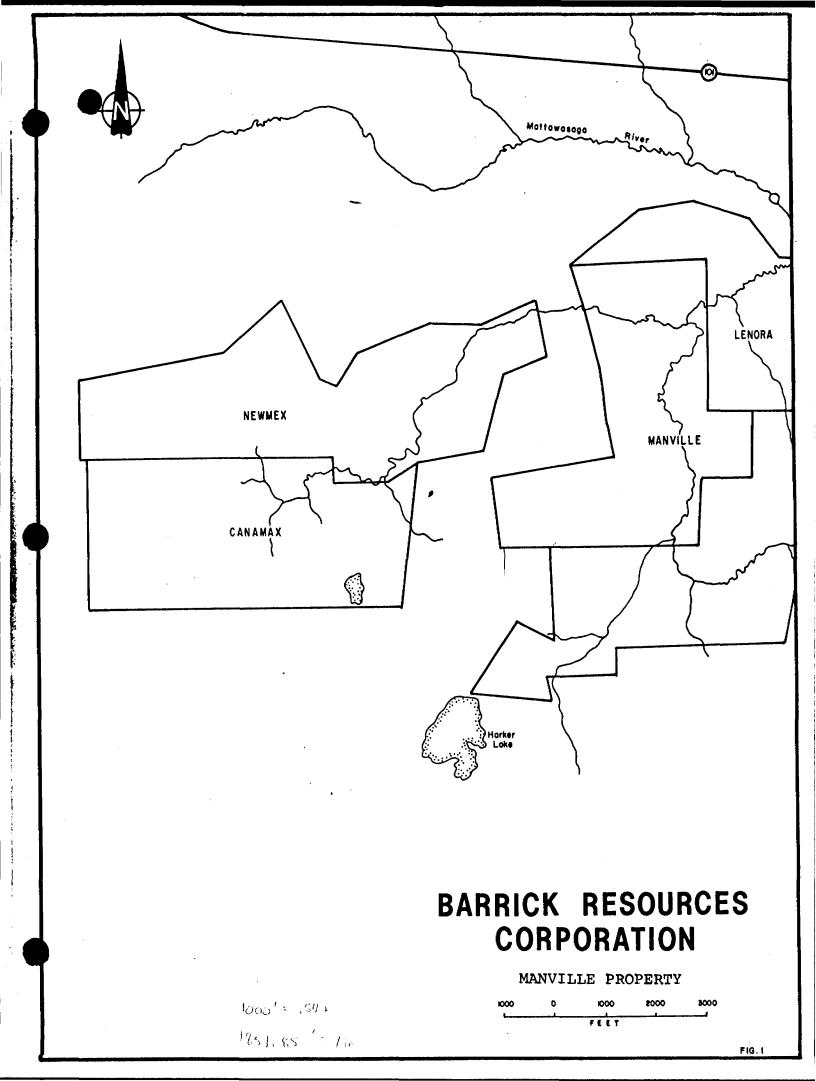


TABLE 1

DIAMOND DRILL HOLE DATA

D	Location	Bearing	Dip	Length	Date <u>Started</u>	Date <u>Completed</u>
Mc.85-253	21+00W 1+00N	339.2	-55	247.19	16-08-85	22-08-85
Mc.85-254	21+00W 0+50N	336.2	-60	270.38	22-08-85	28-08-85
Mc.85-255	20+00W 0+55N	341.6	-60	260.09	28-08-85	04-09-85

REGIONAL GEOLOGICAL SETTING

The volcanic rocks of Harker and Holloway Townships are of Archean age and belong to the Superior Province of the Canadian Shield. This particular region is referred to as the Lightning River District. The stratigraphy of the Abitibi Belt has been subdivided as follows (Jensen, 1983):

UPPER SUPERGROUP	(Timiskaming Group (Blake River Group (Kinojevis Group (Stoughton-Roquemaure Group
LOWER SUPERGROUP	(Porcupine Group (Hunter Mine Group (Wakewada Group

The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkalic volcanism. Each cycle is topped by a dominantly sedimentary (tuffaceous), sequence which reflects relative quiescence is extrusive activity.

The tectonic regime in which the majority of these rocks are located is one of regional subsidence. The formation of a broad, east-west trending synclinal basin is attributable to this subsidence. The Destor-Porcupine Complex forms the north boundary of this basin, and the south side is marked by the Larder Lake Complex.

- 2 -

A few later intrusives have been emplaced into the volcanic succession. Compositionally, these rocks range from pyroxenite, diabase and lamprophyre, to diorite, granite and syenite. The mafic and ultramafic varieties tend to be found as narrow dykes whereas the intermediate and felsic varieties are more common as larger, more rounded bodies.

The Destor-Porcupine Complex strikes approximately 075 degrees across Harker and Holloway Townships in the same approximate position as highway 101. Rocks to the south of this complex, or zone of dislocation, have approximately the same strike and dip 75 to 85 degrees south. All units top south - there has been no reported evidence of overturning in this area.

DIAMOND DRILLING

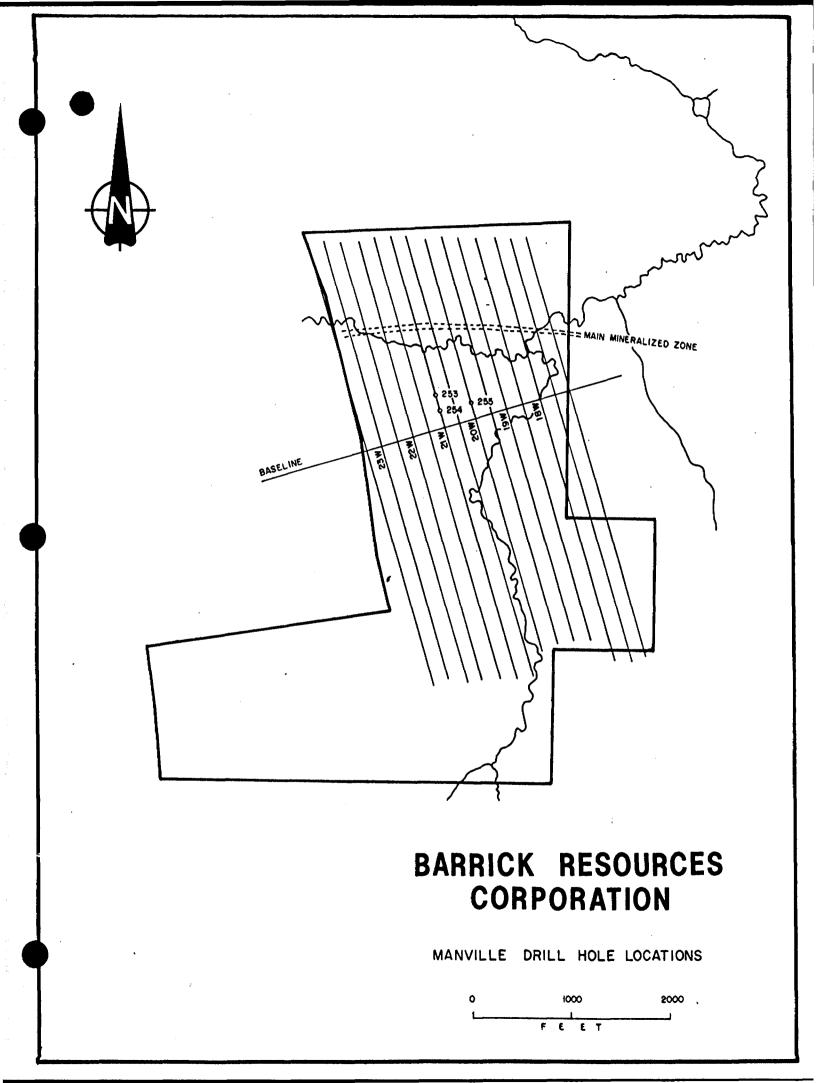
Summary

As previously given, a total of 777.66 metres were drilled in three BQ holes on the Manville Option. The holes were intended to explore along strike from an altered zone intersected on other properties during the 1984 drilling programme.

This 'favourable' geology consisted of well developed alteration, as well as geochemically anomalous gold values along strike from the McDermott Deposit.

Drill hole Mc.85-253 encountered low, and yet still highly anomalous gold values over narrow widths. Alteration in this hole was thin but encouraging. The following hole, Mc.85-254, intersected less alteration but slightly more anomalous gold values. The next hole to be drilled was Mc.85-255. This hole cut similar widths of alteration to the first hole but intersected lower gold mineralization. All holes intersected geochemically anomalous and encouraging gold values.

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Geology

Country rock bordering the mineralized zone is composed of iron-rich and magnesiumrich tholeiitic basalts. In the specific vicinity of the Manville Option, magnesian varieties are dominant. Very little alteration is noted in these rocks. The flows exhibit well developed and often pristine volcanic textures. It can be shown that "basaltic composition is coincidental to the location of the ore-bearing zones" (Workman, 1985).

The host rocks to mineralization are recognized to be of intrusive origin. They were emplaced into an active fault zone. Two intrusive lithologies are present. The earliest was composed of quartz-diorite and has been deformed in a highly ductile (or plastic), manner. This rock has been converted to chlorite-carbonate and chloritecarbonate-muscovite schist. Little mineralization is found within this rock. Subsequent tectonism allowed a second intrusive, diorite, to be injected into this zone. This rock underwent brittle deformation. The resulting breccia, with its enhanced permeability was subjected to a long multi-phase history of fluid influx. These hydrothermal fluids altered and mineralized the brecciated, dioritic rock mass.

This brecciated and altered zone, as it crosses the Manville Property, strikes approximately 085 degrees and dips south at 80 to 85 degrees. The zone subcrops on line 21+00W at about 1+90N (McDermott Grid Co-Ordinates).

Following tectonism along the zone, a few narrow late stage intrusives were injected into the rocks of this area. In general, they have a random, cross-cutting relationship to mineralization. A typical example is the dioritic intrusive intersected in the footwall sequence in drill hole Mc.85-255.

- 4 -

Although not intersected on the Manville Option, all rocks are known to have undergone offset by very late, north to north-easterly trending fault systems. The maximum displacement presently recognized is less than 100 metres in the horizontal plane. It is important to note that these structures are in no way involved in the mineralization process, neither actively (in terms of genesis as a fluid conduit), or passively (as a broken host rock).

Alteration

The extreme alteration which is characteristic of the mineralized zone has prompted Barrick personnel to investigate the mechanism and chemistry of the gold-bearing system.

Silicification and carbonatization are the most prevalent forms of alteration in the rocks comprising the mineralized zone. Albitization, hematization and pyrite formation are also pronounced. All forms of alteration overlap and boundaries are entirely gradational.

The alteration sequence of events is as follows:

- chloritization and the release of iron as magnetite into intergranular spaces;
- 2) oxidation of magnetite to hematite;
- silicification as an ongoing multi-stage process coupled with each brecciation event, sulphidation of hematite to pyrite (with probable introduction of gold), albitization; and,
- carbonatization ferroan dolomite near ore and calcite in more distal areas (with leaching and re-distribution of gold)

Mechanism of Alteration

The development of alteration was dependant upon two factors: firstly, the permeability afforded by brecciation; and secondly, the ability of altering fluids to penetrate radially away from micro-conduits into non-brecciated rock. It is the former of these two that is critical. Without fine brecciation on a maximum scale of 1 cm., complete alteration is retarded and penetrative fragment rim alteration is the result. Spatially, the higher levels of alteration in stages 3 and 4 are proximal to the actual plane (s), of brecciation and movement within this altered zone. Stages 1 and 2, as well as albitization are found beyond the limitations of extreme brecciation.

Enhanced permeability through multi-stage, brittle deformation, allowed altering hydrothermal fluids better access in diorite than they were afforded in the quartz diorites. At least 3 early stages of brecciation have been inferred through the examination of breccia fragments. Each stage has been accompanied by silicification, pyritization, and albitization, to form an aphanitic highly siliceous rock.

Silicification and Pyritization

It is visually apparent when logging drill core, that silicification and pyritization are the critical elements of alteration with respect to gold content. Hence, for correlation purposes, the alteration zone was sub-divided on the basis of silicification into the Main Silicified Zone with quantitatively greater than 95% silicification, and flanking Transitionally Silicified Zones with lower amounts of silicified rock. These zones are collectively referred to as the Main Mineralized Zone. Irrespective of where the ore is located, a well developed Main Silicified Zone is a necessary feature for good mineralization. Individual zones of silicification have a pod-like morphology as do the ore-grade sections within these zones. The zones are all on the same datum, being adjacent to the McKenna Fault, and have a similar orientation. The silicified

- 6 -

pods or shoots range in maximum thickness from 8 to 25 meters. Length and width dimensions range from 250 meters by 150 meters to several times this size.

Pyritized rock is found throughout the Main Mineralized Zone. Pyrite contents can locally reach 30% although they are significantly lower on the Manville Property. Little in the way of silica flooding, commonly associated with the better mineralization is noted in the most highly silicified sections. Within the Main Silicified Zone, pyrite commonly averages 3-5% when well developed mineralization is present. It is found as a very fine dissemination, as 1-2 mm. cubes and as 1-3 mm. blebs, often forming aggregates in the siliceous matrix to breccia. Coarse, 1-3 cm. clots are noted which encompass breccia fragments. Pyrite is common as a filling in healed fractures of various ages. Pyrite was initially deposited throughout the rock as indicated by very finely disseminated grains within early breccia clasts. Later stages of pyrite, including some grains which were subsequently brecciated, were confined largely to the matrix between individual breccia fragments. To some degree, pyrite was probably in a constant state of re-distribution during the brecciation -silicification events.

Albitization

Albitization is evident in thin section as euhedral, twinned plagioclase laths. These crystals could not have survived the stress imparted on this sequence of rocks. Albite has often been partially or completely replaced by carbonate. The presence of albite alteration is indicated geochemically as a strong sodium anomaly over the altered zone(s).

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Carbonatization

Carbonatization was the final alteration process. Proximal to ore, this event formed dolomite, while in more distal altered sections, calcite was deposited. The availibility of iron, which was probably mobile throughout progressive alteration, aided in the formation of ferroan dolomite or ankerite. This carbonate can be easily seen on the weathered bedrock surface as an alteration invading a late brecciation event. In drill core, dolomite is frequently seen as a buff alteration penetrating dark purple-grey silicified breccia in the main silicified zone. Spatially, the best dolomitization is often found adjacent to the McKenna fault or other shears of the same age as the fault. The last stage of brecciation was related to final reactivation of the McKenna Fault. This remobilization created a grit and clay filled seam up to 10 cm. in thickness. A tectonic regime composed of ripped up silicified clasts supported in a mylonitic groundmass is associated with the fault plane. Fragments of silicified rock carried in this zone bear 1-5 mm. dolomitized rims, thus indicating that minor carbonatization post-dated the last tectonic event.

Gold Mineralization

The following table lists the gold intersections from the 1985 drill programme.

D .D.H.	From -me	To ters-	Ler mtr	ngth (ft)	Estimated mtr	True Width (ft)		Content (oz/ton)
85-253	135.75	136.85	1.10	(3.6)	0.73	(2.4)	6.35	(0.185)
85-254	184.71	185.38	0.67	(2.2)	0.45	(1.5)	4.80	(0.14)
also	213.76	216.66	2.90	(9.5)	1.93	(6.3)	1.86	(0.054)
85 - 255	165.49	166.34	0.85	(2.8)	0.57	(1.9)	3.43	(0.100)
also	172.60	173.66	1.06	(3.5)	0.71	(2.3)	2.23	(0.065)

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Geophysics

An airborne geophysical survey was carried out during the summer of 1985. The purposes of this survey were:

- to attempt to better delineate the trend of the McDermott mineralized zone;
- to determine the presence of any faults which might cross-cut and displace the zone; and,
- 3) to investigate the potential for any additional mineralized zones.

The contract was awarded to Geophysical Surveys Inc. of St. Foe, Quebec. The survey was flown in July, 1985, using a helicopter-born gradiometer. Two cesium vapour magnetometers of 0.005 gamma resolution and vertically separated by 2 meters, were towed under a helicopter at an average elevation of 45 meters above ground level. The average traverse spacing was 200 meters. The flight path recovery was recorded on video tape by a vertically mounted camera inside the helicopter.

The accessory equipment consisted of:

- 1) a VLF-EM from Herz Industries, the TOTEM-2A, measuring the total field and quadrature component of the electromagnetic field at two frequencies;
- 2) a Sonotek SDS-1200 digital data acquisition system; and,
- 3) a King KRA-10 radar altimeter.

Aerial Photography

Aquarius Flight Inc. have completed a series of flight lines, over the property for Barrick Resources. Aerial photographs were produced on two scales - 1:10,000 and 1:20,000. These photos were used to facilitate ground control for the geological

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mapping program and to prepare a photo mosaic for the helicopter-born geophysical survey.

Total Field Magnetics

The total field response varies from approximately 58,500 gammas for low magnetic (magnesium-rich), tholeiitic basalts, to greater than 58,900 gammas for the more highly magnetic (probably iron-rich), tholeiitic basalts.

In general, this survey has confirmed the existence of more highly magnetic rocks striking approximately east-west across the north margin of the property. It is presently unknown whether these rocks represent a repeat in the iron-rich volcanic stratigraphy from further south, or, whether these rocks are ultrabasic flows belonging to the Stoughton-Roquemaure Group. This is not completely an academic matter since flow composition might influence future exploration plans apart from the main mineralized zone. The total field survey also delineates more highly magnetic flows to the south. The mineralized zone lies in the intervening sequence of less magnetic rocks.

An off-set on the magnetic contours indicates the possible presence of a fault along the west boundary of the Manville property. If such a structure is present, it would strike approximately 010 degrees. Displacement seems to be sinistral and about 200 meters in magnitude.

Gradient Survey

The response of the gradiometer helps to highlight the position on surface of the contact between rock formation with different magnetic properties. The zero contour line is the definitive contour. Aside from generally supporting the notion of a fault

- 10 -

along the west margin of the property, it will remain for future diamond drilling to evaluate the usefullness of this survey technique in this geological environment. The accuracy with which contacts can be delineated is unknown at this time.

VLF Survey

Although few conductive responses are noted on the Manville Option, this survey (generally), was able to detect northwest - southeast striking conductors. However, these conductors frequently undergo radical changes in response over short distances, thus making correlation difficult. Furthermore, no explanation has been adequate to explain the existence of these features and their affiliation is presently unknown. It is extremely doubtful whether mineralization could be associated with these conductors.

GROUND SURVEYS

To accurately define the boundaries of the Manville property, and other Barrick options and claim blocks, Barrick has carried out a survey of the perimeter of this property. Also included in this surveying has been the locating of current diamond drilling into an idealized McDermott grid system. The present cut line grid with its picket stations is inadequate for relating one hole to another. Future drill holes will be spotted by Barrick's survey crew.

CONCLUSIONS

On the basis of our experience on the McDermott Properties, and the results from the exploration work carried out in 1985, the following conclusions are presented.

- The McDermott mineralized zone crosses (on surface), the Manville Option and dips steeply south.
- 2) The altered and mineralized zone locally carries ore-grade gold mineralization over narrow widths with somewhat broader zones

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containing geochemically anomalous gold.

- The general style of alteration closely matches that observed within the McDermott Deposit.
- 4) Sufficient variation in the quantity of gold associated with particular intensities of alteration, makes the initial visual estimation of gold content more of an art than a science.
- 5) The gold-bearing zones warrant follow-up diamond drilling.
- 6) There is no single recognizeable geophysical feature or signature to the known mineralized zone on the Manville property although it is generally associated with a magnetic low. Hence, it is unlikely that any additional zones will be found purely through geophysical means. The best means will be to apply knowledge gained elsewhere to this property in an integrated exploration approach.

RECOMMENDATIONS

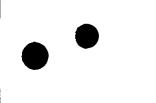
The results of the 1985 exploration programme speak for themselves and the recommendations are obvious.

- Future diamond drilling is imperative on roughly 100 meter centres to determine the attitude of the alteration zone, and, to determine whether any trend is present in gold mineralization.
- 2) This diamond drilling should be implemented in such a way as to probe the zone across the entire property (15+00W to 23+50W). This would require approximately 2,500 metres of drilling in nine additional holes.
- 3) A minor amount of investigative work with regards to the trace element major oxide profile of the zone on the Manville Option is proposed to fully quantify the apparent similarity to other mineralized sections.

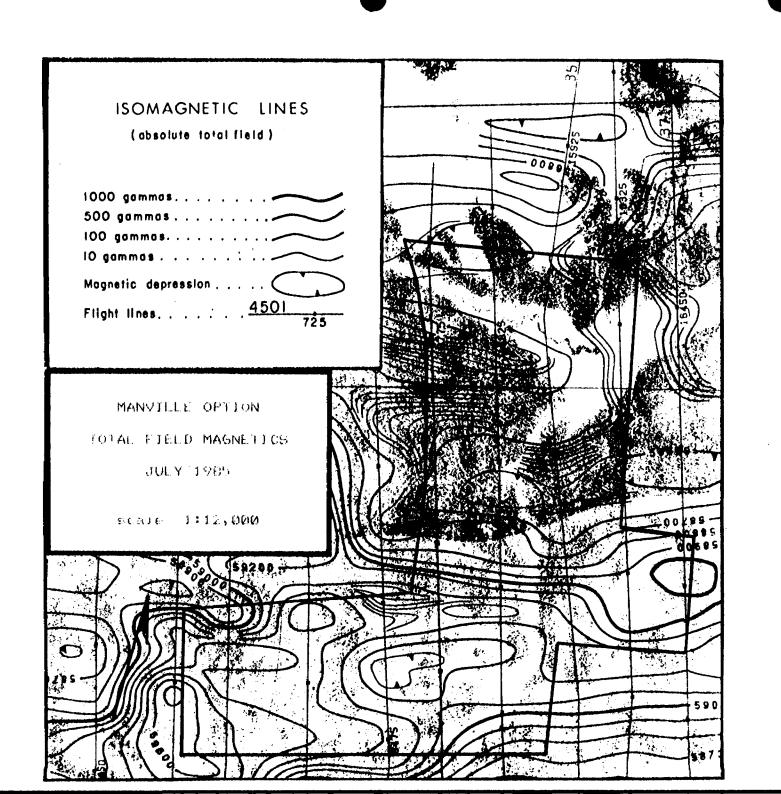
REFERENCES

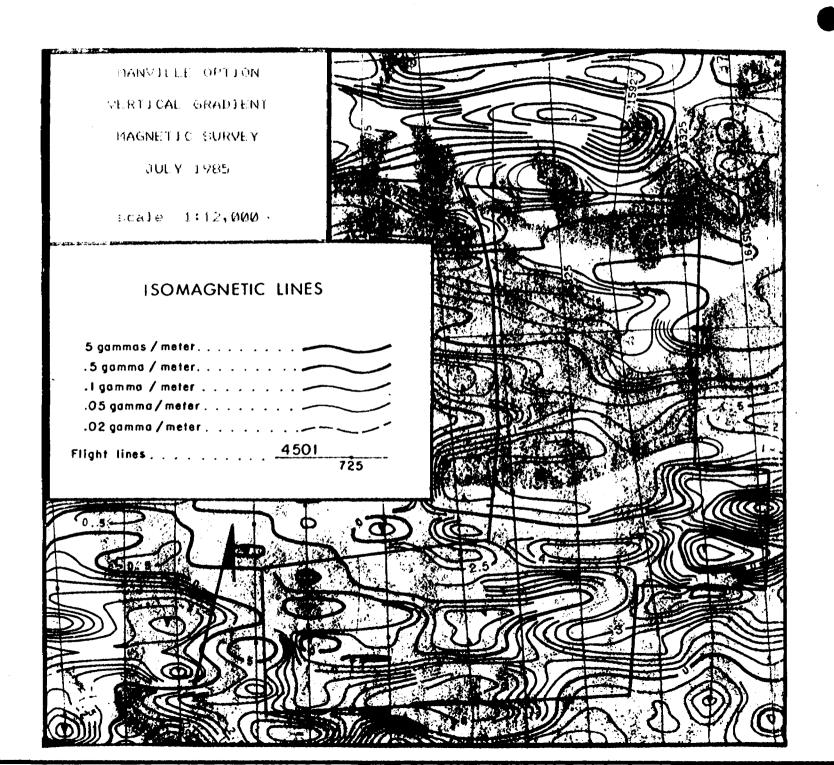
Jensen L.S. and Langford F.F., Geology and Petrogenesis of the Archean Abitibi Belt in the Kirkland Lake Area, Ontario; O.G.S. Open File Report 5455, 1983.

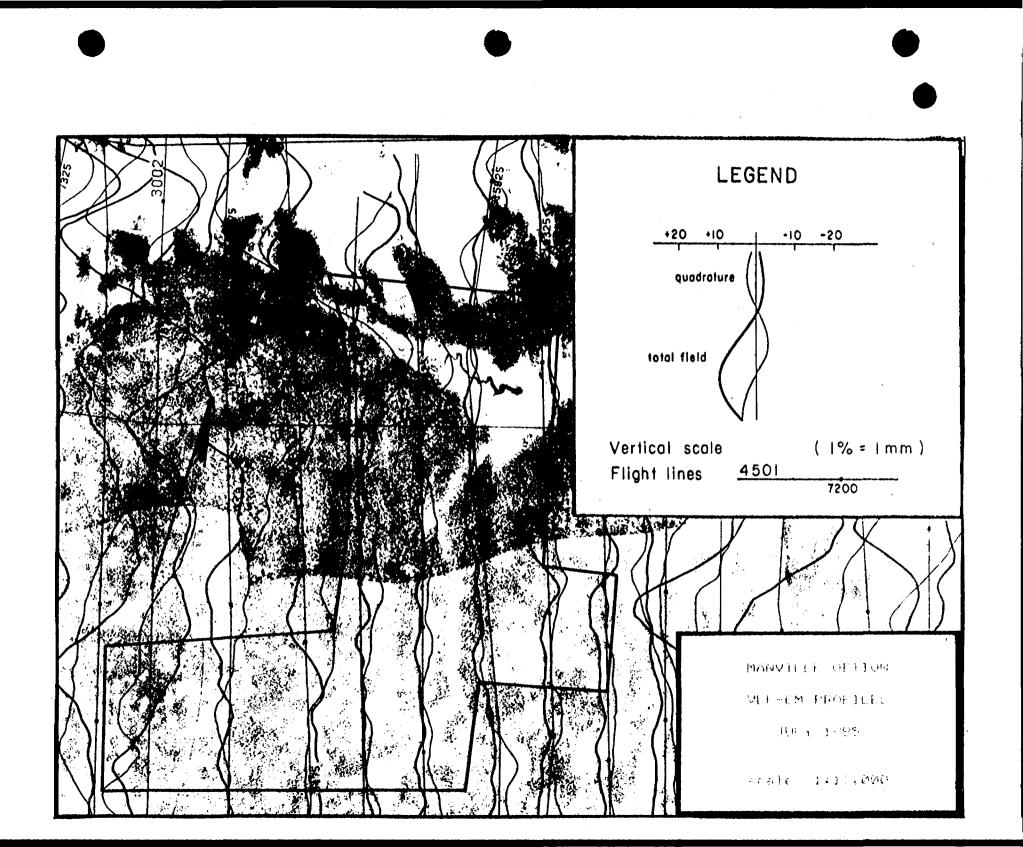
Workman A.W., The McDermott Gold Deposit, C.I.M. Distribution, 1985.



APPENDIX







	BANNION NEODU			
Co-ordst, 10042.9 6929.9	DIAMOND DF	NILL RECORD	HOLE NO. +	MC+85-253
Azimuthi 354.7 Deg.	Section	2100W	Fropertyl	Nanville Option
Dir: -55.0 Bes.	Core Siz	et BQ	Location:	21+00W 1+00N
Elevation: 4993.4 Length: 247.2				1 22 August, 1985
Neasurement: Netric			roased pat	A.W. Workman
Compents: Casing left in hold	e			
Repth A:	zimuth Dip Depth Az	imuth Dip Depth	Azimuth Bip	
60.96 113.08	-51.0 121.92 358.0 -50.0 182.88	~49.0 236.83 ~45.5 244.15	-45.0 357.5 -45.0	
	Los Summary			

0.00 19.20 OVERBURDEN.

19.20 111.76 BASALT.

111.76 142.92 MAIN MINERALIZED ZONE.

111.76 130.31 TRANSITIONALLY SILICIFIED BASALT.

130.31 134.71 MAIN SILICIFIED ZONE.

134.71 142.92 TRANSITIONALLY SILICIFIED ZONE.

142.92 158.40 FOLIATED BASALT.

158.40 247.19 BASALT.

247.19 END OF HOLE.

i.

							Pase No.: Pase No.:	ri∟+øu~∠us 2	
From	10	Description	Sample	From	Τo	Lensth % Sul	Au	GW	

0.00 19.20 OVERBURDEN

19.20 111.76 BASALT

4

Pale green to medium grey-green with few dark green phases and usually fine to very fine grained. The rock in this section is composed of massive flow only. The rocks are not internally structured with the exception of locally vesicular flow tops. Flows are porphyritic locally. Zone is occasionally non-magnetic but are normally moderately to strongly magnetic. The rock carries an average of 0 to 1% pyrite as a fine grained dissemination.

- 19.20 45.78 Fine to medium grained massive flow -gradual coarsening trend down-hole. Abundant quartz - epidote - carbonate veining from 27.45 to 29.21 meters. Weakly magnetic locally. Core is highly fractured.
- 45.78 64.20 Dominantly fine stained, no flow contact noted in this section. A porphyritic zone is noted at 60.90 to 61.95 meters. Well developed feldspar phenocrysts up to 2 mm account for approximately 15% of the rock.
- 64.20 B1.00 Zone becomes dominantly medium grained, non-magnetic with weakly developed magnetics locally.
- 81.00 109.15 Medium strained massive flow weakly magnetic becoming strongly magnetic locally. Chloritized laths up to 2.5 mm noted. Fractures are often magnetite filled.
- 109.15 110.95 Fine grained basal flow silicified and brecciated at base.
- 110,95 111,76 Hyaloclastite bearing flow tor with well developed foliation at 40 degrees to the core axis. Zone is fine to very fine grained with a distinct purple hue due to interstitial hematite.

MAIN MINERALIZED ZONE : 111.76 - 142.92 meters.

The zone is based upon amount and degree of silicification and it is composed of three members. The zone is well developed for this section of the McDermutt property (s). However, the McKenna Fault is found below the. Main Silicified Zone. The alteration is the mirror image of the normal sequence located on the McDermott and Three Star properties. 136.B5 MCKENNA FAULT FLAME.

19776 110.79 111.76 .97 1 .97 .94

Hole No.1 HC.85-253

From

To

----- Sample From To Length % Sul

Pase No.: 3

Au

G₩

111.76 130.31 TRANSITIONALLY SILICIFIED BASALT

dark green and very fine grained with Zone is purple-grey hematized and silicified patches. The degree and amount of silicification increases down section. Rock is highly variably magnetic - weakly to strongly. In general silicification and purple-grey hue are noted only in finely breccisted sections. Relic textures such as vesicles are noted locally. Rrecciation is of a highly engular brittle-type; senerally tensional as opposed to shearing. Initially zone is less than 50% brecciated increasing to 75% below 112.80 meters. Level of hematization is very high probably reflecting high degree of magnetics as altered magnetite. Breccia seams are rarely foliated at 55 degrees to the core axis on a 1 to 3 mm scale. Minor silica dumping is noted locally in voids and with 5 to 10 cm clots of purite grains. A few zones of Nain Silicified Zone style alteration are noted in sections up to 60 cm in width. Most silicification carries patchy chloritization where silicitving fluids have not penetrated. The best silicification is noted adjacent to a granulated; highly brecciated section at 121.33 to 122.01 meters has a red-brown hue in silicified fragments. May be a dioritic or swenitic intrusive zone. A similar although less silicified zone is noted at 119.70 to 120.24 estors. These zones are very weakly to moderately magnetic whereas the surrounding rock is moderately to strongly magnetic. Breccia fragments within these sections exhibit dolomitization of rims. A minor amount of green clay is noted on slickensided planes along the lower contact at 122.01 meters. This is possibly a fault zone at approximately 70 degrees to the core axis of the same age as the McKenna Fault. An immediate but spatially limited increase in silicification is noted below this point. Late stage fracturing with quartz filling has softer chloritized halos 1 to 3 mm in width. 125.84 126.77 Increased silicification to 80 to 90%

level with higher pyrite contents (2-3%) as a very fine dissemination and 1 to 2 mm crystals.

126.77 127.26 Generally highly to intensely silicified with abundant silica dumping locally and averaging 2 to 4% pyrite and up to 10% locally. Zone is similar to section at 121.33 to 122.01 and 119.70 to 120.24 meters.

127,26 130,31 Hore highly silicified - nearly main silicified zone type.

19777	111.76	112.72	.96	1-2	.17	.16
19778	112.72	113.72	1.00	1-2	tr	tr
19779	113.72	114,71	• 99	1-2	tr	tr
19780	114.71	115.74	1.03	1-2	tr	tr
19781	115.74	116.74	1.00	1-2	tr	tr
19782	116.74	117.74	1.00	1-2	tr	tr
19783	117.74	118.74	1.00	1-2	tr	tr
19784	118.74	119.70	,96	2	tr	tr
19785	119.70	120.24	.54	1-2	tr	tr
19786	120.24	121.33	1.09	2-3	tr	tr
19787	121.33	122.01	.68	2-4	.34	.23
19788	122.01	123.01	1.00	2-3	tr	tr
19789	123.01	124,01	1.00	1-2	tr	tr
19790	124.01	125.00	.99	2	tr	tr
19791	125.00	125.84	.84	2	tr	tr
19792	125.84	126.77	.93	2-3	tr	tr
19793	126.77	127.26	. 49	2-4	tr	tr
19794	127.26	128.26	1.00	1-2	tr	tr
19795	128.26	129.26	1.00	1-2	.17	.17
19796	129.26	130.31	1.05	2-3	tr	tr

130,31 134,71 HAIN SILICIFIED ZONE

4

BARRICK RESOURCES CURFORATION

Hole No.1 MC.85-253 Page No.: 4

From	To	Description'	Sample	From	τo	Length	% Sul	Au	GW
			19797	130.31	131.32	1.01	2-3	tr	tr
		Rock is dark purple-grey, aphanitic to very fine grained	19798	131.32	132.30	,98	2-3	tr	tr

and very highly to intensely silicified. The purple hue reflects a strong degree of hematization throughout. In deneral the level of silicification increases down section. A relatively large amount (5%) of relic green chloritized rock is noted in this unit. These seams have a non-brecciated appearance. Zone is locally reactive to HCl due to localized pervasive carbonatization, Ninor late stage delomitization is noted locally as a buff alteration in the most highly brecciated coloured sections. The zone averages 2-3% purite as fine disseminations and as 1-3mm blebs. Fyrite also noted as blebs concentrated along healed fractures in breccia. Minor silica dumping is locally found in the most intensely silicified rock.

134.71 142.92 TRANSITIONALLY SILICIFIED ZONE

Dark greenv very fine grained with selective silicification in carbonatized laminations and clasts. Carbonatization is indicated by a cream colouration whereas silicification has a grever hue. Hematization accompanies silicification as a purple tint in more highly altered rock. A minor amount of honey coloured carrying elevated purite is found in alteration silicified rock. This alteration is usually associated with moderate degrees of silica dumping. White silica is noted as a void filling in silicified breccia. The zone dominantly of tectonic origin with abundant is chloritized shears and ripped-up clasts of silicified rock supported in a granular chloritic matrix. This lithology is best noted below the McKenna Fault where it is much broader than previously observed, Localized sections of intensely silicified breccia are noted - es. 135.75 138.00 meters. Green, chloritized, to non-silicified rock is weakly hematized as a fine interstitial dissemination. Pyrite content averages 1% with up to 8% locally in silicified sections. The NcKenna Fault is represented by a clay seam at 53 degrees to the core axis at 136.85 meters, 1 cm of grit and clay is noted in the plane, Several other minor clay-grit seams are noted below this point.

- 134.71 136.84 Fatchy silicified breccia in dominantly chloritic rock.
- 136.84 136.85 McKennal Fault 1 cm clay-srit seam at 53 degrees to the core axis.
- 136.85 141.92 Abundant cream, red-brown and purple-grey coloured angular to subangular silicified breccia clasts up to 3 cm in size. Matrix is chloritic granular and often mylonitic. fragments аге often foliated The sub-parallel to the McKenna Fault.

Sample	From	To	Length	Χ.	Sul	AU	GW
19797	130.31	131.32	1.01		2-3	tr	tr
19798	131.32	132.30	,98		2-3	tr	tr
19799	132.30	133.29	• 99		2-3	tr	tr
16800	133.29	134.30	1.01		2-3	tr	tr
16801	134.30	134.71	+41		2-4	.34	.14

16802	134.71	135.75	1.04	1-2	.34	.35
16803	135.75	136.85	1.10	2-4	6.35	6.99
16804	136.85	137.85	1.00	2-3	.34	.34
16805	137.85	138.82	.97	2-3	tr	tr
16806	138.82	139.83	1.01	1-2	.69	,70
16807	139.83	140.85	1.02	1-2	+17	17
16808	140.85	141.92	1.07	1-2	tr	tr
16809	141.92	142,92	1.00	1	+17	.17

Au

10

Sample From To Lensth % Sul

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141.92 142.92 Well foliated dark green chloritized rock with selective silicification of cream coloured bands and seams up to 2 mm in width. Seams are brecciated and are moderately to strongly reactive to HCL. The rock is non-magnetic with a slight trace locally.

142.92 158.40 FULIATED BASALT

Nark green; fine to very fine grained; chloritized and Foliation is highlighted by selective well foliated. carbonatization along 1 to 3 mm seams. Carbonatization is revealed by a cream to pale grew colouration in an otherwise green rock, Carbonatized laminations make up of 15% of the rock volume, PD. average Rare silicification is noted as a purple-grey hue within carbonatized seams. Silicified sections have a finely breccisted texture, often pink hued ~ possibly a different original lithology. This is noted at 151.54 to 151.73 meters and 152.20 to 152.30 meters. The rock weakly to moderately well parted throughout. is. Crenulation cleavage, (f2), is also well developed with a steep easterly dip. A narrow fault zone is noted at 30 degrees to the core axis at 155.45 meters. The foliation decreases markedly in the lower 50 cm of zone. Foliation - 55 degrees to the core axis at 148,55 meters and 45 degrees to the core axis at 154,40 and 157.85 meters.

158,40 247,19 BASALT

Ц

Fale sreen to medium srey-sreen with few dark steen phases and usually fine to very fine grained. Finer grained pillowed flows and relatively coarser grained massive flows are found in the section. Flows are well structured with vesicular, often angularly preceiated tops and less broken interiors. Vesicular pillowed zones are occasionally found as the uppermost section in flows. Flow top breccia is BASSIVE otherwise characterized by highly angular clasts and relative Uniformity of alteration. Rocks are non-magnetic. A trace of pyrite is noted throughout. White carbonate stringers carry 1 to 5 mm blebs of chalcopyrite locally. A minor amount of flow breccia is noted locally in association with rillowed flows.

158,40 165,80 Fine to very fine grained massive flow weakly brecciated throughout with carbonate filling fractures, Non-magnetic, 165,80 171,55 Fine grained massive flow - gradual coarsening trend down-hole,

16810	142,92	143.85	.93	1	tr	tr
10811	143.85	144480	1.00	1	tr	tr
16812	144.85	145.83	• 98	0-1	tr	tr
16813	145.83	146.85	1.02	0-1	tr	tr
16814	146.85	147.85	1.00	0-1	tr.	tr
16815	147.85	148,88	1.03	0-1	tr	tr
16816	148.88	149.85	•97	0-1	tr	tr
16817	149.85	150.85	1.00	0-1	tr	tr
16818	150.85	151.85	1.00	0~1	tr	tr
16819	151.85	152.85	1.00	0-1	tr	tr
16820	152.85	153.80	.95	0-1	,17	.16
16821	153.80	154.81	1.01	0-1	tr	tr
16822	154.81	155.86	1.05	0-1	tr	tr
16823	155.86	156.87	1.01	0-1	.17	.17
16824	156.87	157.87	1.00	0-1	tr	tr

L.

Hole No.1 MC.85-253 Pase No.1 6

GW

From To -

171.55 173.35 Fine to medium grained massive flow.

- 173.35 183.43 Fine to very fine grained massive flow gradual fining trend down-hole; becoming increasingly brecciated (weakly); down section;
- 183.43 184.43 Tensional brecciation with white carbonate filling.
- 184,43 191,40 Faler green; fine grained massive flow.
- 191.40 193.12 Fine to very fine grained massive flow gradual fining trend down-hole.
- 193.12 193.20 Chilled flow top.
- 193.20 193.65 Brecciated and weakly vesicular flow top.
- 193.65 199.50 Irregularly developed flow breccia rounded; vesicular fragments up to 5 cm. Section grades into underlying pillowed zone.
- 199.50 212.27 Fillowed flow selvages well developed; strongly chloritized - often carry hydloclastite;
- 212.27 213.48 Medium sreen to Pinkish-sreen fine stained intrusive with feldspar phenocrysts up to 3 mm which are often clumped (slomero-porphyritic). Frobably dioritic in composition. Non-magnetic. Abundant specular hematite at lower contact.
- 213.48 227.75 Pillowed flow becomes relatively coarser strained below 224.00 meters and pervasive carbonatization increases slightly. Fillows become less well developed.
- 227,75 227,76 Flow contact.
- 227.76 233.30 Irregularly brecciated flow top zone localized epidotization with a few pillows between 229 and 232 meters. Non-magnetic.
- 233.30 240.68 Bark green; fine grained massive flow.
- 240.68 240.95 Basal flow and flow contact zone with foliation developed at 55 degrees to the core axis.
- 240.95 247.19 Irregularly textured fine grained massive flow; non-magnetic; non-carbonatized.

247.19 END OF HOLE.

11

NOTE: Hansing wall basalts logged by N. Downey.

Co-ords1	9993.7 6932.9	DIAMOND DRILL RECORD	HOLE NO.1	NC, 85-254
Azimuth:	351.7 Des.	Section: 2100W	Fropertyl	Nanville Option
Dirt	-60.0 Des.	Core Size: BQ	Location;	21+00W 0+50N
Elevation:	4993,1		Date Started:	22 August: 1985
Lenstht	270.4			28 August, 1985 A.W. Workman
Neasurement:	Metric			

Comments: Casing left in hole

Derth	Azimuth	Die Derth	Azimuth Dis	• Derth	Azimuth Dip
60.96	-6	0.5 121.92	-60.	,	-55,5
116.43	365.5 -6	0.0 182.88	-58.		366,3 -56,0

-----Los Summary------

0.00 18.90 OVERBURDEN.

18.90 134.15 BASALT.

134,15 141,16 VARIABLY SILICIFIED BASALT.

141.16 165.31 DIORITE.

165.31 182.93 BASALT.

182.93 189.41 TRANSITIONALLY SILICIFIED BASALT.

189.41 211.75 BASALT.

211.75 229.83 MAIN MINERALIZED ZONE.

211.75 224.73 TRANSITIONALLY SILICIFIED ZONE.

224,73 225,91 MAIN SILICIFIED ZONE.

225.91 229.83 TRANSITIONALLY SILICIFIED ZONE.

229.83 234.83 FOLIATED BASALT.

234.83 270.38 BASALT.

270.38 END OF HOLE.

d.

					F	ase No.1	2	
From	To	Description	Sample Fr	um To	Length % Sul	Au	GW	

BARRICK REBOURCES CURPURATION

0.00 18.90 OVERBURDEN

18.90 134.15 BASALT

Pale green to medium grey-green with few dark green phases and usually fine to very fine grained. Finer grained pillowed flows and relatively coarser grained massive flows are found in the section, Flows are well structured with vesicular, often angularly brecciated tops and less broken interiors. Fillowed flows exhibit well developed glassy selvages and interiors with well developed vesicles. Massive flows are occasionally flow brecciated with rounded, reaction rimmed fragments. These fragments reveal a variety of alteration styles (chiefly silicification) and textures, Lavas are moderately to strongly magnetic throughout. A few weakly magnetic phases noted locally, Local shears due to late tectonic activity are noted and these zones are more strongly chloritized.

- 18.90 30.60 Dark green to black, fine to very fine grained pillowed flow, Selvages are highly epidotized and carbonatized.
- 30.60 41.27 Intrusive ? fine to very fine grained grading down section to medium grained at 36.0 meters. Zone is weakly magnetic locally. Contacts are well defined.
- 41.27 84.80 Same as above at 18.90 to 30.60 meters " a brecciated zone is noted at 79.15 to 81.38 meters - resembles flow breccia.
- 84.80 105.77 Dark green to black, fine to very fine grained massive flow - moderately magnetic locally.
- 105.77 107.11 Fine to medium grained massive flow flow contact zone in lower 6 cm. Moderately magnetic locally.
- 107.11 113.30 Fine to very fine grained massive flow becoming paler hued down section. Centre of section becomes medium to coarse grained
- 113.30 114.22 Fine to very fine grained massive flow ~ moderately magnetic throughout.
- 114.22 120.82 Fine to medium grained massive flow ~ moderately to strongly magnetic.
- 120.82 124.90 Brecciated flow contact zone with subrounded to subangular fragments - rale green: grey and buff coloured: highly magnetic. Shear zone is noted parallel to core axis. Section is weakly silicified locally with 3 to 5% pyrite.
- 124.90 126.70 Fine to very fine grained massive flow highly magnetic, moderately to strongly

15832 11	9.82 120.82	1.00	TR-1	.34	.34
15833 12	0.82 121.82	1.00	3-5	.17	+17
15834 12	1.82 122.82	1.00	3-5	.17	.17
15835 12	2.82 123.82	1.00	3-5	.17	+17
15836 12	3.82 124.90	1.08	3-5	.69	.75
15837 12	4.90 125,90	1.00	TR-1	tr	tr
15838 13	2.13 133.12	.99	1-2	.17	.17
15839 13	3.12 134.15	1,03	1-2	tr	tr

Hole No.: MC.85-254

BHRNICK REDUCKDED CONFORMIZON

Hole No.: MC.85-254 Fase No.: 3

From	Τn	Description	Samele From	to	Length % Sul	A 11	GW
1108	10			10		110	

epidotized locally.

126.70 128.00 Dioritic intrusive - strongly magnetic. 128.00 134.15 Same as above at 124.90 to 126.70 meters. Zone gradually develops a purple-grey hue

> down section with an increasing number of weakly to moderately silicified breccia sections up to 20 cm in width. A carbonate filled chloritic shear at 10 degrees to the core axis is noted at 134.15 meters. Localized clots of pyrite up to 1 cm in size are noted with silicification. Zone carries pink clasts near base - possibly phenocrysts.

134.15 141.16 VARIABLY SILICIFIED BASALT

Extension of the overlying zone - rock is initially dark sreen and very fine grained massive flow with abundant purple-grey silicified seams. Silicified rock is weakly brecciated with network of tight fractures defining 1 to 2 cm breccia fragments, Begree of silicification is moderate to strong, Occasional sections of strong brecciation carry increased silicification. Increased pyrite contents are noted in silicified preccia with up to 5% locally, Pyrite content increases proportionally to degree of silicification. Zone exhibits strong pervasive carbonatization locally associated with silicification. Furple colouration is probably due to hematite. Rock remains moderately to strongly magnetic throughout.

141.16 165.31 DIORITE

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Dark green, fine to very fine grained, moderately to strongly magnetic with abundant specular hematite disseminated throughout. Zone is porphyritic locally. Rock is moderately chloritized with weak pervasive carbonatization.

141,16 152,30 Fine to very fine grained,

152.30 152.80 Abundant 1 to 3 mm feldspar phenocrysts.

- 152.80 162.96 Fine stained; stadual coarsening trend down-hole - zone has a dioritic pinkish hue locally; Weakly magnetic becoming moderately magnetic down section; Abundant leucoxene;
- 162.96 163.38 Chilled zone possibly between two phases of intrusive activity. Also noted are abundant gritty carbonate filled shears at 30 degrees to the core axis.
- 163.38 164.80 Fine strained massive zone as described above at 152.80 to 162.96 meters.

15840	134.15	135.13	, 78	1-2	tr	tr
15841	135.13	136.12	.99	1-2	tr	tr
15842	136.12	137.17	1.05	1-2	tr	tr
15843	137.17	138.16	.99	1-2	.17	.17
15844	138.16	139.14	.98	1-2	tr	tr
15845	139,14	140.15	1.01	1-2	tr	tr
15846	140.15	141.16	1.01	1-2	tr	tr

0-1

15847 141,16 141,98 ,82

tr

tr

Hole No.1 MC.85-254 Page No.1 4

From To ------ Bescription----- Bescription------ Sample From To Length % Sul Au GW

Irregularly developed magnetics. 164.80 165.31 Sheared contact zone - well developed chilled base.

165.31 182.93 BASALT

H.

15848 181,94 182,93 ,99 0-1 ,17 ,17

Section is composed of fine to very fine grained massive flow and very fine grained zones with epidotized seams which are possibly pillowed. Variolitic flow is noted locally. Minor silicification is noted locally. Magnetics are variably developed throughout.

165.31 166.80 Aphanitic to very fine grained, massive flow with abundant hyaloclastite and 0.5 mm variolites, Numerous strongly epidotized and silicified seams are noted.

- 166.80 169.40 Silicified flow top strongly brecciated becoming more weakly developed down section. Vesicular fragments are noted throughout. Weakly magnetic throughout.
- 169.40 177.95 Very fine grained massive flow; abundant epidotized seams - possible pillow selvages. Moderately to strongly magnetic throughout.
 - 177.95 182.93 Very fine grained massive flow; occasional purple-grey silicified breccia seams up to 20 cm in width. Rock is very hard although does not seem to be silicified. Weakly to moderately magnetic throughout.

182,93 189,41 TRANSITIONALLY SILICIFIED BASALT

Greenish-grey, very fine grained chloritized rock with abundant purple-grey to reddish-pink coloured aphanitic sections of silicification up to 60 cm in width. Silicification is controlled by brecciation - angular fragments up to 1.5 cm are intensely silicified and are surrounded siliceous material which is often by mylonitic. Ninor buff coloured sections noted - due to late stage dolomitization. Larger purple-grey fragments often exhibit hairline rims of dolomitization. Breccia is both fragment and matrix supported. A large amount of matrix in some sections indicates that preciation has been brittle due to tension. Increased pyrite contents are noted in intensely silicified sections as a fine dissemination: 1 to 3 mm grains and as clots up to 1 cm in size. Zone is generally non-magnetic to weakly magnetic locally with increasing magnetics near base of section.

182.93 184.71 Increasing amounts of tightly controlled silicified breccia.

184.71 185.38 Well developed strongly to intensely

15849	182.93	183.92	.99	1	,17	.17
15850	183.92	184.71	.79	1	tr	tr
15851	184.71	185.38	.67	2-3	4.80	3.22
15852	185.38	186.35	.97	1	.69	.67
15853	186.35	187,38	1.03	1	.17	.18
15854	187.38	188.39	1.01	1	tr	tr
15855	188.39	189.41	1.02	1	.17	,17

1

Hole No.1 MC.85-254 Pase No.1 5

Au

From To -----Description-----

----- Sample From To Length % Sul

GW

silicified breccia.

- 185.38 187.70 Intensely silicified breccia fragments up to 1 cm are re-brecciated and are surrounded by chloritic fracture networks. Rock appears to be soft yet carries 50% intensely silicified breccia fragments.
- 187.70 189.41 Grey: very fine grained zone with abundant patchy silicification in seams up to 5 cm. Some indication of relic volcanic textures are noted down section. Increasing magnetics down section.

189.41 211.75 BASALT

4

Dark green to greenish-grey, very fine grained flow. Section is initially pillowed becoming massive flow below 194.20 meters. Selvages are weakly brecciated and highly silicified locally but relic vesicles are noted through alteration. The massive section is locally brecciated and weakly silicified in zones up to 15 cm. A few sections of transitional quality silicification are noted locally, ed. 208.00 to 208.34 meters. All rock is moderately to strongly magnetic but magnetics decrease sharply in lower 75 cm of zone. Unit is moderately to strongly hematized throughout. A white carbonate filled shear is noted from 192.65 to 193.37 meters at 20 to 30 degrees to the core axis. Contact with underlying section is weakly slickensided.

MAIN MINERALIZED ZONE : 211,75 - 229,83 meters,

The zone is based upon amount and degree of silicification and it is composed of three members, Each member of the zone is relatively thin and the degree of alteration is not particularly strong, Pyrite contents are lower than normal, most noticeably in the Main Silicified Zone.

226,70 MCKENNA FAULT FLANE,

211.75 224.73 TRANSITIONALLY SILICIFIED ZONE

Dark green and fine grained with aphanitic, purple-grey silicified breccia zones up to 60cm wide. Upper 4.5 meters of the zone is dominantly silicified breccia (90%). Breen rock is chloritized and strongly hematized, Zone is moderately pervasively carbonatized throughout, Silicification is indicated by a dark greyish colouration but is strongest where purple hued. The site of silicification is almost entirely controlled by prior

15856	189.41	190.43	1.02	0-1	tr	tr
15857	196.80	197.80	1.00	0-1	tr	tr
15858	207.92	208.83	.91	1-2	.17	.15
15859	210.80	211.75	• 95	0-1	tr	tr

15860 211,75 21	12.76 1.01	2-3	tr	tr
15861 212,76 21	13.76 1.00	2-3	.34	.34
15862 213.76 21	4.75 .99	2-3	2.74	2.71
15863 214.75 21	15.75 1.00	2-3	2.06	2.06
15864 215.75 21	6.66 .91	2-3	+69	.63
15865 216.66 21	17.64 .98	1-2	.17	17
15866 217,64 21	18,64 1,00	1-2	tr	tr
15867 218.64 21	19.65 1.01	1-2	.34	.34
15868 219.65 22	20.65 1.00	1-2	tr	tr

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Hole No.: MC.85-254 Page No.: 6

From

To

brecciation. Silicified breccia is occasionally honey coloured. This colouring may reflect increased dolomitization. Breccia fragments often have a pink or sygnitic hue. A sale coloured sheared section at 212,64 to 212.76 meters may be same age as the McKenna Fault, Sheared rock is healed with subsequent alteration. Shearing is at 40 degrees to the core axis. Furite content is noted up to 5% locally as blebs in matrix to breccia fragments along healed fractures in breccia, A trace of chalcopyrite is noted as a late stage vein filling in 1 to 3 mm blebs. Zone is non-magnetic Breccia exhibits a foliation locally at 45 throughout. to 50 degrees to the core axis, Possible crenulation cleavage is noted dipping approximately 30 degrees westerly.

- 211,75 216,66 90% silicified breccia desree of silicification is strong but seldom intense. Zone often resembles an upper silicified zone.
- 216.66 224.73 30 To 40% silicification moderately to strongly developed but rarely Main Silicified Zone type.

224.73 225.91 NAIN SILICIFIED ZONE

11

Furgle-grey to honey or cream coloured, aphanitic, intensely silicified breccia. A minor amount (less than 5%) of green, relic chloritized seams are noted within These seams have a nun-brecciated this section. appearance. Grew silicified rock has a purple hue due to a variable degree of hematization. This hematite is to pyrite in the buff to honey coloured reduced alteration patches and zones. Lower amounts of pyrite are noted throughout. A degree of hematization is found, and is more readily identified by streak, in chloritized rock. The zone is moderately reactive to HC1 due to carbonatization throughout. Buff colour is limited to late stage brecciation locally seen to cut core in seams up to 2 cm in width. Zone is non-magnetic throughout. Several narrow clas-srit seams are noted which represent fault planes of same age as the McKenna Fault. These are noted at 40 degrees to the core exis at 225,46 and 225.81 meters. Lower contact of zone is marked by a 2 mm clay seam.

225,91 229,83 TRANSITIONALLY SILICIFIED ZONE

	100/0 220171 2201/V	• / / .	4	+ 0 7	121
Dark sreen and purple-srey, very fine stained to	15876 226.70 227.70	1.00	1-3	.69	• 69
arhanitic rock, Green sections are chloritized, well	15877 227.70 228.42	٠72	1-2	.34	.24
foliated, strongly hematized and weakly carbonatized,	15878 228.42 229.13	۰71	1-2	.17	.12
Grey coloured zones are weakly to strongly silicified	15879 229.13 229.83	,70	1-2	.17	.12

Sample	From	Ťο	Lensth	X	Sul	Au	GW
15869	220.65	221.65	1.00		1-2	tr	tr
15870	221.65	222,65	1.00		1-2	tr	tr
15871	222.65	223.65	1.00		1-2	tr	tr
15872	223.65	224.73	1.08		1-2	tr	tr

15873	224,73	225.30	,57	2-3	tr	tr
15874	225.30	225,91	.61	2-3	tr	tr

70

34

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t (less than noted within n-brecciated

15075 235 01 224.70

Au

From

Ťο

and exhibit higher degrees of carbonatization. The site of silicification is almost entirely controlled by prior brecciation. Seams/patches of silicification are oriented parallel to foliation but cross cut locally, A minor amount of honey coloured alteration carrying elevated parite is found in silicified rock, Silicified breccia fragments are often ripped from major sections of silicification and are rafted into the chloritic matrix. The foliation is occasionally deformed along or which represent micro-faults. This across fractures deformation in the form of dras folding indicates that the south side of these microfaults has been displaced downwards. The McKenna Fault is represented by a clay seem at 58 degrees to the core exis at 226.70 meters. The zone above this fault has a precriated tectonic appearance, more so than the section below. 7000 everages 2% pyrite throughout as a very fine grained dissemination in association with silicified seams and A weakly developed crenulation cleavage is breccia. noted - seems to be flat lying.

229.83 234.83 FOLIATED BASALT

Dark green, fine to very fine grained and variably foliated. The rock is weakly chloritized pervasively perhaps due to regional metamorphism. The foliation is highlighted by selective carbonatization of individual laminations. Rodies of carbonate alteration swell to cross-cut and feather out along the foliation. Carbonatization is revealed by a cream to pale grey colouration in an otherwise green rock, Rare silicification is noted as a purple-grey hue within carbonatized seams. The rock is weakly to moderately well parted throughout. Hematite is found as a very fine interstitial dissemination within the chloritized Rocks are non-magnetic, Pyrite is noted as groundmass. a fine dissemination in amounts up to 1%. The foliation is noted at 55 degrees to the core axis at 230.75 meters and 40 degrees to the core axis at 232.50 meters. Foliation is lost somewhat abruptly at base of zone.

234.83 270.38 BASALT

4

Zone is composed of medium green; fine grained massive flow and relatively finer grained pillowed flow. A few mafic intrusives are noted locally.

234.83 246.60 Fine to very fine grained massive flow with dioritic texture - equigranular, non-magnetic, weakly fractured, Bradual coarsening trend down-hole, Weak pervasive carbonatization.

15880	229.83	230.83	1.00	0-1	.34	.34
15881	230+83	231.84	1.01	0-1	.17	.17
15882	231.84	232.83	.99	0-1	tr	tr
15883	232.83	233.86	1.03	0-1	.17	.18
15884	233.86	234.83	• 97	0-1	tr	tr

15885	234.83	235.83	1.00	0~1	tr	tr
15886	255.99	256.57	•58	1	tr	· tr

7 GW

Hole No.1 MC.85-254 Page No.1 B

I	To	Description	Sample	From	To	Lensth % Sul	Au	ษพ
		246.60 251.00 Same as above - gradual fining trend						
		down-hole. 251.00 251.25 Chilled and brecciated basal flow. 251 25 251 50 December and busications and busication.						

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- 251,25 251,50 Brecciated and hyaloclastite bearing flow top zone.
- 251.50 252.80 Very fine stained to aphanitic; vesicular flow top - breccisted pillows weakly developed.
- 252.80 270.38 Very fine grained to aphanitic; strongly breccisted, moderately to intensely silicified and epidotized massive flow. A matic intrusive of dioritic composition is noted from 255.56 to 255.99 meters with developed chills. Zone is well Section below intrusive to non-magnetic. a depth of 256,40 meters has undersone several stages of precciation with indection of siliceous material to matrix. This zone is probably pillow breccia or brecciated willows - few features locally selvages. It becomes more resembles evident down section that most pillows have ruptured with abundant hysloclastite locally.

270.38 Neters END OF HOLE.

From

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NOTE: Fortions of the hansing wall logged by S. Conquer.

		ی میں میں بعد بلاء میں بلاء میں			
Co-ords:	9998.4 7032.9	DIAMOND DRILL RECORD		HOLE NO.:	MC.85-255
Azimuth:	357.1 Des.	Section: 2000W		Property:	Hanville Option
Dipt	-60.0 Des.	Core Size: BQ		Location‡	20+00W 00+55N
Elevation:	4997.0			Data Ctations	20 Aug - 1005
Length:	260.1			Date Started: Date Completed: Logged by:	28 Aug.; 1985 4 Sept.; 1985 A.W. Norkman
Neasurement:	Metric			LOBACO CAT	NIWI WOLKMON
Comments:	Casing left in ground				
	Derth Azimuth Dir	Depth Azimuth Dip	Depth Azimuth	Dip	
	60,96 -56,0 122,53 359,5 -56,0	182,88 -52,0 257,47 359,8 -52,0			
	Los Sum	#8fy			1
	0.00 28.65 OVERBURDEN.				
	28.65 165.49 BASALT.				
	165.49 178.00 MAIN MINERALIZED	ZONE,			
	165.49 171.56 VARIABLY SILICIFI	ED ZONE (undetermined).			
	171.56 174.68 MAIN SILICIFIED Z	ONE .			
	174.68 178.00 TRANSITIONALLY SI	LICIFIED ZONE,			
r -	178.00 190.90 FOLIATED BASALT.				
ų	190.90 193.91 DIGRITE.				
,	193.91 260.09 RASALT.				
•	4 contraction of the second				
	260.09 END OF HOLE.				
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						Р	ase No.1	2	
From	Ťυ	Rescription	Sample	From	To	Lensth % Sul	Au	GW	

PHIMAUN NEUCONCED COM COMIZER.

0.00 28.65 OVERBURDEN

28.65 165.49 BASALT

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Medium to dark green and fine grained with aphanitic flow margins and medium grained flow centres. Finer grained pillowed flows and relatively coarser grained massive flows are found in the section. Flows are well structured with vesicular, often angularly brecciated tops and less broken interiors. Vesicular pillowed zones are occasionally found as the uppermost section in otherwise massive flows, Fillowed flows exhibit well developed glassy selvages and interiors with well developed vesicles. Massive flows are occasionally flow brecciated with rounded, reaction rimmed fragments. These fragments reveal a variety of alteration styles (chiefly silicification) and textures. Flow top breccia is characterized by highly angular clasts and relative uniformity of alteration. Flow tops are varialitic locally with round to oblong variolites up to 5mm in size, Rocks are non-magnetic with a trace locally. A few mafic intrusives are noted locally. In addition to weak seneral chloritization, pervasive weak carbonatization is noted.

- 28,65 33,45 Fine stained slomero-porphyritic basalt with feldspar phenocrysts up to 2,5 cm, Non-magnetic,
- 33.45 56.75 Becomes medium grained massive flow, Forphyritic locally with feldspars up to 1 cm. Normal amounts of quartz, carbonate, epidote veining. A section of ground and broken core noted at 42.78 to 43.65 meters.
- 56.75 66.20 Very fine grained to aphanitic pillowed flow with well developed selvages and vesicular marging, Selvages become poorly developed down section. A carbonate altered section is noted at 58.36 to 59.13 meters with 2% pyrite and a trace of chalcopyrite.
- 66.20 73.30 Nedium stained mafic intrusive with steen chloritized laths up to 5 mm. Section is ' stadational into underlying pillowed flow may be a laya tube.
- 73.30 102.05 Continuation of overlying pillowed flow well developed selvages often carry clots of purite. Vesicles are less common than above. Magnetics are weekly developed but increase down section.
- 102.05 121.96 No eridotization in this zone section becomes fine stained and massive. A rapid increase in pervasive carbonatization is

18695	103.26	104.26	1.00	1	.34	.34
18696	104.26	105.26	1.00	1-2	.34	• 34
18697	105.26	106.26	1.00	0.5	tr	tr
18698	163.80	164.73	.93	0.5	tr	tr
18699	164.73	165.49	.76	0.5	tr	tr

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Hole No.1 MC.85-255

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-----Nescription----

noted; particularly in breccia which may have a purple-grey colour locally, Zone is variably magnetic. Minor carbonate quartz stringers with specular hematite are noted near base of unit.

- 121.96 128.40 Flow breccis and flow top breccis angular to rounded fragments, Rounded to subrounded fragments exhibit reaction rims and a few vesicular fragments are noted locally.
- 128.40 135.50 Grey-green; fine grained massive flow pervasive carbonatization increasing down section, Weakly magnetic locally.
- 135.50 139.29 Fault zone narrow seam of fault souse parallel to core axis accompanied by carbonate - quartz stringers carrying hematite and chalcopyrite. There may be several parallel slippage planes. Carbonatization is strong in surrounding rocks. Zone is very highly chloritized.
- 139.29 144.04 Continuation of overlying zone from 128.40 to 135.50 meters. Pervasively carbonatized medium grained massive flow. Gradual fining trend down-hole. Section is weakly magnetic.
- 144.04 145.97 Flow top breccia dark green to purple, with rounded to angular fragments. Upper section of zone carries hydioclastite foliated at 43 degrees to the core axis. Varialities are locally developed. Rock is weakly magnetic locally and the matrix to fragments is carbonatized. Zone grades down section to massive flow.
- 145.97 150.84 Fine to very fine grained massive flow specular hematite noted in fractures. Gradual fining trend down-hole.
- 150.84 151.42 Flow top breccia as described above at 144.04 to 145.97 meters.
- 151.42 154.78 Green to locally purple coloured; fine grained massive flow, Pervasive carbonatization increases down section.
- 154.78 165.49 Grey-green massive flow strongly Pervasively carbonatized becoming purple hued locally. Irregularly developed weak to moderate magnetics are noted.

165.49 178.00 MAIN MINERALIZED ZONE.

The zone is based upon amount and degree of silicification and it is composed of three members. Each member of the zone is relatively thin and the degree of alteration is not particularly strong. Silicification is poorly developed in the Main Silicified Zone, Pyrite

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contents are lower than normal; most noticeably in the Main Silicified Zone. Pyrite content averages 2% in the Main Silicified Zone with up to 4% locally. The McKenna Fault is represented by a clay seam at 40 degrees to the core axis at 174.75 meters. This seam is B cm in width. 174.75 MCKENNA FAULT PLANE.

165,49 171,56 VARIABLY SILICIFIED ZONE (UNDETERMINED)

The zone is composed of a mixture of purple-srew silicified breccia and green chloritized fine grained senerally non-brecciated. Hematization rock which is accompanies silicification as a purple tint in more highly altered rock. Chloritic section are strongly hematized as a very fine grained interstitial dissemination. The degree of silicification is moderate to strong. Silicified breccia carries elevated pyrite contents with up to 5% locally, and an average of 1 to 3% as a fine dissemination and clots up to 1 cm of finer grains. Silicified rock is reactive to HCL. Abundant carbonate filled fractures are also noted throughout, Breccia is often foliated at 35 to 40 degrees to the core axis, Brecciation has been multi-stage as indicated by late stage chloritized and chlorite filled voids within silicified fractures breccia, Silicification is somewhat evenly distributed throughout section unlike normal transitional zone rock with more localized silicification of breccia. Some silicified breccia clasts have been pulled apart and mixed with less silicified, chloritized matrix material. Zone is non-magnetic throughout.

171.56 174.68 MAIN SILICIFIED ZONE

al.

section is a dominantly grey to purple-grey The moderately to strongly silicified preccia with minor buff colour locally. A relatively large amount (10%) of relic green chloritized rock is noted in this unit. Chloritic material was introduced along late stage fracturing and breccistion and post-dates must Some of this tectonism is of the same age alteration. as the McKenna Fault, noted at the base of the unit. Grew silicified rock has a purple hue due to a variable degree of hematization. A degree of hematization is found, and is more readily identified by streak, in chloritized rock. Buff colour is associated with late stage breccia seams up to 15 cm in width. Most of these breccia fragments are finely brecciated internally due to previous brecciation. The zone is moderately reactive to HC1 due to carbonatization throughout. The zone averages 2% Furite as fine disseminations and as 1-3mm

18700	165.49	166.34	.85	1-3	3.43	2.92
15887	166.34	167.30	• 96	1-3	+17	.16
15888	167.30	168.31	1.01	1-3	+17	+17
15889	168.31	169.29	• 98	1-3	.34	, 33
15890	169.29	170.31	1.02	2-3	tr	tr
15891	170.31	170.94	.63	2-3	tr	tr
15892	170.94	171.56	.62	1-2	.34	.21

15893	171.56	172.60	1.04	2	.34	,35
15894	172.60	173.66	1.06	2	2.23	2.36
15895	173.66	174.68	1.02	2	tr	tr

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blebs. Furite is also noted along healed fractures in breccia. A trace of chalcopurite is noted with late chloritized fractures. The rock is non-magnetic - a trace is noted locally. Very little sulphide is found in breccia fragments - almost exclusively contained in matrix.

171.56 172.60 Dominantly purple-grey hued.

172.60 173.66 Approximately 50% of section is buff coloured brecciation which has been imposed upon purple-srey silicification. Minor late stage chloritic shearing is noted locally parallel to NcKenna Fault.

173.66 174.68 Same as above at 171.56 to 172.60 meters with minor chloritic fractures and shears.

174.68 178.00 TRANSITIONALLY SILICIFIED ZONE

Nark green, very fine grained chloritized granular (ized) rock with abundant purple-grew silicified fragments derrived through late stage re-brecciation of the silicified breccia in the overlying main silicified zone. All silicified rock is reactive to HCL. Hematization accompanies silicification as a purple tint in more highly altered rock. Silicified fragments are set in a chloritized matrix of tectonic origin. Green, chloritized, non-silicified rock is weakly hematized as a fine interstitial dissemination. The McKenna Fault is represented by an 8 cm clay-grit seam at 45 degrees to the core axis at 174.69 to 174.77 meters. Other clay-grit seams are noted locally.

174.68 175.35 McKenna Fault zone - abundant claw-srit seams up to 8 cm in width with widest seam localized at 174.75 meters. Section is composed of abundant angular silicified frasments in a chloritic matrix with several sections of highly fractured silicified rock. Fractures are all chlorite filled with occasional white carbonate. Shearing is noted at 45 degrees to the core axis.

175.35 178.00 Generally dark steen; very fine stained foliated rock with purple-grey silicified breccia clasts up to 1 cm and rare purple-grey seams of silicified breccia up to 3 cm. A clay-grit seam is noted at 177.33 to 177.36 meters of same age as the McKenna Fault.

178,00_190,90 FOLIATED BASALT

Dark.	sreen+	fine	to	vers	fine	grained	and varia	abls

15900 178.00	178.90	.90	0.5	tr	tr
16825 178.90	179.90	1.00	0.5	tr	tr

15896	174.68	175.35	.67	1	.17	+11
15897	175.35	176.22	•87	1	tr	tr
15898	176.22	177.08	•86	1	tr	tr
15899	177.08	178.00	+92	1	tr	tr

core axis. Rock is moderately to strongly chloritized. foliation is The carbonatization of individual laminations. Bodies of carbonate alteration swell to cross-cut and feather out along the foliation. Carbonatization is revealed by a cream to pale grey colouration in an otherwise green rock. Rare silicification is noted as a purple-grey hue within carbonatized seams. Hematite is found as a very fine interstitial dissemination within the chloritized groundmass. The zone is essentially non-magnetic with a trace of magnetism locally. A trace of pyrite is noted throughout. A clay-grit seam representing a fault zone of same ase as the McKenna Fault is noted at 178.28 meters, parallel to foliation. Relow 178,90 meters; the foliation is weaker and not well exhibited except on a localized basis.

178.00 178.90 Hoderately developed foliation; becoming strong locally.

178.90 190.90 Section exhibits very weak foliation with rare silicification in localized brecciation. Breccia is moderately to strongly carbonatized and is reactive to HCl. Minor epidotization is noted in localized section which resemble vulcanic style auto-brecciation. No other volcanic textures are noted.

190.90 193.91 DIORIT	VIIV 170III I	
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Finkish-green to Fink, aphanitic to very fine grained zone with well developed brecciation throughout. Brecciated rock is variably silicified becoming intense locally. Contacts are weakly sheared, the upper at 25 degrees to the core axis, the lower exhibiting more brecciation than shearing. Zone exhibits strong pervasive carbonatization. Magnetics are variably developed throughout becoming moderate locally. Zone carries up to 2% pyrite but averages 1% as blebs up to 2 mm.

193.91 260.09 BASALT

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Pale green to medium grey-green with few dark green phases and usually fine to very fine grained. Finer grained pillowed flows and relatively coarser grained massive flows are found in the section. Flows are well structured with vesicular, often angularly brecciated tops and less broken interiors. Pillowed flows exhibit well developed glassy selvages and interiors with well developed vesicles. Rocks are non-magnetic with a trace

16830 190.90 19	1.86 .96	1	nil	ni 1
16831 191.86 193	2.93 1.07	1	nil	nil
16832 192,93 193	3.91 .98	1	nil	nil

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locally. The rocks in the upper section are often carbonatized but carbonatization is not observed in pillowed flows.

- 193,91 207,40 Fine grained non-magnetic massive flow moderately. chloritized and pervasively carbonatized with decreasing carbonatization down section. A weakly intrusive dioritic porphyritic of composition with 1 to 2 mm pink feldspar phenocrysts is noted between 198.70 and 199,52 meters. This zone is moderately to strongly carbonatized and is weakly magnetic.
- 207.40 210.34 fine to very fine grained massive flow gradual fining trend down-hole.
- 210.34 211.07 Sheared and brecciated flow contact zone in basal flow - abundant hematite filled fractures. A minor trace of magnetics suggests that the hematite carries some magnetite.
- 211.07 211.45 Aphanitic, angularly brecciated flow top.
- 211.45 260.09 Very fine grained to aphanitic non-magnetic pillowed flow. Well developed selvages are exhibited except for a section between 232.00 and 233.70 meters where few pillow rims are noted.

260.09 Heters END OF HOLE.

Note | Hansing wall logged by N. Downey.

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BARRICK RESOURCES CORPORATION LTD.

An Annual Report on Exploration Activity for the Year 1985

on the

Barrick West Block Property

RECEIVED

APR 2 5 1986

MINING LANDS SECTION

R. Brian Alexander A.W. Workman

December, 1985



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INTRODUCTION

The West Block Property is located in the western portion of Harker Township, Ontario, Larder Lake Mining Division.

The property is approximately 5 km. west of the McDermott Project and 51.5 km. east of Matheson, Ontario via highway 101.

Access to the property is by secondary gravel road, 3.2 km. south, from highway 101.

The West Block includes 37 contiguous, unpatented claims. The claims numbered L641387 to 406, and L641410 to 416 were staked by Camflo Mines Ltd. which merged with Barrick in 1984. Certificates of record were issued to Barrick Resources Corp. in March, 1985. Claims numbered L802656 to 659, L802668 to 669, and L802671 to 674 were staked in May, 1985.

PREVIOUS WORK

In 1982, Camflo Mines Ltd. staked claims numbered L'641382 to 641416, inclusive.

In 1983, Camflo Mines Ltd. established a surface grid for the purpose of ground control. The grid consisted of 30 km. of cut line, with 100 m. line spacing and 25 m. stations. Camflo conducted an EM-16 and a magnetometer survey over the above mentioned grid system. The equipment used was a Scintrex MP-2 proton magnetometer with a compatible base station for diurnal corrections, and the Geonics EM-16 using the transmitter at Cutler, Maine at 17.8 KHz. The survey was conducted over claims L641395 to L641416.

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In 1984, Camflo Mines Ltd. drilled one diamond drill hole on claim L641406. The drill hole was designated Mc.84-70 and was drilled to a depth of 240.6 m. along the hole. The BQ drilling was orientated at 360 degrees, with a minus 50 degree dip. The drill collar was located approximately 80 to 100 m. east of claim post #3 of L641406. No significant assays were obtained.

In 1984, claims L641407 to L641409 were cancelled by the recorders office due to overstaking.

Barrick and Camflo were amalgamated in July, 1984, as Barrick Resources Corporation.

Barrick Resources Corporation Ltd. became American Barrick Resources Corporation as a result of a corporate re-organization.

In 1985, Barrick Resources re-established a surface grid, for the purpose of ground control, since a forest fire destroyed a major portion of the 1983 surface grid. An airborne magnetometer survey, with 23,700 meters of flight line and 200 meter line spacing, was flown over the property. Simultaneously, 1:10,000 and 1:20,000 air photos were produced. A topographic survey was done in conjunction with the interpretation of the air photos, and a 1:5,000 scale map with 2 meter contour spacing was produced. Bedrock geology was mapped on a 1:5,000 scale on claims L641387 to 398, L802671 to 674, L802658 to 659 and the northern portion of L802657.

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REGIONAL GEOLOGICAL SETTING

The volcanic rocks of Harker and Holloway Townships are of Archean age and belong to the Superior Province of the Canadian Shield. This particular region is referred to as the Lightning River Area of the Abitibi Belt. The stratigraphy of the Abitibi Belt has been sub-divided as follows (Jensen, 1982):

Upper Supergroup	(Timiskaming Group (Blake River Group (Kinojevis Group (Stoughton-Roquemaure Group
Lower Supergroup	(Porcupine Group (Hunter Mine Group (Wakewada Group

The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkalic volcanism. Each cycle is topped by a dominantly sedimentary (tuffaceous), sequence which reflects relative quiescence in extrusive activity.

The tectonic regime in which the majority of these rocks are located is one of regional subsidence. The formation of a broad, east-west trending synclinal basin is attributable to this subsidence. The Destor-Porcupine Complex forms the north boundary of this basin, and the south side is marked by the Larder Lake-Cadillac break.

A few later intrusives have been emplaced into the volcanic succession. Compositionally, these rocks range from pyroxenite, diabase and lamprophyre, to diorite, granite and syenite. The mafic and ultramafic varieties tend to be found as narrow dykes whereas the intermediate and felsic varieties are more common as larger, more rounded bodies.

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The Destor-Porcupine Complex strikes approximately 075 degrees across Harker and Holloway Townships in the same approximate position as highway 101. Rocks to the south of this complex, or zone of dislocation, have approximately the same strike and dip 75 to 85 degrees south. All units top south - there has been no reported evidence of overturning in this area.

LOCAL GEOLOGY

Bedrock geology was mapped on a scale of 1:5,000, utilizing the surface grid and air photos for control on claims L641387 to 398, L802671 to 674, L802658 to 659 and the northern portion of L802657.

The claim block was found to be underlain by tholeiitic basalts and interflow sediments of the Kinojevis Group (Satterly, 1951).

Generally the units are striking east-west (between 076 and 100 degrees) and dip to the south (between 60 and 74 degrees). The basalts are right side up, younging to the south, as indicated by vesicular and pillowed flow tops in massive flows.

Specific descriptions of the individual lithological units have been provided in the previous report on exploration activities; dated December, 1985.

The 1984 diamond drilling intersected a wide band of sediments in claim L641406, with a true thickness of at least 100 meters. The sediments are striking roughly 060 degrees and probably dip approximately 75 degrees south. Massive beds occasionally contain graded bedding which indicate the sediments are right side up, younging to the south. This band of greywacke and argillite sediments was not reported in outcrop,but

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is apparently reflected in the form of an east-west trending magnetic low (less than 500 gamma contour interval).

The 1986 diamond drilling has tested east-west trending geophysical anomalies and the results will be discussed in the section of this report entitled "Diamond Drilling".

Seven major fracture directions were previously determined in the geological mapping program. Four of these seven interpretted fault directions are reflected in both the bedrock geology and the contoured geophysical data. The strike directions are listed as follows: 1) 004 degrees, 2) 024 degrees, 3) 068 degrees, and 4) 339 degrees.

It has been generally observed that north-south faulting post dates east-west faulting. Locally shearing and fracturing has been observed in outcrop, although no visible eastwest displacement was observed in the contoured magnetic data.

GEOPHYSICS

A VLF ground geophysical survey was completed over 59.3 kilometers of surface grid, with 100 meter line spacing and 25 meter stations. The instrument used was a Geonics EM-16, and the transmitter station used was Cutler, Maine with a frequency of 17.8 KHz. All in phase and quadrature reading were taken facing north, and presented in profile form as well as the contoured Fraser filter data.

There were 20 VLF anomalies, which are numbered on the accompanying map. They are generally weak anomalies, predominantly reflecting conductive overburden rather than bedrock conductors. The long axes of the anomalies are in an east-west orientation with three interpret#ed northeast-southwest trending breaks or faults.

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Anomalies 10, 11, 17 and 20 are probably associated with the intrusive contact (Satterly, 1951) in the northeast corner of the property. The intrusive has been tentatively assigned a syenitic composition.

Anomalies 12 and 16 are correlatible with a northeast trending break in the east-west VLF anomaly axes and coincident change in the contoured magnetic data.

An evaluation of the anomalies was done to prioritize which if any anomaly warranted testing with a diamond drill hole. Any diamond drilling in this area should be based on coincident VLF and magnetic anomalies, unless a more sophisticated geophysical survey gives more reliable anomalies. The following criteria was used to evaluate the EM-16 data: A) negative quadrature response indicating that the conductor is probably at depth and not associated with conductive overburden. B) strong in-phase response indicating the amplitude of response and the intensity of the contoured Fraser filter anomaly. C) good lateral extent of the contoured Fraser filter anomaly.

The following is a description of the individual anomalies:

ANOMALY 1 Location: Line 7+00 West between 7+70 and 8+40 North

- associated with a weak, east-west trending magnetic low.
- negative quadrature response.
- depth interpretted as 50 to 70 meters.
- partially associated with a topographic low.
- strong in-phase response with a good lateral extent.

ANOMALY 2 Location: Line 9+00 West between 2+20 and 2+75 North

- positive quadrature response.
- associated with a topographic low and swampy ground.
- correlated to the east with Anomaly 15.
- strong in-phase response and good lateral extent.

ANOMALY 3 Location: Line 9+00 West between 0+35 and 0+85 North

- positive quadrature response.
- strong in-phrase response with good lateral extent.
- associated with swampy ground and topographic low.
- associated with a weak, east-west trending magnetic low.

ANOMALY 4 Location: Line 11+00 West between 2+50 and 3+25 South

- positive quadrature response.
- associated with swampy ground.
- moderate in-phase response and poor lateral extent.

ANOMALY 5 Location: Line 11+00 West between 4+50 and 5+10 South

- positive quadrature response.
- associated with swampy ground.
- moderate in-phase response and poor lateral extent.

ANOMALY 6 Location: Line 14+00 West between 6+75 and 7+55 South

- positive quadrature response.
- strong in-phase response and moderate lateral extent.
- only partially defined due to the proximity to the western boundary.

ANOMALY 7 Location: Line 6+00 West between 8+30 and 9+35 South

- negative quadrature response.
- depth interpretted as 50 meters.
- associated with a topographic low.
- moderate in-phase response and lateral extent.

ANOMALY 8 Location: Line 12+00 West between 11+15 and 12+20 South

- negative quadrature response.
- depth interpretted as 55 meters.
- strong in-phase response and poor lateral extent.

ANOMALY 9 Location: Line 2+00 East between 9+40 and 9+70 North

- positive quadrature response.
- poorly defined due to the proximity to the property boundary.

ANOMALY 10 Location: Line 1+00 West between 7+60 and 7+85 North

- positive quadrature response.
- in proximity to intrusive contact.
- moderate in-phase response and poor lateral extent.

ANOMALY 11 Location: Line 1+00 East between 8+15 and 8+70 North

- negative quadrature response.
- depth interpretted as 70 meters.
- in proximity to the intrusive contact.
- moderate in-phase response and lateral extent.

ANOMALY 12 Location: Line 4+00 East between 7+60 and 8+15 North

- negative quadrature response.
- moderate in-phase response and good lateral extent.
- depth interpretted as 100 meters.
- correlated with Anomaly 16, trending northeast-southwest.
- appears to cross-cut intrusive.

ANOMALY 13 Location: Line 0+00 between 5+40 and 5+95 North

- positive quadrature response.
- weak in-phase response and poor lateral extent.

ANOMALY 14 Location: Line 2+00 West between 4+20 and 5+10 North

- negative quadrature response.
- depth interpretted between 15 and 20 meters.
- correlated with a syenitic intrusive from recent drill results.
- moderate in-phase response and good lateral extent.
- associated with the north side of a topographic low.

ANOMALY 15 Location: Line 2+00 West between 1+20 and 1+70 North

- positive quadrature response.
- correlated to the west with Anomaly 2 and a topographic low.
- strong in-phase response and good lateral extent.

ANOMALY 16 Location: Line 1+00 West between 0+60 and 1+30 South

- negative quadrature response.
- depth interpretted as 60 meters.
- moderate in-phase response with good lateral extent.
- correlated with Anomaly 12, trending northeast-southwest.

ANOMALY 17 Location: Line 6+00 East between 4+35 and 5+40 North

- negative quadrature response.
- depth interpretted as 70 meters.
- associated with intrusive contact.

ANOMALY 18 Location: Line 9+00 East between 4+80 and 5+15 North

- positive in-phase response.
- poorly defined due to the proximity to the property boundary.

ANOMALY 19 Location: Line 4+00 East between 1+70 and 2+30 North

- negative quadrature response.
- depth interpretted as 25 meters.
- strong in-phase response with good lateral extent.
- correlated to the west with Anomalies 2 and 15.

ANOMALY 20 Location: Line 12+00 East between 2+00 and 2+65 North

- negative quadrature response.
- depth interpretted as 50 to 75 meters.
- associated with the intrusive contact.
- poorly defined due to the proximity to the property boundary.

A magnetometer ground geophysical survey was completed over 59.3 kilometers of surface grid, with 100 meter line spacing and 25 meter stations. The instrument used was a Scintrex, Model MP-2, portable proton precession magnetometer. The diurnal variation was corrected by the use of a compatible base station and the total magnetic field data was plotted and contoured on a 1:5,000 scale map.

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Magnetic lows of less than 750 gammas, were shown in the northeast corner of the property and in a narrow band across the southwest corner of the property.

Government geological mapping (Satterly, 1951) has shown a felsic intrusive contact to be coincident with the magnetic low in the northeast corner of the property.

The low across the southwest corner has been shown by 1984 diamond drilling to represent a sedimentary horizon, consisting of greywacke and argillite.

Two smaller east-west trending lows are expressed in the northwest corner of the map sheet, coincident with VLF Fraser filter anomaly 1 and at the western limit of the baseline, coincident with VLF Fraser filter anomaly 3.

The highly magnetic contours are interpretted to be magnetic basalt flows, of the iron rich tholeiitic variety, common to the Lightning River Area.

Northeast-southwest trending breaks in the contoured magnetic pattern have been interpretted as faulting which probably post dates the felsic intrusive.

Four fracture trends at 024 degrees, 004 degrees, 068 degrees, and 339 degrees appear predominant, as exhibited by the interpretted linear breaks in the contoured magnetic data. These four interpretted fault directions are also reflected in the bedrock geology.



DIAMOND DRILLING

The 1986 diamond drill program consisted of two holes for a total cumulative depth of 465.56 meters. The two holes were designated Mc.86-259 and 260. They were drilled at an azimuth of 360 degrees, with a dip of minus 50 degrees.

Mc.86-259 was collared on Line 2+00 West at 4+00 North, and was designed to test a coincident VLF (EM-16) and magnetic anomaly. The VLF (EM-16) Fraser filter Anomaly #14 proved to be an east-west trending felsic dike of a tentatively syenitic composition. The intrusive locally exhibited a pegmatitic texture and was generally hematized to an orangy-brown to reddish-pink colour. The coincident magnetic low appears to be the transition of strongly magnetic basaltic flows at the top of the hole to weakly magnetic basaltic flows at depth.

Mc.86-260 was collared on Line 2+00 West at 0+75 North, and was designed to test the VLF Fraser filter Anomaly #15 and to initiate a stratigraphic diamond drilling cross section along Line 2+00 West. The stratigraphic section would be to test for McDermott style mineralization in areas of poor bedrock exposure, coincident with east-west trending geophysical anomalies. The VLF Fraser filter anomaly is associated with a fault zone and a felsic dike in the upper portions of the hole.

The drill hole locations are plotted on the geology map, included with this report.

CONCLUSIONS AND RECOMMENDATIONS

VLF Fraser filter Anomalies 1 and 14 have been postulated to have a lateral continuity between them. Anomaly 14 has been tested by Mc.86-259. Examination of the drill core has indicated the VLF anomaly to be the expression of an intrusive at depth and the coincident magnetic low is explained by the presence of weakly magnetic basalts. The lack of anomalous assays suggests, that should a diamond drill hole be designed to test the more promising Anomaly 1, it would probably yield similar results.

It is recommended that should future diamond drilling be designed to test Anomaly 1 on Line 1300 West or Anomaly 3 on Line 1500 West, that it should take place in the summer months. This is due to the lack of a sufficient water supply in the immediate area during the winter months.

Anomalies 2, 15, and 19 have been tentatively assumed to be laterally contiguous. Anomaly 15 has been tested by diamond drill hole Mc.86-260.

Examination of the drill core indicates the anomaly is related to a Fault Zone and a felsic intrusive located near the top of the drill hole. A silicified zone at the base of the hole is not responsible for the geophysical anomaly.

The lack of McDermott style mineralization suggests that similar results may be expected if future diamond drilling is designed to test Anomalies 2 and 19, although Anomaly 19 has the most attractive geophysical characteristics. The position of future diamond drill holes should be determined by the simultaneous examination of available bedrock geology exposed in outcrop and the quality of the geophysical anomalies described within this report.

The proximity of diamond drill holes Mc.84-70, Mc.86-259 and 260 to Line 2+00 West, is advantageous to establishing a north-south fence of diamond drill holes. This pattern for future drilling would be designed to establish the presence of east-west trending McDermott style mineralization on the West Block Property.

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 Alexander, R.B. and Workman, A.W.; December, 1985
 "An Annual Report on the Exploration Activity for the Year 1985 on the West Block Property; Harker Township, Ontario Larder Lake Mining Division NOTE: Internal report for Barrick Resources Corporation Ltd. APPENDIX

•

_	BARRICK RESOURCES CURPORATION	
Co-oras: 10400.0 9800.0	DIAMOND DRILL CORD	HOLE NO. : MC. 86
Azimuth: 375.5	Section: 2+00W West Block	Property: West Block
Dip: -50.0	Core Size: BQ	Location: 2+00W 400N
Elevation: 5000.0		
Length: 256.3		Date Started: Jan. 27, 1986 Date Completed: Feb. 4, 1986
Measurement: Metric		Logged by: R. B. Alexander
Comments: Casing left in hole		

Depth	Azimuth	Dip	Decth	Azimuth	Dip	Depth	Azimuth	Dip
45.70 91.40		-48.0 -47.0	137.20 182.90		-46.0 -47.0	228.60 256.00		-47.0 -47.0

-----Log Summary-----

0.00 19.40 OVERBURDEN. 19.40 33.18 HIGH MAG BASALT. 33.18 35.05 SYENITE. 35.05 71.25 HIGH MAG BASALT. 71.25 72.95 BYENITE. 72.95 75.70 HIGH MAG BASALT. 75.70 78.75 SYENITE. 78.75 108.05 HIGH MAG BASALT. 108.05 125.66 SYENITE. 125.66 136.92 HIGH MAG BASALT. 136.92 137.85 SYENITE. 137.85 181.50 HIGH MAG BASALT. 181.50 183.60 EVENITE. 183.60 205.50 HIGH MAG BASALT. 205.50 210.27 SYENITE. 210.27 226.80 HIGH MAG BASALT. 226.80 232.00 SYENITE. 232,00 256.30 HIGH MAG BASALT. 256.30 END OF HOLE.

		BARRICK RESOURCES SORPORAT.	ION				_	de No. : Ge No. :	M 5-4
From	Ťο	Description	Sample	From	To	Length	⊁ Sul	Au	GW
0.00	19.40	OVERBURDEN							-
19.40		HIGH MAG BASALT Dark green to grey, very fine grained to medium grained, weakly to moderately coloritized massive basait. Decussate texture formed by coloritized lathes in a quartzo-feldspathic matrix.	20301	32.18	33.18	1.00	ŦR	. 34	. 34
33. 18	35.05	 23.50 28.00 Massive flow i dark green, medium grained, chloritized basalt with gradational upper contact. SYENITE Reddish brown to pink coloured, porphyritic, intermediate intrusive. Feldspar phenocrysts are up to 2 mm. Upper contact is sharp at 25 degrees to the core axis. Lower contact is sharp at 30 degrees to the core axis. Intrusive contains several basalt xenoliths. 		33. 18 34. 18			TR TR	. 34 . 34	. 34 . 30
35.05	71.25	Contacts are strongly chloritized and epidotized. HIGH MAG BASALT Dark green grey to grey, very fine grained to fine grained, weakly chloritized, strongly magnetic massive flow. Minor carbonate filled fractures are noted with fracture filling pyrite.	20304 20305	35.05 70.25			TR TR	. 34 . 34	. 32 . 34
71.25	72.95	SYENITE Reddish brown to pale grey, phaneritic, sericitized, intermediate intrusive. Upper contact is sharp at 40 degrees to the core axis with associated carbonatization in the basalt. Lower contact is sharp at 45 degrees to the core axis.		71.25 72.00			TR TR	.34 .34	. 25 . 32
72.95	75.70	HIGH MAG BASALT Same as above interval from 35.05 to 71.25 meters.	20308 20309	72,95 74,00	74.00 75.00		TR TR	tr tr	tr tr

		BARRICK RESOURCES	IUN					Hole No.:	M -259
		-						Page No.:	-3
From	Τo	Description	Sample	From	To	Length	× Sul	L Au	GW
75.70	78.75	SYENITE							
					76.70		TF		. 34
		Reddish brown to pale grey, phaneritic, sericitized,		76.70		.55	TF		. 19
		intermediate intrusive. Upper contact is sharp at 40 deprees to the core axis. Lower contact is at 45		77.85		.60 .90	1 T F T F		.20 .31
		degrees to the core axis. Carbonatization is associated with the upper contact.							
		77.25 77.85 Xenolith of basalt.							
78.75	108.05	HIGH MAG BASALT							
			20315	78.75	79.75	1.00	2-3	3.34	. 34
		Greenish grey, very fine grained to medium grained,	20316	107.05	108.05	1.00	TF	r tr	tr
		weakly to moderately magnetic, massive basalt 78.75 B1.60 Massive flow : green grey, medium grained,							
		chloritized basalt with gradational lower contact.							
		79.50 79.60 Quartz - carbonate veining with 5 to 10%							
		pyrite in fracture filling form.							
100 05	195 66	SYENITE							
169.67	150.00	STENTIE	20317	108.05	109.05	1.00	TF	tr t	tr
		Mottled orange brown to pale grey coloured, hematized,	20318	109.05	110.05	1.00	ΎF	tr t	tr
		pegmatitic intrusive. Rock composition is 80% quartz			115.05		TF		tr
		and feldspar, and 20% mafic mineral, possibly hornblende.			120.05		TF TF		tr
		Upper and lower contacts are weakly chilled and irregular		123.70	124.70	1.00	TF	• ••	tr tr
			L V U L L	12-11-10	100100	1 20			••
125.66	136. 92	HIGH MAG BASALT							
					126.60		1.6		tr
		Dark green grey, very fine grained to fine grained, chloritized, weakly to moderately magnetic, massive flow. Carbonate filled vesicles are noted locally. Magnetism is decreasing down section.	20324	135.94	136.92	. 98	TF	ł tr	tr
136.92	137.85	SYENITE							
			20325	136.92	137.85	.93	TF	tr tr	tr
		Same as above interval from 108.05 to 125.66 meters.							
137.85	181.50	HIGH MAG BASALT							
			20326	137.85	138.80	. 95	TF		tr
		Same as above interval from 125.66 to 136.92 meters.			160.60		1-8		tr
		150 CD 151 CD Eunite 1 to 14 in Eurotium filling four			161.60		2-4 AT		tr tr
		159.60 161.60 Fyrite 1 to 4% in fracture filling form associated with weak carbonatization.	20323	100.00	101.04		1.1	·	

۲	BARRICK RESOURCES	ION					ole No.: age No.:	M A 5-2
From To	Description	Sample	From	To	Length	¥ Sul	Au	6W 👝
	178.35 178.43 Fault goupe at 40 degrees to the core axis is strongly chloritized.							
81.50 183.60	SYENITE							
	Same as above interval from 108.05 to 125.66 meters. Locally a phaneritic, equigranular texture is noted to equivalent to upper syenitic intrusive.		181.50 182.50			TR TR	tr tr	tr tr
83.60 205.50	HIGH MAG BASALT							
	Same as above interval from 125.66 to 136.92 meters.		183.60			TR	tr	tr
	Minor orange prown, pegmatitic veins are noted up to 0.5		195.70			TR TR	tr tr	tr tr
	neters in width.		197.35			TR	tr	tr
	196.70 197.35 Pegmatitic intrusive with 1% pyrite.	20336	204.50	205.50	1.00	ŤŔ	tr	tr
205.50 210.27	BYENITE	20777	205.50	206 50	לטולט ו	TR	tr	tr
	Same as above interval from 108.05 to 125.66 meters. Upper contact is snarp at 55 degrees to the core axis. Lower contact is sharp at 40 degrees to the core axis.		209.20			TR	tr	tr
210.27 226.80	BASAL T							
	Dark green grey, very fine grained to medium grained, chloritized massive flow. Locally an conitic texture is formed by white feldspar in a chloritized matrix.		210.27 225.80			TR TR	tr tr	tr tr
226.80 232.00	SYENITE	007/4		007.00		70	b	•
	Same as above interval from 108.05 to 125.66 meters. Pegmatitic texture is patchy. Lower contact is sharp at 70 degrees to the core axis. Upper contact is at 50 degrees to the core axis. Weakly chilled margins are noted.		226.80 231.00			TR TR	tr tr	tr tr

	BARRICK RESOURCES CORPORATE	ION			Ho F a	le No.: ge No.:	M 5-259
From To	Description	Sample From	То	Length 1	4 Sul	Au	GW
232.00 256.30	Dark green grey, fine grained to medium grained, weakly	20343 232.00	233.00	1.00	TR	tr	tr
	chloritized, massive rock. Sub-ophitic texture is becoming better developed. No good volcanic textures						

256.30 END OF HOLE.

are noted.

		BARRICK RESOURCES CORPO	RATION		
Co-ords:	10075.0 9800.0	DIAMOND DRILL RECOR	D	HOLE NO. :	MC. 86-260
Azimuthi	375.5	Section: 2+00W	West Block	Property:	West Blo
Dipi	-50.0	Core Size: BQ		Locations	2+00W 0+75N
Elevation	5000. 0			B . 4 B . 4 B .	
Length:	209.3			Date Started: Date Completed:	
Measurement :	Metric			roððaq pà:	R. B. Alexander
Comments:	Casing left in nole				
	Depth Azimuth	ip Depth Azimuth D	ip Depth Azimuth	Dip	
	91.40 -4	.0 137.20 -46	. Ø		

-----Log Summary-----

0.00 19.55 OVERBURDEN.

19.55 66.12 BASALT.

66.12 69.45 SYENITE.

69.45 109.32 HIGH MAG BASALT.

109.32 180.74 DIORITE.

180.74 190.65 VARIABLY SILICIFIED BASALT.

190.65 209.26 DIORITE.

209.26 END OF HOLE.

BARRICK RESOURCES CORPORATION

Hole No.: MC. Page No. :

To Length X Sul

From

------ Sample From To

Au

260

0.00 19.55 OVERBURDEN

19.55 66.12 BASALT

Dark green grey, very fine grained to fine grained and billowed flows. Locally chloritized massive guartz-carbonate filled fractures are noted with associated epidotized and minor pyrite.

27.45 27.55 Tectonically foliated at 60 depress to the core axis associated with Minor pyrite.

34.35 Weakly sheared at 40 deprees to the core axis with svenitic veinlet associated.

- 44.00 48.35 Fault zone. Upper 3 cm foliated 60 degrees to the core axis with flow top filling pyrite up to 5% locally. Strongly foliated and weakly sheared at 45.1 meters at 55 degrees to the core axis. Locally pale prey silica dumping is noted with increasing pyrite content associated. 48.15 shearing at 60 degrees to the core axis.
- 49.75 63.90 Pillowed flow. Dark green grey, very fine grained to fine grained chloritized basalt with weakly to moderately developed selvages up to 3 cm wide. Selvages are chloritized and epidotized.
- 63.90 64.23 Is. Drange brown, phaneritic sericitized intermediate intrusive. Örande brown colouring is due to hematite alteration.

66.12 69.45 SYENITE

to orange brown, locally Pegmatitic, weakly Pale sericitized intermediate intrusive. Rock composition is 80 to 90% quartz and felospar with 10 to 20% mafic Upper contact is sheared at 60 degrees to the mineral. core Lower contact is sheared and weakly axis. chloritized.

69.45 109.32 HIGH MAG BASA	4L. I	
----------------------------	-------	--

Very fine grained to fine grained dark preen grey weakly chloritized billowed flow. Narrow selvages are weakly developed chloritized and epidotized. Vesicle noted locally. Strongly magnetic increasing down section. 93.24 94.04 Dark green zone of with silicification and carbonate alteration adjacent fractures.

20344	43.00	44.00	1.00	TR-1	tr	tr
20345	44.00	45.00	1.00	3-5	tr	tr
20346	45.00	46.00	1.00	1-2	tr	tr
20347	46.00	47.00	1.00	2-3	tr	tr
20348	47.00	48.00	1.00	1-2	tr	tr
20349	48.00	49.00	1.00	TR	tr	tr
20350	65.10	66.12	1.02	ŤŔ	tr	tr

20351	66.12	67.12	1.00	TR	tr	tr -
20352	68.50	69.45	. 95	ĨŔ	tr	tr

20353	69.45	70.45	1.00	TR	tr	tr
20354	92.32	93.24	. 92	TR	tr	tr
20355	93.24	94.04	. 80	1-2	tr	tr
20356	94.04	94.80	.76	TR	tr	tr

BARRICK RESOURCES

Hole No.: MC -260 Page No.: 3

From	To	Description	Sample	From	Τo	Length	¥ Sul	Au	GW 🌰
		i to 2% pyrite. Purple colour is developed locally. 105.05 105.45 Strongly epidotized selvage with carbonate-quartz filling. 1 to 2% pyrite. 108.73 108.77 Fink symmite intense. Reactive to HCL.							
109.32	180.74	DIORITE				-			
		Dents encourse films and the medium encourse measure			116.09		TR-1	tr	tr
		Dark green fine grained to medium grained massive			116.71		TR-1	tr	tr
		intense. Chloritized mafic laths to 4 mm in a felsic matrix. Moderate to strongly magnetic. Too contact is indistinct appears to grade to a vesicular zone. Fines at base.	20309	179.84	180.74	. 90	TR-1	tr	tr
		Numerous stringers and veinlets of pink pegmatitic							
		felsic intrusives with hematite stain are noted at							
		111.73 111.79 White mica to 5 mm.							
		112.60 112.93 White mica and feldspar to 5 mm.							
		114.39 114.43 White mica to 12 mm.							
		114.77 115.24 White mica to 2 mm.							
		116.20 116.52 Strongly magnetic.							
		138.57 138.72 White mica to 5 mm.							
		138.93 139.02 White mica to 5 mm.							
		152.25 152.33 White mica to 4 mm.							
		152.45 152.53 White mica to 5 mm.							
		152.68 153.16 Felospar to 8 mm.							
		156.82 157.10 White mica to 3 mm.							
		162.70 162.79 0.							
		164.63 164.72 0.							
		167.14 1167.53 Feldspar to 20 mm.							

180.74 190.65 VARIABLY SILICIFIED BASALT

Often 'cherty'. Non-magnetic. Possibly a ation along fractures gives a banded look.
ation along fractures gives a banded look.
grained feldspar porphyritic zones.
90% silicified. Grey very fine graine
basalt. Locally up to 2% pyrite.
60% silicified. Grey to buff grey-preen
30% feldspar phenocrysts.
90% silicified. Very fine grained gre
<. • • •

- 186.35 187.45 50% silicified. Grey fine grained intense. Feldspar phenocrysts to 2 mm. Trace to 1% pyrite.
- 187.45 190.65 90% silicified grey to grey-green basalt. 1 to 2% pyrite. Section at 188.74 to 188.83 meters is pink porphyritic SYENITE. 1% pyrite.

20360 180.7	4 181.90	1.16	1-2	1.03	1.19
20361 181.9	0 183.14	1.24	1-2	. 34	. 42
20362 183.1	4 184.05	. 91	TR-1	. 34	. 31
20363 184.0	5 184.94	.89	TR-1	. 34	. 30
20364 184.9	4 185.70	.76	1-2	tr	tr
20365 185.7	0 186.35	. 65	1-2	tr	tr
20366 186.3	5 187.45	1.10	1	tr	tr
20367 187.4	5 188.59	1.14	2	tr	tr
20368 188.5	9 189.67	1.08	1-2	tr	tr
20369 189.6	7 190.65	. 98	1	tr	tr

۲	BARRICK RESOURCES CORPORAT:	ION					lole No. : age No. :	
From To	Description	Sample	From	То	Length	¥ Sul	Au	GW
190.65 209.26	DIORITE							
		20370	190.65	191.59	. 94	1	tr	tr
	Dark grey green fine to medium grained mafic intrusive.	20371	201.52	202.72	1.20	1-2	tr	tr
	Fines at top contact. Silicification invades rock from overlying unit. Chloritic laths to 4 mm in felsic matrix. Top non-magnetic, becomes strongly magnetic down	20372	202.72	203.55	.83	TR-1	. 34	.28

. •

209.26 END OF HOLE.

202.48 to 202.65 meters.

section. Minor quartz-carbonate stringers. Cut by pink pegmatitic felsic intrusive bands at. 192.39 To 192.55, 201.60 to 202.16 with 3 to 5% pyrite, 201.97 to 202.16,



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AMERICAN BARRICK RESOURCES CORPORATION LTD.

An Annual Report on Exploration Activity for the Year 1985

on the

Worvest Option

(in parts of Harker and Holloway Townships, Ontario)

RECEIVED

APR 2 5 1986

MINING LANDS SECTION

A.W. Workman Senior Geologist

October 31, 1985



2005NW0395 63.4972 HARK

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Page 1 INTRODUCTION 1 Location of Property 1 Summary of Work **REGIONAL GEOLOGICAL SETTING** 2 DIAMOND DRILLING 3 3 Summary 4 Geology 6 Alteration **Mechanism of Alteration** 6 7 Silicification and Pyritization Albitization 8 8 Carbonatization **Gold Mineralization** 9 9 AIRBORNE GEOPHYSICS 9 Geophysics 10 Aerial Photography **Total Field Magnetics** 11 **Gradient Survey** 11 11 VLF Survey **GROUND SURVEYS** 12 12 CONCLUSIONS RECOMMENDATIONS 13 14 REFERENCES 15 APPENDIX

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INTRODUCTION



Location of Property

THE WORVEST OPTION is located approximately 50 kilometers east of Matheson, Ontario. It straddles the Harker-Holloway Township boundary about one kilometer south of Highway 101. Eleven claims make up the property - six in Harker and five in Holloway Township.

For a complete description of the property including claim numbers, road access, physiography and access to hydro, refer to the previous report:

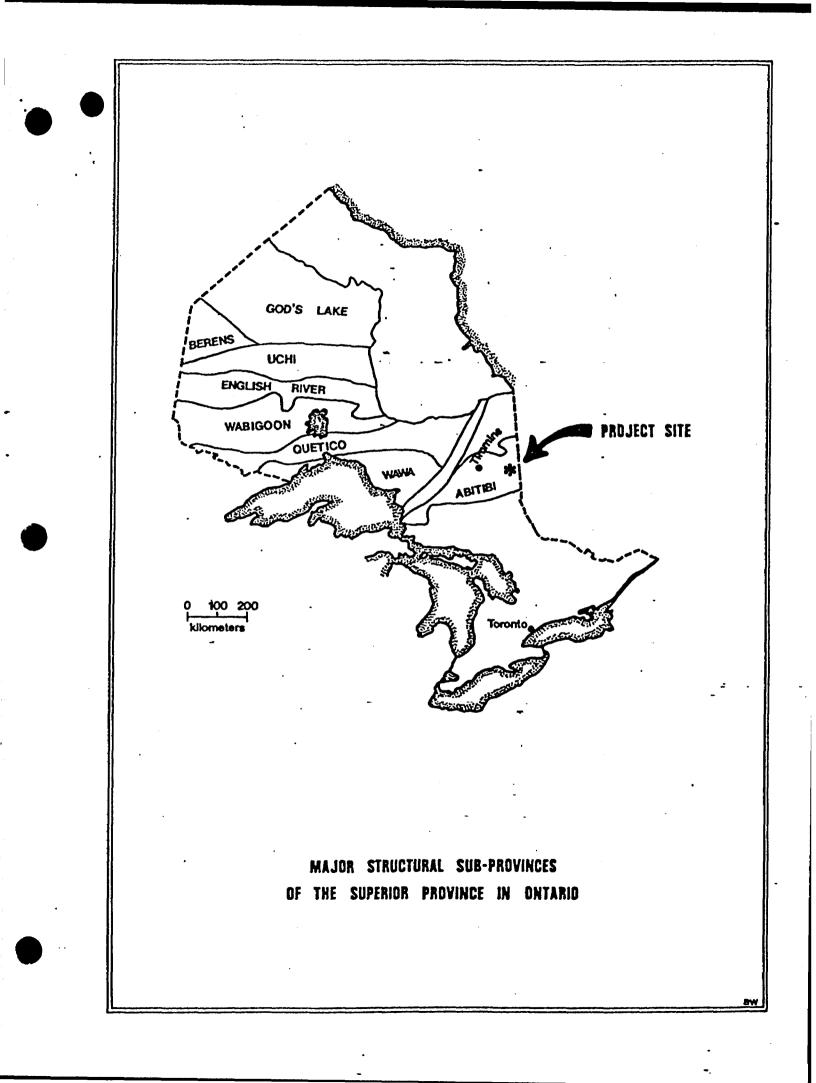
Summary Report of a Diamond Drilling Programme on the Lost Treasure (Worvest) Option Workman, Conquer, 1984.

Summary of Work

During the 1985 exploration programme, five holes were drilled on the Worvest Option. A total of 1,625.3 meters (5332.35 feet) of BQ diameter drilling was completed. The technical data on each drill hole is listed in Table 1. The purpose of this drilling was to follow-up on the favourable geology intersected during the period from June 15 to September 18, 1984. It was believed at the time that the area around lines 1+00E to 2+00W required further work (see previous report - Workman/Conquer, 1984).

In addition to this work, an airborne geophysical survey was carried out over the Worvest, and other, Barrick Options. The purpose of this survey was to provide information with regards to the possibility of other mineralized horizons on the property. This information would be utilized in the planning of future diamond drilling. Approximately 6.9 kilometers were completed over the Worvest property.

- 1 -



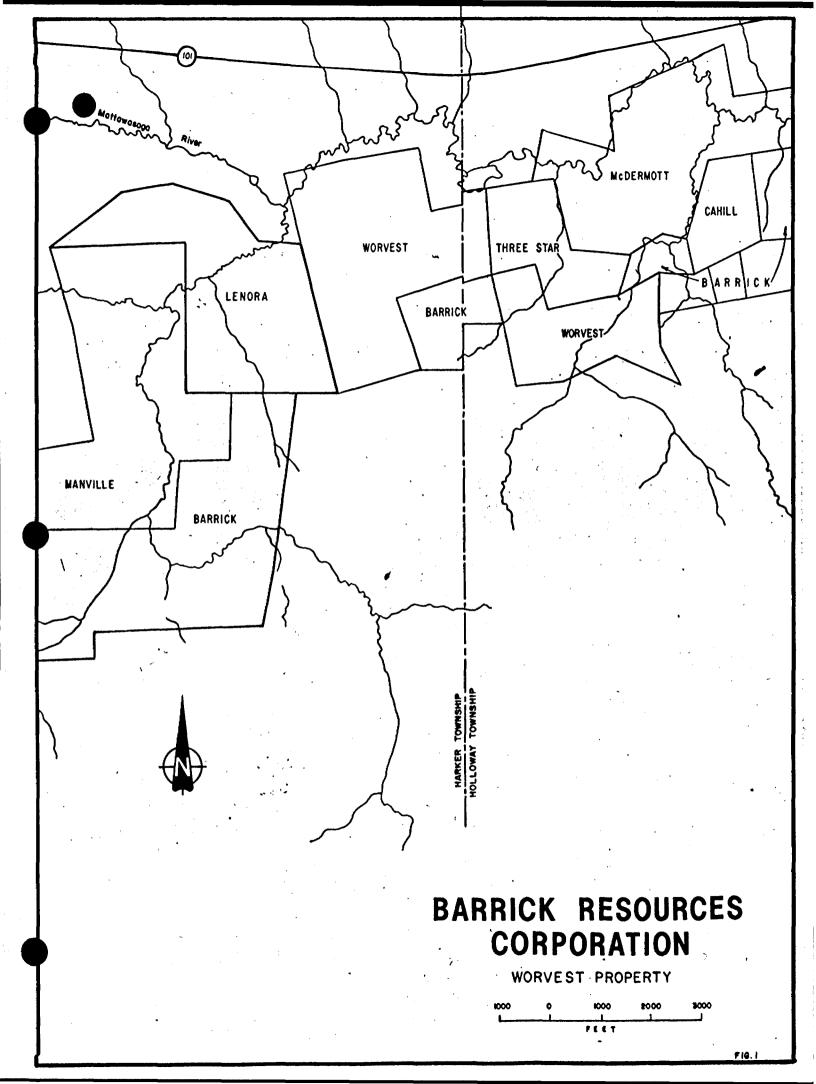


TABLE 1

DIAMOND DRILL HOLE DATA

DH	Location	Bearing	Dip	25165	Date <u>Started</u>	Date Completed
Mc.85-192	1+00E 1+22S	342.4	-65	-342.40	21-05-85	24-05-85 🛩
Mc.85-250	1+00E 2+10S	344.5	-70	386.18	8-08-85	16-08-85
Mc.85-251	1+50E 1+73S	349.2	-70	355.70	13-09-85	20-09-85 ·
Mc.85-252	0+00 1+22S	342.2	-65	321.50	27-09-85	4-10-85
Mc.85-258	1+50E 1+20S	350.6	-70	310.27	20-09-8 <i>5</i>	26-09-85 1

REGIONAL GEOLOGICAL SETTING

The volcanic rocks of Harker and Holloway Townships are of Archean age and belong to the Superior Province of the Canadian Shield. The stratigraphy has been subdivided as follows (Jensen, 1980):

UPPER SUPERGROUP	(Timiskaming Group (Blake River Group (Kinojevis Group (Stoughton-Roquemaure Group
LOWER SUPERGROUP	(Porcupine Group (Hunter Mine Group (Wakewada Group

The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkalic volcanism. Each cycle is topped by a dominantly sedimentary (tuffaceous), sequence which reflects relative quiescence is extrusive activity.

The tectonic regime in which the majority of these rocks are located is one of regional subsidence. The formation of a broad, east-west trending synclinal basin is attributable to this subsidence. The Destor-Porcupine Complex forms the north boundary of this basin, and the south side is marked by the Larder Lake Complex.

- 2 -

A few later intrusives have been emplaced into the volcanic succession. Compositionally, these rocks range from pyroxenite, diabase and lamprophyre, to diorite, granite and syenite. The mafic and ultramafic varieties tend to be found as narrow dykes whereas the intermediate and felsic varieties are more common as larger, more rounded bodies.

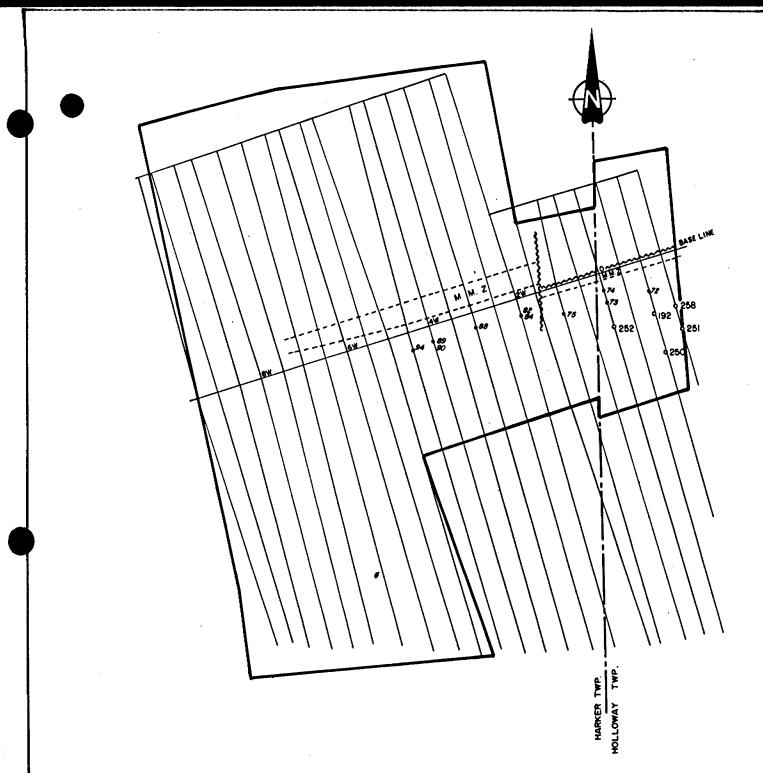
The Destor-Porcupine Complex strikes approximately 075 degrees across Harker and Holloway Townships in the same approximate position as highway 101. Rocks to the south of this complex, or zone of dislocation, have approximately this same strike and dip 75 to 85 degrees south. All units top south - there has been no reported evidence of overturning in this area.

The zone of interest which hosts gold mineralization is of tectonic origin. It crosscuts volcanic stratigraphy at a shallow angle. Present studies indicate that volcanic rocks cut by this zone are iron-rich and magnesium-rich basalts of the Kinojevis Group.

DIAMOND DRILLING

Summary

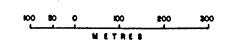
As previously given, a total of 1,625.3 metres were drilled in five BQ holes on the Worvest Option. The holes were intended to explore down dip and along strike from an encouraging zone intersected during the 1984 drilling programme. This 'favourable' geology consisted of well developed alteration, as well as geochemically anomalous gold values along strike from the McDermott Deposit.



• 75	1984	DRILLING	
o 250	1985	DRILLING	
MMZ	MAIN	MINERALIZED	ZONE

BARRICK RESOURCES CORPORATION

WORVEST DRILL HOLE LOCATIONS



Drill hole Mc.85-192 encountered low, and yet still highly anomalous gold values over narrow widths. Alteration in this hole was thin but encouraging. The following hole, Mc.85-250, intersected increasing alteration and higher gold values. The next two holes to be drilled were Mc.85-251 and 258. These holes cut good widths of alteration and ore-grade gold values across highly favourable widths. The final hole, Mc.85-252 was drilled into a separate zone of alteration approximately 150 metres west of the section with holes 251 and 258. This hole intersected well developed alteration, although it was narrower than the two overlying intersections (drilled in 1984 - Mc.85-73 and 74). Gold values were low to moderate in this hole although a narrow section did carry ore-grade mineralization.

Geology

As stated in the 1984 report on diamond drilling of the Worvest Option, further revisions of the geology along the McDermott zone were considered likely. In fact, major revisions have been made. these changes are due to:

- a substantial increase in the amount of diamond drill data from a total drilled footage on the project of 79,117' at year end, 1984, to 199,547' as of October 4, 1985;
- more extensive drilling along strike encountering more variety in style of mineralization; and,
- detailed petrographic and scanning electron microscope work on gold mineralization along the McDermott zone.

Country rock bordering the mineralized zone is composed of iron-rich and magnesiumrich tholeiitic basalts. In the specific vicinity of the Worvest Option, magnesian varieties are dominant. Very little alteration is noted in these rocks. The flows

- 4 -

exhibit well developed and often pristine volcanic textures. It can be shown that "basaltic composition is coincidental to the location of the ore-bearing zones" (Workman, 1985).

The host rocks to mineralization are recognized to be of intrusive origin. They were emplaced into an active fault zone. Two intrusive lithologies are present. The earliest was composed of quartz-diorite and has been deformed in a highly ductile (or plastic), manner. This rock has been converted to chlorite-carbonate and chloritecarbonate-muscovite schist. Little mineralization is found within this rock. Subsequent tectonism allowed a second intrusive, diorite, to be injected into this zone. This rock underwent brittle deformation. The resulting breccia, with its enhanced permeability was subjected to a long multi-phase history of fluid influx. These hydrothermal fluids altered and mineralized the brecciated, dioritic rock mass.

This brecciated and altered zone, as it crosses the Worvest Property, strikes approximately 074 degrees and dips south at 65 degrees. It comes to surface along the baseline.

Following tectonism along the zone, a few narrow late stage intrusives were injected into the rocks of this area. In general, they have a random, cross-cutting relationship to mineralization.

All rocks are offset by very late, north to north-easterly trending fault systems. The maximum displacement presently recognized is less than 100 metres in the horizontal plane. Several of these fault-types with lesser amounts of dislocation are noted on the Worvest Option cutting the base-line near 1+75E. and 1+50W. It is important to note that these structures are in no way involved in the mineralization process, neither

- 5 -

actively (in terms of genesis as a fluid conduit), nor passively (as a broken host rock).

Alteration

Silicification and carbonatization are the most prevalent forms of alteration in the rocks comprising the mineralized zone. Albitization, hematization and pyrite formation are also pronounced. All forms of alteration overlap and boundaries are entirely gradational.

The alteration sequence of events is as follows:

- chloritization and the release of iron as magnetite into intergranular spaces;
- 2) oxidation of magnetite to hematite;
- silicification as an ongoing multi-stage process coupled with each brecciation event, sulphidation of hematite to pyrite (with probable introduction of gold), albitization; and,
- 4) carbonatization ferroan dolomite near ore and calcite in more distal areas (with leaching and re-distribution of gold)

Mechanism of Alteration

The development of alteration was dependant upon two factors: firstly, the permeability afforded by brecciation; and secondly, the ability of altering fluids to penetrate radially away from micro-conduits into non-brecciated rock. It is the former of these two that is critical. Without fine brecciation on a maximum scale of 1 cm., complete alteration is retarded and penetrative fragment rim alteration is the result. Spatially, the higher levels of alteration in stages 3 and 4 are proximal to the actual plane (s), of brecciation and movement within this altered zone. Stages 1 and 2, as well as albitization are found beyond the limitations of extreme brecciation.

Enhanced permeability through multi-stage, brittle deformation, allowed altering hydrothermal fluids better access than they were afforded in the quartz diorites. At least 3 early stages of brecciation have been inferred through the examination of breccia fragments. Each stage has been accompanied by silicification, pyritization, and albitization, to form an aphanitic highly siliceous rock.

Silicification and Pyritization

It is visually apparent when logging drill core, that silicification and pyritization are the critical elements of alteration with respect to gold content. Hence, for correlation purposes, the alteration zone was sub-divided on the basis of silicification into the Main Silicified Zone with quantitatively greater than 95% silicification, and flanking Transitionally Silicified Zones with lower amounts of silicified rock. These zones are collectively referred to as the Main Mineralized Zone. Irrespective of where the ore is located, a well developed Main Silicified Zone is a necessary feature for good mineralization. Individual zones of silicification have a pod-like morphology as do the ore-grade sections within these zones. The zones are all on the same datum, being adjacent to the McKenna Fault, and have the same orientation. The silicified pods or shoots range in maximum thickness from 8 to 25 meters. Length and width dimensions range from 250 meters by 150 meters to several times this size.

Pyritized rock is found throughout the Main Mineralized Zone. Pyrite contents can locally reach 30%. These highs are associated with silica flooding in the most highly silicified sections. Within the Main Silicified Zone, pyrite commonly averages 3-5%. It is found as a very fine dissemination, as 1-2 mm. cubes and as 1-3 mm. blebs, often forming aggregates in the siliceous matrix to breccia. Coarse, 1-3 cm. clots are noted which encompass breccia fragments. Pyrite is common as a filling in healed fractures of various ages. Pyrite was initially deposited throughout the rock as indicated by very finely disseminated grains within early breccia clasts. Later stages of pyrite, including some grains which were subsequently brecciated, were confined largely to the matrix between individual breccia fragments. To some degree, pyrite was probably in a constant state of re-distribution during the brecciation -silicification events.

Albitization

Albitization is evident in thin section as euhedral, twinned plagioclase laths. These crystals could not have survived the stress imparted on this sequence of rocks. Albite has often been partially or completely replaced by carbonate.

Carbonatization

Carbonatization was the final alteration process. Proximal to ore, this event formed dolomite, while in more distal altered sections, calcite was deposited. The availability of iron, which was probably mobile throughout progressive alteration, aided in the formation of ferroan dolomite or ankerite. This carbonate can be easily seen on the weathered bedrock surface as an alteration invading a late brecciation event. In drill core, dolomite is frequently seen as a buff alteration penetrating dark purple-grey silicified breccia in the main silicified zone. Spatially, the best dolomitization is often found adjacent to the McKenna fault or other shears of the same age as the fault. The last stage of brecciation was related to final reactivation of the McKenna Fault. This remobilization created a grit and clay filled seam up to 10 cm. in thickness. A tectonic regime composed of ripped up silicified clasts supported in a mylonitic

groundmass is associated with the fault plane. Fragments of silicified rock carried in this zone bear 1-5 mm. dolomitized rims, thus indicating that minor carbonatization post-dated the last tectonic event.

Gold Mineralization

The following table lists the gold intersections from the 1985 drill programme.

	From	То	Length Est		Estimated	True Width	Gold Content		
D .D.H.	-mete	ers-	mtr	(ft)	mtr	(ft)	ppm.	(oz/ton)	
85-192	141.98 177.25	145.71 180.25	3.73 3.00	(12.2) (9.8)	2.50 2.00	(8.2) (6.6)	1.93 1.83	(0.056) (0.053)	
85-250	272.30 includes	277.47	5.17 2.49	(17.0) (8.2)	4.00 1.93	(13.1) (6.3)	3.32 4.60	(0.097) (0.134)	
85-251	218.44 includes	230.22	11.78 5.09	(38.6) (16.7)		(31.7) (13.7)	8.02 10.73	(0.234) (0.313)	
85-252	171.00 includes	174.20	3.20 1.16	(10.5) (3.8)	2.50 0.91	(8.2) (3.0)	3.26 4.69	(0.095) (0.137)	
85-258	152.28 includes	161.03	8.7 <i>5</i> 4.20	(28.7) (13.8)		(24.6) (11.8)	7.52 13.23	(0.219) (0.386)	

AIRBORNE SURVEYS

Geophysics

An airborne geophysical survey was carried out during the summer of 1985. The purposes of this survey were:

- to attempt to better delineate the trend of the McDermott mineralized zone;
- to determine the presence of any faults which might cross-cut and displace the zone; and,
- 3) to investigate the potential for any additional mineralized zones.

The contract was awarded to Geophysical Surveys Inc. of St. Foe, Quebec. The survey was flown in July, 1985, using a helicopter-born gradiometer. Two cesium vapour magnetometers of 0.005 gamma resolution and vertically separated by 2 meters, were towed under a helicopter at an average elevation of 45 meters above ground level. The average traverse spacing was 200 meters. The flight path recovery was recorded on video tape by a vertically mounted camera inside the helicopter.

The accessory equipment consisted of:

- a VLF-EM from Herz Industries, the TOTEM-2A, measuring the total field and quadrature component of the electro-magnetic field at two frequencies;
- 2) a Sonotek SDS-1200 digital data acquisition system; and,
- 3) a King KRA-10 radar altimeter.

Aerial Photography

Aquarius Flight Inc. have completed a series of flight lines, over the property for Barrick Resources. Aerial photographs were produced on two scales - 1:10,000 and 1:20,000. These photos were used to facilitate ground control for the geological mapping program and to prepare a photo mosaic for the helicopter-born geophysical survey.

Total Field Magnetics

The total field response varies from approximately 58,500 gammas for low magnetic (magnesium-rich), tholeiitic basalts, to greater than 58,900 gammas for the more highly magnetic (probably iron-rich), tholeiitic basalts. A pyroxenitic intrusive, in the centre of the west block of claims, has a response of from 59,000 to greater than 60,000 gammas.

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In general, this survey has confirmed the existence of more highly magnetic rocks striking approximately east-west across the north margin of the property. It is presently unknown whether these rocks represent a repeat in the iron-rich volcanic stratigraphy from further south, or, whether these rocks are ultrabasic flows belonging to the Stoughton-Roquemaure Group. This is not completely an academic matter since flow composition might influence future exploration plans apart from the main mineralized zone. The total field survey also delineates more highly magnetic flows to the south. The mineralized zone lies in the intervening sequence of less magnetic rocks.

An off-set on the magnetic contours indicates the possible presence of a fault along the vicinity of the Harker-Holloway Township line. Strike is approximately northsouth. Displacement seems to be sinistral and about 100 meters in magnitude.

Gradient Survey

The response of the gradiometer helps to highlight the position on surface of the contact between rock formation with different magnetic properties. The zero contour line is the definitive contour. Aside from generally supporting the notion of a fault along the township line, it will remain for future diamond drilling to evaluate the usefulness of this survey technique in this geological environment.

VLF Survey

Although few conductive responses are noted on the Worvest Option, this survey (generally), was able to detect northwest - southeast striking conductors. However, these conductors frequently undergo radical changes in response over short distances, thus making correlation difficult. Furthermore, no explanation has been adequate to explain the existence of these features and their affiliation is presently unknown. It is extremely doubtful whether mineralization could be associated with these conductors.

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GROUND SURVEYS

To accurately define the boundaries of the Worvest property, and the boundaries of other Barrick claims and options, Barrick personnel carried out a survey to locate internal and perimeter borders. Included in this job, has been the surveying of individual drill holes into an idealized McDermott Grid System so that any drill hole can be accurately located with respect to any other drill hole. The existing cut grid lines and their picket stations were inaccurate for this purpose.

CONCLUSIONS

On the basis of our experience on the McDermott Properties, and the results from the exploration work carried out in 1985, the following conclusions are presented.

- The McDermott mineralized zone crosses (on surface), the Worvest Option and dips steeply south.
- 2) The altered and mineralized zone locally carries ore-grade gold mineralization over moderate to broad widths.
- The general style of alteration closely matches that observed within the McDermott Deposit.
- 4) Sufficient variation in the quantity of gold associated with particular intensities of alteration, makes the initial visual estimation of gold content more of an art than a science.
- 5) Because of (4) above, there is no present size (tonnage) estimation of how large these altered, and/or ore-bearing zones might be.
- 6) The alteration zones seem to have a westerly plunge, generally similar to other mineralized zones, and ore-grade mineralization likely has a similar attitude.
- 7) The gold-bearing zones warrant considerable follow-up diamond drilling.

8) There is no single recognizable geophysical feature or signature to the known mineralized zone on the Worvest property although it is generally associated with a magnetic low. Hence, it is unlikely that any additional zones will be found purely through geophysical means. The best means will be to apply knowledge gained elsewhere to this property in an integrated exploration approach.

RECOMMENDATIONS

The results of the 1985 exploration programme speak for themselves and the recommendations are obvious.

- Future diamond drilling is imperative to increase the drill hole density around the existing zones and to trace their down-dip extensions. The planning of this drilling should take into account the apparent westerly plunge but should also remain open to variations in attitude.
- 2) This diamond drilling should concentrate in the area south of the base-line between lines 1+50 west and 1+50 east.
- 3) A minor amount of investigative work with regards to the trace element major oxide profile of the zone on the Worvest Option is proposed to fully quantify the apparent similarity to other mineralized sections, on the McDermott Property.

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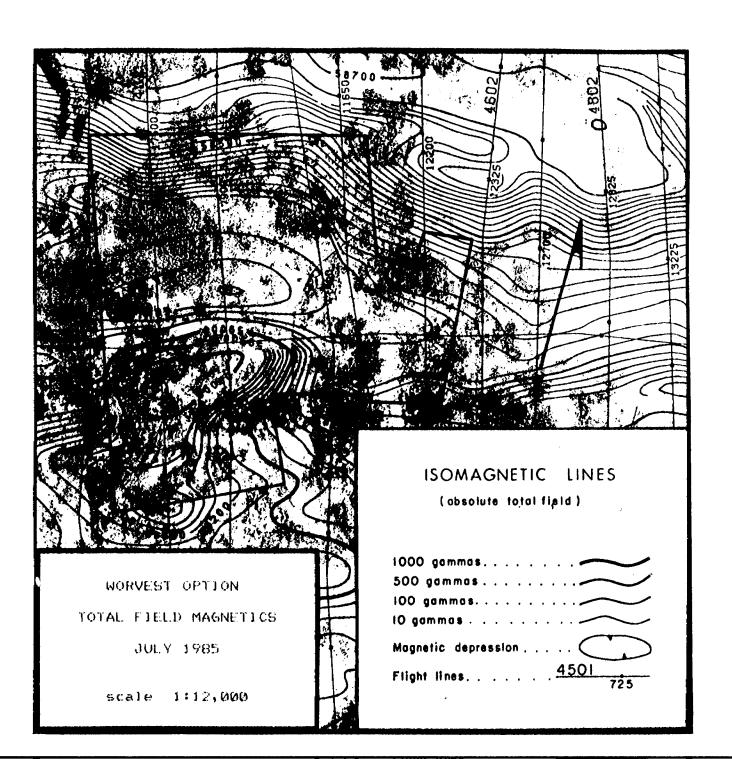
REFERENCES

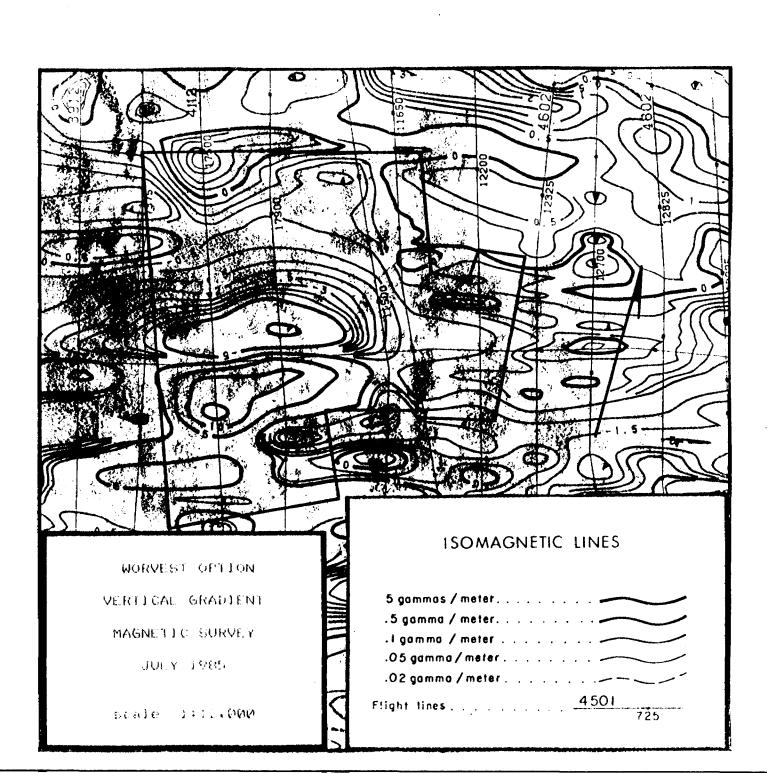
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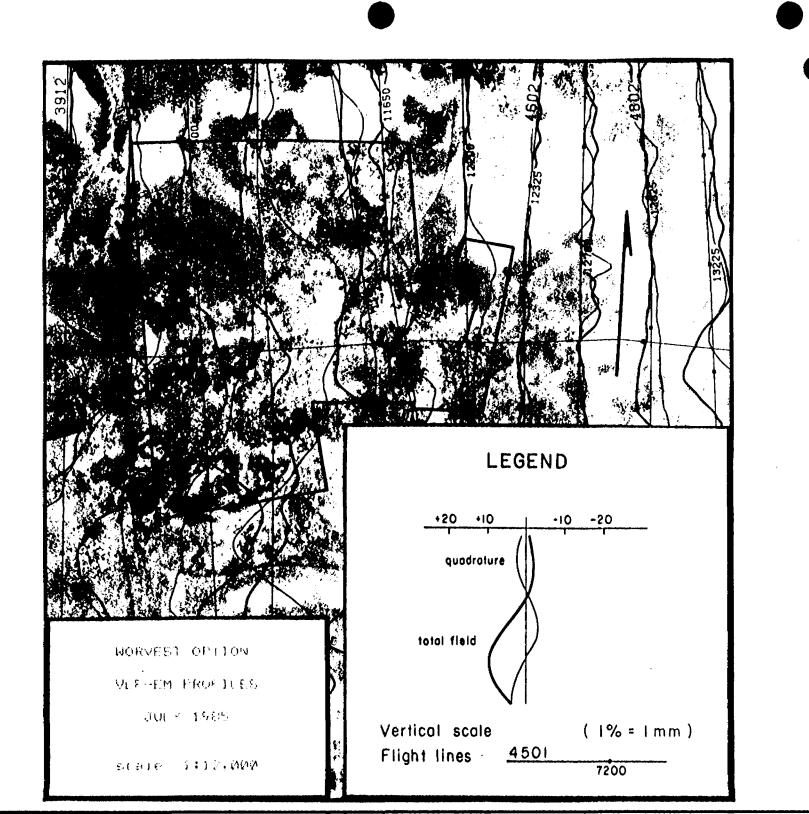
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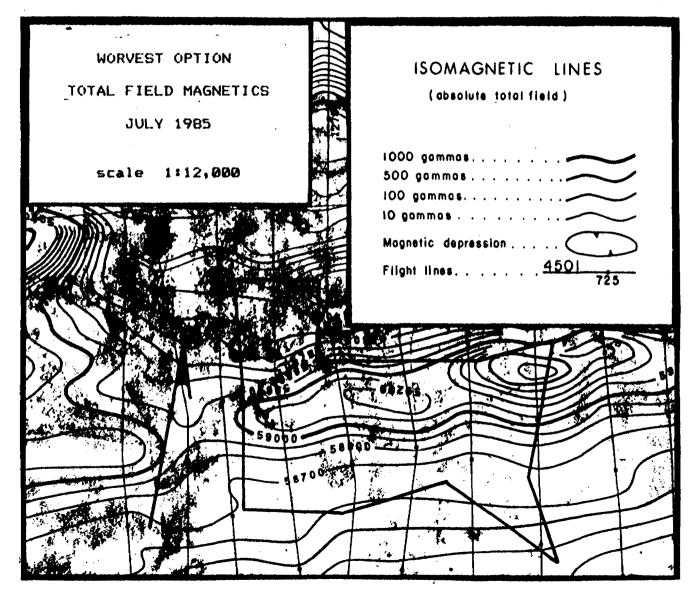
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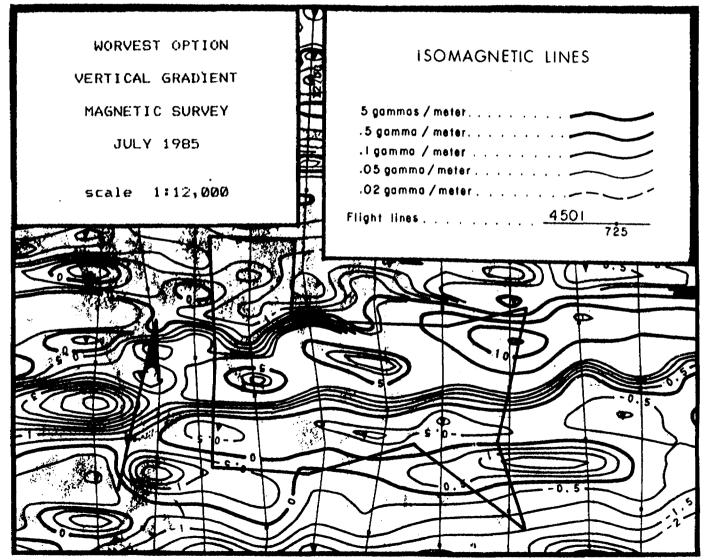
APPENDIX

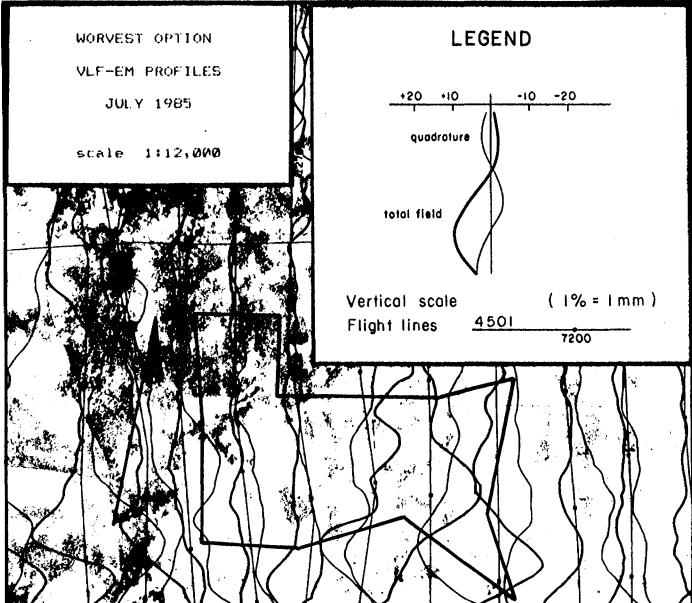












Co-ords1	9877.9 9099.9	DIAMOND DRILL RECORD	HOLE NO.: MC.85-192
Azimuth	342.5 Des.	Section: 100E	Property: Worvest
Dirl	~61.0 Des.	Core Size: BQ	Location: 1+00E 1
Elevation	4998.3		
Lensthi	251.6		Date Started: Hay 21; 1985 Date Completed: Nay 24; 1985
Neasurement:	Netric		Logsed by: S. Conquer
Conments:	Casing left in ground		

Derth	Azimuth Dip	Depth	Azimuth Dip	Derth	Azimuth Dip
61.00	-60,5	182.90	-55.0	243.80	-30,5
121.90	-59,0	204.80	353.5 -55.0	249.90	352,0 -51,0

-----Log Sunmary-----

0.00 28.04 DVERBURDEN.

28.04 134.84 BASALT.

134.84 141.40 CHLORITE-CARBONATE SCHIST.

141.40 199.26 HAIN NINERALIZED ZONE.

141,40 141,98 TRANSITIONALLY SILICIFIED ZONE.

141.98 145.71 MAIN SILICIFIED ZONE.

145.71 180.73 TRANSITIONALLY SILICIFIED ZONE.

180.73 181.61 LOWER SILICIFIED ZONE.

181.61 186.42 TRANSITIONALLY SILICIFIED ZONE.

186.42 187.13 LOWER SILICIFIED ZONE.

187.13 199.26 TRANSITIONALLY SILICIFIED ZONE.

199.26 215.72 CHLORITE-CARBONATE SCHIST.

215.72 251.65 BASALT.

251.65 END OF HOLE.

Au

GW

0.00 28.04 OVERBURDEN

28.04 134.84 BASALT

Dark green to pale greaf fine grained with both coarse and very fine grained to aphanitic phases. Finer grained pillowed flows and relatively coarser grained massive are found in the section. Flows are well flows structured with vesicular, often angularly breccisted tops and less broken interiors. Flow top breccia is characterized by highly angular clasts and relative uniformity of alteration. Lavas are non~magnetic; locally weakly to moderately magnetic (flow margins) selvages, etc.). Localized epidotization and silicification of breccia in flow tops is observed. Pillow selvages have devitrified to chlorite-epidote, whereas interiors are strongly silicified.

28.04 48.04 Fine to very fine stained fillowed flow. 48.04 48.74 Flow contact.

48.74 56.39 Fine to very fine grained massive flow. 56.39 59.13 Fine to very fine grained rillowed flow. 59.13 71.94 Medium to coarse grained flow centre, 66.94 to 67.18 meters ; intermediate composition intrusive. 60.36 to 61.88 meters : lost and ground core.

71.94 73.08 Fine to very fine grained massive flow. 73.08 79.30 Brecciated flow top - angular fragments. 79.30 87.12 Fine to very fine grained massive flow. 87.12 89.83 Intermediate composition intrusive, carbonatized and weakly magnetic. 88,46 To 89,30 meters : fault zone - pale sreen, very soft unit with angular basaltic fragments in a chloritic and locally carbonatized matrix. 89.22 To 89.29 meters | mylonitic section with small, up to 4 mm diameter fragments. 89,29 meters 1 1 cm thick clay seam, 89.83 92.01 Flow top breccis.

92.01 95.08 Fine to very fine grained massive flow. 95.08 99.90 Fine to medium grained massive flow.

99.90 127.07 Medium to coarse grained flow centre. 127.07 133.19 Fine to very fine grained massive flow. 133.19 134.84 Basal flow.

134.84 141.40 CHLORITE-CARBONATE SCHIST

Dark green, fine to very fine grained and variably foliated. A minor amount of the sequence has a distinct tuffaceous appearance with clasts up to Amm. The rock is

15230	135.00	136.00	1.00	0.5	.17	.17
15231	136.00	137.00	1.00	0.5	•17	.17
15232	137.00	138.00	1.00	0,5	tr	tr
15233	138.00	139.00	1.00	0.5	.17	.17

						Hole No.: Pa⊴e No.:		92
Description	Sam⊳le	From	Τo	Lensth	% Su	1 Au	GW	
weakly chloritized pervasively - perhaps due to regional			140.00		0.		tr	
metamorphism. The foliation is highlighted by selective			141.00		0.1		tr	
carbonatization of individual laminations. Bodies of carbonate alteration swell to cross-cut and feather out along the foliation. Carbonatization is revealed by a cream to rale grey colouration in an otherwise green	15236	141.00	141,40	• 40	0.1	5,17	.07	-

MAIN MINERALIZED ZONE 141.40 - 199.26 meters,

The 15 based upon amount and degree of 70DP silicification and it is composed of three members, of which the upper two are thinner than normal. Pyrite contents are lower than normal, most noticeably in the Main Silicified Zone. Fyrite content averages 5-7% in the Main Silicified Zone with up to 30% locally. The McKenna Fault Plane is not found in this hole. It is likely in sheared rock at 141,98-142,17 meters. 142.08 MCKENNA FAULT PLANE.

rock. Carbonatized laminations make up an average of 10% of the rock volume. The zone is weakly magnetic becoming moderately magnetic locally. Fyrite contents are up to 1% as a very fine grained dissemination and as blebs up to imm. 138,90 meters ; foliated at 50 degrees to the

All and the second s

141.40 141.98 TRANSITIONALLY SILICIFIED ZONE

core axis.

Well foliated, dark green chloritic unit. 25% silicified as purple to honey brown coloured alteration, Pervasive and selective carbonatization along foliation planes is noted throughout. Trace to 1% pyrite, locally up to 3%.

141.98 145.71 MAIN SILICIFIED ZONE

Intensely (95-100%) silicified with local seams of shear or McKenna Fault related chloritic material, The Hckenna fault is not present in this hole, but is probably represented by the chloritic zone from 141.98 to 142.17 meters. Along with silicification, this section has been hematized and shows 40 - 45% dolomitization and minor pervasive carbonatization. The alteration is controlled by fracturing and the moderately to well developed brecciation. Pyrite content averages 5 - 72, with up to 302 in the dolomitized sections.

shear developed chloritic zone; 141.98 142.17 Late represents McKenna Fault.

142,17 142,68 Dolomitized section, 5 - 7% pyrite, with 8 on of McKenna Fault chloritic material at 142,50 meters,

15238 1	41.98	142.67	.69	5-7	3.09	2.13
15239 1	42.67	143.07	+40	1-2	2,06	,82
15240 1	43.07	143.84	.77	30	.69	,53
15241 1	43.84	144.79	,95	5-7	2,57	2.44
15242 1	44.79	145.71	.92	5-7	1.37	1.26

15237	141,40	141.98	+58	0.5	tr	tr
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From

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Hole No.1 MC.85-192 Page No.1 4

GU

----- Sample From To Length % Sul Au

142.68 143.07 Hematized section: 1 - 2% very finely disseminated pyrite.
143.07 143.84 Dolomitized section: 30% pyrite.
143.84 145.71 Hematized section with 10 - 15% dolomitization: pyrite 5 - 7%.

145.71 180.73 TRANSITIONALLY SILICIFIED ZONE

Dark green and fine grained with aphanitic, purple-grey silicified breccia zones up to 20cm wide. Silicification is indicated by a dark greyish colouration but is strongest where purple hued. The site of silicification is almost entirely controlled by prior breccistion. Silicified breccia is occasionally honey coloured. Cream to honey coloured, pyrite rich alteration is noted as halos bordering fractures. Silicified rock carries 2-3% pyrite with up to 30% in paler varieties. Chloritized rock carries TR-1% pyrite. The amount and general degree of silicification in breccia decreases downhole. Zones of localized breccistion have provided sites for intensified silicification and puritization. This unit generally lacks definitive sedimentary or flow features. The only exception being the vesicular and selvage like structures noted at 157.45 meters.

- 145.71 147.45 25 30% silicification; with silicified hematized and dolomitized fragments noted within shear related chloritic material.
- 147.45 160.44 35 40% silicification, decreasing down section. Locally hematized and dolomitized. The alteration is fracture and breccia controlled. Vesicular and selvage like features noted at 157.45 meters. Trace to 1% disseminated purite within chloritic sections, up to 3 to 5% in altered rock.
- 160.44 167.44 As described above from 147.45 to 160.44 meters. 20 to 25% silicified with brecciation and alteration decreasing down section. 2 to 3% pyrite.
- 167.44 176.25 As described above from 147.45 to 160.44 meters - 10 to 15% silicified; 1 to 2% disseminated pyrite.

180,73 181,61 LOWER SILICIFIED ZONE

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Main Silicified Zone style alteration; 95 to 100% intensely silicified breccia. This section shows a dominant purple colour from hematization; and

15243	145.71	146.71	1.00	0.5	.69	.69
15244	146.71	147.45	174	0.5	.34	.25
15245	147.45	148.45	1.00	3-5	.51	.51
15246	148.45	149.45	1.00	3-5	+69	.69
15247	149,45	150.45	1.00	3-5	169	.69
15248	150.45	151.45	1.00	3-5	+69	٠69
15249	151.45	152.45	1.00	3-5	tr	tr
15250	152.45	153.45	1.00	3-5	tr	tr
15251	153.45	154.45	1.00	3-5	, 34	.34
15252	154.45	155.45	1,00	3-5	.69	.69
15253	155.45	156.45	1.00	3-5	+69	,69
15254	156.45	157.45	1.00	3-5	.17	.17
15255	157.45	158.45	1.00	3-5	.69	, 69
15256	158.45	159.45	1.00	3-5	1.03	1.03
15257	159.45	160.44	. 99	3-5	.17	.17
15258	160.44	161.44	1.00	2-3	+17	+17
15259	161.44	162.44	1.00	2-3	tr	tr
15260	162.44	163.44	1.00	2-3	• 86	,86
15261	163.44	164.44	1.00	2-3	.69	.69
15262	164.44	165.44	1.00	2-3	.69	.69
15263	165.44	166.44	1.00	2-3	tr	tr
15264	166.44	167.44	1.00	2-3	tr	tr
15265	167.44	168.44	1.00	1-2	+ 34	,34
15266	168,44	169.44	1.00	1-2	tr	tr
15267	169.44	170.44	1.00	1-2	17	.17
15268	170.44	171.44	1.00	1-2	,17	.17
15269	171.44	172.44	1.00	1-2	+17	.17
15270	172.44	173.44	1.00	1-2	tr	tr
15271	173,44	174.44	1.00	1-2	, 34	, 34
13272	174.44	175.44	1.00	1-2	+ 69	•69
15273	175.44	176.25	•81	1-2	,26	,21
15274	176.25	177.25	1.00	2-3	.69	.69
15275	177.25	178.25	1.00	2-3	3,09	3.09
15276	178,25	179.25	1.00	2~3	1.37	1,37
15277	179.25	180.25	1.00	2-3	1.03	1.03
15278	180.25	180,73	,48	2-3	.69	, 33

15279 180.73 181.61 .88 5-7 tr tr

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From

fo

Hole No.: MC.85-192 Page No.1 5 From ----- Semple From To Length % Sul តម to Å., approximately 40% dolomitized fresments. Avera≤e pyrite content is 5-7%. 181.61 186.42 TRANSITIONALLY SILICIFIED ZONE 15280 181.61 182.21 .60 2-3 .17 .10 15281 182.21 182.87 As described above from 145.71 to 180.73 meters, .66 2-3 tr tr ,17 silicification 40 to 45%, purite averages 2 to 3%, 15282 182.87 183.68 .81 TR .14 locally up to 7%. 182.87 To 183.68 meters ; syenite 15283 183.68 184.68 1.00 2-3 .17 +17 15284 184.68 185.68 1.00 dike - dark red and highly siliceous with relic feldspar 2-3 .17 .17 phenocrysts. 15285 185.68 186.42 .74 2-3 tr tr 186.42 187.13 LOWER SILICIFIED ZONE 15286 186.42 187.13 .71 2~3 tr tr As described above from 180,73 to 181,61 meters except pyrite averages 3 to 5%, locally up to 20% in dolomitized sections. 187.13 199.26 TRANSITIONALLY SILICIFIED ZONE 15287 187.13 187.75 0.5 .17 .11 . 62 15288 187.75 188.75 1.00 0.5 As described above from 145,71 to 180,73 meters. tr t.r 187.13 187.75 40 To 45% silicification, pyrite averages 15289 188.75 189.75 1.00 0.5 .17 .17 2 to 3%, locally up to 7%. 13290 189.75 190.75 1.00 0.5 t.r tr 187.75 196.76 15 To 20% silicified with purple-srey 15291 190.75 191.75 1.00 0.5 tr tr coloured, weakly silicified halos along 15292 191.75 192.75 1.00 0.5 tr tr fracturing. Locally intensely silicified, 15293 192.75 193.75 1.00 1-2 tr tr hematized and dolumitized sections are 15294 193.75 194.75 1.00 1-2 17 .17 Furite averages 1 to 2% in 15295 194.75 195.75 1.00 0.5 .17 .17 noted. chloritic rock and 1 to 3% in altered 15296 195.75 196.76 1.01 0.5 .34 .34 material, 190.60 meters ; foliation at 55 15297 196.76 197.76 1.00 1-2 .26 .26 degrees to the core axis, highlighted by 15298 197.76 198.76 1.00 1-2 . 69 .69 wispy yellow-green; micaceous material 15299 198.76 199.26 .50 1-2 .17 .08 and selective carbonatization. 196.76 199.26 As described above from 187.75 to 196.76 meters, 50 silicification and 1 to 2% disseminated pyrite. 4 199.26 215.72 CHLORITE-CARBONATE SCHIST 15300 199.26 200.26 1.00 0.5 .17 +17 15301 200.26 201.26 1.00 0.5 tr Dark green; fine to very fine grained and variably tr foliated. The rock is weakly chloritized pervasively -15302 201.26 202.26 1.00 0.5 tr tr perhaps due to regional metamorphism. The foliation is 15303 202.26 203.26 1.00 0.5 tr tr highlighted by selective carbonatization of individual 15304 203.26 204.26 1.00 0.5 tr tr laminations. Bodies of carbonate alteration swell to 15305 204.26 205.26 1.00 0.5 .17 .17 0.5 .17 cross-cut and feather out along the foliation. Rare 15306 205,26 206,26 1.00 .17 silicification is noted as a purple-grey hue within 15307 207.26 207.26 0.00 0.5 tr tr carbonatized seams. The foliation is occasionally

highlighted by thin (mm scale), parallel carbonatized

15308 207.26 208.26 1.00

15309 208,26 209.26 1.00

0.5

0.5

tr

tr

tr

tr

Hole No.1 MC.85-192 Page No.1 6

seams. The zone is essentially non-magnetic with a trace of magnetism locally.

199.26 207.51 Similar to the transitional silicified unit above however non-silicified. Thin sections of aphanitic dark green chloritic material are noted within green, flow to very fine grained, massive to weakly foliated rock. Pyrite contents are up to 1% as a very fine grained dissemination and as blebs up to 1mm.

207.51 215.72 The rock becomes well foliated with trace to 1%, locally up to 2% disseminated pyrite, 210.43 Meters : foliation at 60 degrees to the core axis, 210.50 Meters : minor brecciation, weakly silicified; hematized, 214.60 Meters : minor brecciation, weakly silicified; hematized,

	2	1	5	٠	7	2	- 2	:5	1	٠	65	5	P	A	S	A	L	T	
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4

Pale green to medium grey-green with few dark green phases and usually fine to very fine grained. Vesicular pillowed zones are occasionally found as the uppermost section in otherwise massive flows. Flow tops are varialitic locally with round to oblang varialities up to 5mm in size.

215.72 225.07 Poorly structured flow that shows foliation or shear planes, at 60 degrees the core exis at 217.30 meters, to Foliation - shear planes are highlighted hu selective carbonatization and vellow-green micaceous material. Variolitic sections are noted at 220,05 220.70 meters, associated with and aphanitic, dark green, chloritic horizons - flow contact zones, 221.51 to 221.71 meters : hysloclastite - variolitic section 225.07 245.10 Fine to very fine grained pillowed flow, Silicified and epidotized selvages are variolitic and exhibit minor locally hyaloclastite. 242.63 To 243.25 meters 1

- ansular fragments bleached to a vellow-green colour in a chlorite carbonate matrix, possibly a hydrothermal breccia zone.
- 245.10 251.65 Fine to very fine grained massive flow, vesicular down to 248.05 meters.

251.65 END OF HOLE.

Sample	From	Ťo	Len⊈th	7,	Su1	Au	GW	
15310	209.26	210.26	1.00		0.5	tr	tr	_
15311	210,26	211.26	1.00		0.5	.17	.17	
15312	211.26	212.26	1,00		0.5	tr	tr	
15313	212.26	213.26	1.00		0.5	.17	,17	
15314	213.26	214.26	1,00		0.5	, 34	, 34	
15315	214.26	215.26	1.00		0.5	.34	.34	
15316	215.26	215.72	.46		0.5	1.03	. 47	

From

To

Co-ords: 9790.6 9098.7 DIAMOND DRILL RECORD HOLE NO. 1 MC.85-250 Azimuth: 344.5 Des. Section: 1008 Property: Worvest -70.0 Heg. Core Size: BQ Location: 0499E Hipt Elevation: 4998.8 Date Started: Aug. 8, 1985 Lensth 386.2 Date Completed: Aug. 16, 1985 Lossed hy: S. Conquer Measurement: Metric Comments: Casing left in hole Depth Azimuth Depth Azimuth Dip Depth Azimuth Dip Dir 60,96 -70.0 243.84 -66.0 348.08 333.0 -61.0 \$27.67 334.0 -66.0 381.61 334.5 ~54.0 113.39 332.0 -20.0 186.54 332.5 ~68.0 304.80 -63.5 -----Log Submary-----0.00 41.15 OVERBURDEN. 194 1 14 41,15 235,90 BASALT. 235,90 254,43 VARIABLY SILICIFIED BASALT, 254,43 336,60 MAIN MINERALIZED ZONE. 254.43 269.37 TRANSITIONALLY SILICIFIED ZONE. 269.37 280.83 MAIN SILICIFIED ZONE. 280,83 336,60 TRANSITIONALLY SILICIFIED ZONE. Ч 336,60 347,95 CHEORITE-CARBONATE SCHIST, 347.95 386.18 BASALT. 386,18 END OF HOLE,

BARRIEN RESUURCES CONFURNITUR

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						t.	ase No.1	2	
From	Τo	Description	Samrle	From	Тө	Lensth % Sul	ÂU	GW	

BARRICK RESOURCES CORPORATION

0.00 41.15 OVERBURDEN

41.15 235.90 RASALT

14

Pale green to medium grey-green with few dark green phases and usually fine to very fine grained. Finer grained willowed flows and relatively coarser grained massive flows are found in the section. Vesicular Fillowed zones are occasionally found as the uppermost atherwise messive flows. Laves are section 111 locally weakly to moderately meanetic non-magnetic, (flow manding, selvages, etc.). Apart from weak to Pervasive entoritization) the rocks are moderate essentially unaltered. Fillow selvades have deviction to chlorite-epidote, whereas interiors are strongly. silicified, Cream to Fale tres 0.5-2.0mm specifing of is noted locally due to leucoscoptic 100 0010 overgrowths. Deerly weathered and fractured hedrock surface down to 51.50 meters.

- 41.15 47.16 Fine to very find stained massive flow-
- 47,16 51,00 Fine to medium grained massive flow.
- 51.00 87.19 Medium to course shained flow contrex sharr lower contact - possible lava tube marsin.
- 87.19 94.22 Fine to very fine grained massive flour weakly magnetic.
- 94.22 98.25 Fine to modium stained massive flow, weakly magnetic.
- 98.25 161.27 Medium to coarse grained flow centre: weakly to strongly magnetic locally down to 110 meters approximately, 102.44 to 103.00 meters : mafic sutrusive.
- 161.27 169.75 Fine to medium grained massive flow.
- 169.75 177.35 Fine to very fine grained massive flows with poorly developed basel section.
- 177.35 191.12 Vesicular and varialitic flow too breecia week minor hystoclastite.
- 191.12 221.91 Fine to very fine grained gallowed flow.
- 221.91 234.73 Weakly to moderately magnetics core becomes rervasively carbonatived below 233.25 meters approximately.
- 234.93 235.90 Fine to very fine stained measive flow non-magnetic and locally pervasively carbonatized.

235,90 254,43 VARIABLY SILICIFIED BASALL

Silicification as fracture halos and discrete breecia

15680	233.25	234,25	1.00	18~1	t r	tr
15681	234+25	234.93	.68	TR-1	s 1 2	.12
15682	234.93	235.90	,97	1 - 2	.17	,16

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Hole No.: MC.85-250

15683	235.90	236.93	1.0 <u>3</u>	1-2	. 34	.35
15684	235.93	237,93	1,00	1 - 2	1.2	·17

Hole No.: MC.85-250 Pase No.: 3

- P.	r	о	n	

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seams up to 2 cm wide is noted throughout. Nown section the fracture controlled alteration locally coalleces into purple-grey, hematized, weakly silicified and carbonatized zones that are weakly to moderately magnetic. These fractures may be intensely silicified, showing grey - cream - pink colour. The silicification only averages 1 - 22, being generally weakly developed, but locally may attain concentrations of 3 - 5%. Pyrite contents average 1%, but may be up to 7%. A preferred orientation to the fracturing of 40 - 55 degrees to the core axis is noted. This alteration is found to occur in fine grained - very fine grained basalts that locally show flow top features.

- 235,90 247,30 Fine to yery fine grained messive flow. Weakly developed alteration as described above with silicification up to 3%. Purite averages 1 to 2%, locally up to 6% associated with best silicification. 246,37 To 247,30 meters : basal flow.
- 247.30 252.80 Brecciated flow top ; sale green subrounded: locally subangular te vesicular fragments in a chloritic matrix. Meakly. developed silicification as described shove is noted. 248.40 Meters 1 shearing at 50 degrees to the core axis.
- 252,08 254,43 Fine to very fine stained massive flow. Bark green with purple to purple-grey hematized and weakly silicified seams. and weakly to moderately Vesicular magnetic throughout.

MAIN MINERALIZER ZONE : 254.43 ~ 336.60 meters.

based upon amount and desree of The zone is silicification and it is composed of three members, Both the upper and lower transitional zones are broader than normal, with the alteration being well developed throughout, Pyrite content is normal, finely disseminated throughout and as coarser clots in silicified rock. Purite content averages 3.5% in the Nain Silicified Zone with up to 15% locally. 269.53 MCKENNA FAULT PLANE.

254.43 269.37 TRANSITIONALLY SILICIFIED ZONE

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This zone is variably altered associated with fracturing and breccistion. Alteration is initially fracture controlled as surple-srew coloured, mm scale silicified, hematized and carbonatized fracture halos, These locally coallesce into broader sections of alteration where silicification becomes more apparent. Fracturing and preceistion increase in intensity down section with

Sample	E ron	То	Lensth	% Su3	<u>Au</u>	ឲស
15685	237.93	238.93	1,00	1-2	.69	.69
15686	238,93	239.93	1.00	1-2	.17	,17
15687	239.93	240.93	1.00	5~7	.34	.34
15688	240.93	241.93	1.00	1-2	, 34	134
15689	241.93	242.93	1.00	1-2	tr	tr
15690	242.93	243.93	1.00	1 - 2	tr	tr
15691	243.93	244.93	1.00	1-2	tr	tr
15692	244.93	245.93	1.00	TR-1	$\mathbf{t} \mathbf{r}$	tr
15693	245,93	246.37	. 44	TR-1	.69	.30
15694	246.37	247.30	• 93	1 - 3	1,03	.96
15695	247.30	248.30	1.00	TR-1	1.37	1.37
15696	248.30	249.30	1.00	TR-1	tr	tr
15697	249.30	249.96	.66	TR-1	tr	tr
15698	249+96	250.96	1.00	1 ~ 3	. 34	+34
15699	250.96	252.08	1.12	18-1	+17	.19
15700	252.08	253.08	1.00	1 R ~ 1	tr	tr
15701	253.08	254.08	1.00	18~1	.34	.34
15702	254+08	254,43	135	1R-1	.17	+05

1981.141

15703	254.43	255.43	1.00	2-3	2,40	2.40
15704	255.43	256.43	1.00	2 - 3	.17	• 1 7
15705	256.43	257.43*	1.00	2-3	.12	+17
15706	257.43	258.43	1.00	2-3	, 34	.34
15707	258.43	259+43	1.00	2 - 3	. 34	.34
15708	259.43	260.43	1.00	2-3	tr.	t r
15709	260.43	261.43	1.00	2 - 3	, 60	.69
15710	261.43	262,43	1,00	2 - 3	+12	,17

BARRICK RESOURCES CORPORATION

Hole No.1 MC.85-250 Pase No.1 4

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an associated increase in amount of silicification, hemstization and minor buff coloured dolomitization. The pervasive carbonatization noted in more weakly altered cones is not evident in most intensely silicified material. Carbonate filled fractures are noted throughout. Where relatively unaltered the rock is fine to very fine grained, rale to dark green and rossibly pasallic material non-magnetic, averages 55%, while purite content Silicification everages $2 \sim 3%$, with local concentrations up to 5% in altered sections. Fracturing and related deformational features show a dominant orientation of 50 - 60 degrees to the core axis. A second set of late offsetting fractures are noted at 135 degrees to the core acis.

15711	262,43	263.43	1.00	2-3	, 34	.34
15712	263.43	264.43	1.00	2-3	. 34	. 3.4
15713	264.43	265.43	1.00	2-3	1.03	1.03
15714	265,43	266.43	1,00	2-3	.34	+ 3.4
15715	266+43	267,43	1.00	2-3	.17	.17
15716	267+43	268.43	1,00	2 - 3	+17	.17
15717	268.43	269.37	,94	2-3	2.74	2,58

Lensth % Sul

To

Sample From

269.37 280.83 MAIN SILICIFIED ZONE

Purple-grey to honey or creak coloured, aphanitic, , intensely silicified preccia. Grev silicified rock has a purple hue due to a variable degree of hematization. This hematite is reduced to purite in the buff to honey coloured alteration patches and zones. Weak reaction to HCl is locally noted throughout this zone. The zone averages 3-5% pyrite as very fine disseminations and as clots filling voids in preccis. In honey coloured rock, purite content may locally reach 10-15%, mostly as clots. The rock is weakly to moderately coarser magnetic. The McNenna Fault is represented by a clay seam at 55 degrees to the core axis at 269,48-269,58 meters.

269.37 271.71 Purple to surple-grey with buff coloured dulomitized satches, 5 to 7% surfle in Annatized sections up to 10 to 15% in white to buff coloured zones. Meters : weakly folisted at 45 degrees to the core exis. 271.06 to 271.26 meters 1 derk sursle to dark red; siliceous intrusive spenitic. 271.53 to 271.71 Possibly meters : core has a translucent, siliceous SPPEBTSNC9.

271.71 272.30 Intermediate intrusive : Fale Fink to Fale sreen, moderately mashelic intrusive with a share upper contact and a gradational lower contact. 272.30 272.79 Purele to buff to sink coloured, very fine grained material, translucent silicons appearance throughout, 10 to 15% pyrite, locally higher in buff coloured retractions, 272,79 275,47 As described shown from 069,37 to 271.71 meters, further heastings colour is dominant with buff to cream and white dolowitreation overcenting. 5 lo 2% Forite up to 15% in dolomitized rections.

15718	269.37	270.37	1.00	52	1.71	1.71	
15719	220.32	271.06	, 69	5 - 7	2.40	1.65	
15720	271.06	271.71	.65	5.2	2.06	1.34	
15721	271.71	222.30	.59	ΤR	. 69	. 41	
15722	272.30	272.79	, 49	10-15	3.77	1 • ខ្លួន ្រុ	
15723	272.79	273.79	1,00	5	7.54	7.54	
15724	273.79	274.79	1,00	5	2.06	2.06	
15725	274.79	275,47	, 68	5	1,32	•93	
15726	275.47	276,47	1,00	3-5	1,03	1.03	
15727	276+47	277.47	1,00	3-5	3.77	3.77	
15728	277.47	278,47	1.00	3-5	1.37	1.37	
15729	228.42	279.47	1,00	3-5	1,03	1.03	
15730	279.47	280,23	.76	3-5	2.57	1,95	
15731	280,23	280,83	.60	3-5	5,09	1+24	

From

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Description

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275,47 280,33 As described above from 269,37 to 271,71 meters : dominantly surple-grey coloured with minor green, chloritic Fatches, 3 to 5% Fyrite throughout.

280,83 336,60 TRANSITIONALLY SILICIFIED ZONE

Pale to dark sreen, fine to very fine grained lock with purple to surple-grey and buff coloured alteration of breeciated zones, the rock is ressibly basaltic. locally the core is weakly foliated. The alteration breccie cones are of variable width and approximately parallel the foliation planes, pyrite content shows an within these zones. Late fractures are increase carbonate filled, and foliation planes are selectively carbonatized. This alteration becomes better developed down section.

- 280.83 282.40 75 To 80% silicified, surple-step to white, fracture controlled alteration, 2 to 3% disceminated purite. Weakly foliated at 45 degrees to the core axis.
- 282.40 302.08 25 Τo 30% silicified, dominantly surple-gres coloured with buff coloured fragments in breccia zones up to 20 cm in width. Breccia seams parallel the folistion at 55 to 60 degrees to the cure axis, - Furite generally 2 to 3%, locally up to 7%. Late 2 - 3 cm wide breccia zone approximately parallel to core axis with margins highlighted by yellow - green micaceous material.
- 302,08 316,72 5 To 10% runple stry to buff coloured silicified breccia and purele-snew silicified fracture halos. Locally well foliated at 50 degrees to the core axis. Trace to 1% publice locally or to 2%. Abundant late stage carbonate filled fracturing and carbonatized foliation Planes. A possible flow contact is noted at 316.30 meters.
- 316,92 325,92 35 To 40% altered as described above from 302.08 to 316.92 meters, 2 to 3% Fyrite, locally up to 2%. Carbonatized foliation planes and carbonate filled fractures are locally silicified. Foliated st 60 degrees to the core axis,
- 325,92 336,60 5% silicification only marginally transitional material. Alteration is restricted to thin breecia vones and frecture halos. Foliated at 40 degrees to the core spis.

15732	280.83	281,83	1,00	2-3	2.06	2.06
15733	281.83	282.40	•57	2.3	. 69	+39
15734	282,40	283,40	1.00	2-3	.17	+17
15735	283,40	284.40		2-3		
			1.00		tr	tr
15736	284.40	285,40	1.00	2-3	tr	tr
15737	285+40	286,40	1.00	2 3	,17	+17
15738	286,40	287,40	1.00	2-3	, 69	. 69
15739	287.40	288.40	1.00	2 - 3	tr	tr
15740	288,40	269.40	1,00	2 3	.17	.12
15741	289,40	290.40	1.00	2 - 3	.69	.69
15742	290,40	291.40	1.00	2-2	. 59	.69
15743	291.40	292.40	1.00	2 - 3	. 34	. 3.4
15744	292,40	293,40	1.00	1 - 2	.17	,17
15745	293.40	294.40	1.00	1-2	. 69	.69
15746	294.40	295.40	1.00	1-2	.34	1.34
15747	295.40	296.40	1,00	1-2	.17	1.1.2
15748	296.40	297,40	1.00	1-2	.34	.34
15749	297.40	298.40	1.00	1-2	+ 54	. 69
A515	298,40	299.40	1.00	1-2	+ 59	+69
15750	299.40	300.40	1.00	1-2	1.03	1.03
15751	300,40	301.40	1.00	1-2	.34	. 3.4
15752	301+40	302,08	. 68	1-2	+ 5 9	. 47
15753	302.08	303.08	1.00	TR+ 1	.17	+17
15754	303108	304.08	1.00	TR-1	• 89	. 65
15755	304.08	305,08	1.00	TR-1	1.03	1,03
15756	305.08	306.08	1.00	TF - 1	tr	tr
15757	306.08	307.08	1.00	1R-1	.34	.34
15758	307.08	308.08	1.00	TR-1	.69	169
15759	308.08	309,08	1.00	TR-1	,17	.17
15760	309.08	310.08	1,00	TR-1	.17	.17
15731	310.08	311.08	1.00	TR-1	tr	tr
15732	311.08	312,08	1.00	TR-1	tr	tr
15763	312.08	313.08	1.00	TR- 1	. 69	. 69
15264	313.08	314.08	1.00	TR-1	107	.34
15765			1.00	1 K+ 1	,12	
	314.08	315.08				517
15766	315.08	316.08	1.00	18-1	. tr	Lr
15767	316.08	316,92	- 84	TR-1	.17	,14
15768	316,92	317,92	1.00	2 - 3	1. r	tr
15769	317,92	318,92	1.00	2-3	1,03	1.03
15770	318,92	319,92	1.00	2-3	1,37	1.32
15771	319,92	320,92	1.00	2-3	1.03	1,03
15772	320.92	321.92	1.00	2 3	1,03	1.03
15773	321,92	322,92	1.00	5-3	t r	tr
15774	322.92	323,92	1.00	2-3	tr	tr
15775	323.92	324,92	1.00	2-3	. 34	. 34
15776	324.92	325.92	1.00	2-3	12	.17
15777	325.92	326.92	1.00	TR-1	.17	.17
10///	020172	120172	1.00	1.13 - 4	117	• 1 2

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TR-1

Hole No.: MC.85-250 Fase No.: 6

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From	To Restriction	Sample	From	To	Leasta	2 Su1	ñu	GU
		15778	326.92	327.92	1.00	TR - 1	.69	,69
		15779	327.92	328,92	1.00	TP-1	+ 34	+ 34
		15780	328,92	329.92	1.00	1 R+1	+17	+17
		15781	329.92	330.92	1.00	TR-1	.17	.17
		15782	330,92	331.92	1.00	TR-1	. 59	.69
		15783	331,92	332+92	1.00	TR-1	+17	+17
		15784	332,92	333.92	1.00	18-1	+17	.17
		15785	333,92	334.90	1.00	TROI	.17	.17
		15786	334.92	335.92	1.00	TR1	+12	+12
i v v		15787	335.92	336760	, 48	1 P - 1	(17	•12
36.60 34	7,95 CHLORITE-CARRONATE SCHIST							
		15788	336.60	337,60	1,00	1 R	.17	.12
	Hark green, fine to very fine grained, massive ${f t}$	o 15789	337.60	338.30	.20	TR	. 69	. 48

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Nork sreen, fine to very fine stained, massive to locally well foliated rock. The foliation is highlighted by selective and renotlative carbonatization, numerous carbonate filled fractures noted throughout. 338.30 To 338.72 meters 1 symmitic intrusive.

10100	000 + 61V	0 J / + O V	****	115	1 2 /	* # X
15789	337.60	338.30	.20	TR	. 69	. 40
15790	338.30	338.72	. 42	ΫR	.17	.07
15791	338,72	339,72	1,00	TR	+12	+17
15792	339.72	340.72	1.00	ŦR	.34	.34
15793	340.72	341.72	1.00	TR	tr	t r
15794	341.72	342.72	1.00	TE	•17	+17
15795	342.22	343+72	1.00	TR	+12	.17

347,95 386,18 RASALT

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Pale green to medium greenstreen with few dark green chases and usually fine to very fine grained. Finengrained villowed flows and relatively coarser grained massive flow: are found in the section. Vesicular villowed zones are occasionally found as the unrermost section in otherwise massive flows. Rocks are non-magnetic.

347,95 358,49 Fine to very fine grained massive flow.

358,49 362,50 Fine to yers fine drained Fillowed flow. Vesicular with chlorite and exidute rich f selvages and winor hydloclastito

362.50 386.18 Fine to vers fine scaled massive flow.

386.18 END OF HOLE.

•	i i		t.	41KKIUN (KED)	UUKGED 📦				•	
Ca-ar	dqe :	9826.5 9149.9		BIAMOND	DRILL R	ECORD			HOLL NULL	MC+85-251
Azimu	uth;	349.2 Des.		Secti	on: 15	0 E			Property:	Worvest
Diet	•	-70.0 les.		Core	Size: BQ				Location:	1450E 14755
Eleva	ation:	4997+2	•						Tinta Clantadt	Card 17. 1005
Lenst	th:	355.7					•		Nate Started: Nate Completed:	
Measu	urement:	Metric							rowaed pa:	D. S. Riddell
Comme	ents:	Casing left in hole								
		Depth Azim	uth Die	Derth	Azimuth	Dip	Derth	Azimuth	Dir	
		60,96 114,30 182,88	70+0 69+0 67+5	217,90 243,84 304,80	351.0	-68+0 -66+0 -58+0	354,18	343+5	- 61.0	
			Los Summar	· g · · · · · · · · · · · · · · · ·						
1		0,00 33.41 OVERBURDEN	•			•				
		33.41 213.77 BASALT.								1 m m + 2 to
		213.77 217.70 CHLORIT	E-CARBONATE S	CHIST.						
		217.70 266.26 MAIN MI	VERALIZED ZON	IE i						
		217.70 218.44 TRANSIT	IONALLY STLIC	TFIED ZONE	•				·	
		218.44 231.84 MAIN SI	ICIFIEB ZONE	•						
		231.84 238.90 TRANSIT	IONALLY SILIC	IFIED ZONE	•					
		238.90 251.89 LOWER S	TLICIFIED ZON	E.						
		251.89 266.26 TRANSIT	IONALLY SIFIC	TETET ZONE	٠					
		266.26 269.49 CHLORIT	S-CARBONATE S	CHIST,						
	1	269.49 271.15 SYENITE	•							
		271.15 313.03 CHLORIT	E-CARBONATE S	CH1914						
.		313.03 326.83 FOLIATE	BASALT.							
		326,83 355,70 BASALT.								
		355,70 END OF HOLE,								
x										

						He	nte No+t	hC,85-25:	1
						1'i	se Nort	2	
		н Н							
From	10	new Description	Samrle	From	3.0	Lensth 3 Sul	កម	0W	
									-

BARRICK RESOURCES CORFORATION

0.00 33.41 OVERBURDEN

33.41 213.77 BASALL

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Dark green to rale greaf fine grained with both coarse and very fine grained to arbanitic phases. Finer grained fillowed flows and relatively coarser grained massive flows are found in the section. These rocks exhibit weak shrinkase-type fracturing locally. The breaks are white carbonate filled. Flow tors are varialitic locally with round to oblong varialities on the filling. Flows are generally non-magnetic however the upper massive flow intrusive is moderately to strongly magnetic. Trace to 1% purite throughout.

- 33,41 54,70 Massive flow to dolerite 1 dark green, variably fine or to locally coarse grained. massive flow to basaltic composition Suborhitic texture of locally intrusive. distinct, acieular mafic minerals with whiter interstitial feldspare abundant Relatively unaltered with minor carbonate filled fractures and veinlets and minur eridolization. Variably magnetic, Patchy senerally non-mashedic down to 38.0 metersy becoming weakly to strongly megnetic down Trace to 1% disceminated surite section. throughout. The lower 0.5 meters of the unit grained and weakly magnetic is fine approaching the contact cone below.
- 54.70 54.76 Contect zone 1, step steps and very fine stained weak mm scale varialites along the bottom om of the zone. The opper contact is share at 25 degrees to the zone axis and the lower contact is at 40 degrees to the core axis.
- 54.76 68.25 Messive flow : dark green, medium to coarse stained massive flows similar is composition to the overlains material however lacking ÷ the subophilic terture and spanelie Properties. Relativels. unaltered and non-megnetic with trace to 1% revite: 54,82 To 64.95 and 65.45 to 65.88 meters : olive dreen to pink hued, very fine drained, vervasively carbonatized felsic intrusives, Possibly monronitie.
- 48.25 68.59 Flow bottom : srey coloured, eridotized and strongly carbonstized, carbonalt veined and strongly magnetic flow bottom with 5 to 7% finely crystalling system. 30% white to

18753	68,25	68.80	.55	3-5	. 34	,19
18754	68,80	69.38	,58	0-1	tr	t r
18755	69.38	70.25	.87	1-2	tr	t, r
18756	70.25	70.98	,73	2-3	tr	t r
18757	70.98	71.77	.79	1-2	tr	t.r
18758	71.77	72.26	.49	0-1	tr	t v
18759	72.26	73,52	1.26	0~1	.17	.21
18760	73.52	74.52	1.00	01	tr	tr
18761	111.00	112.00	1,00	0~1	ni l	ni 1
18762	112,00	112.80	• BQ	1-2	t r	tr
18263	112,80	113,80	1,00	Q - 1	nil	ni1
18764	212,77	213.77	1,00	TR-1	tr	tr

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Sample From

To tensth % Sul Au

cream coloured carbonate veining, the contact with the underlying sediments is marked by a 5 cm thick orange carbonate veinlet. 68.59 meters : contact at 70 degrees to the core axis.

- 68.59 68.80 Interflow sediment : Furple coloured, very fine grained, Foorly bedded, highly magnetic and strongly carbonatized interflow sediment. Bedding at 50 to 60 degrees to the core axis approximately. 1 to 2% disseminated synite throughout.
- 68.80 73.37 Massive flow and mongonitic intrusives 1 purple to snew coloured, generally very fine grained massive flux out by several very fine stained) pink hued monzonitic Baualtic material is strongly intrusives locally carbonatized and vers magnetic. weakly silleified 取り むね trace to 1% disseminated pyrite throughout. Monconitie intrusives are cliengly carbonatized: magnetic and weakly silicified with trace up to 3% disseminated rurater well developed chilled mardins are noted. Monconitic intrusives : 39.38 to 69.83, 70.25 to 70.98 and 71,25 to 71,77 meters, Below 72,28 neters the flow is medium desined, relatively unaltered and strongly magnetic.

73.37 73.52 Flow contact zone : epidetized and brecciated flow contact zone.

- 73.52 112.00 Fillowed flow : srew-sreen; very fine grained pillowed flow with 1 to 2 cm thick chloritic and epidotic selvases and fractured. weskly carbonatized end silicified sillow cores. Non-meanetic with trace to 1% parite and trace chalcopyrite. The upper 5.2 meters is an aphability massive flow tos, the first sillow selvage is noted below 28,70 motors and pillows becomes batter developed down section. Below 98.8 meters approximately. fracturing and silicification increases, pillous are grey and siliceous down section.
- 112.00 112.80 Tectonic breecia zone thishly broken and ground core: cut by abundant quartz ; veining, carbonate filled fractures and several green clausdrit seams. Bart green, highly bilicified, weakly eridotized basaltic frasments in a quartz vein matrix. Jue to the ground nature of the core orientation of the fault plane is impossible to determine.
- 112.80 152.05 Massive flow : sneeshreen, fine to medium grained, non-magnetic relatively unaltered massive flow. The order 2.0 meters is a very fine stained, fractured and

GW

To	••••••••••••••••••••••••••••••••••••••	scri	stion	
	,			
	moderately	t.o	highly	silici

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To Length % Sul Au

moderately to highly silicified flow top. Gradual coarsening trend down-hole below 114.80 meters approximately. Trace to 1% Pyrite as finely crystalline clots, 152.05 meters : sharp contact with the underlying foliated material at 55 degrees to the core axis.

4

152.05 153.08 Foliated flow contact zone, Fossibly interflow sediment with an intrusive component 1 dark green and fine grained with coarser grained fatches and minor highly carbonatized, brown material, Fossibly intrusive in nature, Moderately to weakly carbonatized throughout with minor wisey carbonate along the foliation. The material above and below is identical medium to coarse grained massive flow.

suddesting this unit may be a sheared intrusive. Lower contact with the underlying coarse grained flow is sharp at 80 degrees to the core axis.

- 153.08 160.57 Continuation of the massive flow above from 112.80 to 152.05 meters. Generally coarse grained with a gradual fining trend down-hole. 160.57 meters ; No flow bottom is noted and the contact with the underlying flow top precise is ground.
- 160.57 163.18 flow tor breccia : subangular to subrounded. very fine grained basaltic fragments with well developed reaction rims in a chloritic, eridotic matrix, fragments increase in size and becomes rounded down section towards the underlying massive flow,
- 163.18 190.58 Massive flow : greargreen, fine grained, non-magnetic, locally vesicular massive flow, Gradual coarsening trend down-hole. The upper several meters of the flou is fractured and locally vesicular with minor flow brecciated seems or patches. Trace to 1% disseminated surito and there chalcopyrite is associated with carbonate and minor cerbonatized, veinlets chloritized shears. Note: 15 cm of core is missing from 163.68 to 163.82 meters, the loss cannot be rationalized, Below 181.5 approximately, chlorite filled meters vesicles and minor felderar porphyroblasts are noted.
- 190.58 190.63 Foliated) epidotic flow contact zone. Foliated at 65 to 70 desires to the core axis, sharp lower contact at 65 to 70 desrees to the core axis. A distinct grain size difference is noted across this contact suggesting the underlying

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To Sample From

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material may be a sub-volcanic intrusive or lava tube.

190,63 213,77 Massive flow : fine to medium strained massive flow with a gradual coarsening trend down-hole. Non-magnetic and unaltered with trace to 1% relatively disceminated symile. Abundant carbonate minor chidote filled fracturings and ratchy eridolization is common. Carbonate filled fracturing and ผ่∉คย carbonatization increases down section approaching the underlying foliated zone. The flow is weakly foliated with abundant leurosene overgrowth below 210.9 meters The basel 2.0 meters is approximately. highly cerbonatized (30% wises cerbonate) and weakly foliated, the contact with the underlying foliated cone is marked by a in grain size: decrease distinct development of a contorted foliation and the lack of leucoxene overgrowth.

213,77 217,70 CHLORITE-CARBONATE SCHIST

Green to olive green, fine to very fine grained, well foliated and carbonatized, chloritic material. The foliation is highlighted by lensitic and wisey carbonate growth which is commonly contorted with the foliation. Approximately 30% of the core is white to pink carbonate with larger lenses displaying while to grey quartz cores however senerally less than 2% silicification is noted. Locally surple coloured, strongly carbonatized setches are noted, exhibiting a distinct hematitic streak. Weakly magnetic with trace to 1% disseminated perite Foliation : 214,55 meters of 50 degrees to throughout. the core axis, 215,90 meters at 55 degrees to the core axis: 216,80 meters at 60 degrees to the core asis:

MAIN MINERALIZED ZONE : 217.70 - 266.26 melers. H

The zone is based upon degree of silicification and is made up of 5 units, Generally the cone is thick and alteration is very well developed. The main silicified zone is moderately thick and a seperate thick, lower silicified - zone of Main Silicified Zone intensity alteration is noted. Pyrite values are denerally higher than normal, ranging from 1 up to 20%. 218.37 MCLENNA FAULT PLANE.

18765 213.77 014.70 1.00 TR~1 1 12 tr 18766 214.72 015.77 1.00 TR-1 1 7 .17 .99 18767 215,77 216,76 1R-1 .17 ,17 18768 216.76 212.70 .74 18-1 .17 .16

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Sample From To Length % Sul Au

18769 217.70 218.44 .74 1-3 1.03

Foliated and tectonically brecciated, chloritic and highly carbonatized rock. Generally 5 to 10% quartz are noted within lensitic carbonate growths. cores probably represent boudinaged These lenses quartz-carbonate veinlets, 2 to 10 cm thick zones of Main Silicified Zone intensity altered breccia are noted within the lower 25 cm of the unit. Quartz-carbonate filled veinlets and the foliation are increasingly disturbed down section approaching the McKenna Fault, Non-magnetic to very weakly magnetic with trace to 1% purite up to 5 to 10% within Main disseminated Silicified Zone intensity alteration, 218.37 To 218.44 meters : McKenna Fault represented by a 0.5 cm thick clay-grit seem and 6.5 on of brecenated substancerbonate in a ground chloritic matrix, strongly fradments carbonatized throughout. The classfit seen is at 60 degrees to the core axis.

218,44 231,84 MAIN SILICIFIED ZONE

4

to grey and commonly huff honey coloured; Purele aphanitics intensely silicified breccia. Finely brecciated with abundant senerally non-rotated ansular silicified, hematized end dolomítized freaments. Breccia is cut by several stages of later white quartz fracturing itself commonly displaced and offset filled by later fracturing and micro-faulting, Most intensely silicified sections display drey, amorphous silica dumping in voids between breccia fragments.

Mm to cm scale chloritic shears and tectonic breccia seams are noted throushout. These represent late stade faulting. 5 to 20% finely disseminated pyrite is noted throushout, generally highest values are noted within honey coloured zones. Coarser pyrite clots are noted associated along margins of late stade white quarty filled fractures. Generally non-magnetic however the upper 1.5 meters is weakly to moderately magnetic and minor, green chloritic patches are very weakly magnetic. Carbonatization is generally restricted to late stage carbonate filled fractures and less intensely silicified and chloritic patches.

218.44 218.89 Grey, and buff coloured, surple-sres intensels silicified อกด่ strongly pervasively carbonatized breccia. The upper 20 cm is rate purple-step breccis and is moderately magnetic, the lower 25 on is buff coloured, non-magnetic breecis. 3 To 5% perite is noted in the purple-snew breedies increasing to 8 to 10% in the buff coloured material.

218,89 221,76 Dark sursie rede ashenitic intensels

silicified, fractured and locally

18770	218,44	218,89	. 45	5-8	14,06	6443.0	
18771	218+82	219.78	,80	$\Box \sim 8$	7,20	6.41	
18772	219,78	220,21	.43	7-9	24.17	10.39	
18773	550.51	221.23	1.02	2 - 3	4.45	4.55	
18724	221,23	221.76	153	8-10	20.57	10.90	
18775	221.76	222.61	+85	4 - 5	5.14	4.32	
18776	222.61	223+53	, 92	5~7	12.69	11.67	
18777	223.53	224.04	+51	&~-8	6.51	3.32	
18778	224.04	224,64	.60	15-20	5.14	3.08	
18779	224.64	225.64	1.00	15-20	3.09	3.09	
18780	225.64	226.24	. 60	15 - 20	4,11	2,47	
18781	226.24	227.09	.85	10-15	9.60	8,16	
18782	227,09	227,93	+84	8-10	6.17	5.18	
18783	227,93	228.75	+82	8-10	4.80	3.94	
18784	228.75	229.50	,75	8-10	4,11	3.08	
19785	229.50	230.22	.72	10	10.29	7.41	
18786	230.22	230.80	• 58	2-3	1.71	, 99	
18787	230.80	231.84	1.04	3 - 5	2.40	2.50	

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brecciated material, probably an intrusive sygnitic. Where strongly breccisted the rock is altered a buff honey colour and contains 5 to 10% finely disseminated -purple red; relatively Furite. Bark unaltered material is weakly fractured with trace to 1% purite. The upper 1.3 meters of the zone is highly breccisted, 60 to 70% built honey coloured and paritic, moderately to strongly magnetic. Below 219.95 meters the core is non-magnetic. The upper and lower contacts of this intrusive are obliterated by buff honey coloured alteration with numerous red and dark survie coloured intrusive fragments. 221.76 Meters t a 3 cm thack zone of white fragments within a soft green chloritic matrix represents a tectonic braccia zone at approximately 35 degrees to the core axis.

. 221,76 224,04 Pervasively dark purple coloured and intensely silicified out by numerous late white quartz filled fractures. STRAF Approximately 5% white to great angulary siliceous fragments and 10% hidhly. estitics buff to red coloured oversigniting alteration is noted. Moderately to strongly renverively certonational throushouts non meanetic. 5 to 7% perite as a fine disseminations and crustalling concentrated in buff coloured clots 222.61 Neters 1 0.5 cm thick alterations breccia - shear cone at 20 tectonic degrees to the core axis.

224.04 226.24 Intensely silicified, buff coloured breccial with abundant white to snew silica dumping and minor grey to surple coloured, less altered material. 10 the to 30% parite as fine disseminations and finely crystalline clots, Non-meanetic and non-reactive to HCL throushout. This zone represents the most intenso silicification and the highest purite values in the hole.

226.24 227.09 Approximately 50% buff boney colouredy highly pyritic breccis and 50% dark purple coloured material. Out by abundant white stage quartz filled fractures. late Non-magnetic and non-reactive to HC1 with 10 to 15% disseminated purite throughout.

227.09 230.22 Bark Fursle coloured breccia with minor Patchy buff brown overprinting and abundant white quarty filled fractures. Intensely silicified, non-carbonatized and non-magnetic with 3 to 10% remite, 230,13 meters : 0.5 om thick surste coloured. 144 . . .

								le No.: Se No.:		~251
ł	10	Description	Sam le	EtGN	10	Leisth	% Sul	A (1	GW	
		foliated zone — shear zone at 40 degrees to the core axisa 230.22 231.84 As described above however locally weakly to moderately pervasively carbonatized			,					

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to moderately pervasively carbonatized with minor carbonate filled fractures noted throushout. Minor dark green, chloritic, patches and zones, generally less then 2% of the core, 2 to 5% disseminated pyrite.

231.84 238.90 TRANSITIONALLY SILICIFIED ZONE

From

Fine grained, dark green, chloritic material out by purple coloured breccia seams and white; pink; srey; cream and red coloured quartz and quartz carbonate These fractures are contorted, filled fractures. deformed and commonly offset alons micro-faulting and later fracturing. Venning exhibits distinct purrle to red coloured, mm scale silicification halos and the majority of silicification is fracture controlled. Where most intensely preceived and fractured, surple to huff brown, Main Silicified Zone intensity alteration is Approximately 70% moderately to intensely noted. silicified material and 20 to 30% dark green, chloritic, relatively unaltered rock. Minor carbonate filled fractures and locally weakly carbonatized, non-magnetic, senerally with 1 to 2 locally up to 5% disseminated purite.

238,90 251,89 LOWER SILICIFIED ZONE

4

Purple to srey, locally buff brown, intensely silicified breccia cut by several episodes of white cuartz filled fracturing. Most intensely silicified zones are buff brown coloured and exhibit abundant quartz filled fracturing and silica dumming. Silicification and alteration is breccia and fracture controlled unlike the predominant breccia control on alteration of the Main Silicified Zone, and parite values are generally lower. Generally non-magnetic and locally worlly carbonatized, generally 1 to 5% sprite, locally up to 10% in buff zones. Locally minor patches of relatively unaltered, dark green chloritic material are noted.

238.90 247.80 Grey to surple and locally buff brown intensely silicified breccia out by a network of white quarts filled fractures. Minors less than 2% greens relatively unaltered material is noted. Generally non-carbonatized and non-magnetic with 3 to 5 up to 10% finely crestalling disseminated parity.

18788	231+84	232.82	,98	1 ~ 2	L+37	1.34
18787	232.82	233.82	1.00	1-2	. 34	. 34
18790	233.82	234.84	1.02	1 - 2	.51	.52
18791	234.84	235+82	.98	3 - 4	1.03	1.01
18792	235.82	236,83	1.01	1 - 2	.34	.34
18793	236.83	237+80	.97	1 - 2	. 34	+33
18794	232,80	238.90	1.10	2-4	. 69	.76

18795 238.90	232.85	,95	$1 \cdot 2$	1.03	98
18296 239,85	240.81	.25	1 - 2	+ 59	. 66
18797 240.81	241,83	1.02	4- 6	.62	,20
18298 241.83	242.90	1.07	7.45	. 34	.36
18799 242,90	243.79	.89	4-5	1,37	1.22
18800 243.79	244.36	+57	$\Gamma \simeq 3$. 69	. 39
18801 244.36	245.30	.94	7-10	5.14	4.83
18802 245.30	246.06	.76	2-3	1.71	1.30
18803 246.06	246.97	.91	2-3	2.40	2.18
18804 246+97	247.80	+83	2 - 3	. 51	+42
18805 247,80	248.89	1.09	1-2	•17	.19
18806 248.89	249.80	.91	3-5	1,20	1.09
18807 249,80	250.58	,78	3-5	.69	. 54
18808 250,58	251.27	. 69	2-3	, 34	. 23
18809 251.27	251,89	.62	2 4	- 69	. 43

From

Description Sample From To Lensth % Sul

Au 6W

- 247.80 248.89 As described above however 15 to 20% relic sreen chloritic ratches noted, 1 to 2% disseminated pyrite.
- 248.89 251.89 Dark surple coloured, intensely silicified breccia with minor white quartz filled fractures and silica dumring. Moderately carbonatized with eervasively. approximately 5% surite as enhedral crystals and finely crystalline clots.

251,89 266,26 TRANSITIONALLY STLICIFIED ZONE

Green, fine grained massive rock cut by a randomly oriented network of white, sink, buff and cream coloured quartz filled fractures and patches of purple-srey to buff brown silicified breccie. Generally moderately wises white to eink highlighted foliated by quartz-carbonate along foliation alones and quarts sub-parallel to the foliation. Generally, veining fracturing and alteration intensity breccistion. decrease down section and foliation becomes better developed. Silicification becomes increasingly fracture controlled down section with white to cream coloured quartz filled fractures exhibiting mm scale surfle to buff coloured silicified halos. Numerous late stage filled fractures and local pervasive carbonate carbonatization is noted in the upper portion of the Carbonatization of wisne growths clong the 20ne. foliation, locally with pink quartz cores becomes more Prevalent down section. Generally non-magnetic with trace to 2% pyrite locally up to 3 to 5% in Main Silicified Zone intensity breccia seams.

251.89 257.93 70 To 80% silicified as Main Silicified Zone intensity broccis zones and randomly ariented network of quartz filled fractures and veinlets, 20 to 30% dark sreen, relatively unaltered material. Breccia is locally moderately represeively carbonatized. Non-meanchic with 2 or to 5% pyrite concentrated in cilicitied breecia Patches. 256,78 meters 1 1 cm thick brecciated seam - fault zone at 50 degrees to the core axis.

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257,93 261,40 As described shove from 251,52 to 257,93 meters however approximately 50% silicified meterial and 50% relie material. Increased carbonatization denerally as carbonate filled frectures, non-magnetics 1 to 3% discenshed sprite. 260,60 meters : foliated - veined at 35 degrees to the core exis.

261.40 266.26 Moderately to well foliated material with abundant quartzy quartz-carbonate and

18810	251,89	252.78	.89	1-2	.34	.30
18811	252.78	253,69	.91	1-2	134	+ 34
18812	253.69	254.80	1.11	1 - 2	.34	+ 38
18813	254.80	255.71	- 91	2-3	.17	. 15
18814	255.71	256.84	1,13	1 - 2	1.03	1.16
18815	256.84	257,93	1,09	2-4	.69	,75
18813	257.93	258.89	. 26	1	tr	tr
18817	258.89	259.88	,99	1-2	tr	tr
18818	259.88	260.81	. 23	1 - 2	.12	+16
18819	260.81	261.40	, 59	2-3	. 34	190
18820	261.40	262.46	1.06	1	ti	tr
18821	262.46	263.49	1.03	1	.69	+71
18822	243.49	254.44	,95	1 ~ 2	. 39	.65
18823	264.44	265.44	1.00	L	, 34	, 34
18824	265.44	266,26	.82	1	.34	, 28

RARRELL FLSUUFLES CONFUNDITION

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Samele From

filled fractures, renhonato utero and THIMETONS highly carbonalization silicified breacte seems. Approximately 10 to 20% silicified and 90 to 90% speere foliated and cerbonalized material. Carbonatization is restricted to fractures and wises white to rink carbon te growths foliations 10 F01A921A6 alons. is noted. Non-mashetic carbonatization with trace up to 2% disseminated purite. Poliation - veining : 261,80 meters at 50 desrees to the core shisy 263,80 deters at 55 degrees to the cove away and 265,90 meters at 65 dearees to the core exist

266.26 269.49 CHLORITE-CARBONATE SCHIST

Green, fine grained, non-magnetic, moderately to Fourly foliated conc. Foliation is highlighted by lengitic and wises carbonate growth along foliction planes out mm scale selective carbonate replacement of laminations. The foliation is commonly (datorted, Locally massive) relatively unaltered sections are noted. Carbonatization is restricted to wisey growths and carbonate filled fractures, sreen material is non-varbonatized. Locally carbonate lenses exhibit (in) to red colonied quarts cores, these are probably houdinaged quartz-carbonate veinlets. Amount of carbonativation and deduce of foliation decrease down section. Non-magnetic with trace to 1% disseminated runite, 288,90 meters ? foliated at 60 degrees to the core agis,

269,49 271,15 SYENITE

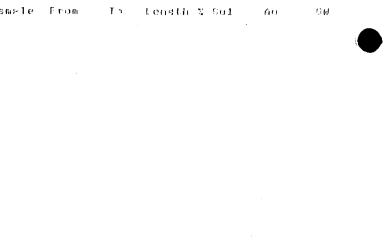
4

Dark red to rinks arhanitic, highly silicence, felse intrusive with white, indistinct relic feldspar phenocrusts. Minor late stear combonate filled fractures, non-magnetic, trees to nil purite, Contacts are sharp at 30 degrees to the core paid,

271,15 313,03 CHLORITE-CARBONATE SCHIST

i.

Continuation of the shove usit from 066.26 to 269.49 meters. Generally foliation is lass well developed down section. Locally the core has a mottled texture with indistinct dark green, chloritic clots within five scaned, moderately foliated rock. Foliation (271,96 motors at 60 degrees to the cure axis, 274,25 meters at 50 degrees to the core exis, 282:40 meters at 60



19825 266.2	6 267.19	.93	18~3	t, r	L r
18823 237.1	9 258.24	1.05	キセーキ	L r	tr
18827 268.2	4 269.49	1.25	18~1	0.1.1	nil

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18828 269.49 270.40 .91 TR-1 1.1 1 P 1 18829 270.40 271.15 .75 18~1 -41 L h. I

18830	271.15	272.09	. 94	TE-1	tr	ŧr
	272.09		.99	TR-1	tr	te
18832	273.08	274.07	,99	1R-1	l r	l r
18833	224.97	275+19	1.12	TENE	4 e	tr
18834	275.19	276.10	.91	1秋一日	t r	L r
18835	275.10	277.11	1.01	TF - E	11	1. 1
18836	277.11	278.12	1.03	18-1	L i	t. v
	278.12		.8.4	18-1	t, r	tr

Case No.: 11

								Fese Nort	3.1
From	Τo	nescription	Samele	From	Ĩo	Lensth	% Sul	605	64
		degrees to the core axis, 295,80 meters at 55 degrees to		278.95			TR-1	.17	.17
		the core axis, 300.70 moters at 30 degrees to the core	18839	279.94	280.97	1,03	TR-1	+17	.18
		axis and 308,10 meters at 40 degrees to the core axis.		280.97		1,07	千代十十	,17	+18
				282.04		1.01	TR-1	t r	Ur
				283.05		1.07	18-1	• 1.7	+18
				284.12			TR~1	•17	+19
			18844	285,24	286+25	1.01	1R-1	, 17	.17
			18845	286.25	287,23	.98	1	- 69	+ 6 8
1			18846	287.23	288.27	1.04	18-1	3.26	3,39
Ň			18847	288.27	288+53	1.01	TR~1	, 17	+12
			18848	588+58	550146	• 97	1R-1	l r	1 1
			18849	290.15	291-13	.28	TR⊡1	t i	t r
			18850	291.13	0.655108	.95	TR-1	tr	tr
			18851	292.98	293-97	1,01	110-1	111 î î	r i f
			18852	294,95	225.24	်စ္ခ	1 R ~ 1	I r	E șr
			18853	296.96	297.94	, 9 P	T P > 1	t r	tr
			18854	299.01	299,95	.94	TR- 1	ri i 1	ra i 3
			18855	300,98	301.99	1.03	- 11代一十	t r	U r
			18856	303,08	304.02	• 9 4	18~1	n t i	ni]
			18852	305.03	304.03	• • 3	TR-1	, 1.7	.17
		· · ·	18858	306.94	307.95	1,0%	1 € - 1	•17	.17
			18852	309.02	310.03	1.01	111-4	. 1 /	.17
			188860	311.06	312.04	. Y8	TROI	Ur	`\]? p^(1).

313.03 326.83 FOLIATED BASALT

4

Green to dark green, fine to very fine grained foliated and carbonatized unit as described above however distinct pillow selvages are noted. A roorly developed foliation is noted locally however much of the white carbonate filled fracturing is randomly oriented. Non-magnetic with trace to 1% disseminated pyrite.

- 313.03 313.17 Foliated flow contact zone, possibly a flow bottom with minor flow bottom breccia, suffecting the overlains unit may be foliated massive flow. Foliated at 70 degrees to the core alige
- 313.17 320.90 Foliated and carbonatized rillowed flow as described above. Fillow selvages are roorly develored, chlorilic seams 1 to 3 on wide. Minor grey to white quartz-carbonate veining and fracturing is noted. Trace to 1% disseminated parity.
- 320.90 321.74 Monzonitic intrusive : sres, fine grained, pervasively carbonatized intrusive with minor indistinct relic pink phenocryst cores. Non-magnetic with tracp to 12 disseminated parity. Upper context at 50 degrees to the core spis.
- 321.74 326.83 Folisted and carbonatized rillowed flow as described above from 313.17 to 326.90 meters, 326.83 meters tribar contact with the underlying flow too inconte at 55

18861	313.03	314.03	1.00	TR-1	tr	l r
18862	315.03	315.99	.96	18-1	tr	ter
18863	317.01	318,00	,99	TR-1	+17	+17
18864	319.05	320.02	.97	TR+1	.17	.16
18865	320.02	320,90	+88	TR-1	tr	' tr
18866	320.90	321.74	.84	Tfe⊢1	tr	tr
18867	321.74	322.76	1.02	TRHE	tr	tr
13868	323.92	324.88	+94	TR + 1	t r	t.r
18869	325.86	326+83	, 97	TR-1	+12	,16

BARRILE RESOURCES CORPORATION

Hole No.: NC.85~251 Fase No.1 12

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degrees to the core axis,

326.83 355.70 BASAUT

Fine to very fine grained massive and rillowed flows: relatively unaltered and generally non-magnetic, 326,83 339,62 Massive flow : File to medium green, very

fine grained becoming fine grained below 334.4 neters arroximately. The upper S to 6 meters of the flow is very fine stained and highly fractured with numerous eridote filled fractures, satchs eridotization. abundant earbonate stringers and local weak silicification. Several poorly developed willow selvades are also noted. The flow becomes less frectured down section however might wissy carbonatization and carbonate stringers Persist. Non-magnetic with there to 1%. disseminated purite throughout. The flow stades down section to a sillowed flow, the first selvade is noted at 339.62 meters 339.62 355.70 Fillowed flow t Pole to medium steen, fine to very fine grained pillowed flow, Locally highly fractured to breccisted with evidote filled fracturing and patchs eridotization throughout. Rumerous carbonate filled fractures and carbonate veinlets localis Pervasivels carbonatized. Non-magnetic with trace to 1% disceminated purity. The flow becomes increasingly fractured and disturbed down soction. Fillow selvages are less distinct.

355.70 END OF HOLE.

18870 326.83 327.89 1.06 TE-1 Lĭ 1.5

198 144

From

		BARRICK RESOURCES C				
Co-ords;	9877.4 9000.0	DIAMOND DRILL R	ECORD		HOLE ND.;	MC+85-252
Azimuth;	342.2 Des.	Section: 00	0		Property:	Worvest Ortino
Die:	-65.6 Des.	Core Size: BQ	1		Location:	0+00E 1+228
Elevation:	5000+2				that we the word word t	00 0 . I 1000
Lensth:	321+5				Hate Started: Nate Completed: Lossed by:	27 Sept., 1985 4 Oct., 1985 A.W. Workman
Measurement:	Metric				rozzen pał	HIW. WOTFNEEL
Comments:	Casing Left In Ground					
·	Neeth Azimuth Di	e Deeth Azimuth	ltip	Nerth Azimuth	Dir	
	60,96 -61. 121,92 -61. 140,82 346.0 -62.	0 243.84	-59.5 -53.5 -52.0	304,80	49 . 0	
	Los S	UWW9L8				
	0.00 24.99 DVERBURDEN.		,			¹ 7979-1.184
	24.99 159.13 BASALT.					
	159.13 159.65 CHEDRITE-CAREON	ATE SCHIST.				
	359.65 209.44 MAIN MINERALIZE	D ZONE,				
	159.65 160.34 TRANSITIONALLY					
	160.34 171.00 MAIN SILICIFIED	20NE •				
ļ¥	171,00 209,44 TRANSITIONALLY	STLICIFIER ZONE.				
	209:44 269:04 CHLORITE-CARRON	ATE SCHIST,				
-	; 269.04 321.50 BASALT,					
	321.50 END OF HOLE.				•	

Hole No.: MC.85-252 Page No.: 2

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From

0,00 24,99 OVERBURDEN

24.99 159.13 BASALT

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To

Pale green to medium grev-green with few dark green phases and usually fine to yery fine grained. Finer grained pillowed flows and relatively coarser grained massive flows are found in the section. Fillowed flow has been auto-brecciated to form a rock resembling flow breccia - relic setvages are noted locally, flows are we11 structured with vesiculary often angularly preceited tors and less broken interiors. Flow tor breccia is characterized by highly angular clasts and relative uniformity of alteration. Flow breacia is characterized by rounded, reaction rimmed frasments up to 5 cm in size. These fragments reveal a variety of alteration styles (chiefly silicification) and textures. Lavas are non-magnetic, locally weakly to moderately magnetic (flow margins, selvages, etc.). These rocks exhibit weak shrinkase-type fracturing locally. The breaks are white carbonate filled. In addition to weak seneral chloritization, rervasive weak carbonatization is noted. This is most prominent shove the underlying unit. Incelized evidetization and silicification of breccia in flow tops is observed. Intrusives of dioritic composition are noted within large sections up to 50 moters in width. These rocks are characteristically equisranular) fine grained, and eshibit little elteration.

24.99 35.50 Fine to very fine grained massive flow highly fractured with shundaul hematite coating of fracture clanes, probably due to late stage foctonic activity. Non-magnetic, becoming weakly to moderately magnetic locally.

35.50 53.27 Very fine grained massive flow - weakly to moderately vesicular throughout becoming less vesicular below 44.5 meters. Zone is ; weakly brecciated and is moderately silicified. Magnetics are weak locally Carries occasional thematized and shifty shears.

53.27 105.73 Silicified and evidetized breecia seam at top of zone represents the upper contact of a fine stained equistranular section probably intrusive of disritic composition, Mafics have a lath-like texture. A fee narrow very fine stained metry intensives are noted to cut this zone. Disritic rock NN

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Samile From

To Length % Sol Au



is non-magnetic and carries a trace of chalcopyrite locally, Fractures are often surrounded by 1 cm epidotized halos,

105.73 105.95 Hyaloclastite — probably in flow top zone — cut off at approximately 55 degrees to the core axis by overlying intrusive.

- 105.95 134.30 Minor flow top breecia with abundant more rounded flow breecia fragments up to 4 cm in size. Fragments are often vesicular with undeformed round vesicles up to 3 mm in size. Matrix to fragments is often strongly epidotized. Minor amounts of rock resembling hysloclastite are noted in matrix locally. A few primary, arcuate structures are noted locally ~ possibly breeciated pillow rims.
- 134.30 142.80 Continuation of overlying section with weakly developed vehicles throughout a trace of flow breccie locally. Zone is often silicified weakly to moderately. Section becomes more massive down section, ,

142.80 143.80 Weakly foliated massive flow.

- 143.80 144.00 Section is highly foliated at 40 45 degrees to the core axis.
- 144,00 145,60 Weakly foliated massive flow and basal flow

145.60 146.00 Highly foliated and carbonatized section with minor recumbant folding of foliation - possibly interflow sediment.

- 146.00 146.38 Quartz vein carries abundant dark green debris from wall rock. Abundant carbonate in upper section of vein.
- 146.38 147.70 Strongly eridotized and silicified, brecciated glassy flow top section becomes less altered down section. Theccis fragments are of a highly angular flow top variety.

147.70 148.25 Flow breccia - vesicular locally.

- 148.25 153.00 Moderately brecciated very fine grained massive flow with abundant saussuritized feldsmar mhenocrasts on to 3 mm clummed between 148.55 and 148.80 meters,
- 153.00 156.60 Increasingly predicted, and flow becomes moderately pervasively carbonatized.
- 156.60 159.13 Vaguely outlined breecia fragments (possibly auto-breecia)) are strongly pervasively carbonatized. Minor foliation developed locally at 50 degrees to the core axis - probably tectomic in origin.

159.13 159.65 CHLORITE -CARBONATE SCHIST

4

Bark green, fine to very fine graineds highly foliated rock. The rock is weakly chloritized rervesively - 199 1646

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BARRICK RESOURCES CORFORATION

Hole Nu.: MC.85-252 Fase No.1 - 4

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perhaps due to regional metamorphism. The foliation is highlighted by selective carbonatization of individual Bodies of carbonate alteration swell to laminations. feather out along the foliation. cross-cut and Carbonatization is revealed by a cream to rale grey colouration in an otherwise green rock. Carbonatized laminations make up an average of 15% of the rock volume. Rare silicification is noted as a purple-gres hue within carbonatized seams. The purple hue is due to hematite. Hematite is found as a very fine interstitial dissemination within the chloritized groundmass. The rock is weakly to moderately well raited throughout. A trace of pyrite is noted throughout.

MAIN MINERALIZED ZONE 159.65 - 209.44 meters.

based uson amount and degree of The zone 15 silicification and it is composed of three members. The members are of normal thickness; the alteration is well developed and typical for each member, Pyrite contents higher than normaly particularly in the Main 916 Silicified Zone, Perite content averages 8-10% in the Main Silicified Zone with up to 15% locally. 160.34 MCKENNA FAULT PLANE.

159.65 160.34 TRANSITIONALLY SILICIFIED ZONE

Dark steeni vers fine grained with selective silicification in carbonatized laminations and clasts. Carbonatization is indicated by a cream cologration whereas silicification has a grever hue, Hematization accompanies silicification as a purple tint in more highly altered rock. A minor amount of honey coloured alteration carrying elevated symite is found in silicified rock, Green, chloritized, non-silicified weakly hemotized as a fine interstitial rock iε dissemination. Furthe content averages 1% with up to 2% locally in silicified sections. The cone is moderately reactive to HC) due to carbonalization throughout. The rock is non-magnetic with a slight trace locally. The rock is moderately to locally strongly fractured with agertz and carbonate filling fractures. The McNenna Fault is represented by a clay seem at 60 degrees to the core axis at 160.34 meters.

160.34 171.00 MAIN SILICIFIED ZONE

Purple-grey to honey or cream coloured, ashanitic, intensely silicified breccia. This rock is often well foliated at 50 degrees to the core axis. This foliation

16836	160.34	161,08	+ 7 4	2.3	1.03	. 76
16837	141.08	161.81	. 73	() A	. 51	
16838	161,81	162,84	1.03	1 - 3	. 58	• 7.1
16839	162.84	163.87	1.0%	1	.17	, 1.8

16835 159,65 160,34 .69 1 t.r \mathbf{tr}

BARRICK RESOURCES CORPORATION

Hole No.: MC.85-252 Page No.: 5

From

-----Description------

is of tectonic origin. Grey silicified rock has a purplehue due to a variable degree of hematization. This hematite is reduced to purite in the buff to honey coloured alteration patches and zones. Weak reactiveness to HCL, due to carbonatization. Is noted near the marsing of this zone. Purite is found as very fine disseminations; imm cubes and blebs; and as clots up to Zem in size. Purite is mostly concentrated in the matrix (voids) between angular breccia fragments. Average purite content is 8-10%. In honey coloured took, purite content may locally reach 15%, mostly as coarser clots. Associated with coarse clots of purite in the paler rock, is an increased amount of silica dumpind. This silica generally carries lower purite contents - less than 3%. Rocks are non-magnetic.

- 160.34 161.81 Medium to dark supplemented, intensely silicified breecia with few buff coloured satches. A wink hue is noted locally, Breeciation is often on a 1 mm scale with frasments exhibiting various alteration styles set in a intensely silicified, apparitie and mytanetic matrix. Zone is weakly reactive to HCL.
- 161.81 163.87 Dark purple-spee with rink hue throughouts aphanitic intensels silicified zone probably monzonitic intrusive. Rock is moderately to strongly precriated locally. Where precriated, rock carries up to 5% purite in matrix, and fractures. This is especially apparent near the contexts. Full coloured drains, up to 1 mm in size, exhibit strongly developed alteration may have been feldspar phenocrysts. Zone is non-receive to HGL.
- 163.87 166.11 Purple-sres: aphanitic: intensely silicified breccia with coarse clots of purite on to 3 cm in size. Purite often highlights a weakle developed foliation at 57 degrees to the core axis. Minor purite is noted within stane of creaulation cleavase at 51 degrees to the core axis. (flat-lyind) and at approximately 70 degrees to S1 foliation. A few pinkish hued zones or to be a in width or noted locally goodly carrying lover purite contents.

166.11 167.02 Late state tectonic zone - intensels silicified breccia fragments up to 5 cm are bounded by chloritic fractures and chloritized writty material. Purtensary silicified fragments often exhibit buff coloured dolomitized rime. Some of the shearing in this section is silicified but late stage showing is coloritized. Tectonic fabric is soled at associantely

Samele	From	Τo	tensth	% Sul	ลัน	0W	
16840	163,87	164.61	.74	8-10	1.03	.76	(
16841	164.61	165.36	.75	8-10	. 69	152	
16842	165.36	166,11	, 75	8-10	.69	.52	
16843	166.11	167.02	.91	2 - 4	1.03	+94	
16844	167.02	167,88	.86	8-10	, 34	.29	
16345	137,88	168.74	+86	8-10	. 69	.59	
16846	168.24	169.69	, 95	3-5	.34	.32	
16842	169.69	170.35	. 56	10-12	. 34	. 22	
16848	170.35	171.00	.65	10-12	. 59	.45	

78.200

RAPRICE RESOURCES CORPORATION

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50 degrees to the core exis. Foliation planes are often slickensided - plunge west at 70 degrees. Whether this has developed ranallel to the McKenna Fault is unknown. Minor Pinkish hued, pursle-srey silicified rock is noted - rossibly of monconitic composition.

- 167.02 168.74 Same as showe at 163.82 to 166.11 meters. A small fault plane at 168,26 meters cuts the core exis at 35 degrees. This is rerello] to foliation. roughly Displacement is normal with south side slickensides plunse 75 to 80 down and degrees west.
- 168.74 169.10 Late stage tectonic zone with 40% very fine grained folisted chloritic and gritty shears at approximately 45 degrees to the core axis. Remainder of the section is intensels. silicified breccia. Silicification often has a who steen colours
- 169,10 169,69 Continuation of overlying tectonic regime with well developed differification along a moderate to strong foliation at 45 to 55 degrees to the core exis, Abundant microfaults subravallel to the core aris are noted with offsets on to 2 (m. Sense of movement is south side down.
- 169.69 171.00 Intensely silierfied and brocerateric often carrying mm-scale reddish-sink laminations of probable tectonic origin. Section 35 senerally. rale pinkish-greg to buff with sounded white quarts coloured filling of tension fractures at right angles to the foliation Section carries 10 - 12% serite, mostly as a corv front. discentrated and so anadar arous or to 1 mm in size - vers few costae clota greater than to my any noted. Hinor take chloritic shears are noted near the base of the rone.

171,00 209,44 TRANSITIONALLY SILICITIED ZONE

4

Dark green and find grained with arbanilies suchle-snew silicified breccia zones up to 120cm wide, Greenish rock is chloritized and locally hemotized but is senerally not cilicified. Silicification is industed by a dark nerish colouration but a stronger takened such behaved. The amount and congral defined of situation in inectia decreases downhole, the site of silicification is student entirely controlled by cruar prevaistion. Silicified breezis is occasionally honor enhanced as

16849	171.00	171,53	, 53	2-4	4.30	2.54
16850	171.53	172.03	.52	St. 13	 A 	1.93
16851	172,06	173.04	, 98	1 • 2	1.03	1.01
16852	173.01	173.64	, A.O.	$5 \cdot 7$	1.24	2. 3.6
16853	173.64	174,20	.56	$5 \sim 7$	5.49	9.0°
16854	124.20	175,15	$\mathbf{C}_{i} = \mathbf{C}_{i}$	$2 \cdot 4$	1.1.2	. 1
16855	175,15	176,06	, 94	1 - 2	. 34	1 1
16955	176.04	176.96	6.4	1 7	E 0	1 ·
18857	126.96	177.80	.54	1.2	i, r	tγ
13858	122,80	178.70	. 5.0	1 ,	1.5	L r

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Hole No.: #0.85-252 Pase No.: 7

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ron	10	heseristion	Semele	Eron	ĩo	Lansth	X 804	តំធ	00
		cream hued. Cream to honey coloured, pyrile rich	14859	178,70	179.59	,89	1 - 2	tr	tı.
		alteration is noted as halos bordering frectmes.	16860	179.59	180.54	, 95	1	+17	.16
		Silicified rock carries 1-3% perile with up to 5% in	16861	180.54	181.54	1,00	ł	.17	.17
		Paler varieties. Chloritized rock carries 0.5%) write.	16862	181.54	182+13	,52	1	te	t r
		Seams/patches of silicification are oriented parallel to	16863	182+13	183.10	۰97	1 - 3	t r	1, r
		foliation but cross cut locally. Zoney of localized	16864	183,10	184.10	1.00	1 - 3	Ur	i.r
		brecciation have provided sites for intensified	16865	184,10	185.10	1.00	1 - 3	tr	t r
		silicification and curitization. These sites may carry	16866	185.10	186.10	1.00	1 - 3	.34	.34
		up to 10% surite locally. These seams were probably	16867	184.10	187.12	1,02	1-3	.12	.12
١		major fluid conduits during alteration,	16868	187,12	188.10	• 28	1-3	.17	.12
		171.00 171.51 Rominantly silicified with 25%	16869	188.10	168+88	- 7 8	1 ~ 0	L.c.	t r
		chloritized, very fine grained scenes.	16870	188,88	189.20	.82	1 - 12	tr	t, i
		Silicification noted as pale grow to buff	16871	189,70	190.48	,78	1 - 2	Ur	t r
		coloured sections or to 9 cm in width	16872	190,48	191.30	.82	1 - 2	117	13.4
		carrying up to 5% parile locally.	16873	191.30	192.19	+89	1 - 2	+17	.15
		171.51 171.91 90% intensely silicified ineccia as	13874	192.19	193.14	, 95	1	,12	.16
		described shove,	16875	193.14	194.12	+ 88	ł	.12	+17
		171.91 172.06 15 - 20% silicified breecia.	18826	194,12	195.07	+ 95	1	tr	tr
		172,06 173,04 75 - 85% intensely silicified breecia in	16822	195.07	196.00	,93	1	,17	.16
		seems up to 15 cm in width cerrsing up to	18878	196.00	196,21	+ 24	1	, 34	, 24
		3% parite as 1 mm sharps,	16879	196.71	197.46	, 25	1	t r	tr
		173.04 174.20 Intensels silicified breccia - usualls	14880	197.46	198.21	,25	3	,17	,13
		purple-stes in colour with sections of	16881	198.21	198.96	, 25	1	.69	.52
		buff coloured, dolomitized rock up to 27	16882	198,93	199.76	+ 9.0	1 - 3	1.03	185
		em in width related to late stage	16883	199.76	200,74	, 98	1	tr	tr

chloritic shearing, Buff hue is mostly confined to the unser half of the section. 174,20 175,15 50 - 60% silicified breedia - abundant

- intergranular hematile is noted in chloritized sections. Desiree of silicification is very high to intense.
- 175.15 179.59 25% FURFlergrey silicified broccie with minor buff coloured alteration and abundant creak coloured silicified halos around fractures.
- 179,59 182.13 Continuation of overlying soction with 15% silicified breccia in seams up to 7 cm in width. Zone is dominently obtoritized and vers fine grained foliated rock - strongly hematized locally as a very fine stained intergranular dissemination.

i.

182,13 188,10 50 - 55% sursicestees turkish and buff coloured, intensely silicified breecels in contions up to 3% on in width. Proceid seams are often foliated at 35 to 40 degrees to the core exist Nost silicafied preceia in this rune is moderately reactive to HCL. A number of this rate dres fine declard interply-we are noted Tuez119. Do Caractel 194.20 194.33 meters contribus. Otherticad marine chemicensets in 1 1 5 conscibility 的复数考虑我的话,一切一直接到了这个情况,你们是你的人们的人,我们们 化化合金合金 建铁 moderately contains trace and showing resembla other safie intrusives on the

, 58 16884 200,24 201,72 .34 .33 1 16885 201.72 202.70 .98 j. .17 ,17 16886 202.70 203.69 .98 .17 +17 1 .17 16837 202.68 204.67 ,99 1~2 112 1.2 16888 204.67 205.66 ,99 .17 +12 16889 205.66 206.65 . 99 1-2 .34 .34 16890 206.65 207.60 .95 -16 0 - 1 .17 ,92 16891 207.60 208.52 0...1 117 .15 . 22 14872 208,52 209,44 . 63 0 1 . 69

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lo Length % Sul 60 GW

Henessy and McDermott properties which have undersone intense dolomitization.

- 188,10 189,70 5% silicified preceia zone is dominantly of well foliated chloritized composed rock. This section does not exhibit much hematization. The foliation is at 55 degrees to the core axis throughout.
- $\mathbf{189.70}$ $\mathbf{192.19}$ $\mathbf{30}$ $\mathbf{357}$ silicified breccia in seams up to 23 on in width. These seams may carry 1 to 3% purite locally, Nost of the purite is found as a late stage fracture filling. Intervening chloritized rock exhibits hematization. Content of moderate silicification decreases to arrowinately 15% at base of zone.
- 192.19 196.71 10% silicified breccia as described above at 188,10 to 189,70 meters,
- 196,71 198,96 Less then 5% silicification, Zones of localized brecclation have provided sites for intensified silicification and syritization.
- 198,96 199,76 30 35% silicification as narrow breecia seams along foliation with up to 3% purite as grains up to 1 mm. A strong between parite and association silicification is noted. Foliation is well developed at 40 degrees to the core agis,
- 199.76 203.68 5 10% silicified breecia in seams up to 3 cm. Strong folistion at 40 degrees to the core axis.
- 203.68 206.65 Approximately 45% silicified preceie in sections up to 25 cm in width. Silicification is exhibited as a male ways steen and surple-stev colour carrying up to 2% pyrite locally.
- 206,65 209,44 5% silicification in narrow breects seams up to 3 cm in width. A weakly developed crenulation cleavase is noted locally at 70 degrees to foliation. This cleavage dips shallowly north. The foliation (S1) is well developed at 55 to 60 degrees to the core exis. The foliation is highlighted by selective carbonatization of individual laminations.

209.44 269.04 CHLORITE-CARBONATE SCHIST

4

Bark - green, fine to very fine grained and generally well leminated/foliated. A few fine snained massive sections up to several meters in width are noted locally - es. 223.10 to 224.20 meters. The rock is weakly chloritized pervasively - perhaps due to resional metamorahism. The foliation is highlighted by selective carbonatization of

16893	209.44	210,44	1.00	0.5	tr	tr
16894	210.44	211,42	.98	0.5	i 1 ₹	× 1.2
16895	211,42	212,42	1,00	0.5	l r	Ur
16896	212.42	213.40	. 98	0.5	Ur	t r
16897	213.40	214.40	1,00	1	+17	. 1. ?
15898	214.40	215.40	1.00	0.5	t r	t. r
16899	216.40	217,40	1.00	0.5	+12	+17

144-1616

Hole No.: MC.85~252 Pase No.: 9

From	Τo	<pre>Pescription</pre>	Samele	From	Τø	Length	% Sul	ňu	G₩
		individual laminations, Rodies of carbonate alteration	16900	218.40	219,40	1.00	0.5	.17	.17
		swell to cross-cut and feather out along the foliation.	18569	220.40	221.38	,98	0.5	.17	.17
		Carbonatization is revealed by a cream to releases	18570	222.40	223,40	1.00	0,5	tr	tr
		colouration in an otherwise green rock, Carbonatized	18571	224.40	225.40	1.00	0.5	.34	.34
		laminations make up an average of 20% of the rock	18572	226.40	227,40	1.00	0.5	.34	.34
		volume, Rare silicification is noted as a purple-snew	18573	228.40	229,40	1.00	0.5	.17	+17
		hue within carbonatized seams, Chloritic rock is weakly	18574	229.40	230.43	1.03	1	.17	.18
		carbonatized throughout. The rock is weakly to	18575	230.43	231.40	+97	1	, 34	• 33
		moderately well parted throughout. A minor amount of	18576	231.40	232.40	1.00	1	t, r	tr
, '		moderately to strongly silicified breecia is noted	18577	232,40	233.40	1.00	0.5	tr	tr
		locally as a rale olive green to pink to purple-grey	18578	233.40	234.40	1.00	0.5	.17	. 17
		hue. These sections, up to 10 cm in width, are	18579	234.40	234.95	.55	0.5	.17	.09
		moderately reactive to HC1 (ed, 213,87-213,99 m,) and	18580	234,95	235,72	, 27	1-2	.17	.13
		carry up to 2% very finely disseminated pyrite. A few	18581	235.72	236,46	.74	1-2	.17	.13
		Pinkish siliceous breccia seams are noted - possibly	18582	236.46	237.00	. 54	0.5	,17	.09
		brecciated guartz vein. The seams are sharely truncated	18583	237.00	237.44	. 44	1	.17	+02
		by foliation developed during late stage movement or	18584	237.44	238,40	196	0.5	ni 1	nil
		shearing along foliation.	18585	238.40	239,40	1.00	0.5	nil	nil
		209.44 229.23 Typical foliated rock with 15 to 20%	18586	239.40	240.40	1.00	0.5	.17	.17
		carbonatized seams up to 5 mm in width and	18587	240,40	241,40	1.00	0.5	.17	,1 7
		few massive to weakly foliated sections,	18588	241.40	242,39	. 99	0.5	nil	nil
		Foliation ranses between 45 and 5 0 degrees	18589	242.39	243.03	+ 54	0.5	,17	.11
		to the core axis.		243.03		.53	1	.17	109
		229,23 234,01 Increased carbonatization and minor	18591	243,56	244.40	•84	0,5	rs i L	nil
		silicification along narrow brecclated		244.40			0.5	.17	.19
		seams up to 2 cm in width parallel to $lpha$	18593	245,50	246.52	1.02	0.5	.17	+17
		well developed foliation at 45 degrees to	18594	246.52	247.52	1.00	0.5	ni 1	តរ]
		the core axis. Broader altered seams up to		248,50		1.00	0.5	+17	.17
		10 cm in width are rare. Highly altered		250.48		1.03	0,5	.17	.18
		sections carry up to 2% very finely	1 P	253.00			0.5	19 i 1	nit
		disseminated purite.	18598	256.00	257.00	1.00	0.5	nil	fi k n

18599 258,00 259,00 1,00

16901 262,00 263,00 1.00

16902 264,00 265,00 1,00

16903 266.00 267.00 1.00

16904 268,00 269.04 1.04

18600 260,00 261,00

0.5

0.5

0.5

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nil

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234.01 234.95 Same as described above at 209.44 to 229.23 meters.

- 234.95 236.46 Transitional style silicification with 20% silicified breeceta as purple-snee, buff and pink hued seams up to 10 cm in width. Silicified rock carries up to 5% pyrite locally.
- 236.46 237.00 Same as described above at 209.44 to 229.23 meters.

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- 237.00 237.44 Mafic intrusive dark steen with slight pink hue near when contact. Section is fine stained with chloritized mafic laths when to 1 mm in size, ressibly altered biotites which have been folloted ratallel to contacts. Foliation is moderately well developed at 55 degrees to the core axis. Unit is weakly to moderately meshetic throughout. Carbonatization is strong and pervasively developed.
- 237.44 243.03 Same as described above at 209.44 to 229.23 meters with rare rale waxy green coloured silicified breccia.
- 243.03 243.56 Moderately to strongly silicified and brecciated section around a mylonite zone

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Τn Length % Sul

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from 243.40 to 243.53 meters. Foliation in mylomitic material is well developed at 55 to 60 degrees to the core exis. Mylonite carries 1 to 5 mm silicified fragments. Surrounding silicified breccia concentrated on usper margin of i¢. mylonite, possibly due to displacement of lower side, Desree of silicification is moderate to intense.

- 243,56 250,00 Well foliated and carbonatized section similar to zone from 209,44 to 229,23 but with 1 to 2% pinkish meters silicified seams along breccia channels. Foliation is strongly crenulated locally with resulting increase in carbonatization, Below 224,50 meters; zone carries rare 1 to 2 cm patches which - healonlastite. Carbonate resembles stringers often carry 1 to 2% very finely disseminated chalcopyrite.
- 250,00 263,75 Dark green, weakly to moderately folisted. section which has a distinct texture previously identified petrographically as diorite. Level of cataclastic 9 carbonatization is moderate to strong. Stronsest carbonatization is noted along late stage structural features normal to foliation and subparallel to core acts.
- 263,75 269.04 Alternating sections of well foliated dark chloritized material, and very green. foliated sections with selective highly cerbonatization or to 1 cm in width. Foliation is developed at 55 to 60 degrees to the core axis. Silicification of strength is noted along the moderate folistion between 267,10 and 267,40 meters,

269.04 321.50 BASALT

Pale sreen to medium sres-sreen with few dark Green phases and usually fine to very fine grained, Flow rocks are massive with well zoned coarser centres and chilled, tops. A few pillowed phases are noted hreccisted locally. The flows are not particularly well structured with the exception of vesicular flow tops. Flow rocks non-massnetic throughout although rare weakly are magnetics can be detected on a highly developed localized basis. Resall is non-cerbonatized generally. but exhibits weak pervasive chloritization in the upper sections.

269.04 277.00 Vers fine grained messive flow with weakly developed 1 mm vesicles throughout and vesicle development locally. moderate

16905 2	69.04	270.00	. 86	0.5	tr	tr
13905 2	199.75	300.75	1.00	0.5	+17	+17
16907 3	103.75	304.75	1.00	1	.12	.17
16908 3	\$14.59	315.34	+75	1 - 2	.17	.13
16909 3	\$15.34	316.22	• 88	1 - 3	.17	.15

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Hole No.: MC.85-252 Pase No.: 11

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To Lensth % Sul

i % Sul Au

Section contains angular flow top breccia in 5 to 10 cm zones throughout. This unit

grades into the underlying section.

- 277.00 279.70 Fillowed section as part of a thicker flow.
- 279.70 287.97 Fine to vers fine stained messive flow. Non-mesnetic, non-corbonatized.
- 287.97 288.37 Very fine grained foliated zone with selective carbonatization along foliation and up to 2% Fyrite locally.
- 288.37 292.50 fine to very fine stained massive flow abundant eridotized seams and ratches.
- 292.50 295.00 Mottled fine to medium grained massive flow - weakly eridotized throughout.
- 295.00 310.50 Fine to very fine grayhed massive flow similar to overlains section - zone is pervasively carbonatized throughout with 1 to 2% very finels disseminated purite locally and up to 3% in locally carbonatized broccie. Mattling highlights a foliation at 55 to 60 degrees to the core axis.

311.17 311.26 Very fine drained cone.

311.26 312.99 Fine to very fine stained, massive intrusive with 1 to 10 mm Pink feldspar phenocrysts. Non-magnetic, Lower contact is highly foliated at 80 degrees to the core axis. This intrusive may have been emplaced into a zone of active tectonism within the basalt.

312,99 314,04 Foliated section - possibly baselt,

- 314.04 315.34 Same as described above at 311.26 to 312.99 meters. Intrusive is highly foliated locally at 50 degrees to the core axis. This foliation is developed Farallel to the lower contact.
- 315.34 317.30 Highly foliated basalt -- strong pyritization near the urger contact.
- 317.30 318.77 Same as described above at 314.04 to 315.34 meters.
- 318.77 319.28 Very fine grained to arhanitic, locally foliated basal flow.
- 319.28 319.32 Flow contact zone.
- 319.32 321.50 Abundant tensional precriation with angular vesicular fragments in flow top zone - probably stading to pillowed flow below end of hole.

321.50 Meters END OF HOLE.

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Co-ords1	9879.1 9149.1	DIAMOND DRILL RECORD	HOLE ND. :	MC+85-258
Azimuth:	1 350.6 Des.	Section: 150E	Property:	Worvest
Diet	-70,0 Bes.	Core Size: BQ	Location:	1+50E 1+20-5
Elevation:	4996+9		Date Started:	20 Sept., 1985
Lensth:	310.2		Date Completed:	26 Sept., 1985
.Measurement:	Metric		rogged pa:	D.S. Riddell

Comments:

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Berth	Azimuth	Div	Deeth	Azimuth	Rir-	Berth	Azimuth Dir	
60,95 101,19 121,92	344.0		182,88 243,84 262,74		~63,5 ~57,5	304.80	-52.0	

and a summer and a Log Summary statement of the

0,00 31,08 OVERBURDEN.

31,08 147,15 BASALT,

147.16 151.40 CHLORITE-CARBONATE SCHIST.

151,40 193,35 MAIN MINERALIZED ZONE,

151.40 161.03 MAIN SILICIFIED ZONE.

161.03 193.35 TRANSITIONALLY SILICIFIED ZONE.

193.35 218.91 VARIABLY STLICIFIED ZONE (undetermined).

218.91 224.94 CHLORITE-CARBONATE SCHIST,

224,94 233,91 FOLIATED BOSALT,

233,91 242,02 VARIABLY SILICIFIED BASALT.

242,02 278,58 FOLIATED BASALT,

278,58 287,87 TRANSITIONALLY SILICIFIED BASALLY

287.87 306.00 CHLORITE-CAREONATE SCHIST.

306.00 310.21 BASALT.

310,21 END OF HOLE,

148.244

							ole Hort ase Nort	MC,85-258 2
From	Ťο	Description	Sample	Гrоя	10	Lenath % Sul	Au	6 ស

0.00 31.08 OVERBURDEN

31.08 147.16 BASALT

Medium to dark green and fine grained with aphanitic flow margins and medium grained flow centres, finer grained fillowed flows and relatively coarser grained massive flows are found in the section. Massive flows are occasionally flow brecciated with rounded, reaction rimmed fragments. These rocks exhibit weak shrinkage-type fracturing locally, the breaks are white carbonate filled. Rocks are non-magnetic with a trace locally. Localized eridotization and silicification of breccia in flow tors is observed.

- 31.08 56.85 Fillowed flow : sreen to dark sreen, fine to, very fine grained, well developed sillowed flow. Non-meshetic with trace to 15 disseminated versto throushout. Blothy, highly fractured core and locally shound core is noted dow to 55.30 meters approximately. Deerly weathered and fractured bedroot surface with carbonate rich selvages weathered out. Minor perbonate and limonite costed forsture slames noted throughoud.
- flow : sreen, fine to medium 56.85 60.57 Massive grained, non-magnetic manalys flow, Cut by eridotized fractures and minor numerous auertz-carbonate venitetse eridotization is common. The uses 10 to 15 en is a highly beliefeder evidedied and weakly silicified flow contest sime. The tower 5 on is a roomly folicited conduction and carbonatized flow base - folleted at 55 to 60 degrees to the constructional bar 30,57 90.50 Flow preceis to flow preveisted Fillowed flow i green, yory find dry and relatively non-breccisted material severated by flow locally these flow preceisted 2014673 brecciated - eshibit - relie 20405 hyaloclastite. warnalitic and wasientar freements suggesting siller monsteries. Flow process is made or of rounded to subrounded, we up to several up such week fine greined baseltre frogments with well developed reaction riss in a chloritic and locally exidutic matrix. Normal Subjection trace to 1% disceminated extites oridete and esthonate filled for turner condition

18871	130.33	131.34	1.01	1 - 2	. 34	.34
18872	131.34	132.20	186	1-2	t r	1.1
18873	146.27	147.16	.89	0.5	1. r	tr

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The lower contact of this unit throughout. is indistinct and gredational, 61.40 lo 61.57 meters : rervasively carbonatized, intermediate composition intrusive possibly monzonitic. 78,97 To 90,50 meters speroximately. the rock is highly flow preceisted and exhibits thick sections of highly eridotized hysloclastite, 85,85 lo 86.59 meters : mafic to intermediate - represively combonatized compositions intrusive at 65 to 70 degrees to the core axis.

- 90.50 108.00 Massive flow 3 green, very fine grained, relatively anallered. and normagnetic massive flow. Lucally fractured with filled fracture and guartz~carbonate veinlets and fine esidote filled fractures. Minor retory eridolization (noted) decreasing in intensity below 93.5 meters arroximately, - Locally - Bodecolely cerbonatized breccia is noted, senerally with 1 to 2% finely disseminated parito.
- 108.00 110.80 Flow breecis to preceisted flow tor : medium greens fine grained rounded to subrounded basaltic fragments in minor dark green chloritic, evidatic matrix. Weak thin reaction rims are noted on some fragments. Non-magnetic with trace to 1% syrite within the chloritic matrix.
- 110.80 130.33 Massive flow 1 medium steen. relatively unaltered, non-magnetic massive flow. A very fine grained flow for grades down section to fine grained, becoming medium stained below 120.0 meters approximately. Medium grained portions of the flow exhibit a distinct discille texture of weakly epidotized feldspar surrounded by dark green, chloritized worlders. Minor carbonate filled fractures and varbonate veintetse trane to 1% discontrated evolts noted throughout. Below 129,80 meters the flow fines down workion becoming a weakly foliated and carbonatized basal flow foliated at 70 to 75 degrees to the core axis.

130.33 132.20 Brecciated, veined and intruded contact 2056+ Very fine grained, locally sheared and breecisted basaltic material out by abundent white quarty voluing with winner oranse carbonate and several pervasively carbonation intermediate consocition Moderstels -ilicified and intrusives strongly contomatived stand intrusive and vein margins with us to 5 to 10% ewhedred purite. Introvivos 1 130,80 to 131,05 and

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- Sample From

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131.75 to 132.07 meters. The bottom 10 cm of this zone is probably pyritic flow tor breccia.

- 132,20 133,61 Flow top breecia to flow breecia : sneen, rounded to subrounded, om scale basaltic fragments in a pervasively chloritic matrix with local epidotization, Non-magnetic, out by numerous carbonate filled fractures, trace to 1% parity.
- 133.61 147.16 Massive flow, locally globeroporphyritic flou. Green, yors fine distordy non-magnetic massive flow, the urper 3.5 meters of the flow is glomeroporchurities exhibiting clusters of mm scale euhedral feldspar shenocrasts. Trace to 1% disseminated runite, numerous carbonate filled fractures increasing in number down section. The bottom 89 cm of this unit is weakly preceisted and cut by numerous guartz-carbonate filled fractures and carbonate-counts, vehiclets, weakly folisted, approaching the underlying foliated come.

147.16 151.40 CHEORITE CARDONATE SCH151

d.

Green, fine grained, foliated rock with white to fink wisey carbonate highlighting the foliation. The rock becomes increasingly carbonatized, locally intensely pervasively carbonatized, better foliated and more thinly laminated down section. Generally non-magnetic with trace up to 2% very finely disseminated evite. Relow 148.58 meters the rock becomes very thinly laminated and abundant hematization is noted, forally minor silicification is noted as silicified hematized bands and minor quartz-carbonate vendets generally however less than 2% of the curv is filefield. The base of this unit is marked by the McKenna Fault zone. 151.30 MCKENNA FAULT PLANE.

- 147.16 148.58 Green, five scalled, moderately foliated material with the foliation highlighted by rate sink wisey and lansitic carbonate srowth. Carbonatization is restricted to these growths, the green, chloritic material is non-carbonatized. Non-megnetic with trace to 12 disceminated estite. Foliation : 147.60 meters at 65 degrees to the core axis and 148.40 meters at 50 degrees to the core aves.
- 148.58 150.75 A distinct change in the unit is noted the rock becomes very well foliated and thinly laminated. Alternating am scale greens chlorite - carbonate heads and purple coloured, pervasively carbonatized

18874	147.18	148.58	1.40	0,5	tr	t e
13875	148,58	149.68	1.10	1	.69	.75
18876	149.68	150.75	1.07	1	tr	tr
18877	150,75	151140	. 45	0,5	1 r	t i

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RAPRICE RECOURCES CORFORATION

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and highly hematitic bands, Generally 1 to 2% weak to moderate silicification of the hematized material is noted.

with trace to 2% finely Non-mashetic parite, The foliation disseminated. exhibits minor contactions - Faliation : 149.10 meters at 50 degrees to the core axis and 150.40 motors at 50 disceps to the core aviate

150.75 151.40 McKenna Fault cone 1 green, fine stained freements within a strongly pervesively carbonatized, fine grained, green drifts matrix with several classarit seams and clay costed fault planes unterly. The actual McKenne Fault plane is represented by the lower 15 to 20 cm of the yours green calcareous clay with abundant included fragments. The core is blockers fractured and highly ground making orientation of the fault clane moussible to determine. The Hafenna Fault marks the base of the folisted zone and the too of the underlying wain silicified zone.

MAIN MINERALIZED ZONE : 151.40 - 193.35 meters.

The zone is based upon degree of silicification and is composed of two members, on unser transitional and is noted. The main silicified zone is of normal "hickness. the lower transitional zone is thick and well developed.

A lower variably silicified zone has not been included in the main mineralized some. The top of the some is marked by sudden intense precciation and silicification below the McKenne Fould clauss. Silicification is breccie controllad becoming increasingly generally controlled down section in the lower fracture transitional zone. Parito values range from 1 up to 20% most intense preciation and associated with silicification. Generalls - Hore magnetics - locally moderately magnetic in the upper portions of the sum of

151.40 161.03 MAIN SILICIFIED ZONE

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100% intensely silicified breccis boucker 3 distinct rock types may be distinguished. 1. Dark surgley locally megnetic, intensely silicified income with overprinting of buff coloured defanctization as helds to later stage fracturing and hosceletions 2. Red to dout intensely silicified, weatly to woderstely eurelee preceived material with enable to find after from along later fracturing. This unit is probably a felsion intrusive and is unique in its low resite values, 3.

1 - 1	.34	,30
4 - 5	4.36	2.41
Ú, S	2,74	2,58
10.26	21.94	16.39
10-20	14,05	12 93
10-20	10.00	185
15-20	12.24	11 . 1 9 P
	A 111	tra é t
4 - 11	1.18.2	1.45
- A - Fi	1 277	1437
	4 - 5 0 - 5 10 - 20 10 - 20 10 - 20 15 - 20 2 - 4 4 - 5	4.5 4.38 0.5 2.74 10-20 21.93 10-20 15.05 10-50 12.33 15-20 12.33 3.4 6.17 4.5 1.37

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Description Sample from

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Pale grey to huff coloured, intensely silicified and finely, intensely brecciated material, . This unit is virtually shattered and only the largest fragments exhibit indistinct, dark surple coloured cores. This zone displays the highest purite values - up to 20 to 25% 100ally fine disseminations and finely 415 crystalline clots. Generally brecciation decreases in intensity down section and silicification - alteration becomes increasingly fracture controlled, Quartz filled fractures and veinlets are white, snew, rink, cream and oranse red coloured however highly silicified preceia is senerally dark purple coloured and hematitic.

151,40 152,28 Type 1. Material - dark surfle coloured, histly silicified and moderately wagnetic precise. The opport 35 cm of this robe exhibits 10% greens chloritic naterial and is weally folisted associated with the overlying Retenne Fault - foliated at 45 degrees to the core axis approximately. Moderately hervasively carbonatized carbonatization. however Pervasive decreases down section, dropping off below 152.1 meters approximately, 1 to 2% fine synite, senerally restricted to the lower Portion of the some.

- 152.28 152.82 Contact zone between type 1. And type 2. The upper half of this zone is Material. coloured, highly breccipted and buff intensely silicified with 5 to 10% very finely disseminated pyrite and represents intensely altered type 1. Material. The lower helf of the zone is made up of minor buff coloured breecia and predominantly red orange coloured intensels silicified breccis. Largest fragments exhibit dark red surple coloured cores. This material is probably altered type 2. Material and has much less parite selections 1 to 3%. Blocks, highly fisctured core throughout, locally ground conc.
- 152,82 153,76 Type 2. Naterial : daik rurrle coloured, intensely silicified intrusive. Highly fractured with an orange to pint coloured overfrinting alone. Tracture morging. Where most intensels fractured to brecciated minor buff coloured, synthe breecia is noted a this may be included materia) from shove or below the Non-magnetic and intrusive. with tisce to 1% non-carbonatized disseminated purite. Sharp lower contact at 35 degrees to the core asis.

153,76 157,05 Type 3, Material (pale srey to buff

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coloured, intensels silicified, shattened breccia. Minor rolic, dark surple cores

Samele	From	1.0	Length	2	Set	តំប	(i lu	
18888	160.05	161.03	, 98		2-3	2,40	2,35	

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noted in largest fragments. Non-megnetic and non-cerbonatized with 10 up to 20% disseminated parite throughout. Locally blocks, highly fractured core.

157.05 161.03 Park surple coloured, highly silicified preceis cut by numerous white, grey ginly oranse and creak coloured, quartz filled and veiblets. Generally fractures non-magnetic and non-carbonatized howaveminor late stage cerbonate filled fractures and local weak ratchs rervasive cerbonatization is noted. Minor does to buff coloured, eatchs alteration is noted associated with strongest treppistions These reletes are depending less than 5 cm thick and contain 5 to 15% perite - 2 to 5% up to 15% disseminated pyrite throughout concentrated alous broucis seams and alous fracture margins, 157,96 To 158,93 meters t fault soude - speens sicunds shifts material with included mered up silicified fragments - 40 to 50 degrees to the core skis. A similar fault souge (s hoted from 159.05 to 159.07 metors at 60 degrees to the core axis.

161.03 193.35 TRANSITIONALLY SILICIFIED ZONE

A highly variable unit composed of highly hypercipted and fractured arean, fine grained, chloritic material. Abundant dark surple coloured highly gilicitied breceis, commonly overstitled by setchy buff to sink to grey white coloured silicification and carbonatization. Out throughout by an intense randomly oriented fracturing network filled with white, snew rich, orange, supple cream coloured augity and quarty-carbonate. and Alteration is both preceiv and atteration fracture controlled however bioccistion decreases in importance down section and alteration becomes reclarated to balos alons randomly oriented quarty filled fractures. The overall intensity of fracturing and breecistion decreases. down section. Homensductic and locally pervasively carbonatized with 1 or to 55 prite as a discemination associated with most intense fille alteration and as fine grained clots throughout. This material is probably predominantly volcanic in original

161.03 164.34 85 To 90% highly silicified moterial with 10 to 15% relatively numbered, green material. Non-magnetic and generally non-carbonatized, distinct hymotitic streak common throughout, 2 to 2 or to 5% disseminated sprite throughout.

164,34 171,10 20 To 80% silicified melorist and 20 for

.

148882	301+03	101-78	• 20		$1 > \sqrt{2}$	+ 933	
18890	161.78	143.05	1.07	1.0	. 34	.33	
18891	162.05	164.34	1.29	2-3	. 34	, 4 4	
18392	164.34	165.08	. 72	2 · · 3	\$ at	ti	
18893	165.09	166.14	1,05	2-3	. 24	.36	
18894	156.14	157,02	. 95	1-2	1.	tr	
18895	167.09	168.04	.95	1 - 2	. 69	. 6 4	
18896	168.04	169.06	1.02	2-3	.34	, 3 %	
18897	169.06	170,10	1.04	23	1.03	1.02	
18899	170.10	121,12	1.02	3.05	2.04	2.10	
10022	171.12	171.47	.35	10-15	3 - 77	1.32	
18906	171.47	172.34	,87	1 - 2	2.06	1,79	
18901	172+34	173,41	1 + 0.7	1-2	•34	.36	
18902	173.41	174.47	1.06	9-3	1.03	1.09	
18903	174.47	175,24	.77	3-4	1.03	.79	
18994	175+24	125.97	. 59	2-3	134	. S 2	
13905	175,93	177,00	1.07	1 - 2	2.10	2,52	
18905	177,00	122,96	,98	$\mathbb{C} \times \mathbb{R}$	1,37	1.32	
18907	177.96	178,98	1,02	0.5	.34	. 35	
18908	178.98	180,00	1.02	1 2	. 17	1.1.1	
18909	180.00	180.93	, 92	2-3	. 54	. 24	
18910	180.22	181.73*	.83	7	. 34	. 20	
18911	181.73	180,77	1,06	$1 \sim 2$. 74	. 76	
18912	182.79	183,62	. 819	1	3.2	- 41	
18913	183.67	184+59	0.3	1 - 0	$1 \leq 1$. 25	
18914	184.59	185.41	3.5	?	. 2.4	1.28	

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Sample From

Hole No.: MC.85-258

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Pase No.1 8

30% sreen chloritic material. Non-magnetic senerally and non-carbonatized however the lower several meters exhibits white ratches of strong carbonatization. 2 to 3% locally up to 5% disseminated purite.

171.12 171.47 Interflow sediment ; grey to dark grey, grained) intensely pervasively fine carbonatized and very strongly magnetic with distinct magnetile bands. Locally well hedded at 30 to 35 degrees to the core axis however generally the bedding disturbed by late stage has been fracturing and veirlets. 10 To 15% fine syrite in discrete beds and lenses.

new loss of the light of the li

- senerally fracture 171.47 175.93 60% controlled silicification and 40% relativels unsitered green natorial. Abundant sink to white coloured, subrounded, intensely carbonatized fragments noted throughout. Non-magnetic with abundant moderate. pervasive carbonatization and runerous late stage carbonate filled fractures throughout. Trace up to 3% disseminated pyrite.
- 375,93 177,96 90 To 95% pumple silicified breccia with 5 to 10% relicy green rock. Non-magnetic with a distinct hematitic streak and 1 to 3% disseminated serite throughout. Out by several pale wink to green, dioritic intrusives, These intrusives are relatively unaltered, non-cerbonatized and exhibit distinct actuals chloritized mafic grains in a feldspar matrix with trace to 1% escale. Dioritic introvives t 176.24 to 176.38 meters, 176.63 to 176.73 meters of 40 degrees to the core axis and 177,03 to 177,15 meters at 50 degrees to the core axis.
- 177,96 181,73 70 To 25% surfle to grey silicified and hematized process with 25 to 30% relatively unaltered areen rock, Carbonatization is restricted to white to pink) commonly conterted veinlets and ÷. carbonate filled fracture. Trace to 3% disseminated purite throughout, Generally non-megnetic however chloritic esterial is locally moderately magnetic.
- 181,73 196,43 30 To 40% milligined as withhes of Famile breccia and along abundant white to pink สกส betrains classical boundary ariented quartz and adartz-carhonate filled Variably communication to fracturing. locally moderately magnetic within religreen, chloritic rock. Track on to 3%

18915	185,41	186.43	1.02	2	.17	,17
18916	186.43	187,43	1.00	1	5.83	5.83
18917	187.43	188.34	+ 91	1 - 2	+34	.31
18918	188.34	189.33	, 99	2 - 3	.17	+17
18919	189.33	190,29	. 96	1 - 2	+17	.16
18920	190.27	191,22	+ 93	1	+17	.13
18921	191.22	192.43	1.21	1-2	+ 34	+ 41
18722	192.43	193.35	. 92	1-2	.12	•13

To length % Sul - Au

174 1.11

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Sample From

disseminated Pyrite, locally moderately Pervasively carbonatized, abundant late stage carbonate filled fractures,

186,43 193,35 Approximately 15 to 20% moderately silicified material as indistinct surple hued hematized satches, sink quartz and guartz-carbonate filled, contorted veinlets , and minor randomly oriented quartz filled fractures. 80 To 85% sreeps relatively unaltered rock, locally poorly foliated and non-magnetic to locally weakly magnetic. Trace to 1% disseminated Purite. Abundant late stage carbonate filled fractures are noted throughout. Polisted material is severally survesively with the folistion carbonatized highlighted by mm scale carbonate lenses and carbonatized foliation planes. 191.49 Meters : foliated at 40 degrees to the core axis. No distinct lower contact is noted below 193.35 meters nawever approximately the surple hued, hematized breccia is rare and silicification denue. off below 5 to 10% of the core.

193,35 218,91 VARIARLY SILICIFIED ZONE (UNDETERMINED)

Transitional from the role above, marked by variable silicification, however generally less than 5% of the core is silicified. Green, fine grained, moderately to locally well foliated massive rock - probably basaltic. Fractured throushout with sbundant white to pink carponate filled fractures and carbonate veinlets. Carbonatization is restricted to kisry carbonate bodies alons 100 folistion and minor carbonate filled fractures, sreen chloritic material is non-carbonatized. locally thin grey to surple-grey coloured breccie seems exhibit. weak to moderate (ilicification and weak hematization. Silicification is senerally found as pink to red contorted quarte veinlets and cathonate-quarte veinlets and quartz fragments within lensitic carbonate bodies, likely bouding. Quartz-carbonate veinlets are denerally finely cross fracturady these fractures are filled with white carbonate. Rare zones of moderate precriation up to 80 cm thick are generally pervasively carbonatized and weakly to moderately silicified with included grey to brown coloured, strongly silicified fragments. Generally non-magnetic however locally very weakly magnetic, chloritic material is noted. Trace to 1% disseminated purite throughout.

193.35 198.29 As described above, denerally less than 5% silicification restricted to quartz-carbonate filled fractures and

18923	192.35	194.30	,95	6.5	.17	.16
18854	191.30	105.33	1.03	0.5	.17	.18
18925	195.33	196.22	.89	2.5	tr	tr
13223	196.22	192.20	. 28	0.5	.;7	.12
18927	197.20	198.29	1.09	0.5	.17	,19
18928	198.29	199.02	,73	NTE	.17	,12
18929	199.02	199.85	.83	NTI.	tr	Ur
18930	199.85	200.81	.96	0.5	.34	.33
18931	200.81	201.91	1.10	0.5	.34	.37
18932	201.91	203.01	1.10	6,5	t, r	tr
18933	203.01	203.98	.97	0.5	.17	.16
18934	203.98	205.00	1.02	0.5	.17	.17
18935		206.02	1,02	0.5	.17	.17
13936	304.05	207,00	.98	0,5	tr	tr
18937	207,00	208,02	1.02	0.5	. 34	.35
18938	208.02	209.01	. 99	0.5	. 69	. 68
18939	209.01	210.01	1.00	0.5	.17	.17
18940	210.01	210.90	189	0.5	.17	.15
18941	210.90	211,78	.88	1 - 2	.51	.45
18942	211.78	212+57	.79	0.5	t r	tr
18943	212.57	213.38	.81	1	. 69	.56
18944	213.38	214.31	. 93	0,5	t. i	1 m
18945	214.31	215.21.	, 20	0.5	+17	.15
18946	215+21	216.07	.84	0.15	t in	tr
18947	216.07	217.06	,99	0.5	+1.2	+17
18948	217.06	217.67	1 6 1	1-2	. 69	142
18949	217.67	218,44	.77	0.5	.17 1	.13

To Lensth % Sul

199 Colo

From

-4

Hole No.: MC.85-258

Pase No.: 10

From To Description

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auartz fragment cores to carbonate lenses or bouding, Trace to 1% disseminated Parite, non-magnetic, 197,00 meters : foliated at 50 degrees to the core axis.

- 198.29 199.85 Symmitic intrusive : dark red; aphanitic; siliceous intrusive with 20% white; euhedral; feldspar phenocrysts up to 5 mm in size. Non-magnetic with trace to nil pyrite. Contacts are sharp at 60 degrees to the core ages; marging are not chilled.
- 199.85 210.90 As described above from 193.35 to 198.29 meters. Foliation : 202.15 meters at 69 degrees to the core axis, 206.60 meters at 45 degrees to the core axis and 209.80 meters at 50 degrees to the core axis.
- 210,90 213,35 10 To 20% silicified at marta-carbonate filled fractures, quartz-carbonate growths alons foliation and indistinct surple hued weakly to moderately silicified and hematized breccia seams. Moderately to strongly foliated with abundant locally pervasively' carbonatization. carbonatized. Generally non-magnetic with trace to 2% disseminated purite, 011.60 meters : foliated at 50 degrees to the core sxis.
- 213.35 217.06 As described above from 193.35 to 198.79 meters. Less than 2% silicification as Fink quarty fragments within thicker carbonate veinlets and growthy. Non-magnetic, trace to 1% disseminated Pyrite and locally strongly pervasively carbonatized. 214.10 meters : foliated at 50 degrees to the core axis.
- 217.06 217.67 80 to 90% purple srew, weakly to moderately tilicified and strangly pervasively carbonatized breecis. Abundant wellow brown angular to subangular silicified fragments up to 2 cm in diameter. Non-magnetic with 1 to 2% disseminated parity.

217.67 218.91 5 To 10% week to moderate silicification as quartz cores to carbonate veinlets and thin, grey preceis (0.04). Strongly pervasively carbonatized throughouts non-magnetic with trace to 1% disseminated perite, 219.50 Meters 1 foliated at 50 degrees to the core pais. Below C18.91 the rock is still strongly foliated and carbonatized howeves non-silicified.

Samele	From	10	Lensth	X	5 u 1	Λu	64
18950	218.44	218.91	. 47		0.5	.34	.16

198 144

218,91 224,94 CHLORITE-CARBONATE SCHIST

-11

18951 218.91 220,20 1.29 0.5 th th

Hole Heit MC.85-258

Page No.1 11

r.	r	o	n,	
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10 ----Bescription-----Green fine grained, chloritic and well foliated

similar to the variable silicified zone material described above, however silicification is rate and Foliation is highlighted by wispy carbonate weak. growth and sub-parallel carbonate veining along the Generally 20 to 30% white to pale pink folistion. carbonate, locally pervasively carbonatized, Rare thin, strongly carbonatized and weakly silicified breccia seams and minor quarty fragments within carbonate noted. Non-magnetic with trace to 1% veinlets disseminated parite, 220.22 to 220.65 meters ! dres. strongly pervasively carbonetized, massive material, Possibly an intrusive however contacts are indistinct. Foliation : 219.40 meters at 55 degrees to the core axis and 224.50 meters at 60 degrees to the core axis, Contact with the underlying foliated basalt is indistinct and gradational, foliation is less distinct down section and volcanic structures become visible.

224.94 233.91 FOLIATED BASALT

Green: fine to very fine grained: locally weakly to moderately well foliated basalt. The foliation is highlighted by wispy carbonatization, however the unit is cut by numerous randomly oriented carbonate filled fractures and is locally pervasively carbonatized. Dark green, chloritic and locally epidotic, 1 to 3 thick seams probable represent relic fillow'selvages, es. 229.22 meters. Locally poorly preceisted, weakly silicified and strongly commutized zones are noted up to 20 cm wide es. 229.52 to 229.72 meters. Non-magnetic with trace to 1% disseminated explites locally up to 2% in brecciated, carbonatized and weakly silicified zones. 228.40 meters : foliated at 50 degrees to the core axis.

233.91 242.02 VARIABLY SILICIFIED BASALT

-1

Medium sneen, fine snained, locally soorly folisted Fillowed flow. Cut he abundant carbonate and quartz-carbonate filled fractures/ senerally randomly oriented however locally sub-parallelism of veining, wisey carbonatization and thin precria seams highlight a moderate foliation. Pillow selvades are indistinct zones up to 20 cm thick of dark shoon chloriter carbonate and quartz with 1 to 5% disseminated purite. 5 To 20% of the core is sites to releaseff colouredy strongly carbonatized and moderately silvrified breccia with 1 to 3% disseminated purity, Non-Magnetics Degree of precciation and alteration decreases down section and Pillow selvages become more distinct, the transition to the underlying foliated basalt is gradiational.

Sample	From	Τo	Lensth	%	Sul	តំធ	(i W	-
18952	220,20	220,65	.45		0.5	te	tr	
18953	220,65	221.78	1.13		0.5	tr	tr	-
18954	221,78	222,78	1.00		0.5	tr	եւ	
18955	222.78	223.85	1.07		0.5	.17	+18	
18956	223,85	224.94	1.09		0.5	tr	tr	

18957	224.94	225.93	,99	0.5	tr	"Yn r et o
18958	236.93	227.72	, 99	0.5	l. r	t, r
18959	228,99	229.98	.99	0.5	.17	.17
18960	231.02	232.01	* ò ö	0.5	t. y	4 r
18961	233.03	233,91	+88	0.5	tr	tr

18962 233	1.91 234.96	1.05	0.5	tr	t ir
18963 234	1.98 236.03	1.07	1	tr	tr
18964 236	.03 237.03	1.00	0.5	.17	•17
18965 237	1.03 238.04	1.0,1	0.5	.17	.17
18966 238	1.04 239.02	• • • 8	1-2	te	1 e
18967 239	02 240.03	1.01	3.5	t r	Ur
18968 240	.03 241.08	1.05	1	tr	t, p
18969 241	L.08 242.02	i 9.4	$C_{1,2}$	1 in	t, i

Hole No.: MC.85-258 Pase No.: 12

From

To ______Description-____

Sample From

Τn

Length % Sul Au

G₩

242.02 278.58 FOLIATED BASALT

Continuation of the overlying unit however pillows are better preserved and degree of silicification decreases. Randomly oriented carbonate and carbonate-quartz filled fractures and quartz vehilets persist and locally grey coloured, weakly silicified and strongly carbonatized breccia zones are noted. Generally less than 2% of the core is silicified, fillows commonly exhibit vesicles and selvages locally contain hyploclastite. Locally the is weakly to moderately foliated, demerally flow highlighted by carbonatization along the foliation, Non-magnetic with trace to 1% disseminated pyrite, Foliation : 249.50 meters at 50 degrees to the core axis, 258.60 meters at 45 degrees to the core axis and 275.20 meters at 60 degrees to the core exis.

- 242.02 265.50 Locally foliated millowed flow : carbonate fractured and breeciated, locally foliated, millowed flow as described above. Fillows become less distinct down section, shading to a massive flow below 265.5 meters approximately.
- 265.50 278.58 Locally foliated massiye flow. gradational from the pillowed flows above. Green to grey green, fine grained, locally roorly folisted massive flow. Like the pillowed flows above, the flow is cut by abundant. earbonate. and minor auartz-carbonate filled fractures and veinlets, tocally pourly foliated, highlighted by wispy carbonatization. Rare poorly silicified breccia seams are noted. The grey hue is generally due to local strong pervasive carbonatization. Non-meanetic with trace to 1% disseminated Below 270 noters arresimately pyrite. stes to sellow brown coloured. minor pervasively carbonalized and weakly silicified breccie seams from 1 up to 20 em thick are noted.

278.58 287.87 TRANSITIONALLY SILICIFIED HASALT

Continuation of the overlying massive flow however a marked increase in brecciation, with associated carbonatization and weak to moderate silicification is noted. Approximately 20 to 40% of the rock is grea to asle sellow, purple and mink coloured breccia as indistinct patches and seams. White to grea carbonate filled fractures and carbonate-quarts veinlets are noted

18970	242.02	243,00	• 98	0.5	nil	nil
18971	244.00	244.98	,98	0.5	tr	tr
18972	246.02	247.02	1.00	0.5	tr	tr
18973	248.03	249.00	.97	0.5	.34	.33
18974	250.02	251.00	+ 98	0.5	, 69	. 68
18975	252.02	253.04	1.02	0.5	.34	.35
18976	254.02	255.03	1.01	0.5	.17	.12
18977	256.02	257.01	.99	0.5	tr	tr
18978	258.00	258.99	.99	0.5	+17	+17
18979	260.07	261.10	1.03	0.5	t r	しゃ
18980	595105	263.03	1.01	0.5	tr	tr
18981	263.98	265,08	1.10	0.5	tr	tr
18982	266.05	256.99	. 94	0.5	tr	t r
18983	267,97	269.02	1.05	0.5	tr	tr
18984	270.01	271.03	1.02	1	.17	+17
18985	272.07	273.05	, 98	0.5	tr	tr
18986	274.34	225.44	1.10	0.5	tr	tr
18987	276,45	277.54	1,09	0.5	tr	tr
18988	277,53	278.58	1.04	0.5	ter	18 1 - 14

18989	278.58	279,08	.50	1	.17	.08
13990	279,08	279.95	.98	0.5	tr	te
18991	279.96	280,78*	+82	0.5	.17	.14
18792	260.78	281.42	. 53	1 - 2	. 34	.22
18993	281.42	282,58	1.16	0.5	. 69	. 80
18994	282.58	283.63	1.05	1	188 J	.72
18995	283.63	284.57	, 94	1	tr	tr
18996	284.57	285.34	+ 7 ?	1 - 2	. 34	126

Hole No.: MC.85-258 Pase No.: 13

From To		Samele F	From To	Lensth %	4 Sul	កំច	G₩	
	throughout however the majority of carbonatization is Pervasive, Breccia is weakly to moderately silicified with highly silicified, pale yellow brown fragments,	18998 28	35,34 286,03 36,03 287,03 37,03 287,87	1.00		tr	,23 tr ,14	

Locally a roorly developed foliation is observed. Benerally non-magnetic with trace up to 2 to 3% pyrite within brecciated material. Below 287.87 meters the brecciation, silicification and carbonatization drops off becoming a poorly foliated to massive rock down section.

287.87 306.00 CHLORITE-CARBONATE SCHIST

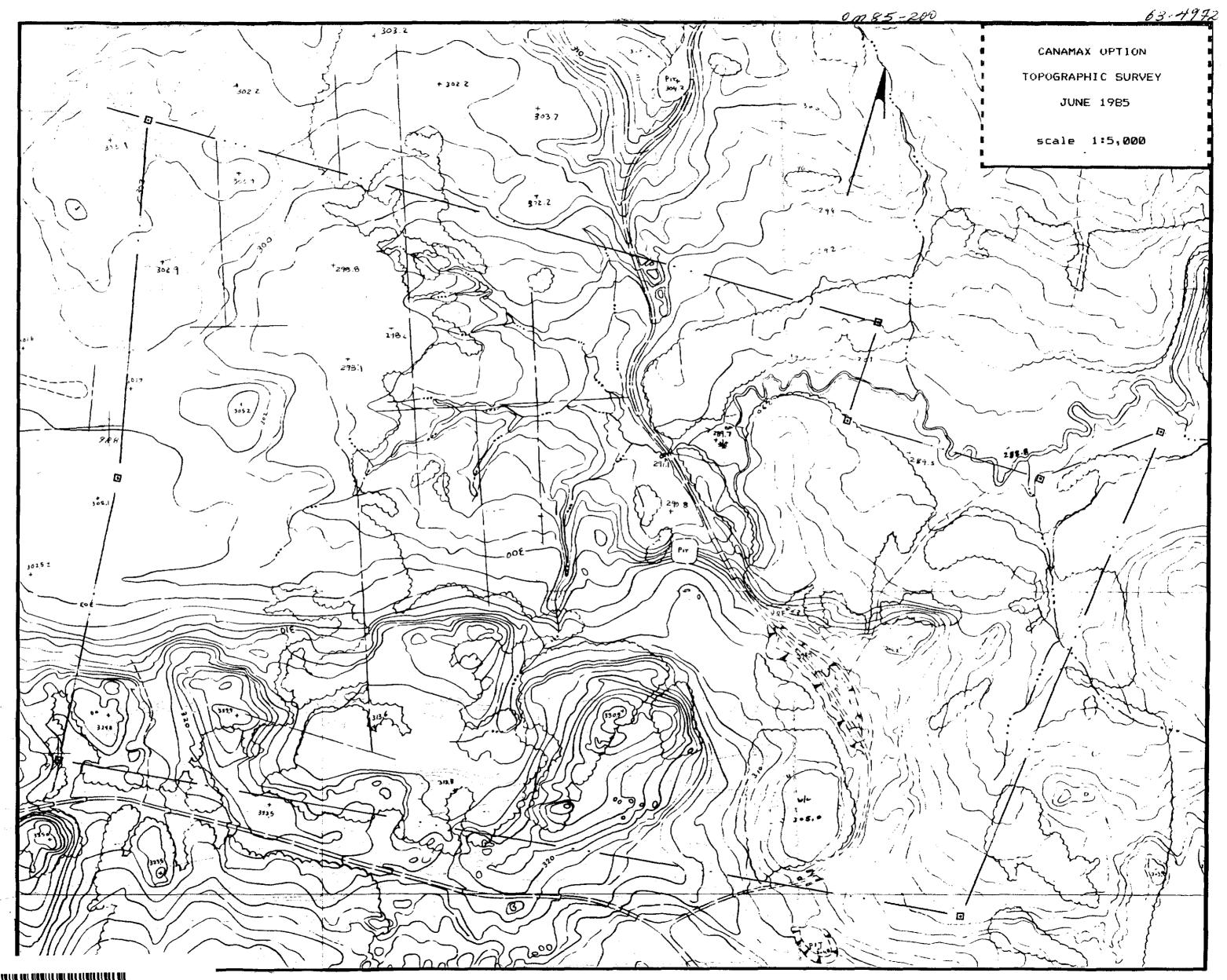
Continuation of the above unit however breccistion and associated alteration are very rare. Green to dark green, fine to medium fine grained massive to locally POOTLY folisted tooly possibly basaltic. Carbonatization persists as irregular carbonate filled fractures and -veinlets, wisey carbonate growths highlighting the foliation and local moderate pervasive . carbonatization. Rare patches of grey, pervasively carbonatized and weakly silicified breccia are noted as in the overlying unit. Cream to Fale grey 0.5~2.0mm of the core is noted locally due to speckling leucoxenitic overgrowths, Generally non-magnetic with trace to 1% disseminated purite. Below 294.3 meters approximately the material is coaser grained with abundant indistinct chloritic clots poorly alianed alona the foliation. A zone of greate vellow brown coloured weakly silicified brecciation is noted from 302.69 to 305.11 meters - transitional silicified basalt, Below 305.11 meters approximately the foliation becomes very indistinct and grades down sortion to the underlying, lighter green massive flow, Foliation (293,00 meters at 45 degrees to the core axis, 297,25 meters at 45 degrees to the core axis and 303,70 meters at 45 degrees to the core axis.

19000 287,87 288,94 1.07 0.5 tr tr20084 290.17 291.10 .93 0.5 t.r tr 20085 292.07 293.07 1,00 1 tr tr 20086 294.05 295.05 1.00 0.5 tr tr . 97 20087 296.05 297.02 0.5 tr tr 20088 298.01 299.04 1.03 0.5 trtr 20089 300.06 301.11 1,05 0.5 1.1 tr 20090 302.05 302.69 .64 0.5 1.1 tr 20091 302.69 303.51 ,82 0.5 .17 ,14 20092 303.51 304.39 .88 1-2 + 3,Q . . . , , 34 20073 304.39 305.11 .72 0.5 + 69 .50 20094 305.11 306.00 .89 1 . 69 .61

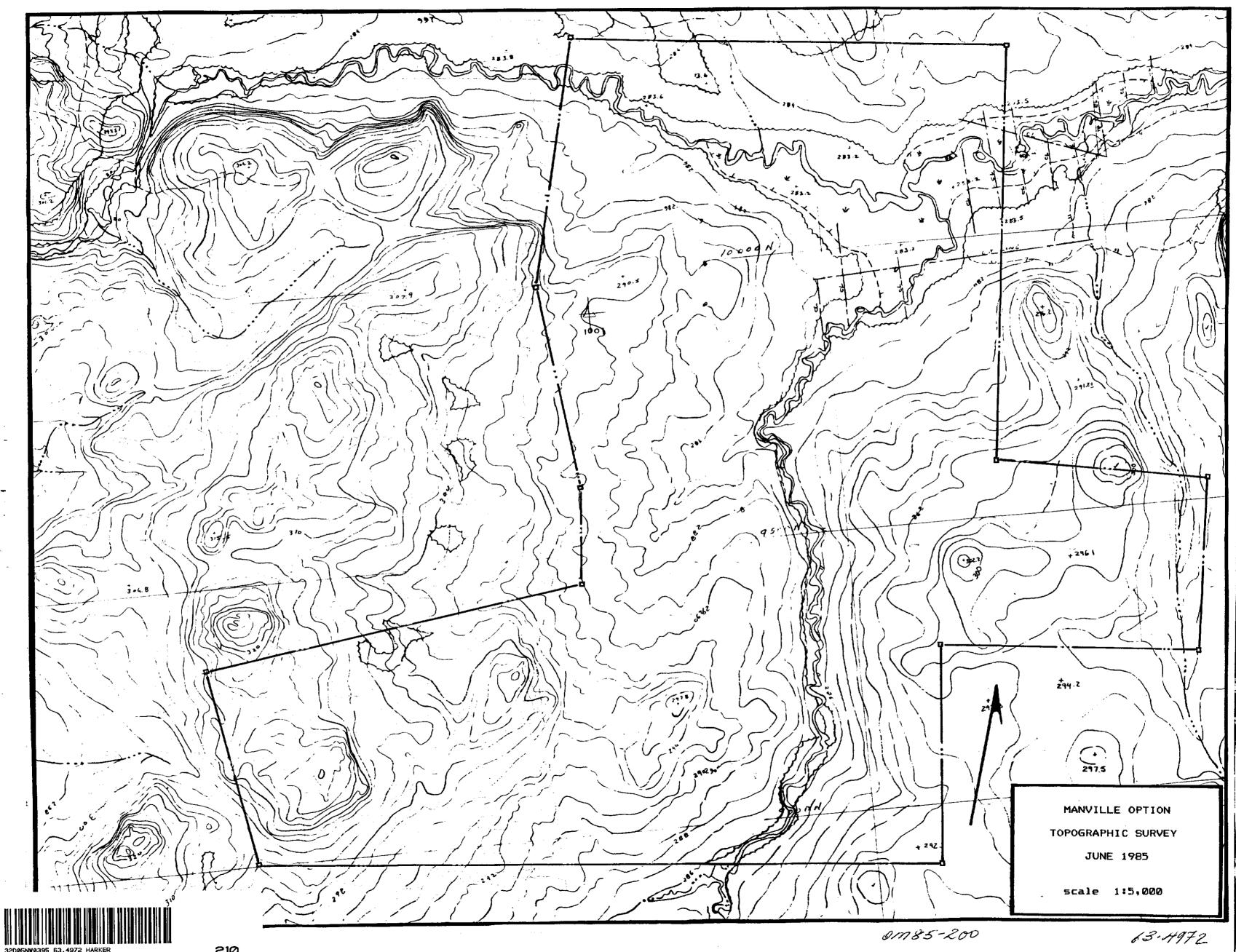
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306.00	310.21	BASALT

Medium green, medium grained, massive flow, Uark green mafies surrounded by a sale green, esidotic matrix, Non-foliated and non-carbonatized with minor white carbonate-quartz veinlets, Gradational from the overlying material, Non-magnetic with trace to 1% euhedral syrite. 20095 306.00 307.01 1.01 0.5 ŧr. tr 20096 307.01 308.11 1.10 0.5 **4**. г. A e 20097 308,11 307,20 1,09 0.5 l r tr 20098 309.20 310.21 1.01 0.5 tr tr

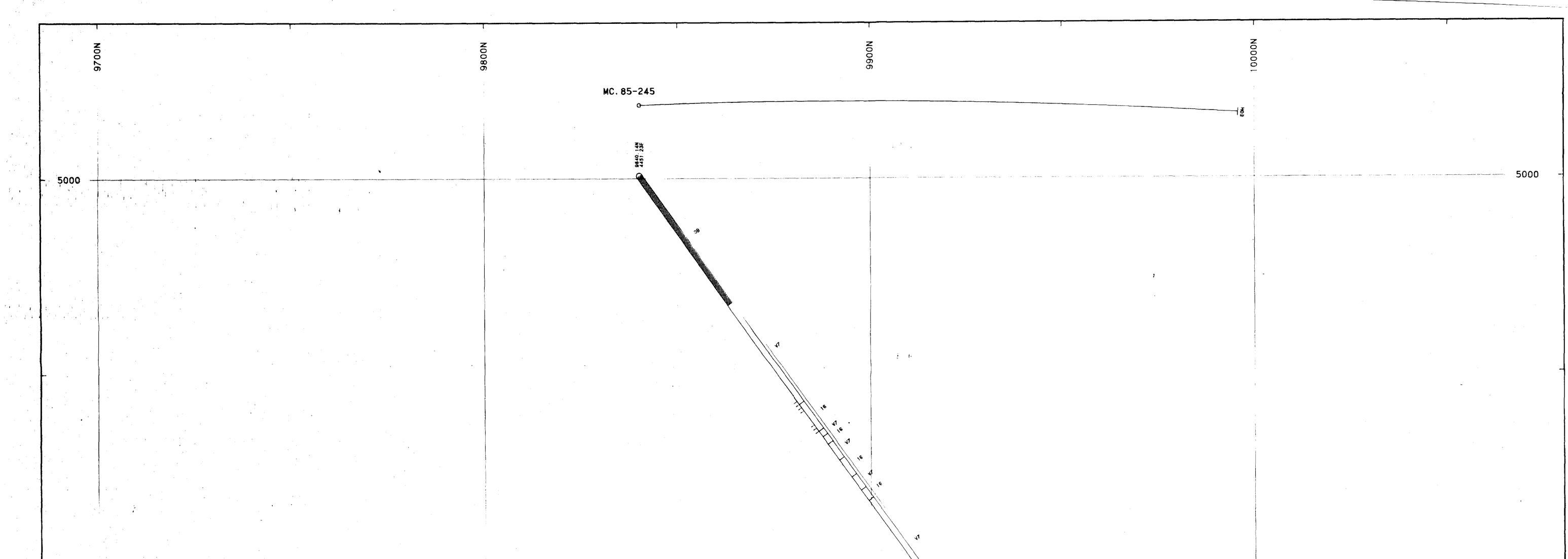
310.21 END OF HOLE.







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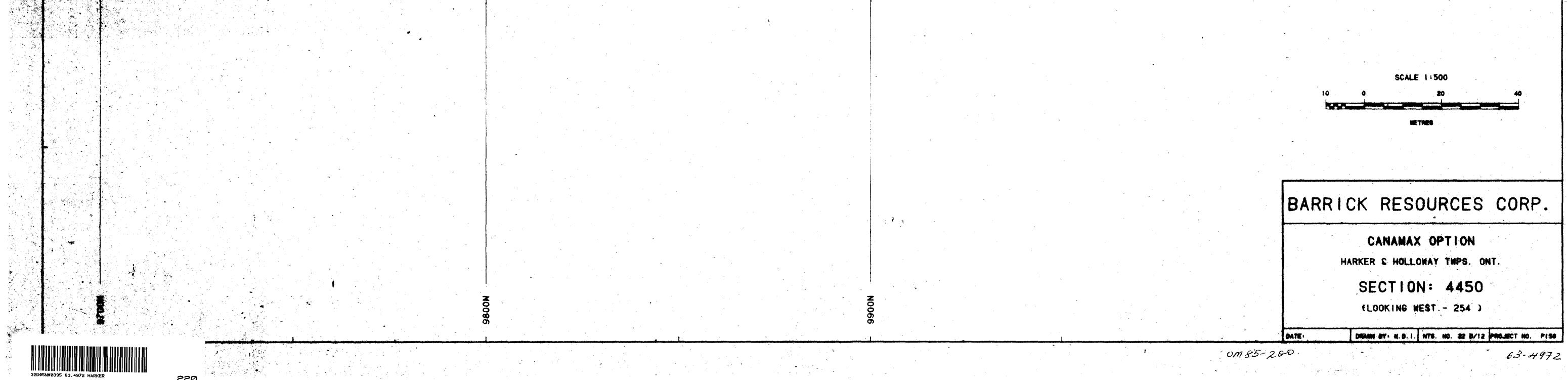
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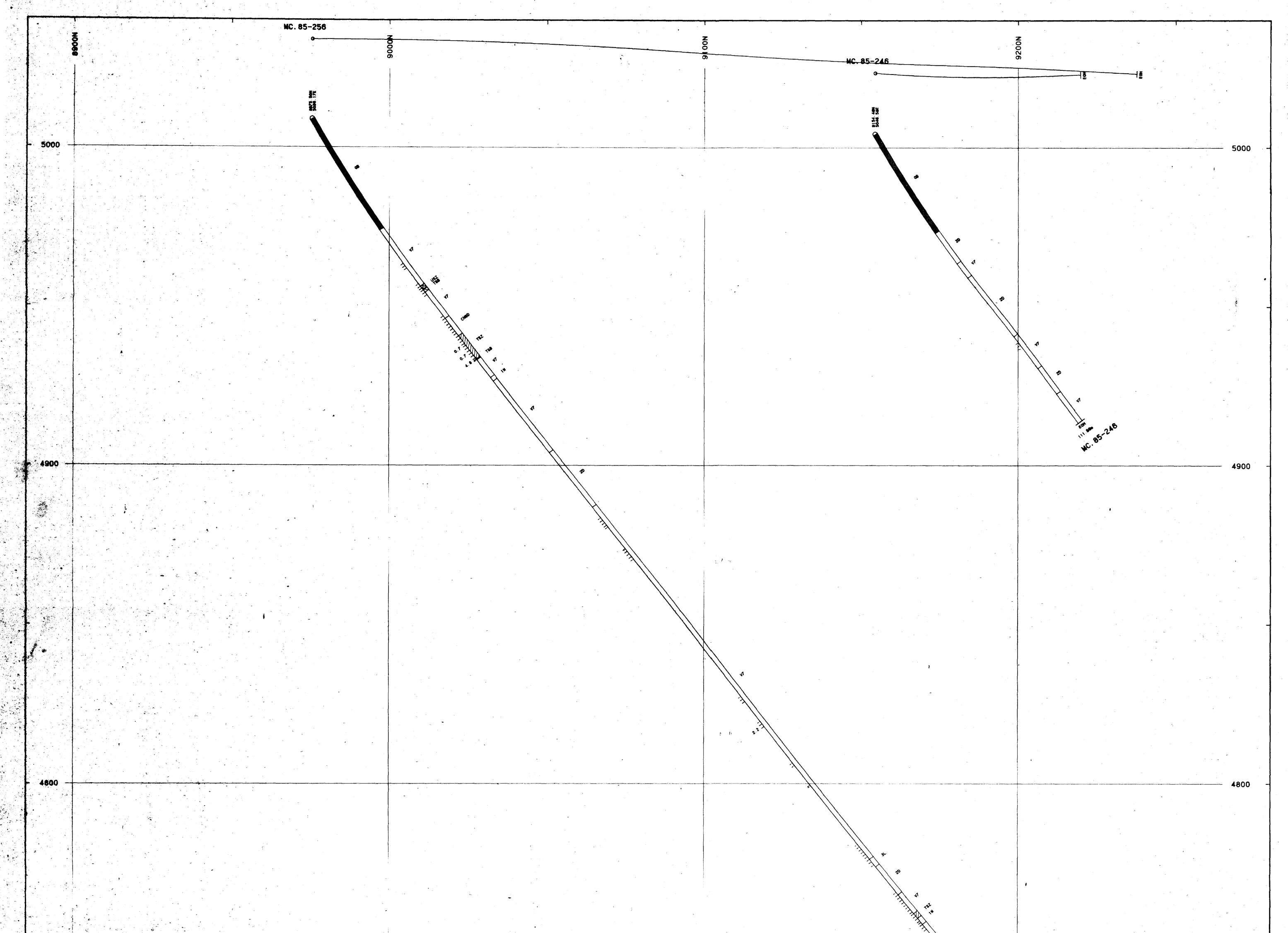
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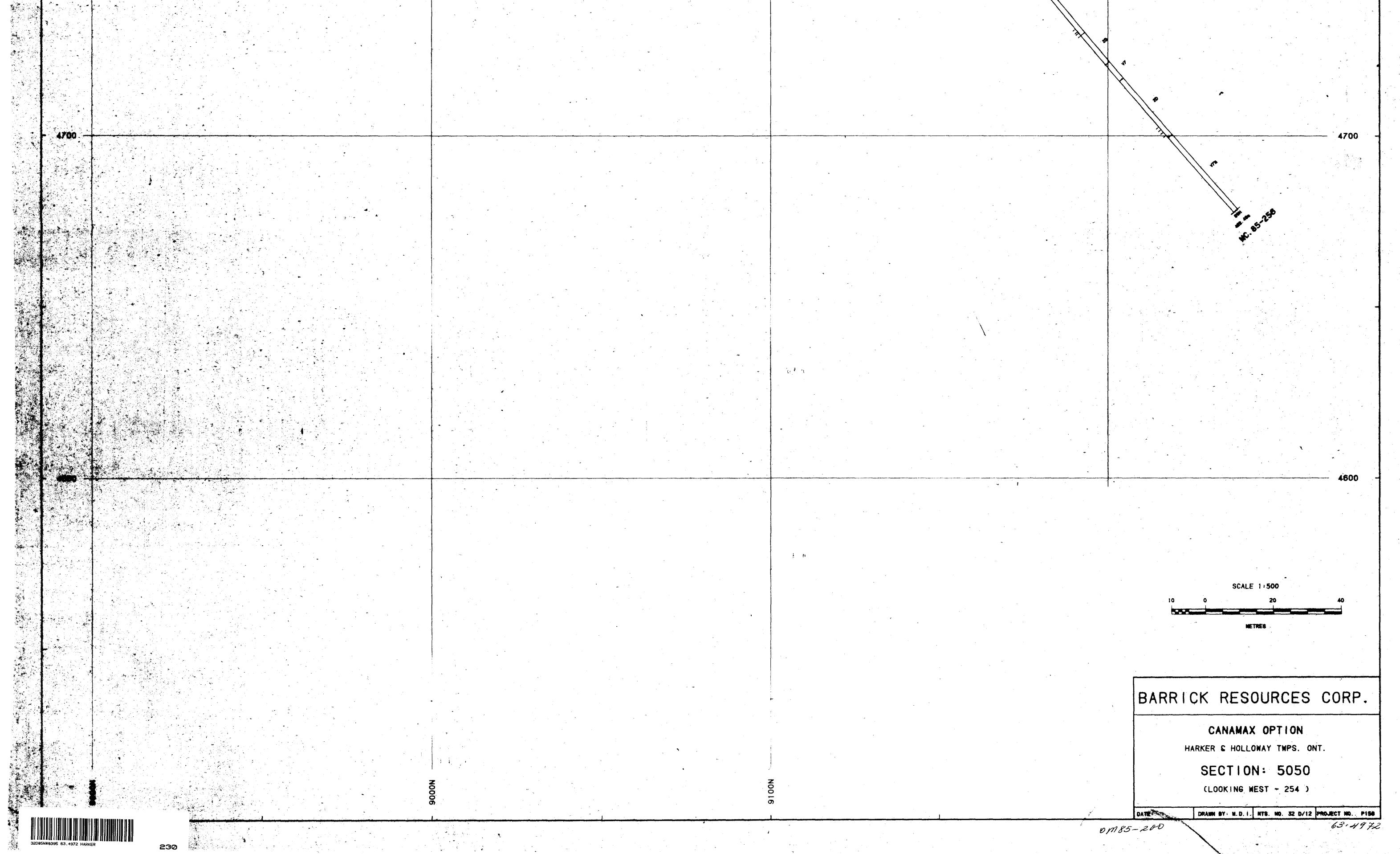


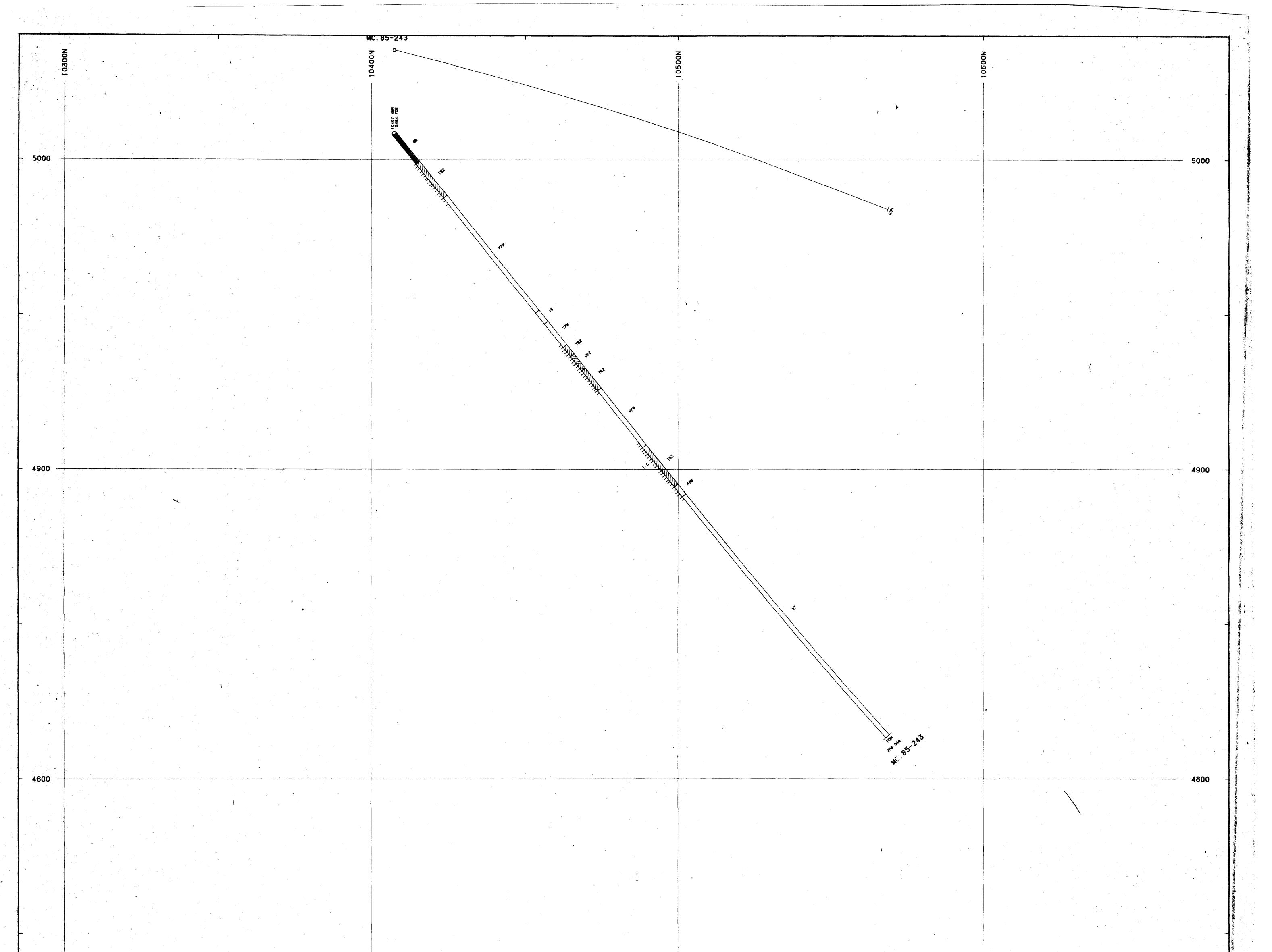
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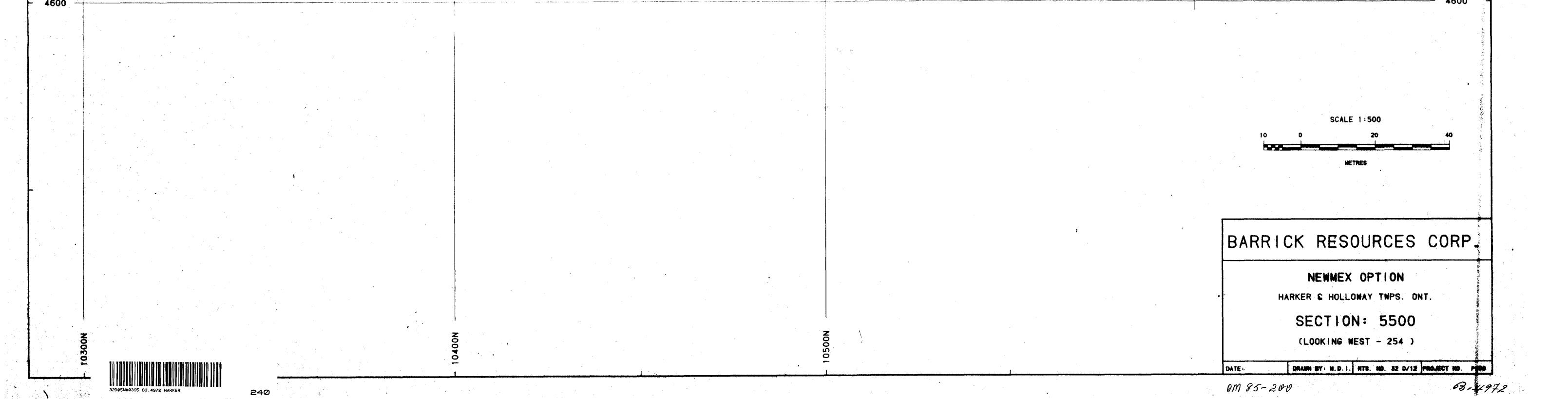
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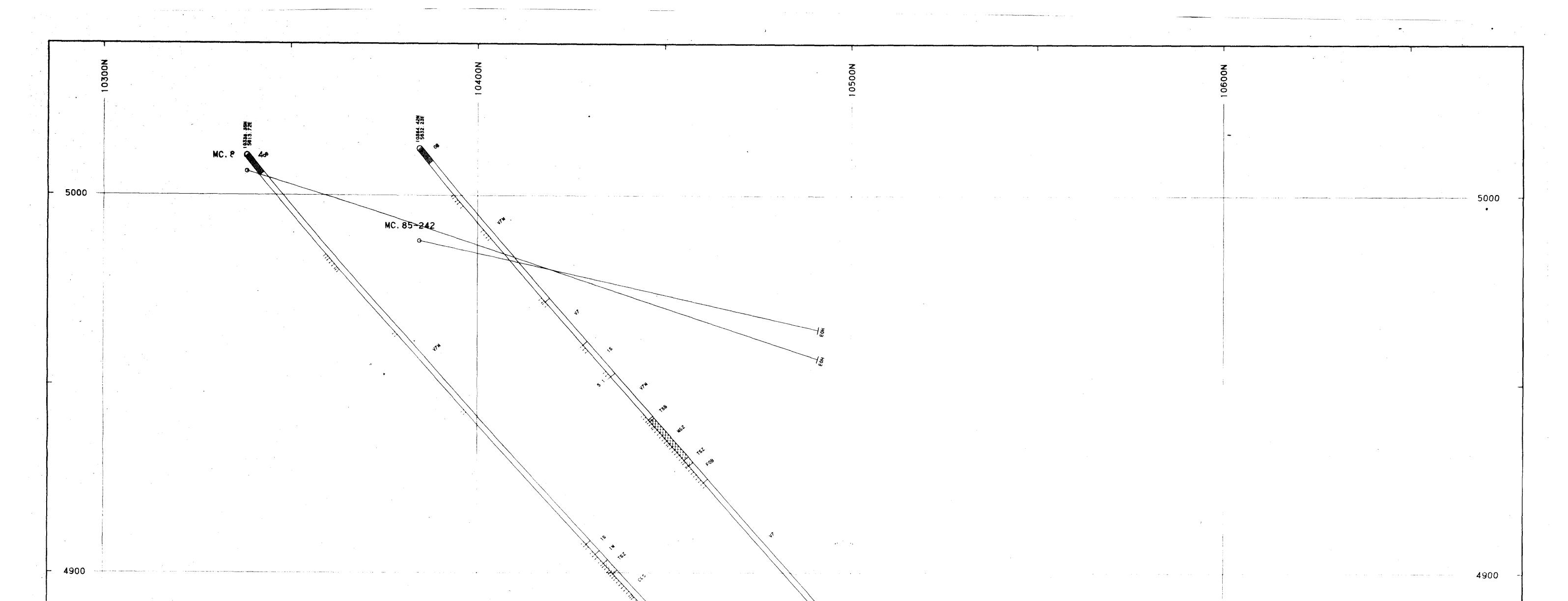
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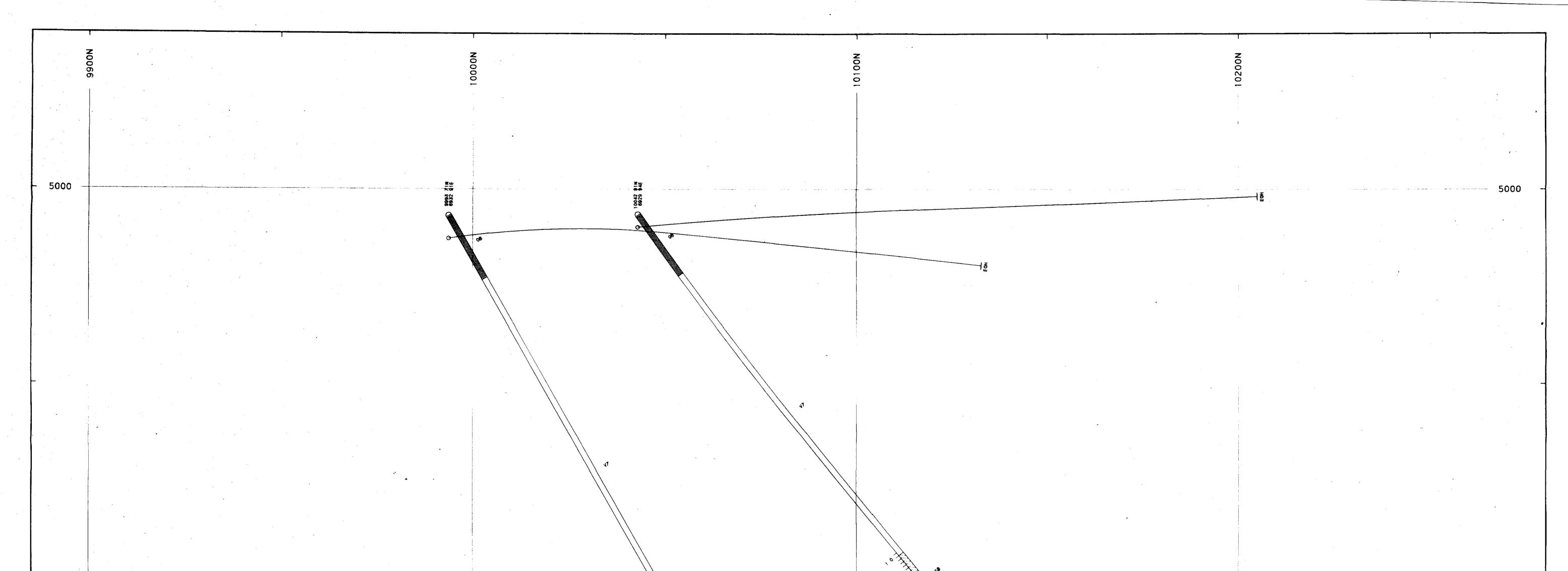


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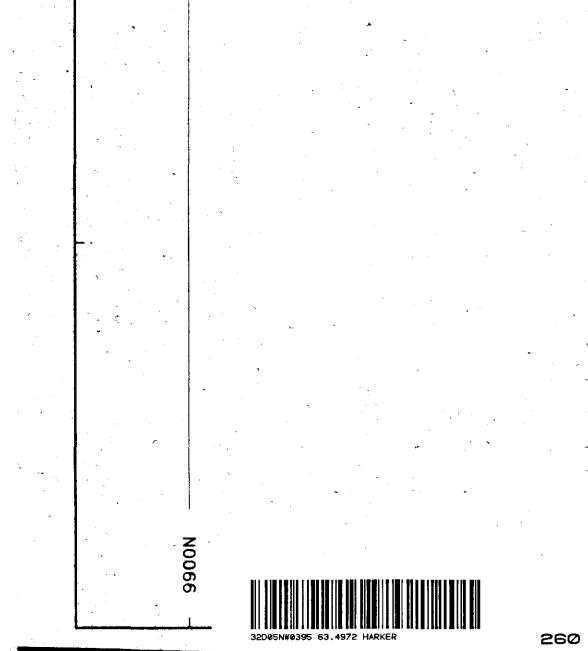


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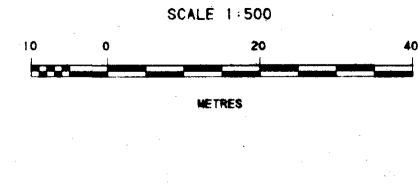
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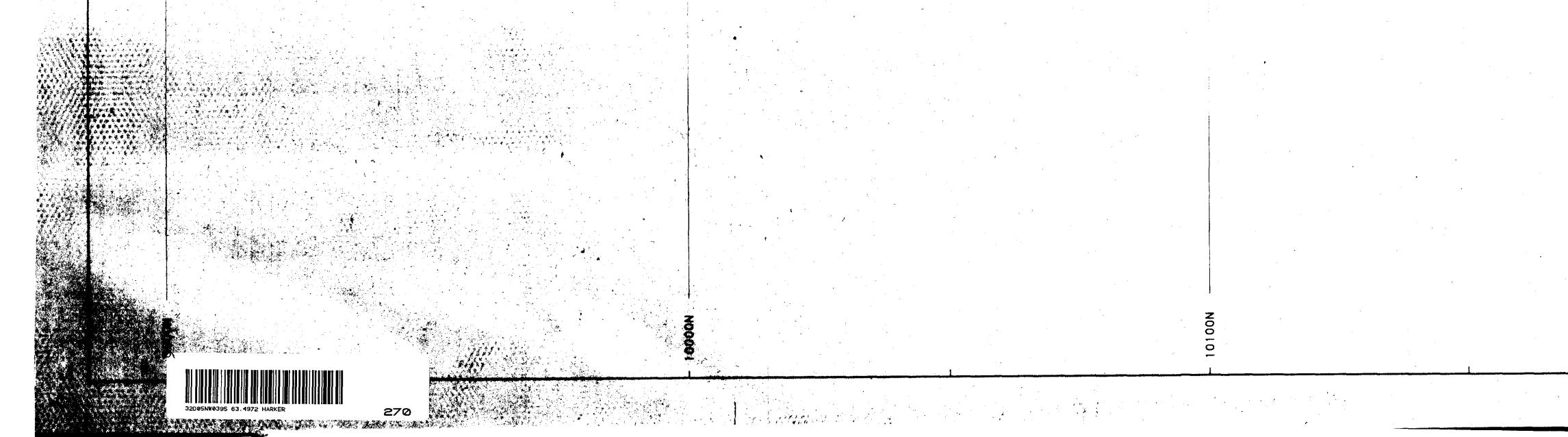
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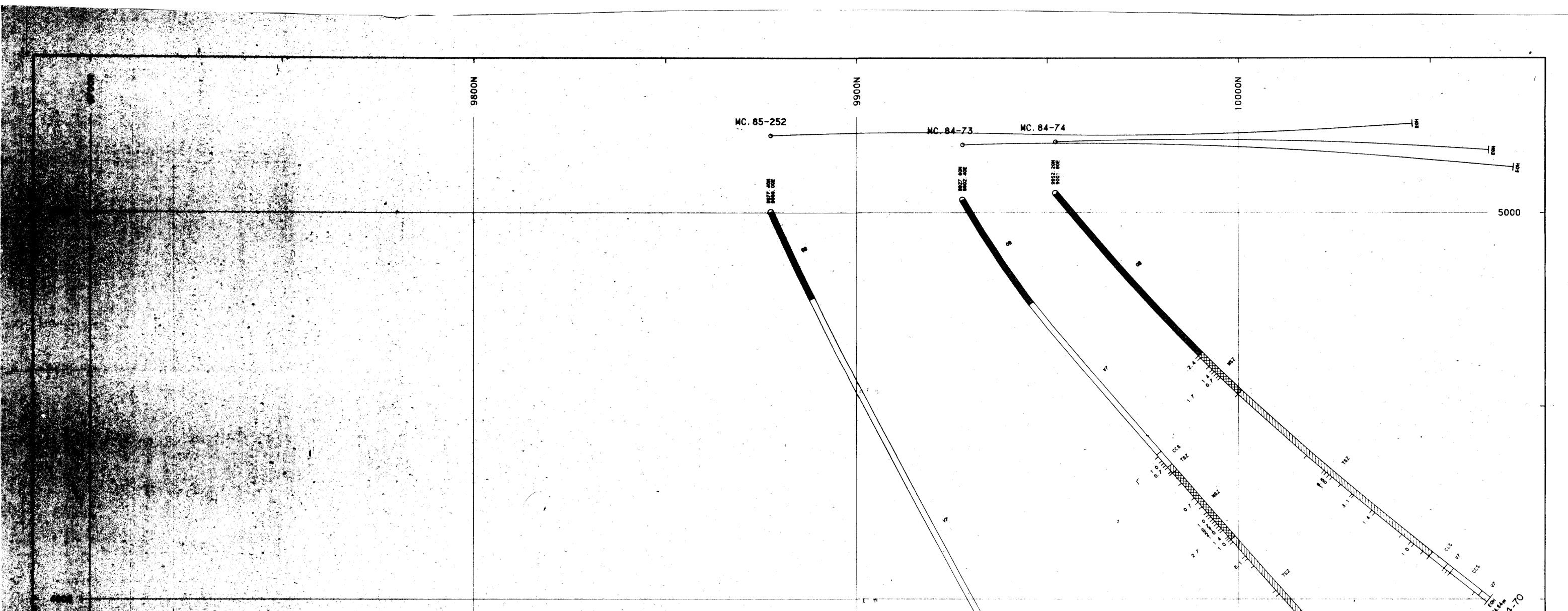
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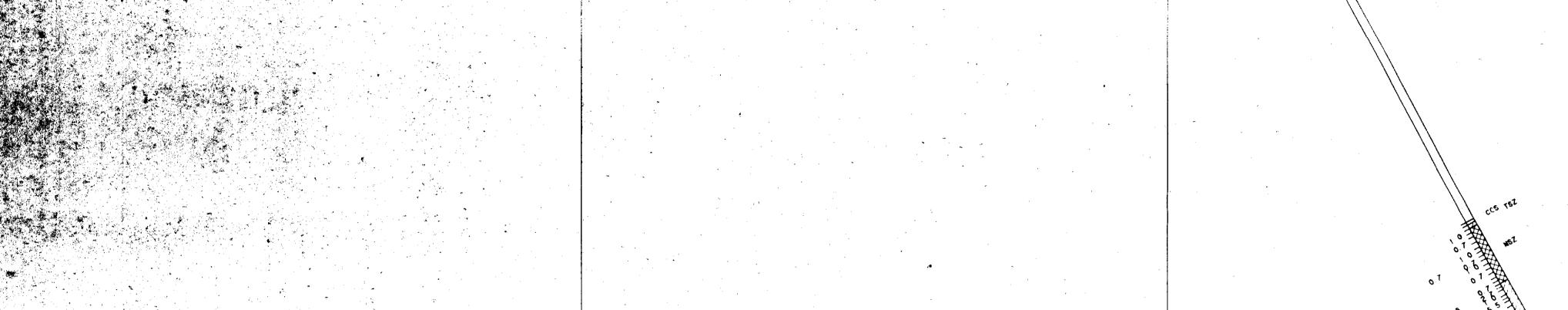
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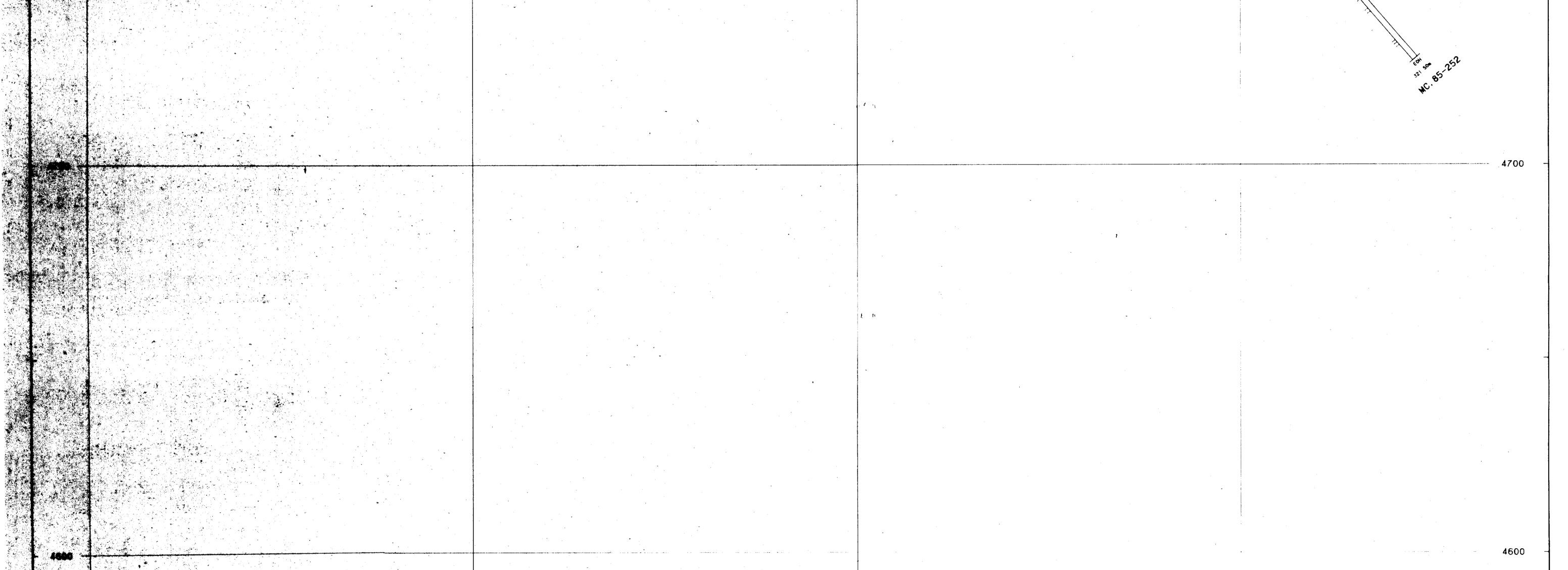
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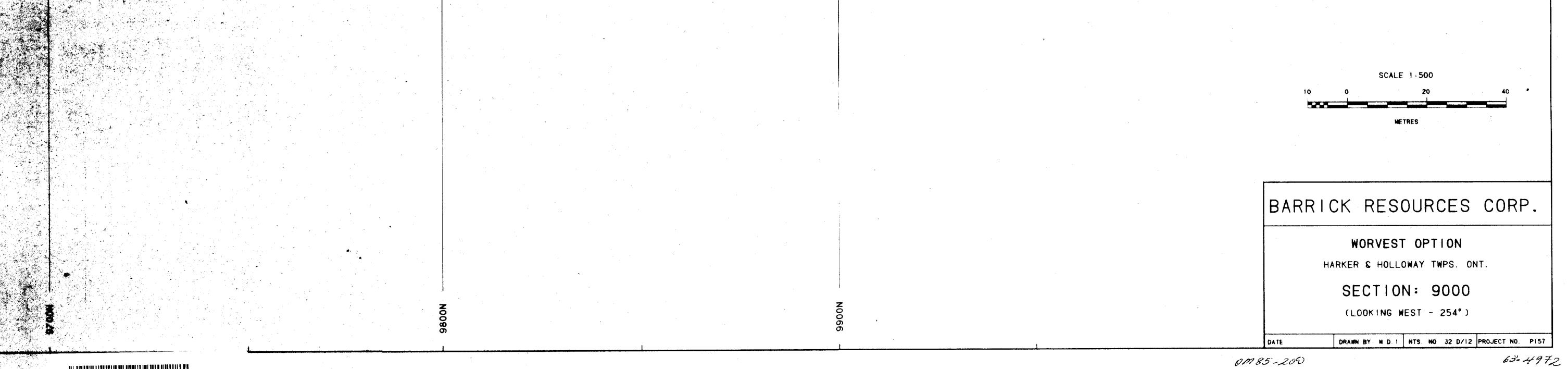
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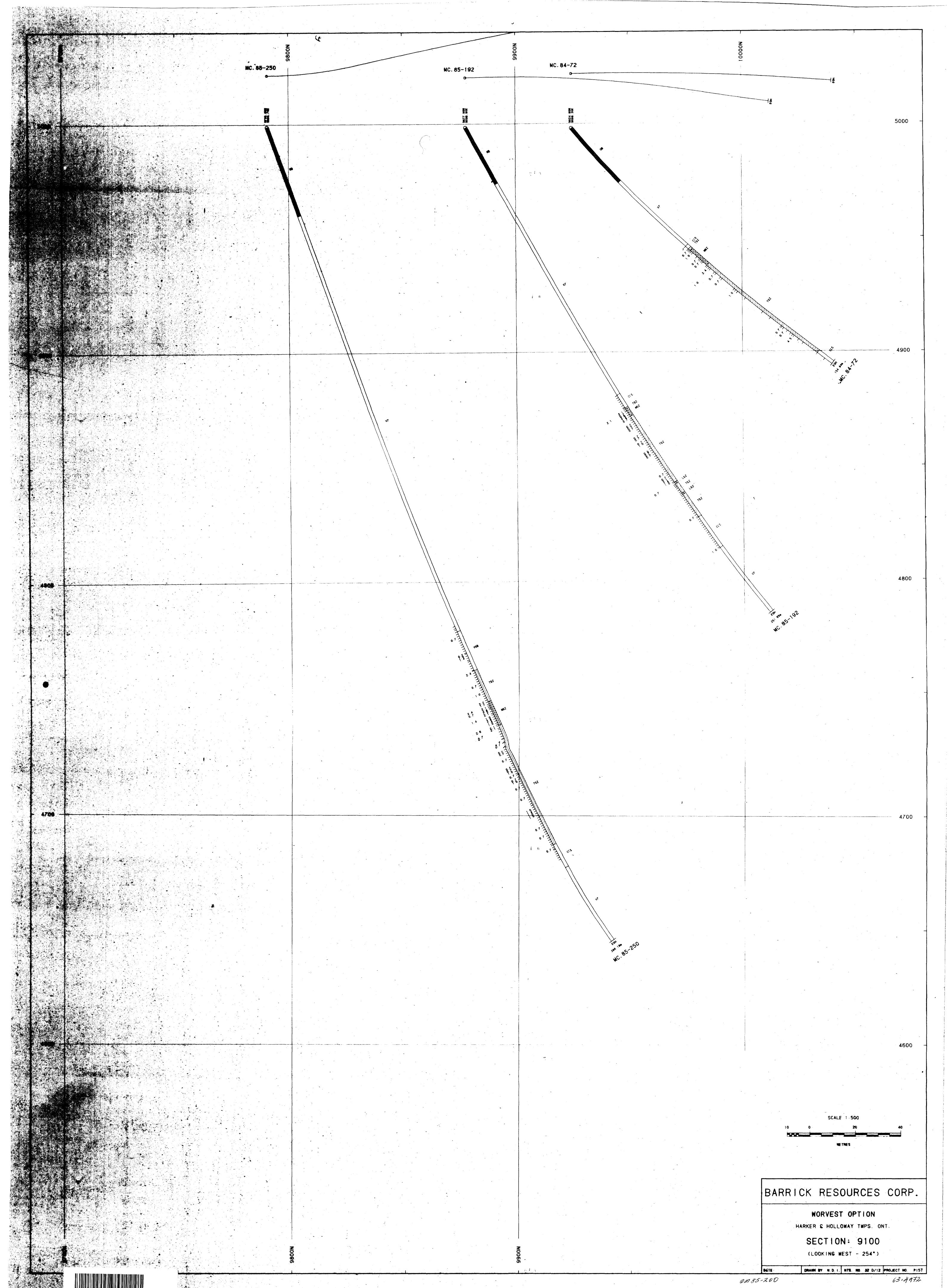






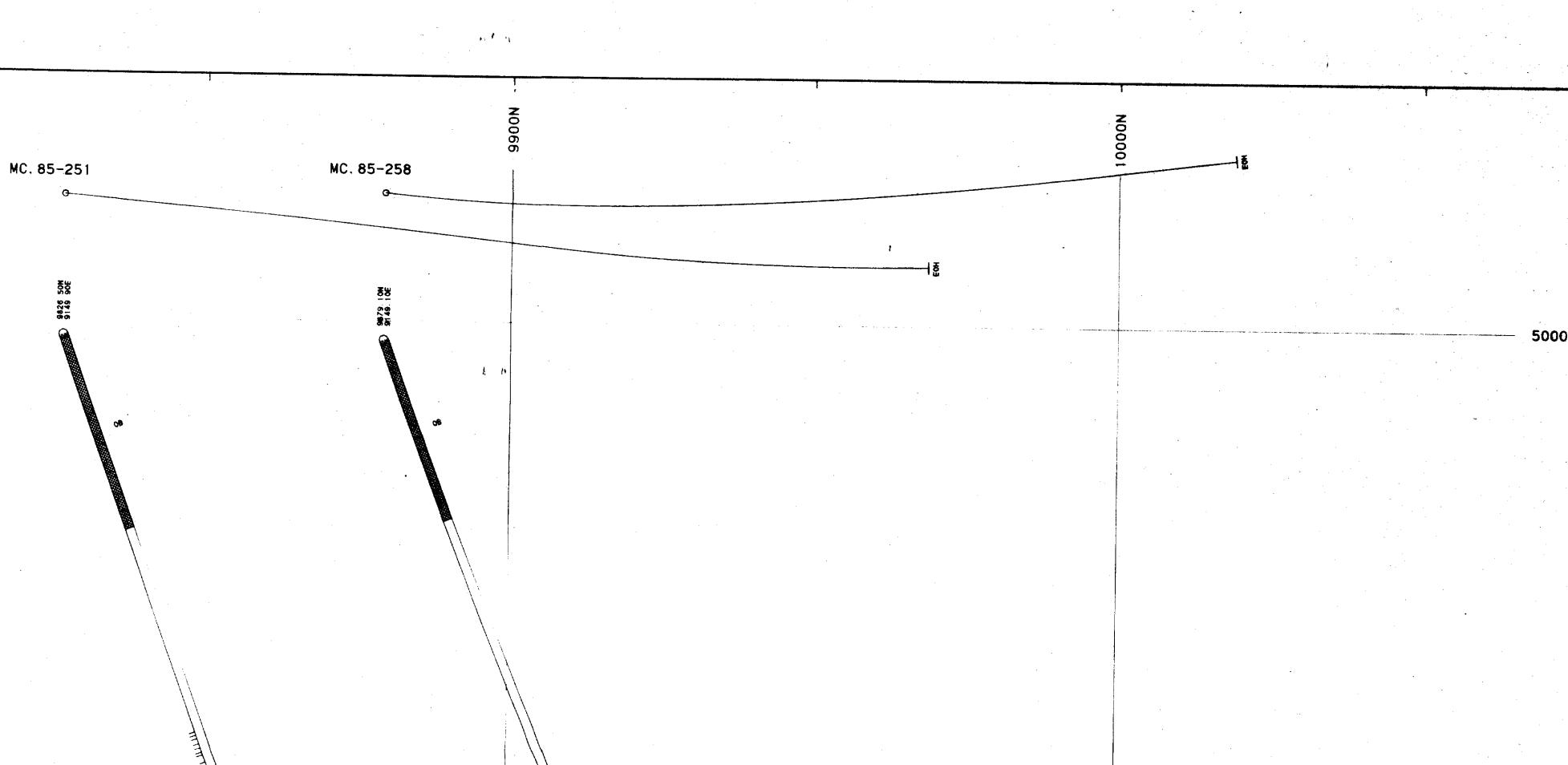
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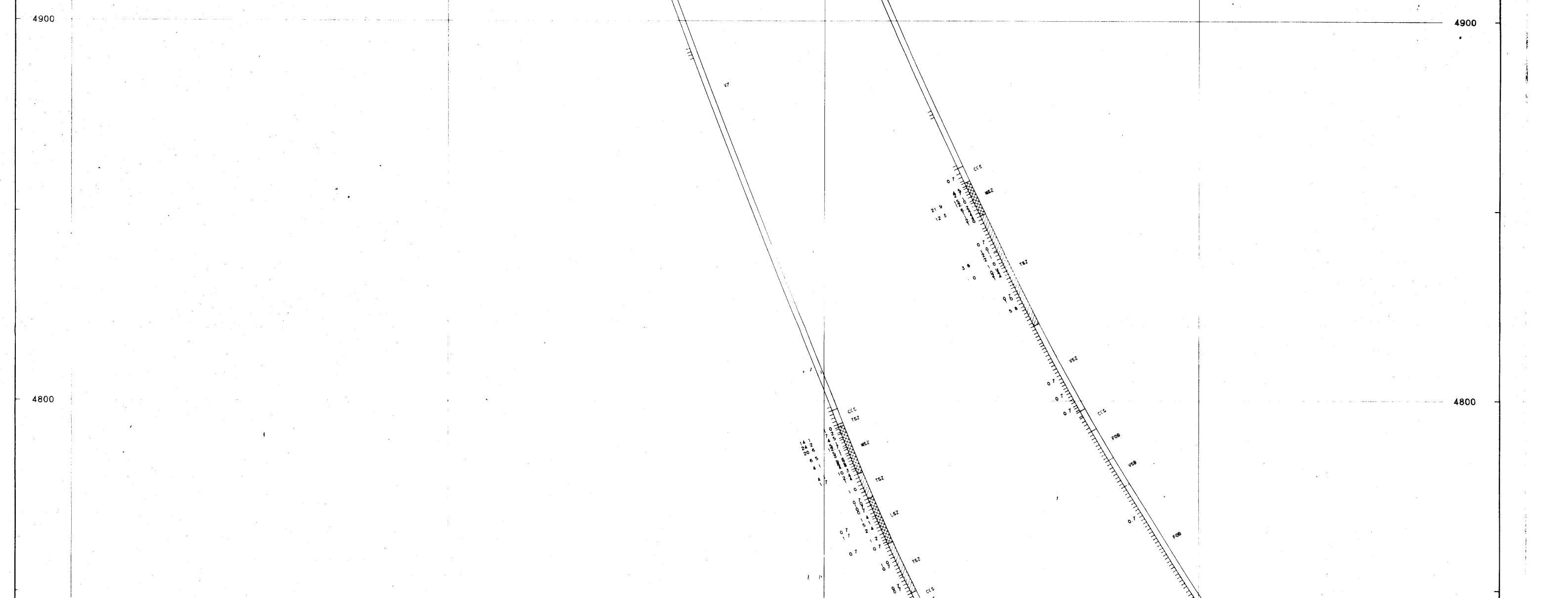
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