Diamond Drilling

Area SHOAL LAKE **Report Nº** 31

Work performed by: H. G. TIBBO

Claim Nº	Hole Nº	Footage	Date	Note
K 489120	1	204.0	June/79	(1)
	2	201.0	June/79	(1)
	3	202.0	July/79	(1)
	4	204.0	July/79	(1)
	5	204.0	July/79	(1)

Notes: (1) # 87-79

REPORT

ON

A DIAMOND DRILLING PROGRAMME

ON

MINERAL CLAIMS 489111 - 489121,

489741 - 489742

GLASS TOWNSHIP, SHOAL LAKE AREA,

KENORA MINING DIVISION, ONTARIO

BY

H. G. TIBBO

TORONTO, ONTARIO

NOVEMBER 20, 1979

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SUMMARY

The writer owns thirteen contiguous 40 acre mineral claims which overlie the underwater intrusive contact of the highly altered Archean Canoe Lake quartz diorite stock and an older assemblage of metabasalts, andesites, gabbros and peridotites.

The claims are located in the Bag Bay area of Shoal Lake, Glass Township, Kenora Mining Division, Ontario, (49°36'30"N, 94°58'W), (NTS 52 E 10, MNR Plan M2339).

Significant gold values occur within the quartz diorite mass, at the intrusive contact and within the intruded greenstones.

A report on a diamond drilling programme carried out on the area of what is now the Writer's claim 489120, in 1898, reported the occurance of three parallel quartz vein systems carrying rather spectacular gold values, e.g. 1 oz./126.5 feet. This vein system was taken to be the extension of the then producing Mikado Mine, (average grade 0.49 oz./ton), which is situated ½ mile to the south.

In 1979, the writer, in partnership with Pancontinental Mining (Canada) Limited, drilled five, 200 foot long diamond drill holes parallel and immediately adjacent to the holes drilled in 1898. No quartz veins were intersected however numerous low gold values (0.01 - 0.06 oz.) were encountered. The best intersection was 0.2 oz. over 5 feet or 0.28 oz. over 3.5 feet.

The 1979 drilling was done entirely within the Canoe Lake Stock. This stock appears to be a diapiric intrusive exhibiting intense internal deuteric alteration as well as many features of a "classic porphyry copper-type" intrusive. It is somewhat enriched in gold, chalcopyrite and molybdenite.

A winter exploration programme is recommended, consisting of geophysics and diamond drilling. The geophysics (magnetometer and VLF-EM) would be an attempt to map the intrusive contact as well as metalliferous zones within the quartz diorite mass. The diamond drilling programme would be an attempt to extend the significant auriferous zone encountered in DDH No. 5 in 1979. The programme is estimated to cost $50,000.00.

INTRODUCTION

Gold was discovered in the Sheal Lake area of the Kenora Mining Division, Ontario, in 1893. Several high grade, small tonnage properties produced gold during the period 1895 to 1905. All of the production was from the contact zone of an Archean quartz diorite intrusive stock and a series of amphibolites, peridotites and gabbros.

In June, 1978, the writer staked eleven contiguous 40 acre claims over the area formerly known as the Tycoon property. This property was thought to overlie the strike extension of the old Mikado mine (1897-1905). In June, 1979, the writer staked two additional claims contiguous to the south-west corner of the claim block staked in 1978.

In June and July, 1979, the writer, in Joint Venture with Pancontinental Mining (Canada) Limited, carried out a 1000 foot diamond drilling programme on the property.

This report includes a discussion of the drilling programme as well as details of the history of the Bag Bay gold producers.

Appendices to this report include diamond drill logs and assay results as well as xeroxed excerts from Ontario Department of Mines reports on the Tycoon and Mikado properties.

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LOCATION AND ACCESS

The Bag Bay claims are located (49°36'30" N, 94°58'W), approximately 36 miles west south west of Kenora, (pop.-10,000), in the Kenora Mining Division, Ontario. (NTS 52 E 10). Refer to Ontario Ministry of Natural Resources Shoal Lake Plan M2339.

It is possible to drive an automobile to within 2.3 kilometres of the Number One Post of Claim 489111. Access is as follows:

From the Winnipeg River bridge at the west end of the town of Kenora, drive westward on Ontario Highway 17, (Trans Canada Highway), 37.8 kilometers to the Rush Bay road junction thense southerly on the Rush Bay Road a distance of 6 kilometers to the junction with the Clytie Bay Road. At this junction, turn right and follow the winding gravel road 13 kilometers south-westerly to Clytie Bay on Shoal Lake. The secondary roads are maintained by the Ontario Department of Highways and are open year round.

The Number One Post of Claim 489111 is situated at the north end of Bag Bay, 2.3 kilometers by boat south of the Clytie Bay public boat launching site. (See claim sketch attached to this report).

A power transmission line serves cottages at Clytie Bay. The Trans Canada Pipeline route lies immediately south of and parallel to the Trans Canada Highway.

In 1979, all of the drilling equipment, (camps, fuel, drill, bulldozer, etc.), were transported in a single load to and from Kenora by barge and tugboat via Lake of the Woods and Shoal Lake.

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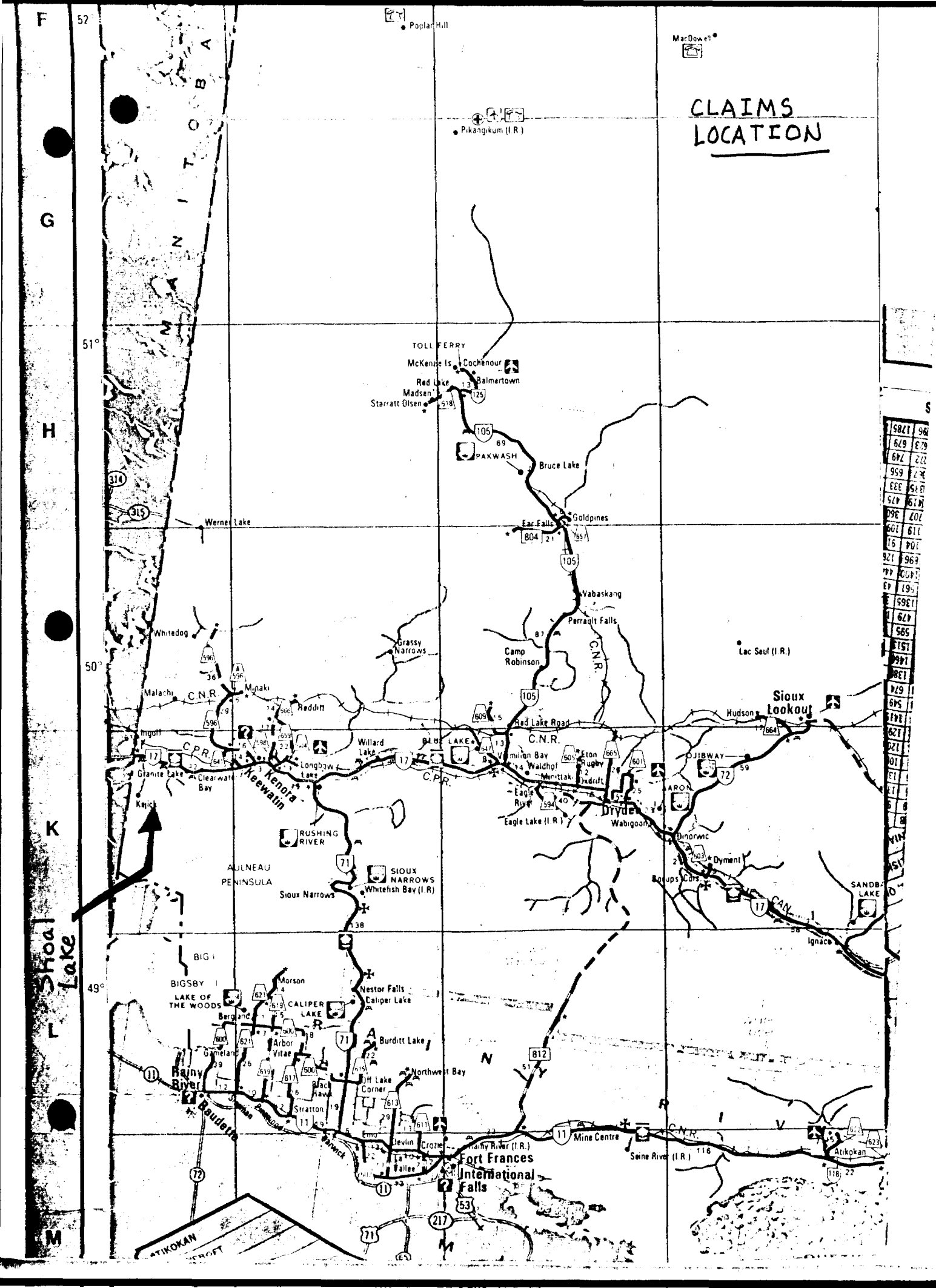
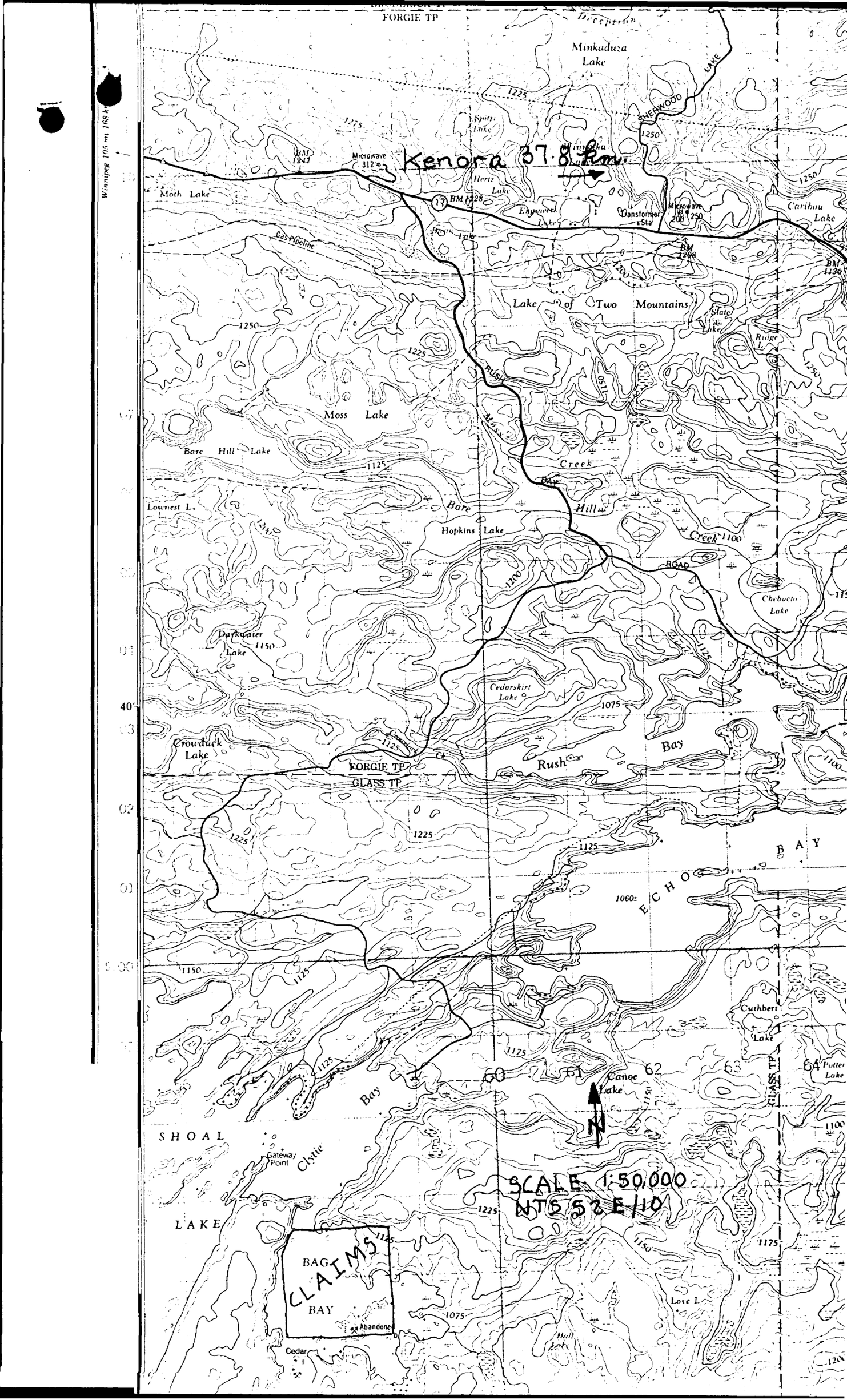

CLAIMS LOCATION
Poplar Hill
MacDowell
Pikangikum (I.R.)
MANITOBA
ONTARIO
TOLL FERRY
McKenzie Is.
Cochenour
Balmertown
Red Lake
Madsen
Starratt Olsen
PAKWASH
Bruce Lake
Ear Falls
Goldpines
Wabaskang
Perrault Falls
Werner Lake
Whitedog
Grassy Narrows
Camp Robinson
C.N.R.
Lac Seul (I.R.)
Malachi
Munaki
Reddit
Red Lake Road
Sioux Lookout
Hudson
Ingolf
C.P.R.
Willard Lake
Blue Lake
Vermilion Bay
Waldhof
Eton
Rugby
Oxdrift
Granite Lake
Clearwater Bay
Longbow Lake
Keewatin
Kenora
Eagle River
Eagle Lake (I.R.)
Dryden
Wabigoon
OJIBWAY
ARON
Dinorwic
Dyment
Borups Corners
SANDBAR LAKE
Ignace
Kejick
RUSHING RIVER
AULNEAU PENINSULA
Sioux Narrows
SIOUX NARROWS
Whitefish Bay (I.R.)
Shoal Lake
BIG
BIGSBY
LAKE OF THE WOODS
Morson
Nestor Falls
Caliper Lake
CALIPER LAKE
Bergand
Burditt Lake
Gameland
Arbor Vitae
Rainy River
Northwest Bay
Off Lake Corner
Jack Haven
Stratton
Baudette
Emo
Devlin
Crozier
Rainy River (I.R.)
Fort Frances
International Falls
Mine Centre
Seine River (I.R.)
Atikokan
ATIKOKAN
F
G
H
K
L
M
52°
51°
50°
49°


FORGIE TP
Minkaduza Lake
Kenora 37.8 km
Moth Lake
Gas Pipeline
Lake of Two Mountains
Moss Lake
Bare Hill Lake
Lounest L.
Hopkins Lake
Darkwater Lake
Crowduck Lake
Cedarshirt Lake
Rush Bay
FORGIE TP
GLASS TP
ECHO BAY
Cuthbert Lake
Canoe Lake
SHOAL LAKE
Gateway Point
Clytie Bay
BAG BAY
CLAIMS
Abandoned
Cedar
Love L.
Caribou Lake
Chebucto Lake
Ridge L.
Slate Lake
Potter Lake
ROAD
Creek
Microwave
Transformer Sta
BM 1247
BM 1228
BM 1208
BM 1130
SCALE 1:50,000
NTS 52E/10

PROPERTY TITLE:

The writer holds thirteen contiguous 40 acre mineral claims over the area of Bag Bay.

CLAIM NUMBER	DATE STAKED	DATE RECORDED
489111	June 27, 1978	July 12, 1978
489112	June 28, 1978	"
489113	June 28, 1978	"
489114	June 28, 1978	"
489115	June 27, 1978	"
489116	June 29, 1978	"
489117	July 1, 1978	"
489118	July 1, 1978	"
489119	June 30, 1978	"
489120	June 30, 1978	"
489121	June 29, 1978	"
489741	June 24, 1979	July 13, 1979
489742	June 24, 1979	"

The claims are all recorded in the writer's name at the office of the Mining Recorder, 808 Robertson Street, Kenora.

On June 27, 1979, the Mining and Lands Commissioner of the province of Ontario granted an extension of time to January 14, 1980, to allow completion of assessment work and filing of same. Sufficient work has been done (diamond drilling) in order to maintain the claims in good standing until at least July, 1981.

Under the terms of an agreement signed on February 19, 1979, Pancontinental Mining (Canada) Limited had the right to earn a twenty per cent interest in the property by the expenditure of $41,500 on the property by August 31, 1979. Pancontinental has made such expenditure but has declined to make any additional expenditure on the property. Accordingly, in terms of the February 19, 1979, agreement, the writer, who now holds eighty per cent undivided interest in the property may eleminate Pancontinental's twenty per cent interest in the property (and hence own one hundred per cent undivided interest) by the expenditure of $83,000.00.

To the south, the property shares a common boundary with patented claims controlled by the estate of the late Miss Barbara Machin (deceased , 1978).

To the north, the property shares a common boundary with unpatented claims held by a Kenora Prospector.

Ground immediately east and west of the claim group is Crown Land available for staking.

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ENVIRONMENTAL CONSIDERATIONS

The Shoal Lake area is a popular boating, camping and fishing area particularly with Winnipeg residents. There are numerous summer cottages along the north shore of Clytie Bay. There is one cottage on the west shore of Bag Bay, adjacent to the west boundary of Claim 489111.

Insignificant patches of wild rice grow in two small embayments forming the extreme east side of Bag Bay. This may attract migratory water fowl in the autumn season.

The writer sighted one beaver house approximately 500 feet east of Claim 489114. The only other wildlife sighted was a pair of black bears.

The nearest Indian Reserve is Shoal Lake 39A, the east boundary of which lies approximately five miles west north west of Bag Bay.

It is worth noting here that during the seven day period the writer spent staking claims at Bag Bay, the lake water was barely potable due to algae, dead fish, human excretement and other flotsam and jetsam in the water. Shoal Lake is a source of water for the City of Winnipeg.

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TOPOGRAPHY AND VEGETATION

Ninety per cent of the claim group is covered by the waters of Bag Bay. The normal water level in Shoal Lake is approximately 1060 feet above mean sea level however as Shoal Lake is part of the Winnipeg River water shed, hydro electric generating installations on the river may cause water levels in Shoal Lake to drop by as much as three feet in the autumn months.

The highest point of land in the area is 1150 feet AMSL.

The topography of the area of the claims reflects the bedrock. The eastern portion is underlain by the Canoe Lake quartz diorite intrusive and the heavily glaciated hills are rounded and result in very uneven land surface.

The western side of the claim block is underlain by basic metavolcanics and the land surface is more even. Outcrop is abundant.

Mature forests of cedar and pine with little undergrowth cover the areas to the north and west of the claim group. The areas to the south and east are covered by poorly drained, wet, swampy ground which supports abundant growths of immature spruce, fir, poplar, alder and willow.

The soil developed in the area particularly on islands D219, D220 and D221 consists mainly of grey clay and humus and thicknesses vary from three to fifteen feet.

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GENERAL GEOLOGY

The most recent published geology map of the region in which the claim group is situated was produced by J. C. Davies and published in 1969 by the Ontario Department of Mines as Preliminary Geological Map No. P528, North Shoal Lake Area (East Sheet), District of Kenora. Scale 1 inch equals ¼ mile.

The Bag Bay, Shoal Lake area lies within the Wabigoon Subprovince of the Superior structural province of the Canadian Shield. The area is underlain by a thick, well-developed sequence of mafic to felsic metavolcanics, felsic volcaniclastics and metasediments. The metavolcanics and metasediments were intruded during Archean time by five distinct phases of mafic, ultramafic, and felsic intrusives.

Stratigraphy of the North Shoal Lake Area, Kenora District, Ontario after J.C. Davies et al, 1968.

CENOZOIC

Recent	Swamp and stream deposits (unconsolidated)
Pleistocene	Sand, gravel, clay (unconsolidated)
	UNCONFORMITY

PRECAMBRIAN

Proterozoic	Diabase
	INTRUSIVE CONTACT
Archean	Late mafic dikes (gabbro, diorite, lamprophyre)
	INTRUSIVE CONTACT
	Late Felsic Intrusive Rocks (a) Granodiorite (b) Hybrid granodiorite (c) Quartz porphyry, quartz feldspar porphyry (d) Fine-grained granodiorite (e) Inclusion-rich granodiorite (f) Feldspar porphyry
	INTRUSIVE CONTACT
	Early Felsic Intrusive Rocks (a) Quartz diorite (b) Hybrid quartz diorite
	INTRUSIVE CONTACT

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GENERAL GEOLOGY, (CONT'D)

Mafic Intrusive Rocks
(a) Amphibolite
(b) Diorite
(c) Quartz gabbro, quartz diorite
(d) Gabbro
(e) Porphyritic gabbro
(f) Biotite gabbro and hornblende
(g) Hornblendite and pyroxenite
(h) Peridotite

INTRUSIVE CONTACT

Metasediments
(a) Sandstone, volcanic sandstone
(b) Greywacke, tuff
(c) Conglomerate, volcanic conglomerate
(d) Slate, argillite
(e) Siliceous siltstone, cherty sediments

Massive Felsic Volcanic Rocks
(a) Quartz porphyry
(b) Feldspar porphyry
(c) Rhyolite
(d) Dacite

Felsic Volcaniclastic Rocks
(a) Coarse fragmental (angular)
(b) Coarse fragmental (rounded)
(c) Fine fragmental

Intermediate Metavolcanics
(a) Andesite
(b) Porphyritic andesite
(c) Rubbly andesite and broken pillows
(d) Coarse fragmental
(e) Fine fragmental
(f) Agglomerate (rounded bombs)
(g) Silicified andesite

Mafic Metavolcanics
(a) Andesite
(b) Basalt
(c) Olivine Basalt
(d) Coarse fragmental
(e) Fine fragmental
(f) Basalt with coarse feldspars
(g) Coarse flows or tuff
(h) Agglomerate (rounded bombs)

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GENERAL GEOLOGY, (CONT'D)

The regional strike of geological contacts and foliation within the metavolcanics and metasediments is north north-easterly.

Two prominent directions of faulting are evident, north north-westerly and west north-westerly. The axes of minor local folds seem to parallel the strong north north-east fault structures.

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GEOLOGY OF THE AREA OF THE CLAIM GROUP

The geology of the area of the claim group and the adjoining areas has been described in considerable detail by J.C. Davies of the Minestry of Natural Resources in his map P528, 1969.

Outcrop on the claim group is entirely quartz diorite of the Canoe Lake Stock. The intrusive margin is inferred to exist on claims 489111, 489115, 489741 and 489742, but does not outcrop.

A thorough study of the nature of the Canoe Lake Stock as expressed on surface was carried out by S.W. Campbell in 1973 as part of her M.Sc. thesis at the University of Manitoba, Winnipeg.

Eighty per cent of the claim group is overlain by the waters of Bag Bay. Davies' map indicates that the claim group overlies the north north-westerly trending contact of mafic metavolcanics and metasediments intruded by ultrabasics, gabbros and ultimately by Archean quartz diorite and hybrid quartz diorites of the Canoe Lake Stock.

The contact zone is host to at least twelve significant gold and/or base metal occurances including seven which have, in the past, supported small(?), intermittent mining operations of 5 - 8 years duration. All of these mineralized areas are situated along a three mile arc of the western margin of the Canoe Lake Stock.

Campbell, (1973, pp.184-185), describes the Canoe Lake Stock as a distinctive granitic pluton which exhibits the following characteristics.

(1) The stock has a quartz diorite composition.

(2) Magmatic hydrothermal alteration in the Canoe Lake intrusion has been severe.

(3) The pluton lacks a penetrative cataclastic foliation. Cataclasis has occured only at the intrusive contacts and along shear zones.

(4) Abundant pre- and post-hydrothermal fractures and sheared fractures are present in the Canoe Lake Stock.

(5) Porphyritic felsic dikes are numerous and closely associated, both genetically and spatially, with the quartz diorite pluton.

(6) The facture-controlled contact in the Bag Bay - Helldiver Bay area appears to be unique to the Canoe Lake Stock.

GEOLOGY OF THE AREA OF THE CLAIM GROUP, (CONT'D),

(7) The pervasive porphyry type copper mineralization is a major feature of the Canoe Lake quartz diorite intrusion. The sulphide minerals include pyrite, chalcopyrite, pyrrhotite, sphalerite and molybdenite.

(8) The Canoe Lake pluton has associated peripheral gold mineralization along its Bag Bay - Helldiver Bay contact zone.

Campbell (1973, pp.140 - 143), also lists many striking similarities between the Canoe Lake Stock mineralization and a typical porphyry copper deposit.

Campbell (1973), reports extensive zones of potassic, phyllic, and propylitic alteration within the Canoe Lake Stock. Valliant (1979), reports similar alteration in his report of studies he carried out on polished thin sections and thin sections of rock specimens from diamond drill hole number five (1979), drilled on Claim 489120.

The unusually sharp, apparently vertically faulted contact of the Canoe Lake Stock and the greenstones which outcrops in the area between Bag Bay and Helldiver Bay suggests that the intrusive nature of the Canoe Lake Stock may be that of a large diapir wholly unrelated to the volcanic sequence it intrudes.

A ground magnetometer survey and an electromagnetic induction survey (EM-17) were carried out over the area of the claim group in 1973.

The magnetometer survey readings seem to indicate a well-defined intrusive contact zone on Claims 489111, 489115 and 489741.

The EM survey results do not offer much assistance in defining the contact however it does apparently outline a north-easterly trending conductor on claims 489120, 489121 and 489118.

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HISTORY OF THE PROPERTY

The appendices to this report include xerox copies of all relevent information on the Tycoon and Mikado properties as occur within publications of the Ontario Ministry of Natural Resources. Set out below in chronological order are pertinent dates and appropriate references to the history of the area of the claims.

1893 Discovery of the Mikado Mine.

1895-1901 Mikado produced estimated 28,535 Troy ounces of gold from 57,813 short tons of ore.

1896 Islands in Bag Bay designated D219, D220 and D221 patented by J. Emmons, H. Langford and M. Kyle, all of Rat Portage (later to be renamed Kenora).

1898 James Conmee of Port Arthur (Thunder Bay), formed the Tycoon Mining and Development Company of Ontario, Limited and acquired the three islands D219, D220 and D221. Five diamond drill holes totalling 713 feet were drilled on D219 and D221, under the supervision of T. Breidenbach, then mine manager of the Mikado Mine. (See Ontario Bureau of Mines reports, Vol. 8, p.58, 1898 and Vol. 10, pp.52-53, 1900).

1900-1901 Tycoon shaft sunk on D219. Evidently no further work was done beyond this point, October, 1901. See the Tycoon Mining and Development Company of Ontario, Limited prospectus appended to this report.

1911 ODM Report, Vol. 20, pp.161-165, Gold Fields of Lake of the Woods, Manito and Dryden, makes passing reference to the Tycoon property. See appendices.

1922 Mikado Consolidated Mines, Limited incorporated Nov. 16, 1921 and took option on Tycoon property. ODM Report 1922, Vol. 31, Part 10, p.17 - see appendix.

1923 Mikado shaft unwatered and re-collared. No work done on the Tycoon property. ODM Report Vol. 32, Part 4, pp.20-21. See appendix.

1924 Mikado Consolidated liquidated 1923. No report of work on Tycoon property. ODM Report Vol. 33, Part 7, p.19. See appendix.

1925 Tycoon property mentioned as being merely a prospect. ODM Report, Vol. 34, Part 6, p. 9. See appendix.

1930 ODM Report, Vol. 39, Part 3, Geology of the Shoal Lake Area. See appendix.

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HISTORY OF THE PROPERTY, (CONT'D)

1932 Kenora Prospectors and Miners, Limited, (Thayer Lindsley et al) acquired the Mikado property. No mention of the Tycoon property. ODM Report, Vol. 42, Part 1, pp. 75-76. See Appendix.

1933-1936 Kenora Prospectors and Miners, Limited carried out drifting and underground diamond drilling on the Mikado property. No gold produced. Work ceased in 1936. See appendices.
ODM Report Vol. 42, Part 1, pp.75-75
ODM Report Vol. 43, Part 1, p. 79
ODM Report Vol. 44, Part 1, pp. 106-107
ODM Report Vol. 45, Part 1, pp. 120-121
ODM Report Vol. 46, Part 1, pp. 152-153

After a detailed and careful study of all information available on the Bag Bay, Shoal Lake area, it would seem that upon completion of diamond drilling and shaft sinking during 1898-1900, no further work was done on the Tycoon property and, curiously, even as early as 1911, the diamond drill results recorded in the ODM Report for the year 1900 seem to have been forgotten.

In 1970, Hudson Bay Mining and Smelting Company Limited carried out an airborne geophysical survey of the Shoal Lake area in an unsuccessful search for base metals.

During 1972 to 1974, Mr. C. Kuryliw, P. Eng. of Kenora staked the Bag Bay area and carried out a winter programme of ground geophysics, also presumably for base metals. The claims were subsequently allowed to lapse.

A Kenora prospector staked four claims over the old Crown Point prospect in February, 1978.

In June, 1978, the writer staked eleven contiguous 40 acre claims over the Bag Bay area which includes the original Tycoon property.

In June, 1979, the writer staked two additional 40 acre claims contiguous to the group staked in 1978. During the same period, the writer in joint venture with Pancontinental Mining (Canada) Limited, diamond drilled a total of five 200 foot holes on Claim 489120. The purpose of the drilling programme was to verify the drill and assay results reported by Breidenbach in 1898.

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DISCUSSION OF THE RESULTS OF THE 1979 DIAMOND DRILLING PROGRAMME

In 1898, subsequent to the discovery of the Mikado mine, James Conmee of Port Arthur (Thunder Bay), Ontario, acquired the mineral rights to three islands in Bag Bay designated D219, D220, and D221. The islands were thought to overlie a northward extension of the three auriferous veins then being mined on the Mikado property. The three islands now lie within the writer's claims 489120 and 489121.

Conmee's company, The Tycoon Mining and Development Company of Ontario, Limited, drilled a total of five diamond drill holes on Islands D219 and D221 in 1898. The work was supervised by one Theodore Breidenbach who was, at that time, employed as manager of the Mikado mine.

The results of that 1898 drilling programme are recorded in the Tycoon prospectus dated October 14, 1901 and in the Ontario Department of Mines Report for 1900. A copy of the prospectus appears in the appendices to this report.

Based on the 1898 drilling results, a vertical shaft was sunk on Island D219 in 1899. Apparently all work ceased on the property in 1901.

In July, 1979, the writer, in joint venture with Pancontinental Mining (Canada) Limited, drilled five 200 foot long, inclined diamond drill holes (NQ - 1 7/8 inch) on Claim 489120 to test the validity of Breidenbach's report of 1898.

Two of the 1898 drill sites were located and diamond drill holes were sited so as to duplicate in so far as it was possible, the 1898 drill programme.

A plan showing the location of the holes drilled in 1898 and 1979 are contained in the appendices to this report.

Breidenbach (1898), reported extensive widths of quartz veins carrying substantial quantities of gold and his assay results may be summarized as follows.

"Bore Hole No. One (D221, 190 feet total length, dip 55°, bearing WSW ?), assayed $15.00 gold over 31 feet (true width). Hence at a gold price of $16.43 per Troy ounce, $15.00 represents 0.9 ounces Troy."

"Bore Hole No. Two (D219, 176 feet total length, dip 45°, bearing WSW ?) cut 80.5 feet (true width) averaging $27.65, i.e., 1.68 Troy ounces over 80.5 feet."

"Bore Hole No. Three, (D219, 129 feet total length, dip 55°, bearing WSW ?), cut 32.0 feet (true width) averaging $8.50, i.e., 0.52 ounces over 32 feet.

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DISCUSSION OF THE RESULTS OF THE 1979 DIAMOND DRILLING PROGRAMME, (CONT'D)

The 1979 diamond drilling programme did not locate any quartz veins and, with one exception, found no significant gold values.

The writer cut 135 (145) samples from the drill core and the samples were assayed for gold only. Subsequently an additional twenty-five samples were assayed for gold only. Twenty-two samples assayed nil gold, one hundred and seventeen samples assayed trace gold and nineteen samples assayed 0.01 ounces gold per short ton, or greater.

All analyses were carried out by X-Ray Assay Laboratories Limited, 1885 Leslie Street, Don Mills, Ontario, using the fire assay technique with a detection limit of 0.01 ounces per short ton. The total sample was pulverized but not screened for coarse gold.

Sludge samples were collected each ten feet where drilling was in bedrock but none of the samples were assayed. Core recovery was greater than 99.5 per cent throughout the five holes.

The drill logs for the 1979 programme are contained within the appendices to this report, however a brief summary of each hole is as follows.

DDH NO. ONE

Collared adjacent to old shaft and collar of Breidenbach's DDH No. 2. Claim 489120, Island D219.
Hole Length: 204 feet.
Dip: -45 degrees
Azimuth: 245 degrees.
Assays with 0.01 oz. Au or greater.

SAMPLE NO.	FROM	TO	ASSAY (oz. Au/s.t.)
C1554	32.5'	33.0'	0.01
C1565	99.0'	101.5'	0.01
C1569	114.0'	116.0'	0.04

DDH NO. TWO

Location - extreme south-west corner of Island D219, near ~~Breidenbach's Old Workings~~. Claim 489120.
Length: 201 feet
Azimuth: 245 degrees
Dip: -45 degrees.

SAMPLE NO.	FROM	TO	ASSAY (oz. Au/s.t.)
C1618	150'	152'	0.01
C1625	180.5'	182'	0.03

DISCUSSION OF THE RESULTS OF THE 1979 DIAMOND DRILLING PROGRAMME, (CONT'D)

DDH NO. THREE

Location - Centre of Island D219, Claim 489120

Length: 202 feet.
Azimuth: 245 degrees
Dip. -45 degrees

SAMPLE NO.	FROM	TO	ASSAY (oz. Au/s.t.)
C1638	149.5'	151.5'	0.04

DDH NO. FOUR

Location - Extreme south-west corner of Isalnd D221, adjacent to Breidenbach's DDH No. One. Claim 489120.
Length: 204 feet.
Azimuth: 235 degrees
Dip: -55 degrees

SAMPLE NO.	FROM	TO	ASSAY (oz. Au/s.t.)
C1644	26.0'	27.0'	0.01
C1645	35.5'	36.5'	0.01
C1648	50.8'	51.8'	0.01
C1649	55.2'	56.2'	0.02
C1691	84.5'	86.0'	0.02
C1653	114.5'	116.5'	0.03
C1661	187.5'	188.0'	0.01

DDH NO. FIVE

Location - North-west corner of Island D221, Claim 489120

Length: 204 feet
Azimuth: 235 degrees
Dip: -45 degrees

SAMPLE NO.	FROM	TO	ASSAY (oz. Au/s.t.)
C1666	95.0'	98.0'	0.01
C1668	101.0'	104.0'	0.01
C1669	104.0'	105.5'	0.01
C1679	149.5'	153.0'	0.22
Check Assay	same		0.28
C1680	153.0'	154.5'	0.02
C1704	154.5'	156.0'	T
C1705	156.0'	158.0'	T
C1706	158.0'	159.0'	N
C1681	159.0'	161.5'	0.10
C1682	161.5'	162.5'	T

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DISCUSSION OF THE RESULTS OF THE 1979 DIAMOND DRILLING PROGRAMME, (CONT'D).

The area drilled is within the Canoe Lake quartz diorite stock. There are no stratigraphic or structural changes within the granitic mass and there are no significant quartz veins. Pyrite content throughout the core is variable from 0.5 to 10 per cent. The assay sections were cut solely on the basis of relative abundance of pyrite.

Robert Valliant, (1979), a Ph.D. candidate at the University of Western Ontario did a study of ten thin sections and four polished thin sections of core sections in the area of Sample No. C1679 in order to verify rock types and to explain the occurrance of gold in Sample No. C1679. A copy of Valliant's report may be found in the appendices to this report.

Valliant's petrological report with respect to rock type and more particularly with respect to alteration types, concurrs with the writer's observations as recorded in the drill logs. See drill logs in the appendices to this report.

Vallaint reports variable degrees of deuteric alteration between thin sections; potassic alteration, vein envelope alteration, phyllic alteration and prophylitic alteration. No gold is visible within the core or within the thin sections and it is assumed that the gold occurs in intimate association with the pyrite.

The results of the petrological study of a limited portion of the drill core concurrs with the wider observations of Campbell (1973), with respect to the types and degree of alteration within the Canoe Lake Stock.

Barringer Magenta Ltd. of 304 Carlingview Drive, Rexdale, Ontario, carried out a 23 element whole rock analyses of four core samples from Hole No. 5. (See appendices to this report.) Given that all of the samples were taken from one 14 foot section of core, they can only be considered as specimens of the Canoe Lake Stock. The results of the analyses show some slight enrichment in copper only.

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ECONOMIC GEOLOGY OF THE CLAIM GROUP AND ADJACENT AREA.

The gold occurances intersected in the 1979 drilling programme on the writer's claim 489120 are entirely within the Canoe Lake quartz diorite stock. Aerial photograph interpretation of the area of the claim group indicates the presence of two or more , post intrusive, north-westerly trending faults, which may represent the northward extension of the Mikado fault-vein systems. The apparent trace of a northwesterly trending fault is most evident on claims 489120, 489117 and 489113 and particularly in the area of the interval which seperates Islands D219 and D220.

More diamond drilling supported by detailed geophysical surveys are required to determine whether the "economic" gold value intersected in DDH No. 5 (1979) is in fact of economic significance.

There are no other mineral occurances known to exist on the writer's claim group however gold is reported to occur within the same quartz diorite mass at least at two other locations adjacent to the writer's claim group, namely,

(1) The Sirdar Mine on Claim K1269 where gold was mined about 1900 (grade and tonnage unknown). The Sirdar Mine consists of a 125 foot shaft with 500 feet of drifting and a 200 foot tunnel. Vein occur in a sheared zone of "altered granite", 3 to 4 feet wide.

(2) Innes (1973, p.10), reports,
"On McKinnon Island (D195) north-east of Cedar Island, there is a stockwork of interlaced quartz veins in grey granodiorite. It is exposed for a width of 15 - 20 feet on the reef. The zone contains two narrow but very rich quartz veins, the most northerly of which contains much free gold. Grab samples showing no visible gold assay as high as eleven ounces per ton. Extensions of the veins are under water."

The writer's claim 489741 covers the area to the north, east and south of D195. D195 is held by Kenora Prospectors and Miners Limited (KPM), a company controlled by the estate of the late Miss Barbara Hachin.

The two former gold producers in the area immediately adjacent to the writer's claims, the Mikado Mine and the Cedar Island (Cornucopia) Mine, overlie the contact of the Canoe Lake Stock and a sequence of Keewatin mafic volcanics and ultrabasic rocks. Both past producers lie within ground held by KPM. A brief description of the properties is as follows.

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ECONOMIC GEOLOGY OF THE CLAIM GROUP AND ADJACENT AREA, (CONT'D).

(1) Mikado Mine, Claim D148, KPM

Production: 1896-1902, 1910-1911, 1931; 28,335 oz. Au & 41 oz. Ag from 57,813 tons. = 0.49 oz. Au/ton.
No. 1 Shaft : 660 feet deep w/ 10 levels.
No. 2 Shaft: 250 feet deep
No. 3 Shaft: 80 feet deep
No. 4 Shaft: 65 feet deep
Also 7500 feet lateral development mainly in No. One shaft.
1932-34, 2800 feet underground drilling.

Keewatin mafic volcanics cut by east trending pegmatite dike which is cut by vein (trending 330°) which is 16 inches to 5 feet wide. Au with chalcopyrite, galena, tetradymite, bismuthinite, molybdenite.

(2) Cornucopia Mine, Claim D212, KPM (aka Cedar Island Mine)

Production: 1896, 1932, 1935-36; 4941 oz. Au & 3884 oz. Ag from 17050 tons = 0.29 oz. Au/ton.

Two shafts, 165 feet with one level and 646 feet with 4 levels. Sample reported 1.48 oz. Au/ton over 46 inches. NW striking vein parallel to pegmatite dike in meta basalt near granite.

Innes (1973), reports the occurrance of four sulphide veins within the Cedar Island mine workings. The veins are said to carry chalcopyrite, spahlerite, pyrrhotite, gold and pyrite but no assays are reported.

Five other significant gold showings are known to occur within the western contact zone of the Canoe Lake Stock in the areas immediately north and south of the writer's claims.

(1) The Crown Point Mine, staked in 1978 by a Kenora prospector, Claim 488629. Production: 1900; 100 oz. AU from 150 tons = 0.67 oz. Au/ton. 3 shafts: 60 ft., 65 ft., and 125 feet deep with 100 feet of drifting. Fire in main shaft in 1900. Pyritic quartz stringers in contact shear zone between granite and metabasalts. Main vein strikes 90°.

(2) Sirdar Point Mine, on patented claim K618.
No production or assay results on record.
3 shafts of 107 ft., 69 ft., and 20 ft. and 9 diamond drill holes of total 2575 feet. Medium grained mafic rocks and quartz diorite, with a highly altered zone in the north related to faulting.

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ECONOMIC GEOLOGY OF THE CLAIM GROUP AND ADJACENT AREA, (CONT'D).

(3) Gold Coin Mine, Claim K1317, KPM.

1898: 50 tons tested with "poor results".
1964: 1854 feet diamond drilling gave assays of 0.33 oz. over 5 feet and 0.34 oz. over 11.4 feet.
1968: Diamond drilling. Native gold in basic metavolcanics. Pyrite, carbonate and vein quartz in shear zones, usually adjacent to felsite. NW trending lineament (fault) may be related to shear.

(4) Imperial Mine

No assays reported. Shaft 110 feet with 32 feet of drifting on two levels. Granite dykes, quartz veins and silicious zones along shears in basalt. Near quartz diorite contact. 5 parallel quartz veins and stringers.

(5) Bullion No. 2 Mine

No assays reported. Two shafts 75 feet and 115 feet deep with 300 feet of development work. 3 small faulted quartz veins.

Innes (1973), reports the occurance of at least four other gold/sulphide occurances within the Keewatin basic metavolcanics intruded by the Canoe Lake Stock however these occurrances lie from one quarter to one mile west of the well-defined contact.

Davies (1969), notes that,
"Most of the known gold deposits in the area are associated with pyrite in quartz and quartz-carbonate veins. Some veins fill fractures which are essentially parallel to the regional faulting, but these are generally small. North to north-west trending, quartz-filled fractures have accounted for most of the production at the Mikado, Cedar Island and Olympia Mines."

There are at least thirteen seperate occurances of gold in the Bag Bay - Helldiver Bay area. Three of the occurrances are wholly within the Canoe Lake quartz diorite stock, immediately ad adjacent to the intrusive contact of that stock with basic metavolcanics.

Six of the occurances including three former producing mines may be described as occuring within the contact zone.

The most favourable site for gold deposition would seem to be at the contact zone however the presence of gold within the Canoe Lake Stock on Claim 489120, Claim K1269 and Claim D195 as well as the presence of various sulphide minerals, chalcopyrite, molybdenite, etc., indicate that the Canoe Lake quartz diorite stock may contain "economic quantities" of gold.

The "contact zone" underlies the writer's claims 489111, 489115, 489742 and 489741. The remaining nine claims are all underlain by the Canoe Lake Stock.

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CONCLUSIONS

The purpose of the 1979 drilling programme on the writer's claim 489120 was to verify the 1898 drill results as reported by Breidenbach. The report by Breidenbach was shown to be erroneous however a significant intersection of gold mineralization was encountered in DDH No. 5, i.e., 0.28 ounces over 3.5 feet or 0.2 ounces over 5 feet.

Interpretation of local structural features from aerial photographs indicate that the gold mineralization occurring on Claim 489120 may lie within a post intrusive, north-westerly trending fault zone, the same fault zone which contains the dormant Mikado gold mine. However it is possible that the gold mineralization on Claim 489120 is unrelated structurally to the Mikado ore body.

In the Bag Bay area, gold has been shown to occur in three discrete geological environments however the writer feels that the genesis of the actual mineralization is from within the highly altered quartz diorite of the Canoe Lake Stock. In the Bag Bay area, the mineralized quartz diorite stock intruded a relatively impervious mass of basic, mafic volcanics thereby creating favourable structural and geochemical traps amenable to the formation of significant auriferous metallic mineral deposits.

Therefore two geological environments favourable to the foramtion of economic deposits of gold and/or base metals exist on the writer's claim group and on the ground immediately adjacent thereto, namely, the greenstone-quartz diorite contact zone and the fault zones within the quartz diorite mass.

The magnetometer and EM-17 surveys carried out over the area of the claim group in 1972 seemed to indicate a north-easterly trending EM conductor through claims 489120, 489121 and 489118, however the quality of the raw data derived from that survey precludes a definitive interpretation. Another programme of detailed geophysics and diamond drilling is warranted to fully explore the mineral potential of the Bag Bay claim group.

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RECOMMENDATIONS

(1) Establish a survey grid over the claim area using a north-south base line and 400 foot interval grid lines. The work would have to be done during the winter. Approximately 70 % of the lines, including the base line can be run on the ice covered lake. A total of 11.75 miles of line would be required to cover the property.

(2) Carry out a tripod mounted precission magnetometer survey over the grid area as well as a VLF-EM 16 survey. Readings should be recorded at least each 50 feet. The geophysical surveys would map the contact zone as well as any internal structural features.

(3) Results of the geophysical surveys may warrant diamond drilling but in any case additional diamond drilling should be carried out on Island D221 (Claim 489120) in the area drilled in 1979 in order to further evaluate the gold values encountered in DDH No. 5. The first hole should be drilled parallel to Hole No. 5 so as to cut a section 100 vertical feet below the 0.28 oz. Au/s.t. intersection. The hole would be therefore at least 400 feet long. Two other holes, one 200 feet long, the other 400 feet long should be drilled parallel to DDH No. 5 and the first 400 foot hole, but 100 feet due north of the initial drill sites.

The 1979 drilling programme revealed that the quartz diorite is massive and very hard and core recovery was generally 100 % using NQ (1 7/8 in.) wireline. It is possible therefore to drill using AQ wireline (7/8 inch) at greatly reduced cost.

(4) Nineteen samples cut from the five holes drilled in 1979 assayed 0.01 oz./s.t. Au or higher. All nineteen samples should be screened (-325 mesh) for coarse gold. In any case all 19 samples should be reassayed in the light of the discrepency noted in Sample No. C1679, (0.28 oz. versus 0.20 oz.). The assaying should be done by a laboratory other than X-Ray Assay Laboratories Limited.

(5) If the results of the above programme prove encouraging than an effort should be made to acquire the mineral and surface rights to the adjoining properties.

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ESTIMATE OF COSTS

(1)	Establish survey grid 12 line miles @ $150/line mile	$1800.00
(2)	Geophysical surveys, magnetometer and EM, 12 line miles	3600.00
(3)	1000 feet AQ wireline drilling including mobilization and demobilization	26000.00
(4)	Assaying and screening 19 samples @ $7.00 111 samples @ $5.00	308.00
(5)	Supervision - 1 geologist x 2 months	6000.00
(6)	Travel, vehicle hire, room and board, etc.	3000.00
(7)	Draughting, report preperation, etc.	500.00
		$41208.00
	Contingency @ 20%	8242.00
	Total	$49450.00

Respectfully submitted,

H. G. Tibbo

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Diamond Drill Hole No. One

Tycoon Project
Mineral Claim 489120
Glass Inv., Kenora Mining Division

Core Size: NQ, 1 7/8 inch diameter
Casing Size: Nil
Hole Length: 204 feet

Location: 63 feet South-East of Collar of old shaft on north-west corner of Island D219, Mineral Claim 489120.

Azimuth: 245 degrees
Inclination: -45 degrees
Acid Test: HF done at 194 feet.

Date Started: June 27, 1979, dayshift.
Date Completed: June 29, 1979, dayshift.

Drilling done by Heath & Sherwood Ltd.

Core logged and sampled by H. G. Tilden

Core and sludge stored at 103 Church St., Toronto.

Core recovery 100%

H G Tilden

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
0	22	NW casing. overburden				
22	25	NX core. Red, altered quartz diorite. no pyrite. hornblende altered to chlorite				
25	31	NQ core. Quartz diorite w/ ~0.5% pyrite, euhedral chips. occasional 1 in² masses of dark green chlorite	C1551 C1552	25 28	28 31	Nil N
31	32.5	same as 25-31 ft. last unit with 1-2% disseminated pyrite	C1553	31	32.5	T
32.5	33.0	5-10% pyrite in highly altered chlorite dyke?	C1554	32.5	33.0	0.01
33.0	34.0	chloritic quartz diorite. 5-10% fine grained, disseminated pyrite	C1555	33	34	T

Footage From	To	Description	Sample No.	Footage From	To	Assay Au oz/t
34	36	30% blue quartz w/5-10% muscovite (sericite?) and 60-70% iron-stained plagioclase. 1-5% pyrite. Occasional 1/2 in. euhedral calcite x-tals.	C1556	34	36	T
36	39	red quartz diorite <0.5% pyrite.				
39	43	same as 34-36 feet. Core 22 to 41 ft. in Box 1 of 10	C1557	39	43	T
43	44	red quartz diorite w/15-20% altered chlorite. Apparent foliation 15°/CA. 1-2% pyrite	C1558	43	44	T
44	48	20-30% blue quartz w/10-20% muscovite & 60-70% Fe-stained plagioclase. No visible pyrite				
48	57	medium grained red quartz diorite w/occasional 1 in² clots of chlorite. <0.5% pyrite				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay oz/s.t
57	59	fine-grained quartz diorite w/ 1% pyrite. 2in. smokey quartz vein @ 58.5 ft. ⊥/CA	C1559	57	59	T
59	60	altered quartz diorite. <0.5% pyrite. core 43 to 60 ft. in Box 2 of 10				
60	62	altered quartz diorite. <0.5% pyrite				
62	64	altered, slightly foliated, quartz diorite. 1-5% pyrite in paper-thin bands of chlorite ⊥ to CA.	C1560	62	64	T
64	73.5	same as 62-64 ft. but <0.5% pyrite.				
73.5	78	same as 62-64 ft.	C1561	73.5	76	T
			C1562	76	78	T
78	85.5	same as 62-64 ft. but <0.5% pyrite. core 60 to 79 ft. in Box 3 of 10				

Joel Dirks

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
85.5	86.5	altered quartz diorite 1/4 in. quartz vein @ 86 ft.	C 1563	85.5	86.5	T
86.5	94.0	Slightly altered quartz diorite, medium-grained texture. <0.5% pyrite.				
94.0	95.5	altered quartz diorite, apparent foliation 60°/CA. Pyrite cubes in chlorite on foliation planes.				
95.5	99.0	highly altered quartz diorite w/ gypsum-thin chlorite-filled fractures @ 60°/CA 5% disseminated pyrite. Occasional 1/4 in. vugs, Fe-stained. Core 79-99 feet in Box 4 of 10	C 1564	95	99	T
99.0	101.5	same as 95.5-99 ft. coarse-grained quartz & calcite vein 1/2 in. @ 99.5 ft.	C 1565	99	101.5	0.01

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
101.5	103.0	same as 99-101.5 ft. but no visible pyrite.				
103.0	106.0	altered quartz diorite w/chlorite filled fractures 60°/CA. 1-5% pyrite	C1566	103	106	T
106.0	108.0	altered, red quartz diorite. no visible pyrite				
108	111	altered red quartz diorite (blue quartz) 1-5% pyrite	C1567	108	111	T
111	112	altered red quartz diorite. no visible pyrite.				
112	116	altered red quartz diorite (blue quartz) 1-5% pyrite	C1568 C1569	112 114	114 116	T 0.04
116	117	altered red quartz diorite. no visible pyrite. core 99 to 117 ft. in box 5 of 10				
117	122	altered red quartz diorite "crush zone". 15-25% blue quartz				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
		60-70% iron-stained, kaolinized feldspar (plagioclase); 10-20% altered chlorite. Randomly oriented, chlorite-filled fractures carry ~5% pyrite.	C1570	117	120	N
			C1571	120	122	T
122	125	same as 117-122 ft. but < 0.5% pyrite				
125	126.5	same as 117-122 ft. ~5% pyrite	C1572	125	126.5	T
126.5	130	same as 117-122 ft. but < 0.5% pyrite				
130	132	same as 117-122 ft. ~5% pyrite	C1573	130	132	T
132	134	same as 117-122 ft. except < 0.5% pyrite				
134	144	altered red quartz diorite				
144	150	altered, fractured quartz diorite "crush zone". 20-30% blue quartz;	C1574	144	147	T
		55-65% altered plagioclase;	C1575	147	150	T
		10-20% chlorite. ~5% pyrite				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assa Au oz/s
150	152	red quartz diorite 20-25% quartz, 60-70% altered plagioclase; 10-20% chlorite; minor garnet; <0.5% pyrite. Core 135-152 ft. in Box 7 of 10				
152	156	altered, fractured quartz diorite "crush zone", similar to 144-150 ft.	C1576	152	154	T
			C1577	154	156	T
156	166	altered red quartz-diorite, same as 150-152 ft. <0.5% pyrite. veins, randomly oriented, paper-thin, chlorite-filled fractures.				
166	169	altered quartz diorite w/quartz-filled, randomly oriented, paper-thin fractures carrying ~5% fine-grained pyrite	C1578	166	169	T
169	170	altered quartz diorite. <0.5% pyrite. 152 to 170 ft. in box 8 of 10.				

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Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assa Au o/s
170	179.5	altered quartz diorite; blue quartz, plagioclase & chlorite. <0.5% pyrite				
179.5	181	same as 170-179.5 ft. except 1-5% fine-grained pyrite disseminated throughout.	C1579	179.5	181	T
181	189	same as 170-179.5 ft. Core 170-189 ft. in Box 9 of 10				
189	191	same as 181-189 ft.				
191	196	same as 181-189 ft. except 1-5% fine-grained, disseminated pyrite throughout.	C1580 C1581	191 194	194 196	T T
196	201	same as 191-196 ft. except <1% pyrite.				
201	204	same as 191-196 ft. with 5-10% pyrite. Core 189-204 ft. in Box 10 of 10. End of hole @ 204 ft. Acid test @ 194 ft. Core & sludge stored at 103 Church St., Toronto.	C1582	201	204	T

Diamond Drill Hole No. Two

Tycoon Project
Mineral Claim 489120
Glass Twp., Kenora Mining Division

Core Size: NQ, 1 7/8 inch diameter
Casing Size: NW
Hole Length: 201 feet

Location: Extreme south-west corner of Island D219, Mineral Claim 489120

Azimuth: 245 degrees

Inclination: −45 degrees
Acid Test (HF) done at 201 feet.

Date Started: June 20, 1979 day shift
Date Completed: July 2, 1979, 14 p.m.

Drilling done by Heath and Sherwood Ltd.

Core logged and Sampled by H. G. Tibbo

Core and Sludge stored at 103 Church St., Toronto

Core recovery 100%

Hal Tibbo

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
0	15	NW casing				
15	19	NX core. Quartz diorite w/ 1-5% pyrite	C1583	15	18.5	T
19	35	variable red to grey quartz diorite w/ 1-5% fine-grained, disseminated pyrite throughout. 60-70% plagioclase; 20-30% quartz; 5-10% chlorite 23-24 ft: randomly oriented, paper-thin fractures quartz and/or chlorite-filled and bearing 0.5-1% fine-grained, disseminated pyrite. Core 15-25 ft. in Box 1 of 11.	C1584	19	21	T
			C1585	22	23	T
			C1586	24	27	T
			C1587	30	33	N
			C1588	33	35	T
35	36	altered red quartz diorite w/ 5-10% pyrite	C1589	35	36	T
36	37	altered red quartz diorite w/ 1-5% pyrite.				
37	39	altered red quartz diorite.	C1590	37	39	T

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
39	40	altered red quartz diorite. 1% pyrite				
40	43	highly fractured & altered quartz diorite. 1-5% pyrite. Randomly oriented fractures filled with chlorite and / or quartz. Chlorite grains surround subhedral pyrite grains. The pyrite is visible only at 20x magnification. The section also contains blue quartz which appears to be shattered.	C 1591	40	43	T
43	47	same as 40-43 ft. but < 1% pyrite				
47	49	unaltered(?) red quartz diorite < 1% pyrite. core 25 ft. to 49 ft. in Box 2 of 11.				
49	50	altered quartz diorite 65-75% plagioclase; 15-25% quartz; 5-25% chlorite; 1% pyrite				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
50	51	Same as 49-50 ft. host chlorite content 20-30% and 5-10% pyrite.	C1592	50	51	T
51	54	fractured and altered red quartz diorite 1-5% pyrite	C1593	51	54	N
54	55.5	red quartz diorite, altered, <1% pyrite.				
55.5	58.5	fractured quartz diorite. 1-5% pyrite. Fractures randomly oriented and chlorite filled.	C1594	55.5	58.5	T
58.5	61	red, altered quartz diorite. 1% fine-grained, disseminated pyrite	C1595	60.0	60.4	T
61	67	altered quartz diorite. 1-5% disseminated pyrite. Fractures randomly oriented and chlorite filled. Core 49 to 67 ft. in Box 3 of 11	C1596 C1597	61 64	64 67	T T

Footage From	Footage To	Description	Sample No	Footage From	Footage To	Assay Au oz/t
67	68.5	Fractured quartz diorite w/1-5% pyrite. Coarse calcite & quartz (1 in.) @ 67 ft.	C1598	67	68.5	T
			C1599	71	72.5	T
68.5	84	Fractured quartz diorite 1-10% pyrite disseminated throughout fractures randomly oriented and chlorite filled.	C1600	73	75.5	T
			C1601	76	79.5	T
			C1602	79.5	81.5	T
			C1603	81.5	83.5	T
		80'-83.5' 10% coarse-grained, disseminated pyrite.				
		Core 67-84 ft. in box 4 of 11				
84	104	altered quartz diorite, some iron-stain due to alteration of hornblende to chlorite.	C1604	84	86.5	T
			C1605	87.5	89	T
			C1606	90	90.5	T
		Randomly oriented fractures.	C1607	91	93.5	N
		0.5-5% pyrite disseminated throughout.	C1608	93.5	98	T
		Core 84-104 ft. in box 5 of 11				
104	120	altered quartz diorite. 70-80% altered, red stained plagioclase.	C1609	108	111	T
			C1610	116	117	T
		15-20% blue quartz; 15-20% chlorite (after hornblende); <1% pyrite except				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assa Au oz/s
		@ 108 to 111 & 116-117'. Core 104 to 120 ft. in Box 6 of 11				
120	139	Fractured, red quartz diorite, chlorite-filled fractures <0.5% pyrite except where sampled. Sampled sections contain 5-10% coarse-grained pyrite (1/4 in.) Core 120 to 139 ft. in Box 7 of 11	C 1611	120.5	122.5	T
			C 1612	124	126	T
			C 1613	127.5	130.5	T
			C 1614	130.5	133.5	T
			C 1615	134	137	T
139	159	Altered, silicified red quartz diorite 0.5-1% pyrite except in sections sampled where visible pyrite varies from 5-10%. Milky grey-blue quartz & chlorite (after hornblende). At 151 ft. 6 in. massive chlorite and heavily weathered quartz vein with pyrite bleached out. The usual chlorite &/or quartz filled fractures, randomly oriented, occur throughout.	C 1616	140	142	N
			C 1617	148	150	T
			C 1618	150	152	0.01
			C 1619	152.5	153	T
			C 1620	156.5	159	T

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
		Core 139-159 ft. in Box 8 of 11				
159	164	altered quartz diorite. 1-5% pyrite disseminated throughout	C1621	159	162	T
			C1622	162	164	T
			C1623	166	168	T
164	166	altered red quartz diorite. <1% pyrite	C1624	168	170.5	T
166	170	same as 159-164 ft. 1 in. white quartz vein, perpendicular to CA occurs at 166 ft. cond. carries 15% fine-grained pyrite.				
170	176	same as 164-166 ft. 174.5-175 ft. 6 inches of altered quartz diorite carries 5-10% pyrite				
		Core 159-176 ft. in Box 9 of 11.				
176	193	altered quartz diorite. Incipient foliation @ 60°/CA. <1% pyrite throughout except where sampled. The sampled sections carry 1-5% pyrite.	C1625	180.5	182	0.05
			C1626	185	187.5	T
			C1627	188	190.5	T
		Core 176-193 ft. in Box 10 of 11.				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assa Au oz/s
193	201	altered, fractured quartz diorite, occasional iron-stained patches. Generally 0.5-1% pyrite throughout except sampled section which carries 1-5% pyrite. The usual fractures are quartz &/or chlorite-filled and carry 1-5% fine-grained pyrite. Core 193 to 201 ft. in Box 11 of 11	C1628	198.5	201	T
		Hole ends at 201 feet. HF acid test done at 201 ft.				

Joel Stiles

Diamond Drill Hole No. Three

Tycoon Project.
Mineral Claim 489120
Glass Twp., Kenora Mining Division

Core Size: NQ, 1 7/8 inch diameter.
Casing Size: NW
Hole Length: 202 feet.

Location: Centre of Island D219, Mineral Claim No. 489120.
Azimuth: 245°
Inclination: -45 degrees.
Acid test done @ 202 feet.

Date Started: July 2, 1979.
Date Completed: July 4, 1979.

Drilling done by H. Heath & Sherwood Drilling Ltd.

Core Logged and Sampled by H. G. Tibbo

Core and sludge stored at 103 Church St. Toronto

Core recovery 100% except where stated.

H. G. Tibbo

Footage From	Footage To	Description	Sample No.	Footage Assay From	Footage Assay To	Au oz/s
0	25	NW casing. Overburden				
25	28	NX core. Broken ground, weathered bedrock. CR 70%				
28	31	altered quartz diorite - apparent foliation 60°/CA. < 0.5% pyrite				
31	32	highly weathered quartz diorite < 0.5% pyrite. CR 85%				
32	43.6	altered quartz diorite. fine-grained, disseminated pyrite in sinuous, paper-thin fractures @ 39.6 ft. occasional small (0.1 in) blebs of muscovite(?) after chlorite(?) yellow stain (calcite(?)) developed on cracks in core. Not radioactive!				
		Core 25-43.6 ft. in Box 1 of 10.				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
43.6	51.5	altered red quartz diorite ~0.5% fine-grained, disseminated pyrite				
51.5	59	massive chlorite w/10-15% quartz and 5-10% pyrite.	C1630 C1631	51.5 58	54 59	T T
59	62.5	altered, red quartz diorite ~0.5% fine-grained, disseminated pyrite. Core 43.6 to 62.5 ft. in Box 2 of 10.				
62.5	79.0	altered quartz diorite, red in colour, may be due to interstitial iron-staining from Fe released in alteration of hornblende to chlorite. Occasional grains of pyrite (<0.5%). 74-75 ft. quartz-muscovite with quartz-filled tear gashes perpendicular to CA. Core 62.5 to 79.0 ft. in Box 3 of 10.				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
79.0	96.5	altered quartz diorite. 1/2 in. quartz vein ⊥/CA @ 83 ft. 81.5 to 84 ft. Silicious, altered quartz diorite w/ 5% pyrite	C1633	81.5	84	T
		paper-thin, quartz &/or chlorite filled fractures 20-60°/CA @ 89.5'; 90.5'; 94; 95.5'. Fractures carry 1-5% disseminated, fine-grained pyrite.				
		Core 79 to 96.5 ft. in Box 4 of 10.				
96.5	113.5	altered white quartz diorite with occasional paper-thin, sinuous fractures @ ~60°/CA containing fine-grained powder pyrite.	C1634	100	101	T
		Core: 96.5 to 113.5 ft. in Box 5 of 10				
113.5	130.5	Same as 96.5-113.5 ft. 126-128 ft. re-melded, highly fractured quartz diorite w/ < 0.5% pyrite	C1635	121.5	122	T
		Core: 113.5 to 130.5 ft. in Box 6 of 10				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
130.5	147	altered, white quartz diorite. 65-75% plagioclase; 15-20% grey quartz; 10% ~~hornblende~~ chlorite (after hornblende). usual fractures @ 60°/CA. occasional grains of pyrite in fractures.				
147	148	white quartz vein @ 45°/CA. contacts not well defined. Core 130.5 ft. to 148 ft. in Box 7 of 10.	C1636	147	148	T
148	149	same as 147-148 ft.	C1637	148	149	T
149	149.5	massive red quartz diorite				
149.5	154	white, altered quartz diorite w/ patches of massive chlorite. Heavily weathered 2 in. quartz vein @ 151 ft. Portions of this section are very siliceous and carries 5% disseminated fine-grained pyrite.	C1638 C1639	149.5 151.5	151.5 153.5	O.A. T

Joel Dilles

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assa Au oz/t
154	156	white, altered quartz diorite				
156	158.5	silicious chlorite 5-10% pyrite	C 1640	156	158.5	T
158.5	160.5	white, altered, silicified quartz diorite 1-5% pyrite	C 1641	158.5	160.5	T
160.5	164.5	altered red quartz diorite w/ paper-thin fractures @ 45°/CA. Fractures are cemented with quartz and carry <0.5% fine-grained pyrite.				
164.5	165	same as 160.5-164.5 ft. but carries 5-10% pyrite.	C 1642	164.5	165	T
165	167	same as 160.5-164.5 ft. core 148-167 ft. in box 8 of 10.				
167	170	altered white quartz diorite <0.5% pyrite				
170	185	white quartz diorite: 20-30% quartz; 60-70% plagioclase;				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
		170-185 ft. (cont'd). 20-30% chlorite. no visible metallic mineralization.				
185	186	same as 170-185 ft. Core from 167 to 186 ft. in Box 9 of 10.				
186	202	pyrite, altered quartz diorite. 60-70% plagioclase, 20% chlorite, 10-20% quartz. Randomly oriented fractures 0.5-1.0% pyrite. Core 186-202 ft. in Box 10 of 10.				
		Hole ends @ 202 ft. Acid test @ 202 ft. Test tube in Box 10.				

Diamond Drill Hole No. four

Tycoon Project
Mineral Claim 489120
Glass Twp., Kenora Mining Division

Core Size: NQ 1 7/8 inch diameter
Casing Size: NW
Hole Length: 204 feet.

Location: Extreme south-west corner of
Island D221, Claim 489120

Azimuth: 235 degrees
Inclination: -55 degrees
Acid Test done at 204 feet.

Date Started: July 6, 1979
Date Completed: July 8, 1979

Drilling done by Heath & Sherwood Ltd.

Core logged and sampled by H. G. Tillson

Core recovery 100% except where noted.

Core and sludge stored at 103 Church St, Toronto

H.G. Tillson

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
0	14	NW casing. Overburden 14-16 NX core.				
14	31.5	Slightly altered quartz diorite 10-20% quartz; 60-70% plagioclase; 20% chlorite. Occasional narrow zones of highly silicified quartz diorite 20-30% blue-grey quartz; 65-75% plagioclase 15-20% muscovite 5-10% fine-grained pyrite silicified zones @ 20.5'-21'; 22'-22.5'; 24-24.5'; 26'-27'; exhibit well-defined contacts with lesser altered quartz diorite Core 14-31.5 ft. in Box 1 of 11	C1643 C1644	20.5 26	21 27	T 0.01
31.5	50.8	same as 14-31.5', slightly altered quartz diorite but with occasional paper-thin	C1645 C1646 C1647	35.5 45.5 48.5	36.5 46.5 50.5	0.01 T T

Joel Dillon

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
		fractures @ 45°/CA, filled with chlorite &/or quartz. Silicified zones bearing 5-10% disseminated, fine-grained pyrite occur @ 35.5-36.5 ft; 45.5-46.5 ft.; 48.5-50.5 ft. 45.5-46 ft. 80% CR. 6 in. fine-grained brownish quartz @ 48.5 ft. Core 31.5 to 208 ft. in Box 2 of 11.				
50.8	68	altered quartz chlorite w/ < 0.5% pyrite throughout. Apparent incipient foliation @ 45°/CA. silicified zone 80% blue quartz; 5% pyrite; 15-20% muscovite N.S. 55.8-58.9 ft. 80% CR. other narrow (1 in.) zones of silicification occur at paper-thin, sinuous fractures. The fractures are quartz &/or chlorite filled and usually contain 5-10% fine-grained pyrite. Pyrite is always present (3-5%) immediately	C1648 C1649	50.8 55.2	51.8 56.2	0.01 0.02

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
		on both sides of the fracture. Core 68-86 ft. in Box 3 of 11				
68	86	altered quartz diorite with occasional narrow (1-2 in.) heavily silicified zones @ ~60°/CA. Silicified zones bear 1-5% pyrite. 75-76 ft. core ground but not broken. 95% CR. Core 68-86 ft. in Box 4 of 11	C1686	77	78.5	T
			C1687	78.5	79.5	T
			C1688	79.5	82.5	T
			C1689	82.5	83.0	T
			C1690	83.0	84.5	T
			C1691	84.5	86.0	0.02
86	89	silicified quartz-chlorite w/ 5% fine-grained, disseminated pyrite. 1 in. blue-gray quartz vein @ 87 ft. ⊥/CA.	C1650	86	89	T
89	91	highly altered quartz diorite <0.5% pyrite	C1692	89.0	91.0	N
91	91.5	fine-grained quartz and chlorite w/ 5-10% pyrite (veins)	C1651	91.0	91.5	T

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Ass'd Au oz/t
91.5	96	altered quartz diorite w/chlorite bands 0.1 in. thick @ 60°/CA. chlorite bands bear 1% fine-grained disseminated pyrite.	C1693	91.5	94.0	N
			C1694	94.0	96.0	N
96	103	slightly altered quartz diorite 60-70% ~~blue~~ white altered greenish-white plagioclase; 20-30% bluish-white quartz; 10-20% chlorite; 2-5% pyrite.	C1695	96.0	99.0	N
			C1696	99.0	99.5	N
			C1697	99.5	100.5	T
103	104	silicified quartz diorite 70-80% blue quartz 15-30% yellow, fine-grained mica (after chlorite?) occasional minute grains of pyrite. Core 86-104 feet in Box 5 of 11	C1698	103	104	T
104	105	altered quartz diorite w/sinuous paper-thin fractures @ 45°/CA.				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
105	109	altered massive quartz diorite				
109	111.5	silicified ~~[illegible]~~ quartz diorite w/ 1-5% coarse-grained (0.1 in.) pyrite, highly fractured. Fractures are randomly oriented and are filled w/ fine-grained quartz & chlorite, and fine grained pyrite.				
111.5	114.5	altered quartz diorite	C1652	110.5	112.5	T
114.5	116.5	same as 109 - 111.5 ft.	C1653	114.5	116.5	0.03
116.5	123	altered quartz diorite w/ minor "phases" (i.e. no defined contacts), of fine-grained quartz & chlorite w/ ~ 1% fine-grained pyrite.				
		Core 104 - 123 ft. in Box 6 of 11				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay
123	141	highly altered & fractured, silicified quartz diorite. Most fractures perp @ 70-90°/CA. <5% pyrite throughout the section except 0.5-1% @ 131-132 ft. & 134-135.5 ft. Core 123 to 141 ft. in Box 7 of 11	C1654	131	134	T
			C1655	134	135.5	T
141	143.5	altered quartz diorite. no visible pyrite.				
143.5	145.5	silicified quartz diorite w/ 65-75% plagioclase; 10-20% quartz; 10-20% chlorite 1-5% pyrite. Chlorite-filled fractures, occasional vugs in fracture planes, filled with crystalline quartz.	C1656	143.5	145.5	T
145.5	156	altered red quartz diorite 60-70% plagioclase; 20-30% chlorite; 10-20% blue quartz ~0.5% disseminated pyrite.				

Joel Duke

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Ass. Au oz/t
156	158.5	Silicified, red quartz diorite containing "phases" equal to 1-5% of section of Silicified Quartz diorite and patches of massive chlorite. The chlorite bears 1-5% fine-grained, disseminated pyrite. Core 141-158.5 ft. in Box 8 of 11	C1657	156	158.5	T
158.5	176.5	Highly altered red quartz diorite; highly fractured - fractures are randomly oriented and chlorite filled. The chlorite carries 0.5-1% fine-grained, disseminated pyrite. Some parts of this section exhibit incipient foliation 45°/CA. and consist of 30-40% chlorite; 20-30% quartz and 50-60% plagioclase. w/1-5% pyrite. Core 158.5 to 176.5 ft. in Box 9 of 11	C1658	158.5	161	T
			C1659	165.5	168.5	T
			C1660	169	169.5	T

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
176.5	194.0	highly altered and fractured quartz diorite. Fractures are paper-thin, sinuous & chlorite-filled. <0.5% pyrite. 187.5-188 ft. 50% massive chlorite & 50% quartz w/1-5% pyrite. Core 176.5-194 ft. in Box 10 of 11.	C 1661	187.5	188	0.01
194.0	203	highly altered and fractured quartz diorite w/occasional minute grains of pyrite.				
203	204	altered quartz diorite. Hole ends @ 204 ft. Acid test (HF) done at 204 ft. Test tube stored in Box 11 of 11.				

Diamond Drill Hole No. 4

Tycoon Project
Mineral Claim 489120
Glass Twp., Kenora Mining Division

Core Size: NQ 1 7/8 inch diameter
Casing Size: NW
Hole Length: 204 feet

Location: Extreme north-west corner of Island D221, Claim 489120.

Azimuth: 235 degrees
Inclination: -45°
Acid Test done at 204 feet.

Date Started: July 10, 1979 3 P.M.
Date Completed: July 12, 1979 6 A.M.

Core logged and sampled by H. G. Iriluo

Drilling done by Heath and Sherwood Drilling Ltd.

Core recovery 100% except where noted.

Core and sludge stored at 103 Church St., Toronto.

H. G. Iriluo

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Au oz/t Assay
0	10	NW casing. overburden				
10	28	pinkish-white, altered quartz diorite, medium grained (0.05 in.). 15-20% bluish-white quartz, 60-70% pink to white, altered plagioclase. 15-20% altered chlorite no visible metallic mineralization. occasional fractures @ 60°/CA. 11-14 ft. broken ground, 95% CR otherwise 100% CR. Core 10-26.5 ft. in Box 1 of 11				
28	42.5	Silicified quartz diorite 65-75% plagioclase; 10-20% chlorite; 10-20% bluish quartz. Randomly oriented, fine to coarse fractures filled by quartz and/or chlorite. 25.5 to 41.5 ft. contains 5-10% disseminated pyrite	C1662	25.5	38.5	T
			C1663	38.5	41.5	T

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/t
		Core 26.5 - 42.5 ft. in Box 2 of 11				
42.5	60	Silicified quartz diorite 60-70% altered plagioclase 20-30% fibrous chlorite 10-20% blue quartz occasional 6 in. sections of highly altered quartz diorite. 44-46 ft. contains 5-10% fine-grained, disseminated pyrite. Core 42.5 to 60 ft. in Box 3 of 11	C1664	44	46	T
60	77.5	quartz diorite w/ 6-8 inch sections highly silicified & fractured + bluish black quartz. 73.5-75.5 ft. 5-10% fine-grained, disseminated pyrite Core 60 to 77.5 ft. in Box 4 of 11	C1665	73.5	75.5	T
77.5	92	Silicified quartz diorite. Silicification is most prominent and intense in				

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assa Au oz/t
		areas of fractures. The fractures are oriented 45°/111/CA and contain visible pyrite (<0.5%) Core 77.5-95 ft. in Box 5 of 11				
92	95	zone of intense fractures. Fractures show no preferred orientation and are filled with crystalline quartz or altered chlorite. Section contains 80-90% blue quartz, 10-20% muscovite (after chlorite) and 1-5% fine-grained pyrite. N.B. 94-95 ft. Core ground 90% CR.	C1670	94	95	T
95	105.5	Silicified quartz-muscovite (after quartz diorite (?)), with 5-10% disseminated fine-grained pyrite. 70-80% blue quartz 20-30% greenish-white muscovite (?) after chlorite (?)	C1666 C1667 C1668 C1669	95 98 101 104	98 101 104 105.5	0.01 T 0.01 0.01

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
105.5	123	altered quartz diorite. no visible mineralization. Core 95-113 ft. in Box 6 of 11.				
123	131	altered quartz diorite w/ silicified sections @ 122-123'; 126.5-127.5 ft.; 128-129 ft. these sections consist of 60% quartz; 20% muscovite, lgtn. chlorite; and 5-10% disseminated pyrite. Core 113 ft. to 121 ft. in Box 7 of 11.	C1671	122	123	T
			C1672	126.5	127.5	T
			C1673	128	129	T
			C1674	132	134	T
			C1675	135.5	138	T
			C1676	138	139	T
			C1677	143	143.5	T
131	149.5	highly altered, sheared and silicified quartz diorite. 133-134 ft. x-cell vugs (0.05 in.) lined with crystalline quartz. The sections sampled contain 1-5% pyrite; fine-grained and disseminated	C1678	147.5	149.5	T
			C1699	134	135.5	T
			C1700	139	141	N
			C1701	141	143	N
			C1702	143.5	145	N
			C1703	145	147.5	N
		N.B. If the assay sections report economic (?) gold values then all of the section, 121-149.5 ft. should be assayed.				

Footage From	Footage To	Description	Sample No	Footage From	Footage To	Assa Au oz/s
		Core 131-149.5 ft. in Box 8 of 11				
			CHECK ASSAY	149.5	153.0	0.28
149.5	166	heavily silicified and fractured quartz diorite w/ occasional patches of unaltered quartz diorite. The sections sampled contain 1-5% disseminated, fine-grained pyrite.	C1679	149.5	153.0	0.22
			C1680	153	154.5	0.02
			C1681	159	161.5	0.16
			C1682	161.5	162.5	T
			C1704	154.5	156	T
			C1705	156	158	T
			C1706	158	159	N
			C1707	162.5	165	N
166	167	moderately altered quartz diorite. Core 149.5 to 167 ft. in Box 9 of 11.	C1708	165	165.5	N
			C1709	165.5	166.5	N
			C1710	166.5	168	N
167	173	massive white quartz diorite 60-70% white plagioclase 15-25% blue-grey quartz 10-20% green-white chlorite no visible pyrite.				
173	185.5	highly fractured and altered red quartz diorite. Alteration (silicification) is post-fracturing. Fracture density is 26/linear ft.				

Joel Dixon

Footage From	Footage To	Description	Sample No.	Footage From	Footage To	Assay Au oz/s
		Minor visible pyrite, fine-grained and disseminated, in quartz ca. chlorite-filled fractures. Not sampled. Core 167 to 185.5 ft. in Box 10 of 11				
185.5	204	Silicified, heavily fractured quartz diorite. 193-200 ft. 10 fractures / linear foot. 1-5% pyrite throughout. Core 185.5 to 204 ft. in Box 11 of 11.	C1683	193	196	T
			C1684	196	198	N
			C1685	198	200	T
		Hole ends at 204 ft. HF acid test clone at 204 ft. Test tube is in Box 11.				
		N.B. Much of the "fine-grained" pyrite is only visible with the aid of 20x magnification.				

APPENDIX FOUR

X-RAY ASSAY LABORATORIES
LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

CERTIFICATE OF ANALYSIS

INVOICE 5212 REF. FILE 1426-P2

TO: PANCONTINENTAL MINING (CANADA) LTD.,
ATTN: GEOROE E. COBURN, MANAGER,
P. O. BOX 123, SUITE 2801,
401 BAY STREET,
TORONTO, ONT. M5H 2Y4

135 SPLIT CORES SUBMITTED ON 18-JUL-79

WERE ANALYSED AS FOLLOWS:

	UNITS	METHOD	DETECTION LIMIT
AU	OZ/TON	FA	0.010
AU	OZ/TON	FA	0.010

DATE 01-NOV-79

X-RAY ASSAY LABORATORIES LIMITED

CERTIFIED BY . . . . . .

J. H. OPDEBEECK

X-RAY ASSAY LABORATORIES 01-NOV-79 INVOICE 5212 REF. FILE 1426-P2 PAGE 1

SAMPLE	AU OZ/TON	AU OZ/TON
C1551	NIL	---
C1552	NIL	---
C1553	TRACE	--
C1554	0.01	---
C1555	TRACE	--
C1556	TRACE	--
C1557	TRACE	---
C1558	TRACE	---
C1559	TRACE	---
C1560	TRACE	---
C1561	TRACE	---
C1562	TRACE	--
C1563	TRACE	--
C1564	TRACE	---
C1565	0.01	---
C1566	TRACE	--
C1567	TRACE	---
C1568	TRACE	---
C1569	0.04	---
C1570	NIL	---
C1571	TRACE	---
C1572	TRACE	--
C1573	TRACE	--
C1574	TRACE	---
C1575	TRACE	---
C1576	TRACE	--
C1577	TRACE	---
C1578	TRACE	---
C1579	TRACE	---
C1580	TRACE	---
C1581	TRACE	---
C1582	TRACE	---
C1583	TRACE	---
C1584	TRACE	---
C1585	TRACE	---
C1586	TRACE	---
C1587	NIL	---
C1588	TRACE	---
C1589	TRACE	---
C1590	TRACE	---
C1591	TRACE	---
C1592	TRACE	---
C1593	NIL	---
C1594	TRACE	---
C1595	TRACE	---
C1596	TRACE	---
C1597	TRACE	---
C1598	TRACE	---
C1599	TRACE	---
C1600	TRACE	---
C1601	TRACE	---
C1602	TRACE	---
C1603	TRACE	---
C1604	TRACE	---
C1605	TRACE	---

SAMPLE	AU OZ/TON	AU OZ/TON
C1606	TRACE	--
C1607	NIL	---
C1608	TRACE	---
C1609	TRACE	---
C1610	TRACE	---
C1611	TRACE	---
C1612	TRACE	---
C1613	TRACE	---
C1614	TRACE	---
C1615	TRACE	---
C1616	NIL	--
C1617	TRACE	---
C1618	0.01	--
C1619	TRACE	---
C1620	TRACE	---
C1621	TRACE	--
C1622	TRACE	---
C1623	TRACE	---
C1624	TRACE	--
C1625	0.03	---
C1626	TRACE	---
C1627	TRACE	---
C1628	TRACE	---
C1629	TRACE	--
C1630	TRACE	---
C1631	TRACE	--
C1632	TRACE	--
C1633	TRACE	---
C1634	TRACE	---
C1635	TRACE	--
C1636	TRACE	---
C1637	TRACE	---
C1638	0.04	--
C1639	TRACE	---
C1640	TRACE	--
C1641	TRACE	---
C1642	TRACE	---
C1643	TRACE	--
C1644	0.01	--
C1645	0.01	--
C1646	TRACE	---
C1647	TRACE	---
C1648	0.01	--
C1649	0.02	---
C1650	TRACE	--
C1651	TRACE	---
C1652	TRACE	--
C1653	0.03	---
C1654	TRACE	---
C1655	TRACE	--
C1656	TRACE	---
C1657	TRACE	---
C1658	TRACE	---
C1659	TRACE	---
C1660	TRACE	---
C1661	0.01	---

SAMPLE	AU OZ/TON	AU OZ/TON
C1662	TRACE	---
C1663	TRACE	---
C1664	TRACE	---
C1665	TRACE	---
C1666	0.01	---
C1667	TRACE	---
C1668	0.01	---
C1669	0.01	---
C1670	TRACE	---
C1671	TRACE	---
C1672	TRACE	---
C1673	TRACE	---
C1674	TRACE	---
C1675	TRACE	---
C1676	TRACE	---
C1677	TRACE	---
C1678	TRACE	---
C1679	0.22	0.28
C1680	0.02	---
C1681	0.10	0.09
C1682	TRACE	---
C1683	TRACE	---
C1684	NIL	---
C1685	TRACE	---

X-RAY ASSAY LABORATORIES
LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

CERTIFICATE OF ANALYSIS

INVOICE 5641 REF. FILE 1916-B4

TO: PANCONTINENTAL MINING (CANADA) LTD.,
ATTN: NEIL NOVAK,
SUITE 2801, P.O. BOX 123,
401 BAY STREET,
TORONTO, ONT. M5H 2Y4

25 SPLIT CORES SUBMITTED ON 13-SEP-79

WERE ANALYSED AS FOLLOWS:

	UNITS	METHOD	DETECTION LIMIT
AU	OZ/TON	FA	0.010

DATE 27-SEP-79

X-RAY ASSAY LABORATORIES LIMITED

CERTIFIED BY ...J.H. Oppebeeck...

J. H. OPPEBEECK

SAMPLE	AU OZ/TON
C-168[illegible]	TRACE
C-1687	TRACE
C-1688	TRACE
C-1689	TRACE
C-1690	TRACE
C-1691	0.02
C-1692	NIL
C-1693	NIL
C-1694	NIL
C-1695	NIL
C-1696	NIL
C-1697	TRACE
C-1698	TRACE
C-1699	TRACE
C-1700	NIL
C-1701	NIL
C-1702	NIL
C-1703	NIL
C-1704	TRACE
C-1705	TRACE
C-1706	NIL
C-1707	NIL
C-1708	NIL
C-1709	NIL
C-1710	NIL

APPENDIX FIVE

PAN CONTINENTAL

BARRINGER MAGENTA LTD.

WO NO:79-719 ANALYSIS DATE: 30/10/79 MATRIX: HF

FILE:T-719

SAMPLE		AL2O3 %	FE2O3 %	CAO %	MGO %	TIO2 %	MNO2 %	NA2O %	K2O %	P2O5 %
C-1711	139.5-139.7	14.3	3.91	2.34	.797	.264	.0492	3.69	2.61	.03
C-1712	142.3-142.5	14.5	4.62	3.03	1.01	.326	.0535	4.11	1.10	.03
C-1713	152.4-152.5	13.5	5.15	2.64	.984	.286	.0662	3.49	1.93	.02
C-1714	153.5-153.6	14.4	4.45	2.41	.891	.297	.0576	3.75	2.43	.02

SAMPLE	BE PPM	CD PPM	CR PPM	CO PPM	CU PPM	PB PPM	NI PPM	AG PPM
C-1711	.6	<7	63.9	6	174	<5	29	<5
C-1712	.6	<7	70.8	8	199	<5	33	<5
C-1713	.6	<7	91.4	6	273	<5	40	<5
C-1714	.5	<7	78.9	5	220	<5	35	<5

SAMPLE	SR PPM	TH PPM	ZR PPM	V PPM	ZN PPM	MO PPM
C-1711	111	7	52	33.9	31	<30
C-1712	470	7	50	38.7	51	<30
C-1713	305	7	46	35.7	43	<30
C-1714	175	10	46	35.0	42	<30

BARRINGER MAGENTA LIMITED
CANADA M9W 5G2
PHONE 416-675-3870
TELEX 06-989183

Laboratory Report

DATE November 2, 1979.

Pancontinental Mining (Canada) Ltd.,
Suite 2801,
P.O. Box 123,
401 Bay Street,
TORONTO, Ontario.
M5H 2Y4

Attn: Neil Novak

REPORT NUMBER 79-719/G390

SAMPLE NUMBER ROCK	Au ppb									
C-1711	< 10									
C-1712	< 10									
C-1713	< 10									
C-1714	< 10									

APPENDIX SIX

Report on thin and polished thin section examination of samples from the Canoe Lake Batholith, N.W. Ontario.

for PanContinental Mining Ltd.,
Suite 2801, P.O. Box 123,
401 Bay Street,
Toronto, Ontario.

by Robert Valliant,
Dept. of Geology,
University of Western Ontario,
London, Ontario.
519 679 2111
Rm 163
October 17, 1979.

Introduction

A suite of 10 thin sections and 4 polished thin sections was examined in order to verify rock types and explain the occurrence of gold in some of these samples. These samples labelled C1716 to C1724 inclusive, were taken from diamond drill core (hole number 5) on the tycoon property, within the Canoe Lake batholith, N.W. Ontario. All of the sections examined are considered to be of an original granodiorite composition, the variations being due to alteration. Samples were grouped according to their degree and style of alteration and a description of each group is given with mention of variations among samples within the same group. Some thoughts concerning this style of gold mineralization are presented.

General features of alteration

Background alteration

The least altered rock of the sections examined is represented by a group of samples numbered 1723, 1724 and 1717. These rocks exhibit a potassic alteration which probably corresponds to a background alteration for this area of the Canoe Lake batholith. This is manifest by the development of relatively fresh biotite grains and "fresh" potassium feldspar rims surrounding potassium feldspar cores which exhibit incipient alteration to sericite.

This alteration was probably formed during initial cooling of the batholith soon after its intrusion into the volcanic pile.

Vein envelope alteration

Two general types of alteration can be distinguished on the basis of mineralogy which appear to be related to fractures or quartz-carbonate veins cutting the igneous rock. These alterations are termed vein-envelope alteration and are gradational with each other as well as with the background potassic alteration.

Phyllic alteration

Sericite (muscovite) is an accessory mineral in all sections examined; however, it becomes more pervasive as fractures and quartz veins are approached. Pyrite exhibits a similar relationship and is most prominent in the border zone of the quartz vein (sample 1722). The pyrite probably forms at the expense of primary amphibole and biotite.

Propylitic alteration

Chlorite, carbonate, epidote and minor sericite forms a pervassive mat textured groundmass completely destroying primary feldspar and mafic silicates. This alteration is located along borders of fractures and is well developed adjacent to the quartz vein in sample 1722.

Economic considerations

Assay values for samples 1718 and 1720 are 0.28 ounces gold per ton across 3.5' and for sample 1722, 0.10 ounce gold per ton. The assay values correlate well with samples which exhibit

fracture controlled alteration and which contain related disseminated pyrite mineralization.

Gold was not observed during thin section examination; however, the common association of Au and pyrite in other types of gold occurrences suggests that the gold in samples 1718 and 1720 may occur as submicroscopic grains within pyrite or along fractures in pyrite. Sample 1722 contains pyrite and a quartz vein which indicates that the gold may also occur as microscopic grains at quartz grain boundaries within the quartz vein.

The presence of gold within fractured and altered granodiorite suggests two modes of origin for the gold emplacement; (a) a late shear zone cutting volcanic and intrusive rock with associated hydrothermal solutions altering adjacent rock and depositing gold or (b) gold deposition occurring during emplacement of the batholith in fracture zones which allowed the circulation of hydrothermal fluids during the cooling of the intrusive.

If model (a) is correct then a linear fracture system would be expected and a correlation with the Mikado veins to the southwest of Bag Bay could be made. If model (b) is assumed correct a discontinuous more irregularly oriented and broad fracture system would be present associated with a border phase of the Canoe Lake batholith. This is analogous to porphyry copper mineralization in the Phillipines and parts of the western U.S. and Canada where gold mineralization is known to occur.

Published descriptions of Archean gold bearing granitic

batholiths are rare; however, many occurrences have been documented and briefly described in Ontario and Quebec government reports. In Quebec these include: the Sullivan mine, Dubuisson twp. (Bourlamaque batholith), the Mooshla deposit, Bousquet twp. (Mooshla intrusive), the Elder and Eldrich deposits in Beauchastel and Duprat twps. (Flavrian Granite), the Powell Rouyn, Rouyn twp. (Powell Granite) and numerous gold showings in the Chibougamau anorthosite complex and in the Amos area. In the Michipicoten area of Ontario gold-bearing veins, usually in "sheared" zones, occur adjacent to or in marginal phases of felsic intrusive stocks. It is also instructive to keep in mind the difference between Au associated with subvolcanic felsic porphyritic stocks as are present in the Camflo and East Malartic mines, Quebec and Au associated with deeper seated batholiths as is the case with the Canoe Lake occurrence.

The source of gold in the batholith may be either magmatic or as remobilized and concentrated gold from the rocks which the batholith intruded. The most acceptable model explaining the source and concentration of the gold is that as the pluton was emplaced it resulted in the convective circulation of fluids as a means of cooling. During fluid convection through the volcanic pile, gold was leached and transported. As these fluids reached the border of the pluton chemical changes, possibly the mixing of two separate fluid reservoirs caused the deposition of gold in fractures and other flow channels. Highly anomalous concentrations of gold in the pluton suggests that highly anomalous concentrations of gold occur within the

surrounding country rocks. This gold occurred pre-batholith emplacement and the possibility of "syngenetic" stratabound gold deposits within the volcanic succession surrounding the batholith should not be overlooked during exploration.

Sample Descriptions

THIN SECTIONS

Inspection of the 10 thin sections reveals that the samples can be broken down into three basic groups based on the degree and mineralogy of the alteration developed. It should be noted that any divisions are simply for convenience because the degree of alteration is gradational and spans the boundaries between the groups.

It would appear that the parent rock had the following modal proportions indicative of a granodiorite (Jackson, 1970).

Quartz	20-25%
Orthoclase	10-15%
Microcline	3-5%
Plagioclase (Oligoclase)	50-60%
Hornblende + Biotite	5-10%

The degree of alteration in the sections makes it impossible to recognize any primary variation in the parent rock, i.e. the parent may have been a polyphase intrusive. The following is a petrographic description of the alteration types observed in thin section.

GROUP I, SAMPLES 1717, 1723, 1724

This group of samples is reddish in colour, shows the least alteration and is characterized by a potassic alteration assemblage.

Plagioclase (Oligoclase) - occurs as well zoned, euhedral to subhedral crystals 0.5 to 2.0 mm in diameter exhibiting excellent polysynthetic and carlsbad twinning. In this group the plagioclase shows only weak development of alteration minerals (unlike the K-feldspars) typified by sericite formation in the core of the crystals, along grain boundaries and twin planes. Epidote is present but less important than sericite.

K-feldspar - the bulk of the K-feldspar is orthoclase but minor microcline is also present. It occurs as subhedral to anhedral crystals up to 0.7 mm in diameter, typically exhibiting corroded grain boundaries. The core of the K-deldspar grains show a high degree of sericite development with lesser amounts of epidote and sphene.

Quartz - occurs as aggregate masses up to 3 mm mode of anhedral grains up to 1 mm in diameter with sutured boundaries. Quartz also occurs interstitial to plagioclase and as smaller isolated grains. The quartz exhibits undolose extinction, evidence that the rock has undergone strain.

Hornblende - occurs as prismatic and pseudohexagonal crystals up to 1 mm in diameter. In this group the amphibole is partially altered to biotite and very minor chlorite. Characteristically where the hornblende is altered to biotite minor iron oxide (magnetite) is developed along grain boundaries and cleavage planes. The magnetite is sometimes altered to hematite producing a pink colour along fractures.

Biotite - occurs as a primary magmatic phase forming lamellar plates up to 1 mm in diameter and also as an alteration product pseudomorphing hornblende. Occasionally minor 0.05-0.10 mm grains of biotite develop as subhedral grains overprinting the sericitic alteration of the K-feldspar.

Summary - This alteration facies is typified by a red colour and the presence of recognizable grains of K-feldspar altered at their core and surrounded by fresh rims. The plagioclase is not altered to the same degree as the K-feldspar. The feldspar destructive alteration is dominated by the development of sericite and only minor epidote. Hornblende is also present but has been partially pseudomorphed by biotite. The absence of carbonate, late fractures and large pyrite grains is conspicuous.

GROUP II, SAMPLES 1716, 1718, 1719, 1721 & 1720

This alteration facies is more intense than Group I and is exemplified by a slight greenish tinge developed in the feldspars.

Feldspar - the feldspars occur as euhedral to subhedral, zoned crystals approximately 1 mm in diameter, forming an interlocking growth with the interstitial quartz. K-feldspars are totally obliterated while some relict plagioclase can still be seen. The alteration is characterized by the development of epidote (sometimes

as rosettes) with lesser sericite and minor carbonate. The alteration is pervasive in the crystal cores, along grain boundaries and twin planes. Frequently the grain boundaries are severely corroded.

Quartz - shows very little change from Group I rocks. It exhibits undolose extinction and forms as recrystallized aggregates up to 3 mm in diameter and also as interstitial grains to the feldspar phenocrysts. Occasionally the large quartz masses are highly fractured.

Amphibole - the amphiboles are completely pseudomorphed by chlorite + biotite forming subhedral laths and pseudohexagonal grains. Abundant magnetite and hematite is developed along the cleavage planes in the biotite and chlorite producing a ribbon texture. The occassional 0.03 mm crystal of sphene is developed within the mafic masses. Large pyrite grains up to 2 mm in diameter are present totally contained within the altered amphibole crystals.

Biotite - biotite is almost totally altered to 0.05-0.15 mm flakes of chlorite.

These samples are frequently cut by subparallel veinlets about 1 mm wide filled with carbonate, chlorite, epidote, sericite, quartz and pyrite. Crystal growth within these fractures is often oriented oblique to the vein walls, suggestive of growth in a preferred stress field. In the vicinity of the veins the feldspars are more intensely altered, the magnetite is destroyed and the Fe is partitioned into the vein as fine

bladed chlorite crystals along vein walls. In hand specimen samples 1718 and 1716 show a gradation from a reddish rock to a greenish rock (produced by a epidotization of feldspar). This change is fracture controlled.

Summary - This alteration facies is typified by the obliteration of all K-feldspar and the partial annihilation of plagioclase by the development of a dominantly epidote alteration assemblage. All primary amphibole has been destroyed by the formation of chlorite, magnetite and large pyrite crystals. The most characteristic feature is the late stage fracturing and the carbonate-chlorite dominated veining which appears directly responsible for the increased alteration grade. It would be noted that sample 1720 is more intensely altered than the other samples of this group and more exactly spans the gap between Group II and Group III. Sample 1720 is characterized by more intense epidote alteration of the feldspars as well as more frequent, larger (up to 5 mm wide) and quartz dominated veining.

GROUP III, SAMPLES 1722a, 1722b

This alteration facies is the most intense seen and is exemplified by a bright apple green colour.

Feldspars - unlike sample 1720 which is transitional to Group III, no relict feldspar crystals remain. All feldspar has been reduced to a fine grained groundmass of epidote rich alteration with lesser sericite, quartz and carbon-

ate. This intense development of epidote is responsible for the bright apple green colour of the hand specimen.

Quartz - these slides contain more quartz than the other alteration groups, presumably in response to the total breakdown of feldspar to epidote creating some free quartz. The large quartz aggregates show undolose extinction and are frequently cut by late stage quartz-carbonate veinlets.

Chlorite - no relict amphibole can be seen. Chlorite forms after biotite and occurs as small wisps in the groundmass. Fine grained magnetite occurs along cleavage planes and is locally so abundant as to obscure the silicate mineralogy. Large pyrite grains occur in and near the vestiges of mafic minerals and is more abundant than in the two previous alteration facies.

In sample 1722a a large (in excess of 20 mm wide) quartz vein was observed. It consisted of large quartz crystals (up to 5 mm) and pyrite grains (1-2 mm) with smaller lenses (parallel to vein walls) of epidote, sericite and chlorite with minor development of carbonate dusted by fine grained hematite. The wall rock away from the vein is that described above for Group III. There is no doubt that this intense alteration is fracture controlled.

Summary - This alteration facies is typified by the obliteration of all primary mineralogy except quartz and the development of an epidote dominated fine grained groundmass. The abundance of large pyrite grains reaches a maximum

in this alteration group as does the quartz content and size of the veins crosscutting the rock. The alteration is definitely fracture controlled.

POLISHED SECTIONS

Polished thin sections were cut from samples 1720, 1721, 1722a and 1722b because of the abundance of pyrite noted in the hand specimen. The opaque mineralogy of those samples is simple and identical from sample to sample. Only four opaque minerals were observed: pyrite, chalcopyrite, magnetite and pyrrhotite.

Pyrite - This is by far the most abundant opaque mineral in these four sections. It occurs as 0.5-2.0 mm euhedral to subhedral grains occassionally containing small (0.01 mm) blebs of exsolved chalcopyrite. By volume pyrite makes up 2% of samples 1722a and 1722b and about 1% of 1720 and 1721. Infrequently the pyrite grains are fractured but usually show no signs of deformation. The pyrite is concentrated within altered mafic minerals, along mafic mineral boundaries as well as within crosscutting quartz-carbonate veinlets. The amount of pyrite appears to be related to the degree of alteration and to the destruction of the mafic minerals which is presumably the source of much of the iron. The formation of pyrite is mostly later than or contemporaneous with the alteration of the mafic minerals but in at least one instance secondary chlorite overgrows pyrite. No gold bearing phases were noted associated with the pyrite or

anywhere within the rock. When, as in 1722a, a large quartz vein occurs within the rock, pyrite forms 1 mm euhedral grains disseminated throughout the quartz gangue occupying the grain boundaries between quartz crystals.

Magnetite - Magnetite forms less than 1% of the four sections observed. It is present as small blebs (less than 0.1 mm) and tabular crystals. The magnetite is concentrated along cleavage boundaries and along grain boundaries associated with the mafic minerals as well as within pyrite grains. Again magnetite formation is related to alteration of amphibole and biotite liberating free iron.

Pyrrhotite - only one subhedral crystal of pyrrhotite was observed within 1721. It consisted of a grain 0.3 mm in diameter located at the grain boundary between quartz and altered plagioclase.

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#87-179

SHOAL LAKE

M-2339

52E10SW8520 31 SHOAL LAKE

900

95°00'

49°37'30"

M.489

M.574

K.13564

Shoal

Lake

S.202

S.204

S.203

S.205

K.618

GLASS

D.238

489111

489112

489113

489114

J.E.S.73

J.E.S.74

489115

489116

489117

489118

D.219

Bay

489119

489120

D.149

D.220

D.221A

489121

489122

(HP 451)

(HR 450)

S.179

K. 33007

K. 33008

S.178

K. 33009

D.229

D.195

D.212

D.201

D.201A

Hall L.

D.216

S.185

D.217

Cedar Id.

K.1269

D. 215

D.265

D.228

K.2979

K.2978

D.200

D.148

D.233

D.389

D.214

K.2938

K.2458

K. 31935

K. 31936

S.74

K.2459

K. 3056

K.3055

S.97

D.202

D.147

D.239

S. 151

K.2758

MCA

43

K.2759

D.213

K.2462

K. 3058

K. 3057

D.199

S.150

D.204

K.2460

M.XI

K.33012

D.203

K.2461

S.94

K. 932

S.105

K. 32458

K. 32455

32454

K. 32450

S.129

S.109

K. 34692

K. 32456

K. 34691

K. 34690

K. 34689

Helldiver Bay.

S.126

K.1395

K.1317

D.218

K.1396

MCA21

S.120

MCA20

K.1627

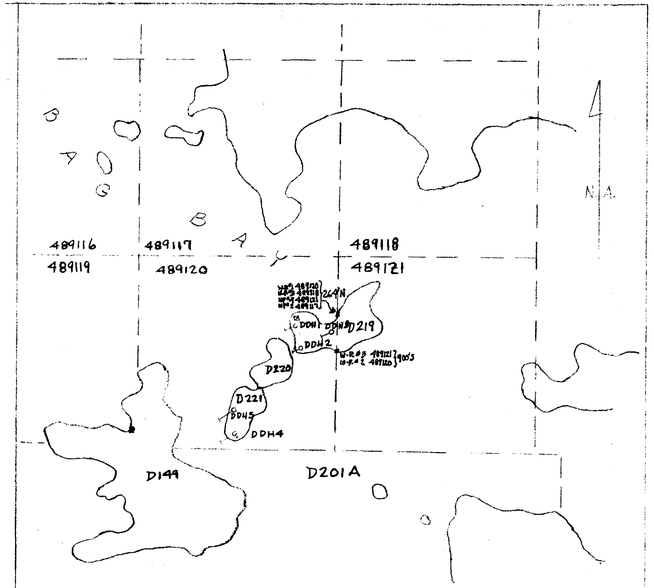
S.121

K.1628

EB.2202

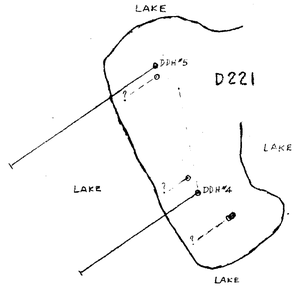
M-2704

L LAKE

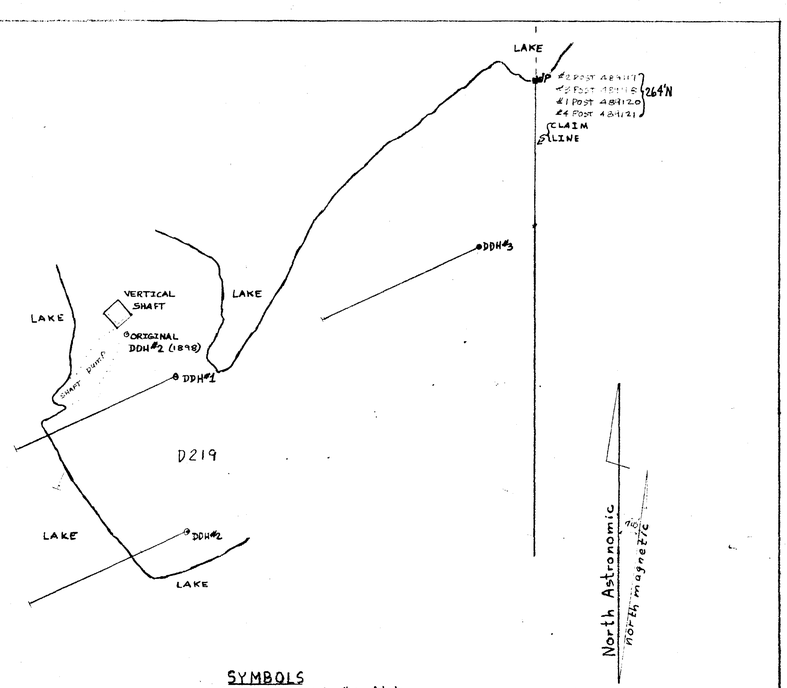


Mineral Claim Location Plan
Scale: 1 inch = 400 feet.
(refer Pancon Drawing No. P.C 11-10-79, Feb. 1979)

49°36'N
94°58'W



Hole No.	Location	Azimuth	Inclination	Length (ft)
DDH 1	D219	245°	-45°	204
DDH 2	D219	245°	-45°	201
DDH 3	D219	245°	-45°	202
DDH 4	D221	235°	-55°	204
DDH 5	D221	235°	-45°	204



annual change decreasing 4.5
refer N.T.S. 52-E/10

SYMBOLS
- ?--o casing and collar of hole drilled in 1899.
- 1---o DDH #1 diamond drill hole drilled June-July, 1979.
- ---- chain & compass traverse points.

D219, D221 designation of islands on Mineral Claim 489120 (see Ontario M.N.R. PLAN No. M2334)

Also see Pancon Drawing No. PC11-10-79

Pancontinental Mining (Canada) Limited
and
H.G. Tibbo Joint Venture

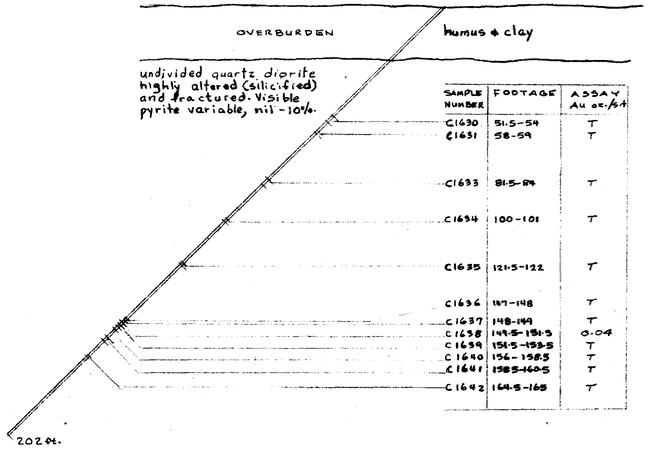
PLAN OF DIAMOND DRILL HOLE LOCATIONS

Mineral Claim No. 489120, Shoal Lake Area,
Glass Township, Kenora Mining Division, Ontario
June - July, 1979 H.G. Tibbo

SCALE
50 0 50 100 150 200
1 inch = 50 feet

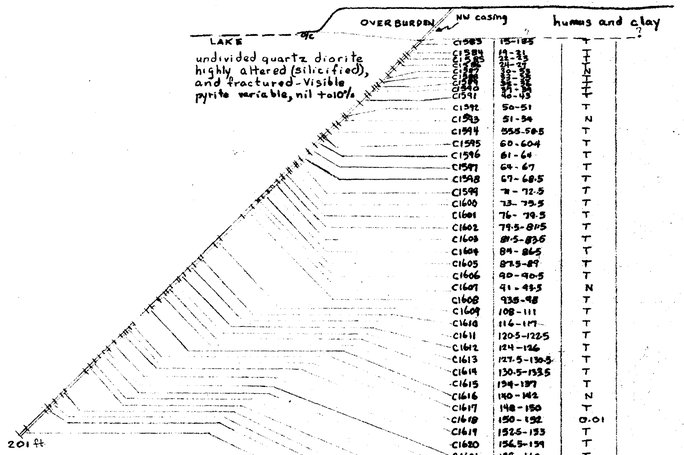
200

DDH #3



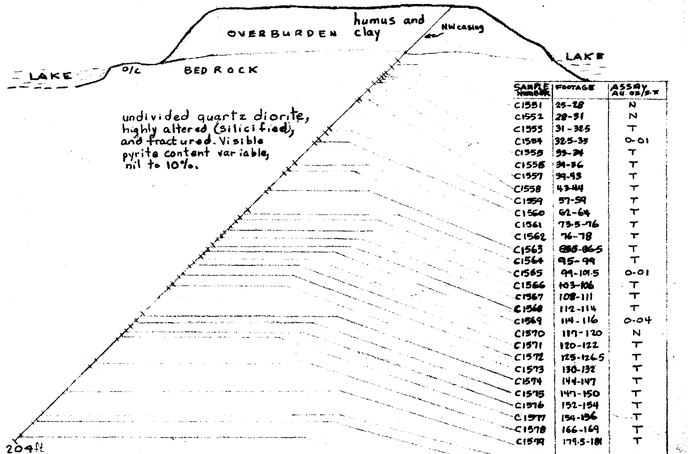
SAMPLE NUMBER	FOOTAGE	ASSAY Au oz./st
C1630	51.5-54	T
C1631	58-59	T
C1633	81.5-84	T
C1634	100-101	T
C1635	121.5-122	T
C1636	147-148	T
C1637	148-149	T
C1638	149.5-151.5	0.04
C1639	151.5-153.5	T
C1640	156-158.5	T
C1641	158.5-160.5	T
C1642	164.5-165	T

DDH #2



SAMPLE NUMBER	FOOTAGE	ASSAY oz/ST
C1583	15-18.5	T
C1584	23-31	T
C1585	31-37	T
C1586	37-43	T
C1587	43-50	T
C1588	50-55	T
C1589	55-60	T
C1590	60-65	T
C1591	65-69	T
C1592	50-51	T
C1593	51-54	N
C1594	555-585	T
C1595	60-604	T
C1596	61-64	T
C1597	64-67	T
C1598	67-68.5	T
C1599	71-72.5	T
C1600	73-75.5	T
C1601	76-79.5	T
C1602	79.5-81.5	T
C1603	81.5-83.5	T
C1604	84-86.5	T
C1605	87.5-89	T
C1606	90-90.5	T
C1607	91-93.5	N
C1608	938-98	T
C1609	108-111	T
C1610	116-117	T
C1611	120.5-122.5	T
C1612	124-126	T
C1613	127.5-130.5	T
C1614	130.5-133.5	T
C1615	134-137	T
C1616	140-142	N
C1617	148-150	T
C1618	150-152	0.01
C1619	152.5-153	T
C1620	156.5-159	T
C1621	159-162	T
C1622	162-164	T
C1623	166-168	T
C1624	168-170.5	T
C1625	180.5-182	0.03
C1626	185-187.5	T
C1627	188-190.5	T
C1628	198.5-201	T

DDH #1

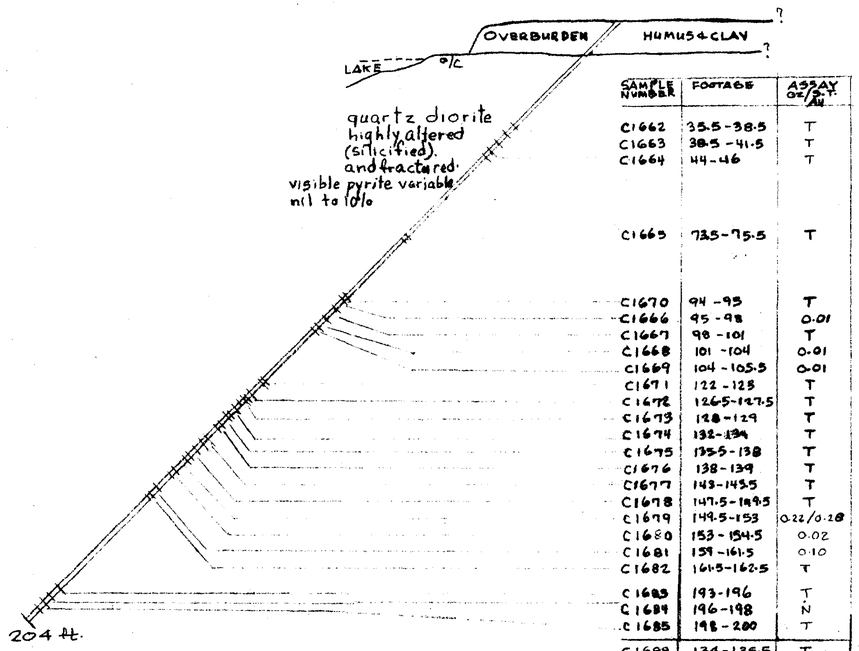


SAMPLE NUMBER	FOOTAGE	ASSAY Au oz/S.T
C1551	25-28	N
C1552	28-31	N
C1553	31-325	T
C1554	325-39	0.01
C1555	39-34	T
C1556	34-36	T
C1557	36-43	T
C1558	43-44	T
C1559	57-59	T
C1560	62-64	T
C1561	73.5-76	T
C1562	76-78	T
C1563	885-86.5	T
C1564	95-99	T
C1565	99-101.5	0.01
C1566	103-106	T
C1567	108-111	T
C1568	112-114	T
C1569	114-116	0.04
C1570	117-120	N
C1571	120-122	T
C1572	125-126.5	T
C1573	130-132	T
C1574	144-147	T
C1575	147-150	T
C1576	152-154	T
C1577	154-156	T
C1578	166-169	T
C1579	179.5-181	T
C1580	191-194	T
C1581	194-196	T
C1582	201-204	T

Pancontinental Mining (Canada) Limited
H.G. Tibbo Joint Venture
CROSS-SECTIONS OF DIAMOND DRILL HOLES ONE, TWO AND THREE
Island D219, Mineral Claim 489120, Shoal Lake,
Glass Township, Kenora Mining Division, Ontario.
June-July, 1979 H.G. Tibbo

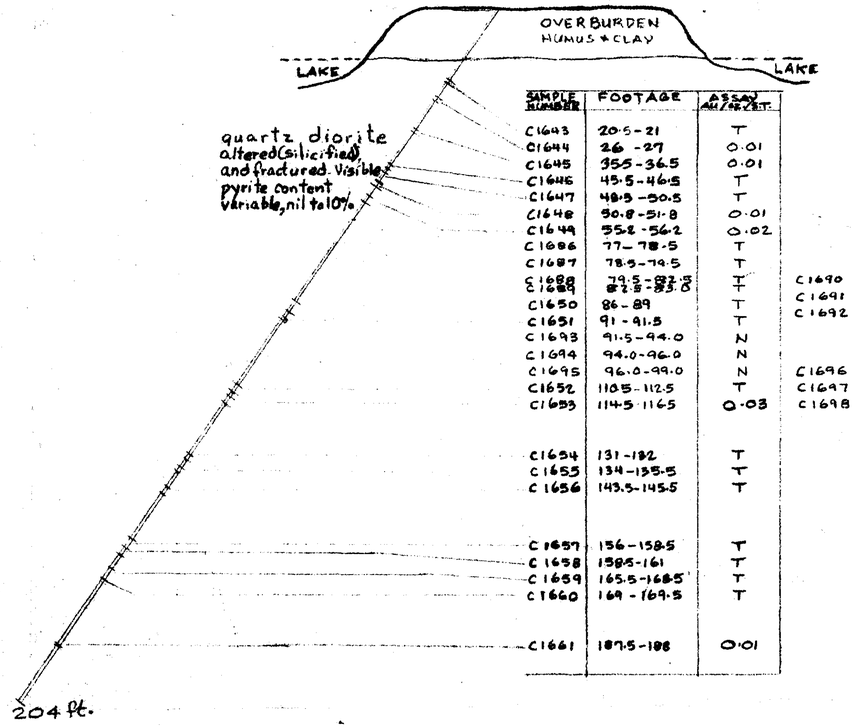
SCALE
20 0 20 40 60 80
1 inch = 20 feet

DDH #5



SAMPLE NUMBER	FOOTAGE	ASSAY OZ/S.T. AU
C1662	35.5-38.5	T
C1663	38.5-41.5	T
C1664	44-46	T
C1665	73.5-75.5	T
C1670	94-95	T
C1666	95-98	0.01
C1667	98-101	T
C1668	101-104	0.01
C1669	104-105.5	0.01
C1671	122-125	T
C1672	126.5-127.5	T
C1673	128-129	T
C1674	132-134	T
C1675	135.5-138	T
C1676	138-139	T
C1677	143-145.5	T
C1678	147.5-149.5	T
C1679	149.5-153	0.22/0.28
C1680	153-154.5	0.02
C1681	159-161.5	0.10
C1682	161.5-162.5	T
C1683	193-196	T
C1684	196-198	N
C1685	198-200	T
C1699	134-135.5	T
C1700	139-141	N
C1701	141-143	N
C1702	143.5-145	N
C1703	145-147.5	N
C1704	154.5-156	T
C1705	156-158	T
C1706	158-159	N
C1707	162.5-165	N
C1708	165-165.5	N
C1709	165.5-166.5	N
C1710	166.5-168	N

DDH #4



SAMPLE NUMBER	FOOTAGE	ASSAY AU/OZ/S.T.
C1643	20.5-21	T
C1644	26-27	0.01
C1645	35.5-36.5	0.01
C1646	45.5-46.5	T
C1647	48.5-50.5	T
C1648	50.8-51.8	0.01
C1649	55.2-56.2	0.02
C1686	77-78.5	T
C1687	78.5-79.5	T
C1688	79.5-82.5	T
C1689	82.5-83.5	T
C1650	86-89	T
C1651	91-91.5	T
C1693	91.5-94.0	N
C1694	94.0-96.0	N
C1695	96.0-99.0	N
C1652	110.5-112.5	T
C1653	114.5-116.5	0.03
C1654	131-132	T
C1655	134-135.5	T
C1656	143.5-145.5	T
C1657	156-158.5	T
C1658	158.5-161	T
C1659	165.5-168.5	T
C1660	169-169.5	T
C1661	187.5-188	0.01
C1690	83-84.5	T
C1691	84.5-86	0.02
C1692	89-91.0	NIL
C1696	99-99.5	NIL
C1697	99.5-100.5	T
C1698	103-104	T

Pancontinental Mining (Canada) Limited
H.G. Tibbo Joint Venture
CROSS-SECTION OF DIAMOND DRILL HOLES
FOUR AND FIVE
Island D221, Mineral Claim 489120, Shoal Lake,
Glass Township, Kenora Mining Division, Ontario.
June-July, 1979 H.G. Tibbo

SCALE

20 0 20 40 60 80

1 inch = 20 feet