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SUMMARY

REPORT

ON

BANKS ISLAND GOLD

TO DECEMBER, 1963

Skeena

MINING DIVISION

J. J. McDougall,
Geologist.

3009

Map Ref.: 103 G/East
103 H/West

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To December, 1963

Vancouver, B. C.
January 24, 1964

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C O N T E N T S

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SUMMARY REPORT

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INTRODUCTION

This report summarizes all data pertinent to our Banks Island gold prospect to date, plus recommendations for future work. Such is far from complete but nevertheless included here, although often in fragmentary form. Conclusions reached are preliminary, thus not to be taken as gospel at this early date.

The writer has been in close touch with all work done in the area during the last few years and several reports precede this one. This work has been generally exploratory in nature thus no long-haired problems are discussed. Drill logs accompany the report but most required maps are bound separately.

PROPERTY AND EQUIPMENT

We own by location 248 claims in 5 groups through a 30-mile length of Banks Island. Most of these are in one continuous group (the "Banker" and "Isle") which runs for 17 miles. A recent "neighbour", McIntyre, has about 100 claims, mostly in and around ours, while Silver Standard (40?), Fort Reliance (80), and Torwest (20) have staked, on speculation, along the most convenient water ways at hand.

We now have four tent frames and four plywood buildings at Hepler Lake including a dry. Cookhouse facilities are limited to twelve men. A good plane dock and heliport have been constructed. Boyles Bros. has left an AX wireline drill on the Kim Zone and one of our Longyear machines is on the Englishman Zone. In addition we have a Cobra drill

as well as one complete packsack drill.

Equipment left is quite safe as access is restricted to aircraft, generally reputable commercial operators whose pilots know the small and tricky lake. This material would never be safe were it 1/2 mile closer to salt water and pilfering fish boats.

LOCATION, ACCESS, VEGETATION AND CLIMATE

Banks Island is a northwesterly trending 40-mile by 20-mile uninhabited body of land situated on the east side of Hecate Straits some 60 miles east of the Queen Charlotte Islands on the B.C. northwest coast.

Our base camp, situated on 3/4 mile long Hepler Lake, is about 60 miles east of Sandspit on the Charlottes and about 70 miles south of Prince Rupert. Vancouver is 400 miles to the southeast. Habitation in the area consists of a few men operating a (U.S.?) radio relay station on Bonilla Island a few miles off the northwest coast of Banks and a few families on Trutch Island several miles south of Banks Island where B.C. Telephone maintain a large micro-wave relay unit.

Access to Hepler Lake is generally via Pacific Western Airlines and/or North Coast Airlines - both of Prince Rupert. During rough weather, nearby and much larger Banks and Waller Lakes are used. Heavier equipment has been moved in by barge from Prince Rupert to Indian Inlet, a lobe of Foul Bay, to within 1-1/2 miles of the lake and ferried this distance by our helicopter. Hecate Straits, because of relative shallowness, despite the protection of the Queen Charlottes, can become a nightmare to shipping during heavy storms, as place names suggest (see Map BL #1/63) and thus such use of the west coast is dependent on weather reports.

Communication consists of AM radio to either our Tasu camp or B.C. Telephone in Prince Rupert, but such is completely unsatisfactory. Microwave (FM) to Trutch is not possible because of a lone intervening hill.

Banks Island is studded with bare rounded hills generally forming a low range up its central and eastern section (maximum elevation 2020 feet) but along the full length of the western side a 1/2 to 3 mile wide strip of largely subdued topography suggesting a coastal plain exists. Relief here, where most of our interest centers, is seldom over a few hundred feet and is made up of northwesterly trending ridges and parallelling shallow lakes - about as close as B.C. can come to Shield topography. This latter system is cut by geologically controlled east-west depressions occupied by the larger lakes on the Island.

Vegetation is moderate to light. Unusually good heavy timber (spruce, hemlock and yellow cedar) is abundant in well-drained areas - particularly those underlain by limestone and on protected side-hill valleys, but most of the country is a poorly drained, grassy but shallow semi-muskeg with included patches of scrub timber.

Game consists generally of deer in the grassy upland slopes. Black bear have been seen but are a rarity. Wolves are common and geese and ducks plentiful. A few grouse are found. Beaver seem to be thriving on a diet consisting almost entirely of yellow cedar. Heavy runs of coho salmon, accompanied by trout, take place in late fall, when, during flooding caused by heavy rain, it is not uncommon to have a 2-foot fish tangled up in the drill rods.

The climate consists on the average of a mild, wet, gale-studded winter and a relatively pleasant summer. Fall and spring can

favour either extreme. Below the 500-foot level the west coast seldom experiences serious snow (none of which stays for long, if it does fall) and severe frosts are likewise a rarity. However, zero weather and nearly a foot of snow has been experienced, which, although the effects last only a day or two, could cause considerable disruption (mainly through lakes freezing over) unless such possibilities are realized.

During the past summer no rain was recorded during August and the first two weeks of September. However, following an unsettled period, late October and early November made up for the lack of precipitation with both water and high winds to spare.

With the ample rainfall (estimate 70-100 inches ?) fresh water is no problem. Although the head would not be great, hydro power is a possibility, particularly in the Kooryet-Waller Lake systems. Runoff unfortunately is extremely rapid because of the proximity of surface to bedrock and rapid flooding anywhere on Banks Island is the rule and not the exception.

Effects of glaciation are not much in evidence on Banks Island and erratics are not common. We have recognized no glacial lake terraces and glacial striae is not readily identifiable. Thus most float is not far from its source.

HISTORY AND DEVELOPMENT

The mineralized zone on Banks Island was discovered during our Hecate Island prospecting project early in 1960. Interesting geological conditions had been suggested previously during Super Cub ferry trips to and from the Charlottes. With the helicopter available in 1960 a low level geological recce was made of the whole Island. Clusters of quartz veins were noticed near favourable limestone-granitic contacts

near the northwest side of Kingkown Lake and near a small lake (Hepler Lake) south of Banks Lake. Landings were made in the more accessible open sections at both areas and the pilot (Roy Hepworth) helped the writer sample several of the anomalous quartz blowouts in the granitic host rock. Although these did not assay, the areas definitely warranted more detailed prospecting and one of our prospectors, Meade Hepler of Vancouver, was sent for. Hepler was teamed up with Stan Bridcut, our Super Cub pilot-prospector already on the Island, and they checked out a number of localities marked for them. During their third trip into Hepler Lake (name used by P.W.A. pilots later) Bridcut scraped the moss off some limestone and skarn along their trail and Hepler picked up some sulphide-bearing quartz (Discovery Deposit) which was assayed after being sent in to the writer. Returns of 1-1/2 oz. gold from this showing plus 1/4 oz. assays on float picked up about 1-1/2 miles on strike to the northwest prompted staking, with the assistance of Alex Smith and Jim Robertson. Norman Anderson, with Hepler and Jim Robertson, were engaged to set up a 6-man camp and to packsack drill and trench the deposit.

The shallow drilling on the Discovery Deposit (500 feet in 16 holes through a length of 660 feet) gave only mediocre results (0.4 oz. Au, 1.0 oz. Ag over a few feet) with a length no greater than 200 feet, but did suggest the existence of ore shoots and continuity at depth. The surrounding country, including the granitic areas, was prospected despite unpleasantly wet weather, and considerable quartz-sulphide, including galena, was found and sampled. Assays in the granitic areas were not encouraging. Deeper drilling was recommended at a future date along with geochemical and geophysical prospecting of the largely overburdened zone. The available credit for assessment work was recorded on

the 14 "Bank" claims - two of which had been staked in Bridcut's name with the remainder in the writer's name.

During 1961 we were busy on Vancouver Island so no work was planned for Banks until 1962. However, Catface was in the limelight in 1962 and it was decided to defer Banks work until the fall. During the summer a 2-day geophysical test of the known area was made by Steve Presunka and Dave Kimball involving both Ronka EM and S.P. The latter method worked very satisfactorily but did not greatly enlarge the deposit. The Ronka test, according to Presunka who (alone??) has great faith in this instrument, was hampered by heavy rains which tended to short out the equipment. Weather became foul and with the rush to complete Catface work while we still had the helicopter on charter, Banks work was again postponed.

In April of 1963 drillers, Schussler and Evans, were lined up on a few holes to test the "Discovery Showing" at depth, as previously recommended, using one of our light Longyear machines. Several good intersections were obtained after completing 4 holes totalling 962 feet and it was decided to drill the sedimentary contact zone in detail. A 5500-foot (AX Wireline) contract was let to Boyles Bros. and 14 holes totalling 4718 feet drilled along a 2000-foot contact zone strike length. Except for delineating the length of the Discovery Zone to something less than 300 feet, the AX drilling produced little to get excited about. A small prospecting crew, also based at the 12-man camp set-up, was kept busy staking claims and prospecting throughout the summer. A Super Cub float plane was kept on hand until a fatal crash took the life of the pilot and a geologist while on a side job for the G.S.C.

During unusually severe summer drought conditions many of

the shallow lakes and waterways dried up allowing prospecting in the previously inaccessible depression areas so common on Banks Island. In one of these, a 100-foot wide, largely debris-filled 2000-foot long east-west furrow in granitic rock some 2000 feet north of the Discovery Showing, Dave Kimball obtained a large number of well-mineralized float samples, assaying from trace to 3-1/2 oz. of gold. The better material was picked up along a centrally located 1000-foot length. Attention was focussed on this new showing, the "Kim Zone", and two preliminary packsack holes returned good values across unexposed widths of 10-20 feet. As the AX drill, on Hole B.18, was not far from this zone and as its return route and drillsites picked to test the Discovery Zone at depth as planned were deep in water following a few days of heavy rainfall, it was decided to commence drilling on the Kim Zone. From two settings 100 feet apart at the western extremity of the better "mineralized float" area, Holes B.19 and B.20 (westernmost) and B.21, B.22 and B.23 were completed (total 1943 feet). Plans to follow the favourable mineralized zone intersected to the east where it is believed to gain in importance were suddenly cancelled with the announcement that the budget had been overspent and by November 1st all personnel were moved out.

Shortly after the discovery of the Kim Zone, the surveyor's assistant, an English sailor, picked up some gold-bearing float in a granitic area along the shore of a nearly dry lake only a few hundred feet northeast of the Discovery Zone. Meade Hepler then traced the float zone for 5 - 700 feet along a 50-foot wide creek depression. Assays approaching 4 oz. were obtained. Immediately before leaving Banks, a Longyear hole (LY #5) was put in from a favourable set-up slightly northeast of the better float and although most of the core

was lost, this hole intersected an important 5-6 foot wide sulphide body believed to represent the extremity or an offshoot of the predicted "Englishman Zone".

All equipment was left at Banks and the drills are on site along with sufficient supplies for another 2 months' drilling.

On west Banks, Alex Smith Jr. picked up mineralized granitic float with assays similar to that of the Kim Zone but we were unable to do work on it this year. The same prospector picked up similar material near Keecha Lake some 12 miles to the south but again planned work had to be postponed.

Prospector Mike Donahue found 1/2 oz. gold float in EX Creek in the Waller Lake area 1-1/2 miles southeast of the Kim Zone. Random packsack drilling by George Bone in the largely overburdened area failed to find the source, the search for which will continue. A few packsack holes testing pyritic sediments on the southwest shore of Waller Lake failed to show anything of interest.

Several holes put in on the large and persistent Kingkown Lake copper-bearing quartz vein, discovered by Bone and Hepler, showed good sulphide but unfortunately less than 1% copper and, most important, no gold.

Through the eastern affiliation, McIntyre became interested in our Banks Island results and asked their western geologist, Jim McLeod, to stake some ground around us in case the area was important. Working out of our camp and using one of our men and our Super Cub he staked three groups of claims around us. We had previously lightly prospected all locales or similar extensions to them and had found nothing of interest although the third one, a sedimentary limb 1/2 mile west of Hepler Lake,

contained interesting structural implications which were evident on air-photos shown McLeod. We staked 2/3 of this new zone which we have not yet had time to prospect, and McLeod the central third. During late summer McIntyre prospectors sent in discovered some good grade 1 to 2-1/2 oz. gold in place in a lightly overburdened area. Two irregularly outlined deposits, about which little is known at present, are the center of interest.

Claims have been staked on outer fringes by Torwest, Fort Reliance and Silver Standard.

Falconbridge prospectors involved on Banks Island this year, besides Roy Hepworth (helicopter pilot) and the writer, include Mike Donahue, Meade Hepler (full time) plus Tom Cross, Alex Smith Jr. and Dave Kimball (part time). Schussler and Evans helped prospect for 10 days following RHS work. George Bone and helpers, Don Gyorbiro and Warren Fisher, did the packsack drilling. Jack Genest was hired on a temporary basis as camp foreman. An East Indian mining engineer, Brij Sharan, and helper, Frank Perlin, looked after surveying for about 3 months. Cooks included John Kerr and Nick Howitch. Bert Hunnisett was in charge of the Boyles crew.

Visitors included Gordon Walker, Lionel Kilburn, Alex Smith and H. S. McGowan of Falconbridge plus Stu Holland of the B. C. Department of Mines who, working with us, did a few days' work around the Island mapping drag folds in an attempt to help determine overall structure of the infolded sediments. Arnold Roscoe, working for a Silver Standard controlled syndicate, called in, as did a few of the McIntyre and G.S.C. people. The camp served as a base during the air search for the chartered Omineca Super Cub. The pilot, Doug Carey, was based with us when he was lost.

The quantity of work undertaken on Banks Island in 1963 was not anticipated and not budgeted for until well after our field season had started. As adequate help in the way of geological assistants or surveyors was not then available, and as the writer had to devote most of his time to regional exploration, mapping beyond that required to tie in main deposits and drill holes has been neglected. Excellent airphotos blown up to 1000 scale and maps produced from them have helped fill the gap and are included in this report. It is cautioned that many geological features have been sketched in, some from memory alone, and that a number of expected inaccuracies occur on the airphoto maps. Only a few of the main claims have been surveyed.

GENERAL GEOLOGY

Although the G.S.C. has started to map the northern coast, only unpublished reconnaissance type work has been done on Banks Island. The following descriptions include some of this work.

Banks Island is composed of approximately 90% acidic granitic and about 10% sedimentary rock. (See Map BL 1/63.)

The intrusive rocks are generally irregular northwest trending bodies of medium grained quartz monzonite, quartz diorite, and diorite; the latter, through metamorphism, occasionally grading to a coarse hornblendite or amphibolite containing an excess of titaniferous magnetite. These rocks, in keeping with most of those on the north coast of B.C. are slightly gneissic or foliated with such features exhibiting northwesterly strikes, and, on Banks Island, generally steep easterly dips. Minor pegmatitic phases are exhibited and myriads of small dykes with apparently the same composition as the host rock are common. The age of all intrusives is believed to be Juro-Cretaceous.

The sediments consist of infolded but remarkably persistent thin-bedded limey or argillaceous rocks plus irregular but wider lenses of limestone. These cannot be correlated with any known B.C. map units and are, according to the G.S.C., likely Permian or pre-Permian in age and similar to some of those on the Alaska Islands to the north. Dynamic and thermal metamorphism has greatly affected the sediments resulting in schists and phyllites, hornfelses and skarn, plus marble.

Volcanic rocks have yet to be recognized on Banks or on any of the Island Chain extending 100 miles southerly, but andesitic dykes and sills, probably related more to a granitic intrusion, do occur occasionally. Tertiary volcanics which compose all of Bonilla Island and the north part of the Queen Charlottes are believed to underlie Hecate Straits immediately west of Banks Island.

Metamorphic rock units are not mapped regionally as, with the lack of volcanics, the sedimentary origin is clear and the terms metasediments is used throughout.

Besides the superimposed schistosity, the writer believes feldspathization to be widely developed in all rock types, except the marble, particularly near the infolded sedimentary remnants.

Structure is of extreme importance affecting the sediments and intrusive rocks alike. Generally suggestions are that an orogeny affected previously highly folded sediments which had been caught up in an earlier granitizing process. A period of folding and faulting affected the sediments and their containing intrusives as well, resulting in tilting to the east. Erosion then bared all but the deeply infolded sedimentary remnants resulting in only the root-like, generally isoclinal synclines being preserved. These are represented on Banks Island by

generally sharp plunging troughs resting on a granitic basement, and narrow but remarkably persistent and paralleling northwesterly trending limbs continuous for intervals up to 20 miles. One such feature, which we can call the "Banks Island Syncline" until some future stratigraphic study shows it to be otherwise, is the centre of interest at present.

Both east and west limbs of the Banks Island Syncline are represented by two steep easterly dipping, northwesterly trending composite metasediment bands seldom more than 1/2 mile wide in total. The east limb as represented at Hepler Lake, running from east to west, shows a succession of metasediments followed by minor limestone, then a granitic sill-like band followed by skarn, limestone, and thin bedded sediments. A similar succession, but in reverse order, occurs on the inferred west limb about 1/2 mile away. The evidence suggesting isoclinal folding is limited to these preliminary observations. Intervening granitic rock, which separates the two main limbs, is not always present in the individual composite sections in which case the latter appear as single units. Adding to complications is the rapid thickening or thinning of the sediments, particularly of the limestone which was erratic in nature to start with and which is difficult to correlate across the proposed fold. On the southern half of Banks Island the overall plunge is to the south although variations suggested by drag folds occur. The trough (or nose), although not exposed, appears by projection to come to surface under west Banks Lake but the lack of outcrop in this area, plus a possible thinning of the sediments, does not prove this - i.e. the sediments, which do not immediately continue on to the north beyond this point, could be affected by suggested east-west faulting.

At any rate, the eastern composite limb can be traced southeasterly almost continuously for the 17 miles which we have staked it. Beyond this a few miles remain in doubt and it may in fact be eroded away. However a 4-mile wide section of sediments resting on granitic rock and plunging southwards is exposed at Calamity Bay on the south end of the Island and may in part represent such a continuation. Sediments are then continuous through to Trutch Island several miles further south.

North of Banks Lake what is believed to be a re-entry of the east limb occurs some 6 miles away at Snave Lake. The limb then climbs a mountain to 1500 feet, crosses down over Kingkown Lake where we have again staked it because of its association here with copper deposits, and, although less easily followed in this section, continues on more or less towards the north coast of the Island where flattening is apparent. In the northern section a general plunge of the synclinal system to the north is inferred.

The western composite limb follows a southwesterly course from its inferred beginning at West Banks Lake as far as the south end of Waller Bay some 8 miles away where it is lost under Hecate Straits. At this point, through constant divergence, it is about 5 miles from the east limb. To the west on islands in Foul Bay sedimentary rock suggests either a possible flattening of the west limb or a new fold system. We have staked about 3-1/2 miles of this west limb on which McIntyre's main showings to date also occur.

The first sedimentary band north of Banks Lake which could be a west limb continuation is 7 miles away and consists of a gently arcuate 500-foot wide, 3-mile long section bordering the west coast. Some of these rocks, however, dip steeply west. At this point the near

paralleling east limb is 6 miles away. At a lesser distance from Banks Lake sediments which could possibly be correlated with the west limb occur at the eastern limits of Kingkown Inlet but inferred major east-west faulting plus lack of outcrop complicate geological projection in this area. Sedimentary rock can be found at intervals inland from the west coast and may represent disrupted remnants of such a band.

Strike and cross faulting with some minor crossfolding has affected the major fold throughout its entire length and although not important regionally, in local association with mineral deposition is of extreme importance. Fortunately the subdued Shield type topography lends itself well to photography and such features are often clearly evident on airphotos, usually amplified or intensified by water-filled depressions.

Strike faulting plus the included development of fault breccia, is often clearly evident along or near those sedimentary contacts exposed. In the vicinity of Banks Lake probable east-west cross faulting, as a rule, has resulted in displacement to the west of the north side. Such readily measured horizontal offset, as shown on the west limb opposite Hepler Lake, is as much as 4 or 500 feet. The intervening granitic rock ruptured under the same conditions, probably along numerous pre-existing crush or shear zones. The resultant features, some of which are up to 100 feet or more in width, are the rule with the country appearing cut up into a number of rectangular or triangular sections. These to some extent parallel the regional jointing or fracturing exposed in the more massive rock to the east.

In general, three main directions of rupture or fracture occur. Besides that paralleling the sediments and averaging about N45°W,

is that trending almost true east-west. Depressions paralleling this system cut right through Banks Island and most of the major lakes and river valleys follow this direction, although a few parallel regional strike trends. As the main waterways seldom reach elevations of more than 100 feet, little outcrops is available in these important areas. A third direction is N.5-10°E.

DESCRIPTION OF PROPERTIES

To date we have found significant amounts of gold-bearing rock and/or float in four separate localities - (A) Banks Lake, (B) Hepler Lake, (C) Waller Lake and (D) Keecha Lake - and have unprospected ground adjacent to and along strike of a fifth locality discovered by McIntyre along McI Creek. In addition we have copper deposits at Kingkown Lake and copper-gold 16 miles southeast of Hepler Lake near Starvingwolf Lake, plus zinc southwest of Keecha Lake. Besides Hepler, we have done work only on the Kingkown prospects where a few packsack drill holes were put in for assessment work purposes, as well as to test properly for hoped-for associated gold values. A few wildcat holes near Waller Lake were completed with similar objectives but beyond this we have done little outside work, except at Hepler, other than to prospect while running claim location lines. These outside prospects will be briefly described at the end of this report.

(A) Banks Lake - Gold values to 2-1/2 oz. have been obtained on the southwest shore of West Banks Lake about 1 mile northwest of Hepler Lake. This is approximately along strike of the west sedimentary band in which the Discovery Deposit is located. The sediments appear to thin somewhat in this area which is about 5000 feet from the supposed emergence of the trough of the proposed Banks Island syncline. Their course cannot be

clearly defined as waterways mask the locality quite thoroughly. Most of the material discovered is AG1 float similar to that of the Kim Zone and some small highgrade quartz veins found in granitic rock nearby suggest that the "motherlode" is not far away but out under the water. Poorly defined northeasterly trending depressions in the granitic rock, especially east of the lake, may be important.

Following a local survey, the Longyear drill should be used to probe under the lake in an effort to depict the zone.

Southwest of the Banks Lake West showing and approximately 4000 feet west of Hepler Lake, McIntyre prospectors discovered two mineralized zones in poorly exposed brecciated sections of the easterly dipping limey sediments of the West Limb. One of these, exposed in a creek cut, consists of a disseminated replacement, by fine but holocrystalline arsenopyrite and pyrite, of a 1-foot wide limey bed reported to assay 1 oz. The regionally striking vein is faulted with the north side moving an undisclosed distance westerly, as indicated by drag in a much brecciated area. The second showing, about 600 feet west of the first, consists of similarly poorly exposed replacement by unusually coarse-grained arsenopyrite, pyrite and sphalerite, at intervals through a 50 by 200 foot zone, of an irregularly defined, broken up limestone-metasediment complex occurring east of a slight scarp occurring in the more thin-bedded metasediments. Assays of 2-1/2 oz. can be obtained across 5-foot widths but overall dimensions, attitude or control are not known at this time.

The McIntyre zones are of interest because we own the claims to the immediate north of the one on which their showings occur. We have not prospected this section yet and such should be done. Self-potential

surveying of structurally anomalous areas which will be outlined along strike should be carried out for at least a claim or two northwesterly. Our Waller Claims on the same limb but south of the McIntyre group should likewise be checked. McIntyre plan more extensive work on their showings next spring.

(B) Hepler Lake - This prospect, the original discovery, has received the only significant attention to date. Work on it is far from complete, particularly as far as size and shape of the sulphide bodies are concerned, but far enough advanced so that a preliminary description of the mode of occurrence is possible.

The Hepler Lake property may be defined as that ground straddling that part of the east composite limb of the supposed isoclinally folded Banks Island syncline lying between Waller and Banks Lakes. Claim-wise, it is bounded on the east and west by McIntyre ground and to the north and south by our own.

Four types of mineral occurrences are recognized. One of these is a near massive sulphide plus minor quartz replacement of brecciated metamorphosed "eastern edge" sedimentary rocks (Type A) near the foliated quartz monzonite contact. This type of deposit, exemplified by that found near the lake (Discovery showing) - drill holes 1 to 18 plus earlier packsack holes - has received most attention. Similar mineralization, but without such attractive gold value, has been found, but not tested, along strike on S.P. Hill about 2000 feet south of Hepler as well as on the paralleling easternmost band of the composite system about 1000 feet south of Arseno Lake. Mineralization includes, in order of abundance, pyrite, pyrrhotite, sphalerite, chalcopyrite, galena, arseno-pyrite and molybdenite. Gold values are in the order of 1/2 to 2 oz. and the silver/gold ratio between 0.5 and 2.5 to 1. Gold as on the rest of

Banks Island, and for that matter most of coastal B. C., cannot be recognized without the aid of a microscope. The sulphides occur as individual crystals or massive gobs with a medium to fine grain size. Rough banding, especially of the brownish sphalerite, is common. Vugs are rare. Texture and association suggest a mesothermal classification.

Polished section work is now being done and more complete reports will be prepared at a later date.

A second type, Type B, consists of massive white "bull" quartz veins, up to 30 feet wide, filling various fractures generally in the granitic corridor between the composite sedimentary bands. Such are very numerous and, as on Quartz Lode Hill, quartz veins compose more than 50% of the 4 or 500,000 square feet exposed in this location. The lode deposits are practically restricted to the more structurally favourable Hepler Lake Zone, however. Some slightly "waterier" quartz parallels the flanking sedimentary bands for almost 15 miles but is more evident occupying east-west fractures in the adjoining granitic rock. Some of the veins contain disseminated molybdenite and pyrite and, occasionally, minor silver-bearing galena at their usually sharp contact with the slightly brecciated country rock. So far these have failed to yield significant gold values but their presence, in amounts as great as that observed anywhere by the writer, add the important "juiciness" so often required of an important gold area.

A third division, Type C, includes massive and disseminated quartz-sulphide replacement of intensely altered shear and crush zones in the quartz monzonite, discoveries of which have been so far limited to the country near the east limb. At Hepler Lake the Kim and Englishman zones are of this type and more may remain undetected. As such zones are easily eroded and now form drift or water-filled depressions,

their presence can often be confirmed only by drilling. Within these zones, which can be 100 feet wide, weakly disseminated pyrite, galena, sphalerite and molybdenite occur in a gradational siliceous, highly sericitic and chloritic light-coloured, often greenish, granitic rock, which, at an advanced stage of alteration, can and has been called "limestone by the drillers. Coarsely crystalline pyrite, usually slightly auriferous, is common and a good indicator. Massive concentrations of sulphide, favouring the more highly faulted and brecciated portions, and containing pyrite, galena, sphalerite, arsenopyrite and pyrrhotite in approximate order of abundance, are the main target. Gold values, which can range to 4 oz., appear to be most closely related to the pyrite. Such values, however, are significant only near the well developed internal fault breccia zones which are believed to be late or "secondary" structural features. Silver appears closely related to the galena although ratios are somewhat erratic.

A fourth type, Type D, includes pyrite-pyrrhotite-chalcopyrite disseminations restricted to skarn areas. To date these are not important although erratic low values in gold and silver are occasionally associated.

TYPE A: (1) Discovery Zone - The original discovery was quite thoroughly discussed in the writer's 1960 report. It consists of a poor 50-foot exposure of a 3-4 foot wide quartz-sulphide vein striking northwest and dipping 55 to 60° easterly. It occurs in a brecciated zone between a garnet-epidote skarn complex and an underlying body of massive marble which thickens to almost 100 feet in this locality. Granitic rock outcrops about 100 feet to the east just beyond a paralleling depression shown by later drilling to be a crush zone of intensely altered silicified and sericitized quartz monzonite (AG_1) similar to that of the Kim Zone.

Although the contact zone was traced by packsack drilling for 660 feet, the vein of interest could only be followed for about 180 feet. It seemed to widen at shallow 50-foot depths to 8 or 10 feet but the grade diminished and it was concluded that an oreshoot of 70-100 tons/vertical foot, grading 0.40 oz. Au, 1.0 oz. Ag, with probably 1.0% lead and 1.5% zinc, exited. To 50-foot depths this represented about 5000 tons.

Drilling this deposit at 100-foot depths in 1963 (drill hole LY 2) a similar quartz-sulphide body was intersected approximately as predicted. This was preceded however by an equal 25-foot intersection of massive fine grained pyrrhotite-chalcopyrite unlike anything previously found on Banks Island. Five-foot assays of up to 2.22 oz. gold were obtained through a 50-foot intersection averaging 0.719 Au, 1.86 Ag, 0.25% Cu and a probable 3% combined Pb-Zn. A deep hole (LY 3) indicated the zone to continue to at least 300-foot depths but to diminish in size to a few feet with a 6-foot intersection grading .56 Au and 0.60 Ag. This vertical hole, collared in quartz monzonite, proved that the granitic rock is underlain by sediments which extend downdip as projected from surface attitudes approximately paralleling the foliation of the intrusive rock. Hole B.5, designed to probe under the deposit at about a 60-foot depth from surface, failed however to show much although good zone was indicated. It did intersect 3 feet of 0.2 Au, 0.3 Ag material within an 8-foot wide sulphide zone. Hole LY 4, drilled 100 feet south of #2 and #3, cut 15 feet of massive pyrrhotite-chalcopyrite assaying 1.01 Au, 0.56 Ag at a depth of about 150 feet. This was followed by about 30 feet of 50% pyrrhotite replacement with a very low gold content. A deeper hole (B.12) cut this same zone at a 250-foot depth but

here a 13-1/2 foot section, composed of a combined 3-1/2 feet running 0.44 oz. plus an intervening low grade portion, assayed 0.20 Au. A shallower hole, B.6, cut a 5-foot zone assaying only 0.04 Au. A hundred feet further south two of three holes intersected the zone, with B.8 cutting 10 feet of 0.30 oz. material at approximately 200 feet of depth and B.9 cutting 4 feet assaying 0.4 oz at 100 feet. Steep hole B.10 showed only traces of the zone. Hole B.11, 110 feet south of B.10, cut no mineralization of significance but did show an unexpectedly thick zone of metasediments underlying an area represented on surface to the west by quartz diorite. Holes B.13 and B.14, put in 100 feet north of LY 2 and LY 3, intersected extensive breccia zones but only the "tail end" of the Discovery shoot with 1 foot assaying 0.12 Au.

Holes B.15 to B.18 tested the zone at intervals through a 1500-foot distance northerly but failed to intersect interesting mineralization. Holes planned to check the known section at 500-foot depths were postponed for reasons already described.

It appears now that any important mineralization in the Discovery deposit is more or less limited to a block bounded on the north and south by the topographically well-defined east-west furrows in the quartz monzonite. These overburdened depressions probably mark fault or crush zones which acted as mineralizing channelways and may themselves be mineralized.

Within the mineralized zone the ore shoots' size and shape are not clear and associations are exceedingly complex. Correlation is equally difficult, especially with intersections at 100-foot intervals horizontally and vertically. A flattish ore shoot plunging southerly at a low angle is suggested. Its central portion is still open at depth

but the extremities appear closed. Varying degrees of metamorphism, mineralogical changes, and unsolved structural conditions continue the uncertainty.

Difficulties not present are those of surface enrichment or leaching, neither of which exist to any degree on Banks Island. Core recovery is excellent with the wireline drill but poor with the Longyear.

Reserves: Without closer spaced drilling and a follow-through at depth beyond the 300 feet which establishes the deposit to be deeper than long, estimates of ultimate grade and reserves approximate guesswork at this time. Combining the upper and lower quartz sulphide plus the massive sulphide bodies, reserves to 300 feet and assuming a length of about 280 feet, could be in the order of 63,000 tons grading 0.540 Au, 0.977 Ag. Added to this a combined 1-1/2% Pb-Zn would bring the value per ton to approximately 22.00. The deposit could probably be mined from underground in conjunction with any ore outlined on the adjacent Englishman Zone.

TYPE A: (2) S. P. Hill - This is a prospect occurring near a contact zone between exceptionally coarsely crystalline marble and quartz monzonite about 2000 feet southeast of the Discovery Zone. A thin 10-20 foot band of limey, argillaceous sediments has been partially replaced by pyrite, sphalerite, chalcopyrite and pyrrhotite in a largely overburdened area which reacted favourably to a test S.P. survey. Assays of 0.62% zinc and 0.75% copper have been obtained but the gold/silver is very low. (i.e. 0.02 Au.) However, the zone which is at least several hundred feet long has been tested only in once place and then not across its full width. Continuation along strike to the north is uncertain as the sediments appear cut off rapidly but to the south the limestone

contact continues for at least 1000 feet. Hidden oreshoots could be present.

TYPE A: (3) Arseno Lake South - Prospectors report pyrite-sphalerite replacement of parts of the eastern sedimentary band, near its western contact with the quartz monzonite, about 1000 feet south of Arseno Lake. Assays show 0.01 Au, 1.1 Ag, 2.05 Pb, and 0.25 Zn.

This zone, as the last one, has had no work done on it and only a minimum of exploration.

TYPE B: (1) Quartz Lode Hill: This is the better exposed and probably most concentrated quartz vein area within the exceptionally quartz-rich 1/2 mile wide quartz monzonite corridor stretching from this hill, which is 1800 feet southeast of the Discovery Zone, to West Banks Lake some 2 miles to the north. A sharp cut-off, probably along an east-west fault now well marked by a scarp and depression, exists to the immediate south and the quartz veins are not in evidence beyond.

The veins of massive bull quartz occupy joints and fractures in the granitic rock and an irregular lattice network dictated by structural patterns is evident. In a 500-foot square exposure on several hundred-foot high "Quartz Lode Hill" a system occurs with the largest veins - some up to 20 or 30 feet wide - striking a little north of west and dipping vertically. Smaller one to two foot wide bodies strike northerly and northwesterly and dip at lower angles westerly and easterly. The large veins are spaced about 100 feet apart but the hundreds of smaller ones occur at intervals of less than a few feet. A few sharply rounded veins suggest late folding but are probably the result of orbicular fractures. Molybdenite is occasionally present in the vein or in the siliceous country rock. Galena with a low silver/lead ratio has been found several times, generally on the sheared wallrock.

The Quartz Lode Hill zone is of immediate interest only because the content of pyrite increases towards the east-west structural cut-off to the south. Although the best assays across 10 feet of pyritic quartz showed only Tr. gold, 0.3 silver, changes could occur at depth and the unexposed fault cut-off could be mineralized. Drilling planned with this in mind has not yet been attempted.

TYPE C: (1) Kim Zone - Indications now are that the crushed and sheared areas now represented by lineaments in quartz monzonite may be the most important of the ore bearing structures, at Hepler Lake. Sufficient work has not been done on them to establish a pattern yet but their presence is often given away by lineal features clearly evident on the air photos. So far it is assumed that only those extremely highly altered zones of this type occurring close to the eastern limb of the Banks Island Syncline are important and our staking has been guided by this. However, their discovery elsewhere could change this concept.

The Kim Zone is an east-west trending water and debris filled shallow 50 to 100 foot wide depression draining Arseno Lake about 2000 feet north of the Discovery Zone. It cuts diagonally across the quartz monzonite corridor between the east and the west composite sedimentary bands of the east limb of the Banks Island Syncline through a distance of at least 2000 feet. Irregularly occurring outcrops of unaltered or slightly altered granitic rock bound the better defined eastern half of the zone and in two or three places come within 10 or 15 feet of being continuous across it. The western half is less well defined, being largely drift or water covered.

The Zone is one of many shear or fault features in which the foliated quartz monzonite country rock has been crushed and altered almost beyond recognition by intense dynamic and hydrothermal agencies.

The age may date back to a period immediately following the emplacement of the Banks Island Syncline. Sulphide-bearing quartz float almost in situ in what appears to be a system of "gash" veins occurs continuously for at least 1000 feet along the central eastern section of the zone which it appears to cut at a 10 to 20° angle. The zone, judging by the limited intersections to date, shows some indication of dipping 80° to the north. The exact relation to the lineation (?) or weakly developed schistosity of the granite country rock is not clear at present but the structural features are believed to be cross cutting. Several south-westerly directed offshoots (?) to this main feature are present and well mineralized float is found alomg them as well.

Drilling has shown the distinctive alteration to increase as the more highly sheared sections within the zone are reached. The better grade sulphide mineralization and higher gold content appear associated with these shear or fault breccia areas thus the intensity of wallrock alteration is a valuable guide to ore search. (Condensed results of a thin section petrographic study showing this gradation appear on Fig. #1.) The Kim Zone remained undiscovered until this year as previous prospecting had been confined to outer ends of the associated quartz-sulphide "gash?" veins rather than to the then water-filled interiors within the structural depressions. Good sulphide can be present outside the zone and show only trace amounts of gold, as was the case in earlier sampling.

Replacement type ore shoots composed of varying amounts of banded, massive medium-grained pyrite, sphalerite, galena and arsenopyrite, plus minor pyrrhotite, occur in favourable secondary structural areas within the main zone. These are believed to dip steeply northward at about 80° and to plunge eastward but no pattern is yet clear because of the lack of sufficient intersections. Such a shoot is suggested by packsack holes

Figure 1

Banks Rk Types - DD core /63

G3 No. 1 - Foliated quartz diorite with late crystals biotite (possibly hydrothermal biotite). Scattered isolated patches of intense chlorite-sericite-clinozoisite-opaque alteration spreading into plagioclase which is otherwise scarcely altered. General condition of rock is fresh although showing partial recrystallization texture of quartz and destruction of original feldspar zoning and substitution of strained, patchy zoning. Rock probably underwent partial recrystallization under stress.

G1 No. 2 - Conclusions reached for No. 1 apply even more definitely to No. 2, which is a metamorphosed quartz monzonite showing extreme recrystallization of quartz accompanied by crystallization of fine-grained biotite partly along sealed fractures. Calcite occupies later fractures. The same intense alteration as seen in No. 1 is confined to small areas in plagioclase. Orthoclase locally forms micropegmatite with quartz.

G1 No. 3 - Gneissic quartz monzonite with granite-pegmatite folia or vein. Pegmatite probably formed contemporaneously with recrystallization of rock, which involved silicification (quartz replacing hornblende) and crystallization of biotite. Rock contains abundant sphene and minor pyrite.

G1>AG1 No. 4 - Recrystallized foliated quartz monzonite showing all the alterations mentioned in previous specimens and, in addition, orthoclase is partly recrystallized and biotite is partly altered to chlorite with lenses of quartz or calcite.

G1=AG1 No. 5 - Foliated recrystallized and silicified quartz monzonite with plagioclase largely sericitized, orthoclase less so, biotite largely altered to penninite (chlorite), some calcite patches, pyrite disseminated.

AG1 No. 6 - Silicified quartz diorite or quartz monzonite with strong alteration. Feldspars and biotite are sericitized and calcified and in addition the altered biotite is semi-opaque. Pyrite lightly disseminated.

AG1 No. 7 - Sericite-quartz rock, probably wholly altered product of rocks similar to any of them above. Contains occasional golden-coloured sub-isotropic patches, possibly of fine-grained aggregate of sphene and magnetite. Opaque rods grouped in quartz may be similar. Pyrite lightly disseminated. Rock stained by limonite.

A.5 and A.6 plus AX holes B.21, B.22 and B.23. Depicted is a central 2 to 5 foot wide band in which assays ranging up to 2.8 oz. gold across 2-1/2 feet extend to depths of at least 250 feet. Including surrounding less mineralized material, assuming continuance to depths of 300 feet, 342 tons of ore per horizontal foot grading 0.332 oz. gold, 1.17 oz. silver, 0.75% lead, and 1.23% zinc is indicated. Satellite bodies of possible ore grade occur but these are small. One thousand feet of ground as favourable as that of the last completed section is believed present to the east, if float in the overburdened area is any guide. The first section, Holes B.18 and B.20, occurs west of the last known mineralized outcrop or float of the central east section although mineralized veins do reappear a couple of hundred feet west of this - possibly another shoot. Hole A.7 did not leave the footwall. Holes A.1 and A.2, about 1100 feet east of Hole B.19, were started in a highly siliceous area east of the last exposed significantly mineralized float where granitic rock projects well into the lineament. Only small but high grade (1-3 oz.) auriferous veins continue on beyond this, although alteration is strong. Recovery was almost nil in Hole A.1 for a distance of 6 feet; this could have been vein (?). Some sediments were picked up. Hole A.2 failed to intersect a 1 oz. vein exposed on surface but did not advance far enough if the dip of the deposit flattens to much less than 80°. Holes A.3 and A.4, designed to test the wider mineralized belt to the west, were not drilled.

As in the Discovery deposit, leaching or oxidation does not exist and there is no surface enrichment. The gold is not visible and appears associated with possible late pyrite and arsenopyrite although the latter is often absent or, when found singly in large amounts, generally contains only minor values. A small but interesting amount of scheelite (0.47% WO_3) is present across a couple of feet of Hole A.5.

TYPE C: (2) Englishman Zone: AG1 float giving assays as high as 3.7 oz. gold has been found and traced for several hundred feet along a totally overburdened and water-covered depression area in granitic rock. The unexposed mineral deposit responsible for throwing this float is believed to run east-west approximately paralleling the Kim Zone 1800 feet to the north. It is believed to start under Englishmen Slough, about 350 feet northeast of the Discovery Zone, and to follow the Englishman Creek depression for several hundred feet. North-south furrows intersecting this supposed zone, which could be responsible for the float, have not been tested, however.

One drill hole, LY 5, was completed to test under the westerly end of the float area and did get an 8-foot intersection of massive sulphide and gouge under the slough. This was about 20 feet north of the last accessible float. Core recovery was very poor, less than 20%, and assays showed only .22 gold, 0.3 silver, 0.41 Pb and 0.70% Zn. The core, however, did not resemble the float, and the wide pyritic AG1 zone suggested by large boulders in the gravel was not intersected. It seems probable that the vein cut is an offshoot to the main deposit yet hidden. Work was suspended before orientation was possible.

Conclusions and Recommendations: Work in the Hepler Lake Section, although far from complete as far as proving up an orebody is concerned, has shown that the granitic rocks offer more hope in the search for such than do the sediments, although the latter could offer valuable supplements. Secondary fault and possible fold structures not yet clearly defined determine the shape and size of the oreshoots involved in both.

The Discovery Deposit is limited to a maximum several hundred feet of strike length, possibly governed by obliquely intersecting shear

zones in the bordering granitic rock, although the vertical extent could be considerably greater. The deposit appears to be an erratically shaped steeply plunging easterly dipping composite shoot composed of both sulphide-rich quartz and massive sulphide which have replaced highly brecciated areas near the contact of the massive limestone band and overlying garnet or epidote skarn. No shallow cut-off of zone is anticipated although necessary secondary structures may or may not be present at depth.

The Kim Zone offers the best hope at present of producing a moderate grade orebody. Gold values are good across mining widths and silver, lead and zinc are important. If present, such an orebody is expected to make up required quantity by taking the form of a number of steep structurally controlled oreshoots occurring along a well-defined 2000 foot zone of altered rock. The size and frequency of the shoots can only be determined by drilling. There are no depth limitations unless such is sedimentary rock 1 to 2000 feet below.

The Englishman Zone as suggested by float may be similar to but smaller in size than the Kim Zone and could be related at depth to the Discovery Deposit if the dip is as steep as the AG1 zone is elsewhere.

As shown on Map BL #5(a)/63 a large number of additional linear drift-filled depressions occur in the foliated intrusive of the Hepler Lake block. Mineralized quartz with low gold values has been found in several of these, some of them paralleling the Kim Break a couple hundred feet to the south, and in others cutting obliquely to both. Close searching may show better mineralization directly or give clues as to the location of important secondary structures within.

Recommendations for the Hepler Lake Area are as follows:

Drilling: (1) Continue drilling the Kim Zone easterly on 100-foot sections for at least 1000 feet south of the last BBAX wireline hole (B.23). Two

holes are warranted from each set up - designed to cut the zone at 100 and 200 or 250 foot depths. A third deeper hole should be put in on occasion, especially if any one ore shoot shows signs of increasing importance at depth. This would call for a minimum of 7000 feet but the total would be progressively dependent on results obtained.

(2) While on the above programme, turn off a couple of holes to test the north-south intersecting depression areas in which high grade 3 oz. gold has been found in small veins - estimate 600 feet.

(3) Drill the remaining Kim Zone lying to the east at 200-foot intervals with short single holes - estimate 2000 feet - and expand on any results. If recommended S.P. surveying indicates sulphide concentration, closer spaced drilling will be required in such areas.

Englishman Zone - continue to use our Longyear drill on short holes designed to establish the attitude and extent of the Englishman Zone - estimate 2000 feet; detailed and deeper drilling of it should be left to the more capable wireline with which core recovery is no problem.

Discovery Zone - after the Englishman Zone is located, the larger drill required can, probably from a couple of the same set-ups, turn around and put a couple holes down to test the Discovery Deposit at depths of 5 or 600 feet - estimate 1200 feet.

Quartz Lode Hill - we had planned a 4 or 500 foot exploratory hole to test both the unexposed east-west fault contact immediately south of the extensive mass of quartz and the more southerly pyritic veins for possible gold values at a lower horizon, but this drilling failed to materialize due to budget restrictions. With the increasing importance of the veins as exploration continues in the granitic crush zones, this should be carried through, preferably with the AX equipment as the ground

is very hard and Longyear drilling would be extremely costly bit-wise - estimate 500 feet.

S.P. Hill - a few packsack holes, followed if results warrant it, by the Longyear, should be sufficient to see if gold values are associated with this mineralized zone. The almost complete lack of quartz in the bounding (possibly different) granitic rock in this area may be the handwriting on the wall and no detailed drilling job should be undertaken here until this probability is investigated.

Intermediate AG1 Zones - the large number of possible AG1 depression areas in the Hepler Lake block, some of which have returned low gold values from float, can be closely ground checked, and possible eroded mineralized fault areas tested with the packsack drill.

Surveying: An experienced surveyor was available for only 10 days at Banks during 1963 and only the bare minimum of such work has been done. However, this work was used to orient and control air photo maps prepared on the scale of 100 and 200 feet to the inch and the resultant map is sufficiently accurate for most preliminary work in this particular area where fortunately relief is slight. We should have a surveyor on hand for about 2 or 3 months to complete topo-mapping of the Hepler Block. Along with outside work, some of the more important claim posts should be surveyed in.

Geological surveying of the Hepler Lake block should pay particular attention to variations or complete changes in the intrusive complex. Schistosity should be mapped and special attention paid to lineal depression areas. Study of attitudes of the myriad of bull quartz veins could be important in helping to determine secondary structural controls in the AG1 zones which to present have been treated only in generalities. Minor fault offsets and drag fold axis should be carefully

noted in the sedimentary areas.

In the writer's view, self-potential geophysical surveying is highly recommended for a number of pre-defined areas on Banks Island. Preliminary tests of two known zones have shown the method to react extremely well despite a minimum of oxidation. Sidelines such as soil sampling, EM and magnetometer tests can also be fitted in. The job should be in charge of a field expert, preferably Steve Presunka, rather than an amateur incapable of recognizing often occurring errors before they are drilled. All zones described in the Hepler Lake block should be so tested in as much detail as water areas will allow. This should be done early in the year so that drilling can take advantage of any results obtained - i.e. the Kim and especially the Englishman could well use such information as a guide right now. Tests made during 1963 confirmed the value of the S.P. but personnel and time were just not available to carry out such surveys.

Crew, Equipment Requirements and Cost:

Before the Hepler Lake area can be abandoned or "put on ice" a minimum of 13,000 feet of AX wireline and 2000 feet of EX Longyear drilling is required. With 3 crews, as requested by Boyles, and averaging 100 feet a day including moves, the one machine already set up on the property would require 3-1/2 months to complete the project (6 men). The surveying job (2 men) should be a separate unit as should the geophysical crew (3 men) although the two will work together on occasion. Allowance should again be made for a camp foreman-handyman and several prospectors required for local and outside jobs. A 16-man camp is required which means an additional building and an enlargement of the present 12-man cookhouse.

Drilling costs will be in the order of $5.00/foot - contract $3.90 plus $1.10 extras - approximately $75,000.

Present equipment will have to be supplemented about 25% The framed tents, despite large fly protection, now resemble shower baths during the frequently occurring rain spells and beyond September have been much more trouble than they are worth. They should be replaced by plywood panelling. Radio communication is extremely poor and must be improved, as required by law and common sense, there being no other touch with the outside world. A set several times more powerful than that used can be obtained on rental from Spilsbury & Tindall. It requires, as do all large radios, 110 volt AC power. We have installed such power at other camps (Catface, Hecate Bay, Wedeene, Tasu) and it is no problem. A type employing a lower cost Japanese diesel and Onan generator is recommended. Gas lamps, a nuisance and fire hazard, can be eliminated. A second refrigerator is needed, there being a good one available at Catface.

The Hepler Lake project can be completed to the point of showing whether a mine exists in this well but scattered mineralized area by mid-summer at a cost of about $100,000. If results turn out distinctly favourable, we should not have to close down until the following March because the budget estimates have been overspent; allowance should be made for this possibility beforehand.

(c) Waller Lake - EX Creek

The drill logs for a few packsack drill holes put in along the west shore of Waller Lake and EX Creek are included although not of significant importance.

About 600 feet up EX Creek 1/2 oz. gold float was discovered in a few pieces pyritic quartz float weakly mineralized with galena. This

is on the same sediment-granitic contact zone as Arseno Lake about 1 mile to the north. As drilling conditions at the point of discovery were impossible for the packsack drill, random areas of quartz-rich float at more favourable drill sites several hundred feet further up the Creek were tested for possible gold content by three drill holes. These failed to produce, except for needed assessment work, and the source is still in doubt in this overburdened area. A 1500-foot long, east-west depression is clearly evident cutting EX Creek a little further north and this area should be investigated by careful prospecting and S.P. surveys.

McIntyre own the paralleling ground less than 2 or 300 feet to the east.

(D) Keecha Lake

Gold values to 1.4 oz. were obtained in float found in a low-lying overburdened but creek-cut exposed area about 1500 feet northwest of the northwest end of Keecha Lake which is 8 miles southeast of Hepler. Numerous pyritic quartz veins, with only low gold values, occur in the granitic rock. The better values were found in typical AG1 material - which being more easily eroded, seldom outcrops. Structure is masked in this forested area and no work beyond the prospecting stage has yet been attempted.

An S.P. survey is required of the immediate area but as the numerous and valueless pyritic quartz veins may react as strongly as those being looked for, a couple random packsack holes are in order, especially since we will be hard pressed for assessment work in this southern area. Soil sampling for associated zinc may be in order.

Immediately south of Keecha on the slopes of Obstruction Hill

some appreciable zinc and low copper-gold values have shown up in float. Detailed prospecting is required and should be supplemented by soil sampling and spot checks made by S.P. We have staked four wide in this area.

Other areas south of Banks Lake which require similar checks are shown on Map BL #1.

Kingkown Lake Copper

Several persistent copper-bearing quartz veins have been discovered on the north and south sides of the western end of Kingkown Lake which is some 12 miles northwest of Hepler.

One of these, in an easily accessible location on the north shore, was tested with 2 packsack holes totalling 125 feet. This was done mainly to find any associated gold content, unfortunately lacking in all surface samples taken in the whole area, and to provide assessment work required to hold the claims until the area can be more thoroughly checked at a later date. A sketch of the deposit is shown on Map BL #6/63.

The quarts-vein occurs at the contact of foliated quartz monzonite and one of several narrow bands of limestone believed to be part of the East Limb continuation, which, lost at Banks Lake, reappeared at Snave Lake. Where drilled, the quartz vein, intermixed with mineralized granitic material, is about 6 to 10 feet wide, strikes a little north of west and dips northerly. It is reported to continue at least several hundred feet northwesterly and there is a suggestion that the same vein is exposed on the south side of the lake on strike over 1000 feet away. Mineralization is simply chalcopyrite and pyrite with a best grade over 5 feet of about 0.93% copper and an average through the whole vein of about 0.60% copper.

Maximum gold-silver assays obtained were 0.02 and 0.1 respectively.

Copper occurs elsewhere in the area and two other very short holes were put in to test the better of those so far located. Assays were very low.

South of Keecha Lake about 40 claims were added to interesting but low grade copper float areas. Several samples assaying a little less than 0.25% WO_3 were picked up.

CONCLUSIONS & RECOMMENDATIONS REGARDING BANKS ISLAND, EXCLUSIVE OF HEPLER LAKE

Detailed ground and geophysical prospecting is yet required on a number of localities on Banks Island. These are summarized on Map BL #1/63.

We hold at least a hundred claims, which, if any one deposit on Banks Island blossoms, will be important and should be protected by at least 2 years' assessment work - total $20,000. This amount should be spent on packsack and Longyear drilling of those deposits already referred to - minimum total 2,500 feet. This could be offset somewhat if geophysical work as recommended (1 month total) is applied against the work requirements, especially in the overburdened areas favourably situated along strike - i.e. Waller Group.

Additional expenses on Banks Island, beyond those at Hepler, will be in the order of $30,000.

Banks Island has the greatest potential of any of our gold-silver-lead-zinc prospects. Nowhere on the coast is there exposed such a combination of excellent structure, rock type and associations required for small but possibly highly profitable mineral deposits of this nature. Others are beginning to realize this and we will have an increase in

company both on Banks and the coast generally in 1964.

Work as recommended in this report is a bare minimum for the coming season which should determine the future of Banks Island.

Vancouver, B. C.
January 24, 1964

J. J. McDougall,
Geologist.

Photo #1

Converted "Husky" aircraft supplying Hepler Lake camp

Photo #2

Camp end of Helicopter airlift originating at barge in Indian Bay

Photo #3

Looking southerly across Englishman Slough which thoroughly conceals the Englishman Zone -This condition is typical of Banks Island.

PROPERTY BANK GOLD

HOLE NUMBER LY-1

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT See Map BI #3, 1961 Report J.J.M.
DEP Approximately on Section C-C' collaring about 50 feet

STARTED April, 1963

ELEVATION OF COLLAR from P.S., DDH #13 - at elevation approx 52 feet.

COMPLETED " "

DATUM Map BI #3/1961/J.J.M.

ULTIMATE DEPTH 152 ft.

DIRECTION AT START: BEARING S-40°W
DIP -55°

~~PROPOSED DEPTH~~

Drillers: Schussler & Evans / J.J.McD.

x (A = alternate sample)
(T = total core sample less specimens)
(G = grab sample)

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R. %
		(A)							
0 - 2	OB (overburden)	0- 5	5 ft.	Tr	Tr				
2 - 8	Feldspathic (Feld.)hnblnd biotite	5-10	"	Tr	"				
	qtz diorite - mg, sl altered.	10-15	"	Tr	"				
		15-20	"	Tr	"				
8 - 23	50% pyritic white qtz with sl MoS_2 and pyrr.	20-25	"	Tr	"				
	50% highly altered, almost unrecognizable								
	intrusive - probably qtz diorite. Sl	25-35	10 ft	Tr	"				
	bndg @ 25°.	35-45	"	Tr	"				
	(T)	45-51	6 ft	Tr	"				
23 - 59	Feld. qtz diorite - increasingly	51-55	5 ft	Tr	"				
	silicified. Occ qtz strg 46 - 50 ft.	55-60	"	Tr	"				
59 - 76	Highly altered, occasionally buff coloured sericitic	60-65	"	Tr	"				
	mass containing grey quartz; sl pyrr on joints.	65-70	"	Tr	"				
	Probably unrecognizable qtz diorite.	70-75	"	Tr	"				
		75-85	10 ft	Tr	"				
76 - 84	Siliceous meta-sediments - i.e. fg schistose biotite	85-95	10 ft	Tr	"				
	hornfels, dark fg garnetiferous schists, etc. bndg								
	at 60° cut by 4" q.d. dykes @ 58°. 82-83 - buff	95-100	5 ft	Tr	"				
	yellow section correlating hole #2 bndg @ 50°.								

N.M.P.-FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #1

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au Ag	Cu Pb	Zn	C.R.
84 - 103	40% Chocolate brown to reddish cg garnet in greenish actinolite-epidote-amphibolite skarn (A.A.Sk) - occ grey qtz strg, sl pyrr, pyr. Bndg 35-40°; some qtz strgs @ 70-75°.	100-103	3	Tr Tr			
		140-150	10	Tr Tr			
103 - 142	Contrasting black and white, sericitic slightly trachytic to gneissic, highly feldspathic (porphroblastic?) qtz diorite or diorite. - Sl bndg or foliation @ 35-50°.						
142 - 152	Mixed intrusive as above with feldspathized horn-felsic biotite inclusions - occ sl pyr bndg @ 75°.						
	END AS SLOW DRILLING. HOLE DID NOT REACH LIMESTONE AND WILL BE DEEPENED LATER. OVERALL CORE RECOVERY 95%.						

N.M.P.-FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #2

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT Approx on Section F-F' 130 ft
DEP SE of LY #1 and about 90 ft from old PSD

ELEVATION OF COLLAR Approx 60 feet. (holes #1 & 2.

DATUM Map BI #3/61

DIRECTION AT START: BEARING S42°W
DIP -75°

STARTED April, 1963

COMPLETED May, 1963

ULTIMATE DEPTH 290 feet.

PROPOSED DEPTH ____

DEPTH FEET	FORMATION		FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.%
				(A)							
0 - 10	O. B.		25	30	5 ft	Tr	Tr				60
10 - 15	No core (cave?) (sericitic)		30	40	10 ft	Tr	Tr				70
15 - 45	Greenish, intensely sericitic marble or calcite		40	50	10	Tr	Tr				100
	mass; epidotized and silicified in part; occ buff		50	60	"	Tr	Tr				95
	colored (ankeritic??), occ grey sl schistose @		60	70	"	Tr	Tr				95
	45 - 50°		70	80	"	Tr	Tr				95
	- occ qtz veinlet	(T)	80	85	5 ft	Tr	Tr	.01			100
	28 - 30 fault gouge		85	90	5	Tr	Tr	.04			95
45 - 84	Greenish schistose sl		90	95	"	Tr	Tr	.04			95
	garnetiferous highly altered		95	100	"	.01	Tr	.14			95
	(unrecognizable) rock - probably was a basic sill		100	105	"	0.48	0.7	.63			90
	or dyke - suggestion of an olivine gabbro?? -		105	110	"	1.96	2.0	.80	Ni = Tr		85
	black hnblnd phenos.		110	115	"	2.22	2.5	0.10			90
	- Chloritic, occ talcose, occ sl brecc.		115	120	"	0.02	Tr	0.06			40
	- occ cut by some qtz strgs; occ		120	125	"	0.01	Tr	0.04			10
	veined and diss py, pyrr		125	130	"	0.40	1.4	0.10	0.62	0.90	50
	- schistosity @ 45°		130	135	"	0.76	1.8	0.23	1.60	2.30	60
			135	140	"	0.18	3.3	0.24	4.04	2.50	40

PROPERTY BANK GOLD

HOLE NUMBER LY #2

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.%
(cntd)	occ sl graphitic	(T) contd.								
	---	140	145	5 ft	0.72	5.3	0.19	6.80	2.20	65
84 - 100	70% brown to red garnet	145	150	"	0.44	1.6	0.20	2.24	1.10	65
	skarn mixed with	(A)								
	greenish AASk rx and sill as above	150	160	10 ft	Tr	Tr				100
	- pyrr bndg in sk @ 55-60°.									
	- Some massive 3" bnds of pyrr	Average of 50 ft intersection								
	with sl pyr; occ brecc horizon.				Au - 0.719 oz					
					Ag - 1.86 oz					
100 - 106	as above - increasing brecc., siliceous				Cu - 0.25 %					
		Best sections - (1) 15 ft @ 1.55 oz - Au								
106 - 112	70% massive reddish tinged pyrrhotite	plus (2) 25 ft @ 0.50 oz - Au								
	with diss CP; occ bndg @ 40°				" 3.06 % - Pb					
					" 1.80 % - Zn					
112 - 122	Buff yellowish garnet(?) - in mixture consisting of									
	streaks of white qtz in chloritic matrix; occ speck									
	pyrite.									
122 - 127	- Fault and grinding of core. Some pebbles									
	mineralized.									

N.M.P.-FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #2

SHEET NUMBER 3

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.%
127 - 129	- Chloritic quartz, sl pyr.									
129 - 150	Qtz zone -- 5% FG PbZ, ZnS, 10% pyrite in white to smoky quartz 140 - 150 - increasing cp. Some buff bndg @ 45°.									
150 - 175	White marble, occ r w bnds of limonite or ankerite or? Some bndg @ 40°.									
175 - 295	Marble (mg) occ greenish argillaceous to micaceous inclusion; some bndg @ 65°; also some at 32°.									
	E N D									
	General C-R = 95% but some definite grinding of sulphides in ore zone. Lack of cement prevented sludge sampling.									

N. M. P. - FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #3

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT SAME AS LY #2
DEP

ELEVATION OF COLLAR

DATUM

DIRECTION AT START: BEARING - - -
DIP -90°

STARTED May, 1963

COMPLETED May, 1963

ULTIMATE DEPTH 295 feet

PROPOSED DEPTH

DEPTH FEET	FORMATION		FROM TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.%
0 - 7	O. B.		(A)							
			0- 25	25 ft	Tr	Tr				100
7 - 75	Mottled feldspathic "fused" altered diorite		25- 50	"	Tr	Tr				100
	as in previous hole;		50- 75	"	0.02	Tr				100
	- highly sericitized		75-100	"	Tr	Tr				100
	- fracturing and bndg @ 35°									
	- some greenish epidotized sections		100-125	"	Tr	Tr				25
	- also some fg hi-altered		125-150	"	Tr	Tr				95
	inclusions which may have been dykes.		(142.5-144)	1.5 ft	0.01	Tr				95
			150-170	20 ft	Tr	Tr				95
	- occ diss pyr pyrr		170-180	10 ft	Tr	Tr				95
75 - 103	- as prev but increasingly siliceous,									
	more chloritic, greener.		180-190	10 ft	Tr	Tr				95
			(T)							
			190-196	6 ft	Tr	Tr				95
103 - 104	- fg, greenish epidotized basic dyke		196-201	5 ft	.02	0.3				100
	also 105 - 109		201-206	5	Tr	Tr				95
	- Dyke cycys @ 60°	(A)	206-216	10 ft	Tr	Tr				95
109 - 125	- Caved zone - poss fault		216-226	10 ft	Tr	Tr				95
	- Cuttings show same rx	(G)	226-265	39	Tr	Tr				80
	as previous	(T)	265-275	10	.02	Tr				50
			275-281	6	0.56	0.60				80

N.M.P.-FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #3

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.%
125 - 150	- silic, mottled gr rx as above (G)	281	295	14 ft	0.02	Tr				95
	142.5-144 - - sl pyrr in mixed qtz-gr rx,									
150 - 170	- as above but intensely sericitized, bndg @ 26°.			Best section 6 ft @ 0.56 - Au 0.60 - Ag						
170 - 196	Fine grained, black chloritic basic dyke; occ veined with pyr, pyrr - occ patch of red garnet skarn.									
196 - 202	Brecc sil qtz zone, some massive pyrr - cp; pyr. - ctct @ 26°.									
202 - 210	- Mixed marble qtz zone - - yellow to buff tinged, and mottled.									
210 - 226	90° white marble, occ altered black chloritic inclusion - some bndg @ 60°.									
226 - 265	Grey, highly chloritic, highly sericitic sheared rx, occ sl feldspathic - may be altered gr rx.									

N.M.P.-FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #3

SHEET NUMBER 3

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
265 - 275	- Mixed gray qtz and gray to green sheared rx (dyke or diorite?) - - sl pyr, pyrr. Some S_2 ground and lost.							
275 - 281	S_2 zone - pyrr, cp, pyr in grey qtz. As prev. Bndg @ 45°.							
281 - 295	Brecciated contact with white marble @ 55°. - occ light green chloritic inclusion.							
	E N D							
	CORE REC GEN 95° EXCEPT S_2 SECTIONS.							

N. M. P. - FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #4

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____ On edge of lake approx 10 ft SE of Section H-H', approx 100 ft from DDH LY #2, and 110 ft from old DDH #10 @ elv 60 ft ±

ELEVATION OF COLLAR ____

DATUM MAP BI #3

DIRECTION AT START: BEARING S42°W DIP -65°

STARTED May, 1963

COMPLETED May 17, 1963

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R. %
0 - 13	O B - Start 32086									
		125	140	15 ft	Tr	Tr	.04			85
13 - 27	Mixed feldspathic dark	140	150	10	Tr	Tr	.08			90
	qtz diorite and fg greenish cherty sections	150	155	5	Tr	Tr	.04			90
	sl epid	155	160	"	Tr	Tr	.06			80
	- sl foliation @ 35°	160	165	"	1.14	0.50	0.16			90
27 - 70	Highly feldspathic, sl	165	170	"	1.04	0.50	0.25	0.08	0.10	95
		170	175	"	0.86	0.70	0.13			45
	trachytic gr rx as prev.	175	180	"	0.02	Tr	0.09			85
		180	185	"	Tr	Tr	0.14			95
		185	190	4 ft	Tr	Tr	0.10			90
70 - 87	As previous but greener (chloritic)	(less 87-88)								
87 - 108	Gr rx becoming bleached	187	188	1 ft	Tr	Tr	0.20			100
	and increasing	190	195	5 ft	Tr	Tr	0.09			80
	development of chlorite	195	200	"	Tr	Tr	0.18			95
	- approaching intense	200	205	"	Tr	Tr	0.20	Tr	Tr	100
	mariposite alt	205	206	1 ft	0.12	2.0	0.57	Tr	0.20	100
	- sl qtz CO_3 strgs									

N.M.P.-FORM A

PROPERTY BANK GOLD (cntd)

HOLE NUMBER IY #4

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.
108 - 125	start 32445									
		206	-208.5	2.5 ft	Tr	Tr	0.06	Tr	0.15	95
		208.5	-210	1.5	.02	1.1	0.33	Tr	Tr	95
		210	-215	5 ft	Tr	Tr	0.08	Tr	Tr	90
		215	- 225	10 ft	Tr	Tr				95
		Best section		15.0 ft	@ 1.01 oz Au, 0.56 Ag					
		or		20.0 ft	@ 0.76 oz Au					
	Temporarily missing but believed to be highly chloritized diorite to qtz diorite.									
125 - 141.5	Feldspathic banded (trachytic to gneissic texture) siliceous qtz diorite. (XNOTE: granitic rocks have been so much altered - silicified and feldspathized - that they can no longer be identified in the field. Thus diorite or qtz diorite designation not binding). Very green chloritized in part bndg @ 48°.									

N.M.P.-FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #4

SHEET NUMBER 3

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
141.5 - 143	- irreg barren chloritic qtz vein in feld qtz diorite as previous.							
143.5 - 154	Greenish, highly chloritic and schistose altered, basic sill(?) as in prev holes. - garnet skarn patches common beyond 145 ft - possible ctct @ 143.5 @ 40°, some finer grained sections; schistosity @ 47°.							
154 - 160.5	Mottled, fractured mg marble 154 - brecc ctct @ 55° - bndg and fracturing parallel @ 43° - contains skarnified sill or dyke inclusions as patches.							

N. M. P. - FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #4

SHEET NUMBER 4

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
160.5 - 171	Massive pyrrhotite, with minor pyrite, CP. - brecciated and banded @ 42° - occ 1/2" pyrite strg @ 70° to core - siliceous breccia in part. A portion of this zone definitely replacement of brecciated limestone 170 - 170.5 - marble.							
171 - 175	Brecciated siliceous S_2 zone - pyritic qtz, sl skarn. Recovery poor.							
175 - 184	Mixed siliceous breccia skarn zone - sl disseminated CP, pyr with numerous 1" long blebs of pinkish pyrr. Banding at 50° 183 - 184 - skarn becoming sl feldspathized.							

N. M. P. - FORM A

PROPERTY BANK GOLD

HOLE NUMBER LY #4

SHEET NUMBER 5

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
184 - 200	Feldspathic fg diorite -- cut by numerous irregular quartz strgs, sl pyritic, occ larger gob pink pyrr.							
200 - 206	As above but increased breccia, more limey. More pyrr, pyr, occ CP.							
206 - 208.5	Banded marble.							
208.5-210	Siliceous limey breccia zone replaced in part by pyrr. Trace os pbs and or v fg ASP in dark bands.							
210 - 225	Massive marble. Banding 45 to 60°.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER L Y #5

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 5105.0
DEP 5803.0

ELEVATION OF COLLAR 808 ft. ±

DATUM

DIRECTION AT START: BEARING N40°E
DIP -35°

STARTED Oct. 28/1963

COMPLETED Nov. 5/1963

ULTIMATE DEPTH 230 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu
0 - 25	10% siliceous leached sections in Gl - good folia-	Start 30322							
	tion @ 60°; sl v w (oxid) 0-24 - occ larger splotches	100	125	3' of qtz	tr	tr			
	of brown mottled chloritized mafic??	136	137	1.0	tr	tr			
	(C. R. = 95%)	143	148	5.0	tr	tr			
25 - 50	20% leached section - increasing number of qtz stgrs	150	155.5	5.5	tr	tr			
	feldspatherization of Gl; occ sl greenish tinge	155.5	164	8.5	0.14 (x .22)	0.1 (0.3)		0.41 (.10)	0.04
	some qtz stgrs @ 45° (C.R. = 75%)				(20% recovery)				
50 - 65	25% leached sections in Gl; qtz stgrs to 2" - occ sl	204	204.2	0.2	0.02	tr			
	min (py) on fractures @ 25 & 60° - sl greenish.								
65 - 100	30% AGl, 70% Gl.								
	77 - 78.5, 92-93 "watery" qtz veins @ 46°								
	88 - 92 most altered, sl greenish section.								
	- ctcts of qtz veins sl min - py.								
	89.5 - sl MoS2 & py in fractures @ 45°.								
100 - 102	Qtz veins @ 45°.								
102 - 105.5	Sl py bndg @ 35°-40° fol @ 45°. Alteration not neces-				x check assay				
	sarily parallel to foliation.								
105.5-108	Sl epid or buffish min.								
108 - 131	10% watery qtz stringers, sl min (py) 20% AGl - but								
	not intensely altered. 70% fels Gl.								

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER LY - 5

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
131 - 149	Darker finer grained intensely feldspathized gr rx, possibly a fg diorite? ctns qtz bndg (sl py) @ 44° 136-137 - white qtz @ 45°.							
149 - 150	light AGl, weak py							
150 - 152	Missing - sl S2 ground							
152 - 154	Weakly min AGl, sl qtz							
154 - 155	Ground							
155 - 155.5	Crushed AGl, & qtz, ctct @ 36°. ??							
155.5-156	Ground or missing.							
156 - 164	Qtz sulphide zone; some massive pyr & qtz, but largely ground (25% Recovery), few pieces of white qtz min with py & sl gray minerals saved. Incl some gouge ground and saved.							
164 - 166	Dark fg feld diorite? as previous - mafic rich.							
166 - 192.5	Feld diorite; occ qtz veins @ 41° , sl py min in							
192.5-196	Irreg diffused feld Gl; (1) ctct good @ 52°. (fracts.							
196 - 203	Mixed Gl & feld dior.							
203 - 205	AGl sect. sl py.							

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER L Y #5

SHEET NUMBER 3

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
205 - 225	90% feld dior, decreasing grain size becoming almost black, with very minor feldspathization, last few feet.							
	- 10% Gl & qtz - some with sl py - ctcts @ 45°.							
	219 - 219.5 brownish AGl - sl py in qtz becoming mottled with brown clusters of chloritized mafics or fragments?? ctct @ 40°.							
	220 - 225							
	Mixed gr rx - probably hybrids.							
225 - 226	- lightly colored, medium to cg rx rich in qtz - poss a qtz monzonite dyke?							
226 - 230	fg diorite - several sl min (py) qtz veinlets 3".							
	E N D							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B5 (Boyles Bros. AX Wireline)

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 4933.7N
DEP 5592.2E

ELEVATION OF COLLAR 60.72

DATUM Mac B G #4/63

DIRECTION AT START: BEARING 340°W
DIP -55°

STARTED July 26, 1963

COMPLETED July 28, 1963

ULTIMATE DEPTH 149.5 ft.

PROPOSED DEPTH ____

G.A.Hunnisett, J.Oulette, D.Corwin, W. Ponarenski

DEPTH FEET	FORMATION
0 - 11	O.B. - some foliated qtz diorite (Gl) bldrs.
11 - 22	Gl; pyritic, chloritic and siliceous - qtz bnds @ 63° - seritic & buff colored in part - hardly resembles a gran. rx. 17-18 - qtz vein-sl pyr.
22 - 25	Gl as above but more bleached & massive
25 - 39	Gl - highly altered, mixed with thin-bedded metasediments - pyrite in occ fractures; sericitized & feldspathic ms bndg @ 52°. 35-36 qtz vein
39 - 51	Mixed ms; sk2, & sk3, brown f.g. biotite (hornfels-) patches; bndg @ 63°. 39.5-40.5 - pyritic
51 - 62	SK2 (skarn containing some garnet but with greenish amphibole & epidote(?) predominating) - siliceous sections, pyr. Bndg & fract @ 65-75°. Some Sk3 sections (fine grained, greenish gray, granular appearing mixtures of qtz, epid & amph.

32476 FROM	TO	WIDTH OF SAMPLE	Au	Ag	
17.0	18.0	1.0'	Tr	Tr	
35.0	36.0	1.0	Tr	Tr	
39.5	40.5	1.0	Tr	Tr	
51.0	52.0	1.0	Tr	Tr	
71.0	72.0	1.0	Tr	Tr	
75.0	80.0	5.0	Tr	Tr	
80.0	82.0	2.0	Tr	Tr	
82.0	85.0	3.0	0.20	0.3	
85.0	90.0	5.0	0.06	0.4	
90.0	95.0	5.0	Tr	Tr	
95	105	10.0	Tr	Tr	
114	115	1.0	Tr	Tr	
120	125	5.0	Tr	Tr	

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 5

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
51-62 contd	51-51.5 - pyritic quartz vein; ctct @ 75°.							
62 - 78	Si Skl (reddish brwn garnet skarn, minor amphibolite).							
	71-72 - qtz garnet mixture.							
78 - 82	Altd sil Gl; greenish chloritic; diss py - bndg & foliation @ 60 - 70°.							
82 - 84	- broken up zone (fault?) - some dense pyritic qtz.							
84 - 90	Banded S_2 replacement of greenish-brown Skl, consid qtz. Includes py, pyrr & sl CP.							
	89-89.5 - massive S2 bnd @ 72° - also S_2 bndg @ 68° and 30°.							
90 - 97	White f.g. marble, sl fract. ctct with S_2 Sk (90 ft) @ 54° ±.							
97 - 100	Bnded gray marble, bnds in several directions but generally @ 45°; sl graphitic on jntg; occ Skl; section.							
100 - 149.5	- Sl siliceous marible zone - gray bndg. No S_2							
	E N D							
	Recovery 100%; water held thru-out but consid trouble with wire line eqt due to poor anchors,etc.							
	This chloritic hole cut only minor mineralization, representing area between old packsack hole & LY2.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 6

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 4922.0 N
DEP 5702.4 E

ELEVATION OF COLLAR 63.85

DATUM

DIRECTION AT START: BEARING S40°W
DIP -44

STARTED July 29, 1963

COMPLETED Aug. 1, 1963

ULTIMATE DEPTH 293 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE				
		St. 32489		Au	Ag		
0 - 23	Overburden.						
23 - 110	Cl, gen feldspathic. Foliation @ 43 & 65°	110 - 120	10.0	Tr	Tr		
	35-45, 50-53 & 58-64 - light greenish bleached	120 - 125	5.0	0.01	Tr		
	carbonated and/or sericitic sections	125 - 130	5.0	Tr	0.2		
	- occ slips but fract & jntg rare	130 - 132	2.0	Tr	Tr		
	- occ bleached material ctcts @ 25 - 30°	132 - 137	5.0	0.04	0.2		
	30-35, water lost 35-37 - cave						
		137 - 140	3.0	0.02	0.2		
110 - 112	Broken, sheared dark green chloritic	140 - 145	5.0	Tr	Tr		
	rx - prob alt m s	145 - 150	5.0	Tr	Tr		
112 - 115	Sheared & brecc, greenish m s. Erratic banding @	150 - 155	5.0	Tr	Tr		
	30°; occ sl qtz	155 - 159	4.0	Tr	Tr		
115 - 121	- Greenish chl mbl & mixed chl m s;	159 -160.5	1.5	Tr	0.1		
	bndg @ 70°. V sl S_2 (AsP, py)	160.5-165	4.5	Tr	Tr		
121 - 132	- Brecciated ribbon textured greenish	(st.32401					
	chl SK2; occ small patches of dark ZnS, Pyrr, py	165 - 175	10.0	Tr	Tr		
132 - 140	"Lean" S_2 ore zone - erratic replacement of gray						
	marble & dark inclusions by ZnS, pyr, pyrr & sl CP						
	plus AsP. Some apple green, unmin sections - S_2						
	bands @ 70°.						

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 6

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
140 - 150	- Banded gray mbl; gen att 40° but some at rt L's forming "buttons or disks" when drilled; occ sl diss AsP.							
150 - 153	- Gray granular marble, occ sl garn - bndg good @ 60°.							
153 - 162	Mixed alternating altered Gl, mbl & qtz strgs; all sl pyritic & pyrrh, greenish - bndg @ 47° & 52°.							
	Paralleling hornsfelsic band.							
	159.0 - 159.4							
	Massive S_2 band enclosed on both ends by 4 - 6" of fg greenish cherty jade - like rx.							
	- Banding of S_2 @ 62°.							
	- Cntcts cherty rx @ 75°.							
	- S_2 consist of 70% pyrr with sl CP, followed by 3/4" band m g pyrite							
	sl S_2 on chert - marble. Ctct.							
	160.4 - 162 - Cg wh marble; occ in S inclusion; occ feld. fg black rx; all sl pyr.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 6

SHEET NUMBER 3

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
162 - 175	C g white marble							
175 - 273	" " "							
	180' bndg @ 57°							
	200' " @ 55°							
	also some bndg at 90°.							
	204' - altd greenish SK2 inclusion occ							
	tan or bugg colored (dolomitic??) sections.							
	254' - 254.1 - garnet bnd @ 50°; chloritic ctcts.							
273 - 275	Ground or missing; cavity(?). Poss shear but							
	not in evidence.							
275 - 276	SK2, sl bndg @ 70°.							
276 - 293	Foliated into cg diorite, (03) very high mafic							
	content. Mafics bronzy chlorite, irregular							
	shapes - resemble bronzite. Some cherty sections.							
	276-280							
	280-293 - coarse grained mafics to 1/4"							
	scattered white diffused porcelain textured							
	feldspars (porphroblasts?) thru out.							
	- foliation varies but gen @ 45-55°.							
	This is probably the footwall diorite.							
	E N D							

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 7

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 4925.0 N 5704.9 E

DEP

ELEVATION OF COLLAR 63.85

DATUM

DIRECTION AT START: BEARING S40°W

DIP -80°

STARTED August 1st, 1963

COMPLETED August 7th, 1963

ULTIMATE DEPTH 277 ft.

PROPOSED DEPTH 300 -

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu
0 - 6	O. B.	242	-247.3	5.3	Tr	Tr	
6 - 10	Cased - r w Gl	247.3	-247.7	0.4	Tr	Tr	
10 - 23	Silic grey alt Gl, feld; some fresher sections	259	-259.3	0.3	Tr	Tr	
23 - 100	fol Gl, occ qtz strg; occ intense feldp.	274.8	-274.9	0.1	0.01	Tr	
	- occ greenish chloritic section						
	- v sl MoS_2 new qtz strgs. alt fol 35°						
100 - 120	Alta Gl, greenish seric, bleached (no mafics); feldpathization, not prominent in bleached areas - apparently silicification later.						
	- cherty qtz strgs @ 32° & rt angles to schistosity.						
120 - 200	Feldp. Gl, less highly altered; occ silic section - schistosity, good @ 30°; occ paralleled by siliceous bands.						
	170 - 175 - greenish, bleached.						
200 - 242	Gl, feldp increasing, cherty bndg @ 20°.						
242 - 244	SK3 - irreg ctct @ 30° preceded by 1" of pinkish feldspar in Gl and followed by 1" diffused zone, then SK3.						

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 7

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
244 - 247	- Grad to SK2, sl granular; sl pyrr (diss & or fractures) plus sl py along occ qtz veinlet.							
247 - 274.5	m to cg marble, ctct SK2 @ 42°							
	frag of SK2 in marble.							
	265 - 267 - alt Gl dyke? containing SK2 fragments; ctct @ 50°.							
	270 - Gray bndg @ 35°.							
	- occ blue-green coloration (chlorite)							
	- fract sl min bg Xstalline pyr, AsP							
274.5 - 277	- SK1 - SK2; siliceous agate -like ctct @ 30°; irreg; few cubes pyrite on ctct.							
	(HOLE LOST (TEMPORARILY) AT 277 FEET DUE TO DRILLING FAILURE),							
	MAY NOT HAVE PENETRATED DEEP ENOUGH AND WILL BE RE-DRILLED.							

N.M.P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 8

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 4890.7 N
DEP 5805.1 E
ELEVATION OF COLLAR 63.39'
DATUM

DIRECTION AT START: BEARING S40°W
DIP 65°

STARTED August 8th, 1963
COMPLETED August 11th, 1963
ULTIMATE DEPTH 289 ft.
PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag	Cu
				Au	Ag	Cu
0 - 10	O. B.	St. 32406	ft			
10 - 200	G1 - trachytic to gneissic					
	- fol @ 53°	225 -230	5.0	0.25	0.1	0.20
	78-125 - leached, greenish sil section,	230 -235	5.0	0.36	0.1	0.14
	gen feld; occ but rare qtz strg	235 -237.5	2.5	Tr	Tr	
		237.5-245	7.5	Tr	Tr	
200 - 202	SK2 & SK3 - coarse gr	1/2" @225.5	0.05	1.72	1.0	
202 - 204	SK1, not mineralized					
	- irreg ctct @ 45°	250.5-255	4.5	.02	Tr	0.11
	- bndg @ 38°	255 -257	2.0	Tr	Tr	0.18
204 - 225	Mixed, cg lms and v fg, banded white lms and					
	m s; bndg @ 41°.					
225 - 226	Massive S_2 - pyrr with sl py, CP banding @ 40°.					
226 - 238	Mixed S_2 replacement of vuggy quartz bearing					
	breccia zone, dark, dirty -					
	- S_2 include pyrr, CP, py. Poss sil grey min?					
238 - 251	Bronz mafics in m g diorite (G3?)					
	- occ leached, greenish chloritic.					

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 8

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
251 - 257	Siliceous zone. Sl brecc SX3,							
	mixed with silic diorite,							
	- occ splashes garnet, qtz, CO_3							
	- minor pyrr & sl CP replacement.							
257 - 289	C g; sl foliated feldpathic diorite							
	(G3); some dark fg inclusions.							
	- fol @ 32°.							
	END AS PROBABLY FOOTWALL DIORITE.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 9

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 4889.2 N
DEP 5903.3 E

ELEVATION OF COLLAR 64.05'

DATUM

DIRECTION AT START: BEARING S40°W
DIP -40°

STARTED August 11th, 1963

COMPLETED August 13th, 1963

ULTIMATE DEPTH 216 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag		
0 - 13	O. B. & Casing - r.w. Gl	142 - 145	3.0	Tr	Tr		
13 - 25	Gl, fol @ 65°	145 - 150	5.0	Tr	Tr		
		150 - 155	5.0	Tr	Tr		
25 - 110	Gl	155 - 157.5	2.5	Tr	Tr		
	32 - 75, 85 - 110 - leached greenish section	157.5-163	5.5	Tr	Tr		
	occ qtz strgs @ 20 - 30°,						
	fol & fracturing parallel @ 62°.						
110 - 113	Dark green, chloritic section	163 - 167	4.0	0.40	0.60		
	almost mariposite; broken, sheared	167 - 172	5.0	Tr	Tr		
113 - 119	Gl, feldpathic; numerous 1" leached	172 - 186.5	4.5	Tr	Tr		
	sections associated with	186.5-188	1.5	Tr	1.0		
	fractures @ 65°	188 - 192	4.0	Tr	Tr		
119 - 120	Missing.						
120 - 142	Greenish alt Gl; occ deep green chloritic	198 - 200	2.0	Tr	Tr		
	- occ qtz strg @ hi angle to core -						
	feldpathic.						
	127 - 128 broken and sheared.						
142 - 143	White qtz & SK2, brecc ctct with garnets broken.						
143 - 145.5	SK1 - sl qtz vein; bndg @ 75 - 80°.						
145.5-147.5	SK3; occ qtz bands @ 80°.						
147.5-151	SK1 - brownish- bl bndg @ 80°						

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 9

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
151 - 154	Brecc, sl r w mbl; some buff sections; occ sl silic bndg.							
154 - 157	As above but increasing brecciation; sl pyrite @ 157.							
157 - 159	Mottled SK3, sil bndg; ctct @ 65°; some tan or buff sections. Sl S_2 replacement in banding @ 85°.							
159 - 162	50% rec of brecciated sheared zone containing some min qtz, buff in pt.							
162 - 167	Silic mbl breccia replaced in part by py & pyrr plus v sl ZnS; S_2 bndg @ 75°.							
167 - 186	Gen cg grey marble; buff in part; occ wk breccia, v slight mineralization.							
186 - 188	60% S_2 in qtz; buff Co_3 & brecc pyr, py: Ctd @ high angle.							
188 - 189	Massive cg wh marble; sl buff strgs.							
189 - 191	Sl AsP on ctct at 70° with SK3; some bndg @ 45°.							

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 9

SHEET NUMBER 3

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
191 -191.7	Sl pyritic replacement of sil marble & sk bands - bndg @ contacts 50°.							
191.7-198	Highly feld, cg foliated gr rock (G2) - foliation @ 50°.							
198 - 200	G2 - intensely leached. Includes paralleling slippers of brassy pyrrhotite in buff colored areas.							
200 - 216	G2 - less bronzy biotite.							
	END - Probably footwall.							

PROPERTY BANKS GOLD

HOLE NUMBER B - 10

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 4891.6 N
DEP 5805.5 E

ELEVATION OF COLLAR 63.09'

DATUM

DIRECTION AT START: BEARING S40°W
DIP -76° atstart

STARTED August 14th, 1963

COMPLETED August 17th, 1963

ULTIMATE DEPTH 350 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag		
0 - 7	O. B.						
7 -273	Gl - feldpathic	36 - 36.5	0.5'	0.01	Tr		
	15 - 60) Greenish "leached" zones (shear zones??)	275 - 290	15.0	Tr	Tr		
	265-273)	296 - 302	6.0	Tr	Tr		
	Foliation @ 50' = 60°	307 - 309	2.0	Tr	Tr		
	" @ 205' = 45°						
		324 picked	2"	Tr	Tr		
	occ sl py in silic sections.						
273 - 286	SK2;(1)irreg ctct. Garnet bndg @ 35 - 40'.						
286 -287.5	Marble -(1)ctct @ 35 - 40'.						
287.5-288.5	SK3 (1) ctct @ low angle (20°)						
288.5-296	C g marble. Dark bndg @ 30°.						
296 - 297	SK2 (1) low angle irreg ctct.						
297 - 303	Black brecc M S 1, sl qtz; some SK2 patches; very weakly min; light, almost carbonaceous in part.						

PROPERTY BANKS GOLD

HOLE NUMBER B - 10

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
303 - 304	Alt greenish silic section.							
304 - 320	Marble							
	313 - well preserved fold - arc 7" long							
	1-1/4 inches deep.							
	3/4 - fold as above.							
	- occ fold SK2 incl, ctcts sl brecc.							
320 - 350								
	C g G2; occ sil section							
	- fold gray inclusion, etc.							
	- irreg foliated, etc.							
	(this may be a hybelrid rx)							
	E N D							

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 11

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 4819.0
DEP 5904.4 E

ELEVATION OF COLLAR 64.29'

DATUM

DIRECTION AT START: BEARING S40°W
DIP -50

STARTED August 17th, 1963

COMPLETED August 21st, 1963

ULTIMATE DEPTH 360 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu
0 - 2	O. B.						
2 - 25	Sil, feld Gl; sl qtz veins - fol @ 45°	175.5	175.8	0.3'	Tr	Tr	
		176	181	5.0	Tr	Tr	
25 - 85	Light green - leached Gl; occ qtz strg	181	190	9.0	Tr	Tr	
		190	195	5.0	Tr	Tr	
85 - 150	Gl - foliated; some green sil section.						
		200	225	25.0	Tr	Tr	
150 - 166	Leached Gl, Co_3 in pt, feldpathic portions	225	250	25.0	Tr	Tr	
		250	275	25.0	Tr	Tr	
166 - 167	Irreg ctct SK2	285.4	285.6	0.2	Tr	Tr	
167 - 172	SK2, v sl min	349.4	350	0.6	Tr	Tr	
172 - 175	Mg mbl (1) ctct @ 60°.						
175 - 176	Vfg marble - bndg @ 65°.						
176 - 176.4	Gangue - fault @ 45°.						
176.4-181	50% CR in grey, silic leached SK2 mixed with green rex - sly pyr, pyrr on jnts.						
181 - 200	Siliceous M5(b) - siliceous slightly micaceous but massive bluish to brownish biotite hornfels; sl S2 on jnts, 80% C.R.						

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 11

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
200 - 201	Feldp, Gl(?)							
201 - 204	M S b							
204 - 211	Mixed M S b & G2; M S b is weakly feld - irreg bndg; sl blebs pyrr in more silic sections.							
211 - 289	MS(b) - occ G2 dykes 0" wide @ 40° - sl blebs pyrr. MSb bndg @ 40 to 25°.							
289 - 350	Fg, silic MSb cut by 25% G2; massive, f.g. - occ strg py, pyrr - occ bndg @ 45°.							
350 - 355	Sl py, pyrr in sil sections.							
355 - 360	50% Gl, 50% MSb - mixed white aptitic dyke. A low angle; foliation @ 45°.							
	E N D.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 12

SHEET NUMBER 1

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT 4978.2 N
DEP 5758.4 E

ELEVATION OF COLLAR 81.85'

DATUM

DIRECTION AT START: BEARING S40°W
DIP - 60-1/2 Corrected dip @ 300' = 58°

STARTED August 22nd, 1963

COMPLETED August 27th, 1963

ULTIMATE DEPTH 326'

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag		
		(ft.)					
0 - 258	Gl	278.5-280	1.5	0.4	0.6		
	Gen fol @ 44°	280 -285	5.0	0.10	0.1		
	75.5 - sl pyrr, MoS_2 in qtz	285 - 290	5.0	0.14	0.2		
	125-150 - crushed greenish leached section	290 - 292	2.0	0.48	1.1		
258 - 261	- SK3 (1 ft) then SK2	292 - 293	1.0	0.02	Tr		
261 -278.5	Marble - occ SK2 incl						
	(1) ctct @ 52°.						
278.5-292.5	S_2 replacement of breccia zone (100% recovery).						
	(1) ctct @ 37°						
	280 - 284 - Brecc qtz repl; sl vuggy						
	284 - 286 - sl pyritic quartz but S_2 rare						
	286 - 287 - Crushed breccia zone						
	287 - 289 - 80% S_2, chiefly pyrr, sl py.						
	289 - 289.5 - sl pyr grey qtz.						
	289.5-292.5 - 85% S_2 (pyrr sl py CP)						
292.5-293.5	Sl min marble; chloritic slips.						
293.5 -313	Grey mg marble, bndg @ 43°. Buff section @ 313.						
313 - 326	Marble						
	316-316.5 - paralleling qtz-pyrr band.						

E N D

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 13

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 5033.47
DEP ~~5440.18~~ 5540.18
ELEVATION OF COLLAR @ 56.9
DATUM

DIRECTION AT START: BEARING S40°W
DIP -50°

STARTED August 28/1963
COMPLETED August 30/1963
ULTIMATE DEPTH 242 ft.
PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag		
0 - 5	O. B.							
5 - 71	Fol feld Gl, occ greenish alt, specially 30 - 50 fol @ 60°	125.5	126.5	1.0'	0.12	0.1		40% rec
71 - 72	S K 1	126.5	130	3.5	tr	tr		
72 - 93	S K 2 - qtz strg @ 50°; sl pyrr; occ S K 3							
93 - 111	Feld, mg G3, no qtz?	130	135		tr	tr		
	100.5 - 100.7 - gouge.							
111 - 125	Fg grey to brown biotitic MS_2 - bndg @ 45°	135	140		tr	tr		
125 - 139	- Intensely brecciated mbl; sl qtz; sl buff below.	140	145		tr	tr		
	125.5 - 126.5 - Mineralized zone - ground	145	150		tr	tr		
	136.5 - 139 - Intense brownish breccia, part gray and white lms particles in green chloritic groundmass - not min and not silic.	150	155		tr	tr		
139 - 156	Greenish breccia zone as previous, weakly min S2 mbl @ 68°.							
156 - 175	Bnded mble mixed with MS_2, occ sl fold sections - well banded @ 70-80°; occ folded.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 13

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
175 - 209	M to fg mble, green bndg @ 44°; occ bugg section to start.							
209 - 222	Feld m to cg G3							
	209 - 215 greenish chloritized; bndg @ ctct on skarn patches @ 48°.							
222 - 229	S K 2.							
229 - 230	S K 2 gouge.							
230 - 242	dark - feld G3.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 14

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 5035.47
DEP ~~5440.18~~ 5540.18

ELEVATION OF COLLAR 56.9

DATUM

DIRECTION AT START: BEARING S40°W
DIP -80°

STARTED August 30/1963

COMPLETED Sept. 2/1963

ULTIMATE DEPTH 466 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag		
		start #30162					
0 - 77	Feld. Gl, occ qtz strgs associated with	53-57.5	4.5	tr	tr		
	light colored, sericitic areas. Fol @ 47°	72 - 75	3.0	tr	tr		
	53-57.5 - cherty qtz section - erratic ctct @	78 - 87	9.0	tr	tr		
	30°; - sl pyrr, pyrite on fractures @ 45°	115 - 163(3)	48.0	tr	tr		
		261 - 261.3	0.3	tr	tr		
	72 - 75 -						
	Cherty sect as previous; v sl S2						
77 - 87	Cherty banded qtz zone. occ trace of orig Gl;						
	very sl min; py on jnts; bndg @ 53°.						
87 - 102	Bnded feld hornfelsic MS1; folded & contorted						
	but gen att @ 32°.						
102 - 113	Mixed MS1 & MS2; occ sl sil with qtz banding @ 30°.						
113 - 117	S K 3 - greenish.						
117 - 142	Mixed S K 3 & S K 2; soft black sheared and brecc						
	rx as in prev holes; occ sl py -						
	some garnet bnd @ 63°.						
142 - 163	S K 1 - cons red garnet, py on jnts & fractures.						

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 14

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
163 - 200	Mottled mg G3; ctct indef, weakly min.							
	- some cherty sections; sl pyr							
	- "partly digested" inclusions common.							
200 - 260	G3 becoming coarser grained and increasingly felds-							
	pathic; mafics increasing - some minor cherty sections.							
259 - 261	Sheared brecc black soft G3 including gouge							
	(ctct zone).							
261 - 270	- Brecciated buff marble zone, minor qtz (thus no ore);							
	num vugs in mble lined with Co3 xstals.							
270 - 295	Less brecc mble. Bndg @ 39°.							
295 - 297	- Brecc marble zone @ 20 - 25°.							
297 - 431	White marble - bndg @ 53°; occ S K 3 incl -							
	some lemon yellow tings.							
	400-402 - band hematite. limonite in fractures.							
431 - 438	Resembles S K 3; low angle ctct (15°) with lms; bndg							
	in lms 20-25°.							
438 - 464	Bluish tinged G3; bright diffused feldspar pheno-							
	blasts; occ sl ser. near brakes.							
464 - 466	Sl feld, v fg G3; poss start of MS2.							
	E N D							

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 15

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 5232.33
DEP 5435.14

ELEVATION OF COLLAR 56.1

DATUM

DIRECTION AT START: BEARING S40°W
DIP -65°

STARTED Sept. 3/1963

COMPLETED " 10/1963

ULTIMATE DEPTH 398 feet.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag
0 - 18	O. B.	start #30167				
18 - 56	Sl sericitic, alt Gl with weak fol @ 50°					
56 - 75	As above but noticeable average limonite(?) in most cracks & fractures; occ sericitic; - occ specks py; qtz strgs & sl bndg @ 59°	56	75	19.0	0.01	tr
		95	95.5	0.5	0.01	tr
		153	153.5	total 2.5'	tr	tr
		156	156.5			
75 - 140	As above, still sl feldspathic; occ cherty qtz sect.					
140 - 175	Feld fol Gl but up to 10% cherty sections. Fol @ 45°	172	173.5			
	153-153.5, 156-156.5 & 172-173.5 - sl min cherty section, sl py, MoS_2.	174	175	1.0	tr	tr
175 - 223		257	259	2.0	tr	tr
	Mixed MSl, MS2; highly feldsp; good bndg @ 50°					
223 - 225	SK3 - sl pyrr; occ sl garnet & qtz strgs @ 68° ctct with marble @ 68°.					
225 - 227.5	Missing.					
227.5 - 341	Mble; num SK2 incl; "dirty" 240-241 - blk gouge, sl graphitic, occ brecc hematite. 245-247 - brecc. 257-259 agate-like jasperoid?? sl MoS_2. 275-300 - Buffish coloration noticeable; bnd @ 45°.					
341 - 352	Soft, alt feld Gl or G3 (??)					
352 - 364	Mble; bndg @ 45-50°.					
364 - 367	ctct @ 60° with soft, brecc SK3 grading to hard					

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 15

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
364 - 367	contd. greenish actinolite skarn.							
367 - 398	M to cg G3 scattered feld phenoblasts.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 16

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 5334.27
DEP 5269.80

ELEVATION OF COLLAR 47.8

DATUM

DIRECTION AT START: BEARING S40°W
DIP -65°

STARTED September 11/1963

COMPLETED " 15/1963

ULTIMATE DEPTH 439

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag
0 - 7	O. B.					
7 - 50	Gl - sl fol @ 51°; orange oxide in fractures; numerous light green sericitic sections; up to 5% white qtz veinlets throughout; occ sl MoS_2	40 - 40.4		0.4	0.01	tr
		45 - 46		1.0	tr	tr
		115 - 125		10.0	tr	tr
50 - 93	Ser Gl; scattered pyr, py.					
93 - 100	Thin bedded MSl plus feldspathic Ms_2 - py on fractures.					
100 - 213	Mixed Msl & Ms2; pyrite on most fractures. Bnd @ 52°. 120-122, 161-162 - geouge & breccia.					
213 - 214	Brecc ctct.					
214 - 377	Marble zone, num SK1 & SK2 type patches, gen bndg @ 55°. 289-293 - sl sil brecc. 323-335 alt feld Gl or G3 dyke? 335-342 - soft Co3 zone (breccia), 375-377- buff to flesh tinged marble. Bndg @ 71°.					
377 - 378	SK3 zone.					
378 - 439	Dark sl feld G3; fol @ 50°. 379-381 - gouge.					
	E N D					

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 17

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 5850.09
DEP 4934.63

ELEVATION OF COLLAR 41.2

DATUM

DIRECTION AT START: BEARING S40°W
DIP -65°

STARTED Sept. 19/1963

COMPLETED " 24/1963

ULTIMATE DEPTH 530 feet.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag
0 - 13	O. B.					
13 - 215	Alt - "leached" sericitic Gl; occ shows mafics; num qtz strgs; occ orange limonite on slips and fractures; occ sl S2 (pyrr) qtz bndg & fol @ 57°.	196.5	197.5	1.0	tr	tr
		217	220	3.0	0.01	0.2
215 - 426	Mixed MS1 & MS2; occ orange limonite or oxide to 225'					
	420 - 266 - grad to schistose hornfels.					
	gen bndg @ 42°.					
	263-265, 275-79, 375-85 - brecc zones, inc gouge graphitic on slips.					
426 - 472	fg granular marble; bndg @ 23°.					
472 - 510	Greyish qtzose gray-green actinolite skarn (SK3??)					
510 - 530	M to cg G3; occ blebs pyrr.					
	E N D					

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B-18

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 6146.91
DEP 4572.53

ELEVATION OF COLLAR 61.4

DATUM

DIRECTION AT START: BEARING 540°W
DIP -45°

STARTED September 26/63

COMPLETED October 2/63

ULTIMATE DEPTH 382'

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag		
0 - 1	O. B.							
1 - 50	90% Gl, 10% AGl 34 - 37 - AGl 35.4-35.7 - sl banded fg S_2 in AGl Section	35.4	35.7	0.3	0.01	Tr		
50 - 74	10% alt incl in feld fol Gl. 86 - 88 - AGl. Fol @ 47°							
74 - 100	- ctct @ 55° with M S (a); occ feld Gl sect. - good bndg @ 55°; some buff to v w bnds. Sl diss pyrr.							
100 - 156	M S (a) as prev. Distinctive bedding at 53°. 113 - 114 sh breccia. 119 - 121 Gl sill(?); ctct @ 68°. Some bndg caused by alt along jnts @ 80 - 120° from bedding.							
156 - 178	Sheared, crushed and brecciated M S (a) plus gouge (175 - 178 missing).							
178 - 214	M S (a) -- occ sl feld Gl sills							
214 - 224	feld M S (b)							
224 - 244	- mixed M S (a) plus M S (b) - 238 sl pyrr, 238 - 244 light grey silic M S and granular grey marble; sl spotted garnet.							

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B-18

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
244 - 255.5	- bdd G1 or G3(?) mafic rich in foliation parallels core.							
255.5 - 285	- mottled garnet - amph. Skarn - some marble section; 257 - sl rhodonite(?) in 1" qtz vein. - gen bndg @ 45°.							
285 - 321	White fg marble - buff bndg @ 55° @ 285; also some v w to orange banding. 317 - bndg @ 77°. 320 - bndg @ 60°.							
321 - 323	SK1; some bands of rhodonite - banding at 70°.							
323 - 382	Gradational ctct to dark cg G3 - foliation at 60°; sl feldspathic;. Num fg dark inclusions (which are lacking in G1 type).							
	E N D							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 19

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 7046.0
DEP 4612.0

ELEVATION OF COLLAR est 106 ft.

DATUM

DIRECTION AT START: BEARING [illegible] N6°35'E
DIP -36° -33° @ 250'.

STARTED October 8th, 1963

COMPLETED October 11th, 1963

ULTIMATE DEPTH 331 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM Start	TO 7528	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu
0 - 14	O. B.	155	- 160	5.0	tr	tr			.03
14 - 155	Foliated Gl with hydrothermally alterations	160	- 165	5.0	tr	tr			"
	increasing - these common. These mafic-free	165	- 170	5.0	tr	tr			"
	sericitic white to green granular sections to	170	- 175	5.0	tr	tr			"
	be referred to as AGl from here on.	175	- 180	5.0	.01	tr			"
155 - 200	Mostly AGl with some Gl sections -								
	- spotted, v w sections; qtz banding @ 50°; some	180	- 185	5.0	tr	tr			"
	oxid along ujnts @ 90° to banding. Brassy	185	- 190	5.0	tr	tr	0.10	0.30	.03
	xstalline pyrite scattered in gobs but no other	190	- 195	5.0	tr	tr	"	"	"
	S_2.	195	- 200	5.0	.02	tr	"	"	"
200 - 230	- AGl - minor Gl sections. Qtz increasing -	200	- 205	5.0	tr	tr	"	"	"
	banded at 62°; pyritic min. occ v sl PbS, ZnS								
	218 - 223, 227 - 230 - crushed sections	205	- 210	5.0	tr	tr	"	"	"
	containing buff min.	210	- 215	5.0	tr	tr	"	"	"
	223 - 227 Gl	215	- 218	3.0	tr	tr	0.05	0.05	0.01
	227 - 230 - sl, more S_2 Qtz; banding @ 67°.	218	- 223	5.0	tr	tr	"	"	"
	sl PbS	223	- 227	4.0	tr	tr	"	"	"

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 19

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu
230 - 270	- 20° fol Gl in AGl; scattered Py- - Cubes & bnds	227	231	4.0	tr	tr	0.05	0.05	0.01
270 - 331	- Fol Gl; AGl almost nil last 15 ft.	231	238	7.0	tr	tr	"	"	"
		238	245	7.0	tr	tr	"	"	"
		245	251	6.0	tr	tr	0.18	0.10	0.01
		251	254	3.0	tr	tr	0.18	0.10	0.01
		254	259	5.0	tr	tr	"	"	"
		259	265	6.0	tr	tr	"	"	"
		265	275	5.0	tr	tr	"	"	"
	END 7550								
	NOTE:								
	Min spread and not concentrated as in previous holes.								
	C. R. = 100%								

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 20

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 7041.0
DEP 4611.0

ELEVATION OF COLLAR est 106 ft.

DATUM

DIRECTION AT START: BEARING N6°35'E
DIP -55 . -51 @ 380'

STARTED October 12th, 1963

COMPLETED

ULTIMATE DEPTH 408 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION
	Start 30181.
0 - 7	O. B.
7 - 260	Feld, fol Gl, about 30% AGl, increasing fol and
	bndg @ 45°; S2 bndg @ 238 = 53°
260 - 273	Gl and AGl, scatt py
273 - 276	Best PbS-qtz-py section; py coarse; bndg @ 52°
276 - 350	20% feld Gl, 80% AGl; occ gobs & diss pyr
350 - 365	brecc & crushed AGl, sl increase in S2; some
	white qtz with diss PbS
365 - 402	20% AGl scattered in bands through fol Gl;
	min weak but occ gob py.
	287 - 288 sl pyrr, MoS2. Banding @ 400' = 30°
402 - 408	Sl feld Gl; AGl almost nil
	E N D

FROM TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu
170.5-171.5	1.0	.02	tr	0.56	tr	0.01
253 - 256	3.0	tr	tr	"	"	"
256 - 258.5	2.5	.01	tr	"	"	"
258.5-263	4.5	tr	tr	"	"	"
263 - 268	5.0	tr	tr	0.21	0.25	0.03
268 - 273	5.0	tr	tr	"	"	"
273 - 276	3.0	.02	tr	"	"	"
276 - 281	5.0	.02	tr	"	"	"
281 - 291	10.0	tr	tr	0.08	tr	0.01
291 - 298	7.0	tr	tr	"	"	"
298 - 303	5.0	.02	tr	"	"	"
303 - 314	11.0	tr	tr	0.33	0.20	0.03
314 - 319	5.0	.02	tr	"	"	"
319 - 329	10.0	.01	tr	"	"	"
329 - 333	4.0	.02	tr	"	"	"
	< Chekassay					

PROPERTY BANKS GOLD

HOLE NUMBER B - 20

SHEET NUMBER 2

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT .....
DEP .....

ELEVATION OF COLLAR .....

DATUM .....

DIRECTION AT START: BEARING .....
DIP .....

STARTED .....

COMPLETED .....

ULTIMATE DEPTH .....

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu
		333	343	10.0	tr	tr	0.21	tr	0.01
		343	349	6.0	tr	tr	"	"	"
		349	351	2.0	(1)02	5.3	"	"	"
		351	356	5.0	tr	tr	"	"	"
	END 3020	356	361	5.0	.02	tr	"	"	"
	STAT 4056	361	366	5.0	tr	tr	0.26	0.05	0.01
		366	371	5.0	tr	tr	"	"	"
	END 4058	387	387.8	0.8	tr	tr	"	"	"

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 21

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 7032.0
DEP 4714.0

ELEVATION OF COLLAR est 105 ft.

DATUM

DIRECTION AT START: BEARING N6°35'E
DIP -35°

STARTED Oct. 19, 1963

COMPLETED Oct. 21, 1963

ULTIMATE DEPTH 263 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION
0 - 6	O. B. Start 30211
6 - 75	10% AGl. 90% Gl (increasing)
75 - 125	60% AGl, 40% Gl (117 - 119 missing)
125 - 169	70% AGl, 30% Gl (128 - 132 missing - ground)
	154 - 162 - sections containing large clusters or fragments of orange to flesh K feldspar? or -, accompanied by sugary-green sericitic to carbonized AGl frags in white qtz. Ctcts gradational
	167 - 167.5 - first good py, bndg @ 40°
	175 - 180 - qtz and AGl ctct
	attitudes @ 60, 62°. Green increasing
189 - 190.5	Coarse py (10%) in qtz; sl fg ZnS
190.5-198	Sl min AGl
198 - 199	pyrite & sl gray min- att 26°
199 - 212.5	S2 increasing; bndg @ 70°; Sl Cp with sl ZnS,PbS
212.5-215	Fault, breccia and shear zone followed by 70% massive bnd S2 - PbS, Py, Pyrr, ZnS, sl ASP, Sl Cp in qtz. Buff band accomp; Bndg @ 71°

FROM	TO	WIDTH OF SAMPLE ft	Au	Ag	Pb	Zn	Cu
75.5	76.5	1.0	tr	tr			
132	134	2.0	tr	tr			
162.5	166	3.5	tr	tr			
166	167	1.0	0.01	tr			
180	189	9.0	tr	tr			
189	190.5	1.5	0.01	tr			
190.5	195.5	5.0	tr	tr	0.18	tr	
195.5	198.5	3.0	tr	tr	0.21	tr	
198.5	201	2.5	0.02	0.2	0.23	tr	
201	206	5.0	tr	tr	0.15	.10	.01
206	210	4.0	tr	tr	0.15	tr	.01
210	212.5	2.5	tr	tr	0.05	0.35	.01
212.5	215	2.5	(1) 0.20 / (2) 0.26	6.0 / 6.3	10.62	7.74	
215	217.5	2.5	0.02	0.4	0.39	1.98	.05
217.5	220	2.5	tr	tr	0.46	0.35	.03

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 21

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu
215 - 218	30% qtz (10% S2) in AGl								
218 - 250	80% AGl, occ pyr strgs; occ sl PbS, spotted occ with v fg S2 - PbS - ZnS - ASP??								
250 - 263	80% fol Gl, fol @ 45°; sl S2 still in AGl sections.								
	(End)								
		220	221.5	1.5	tr	tr	0.15	tr	.01
		221.5	230	8.5	tr	tr	0.10	tr	
		230	235	5.0	tr	tr	0.10	0.45	
		235	239.5	4.5	0.01	tr	0.18	tr	
		239.5	240.5	1.0	0.02	tr	0.08	0.20	
		240.5	244	3.5	0.01	tr	0.10	0.05	
		244	249	5.0	0.06	tr	tr	0.25	
		262	263	1.0	tr	tr			
	END 30233								

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 22

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 7030.0
DEP 4713.0

ELEVATION OF COLLAR 105 ft. approx.

DATUM

DIRECTION AT START: BEARING ~~XXXXX~~ N6°35'E
DIP -50°. -49° @ 250 ft.

STARTED Oct. 22/ 1963

COMPLETED Oct. 25/ 1963

ULTIMATE DEPTH 371 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION Start 30247	FROM TO	WIDTH OF SAMPLE	Au	Ag			Cu/McS2
0 - 3	O. B.	215.5-217	1.5	.01	.10			.03/.01
3 - 20	85% Gl, sl oxid (v w) highly and coarsely felds-	222 - 224	2.0	.01	tr			"
	pathic; poss of "healed" breccia in part	240 - 245	5.0	tr	tr			"
	- poor foliation @ 30°(?)	245 - 250	5.0	.01	tr			.03/tr
20 - 50	50% Gl, 50% AGl - broken - poor drilling	250 - 251	1.0	0.20	0.50			"
	25.0 - qtz strgs @ 55°.							
50 - 175	60% AGl. Fol @ 46° @ 130 ft.	251 - 256	5.0	0.02	tr			"
	143-145 - missing; 162-163 sl flesh K feld Gl	263 - 264	1.0	0.08	0.10			"
175 - 215.5	60% feld Gl; gen streaking & bands @ 42°	267.5-270	2.5	0.16	0.10			"
215.5-217	Pyrite in qtz includes 3/4" bndg @ 33°.	270 - 275	5.0	0.04	tr			.03/.01
217 - 217.5	Fault contact;	275 - 280	5.0	0.02	tr	0.28	0.20	"
217.5-233	Mg completely bleached, altered, mafic free AGl but							
	light brownish to flesh colored. Occ sl S2 - qtz	280 - 285	5.0	0.02	tr	tr	0.03	"
	bands.							
233 - 241	As above increasing resemblance to AGl but not	285 - 290	5.0	0.02	tr	0.15	0.62	"
	green.							
241 - 260	70% light AGl, 30% Gl; Some qtz, pyrr, py min.	290 - 295	5.0	0.14	0.10	0.08	0.75	"
260 - 298	95% AGl - brownish sericitic rather than green	295 - 300	5.0	0.22	0.80	0.05	0.75	"
	280-298 increasing S2 & qtz (PbS-ZnS, py-pyrr)	300 - 305	5.0	0.16	0.40	0.21	0.65	.03/tr
298 - 300.5	Fault gorge S2 ground.							

N. M. P. - FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B - 22

SHEET NUMBER 2

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT

DEP

ELEVATION OF COLLAR

DATUM

DIRECTION AT START: BEARING

DIP

STARTED

COMPLETED

ULTIMATE DEPTH

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag			Cu/MoS2
300.5-305	Brecciated AGl "sealed" with qtz & S2 (30%)	305	311	6.0	0.76	2.10	0.15	0.25	.03/tr
305 - 307	AGl gorge - sl min @ 30° to core	311	316	5.0	0.12	0.20	0.23	0.75	"
		316	319	3.0	0.04	0.10	0.26	0.35	"
	End 30265	319	320.5	1.5	0.02	tr	0.10	0.12	"
307 - 311	70% qtz, 10% S2 in AGl								
311 - 315.5	AGl; occ bnd S2 & qtz @ 45° to core.								
315.5-343	- 60% AGl; occ feld inclusion? - not min.								
343 - 356	- 90% Gl								
356 - 356.2	- poorly defined ctct @ 45°								
356.2-371									
	Cg, diffused, quartz rich hnblnd qtz diorite or qtz monzonite??								
	- diss bronzing mafic								
	- poorly foliated @ 40°(?)								
	- not min.								
	E N D								

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER B -23

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT 7029.0
DEP 4713.0

ELEVATION OF COLLAR 105 ft. ±

DATUM

DIRECTION AT START: BEARING ~~N~~ N6°35'E
DIP -61° at start, -60° @ 250, -58° @ 500'

STARTED Oct. 26/1963

COMPLETED Nov. 1/1963

ULTIMATE DEPTH 570 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE ft	Au	Ag	Pb	Zn	Cu/MoS2
0 - 75	90% Gl, 10% AGl	Start 30269						
75 - 200	40% brownish AGl, 60% feld. Gl	242.0-242.1	0.1	.02	tr	1		
	- qtz bnds in AGl = 45°	345.5-346.5	1.0	.02	tr	tr	0.15	.01/.02
	- foliation & paralleling fractures in Gl - 45°	358.5-359	0.5	.01	.35	"	"	"
200 - 225	90% AGl - brown to green; occ buff bndg	370.5-371	0.5	tr	tr	"	"	"
225 - 275	50% AGl	378 - 379	1.0	tr	tr	"	"	"
	242 - sl bnded py @ 55°; some qtz @ 70°							
	273.5 - 274.5 - K feld(?) - flesh tinged AGl;	382.5-384	1.5	tr	tr	"	"	"
	fairly high angle to core - some of AGl approach-	384 - 387	3.0	tr	tr	"	"	"
	ing cg; AGl encountered at end of previous hole.	387 - 390	3.0	.01	tr	"	"	"
		390 - 394	4.0	.01	tr	"	"	"
	Note: Only minor core saved to this point.	394 - 398	4.0	tr	tr	"	"	"
275 - 300	90% Gl in highly feldspathic							
300 - 325	40% AGl; qtz bndg @ 46°; becoming br.	398 -399.5	1.5	tr	tr	"	"	"
	- 303 - 304 - sl min	399.5-405	5.5	tr	tr	0.10	0.30	.01/.02
	- feldspathic foliation @ 25° paralleling v w	405 - 410	5.0	tr	tr	"	"	"
	fractures.							
325 - 350	- 60% brown AGl; occ min qtz bnds @ 42°.	410 - 413	3.0	tr	tr	"	"	"
	343 pyr bndg @ 67°.	413 - 418	5.0	.02	.1	"	"	"
350 - 375	70% AGl; Gl is darker; Good qtz - S2; bndg @ 60°.							

PROPERTY BANKS GOLD

HOLE NUMBER B - 23

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu/MoS2
375 - 400	95% AGl - increasing qtz, S2, but mineralization	418	423	5.0	.02	tr	0.10	0.30	.01/.02
	is scattered with no concentration.	423	427	4.0	.01	tr	"	"	"
	Sl S2 bndg @ 43° and 77°.	427	428.5	1.5	.02	tr	"	"	"
400 - 425	- 25% Gl; v sl diss PbS, MoS2, py	428.5	430	1.5	tr	tr	"	"	"
	417-423 - sl more qtz-py (6-8%)	430	435	5.0	.02	.1	tr	0.47	
	423 sl bnds chocolate colored sphalerite @ 41°.	435	445	10.0	tr	tr	0.15	0.15	.01/.02
425 - 485	95% AGl	445	450	5.0	tr	tr	"	"	"
	430-432 - qtz with Sl, S2, bndg at 40°.	450	455	5.0	.02	tr	"	"	"
	476 - S2 bndg in qtz @ 55°	455	460	5.0	.01	tr	"	"	"
	459-460 - sl crushed section	460	470	10.0	.02	tr	tr	0.15	.01/.01
485 - 526	98% AGl	470	476	6.0	.02	tr	"	"	"
	515-517 - sl crushed or brecc section	476	478	2.0	0.14	0.2	"	"	"
526 - 540	50% AGl	478	485	7.0	0.04	0.1	tr	0.20	.01/.01
540 - 555	40% AGl	485	495	10.0	tr	tr	"	"	"
555 - 570	3% AGl, 97% Gl - darkening.	495	500	5.0	tr	tr	"	"	"
	E N D	500	510	10.0	tr	tr	"	"	"
		510	515	5.0	tr	tr	"	"	" "
	NOTE: Hole did not cut concentrated S2 zone or	515	517	2.0	tr	tr			
	faults of shallower holes.	534.2	534.5	0.3	tr	tr			
	END 30302								

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER A - 1 (P.S.)

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 6831.0
DEP 5664.0

ELEVATION OF COLLAR est 110'

DATUM

DIRECTION AT START: BEARING N5°E
DIP -47°

STARTED Sept. 28/1963

COMPLETED Oct. 25/1963

ULTIMATE DEPTH 123.0

PROPOSED DEPTH

DEPTH FEET	FORMATION Start 30235
0 - 5	R w, oxid Gl - 20%, AGl 80%
5 - 25	90% AGl - sl MoS2 on jnts
	22 ft - sl fg S_2 - bndg @ 50°
25 - 50	90% AGl - light green
	25 - 28 - sl S_2 & qtz
	32 - 33 "
50 - 75	95% AGl. Increasing green to yellowish green
	73 - 75. Sl PbS at random, also sl
	MoS2 (core recovery 80-85% at this point).
75 - 81	90% Light green AGl
81 - 82	Ground - sl qtz S2 - banding at 50°.
82 - 91	Broken AGl - 70% C.R.
91 - 97	Ground - all missing - in some S_2??
97 - 100	AGl & qtz with sl S_2, 40% C.R.
100 - 102	Sl qtz - S_2 in AGl
102 - 109	Ctct at 34" with sandy textured light greenish brown sl min alt rx grading to "marbly" leached cont'd ms? inclusion?? Sl qtz, S_2 bndg @ 65°.
109 - 120.5	AGl - ctct @ 25°.
120.5-123	Dark mg highly feldspathic Gl(?). poor ctct @ 40°.
	HOLE SHOWED POOR RECOVERY & INDICATED COMPLICATED GEOLOGY THIS AREA NEAR CONTACT. E N D

FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu
0	5	5.0	tr	tr	
22	23	1.0	.01	tr	
25	28	3.0	tr	tr	
28.0	28.6	0.6	.01	tr	
32	33.5	1.5	tr	tr	
54	54.5	0.5	tr	tr	
62	64	2.0	tr	tr	
81	82	1.0	.01	tr	
95	99	4.0	tr	tr	
100	104	4.0	tr	tr	
104	105	1.0	tr	tr	
105.5	105.6	0.1	0.02	tr	
105.6	105.9	0.3	.01	0.10	
112	112.5	0.5	.01	tr	
115	115.7	0.7	.01	tr	

N.M.P.-FORM A

PROPERTY BANKS GOLD

HOLE NUMBER A - 2 (P.S.)

SHEET NUMBER

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 6840.0
DEP 5598.0

ELEVATION OF COLLAR 110 ft. ±

DATUM

DIRECTION AT START: BEARING N47°E
DIP -44°

STARTED Oct. /1963

COMPLETED Oct.28/1963

ULTIMATE DEPTH 100 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Pb	Zn	Cu/MoS2
0 - 5	R w (oxid) fol feld Gl Start 30303	16.5	17.5	1.0	tr	tr			
6 - 25	Greenish Gl - AGl	25	35						
	16.5-17.5 - sl py-MoS2 min in qtz; (less	28.5	29.5)	9.0	tr	tr	tr	0.17	.01/.01
	S2 banding @ 55°	28.5	29.5	1.0	tr	tr	"	"	"
25 - 47	AGl, increasing number of small 1-2" qtz bands @	35	37	2.0	.02	tr	"	"	"
	70-80° to core. Fol @ 55°. 35-37 best min in qtz;	37	40	3.0	tr	.1	"	"	"
	8% S2 ± - mostly py, sl PbS, ZnS	40	46	6.0	tr	tr	"	"	"
47 - 51	gr fol AGl - partly replaced by Py	46	51	5.0	.02	tr	"	"	"
51 - 100	AGl. One or two small high angle quartz veins per ft	51	56	5.0	.02	tr	0.23	0.1	.01/.01
	- generally weakly mineralized on contact	56	60	4.0	tr	tr	"	"	"
	- 57 - S2 banding @ 61°.	60	70	10.0	tr	tr	"	"	"
	100 - still in AGl but slightly yellow green.	70	75	5.0	tr	tr	"	"	"
		75	76	1.0	tr	tr	0.18	0.15	.01/.01
		76	86	10.0	tr	tr	"	"	"
		86	90	4.0	tr	tr	"	"	"
	E N D - AS TOUGH DRILLING.	90	100	10.0	tr	tr	"	"	"
	Did not hit better mineralization outcropping on surface - may be dipping away??								
	Core Recovery consistently 80%	End 30317							

N.M.P.-FORM A

PROPERTY BANKS GOLD (Kim Zone)

HOLE NUMBER A-5 (Packsack)

SHEET NUMBER 1

DIAMOND DRILL RECORD

SECTION FROM ____ TO ____

Approx. 30 ft south of Kim Zone
about 1000 ft west of Arseno Lake.

LOCATION: LAT 7128.03
DEP 4721.75

ELEVATION OF COLLAR 103 ft.

DATUM

DIRECTION AT START: BEARING North
DIP -40°

STARTED September 15/1963

COMPLETED " 16/1963

ULTIMATE DEPTH 125 feet

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM Start	TO 7551	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.
0 - 50	Sl foliated, sl feldspathic mg Gl	0 -	5	5.0	tr	tr				95
	0-35 - oxid in pt; numerous 1 - 2 ft.	5 -	15	10.0	0.02	tr				95
	greenish sericitic to talcose appearing	15 -	25	10.0	0.02	tr				95
	"leached" Gl sections on which mafics	25 -	35	10.0	0.01	tr				85
	are completely lacking - intense hydrothermal	35 -	45	10.0	0.01	tr				85
	alt of strong shear zone.									
	- occ sl pyritic, chloritic (brown)	45 -	55	10.0	0.01	tr				95
	- foliation 10 - 35°; greenish	55 -	58	3.0	tr	tr				100
	leached sections ctcts @ 50°	58 -	60	2.0	0.01	tr		tr	0.51	100
50 - 60		60 -	65	5.0	0.01	0.2		.05	0.15	100
	Leached Gl - some buff sections	65 -	70	5.0	0.01	0.1		.05	0.20	95
	- occ sl py, pyr showing bndg @ 41°;									
	increasingly siliceous	70 -	72.5	2.5	0.01	0.2		tr	0.28	95
		72.5 -	75	2.5	2.82	4.3		1.18	4.20	100
60 - 72.5	70% white quartz in greenish and	75 -	80	5.0	0.22	0.7		tr	1.52	90
	altered Gl; sl min with small blebs of finely cry-	80 -	85	5.0	0.08	0.5		.05	0.46	95
	stalline pyrite (3%) and sl PbS. Bndg @ 52°.	85 -	90	5.0	0.08	0.3		tr	0.10	80
72.5 - 75	50% moss S2 in qtz	90 -	95	5.0	0.02	0.1		tr	0.05	70
	- Xstalline pyrr, py, sl ASP, PbS, poss	95 -	99	4.0	0.02	tr		0.03	0.15	55
	sl ZnS	99 -	104	5.0	0.06	tr		tr	0.20	65

PROPERTY BANKS GOLD (Kim Zone)

HOLE NUMBER A-5

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.
75 - 77.5	Alt greenish Gl - sl min with S2	104	-107.5	3.5	0.01	tr		tr	0.05	30
77.5- 81	- as prev but increasing qtz & S2 - bndg @ 70°	107.5	-110.5	3.0	0.02	0.1		tr	0.05	30
81 - 86	As prev but sl less S2; bndg @ 54°	110.5	-115.5	5.0	0.06	0.2		0.21	0.15	75
86 - 90	Grey qtz in brecc pyritic zone -;	115.5	-120	4.5	0.01	tr		0.03	tr	75
	Sulphide ground & not recovered	120	- 125	5.0	0.04	tr		tr	tr	70
90 - 99	Diss py in alt Gl	end #7573								
99 -100	- increasing S2.									
100 -107.5	Sl min Gl									
	102 - 103 (S2 ground)									
107.5-110.5	- increasing qtz, mottled, brecc; 10% S2									
	(mostly fg diss py sl pyrr, ASP).									
110.5-113.5	Poor rec in gouge; sl min.									
113.5-115.5	- qtz py-pyrr section as prev.									
115.5-125	- sl min alt Gl, occ sl PbS, pyr									
	- qtz-S2 bndg @ 61° with some graphite on parallel-									
	ing fractures.									
	E N D									

N.M.P.-FORM A

PROPERTY BANKS GOLD (Kim Zone)

HOLE NUMBER A-6 (P.S.)

SHEET NUMBER 1

DIAMOND DRILL RECORD

SECTION FROM ____ TO ____

100 feet west of A5 and
30 feet south of A in Break at a point about
1000 feet along from Arseno Lake - to be surveyed later.

LOCATION: LAT 7145.86
DEP 4641.65

STARTED September/1963

COMPLETED "

ELEVATION OF COLLAR 104.4 feet

ULTIMATE DEPTH 142 feet

DATUM

PROPOSED DEPTH

DIRECTION AT START: BEARING North 40° east.
DIP -40°

DRILLERS: G.Bone and D. Gyrobyro/J.McD

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag	Cu Pb Zn	C.R.%
		Start 7584					
0 - 8	Feldspathic Gl. Fol & bndg @ 52°, some sericitic	9 -10	1.0	0.08	0.1		85%
	light greenish altered areas; oxidized in part.	10 -15	5.0	0.02	0.2		"
8 - 90		15 -20	5.0	tr	tr		"
	Mostly fg, leached, sl silic Gl	20 -25	5.0	tr	0.1		"
	55-75 - feld Gl section	25 -40	15.0	tr	0.1		"
	- occ strg CP-pyr in qtz strgs						
	gen bndg @ 51°	40 -45	5.0	tr	tr		"
90 - 136	Siliceous mineralized section - gobs and	45 -48	3.0	tr	tr		"
	strgs of S2 (pyr, py, galena, sl ASP &	48 -50	2.0	tr	tr		"
	grey minerals, v sl sphalerite)	50 -55	5.0	tr	tr		"
	in white qtz	55 -61	6.0	tr	tr		"
	125-127 - best min section - 50% S2 -						
	(galena & py) in qtz - sl brecc	61 -62.5	1.5	0.04	0.5		"
		62.5-70	7.5	tr	tr		"
	Whole zone is a replacement of sericitic Gl	70 -75	5.0	tr	tr		"
	now unrecognizable, either by texture or earlier feldspathization.						
136 - 142	Weakly mineralized sericitized	75 -80	5.0	tr	tr		"
	greenish, sl fol Gl	80 -85	5.0	tr	0.1		"
	- some S2 bndg @ 46°.						
	E N D						

N.M.P.-FORM A

PROPERTY BANKS GOLD (Kim Zone)

HOLE NUMBER A-6

SHEET NUMBER 2

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT ____ DEP ____

ELEVATION OF COLLAR ____

DATUM ____

DIRECTION AT START: BEARING ____ DIP ____

STARTED ____

COMPLETED ____

ULTIMATE DEPTH ____

PROPOSED DEPTH ____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.%
		85	90	5.0	tr	tr				85%
	end 7600	90	95	5.0	0.04	0.1		0.18	0.52	45
	Start 30151	95	100	5.0	0.06	tr		tr	0.71	80
		100	105	5.0	0.12	0.11		tr	1.07	80
		105	110	5.0	0.02	tr		0.16	0.25	65
		110	115	5.0	0.02	tr		0.05	.25	80
		115	120	5.0	0.40	0.5		0.05	1.27	95
		120	125	5.0	0.04	tr		0.05	0.56	95
		125	127.5	2.5	0.80	2.4		3.23	3.51	90
		127.5	130	2.5	0.14	0.1		0.08	0.71	90
		130	135	5.0	0.12	0.4		0.59	0.76	85
		135	137	2.0	0.02	tr		tr	0.61	90
	end 30161	137	142	5.0	0.01	tr		tr	0.36	95
	BEST SECTIONS									
	approx 12.5 ft @ 0.34 Au									

N.M.P.-FORM A

PROPERTY BANKS GOLD (Kim Zone)

HOLE NUMBER A-7

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

Approx 30 ft west of A-6

LOCATION: LAT 7159.22
DEP 4627.58

ELEVATION OF COLLAR 104 ft.

DATUM

DIRECTION AT START: BEARING N60°W
DIP -65°

STARTED September/1963

COMPLETED do

ULTIMATE DEPTH 94 feet

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag	Cu	Pb	Zn	C.R.
0 - 50	Alternating zones	start 30177							85%
	of fol Gl and alt	19 - 20	1.0	0.01	0.2				85
	greenish ser sections	30.5-31.5	1.0	tr	tr				85
	as previous siliceous	45.5-46.5	1.0	tr	tr				85
	- occ 1 ft sl siliceous bands containing	86 -86.5	0.5	0.01	tr				90
	diss pyrite.								
50 - 94	As above								
	- fol @ 46°								
	E N D								
	NOTE: This hole paralleled mineralized zone which is 30 - 40 ft north of it.								
	NOTE: This hole not drilled as intended thus paralleled mineralized zone before reaching it.								

N.M.P.-FORM A

PROPERTY Ex Ck WALLER LAKE, BANKS ISLAND

HOLE NUMBER W - 6 (P S)

SHEET NUMBER 1

SECTION FROM ..... TO .....

DIAMOND DRILL RECORD

LOCATION: LAT ..... Prospect drilling 1000 feet Ex Creek, Waller Lake,
DEP ..... about 1½ mi south of Banks Lake.

ELEVATION OF COLLAR ..... est 58 ft.

DATUM ..... Air photo B. C. 1918 #36

DIRECTION AT START: BEARING ..... N56°E
DIP ..... -52°

STARTED ..... August 29, 1963

COMPLETED ..... August 30, 1963

ULTIMATE DEPTH ..... 77 ft.

PROPOSED DEPTH .....

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag		
0 - 77	Varying assortment of thin bedded, siliceous meta-sediments with occasional sl pyritic quartz rich sections - banding generally good @ 35°.							
	0 - 11 - Light col MSl - pyritic 2 - 4							
	20 - 23.5, 25 - 29 diss py in garnetiferous MSl							
	37 - 47 - 20% SKl in sl pyritic MSl	0	2	2'	0.01	tr		
	47 - 50 - brecc, banded MSl	2	4	2	0.01	0.2		
	50 - 57 - mixed MSl & sl green marble	20	23.5	3.5	tr	tr		
	57 - 77 - as 50 - 57 but some greenish possible AGl sections.	25	29	4	tr	0.1		
		37	40	3	0.01	0.2		
	E N D	47	50	3	tr	0.1		
		50	55	5	tr	tr		
	CORE RECOVERY 80%	55	60	5	tr	0.3		
		60	65	5	tr	0.1		
		65	70	5	tr	tr		
		70	74	4	tr	tr		

N.M.P.-FORM A

PROPERTY Ex Ck WALLER LAKE, BANKS ISLAND.

HOLE NUMBER W - 7 (P S)

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT As W - 6
DEP

ELEVATION OF COLLAR "

DATUM "

DIRECTION AT START: BEARING S56°W
DIP -53°

STARTED August 30, 1963

COMPLETED August 30, 1963

ULTIMATE DEPTH 62 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag
	DRILLERS LOG					
		0	5	5'	0.01	tr
		5	10	5	tr	tr
		10	15	5	tr	tr
1 - 35	- 40 - 60% pyritic quartz	15	20	5	tr	tr
	in MSl (C.R. 70%)	20	25	5	tr	tr
35 - 50	- occ min qtz strg in MSl					
	breccia zone - (C.R. 60%)	25	30	5	tr	tr
		30	35	5	tr	tr
		35	40	5	tr	tr
		40	50	Picked	tr	0.3
		50	55	5.0	tr	tr
		55	60	5.0	tr	tr
		60	62	2.0	0.01	tr
	E N D - ABANDONED DUE TO CAVING.					

N. M. P. - FORM A

PROPERTY Ex Ck - WALLER LAKE, BANKS ISLAND.

HOLE NUMBER W - 9 (P S)

SHEET NUMBER 1

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT 150 ft downstream from W - 6
DEP

ELEVATION OF COLLAR

DATUM

DIRECTION AT START: BEARING West
DIP -55° (approx.)

STARTED Sept. 1, 1963

COMPLETED Sept. 1, 1963

ULTIMATE DEPTH 75 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag
		Start 7574				
	DRILLERS LOG	0	5	5'	0.02	tr
		5	10	"	0.01	tr
		10	15	"	tr	tr
1 - 15	Sl py qtz	15	20	"	tr	tr
		20	25	"	tr	tr
15 - 40	Brecciated MSl					
		35	40	"	tr	0.10
40 - 60	Qtz	40	45	"	tr	tr
		45	50	"	tr	tr
60 - 75	Skarn	50	55	"	tr	tr
		55	60	"	0.01	0.2
	E N D					

N.M.P.-FORM A

PROPERTY KINGKOWN COPPER PROSPECT, BANKS ISLAND.

HOLE NUMBER K 1 (P S)

SHEET NUMBER

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT On the north side of Kingkown Lake
DEP About 1000 ft from the outlet. On the beach.

ELEVATION OF COLLAR About 20 feet.

DATUM

DIRECTION AT START: BEARING S55°W
DIP -55°

STARTED August 6th, 1963

COMPLETED August 7th, 1963

ULTIMATE DEPTH 74 feet

PROPOSED DEPTH xxxxxxxxxxxxx

Logged by Bone & Gyrobioro

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Au	Ag	Cu
		start 37392					
0 - 8	Feldspathic sl foliated qtz diorite (Gl @ Hepler)	8	13	5.0	Tr	Tr	0.33
	mixed with flesh colored orthoclase sections	13	16.5	3.5	Tr	Tr	0.41
	- fol @ 50°.	16.5	17.5 (Qtz)	1.0	Tr	Tr	0.50
8 - 37	Mixed altd Gl, pink to flesh	17.5	25	7.5	Tr	Tr	0.70
	orthoclase (Syenite?) in bands, occ	25	32	7.0	Tr	Tr	0.59
	qtz strgs.						
	- diss and veined pyrite @ chalcopyrite						
	mineralization; bndg @ 45 - 55°						
	sericitized in part.						
37 - 42	Banded grey & brown lms (fg marble) bndg @ 45° -						
	not min.						
42 - 49	Coarse-grained dioritic amphibolite ctct @ 45°.						
49 - 68	Grey, fg lms as prev.						
68 - 74	Banded feldpathized schistose meta-sediments; occ						
	sl garnet, Co_3 & qtz strg. Bndg @ 53°.						
	E N D Rec gen 95 - 98%						

N.M.P.-FORM A

PROPERTY KINGKOWN COPPER

HOLE NUMBER K 2 (P S)

SHEET NUMBER 1

SECTION FROM ____ TO ____

DIAMOND DRILL RECORD

LOCATION: LAT Same as K1
DEP "

ELEVATION OF COLLAR "

DATUM

DIRECTION AT START: BEARING ------
DIP -70°

STARTED August 7th, 1963

COMPLETED August 7th, 1963

ULTIMATE DEPTH 51 ft.

PROPOSED DEPTH

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE	Au	Ag	Cu
		start 37397				
0 - 10	Mostly feld qtz diorite (G1) as previous;	0 - 8(alta)	8.0	Tr	Tr	0.04
	some silic, alt sections; probable m s inclusions.	9 - 15	6.0	Tr	Tr	0.15
	Some qtz and pink feldspar - rich areas	15 - 20	5.0	0.01	Tr	0.93
		20 - 25	5.0	Tr	Tr	0.16
	- foliation @ 35°	25 - 30	5.0	Tr	Tr	0.53
10 - 34	C.P. pyr, bands and disseminations	30 - 35.5	5.5	0.02	Tr	0.08
	in qtz rich sections of siliceous to					
	leached G1, some pink to flesh feld areas	35 - 38.5	3.5	Tr	).1	1.93
	- occ S_2 bndg @ 57°. Foss v sl grey S_2(?)					
34 - 51	Banded, fg, grey - brown marble or lms,					
	banding @ 48°.					
	50 - 50.5 - sl G1 dyke.					
	E N D					

N. M. P. - FORM A

PROPERTY KINGKOWN LAKE (1) - #2 PTODPRVY (2) #3 Prospect.

HOLE NUMBER

SHEET NUMBER

SECTION FROM TO

DIAMOND DRILL RECORD

LOCATION: LAT DEP

ELEVATION OF COLLAR

DATUM

DIRECTION AT START: BEARING DIP

STARTED

COMPLETED

ULTIMATE DEPTH

PROPOSED DEPTH

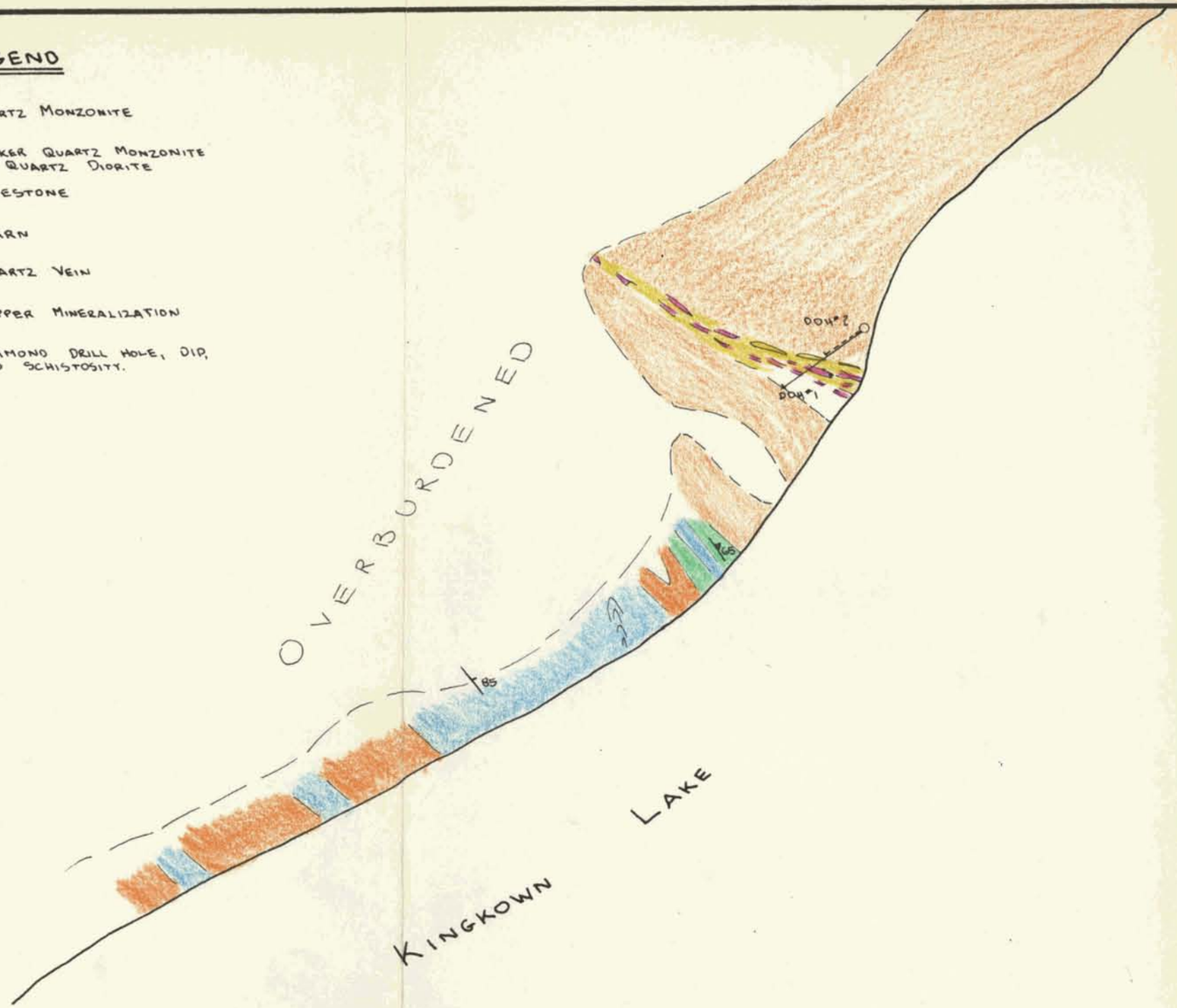
DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
	AUGUST 11/63							
	#2 PROSPECT:							
	Siliceous skarn zone in sediments on lake-shore 800 feet east of #1 & H DDH's Brg N60°E, dip - 65°.			NOT ASSAYED				
0 - 20	Epidotized, thin bedded meta-sediments and occ sil bnd; sl garnet - no sulphides.							
	E N D							
	AUGUST 11/63							
	#3 PROSPECT:							
	On south shore of lake approx 1300 feet east of DDH's #1 & #2			NOT ASSAYED				
	-- area where high grade copper float found in blowout in green schist. Sulphides rare.							
0								

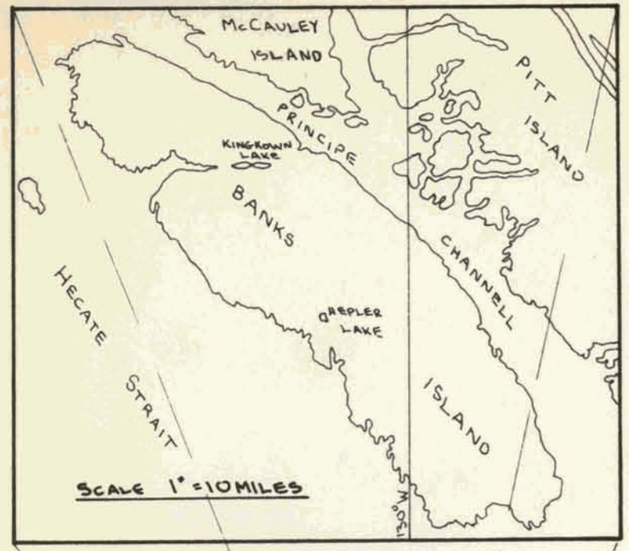
N.M.P.-FORM A

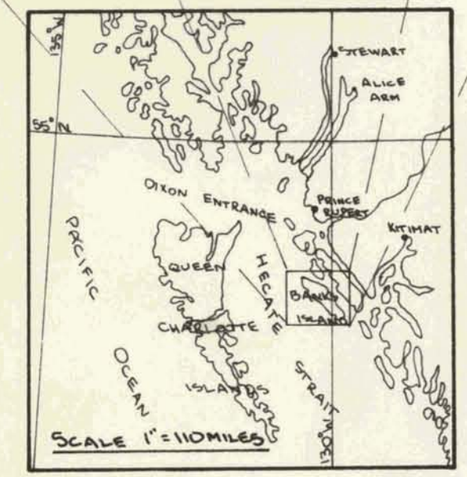
NATIONAL TOPO. SHEET # 103G 8/E
MAP 8L #6/63

LEGEND

- Quartz Monzonite
- Darker Quartz Monzonite or Quartz Diorite
- Limestone
- Skarn
- Quartz Vein
- Copper Mineralization
- Diamond drill hole, dip, and schistosity.







SKETCH MAP
OF
KINGKOWN LAKE
COPPER-QUARTZ SHOWING
BANKS ISLAND

SCALE 1" = 50 FEET

DRAWN BY D.P.H-21.1.'64
GEOLOGY BY J.J.McD.