

J. C. HONSBERGER

CONSULTING MINING ENGINEER

P.ENG. ONTARIO AND QUEBEC

63.3378

OFFICE
SUITE 221
12 RICHMOND ST. E.
TORONTO, ONTARIO M5C 1
416-363-0509



41P15NE8260 63.3378 POWELL

ALL CORRESPONDENCE TO
DOWACRES DRIVE
T. ONTARIO M1T 1A9
416-491-1431

010

SUMMARY TO REPORT ON CLAIMS OF THE YANDEL ASSOCIATES
GRUBSTAKE, POWELL TOWNSHIP, MATACHEWAN GOLD MINING
AREA, ONTARIO

On June 1, 1975, 19 leased claims held by Culver Gold Mines Ltd. were thrown open for staking. Prospector Eric Toms and helpers staked ten of the best claims, totalling perhaps 500 acres in competition with stakers reportedly employed by Texas Gulf Sulphur, Geophysical Engineering (Teck Corporation Ltd.), and Canico (International Nickel Company of Canada Limited) for the Yandel Associates Grubstake.

The former Culver claims lie in the southeast part of Powell Township, Matachewan Gold Mining Area of Ontario and adjoin on the north two former gold producers, i.e. Young-Davidson Mines Ltd. (Hollinger controlled) and Matachewan Consolidated which combined produced nearly one million ounces of gold. The claims are readily accessible by highway and are 40 miles west-southwest of Kirkland Lake and 40 miles southeast of Timmins.

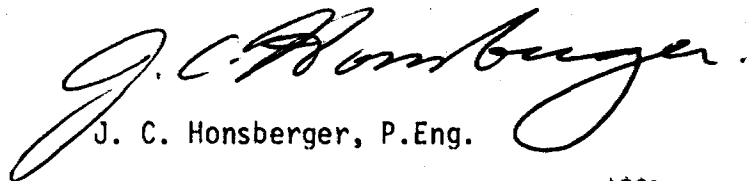
Over 10,000 feet of diamond drilling has been done on the former Culver Gold Mines property by former operators and a large part of this drilling was done on the claims now held by Yandel Associates Grubstake, resulting in long gold-bearing zones being outlined in several locations on the Yandel claims, i.e. L-449397 and L-449386, L449383, which may have some economic interest.

Just north of the Yandel claims are leased claims owned by a former producer of copper, gold and molybdenum, i.e. Ryan Lake Mines Ltd.

(ii)

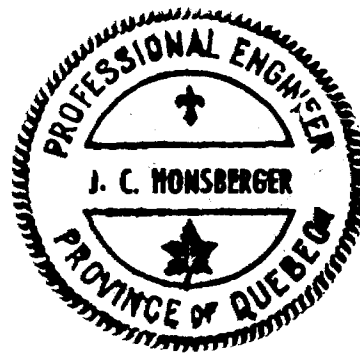
In April 1975, the Ontario Division of Mines released a series of maps relating to an airborne survey by Questor Survey Limited, scale of 1" = ¼ mile. Map 1022, Powell Township, shows a strong six-channel E.M. input electromagnetic anomaly which appears to lie on the present Yandel claim L-449398 near the northwest corner in close proximity on the north on claims staked by Teck Corporation. This anomaly is quite probably caused by heavy or massive sulphides and is a prime exploration target of possible economic importance.

The writer has recommended covering the Yandel East block with a grid or grids of lines and doing a ground magnetic and electromagnetic survey. The claims should be geologically mapped and at least one or two 500' drill holes put down to intersect the anomaly. The total cost of this work is estimated to cost \$21,795.00.


J. C. Honsberger, P.Eng.

15 Meadowacres Drive
Agincourt, Ontario
M1T 1A9

June 12, 1975



J. C. HONSBERGER, P.ENG.

J. C. HONSBERGER

CONSULTING MINING ENGINEER

OFFICE
SUITE 221
12 RICHMOND ST. E.
TORONTO, ONTARIO M5C
416-363-0509



41P15NE8260 63.3378 POWELL

ALL CORRESPONDENCE TO
ADOWACRES DRIVE
RT. ONTARIO MIT 1A9
416-491-1431

020

REPORT ON THE YANDEL ASSOCIATES GRUBSTAKE CLAIMS,
S.E. POWELL TOWNSHIP, MATACHEWAN GOLD MINING AREA,
NORTHERN ONTARIO

FOREWORD

The property was staked on June 1st and June 2nd by and under the direction of Prospector Eric Toms of Orillia, Ontario. The claims are ten in number, comprising more than 500 acres, and are numbered L-449382, L-449383, L-449384, L-449385, L-449386, L-449387 and L-449397, L-449398, L-449399, and L-449400. The claims cover former patented claims held by Culver Gold Mines Limited which expired on December 31, 1974, and came open for staking at 7:00 a.m. standard time, June 1st, 1975. Toms and his men had scouted the claims on May 30th and 31st and because of this were able, despite the presence of numerous stakers on June 1st, to acquire the best portion of the area of the former Culver Gold Mines Ltd. group and in the opinion of the writer that part having the best economic potential.

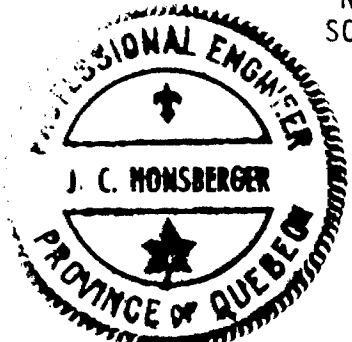
LOCATION AND ACCESS

The claims are 1½ miles northwest of the Village of Matachewan, Ontario, in the southeast part and on the east boundary of Powell Township, District of Timiskaming, Larder Lake Mining Division, Northern Ontario. The area lies 40 miles west-southwest of Kirkland Lake and is accessible by paved highway No. 66 to Matachewan. An all weather road Highway 566 traverses the west portion of the Yan-del Associates Grubstake claims which traverses the area to the north and northwest to Midlothian Township to the Allied Mining development and to the City



YANDEL ASSOCIATES GRUBSTAKE CLAIMS

LOCATION PLAN
 YANDEL ASSOCIATES GRUBSTAKE CLAIMS
 POWELL TOWNSHIP
 MATACHEWAN GOLD AREA
 NORTHERN ONTARIO
 SCALE 1" = 26 MILES



JUNE 12, 1975

J. C. Honsberger, P. Eng.

of Timmins which is about 40 air miles northwest of the subject claims.

CULVER GOLD MINES LIMITED

This property comprised 19 leased claims shown as No. 3 on O.D.M. Map No. 2110 consisting of M.R. 6552, MR. 6553, M.R. 6004, M.R. 6002, M.R. 5998, M.R. 6003, M.R. 6000, M.R. 5997, M.R. 6170, M.R. 6169, M.R. 6199, M.R. 6001, M.R. 5999, M.R. 5996, M.R. 5421, M.R. 5513, M.R. 5514, M.R. 5651 and M.R. 5389. On June 1st, 1975, these claims came open for staking and the Yandel Associates Grubstake stakers acquired by staking the following: M.R. 5997, M.R. 6000, M.R. 6003, the south tip of M.R. 6004, south tip of M.R. 6002, south tip of M.R. 5998. This is the East Block which adjoins the West Block adjoining on the southwest comprising M.R. 6553, M.R. 6552, M.R. 6170, M.R. 6169, M.R. 6199, and M.R. 5421. The East Block is now covered by Yandel claims Nos. L-449397, L-449398, L-449382, L-449385. This East Block is now adjoined on the north by 4 claims staked on June 1st by Geophysical Engineering (Teck Corporation Limited) and on the north by 2 claims staked on June 1st for Texas Gulf Sulphur.

On the south adjoining the Yandel East Block are 7 claims staked on June 1st for the Canico (I.N.C.O.).

The Yandel West Block was covered by 6 claims numbered L-449400, L-449399, L-449383, L-449385, L-449386 and L-449387. The Yandel West claim block is adjoined on the south by a former gold producer, i.e. Young-Davidson Mines Ltd. (Hollinger G.M. Ltd. control). The former open pit mine is 1600 feet south of the Yandel West Group south boundary. The No. 1 shaft of former gold producer Matachewan Consolidated Mines Ltd. lies 2600 feet southeast of Yandel West Block.

ADJOINING AND NEARBY FORMER GOLD PRODUCERS

The following synopsis data concerning three former producers were obtained from the Ontario Department of Natural Resources, Mineral Deposits Branch, Suite 2215, Whitney Block, Queens Park, Toronto, Ontario, Open File Reports by

J. B. Gordon, Geologist.

RYAN LAKE PAST PRODUCER (7)

"Main Metals: Cu, Au, Ag, Mo

Location: 3 miles northwest of Matachewan, Powell Township, east central part, 10 patented claims, shaft claim MR12548. Lat. 47° 58' 20" and Long. 80° 41' 48". Map reference: ODM 2110, NTS 42A/2, 42A/3.

Geology: The property straddles the contact between tightly folded sedimentary rocks and volcanic rocks to the north. A serpentinized peridotite intrusion exists along the contact and several syenite cupolas intrude the sedimentary, volcanic and ultramafic rock. The mineralization is found in parallel shear zones cut by quartz veins carrying chalcopyrite, molybdenite and pyrite. A large north-trending Matachewan diabase dike cuts the whole assemblage.

Underground work has defined two orebodies; Main Ore Zone is in sheared peridotite and syenite porphyry and North Ore Zone is in sheared andesite. A body of syenite porphyry, 1,700 feet northwest of the shaft contains low grade ore.

Economic Features: No gold assays are on record in files acquired by the Resident Geologist, Kirkland Lake.

Ownership: Geo-Pax Mines Ltd.

History: 1947: Claims staked and drilling (number of holes and footage unknown) by Ryan Lake Mines Ltd.

1948: Magnetometer and self-potential surveys and 50 drill holes by Teck Exploration Co. Ltd.

1950-1957: Trenching, test pitting and open pit mining done. 2-compartment vertical shaft with 92-, 192-, 317- and 442-foot levels with 8,563 feet of drifting and crosscutting, 21,378 feet of underground drilling and 16,140 feet of surface drilling. 75 tons per day mill installed and concentrates shipped to Noranda. Work done by New Ryan Lake Mines Ltd., name changed to Min-Ore Mines Ltd. in 1955.

1958-1959: 167 feet of drifting, 6,790 feet of underground drilling and 850 feet of surface drilling and mill tests run by International Renwick Ltd.

1962: Ore mined by open pit for mill tests by Pax International Mines Ltd.

1964-1966: 650 feet of drifting and crosscutting, underground and surface drilling and 150-ton per day mill installed. Tailings treated in roasting and leaching plant.

1966-1967: Geological, geochemical, geophysical and 15 drill holes (8,929 feet) by Cominco Ltd.

Production:

Years	Gold Ounces	Silver Ounces	Copper Pounds	Molybdenum Pounds	Ore Milled Tons
1948-1957	1,352	36,141	4,995,745	11,393	184,790
1962-1964					

References: ODM 1967, GR51, p. 37-38
ODM 1969, MRC 12, p. 369
Resident Geologist files, Kirkland Lake"

MATACHEWAN CONSOLIDATED PAST PRODUCER (5)

"Main Metals: Au, Ag

Location: 1½ miles northwest of Matachewan, 16 patented claims southeast part Powell Township and 6 patented claims in adjacent southwest part Cairo Township, 3 shafts were sunk on claim MR5380, No. 3 shaft is the main shaft. Lat. 47° 56' 48", Long. 80° 40' 36". Map reference: ODM 2110, NTS 42A/2, 42A/3.

Geology: Contact between a belt of tightly folded Timiskaming-type arkose and greywacke and Keewatin-type andesite, basalt, tuff and agglomerate. The sedimentary and volcanic rocks have been intruded by dikes and lenses of red syenite porphyry. The rocks are cut by north-trending Matachewan diabase dikes. 2,000 feet south of No. 3 shaft all the above-mentioned formations are overlain by Cobalt sedimentary rocks.

Economic Features: The orebodies are of two types:

(1) Those within volcanic rocks are irregular with limited vertical extent. They consist of a series of gently dipping quartz stringers and adjacent lavas and (or) tuffs that are fractured, bleached and mineralized with pyrite and gold. These average about 0.16 oz. Au/ton and were the main source of ore for the first 5 years of production.

(2) Orebodies within the porphyry mass. Most of the porphyry is fractured to some extent and the cracks filled with quartz and pyrite containing some gold. In some zones this fracturing is more intense and the gold content high enough to make ore (Derry, Hopper and McGowan 1948; in Structural Geology of Canadian ore deposits; Canadian Inst. Min. Met., Vol. 1, p. 638-640).

Ownership: Matachewan Consolidated Mines Ltd.

History: 1917: Gold discovered by Sam Otisse.

1918: Otisse claim under option to Colorado and Ontario Development Co. Ltd.

- 1918-1919: Property acquired by Matachewan Gold Mines Ltd. who sank 2 shafts. No. 1, 2-compartment vertical shaft to 170 feet with 800 feet of drifting and crosscutting on the 160-foot level. No. 2, 1-compartment 70° inclined shaft to 33 feet.
- 1923-1924: Matachewan Gold Mines Ltd. and Matachewan Rand Gold Mines Ltd. merged to form Matachewan Canadian Gold Mines Ltd. The 2 properties, along with Clemens-Robb claims, were consolidated to form the present holdings. 5,455 feet of drilling was done by Porcupine Goldfields Development and Finance Co. Ltd.
- 1933: Matachewan Consolidated Mines Ltd. controlled by Ventures Ltd., Sudbury Basin Mines Ltd. and the former owners, Matachewan Canadian Gold Mines Ltd., began development.
- 1934-1954: 1934 100-ton per day mill erected, raised to 500 ton per day in 1937, and doubled to 1,000 ton per day in 1942. The mine operated continuously from 1934 to 1952 when mine was placed on salvage basis. No. 3, 3-compartment vertical shaft sunk to 2,432 feet with 60,663 feet of drifting, crosscutting and raising.
- 1969-1970: Additional claims staked and drilling (number of holes and footage unknown) by Matachewan Consolidated Mines Ltd.

<u>Production:</u>	Years	Gold Ounces	Silver Ounces	Ore Milled Tons
	1934-1954	370,427	133,710	3,525,200

References: ODM 1935, Vol. XLIV, pt. 2, p. 1-2, 36-42.
ODM 1967, GR51, p. 32-36.
Resident Geologist files, Kirkland Lake.
Structural Geology of Canadian Ore Deposits, Canadian Inst. Min. Met., Vol. 1, p. 638-640."

YOUNG DAVIDSON PAST PRODUCER (12)

"Main Metals: Au, Ag

Location: 2 miles northwest of Matachewan, Powell Township, central southeast part, 16 patented claims, open pit occupies parts of claims MR5372 and MR5374 and No. 1 shaft on claim MR5372. Lat. 47° 56' 52", Long. 80° 41' 30". Map reference: ODM 2110, NTS 42A/2, 42A/3.

Geology: Syenite porphyry intruded along southern contact of the southern belt of Timiskaming-type sedimentary rocks and Keewatin volcanic rocks. About 300 feet south Cobalt sedimentary rocks overlie the other formations.

The main orebody is a tapering cone extending down the syenite porphyry pipe from the open pit. Smaller lenses of syenite occur

east of the open pit in the lower levels. Two phases of syenite porphyry are present and in places a sharp contact exists between the two phases. Brick-red syenite contains the gold ore and is intrusive into the brown syenite.

Economic Features: Brick-red syenite contains 2% disseminated pyrite, and 20 to 50% of the gold is associated with the pyrite as fine included grains and fracture fillings in the pyrite. Ore average 0.11 oz. Au/ton (North and Allen 1948; in Structural Geology of Canadian ore deposits; Canadian Inst. Min. Met., Vol. 1, p. 6351).

Ownership: Young-Davidson Mines Ltd.

History: 1916: Discovery of gold on Davidson Creek by Jake Davidson.

1923-1925: 6,659 feet of drilling, shaft to 200 feet with 100- and 200-foot levels with 1,747 feet of drifting and cross-cutting by Porcupine Goldfields Development and Finance Co. Ltd.

1926: Young-Davidson Mines Ltd. was incorporated.

1933-1956: 600-ton per day mill erected in 1933 and operations began on open pit in 1934. On completion of mining open pit from surface to 865-foot level, No. 1 shaft sunk to 1,075 feet, No. 2 winze from 463-foot level to 1,530-foot level and 7 levels established with 26,202 feet of drifting, crosscutting and raising. The mine was operated by Hollinger Consolidated Gold Mines Ltd. in an option agreement with Young-Davidson Mines Ltd.

1964: 1 drill hole (607 feet) by Young-Davidson Mines Ltd.

<u>Production:</u>	Years	Gold Ounces	Silver Ounces	Ore Milled Tons
	1934-1957	585,690	131,939	6,128,272

References: ODM 1935, Vol. XLIV, pt. 2, p. 1-2, 31-36.
ODM 1967, GR51, p. 39-43.
Resident Geologist files, Kirkland Lake.
Structural Geology of Canadian ore deposits, Canadian Inst. Min. Met., Vol. 1, p. 635."

The same source has the following information for Culver Gold Mines Limited (3), now held by Yandel Associates Grubstake, Geophysical Engineering Corporation Ltd., Texas Gulf Sulphur, and Canico (the International Nickel Co. of Canada Limited):

CULVER GOLD MINES LTD. (nee O'Connell G.M. Ltd., nee Bloom Lake Consolidated G.M. now part of Yandel Associates claims)

- "Location: 1½ miles northwest of Matachewan, Powell Township, southeastern part lat. 47° 57' 12", long. 80° 39' 45".
Map reference: ODM 2110, NTS 42A/2, 42A/3.
- Geology: Temiskaming sediments, rocks intruded by syenite and syenite porphyry. Gold associated with shear zone about 1½ miles long, quartz veins min. with cp.
- Economic Features: Assays from pits and trenches in red syenite por. trace to 0.16 oz. Au ton. Anon. date uncertain (Resident Geol. Files, Kirkland Lake).
- History: 1914: Surface work by John Hollinger
1933-1934: Trenching, 5000 ft. of d.d., shaft to 120 ft. by O'Connell G.M. Ltd.
1936: O'Connell G.M. Ltd.
1938: Shaft deepened to 150 ft. and some drilling by Bloom Lake Cons. G.M. Ltd.
1945-1946: Surface work and 6,000 ft. of d.d. by Culver G.M. Ltd.
- References: O.D.M. 1935, Vol. XLIV, pt. 2, p. 43
O.D.M. GR51, p. 36-37
Resident Geologist Files, Kirkland Lake, Ontario

Plaunt-Cummings (now Yandel Associates claims) occurrence, 1½ mile northwest of Matachewan, central southeastern part, 3 leased claims, MR6169, MR6170, MR6553. Lat. 47° 57' 15", Long. 80° 41' 10". Resident Geologist Files, Kirkland Lake. Veins in contact with syenite porphyry and Tim.-type arkoses. The veins are silicified and min. with pyrite, minor pyrrhotite and cp. Veins assayed 0.13 to 0.25 oz. Au/ton. Resident Geologist File, Kirkland Lake.
1936 Geological & Magnetic Surveys by Geophysics Ex. Ltd."

NOTES ON THE GEOLOGY OF THE AREA

The Matachewan area was prospected for gold as early as 1909. The height of prospecting activity was in the 1930's, when several pits and shafts were sunk. From 1934 to 1957 the two mines of the Matachewan camp (Matachewan Consolidated Mines Ltd. and Young-Davidson Mines Ltd.) produced 956,117 ounces of gold and 165,598 ounces of silver with a total value of \$34,688,256. Old properties were re-examined after the Second World War, but since the closing of Young-Davidson Mines Limited in 1957 little work has been done.

The Ryan Lake Mine has been operated by several companies. Total production from 1948 to the end of 1964 was: 1,352 ounces of gold, 36,141 ounces of silver, and 4,995,745 pounds of copper.

The report-area forms a small part of a large belt of "greenstones" extending from southwest of Timmins, Ontario, to Chibougamau, Quebec. The general geology of part of the belt in Ontario is shown on the compilation map, Timmins-Kirkland Lake sheet (Map 2046) of the Ontario Department of Mines.

Rocks of every major division of the Precambrian stratigraphic column for northeastern Ontario are present in the map-area, which is 144 square miles in extent. The oldest rocks in the area are volcanic, and they are overlain by tightly folded sedimentary rocks. Both are cut by mafic and silicic intrusions. The intrusive rocks, in turn, are cut by early diabase dikes. Flat-lying sedimentary rocks overlie all of the above rocks, and are intruded by a few late diabase dikes.

Table of Formations

Cenozoic

Recent: Swamp and stream deposits.
Pleistocene: Sand, gravel, clay.

Unconformity

PRECAMBRIAN

Proterozoic

Mafic Intrusive Rocks (Nipissing):
Diabase.

Intrusive Contact

Huronian:

Cobalt Group (Gowganda Formation):
Argillaceous and arkosic quartzite, conglomerate,
argillite, arkose.

Unconformity

Archean

Mafic Intrusive Rocks (Matachewan):
Diabase, undifferentiated.

Intrusive Contact

Silicic Intrusive Rocks (Algomian):

Granite; granodiorite and granitic gneiss; syenite porphyry and coarsegrained syenite, syenite, mafic syenite, lamprophyre, quartz diorite and diorite.

Intrusive Contact

Ultramafic and Mafic Intrusive Rocks (Haileyburian):
Serpentinite, diorite.

Intrusive Contact

Sedimentary Rocks (Timiskaming):

Conglomerate; greywacke and interbedded argillite and quartzite; arkose.

Unconformity

Volcanic Rocks (Keewatin):

Basalt and andesite; bleached, silicified, sericitized volcanic rocks; andesite porphyry, tuff (banded, and massive types); agglomerate; rhyolite and dacite; carbonatized and amygdaloidal volcanic rocks; amphibolite.

NOTES ON THE GEOLOGY OF THE YANDEL ASSOCIATES CLAIMS

The West Block is underlain mainly by sedimentary rocks consisting of conglomerate, greywacke and quartzite with the bedding dipping steeply to the south. A syenite intrusive body underlies the north part of L-449387 and L-449384. At least two north-south Matachewan diabase dykes cut through this claim block.

The East Block is underlain by the same sedimentary series. Map 2110 by O.D.M.N.A. shows that a contact between greenstones and sediments traverses the north part of the claims for a length of three-quarters of a mile.

A syenite boss extends east through the west part of claim L-449385 for over one-quarter of a mile. At least four north-south diabase dykes (Matachewan) intrude all formations on the East Block group.

SHOWINGS

At least 10,000 feet of diamond drilling was reported on the former

property of Culver Gold Mines Ltd. by this company and predecessor companies. How much of this drilling was done on the present claims of the Yandel Associates Grubstake is only known very approximately.

The following is a Progress Report on Culver Gold Mines Ltd. dated November 13, 1945, by G.R. McLaren, M.E.:

"The work done to date this year has consisted of prospecting, trenching, test pitting and diamond drilling.

The claims have been prospected and a very large area of porphyry and conglomerate has been outlined. These show some gold values and in places at the contacts, commercial values have been obtained over narrow widths.

On claim 13094 close to the south boundary, a quartz vein 12 feet wide showing very heavy pyrite, chalcopyrite, zinc blends and galena has been traced over 1,000 feet in length but the gold values are low. On claim 6170, on what we believe to be the extension of the Morrison break, an old pit was deepened which showed values of 0.18 ounces across 3 feet and 0.2 ounces across 3 feet.

Diamond drilling was carried out during the summer on the Morrison break and 10 holes in all have been drilled to date. Gold values were obtained in all these holes running from 35¢ to \$19.00. The values obtained in these holes are as follows:-

Hole 40-A	-	.56 oz.	across 2 feet	
		0.09 oz.	across a width of 1 foot	
		0.08 oz.	" " " " 2 feet	
		0.11 oz.	" " " " 3 feet	
41-A	-	0.12 oz.	" " " " 18 inches	
		0.19 oz.	" " " " 3 feet	
42-A	-	0.06 oz.	" " " " 1 ft. 2 in.	
		0.06 oz.	" " " " 1 foot	
		0.16 oz.	" " " " 1 ft. 7 in.	
43-A	-	0.09 oz.	" " " " 3 feet	
		0.18 oz.	" " " " 3 ft. 1 in.	
		0.09 oz.	" " " " 1 ft. 3 in.	
44-A	-	0.26 oz.	" " " " 7 inches	
45-A	-	0.08 oz.	" " " " 5 inches	
		0.05 oz.	" " " " 10 inches	
46-A	-	0.04 oz.	" " " " 2 ft. 2 in.	
47-A	-	0.28 oz.	" " " " 1 foot	
		0.10 oz.	" " " " 1 foot	
48-A	-	3 assays	of .01	
49-A	-	1 assay	of .05 and one of 0.12	

J. C. HONSBERGER, P.ENG.

As can be seen we have not to date hit a blank hole except 48-A. All the rest show values from \$1.75 to \$19.00 across narrow widths. These assays were scattered so that at the present moment it is impossible to correlate them to show one definite ore zone. Consequently further drilling will be necessary before any move is made toward shaft sinking preparatory to mining.

The future drilling will be some distance from water and could be done much more economically in summer than in winter. It can be done in winter but due to the extreme cold weather and hardship of winter drilling, and in the interests of economy I would suggest that drilling be discontinued until spring unless it is the desire of the Board of Directors to continue under the above conditions.

Both the sediments and the porphyries are very heavily mineralized with pyrite and at the contacts with chalcopyrite, galena and zinc blends as well. The Morrison break in the sediments has been trenched for a distance of almost one mile and wherever trenched, has shown interesting gold values. Our diamond drilling to date has shown only one blank hole and the results of previous drilling on the Morrison vein were equally good, one hole showing values up to \$49.00.

I believe, therefore, the property has very interesting mine making possibilities and would recommend further drilling to prove up these possibilities."

The following is a letter to Bloom Lake Consolidated Mines Ltd. dated November 26th, 1937, by J. W. Morrison, B.Sc., M.E. (This work was done on the present Yandel East Block Claim: L-449382.):

"The work during the past summer, which consisted largely of Diamond Drilling, was carried on near the north end of Otisse Lake on Claims Nos. 9885 and 9891.

This section is quite heavily overburdened but an outcrop of what appeared to be a vein was located some time ago and was never prospected. It was with the object of learning something about this vein that prompted the work in this section.

The rock formation here is very interesting. A contact between the Greenstones on the north and the sedimentary formation to the south occurs along the north boundary of Claims Nos. 9885 and 9891, with a general east-west strike. Several outcrops of Quartz Porphyry make their appearance along this contact zone. Whether they are separate intrusions or belong to one large mass could not be determined, but I believe the latter is most probable. Small dikes of Lamprophyre were also noticed.

The diamond drilling was done about 700 feet south of this contact zone in the sedimentary formation, along a vein, or a mineralized section that has a strike of North 38 degs. East, and is consequently drawing nearer the contact on its northerly trend.

There were 11 holes drilled, Nos. 25 to 35 inclusive, a total of 3870 feet.

No. 26 is the farthest north east while No. 33 is the farthest south west. They were spaced 50 feet apart, with the exception of No. 34 which was placed between No. 27 and No. 29. No. 28 and No. 30 were deeper sections of Nos. 29 and 27 respectively.

Holes 25, 28, 29, 30, 31 and 34 gave encouraging values. The results of sampling these holes obtained by splitting and assaying the core are as follows. Gold computed at \$35.00 per oz.

<u>No. 25</u>	70 feet to 72½ feet	\$3.50
<u>No. 28</u>	250½ " " 252½ "	\$3.15
	270½ " " 274½ "	3.85
	279 " " 284 "	2.45
	328½ " " 331 "	1.40
	506 " " 507 "	1.40
	501 " " 504 "	3.50
<u>No. 29</u>	135 feet to 138 feet	\$36.00
	Other half of core	40.00
	146 feet to 148 feet	3.50
<u>No. 30</u>	108 feet to 110½ feet	\$1.40
	143 " " 144½ "	2.80
	349 " " 351 "	3.50
<u>No. 31</u>	17 feet to 21 feet	\$2.10
	150 " " 154 "	1.40
	156 " " 158 "	3.50
	159 " " 162 "	1.40
<u>No. 34</u>	135 feet to 137 feet	\$5.60
	349 " " 351 "	4.55

Though all intersections may not be considered commercial grade, yet taken as a whole the average is fair, covering a distance of about 200 feet. Most important is the evidence that pregnant gold solutions have been working through the ground and that a large ore body may be encountered in this vicinity at any time.

The fact that we are near a very important geological contact and that porphyry intrusions occur along this contact points to a zone of weakness which is a favourable condition for the deposition of ore. That the porphyry intrusion, earlier mentioned, is the source of the present enrichment there is no doubt. That there is every reason to expect further enrichment from the same source is only a matter of sense. They, of course, have yet to be located, but with the encouraging results so far obtained I have no hesitation in advising the continuance of the present plan of work. The present results are unquestionably the best obtained on the property."

RECENT AIRBORNE ELECTROMAGNETIC SURVEY

On April 4, 1975, the Ontario Division of Mines published a series of

airborne electromagnetic survey and total intensity magnetic survey maps covering all or parts of 12 townships, including Preliminary Map 1022, Powell Township, District of Timiskaming, Survey and Compilation 1974. A strong E.M. anomaly is apparently located on Yandel Associates East Block near the northwest corner of claim L-449398 in close proximity to the claims of Teck Corporation. It is a six-channel E.M. anomaly A-11, amplitude 400, and has excellent magnetic correlation. There is an excellent chance that the anomaly is caused by massive or semi-massive sulphides. About 2,000 feet to the west-southwest on Yandel Associates claim L-449382, a gold-bearing zone No. 3 was outlined by a number of diamond drill holes and described on the map as 375' x 100'. Disseminated pyrite and chalcopyrite was present in gold-bearing sections in D.D. holes Nos. 25 to 34 as reported by J. W. Morrison, B.Sc., M.E., in his report dated November 26, 1937.

The contact zone on which this anomaly is postulated has a length of 3/4 mile on the north side of the Yandel East Block and is an excellent exploration target. It is probably part of the same zone from which production of gold, copper and molybdenum was accomplished on the property of Ryan Lake Mines, a distance of 1.6 miles to the west-northwest.

RECOMMENDATIONS

- (1) It is recommended that the East Block be covered by north-south picket lines cut at 300-foot east-west intervals and the north and south boundaries of the property be accurately tied in with the east boundary of Powell Township. About 5 east-west lines should be run at 300-foot north-south intervals and all lines chained at 100-foot intervals.
- (2) A magnetic and electromagnetic survey should be run over these lines.
- (3) The outcrops should be mapped.
- (4) When the airborne E.M. anomaly is located on the ground then at least one drill hole or two should be spotted to cross-section the anomalous zone.

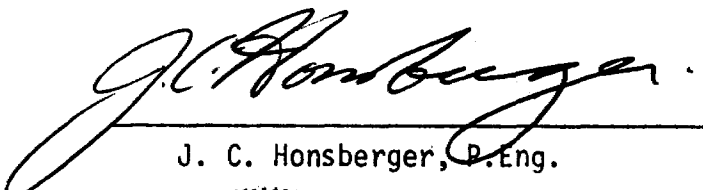
COSTS

(1)	11.0 miles of line @ \$160/mile <u>2.0 base line</u> 13.0 line miles =	\$ 2,080.00
(2)	Magnetometer Survey - \$125 x 11.0 =	1,375.00
	E.M. Survey - \$140 x 11.0 =	1,540.00
(3)	Geological Mapping =	1,300.00
(4)	Mobilization =	500.00
(5)	Two 500-foot diamond drill holes @ \$12/foot = including engineering and assaying	12,000.00
(6)	Contingencies =	<u>3,000.00</u>
	TOTAL =	<u>\$21,795.00</u> =====

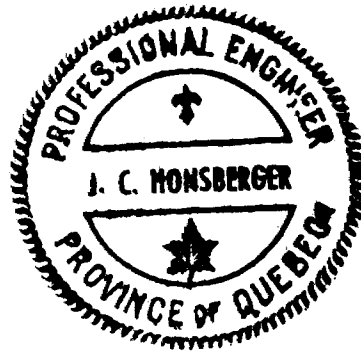
All of which is respectfully submitted.

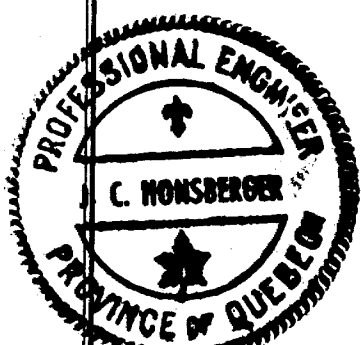
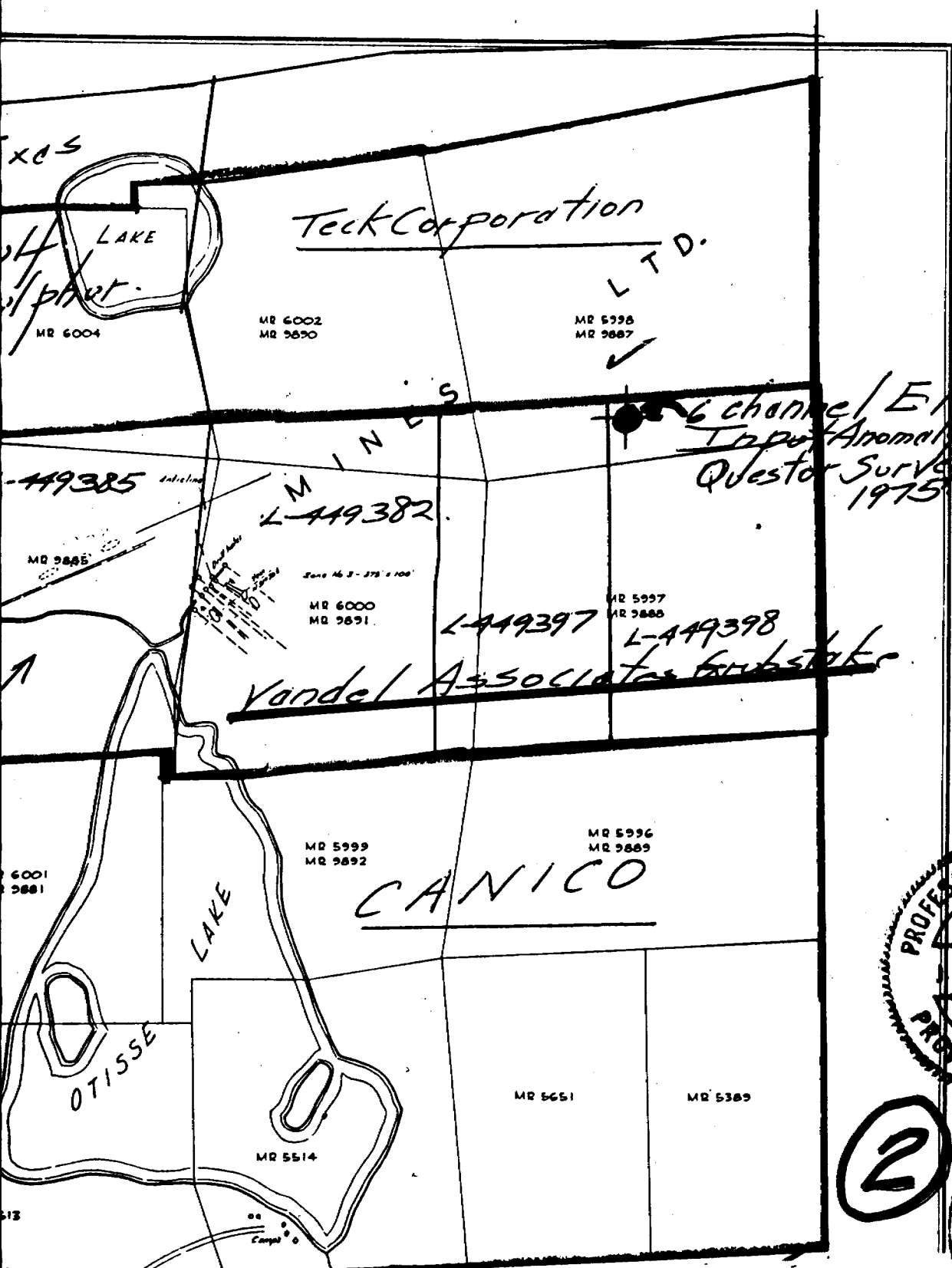
15 Meadowacres Drive
Agincourt, Ontario
M1T 1A9

June 12, 1975



J. C. Honsberger, P.Eng.





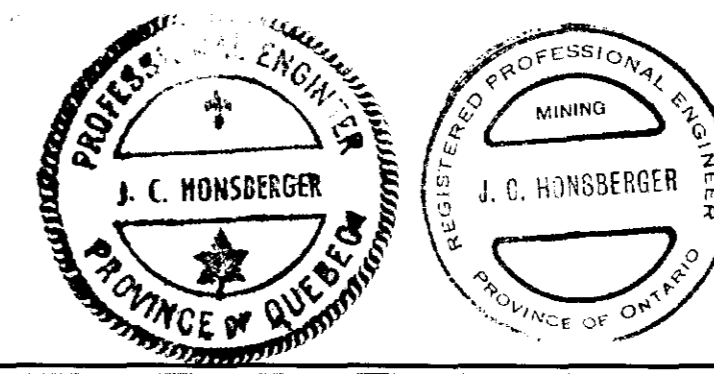
2



MTACHEWAN CONSOLIDATED
GOLD MINES, LTD.
- VENTURES -

MAP
to accompany Report on
YANDEL ASSOCIATES GRUBSTAKE
S.E. Part Powell Township, Matachewan Area, Ont.
June 13, 1975

J. C. Honsberger
J. C. Honsberger, P. Eng.



To accompany Report on the Cairns
Yardell Association's Garubstone
Powell Twp., N. Ont. Map 2110
June 12, 1975 J. C. Honsberger, P. Eng.

SYMBOLS

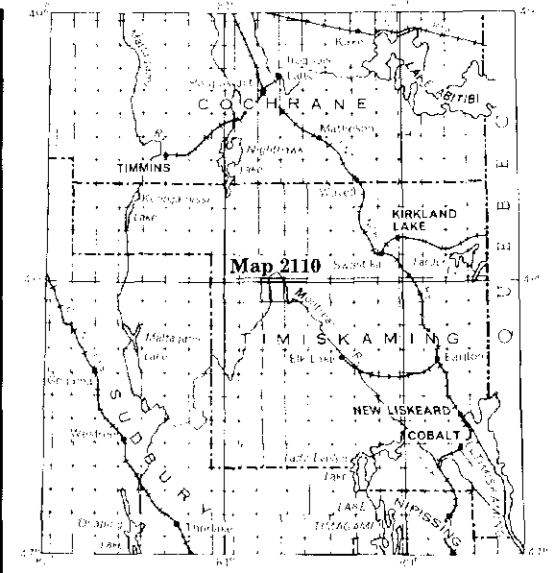
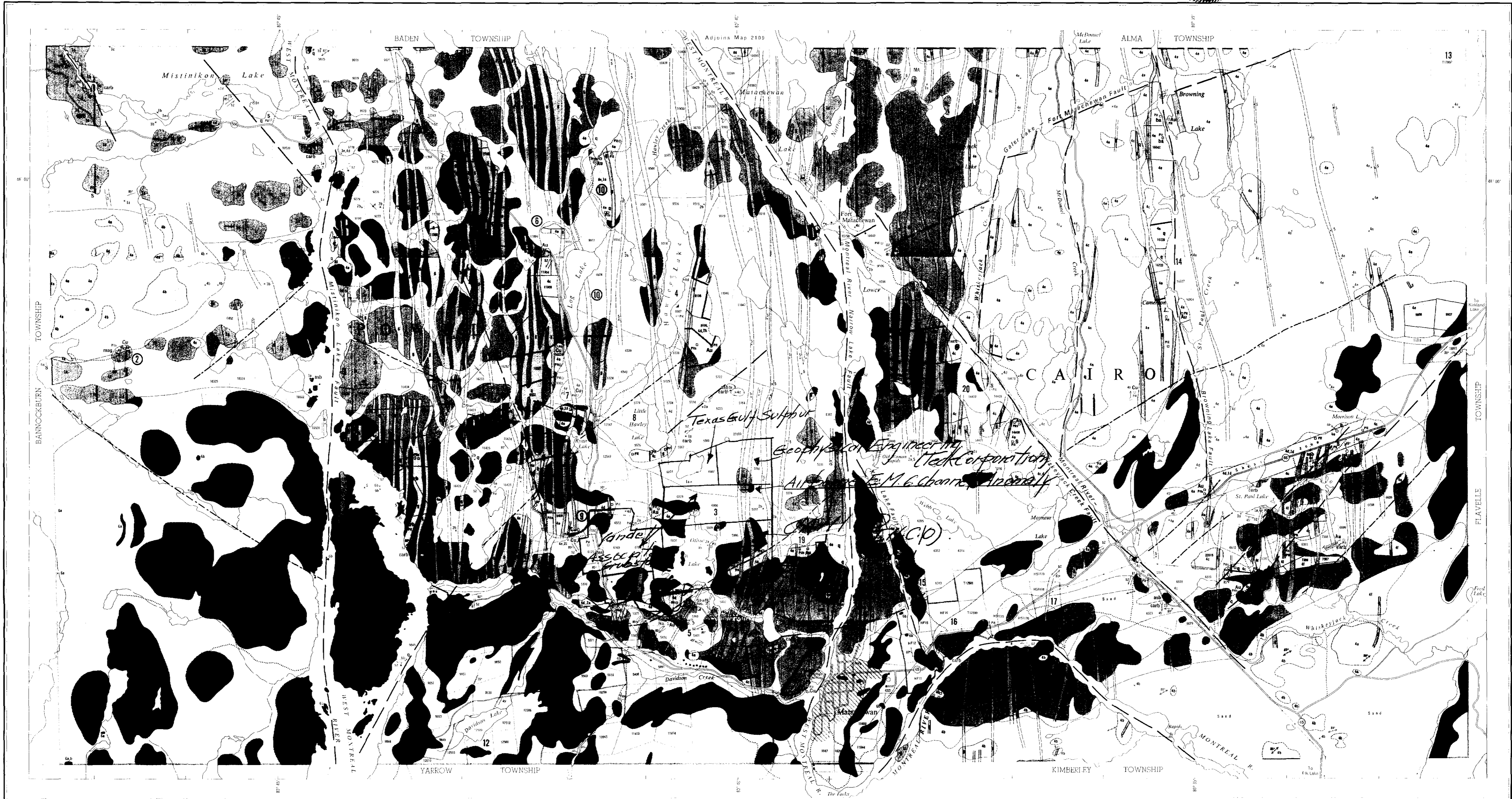
- Glacial striae.
- Small rock outcrop.
- Boundary of rock outcrop.
- Geological boundary, approximate or assumed.
- Strike and dip; direction of top unknown.
- Strike and vertical dip; direction of top unknown.
- Strike and dip; top in direction of arrow.
- Strike and vertical dip; top in direction of arrow.
- Strike and dip of overturned bedding; beds face in direction of arrow and dip in direction of top.
- Direction (arrow) in which beds face as indicated by gradation in grain size; Direction of dip unknown.
- Direction in which lava flows face as indicated by shape of pillows.
- Synclinal axis.
- Strike and dip of schistosity.
- Strike of vertical schistosity.
- Drag folds. (Arrow indicates direction of plunge).
- Shear zone.
- Lineament.
- Fault, indicated or assumed.
- Fault, inclined, vertical.
- Fault, outboard; spot indicates down-dip strike; arrows indicate horizontal movement; angle of dip may be added.
- Musky or swamp.
- Motor road, provincial highway number enclosed where applicable.
- Other road.
- Trail, portage, winter road.
- Electric power transmission line.
- Building.
- Shaft, vertical.
- Test pit.
- Drill hole, vertical.
- Drill hole, inclined.
- Township boundary, approximate location only.
- Claim line surveyed; approximate location only.
- Property boundary, approximate location only.
- Location of mining property, surveyed. See list of properties.
- Location of mining property, unsurveyed. See list of properties.

SOURCES OF INFORMATION

Geology by H. L. Lovell and assistants, 1964.
Map 445, Metachewan-Keweenaw Area, Ontario Department of Mines, 1939.
Geological Survey of Canada, aeromagnetic maps 2876 and 2902.
Maps and plans of mining companies.
Preliminary maps, P272, Powell Township; P213, Cairo Township, scale 1 inch to 1/2 mile, issued 1964.
Cartography by B. Jackson, P. Ralph, Ontario Department of Mines, 1965.
Base map derived from Ontario Forest Resources Inventory maps, with additional information by H. L. Lovell.
Magnetic declination in the area was 9°30'W., 1964.

NOTE

The designating letters MR have been omitted on this map from the numbers marking the mining claims.



Scale, 1 inch to 50 miles
N.T.S. reference 42 A 2, 4 A 3, 4 F 13, 4 P 13

LEGEND

- CENOZOIC***
- HECENT
Swamp and stream deposits.
- PLEISTOCENE
Sand, gravel, clay.
- UNCONFORMITY
- PRECAMBRIAN****
- PROTEROZOIC**
- MAFIC INTRUSIVE ROCKS**
(Nipissing)
- Diabase
- INTRUSIVE CONTACT
- HURONIAN**
- COBALI GROUP**
Gowanda Formation
- 6a Amphibolites and arkosic quartzite.
- 6b Conglomerate.
- 6c Argillite.
- 6d Arkose.
- UNCONFORMITY
- ARCHEAN**
- MAFIC INTRUSIVE ROCKS**
(Matachewan)
- 5 Diabase, un differentiated.
- INTRUSIVE CONTACT
- SILICIC INTRUSIVE ROCKS**
(Algoma)
- 4a Granite.
- 4b Granodiorite and granitic gneiss.
- 4c Syenite.
- 4d Mafic xenolith and xenophyre.
- 4e Syenite porphyry and coarse-grained syenite.
- 4f Quartz diorite and diorite.
- INTRUSIVE CONTACT
- ULTRAMAFIC AND MAFIC INTRUSIVE ROCKS**
(Huronian)
- 3a Serpentine.
- 3b Quartzite.
- INTRUSIVE CONTACT
- SEDIMENTARY ROCKS**
(Timiskaming)
- 2a Conglomerate.
- 2b Greywacke, interbedded argillite and quartzite.
- 2c Arkose.
- UNCONFORMITY
- VOLCANIC ROCKS**
(Keweenaw)
- 1a Basalt and andesite.
- 1b Brecciated, silicified, sericitized volcanic rocks.
- 1c Andesitic porphyry.
- 1d Tuff (banded) and massive types.
- 1e Autogenite.
- 1f Mafic and diorite.
- 1g Carbonatite and amygdaloidal rocks.
- 1h Argillite.

- asb Asbestos.
- Au Gold.
- ba Barite.
- carb Carbonate.
- Cu Copper.
- mag Magnetite.
- Mo Molybdenum.
- Ni Nickel.
- q Quartz.
- s Sulphide mineralization.

LIST OF PROPERTIES
(see report)

- | | |
|--|---------------------------------------|
| POWELL TOWNSHIP | CAIRO TOWNSHIP |
| 1. British Matachewan Gold Mines Ltd. | 13. Brookbank, W. H. |
| 2. Brookbank, W., Ervey, N. and Hansen, A. | 14. Graig, E., Estate. |
| 3. Cutler Gold Mines Ltd. | 15. Knoll, V. |
| 4. Finlay, C. | 16. Matachewan Hub Pioneer Syndicate. |
| 5. Matachewan Consolidated Mines Ltd. | 17. St. Adam, W. |
| 6. Noranda Explorations Co. Ltd. | 18. Sunstoe, G. |
| 7. Pax International Mines Ltd. | 19. Sulzberger, H. |
| 8. Slat, W., Estate. | 20. Talbot, H. |
| | 21. Walcott, H. |
- (Ethel Copper property)

or Gold Mines Ltd.
'nes Ltd.

Map 2110
POWELL AND CAIRO TOWNSHIPS
TIMISKAMING DISTRICT

Scale 1:31,680 or 1 inch to 1/2 Mile



*Unconsolidated deposits. Cenozoic deposits are not differentiated on this map for the most part they coincide with the lighter colored parts of the map.
**Bedrock geology. Outcrops and inferred extensions of each rock unit are shown, respectively, in dark and light tones of the same colour.

