



31C10SE8586 2.5304 BEDFORD

010

REPORT ON  
THE RICHARDSON PROPERTY  
BEDFORD TOWNSHIP  
FOR  
NRD LIMITED  
BY  
A.C.A. HOWE INTERNATIONAL

**RECEIVED**

**DEC 22 1982**

**MINING LANDS SECTION**

October 5, 1982

Bernard MacIsaac



31C10SE8586 2.5304 BEDFORD

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## SUMMARY

A.C.A. Howe International was commissioned by NRD to: a) map the Richardson Mine and its surrounding area, b) sample the quartz which occurs as a pod in the Richardson Mine and c) perform the necessary assessment work to keep the four claims surrounding the mine in good standing until October of 1983.

The field work was accomplished between July 12, and July 21, 1982. This fieldwork consisted of mapping the general area, mapping the actual mine itself, and sampling the quartz pod found in the mine. Three samples were taken and were sent to Barringer Research in Toronto.

The property consists of four claims E0627240, E0627241, E0627626, E0627627, which were recorded on October 11, 1981. They are presently in good standing until October 11, 1982.

The Richardson Feldspar Mine is located on Harold Morey's farm in the first lot of the second concession in Bedford Township, approximately twenty miles north of Kingston, Ontario.

Geologically, the quartz sought in the Richardson Mine was within a granite pegmatite dike within the Grenville Structural Province of the Canadian Precambrian Shield. The pegmatite is emplaced between Grenville sedimentary and Grenville intrusions. The quartz itself occurs as a central pod within this dike. When mining operations at the mine were active, the operators were mainly concerned with feldspar production leaving the quartz pod relatively intact. Most of the feldspar has been removed leaving a central island in the quarry composed almost entirely of quartz. It is believed that a maximum of 80,000 tons of quartz are present in this pod. The quarry is presently full of water and would have to be pumped out to

substantiate this tonnage figure.

Geochemical sampling of the quartz to date is inconclusive because of the weathered nature of the quartz, on surface more representative samples would need to be gathered to fully evaluate the economic potential of this deposit. Such sampling could be accomplished after pumping operations were completed.

A significant quantity of quartz is demonstrable in the Richardson Feldspar Mine and more evaluation is warranted. A further exploration program is herein recommended. This exploration program would include pumping the quarry, further mapping and further sampling at a budgeted cost of \$14,528.25. This program would also complete assessment requirements necessary to retain the property in good standing until it could be brought to lease.

## INTRODUCTION

A.C.A. Howe International Ltd. was commissioned by NRD to do a preliminary evaluation of their Richardson Property in Bedford Township, southeastern Ontario. Results of this evaluation showed that further sampling is required and the actual mine should be pumped out to facilitate proper mapping and sampling procedures.

The property is believed to have significant quartz potential because of the size of the exposed quartz pod. Methods used to extract feldspar surrounding the quartz earlier in the century left the quartz pretty well intact and free to be mined unhindered by waste rock on three sides.

This report herein outlines the geology of the surrounding area as well as the mine itself. It is based on available government data and personal observations made during a visit to the property between July 12 and July 21, 1982.

LOCATION AND ACCESS

The Richardson Feldspar Mine is located on Harold Morey's farm in the first lot of the second concession of Bedford Township approximately twenty miles north of Kingston, Ontario. The best means of access to the property from Toronto is to take Highway 401 to Kingston for a distance of approximately 150 miles. Then take Highway 38 north to Verona, Ontario, then easterly on the Desert Lake Road for approximately 6 miles to a side road which branches to the north beside the old Anglican Church in Desert Lake for a distance of approximately 1 mile. The old dumps from the mine can be seen on the right hand side of the road.

PROPERTY DESCRIPTION

The property surrounding the Richardson Feldspar Mine consists of 4 claims more particularly described as follows:

<u>Claim #</u>	<u>Date Staked</u>	<u>Date Recorded</u>
E0627240	Oct. 10/81	Oct. 11/81
E0627241	Oct. 10/81	Oct. 11/81
E0627626	Oct. 10/81	Oct. 11/81
E0627627	Oct. 10/81	Oct. 11/81

The date recorded is equivalent to the anniversary date of the claims. After this present report is submitted for assessment credit, the claims should be in good standing until Oct. 11/83.

These claims staked over the Richardson Mine entitle the owner to the minerals enclosed within these claims, however, the surface rights are owned by Harold Morey of Desert Lake, Ontario. According to the Ontario Mining Act sec. 101(1).

"Where the surface rights of land have been granted, sold, based on collateral with reservation of mines, minerals or mining rights to the Crown, or where land is occupied by a person who has made improvements thereon that in the opinion of the Minister entitles him to compensation, a licensee who prospects for mineral or stakes out a mining claim or an area of land for a housing permit or carries on mining operations upon such land shall compensate the owner, lesses, locatee or occupant for all injury or damage that is or may be caused to the surface rights by such prospecting, staking out, or operations, and in default of agreement the amount and the manner and time of payment of compensation shall be determined by the Commission after a hearing, and, subject to appeal to the Supreme Court where the amount awarded exceeds \$1,000.00 his order is final 1971, c.50, S. 58(5),"

## HISTORY OF PROPERTY

Mining at this location commenced in 1901, by H. Richardson, of Kingston, who secured the mineral rights and organized the Kingston Feldspar and Mining Company to control the operation. Feldspar was produced continuously by this company until 1916, when the property was acquired by Feldspar Limited, of Toronto. Feldspar Limited continued production during 1917 and 1918, but suspended operations in December of the latter year. The property was then idle for a number of years. In 1928 the mine was acquired under lease by the Genesee Feldspar Company, of Rochester, New York. This company resumed mining operations, and production continued throughout 1929. The property, however, was again inactive in 1930 and remained dormant for several years. In 1941, the mine was leased to E.H. Storms and S.A. Price, of Toronto, who dewatered the pit and operated for a short period producing 414 tons of feldspar under the name of Federal Feldspar Company. Owing to the war time difficulty of securing labor and materials, operations were suspended. In 1944 the pit was filled with water. In 1945, the mine was purchased by Canadian Flint and Spar Company of Ottawa, who mined the property in 1947, 1948, 1950 and 1951. The property has been inactive up until the acquisition of the property by NRD on October 10, 1981. This mine was the largest feldspar mine in Ontario, having produced 228,690 tons of feldspar and an unspecified amount of quartz between the years 1900 and 1951.

## GENERAL GEOLOGY

Geologically the Richardson Feldspar Mine is situated in the Grenville Structural Province of the Canadian Precambrian Shield. All rocks in the area are precambrian in age.

There are two main rock groups surrounding the Richardson Mine. Gabbro anorthosite and altered graywackes flank the dike to the northwest and crystalline limestone to the southeast. These units can be generalized into Grenville Intrusions and Grenville Sediments with the oldest being the sediments. They are summarized in the Table of Formations as follows:

### TABLE OF FORMATIONS

#### Cenozoic

Pleistocene & Recent	Overburden, sand gravel and soil.
----------------------	-----------------------------------

#### Pre Cambrian

Younger Mafic Intrusives	Gabbro Dikes
Granite & Gneiss complex	Pegmatite, alaskite, granite syenite, granite gneiss and syenite, gneiss paragneiss.

Older mafic intrusives	Diorite, gabbro, anorthosite
Sediments (Grenville sediments)	crystalline limestone, graywacke and quartzite paragneiss
	(modified from Harding, 1947)

No volcanic rocks are known in the general area around the Richardson Mine, but their existence is probable, owing to the degree of deformation in the area which would obliterate volcanic structures and textures leaving rocks resembling sediments (paragneiss) or gneisses.

It is believed by Harding that the rocks in the area are a near shore, shallow sea assemblage which were uplifted, folded and intruded and subsequently eroded. The rocks were then subjected to drastic deformation including folding, faulting and shearing, with the main deforming stresses acting along an axis striking northwest-southeast, consequently most of the folds strike northeast-southwest. "In the Bedford - Olden area the rock changes resulting from folding, extensive recrystallization and the introduction and removal of mineral constituents are so profound that work identification in many instances is exceedingly difficult." (Harding, 1947).

## PROPERTY GEOLOGY

The Richardson Feldspar Mine is a large zoned granite pegmatite. It has a north-northeast strike and dips steeply to the west. It intrudes Grenville limestone and paragneiss as well as intruding older metagabbro. The workings measure approximately 375 by 125 feet as well as being greater than 100 feet in places. It was the largest feldspar producer in Ontario having produced more than 250,000 tons between 1900 and 1951.

The two claims to the east of the mine site were mapped using compass and pace methods. What was found during this survey is shown on the general geology map in the rear of the report. Main rock types encountered were crystalline limestone, greywacke (paragneiss), granite and mafic intrusives (metagabbro).

The crystalline limestone is generally coarse grained ( 1 cm) and massive. There are isolated biotite flakes throughout (1 - 2 mm). The color of the unit is generally pure white. The limestone reacts to HCL quite readily.

Greywacke occurs throughout the property. No attempt was made to differentiate between greywacke and quartzite. Grain size is usually fine to medium grained. The character of the rock is quite variable ranging from an indistinguishable gneiss to quite obvious greywacke and quartzite. The main distinguishing factor was bedding, which was generally apparent in most cases. Color ranged from grey to rusty brown. Main constituents of the rock are generally hornblende, quartz, micas and feldspar.

The intermediate zone is quite well developed in this pegmatite. It has essentially the same minerals as the wall zone but shows far coarser grain size sometimes up to 10' across. This zone also contains a small zone of massive pyrite at the north end of the pit. It is from this zone that most of the material mined from this dike came from and is thus almost nonexistent as the pegmatite exists today.

The core of this pegmatite is essentially a solid mass of barren white quartz with large crystals of feldspar intermixed within it. The quartz appears smokey locally especially near contacts. This can be attributed to contamination. The pod strikes essentially north-northeast. It ranges from 10 to 60 feet in width and possible 200 feet in length. The pod has a steep dip to the west. Quartz tonnage has been interpreted at approximately 80,000 tons. Qualitative analyses are available in the appropriate section of this report.

Granite occurs throughout the area. The unit is generally coarse grained and heavily silicified giving it a whitish appearance. Locally it displays graphic texture and is pinkish in color owing to lack of silicification and potassic feldspar content. Grain size is typically coarse and the texture approaches that of pegmatite.

Metagabbro is generally confined to the west side of the property. They are generally lighter than normal in color owing to plagioclase and are probably approaching anorthosite in composition. They are generally coarse grained and locally are silicified crystalline and mafic content varies from 5.50%. General trend in the area is NE-SW with dip vertical to steep to the NW.

The Richardson pegmatite is a large zoned pegmatite of felsic composition. The general composition is quartz and pink colored microcline. The pegmatite is a classic case of a zoned pegmatite. There are four zones designated from the outside inward, as the border zone, the wall zone, intermediate zone, and the core.

The border zone is quite narrow (a few centimeters or less). Minerals found in this zone are typically fine grained. They are fine grained feldspar, quartz and biotite.

The wall zone is quite well developed on the east side of the pegmatite. It essentially contains the same minerals as the border zone. It is characteristically coarser grained and a lot thicker (up to 50 feet thick) than the border zone. Minerals found in this zone include plagioclase, perthitic microcline, quartz, biotite and subordinate amounts of muscovite and magnetite.

## WORK PROGRAM

Work on the property consisted of mapping the general area surrounding the Richardson Mine at a scale of 1"=200', determining the dimensions of the quarry, calculating the volume of water present, a preliminary evaluation of tonnage potential and geochemical sampling.

Mapping procedures included using a grid prepared by compass and pace methods on the east half of the property as a control for determining geological relationships on this part of the property. On the west half a traverse was run along a road which traverses the property. A rudimentary mapping program was performed on the actual quarry itself which occurs in the west half of the property. This was done using a base map prepared by Davis et al and confirming his observations, and presenting this data at a reasonable scale so relationships could be seen.

The quarry was sounded at various locations throughout by means of a boat rented from Harold Morey. This was done first to determine water volume to aid in planning for pumping operations and to determine the third dimension of the quartz pod which would be used in calculating tonnage potential.

The quartz pod was geochemically tested by means of channel sampling at three locations on the pod in the hope of obtaining representative samples to give a qualitative representation of the quartz found there. These samples were subsequently sent to Barringer Research for analysis. The initial analysis obtained from these samples were inconclusive because the weathering effect had contaminated them. They were subsequently rerun after being subjected to a more thorough washing procedure.

## RESULTS

Geochemical Sampling: Geochemical sampling was performed on the Richardson pegmatite for two reasons;

i) most importantly, to determine the quality of quartz found in its core, and  
ii) to determine the origin of the pegmatite. The origin of the dike, it is believed, can be determined from sampling of the quartz core because, such as is the case at the Richardson pegmatite or at any other pegmatite in the Grenville, there is some question as to the origin of these pegmatites. It is believed they form in either of two ways:

i) pure igneous intrusion related to the late fluids associated with an intruding granite, or  
ii) a remelting and remobilization of country rock. This would be significant in relation to the Richardson pegmatite because,

1) if the Richardson pegmatite was a pure igneous intrusion then contamination from country rocks would be minimal and high values would be related to surface contamination and therefore unrepresentative of true compositions, and 2) if it was caused by remelting and remobilization of country rocks then one would expect high calcium values because of the abundance of limestone in the general area. This differentiation would also be important because pegmatites in the Grenville can be divided into pegmatite provinces. If the intrusion was by pure igneous intrusion then rock pegmatite would have to be viewed separately, but if the pegmatites were caused by remelting and remobilization of country rock, then one would have to look at specific areas where specifications for contaminants were acceptable because forming processes were related to local geology. Three samples were taken from the Richardson pegmatite and the results are as follows:

Sample No.	Ag	Al	Be	Ca	Cd	Co
No. 1	.09	208	.023	89.6	.10	.90
No. 1 washed	.07	154	.019	19.6	3.4	.70
No. 2	.07	220	.032	83.5	<.1	.60
No. 2 washed	.10	157	.032	9.0	<.1	.70
	Cr	Cu	Fe	K	Mg	Mn
No. 1	.5	3.27	210	150	102	3.0
No. 1 washed	.1	.84	38.2	120	23.3	.4
No. 2	.4	1.48	184	120	50.2	2.0
No. 2 washed	<.1	.33	32.5	90	12.3	.5
	Mo	Na	Ni	P	Pb	Sr
No. 1	<3	60	1.9	<6	<.125	1.26
No. 1 washed	<3	40	<.5	<6	<.125	.51
No. 2	<3	60	2.5	<6	<.125	1.49
No. 2 washed	<3	40	<.5	<6	<.125	.49
	Th	Ti	V	Zn	Zr	
No. 1	.7	26.6	.43	1.8	<.5	
No. 1 washed	.6	21.4	.18	<.5	<.5	
No. 2	.6	21.4	.42	2.8	<.5	
No. 2 washed	.7	18.6	.18	.6	<.5	

Results for elements that appear to be affected by fracture filling contamination are Al, Ca, Cu, Fe, Mg, Mn, Na, Ni, Sr, V, Zn. Even though washed results are considerably lower, they are still above desired contaminant levels. It is postulated that contaminants still exist in micro fractures and the fineness to which the sample was ground and hence washed was

insufficient to remove this effect. The pod would therefore have to be sampled in a location which would be removed from this effect, such as below the water level once the quarry was pumped out. It would also mean drilling or digging to a sufficient depth so this effect could be negated.

**Tonnage Calculations:** From soundings made in the quarry around the quartz pod and surface area exposed above water level, it is believed that there is approximately 80,000 tons of quartz available to be mined at the Richardson Quarry.

**Water Volume Calculations:** From soundings made throughout the Richardson quarry and surface area the volume of water on July 20 was calculated at 18,200,000 gallons. This figure would fluctuate depending on the seasons and would be lowest in the fall and highest in the spring when winter runoff was at its peak.

## CONCLUSIONS AND RECOMMENDATIONS

From all the data which has been received and collected and observation made, it is felt that sufficient tonnage exists (80,000 tons) at the Richardson Property to justify mining operations of a modest nature. Sampling done to date is felt to be inconclusive as to a true representation of the qualitative nature of the quartz in this pegmatite.

It is believed that the quarry should be pumped out to allow further mapping of the quartz pod as well as allowing for sampling which would be further removed from the effect encountered on surface. To pump this quarry out, which is filled with 18,000,000 gallons of water, not including inherent runoff, it would take approximately one month of steady round the clock pumping for two pumps rated at 35,000 gal/hr. each.

Once pumping operations were complete then mapping and sampling procedures could commence. It is expected that five samples should be taken at various locations within the pod, allowing for surface contaminations. These samples would be taken below the water line. Mapping would supplement what is already known from previous mapping, and would give an accurate third dimension to substantiate or disprove the 80,000 tons referred to previously.

All operations are expected to take approximately 1½ months. It is recommended that these operations be performed in the fall, where run off and water level are lowest.

BUDGET PROPOSAL

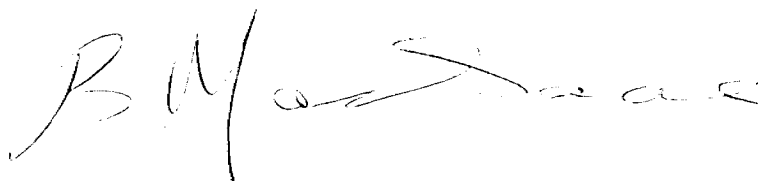
The work programme outlined above is budgeted as follows:

1) Pumping of quarry		
a) pumps - 1 month at \$1080/month	=	\$1,080.00
b) generator - 1 month at \$675/month	=	675.00
c) fuel for generator - 1 month at \$1000.00	=	1,000.00
d) transport of fuel - 1 month at \$1000.00	=	1,000.00
e) supervision includes geologist - 1 month at \$3500.00	=	3,500.00
f) transport of machinery to and from site - \$500.00	=	<u>500.00</u>
		\$7,755.00
g) contingencies 15% -		<u>1,163.25</u>
	GRAND TOTAL	\$8,918.25
2) Sampling		
a) 2 days at \$275/day		550.00
b) 5 samples at \$60/sample		<u>300.00</u>
		\$850.00
3) Mapping		
a) 7 days at \$275/day		1,925.00
4) Expenses		
a) 11 days motel & board 11 days at \$60/day		660.00
b) vehicle rental and gas 12 days at \$50/day		600.00
c) supplies		<u>200.00</u>
		\$1,460.00

5) Report writing  
5 days at \$275/day = \$1,375.00  
TOTAL COST OF 1,2,3,4 and 5 = \$14,528.25

Respectfully submitted

A.C.A. HOWE INTERNATIONAL LTD.



W. Bernard MacIsaac, B.Sc.,

DATED at Toronto, Ontario, this 5th day of October, 1982.

REFERENCES

Harding, W.D. 1947, "Geology of the Olden-Bedford Area",  
ODM vol LC1, Part VI, 1947 includes map 1947-5

MacIsaac, W.B., 1981 "Reprot on the Comet Quartz Property,  
Madawaska, Ontario for NRD Mining", Internal Howe Report.

C E R T I F I C A T E

I, W. BERNARD MacISAAC, of 46 Onaway Road, Port Credit, Ontario, hereby certify that:

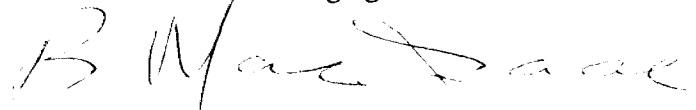
1. I am employed as a geologist by A.C.A. Howe International Limited, Mining and Geological Consultants, with offices at Suite 801, 159 Bay Street, Toronto, Ontario.

2. I am a graduate of St. Francis Xavier University, Antigonish, Nova Scotia, and hold a Bachelor of Science Majors degree.

3. I have been practicing my profession throughout Canada for more than five years, and I have been employed by A.C.A. Howe International Ltd. since May 1, 1981.

4. I have no interest, direct or indirect, in the property or securities of NRD Ltd., nor do I expect to receive any such interest.

4. This report is based on a study I have conducted on the Richardson Property, which included a property visit between July 12 and July 21, 1982 as well as researching government data.



W. BERNARD MacISAAC, B.Sc.

DATED at Toronto this 5th day of October, 1982.

## BARRINGER MAGENTA LIMITED

 FILE: T2-0407  
 DATE: 20/08/82  
 MATRIX: HF

A.C. HOWE

WD NO: 82-0407

SAMPLE ID	AG PPM	AL PPM	B PPM	BA PPM	BE PPM	CA PPM	CD PPM	CE PPM	CR PPM
SAMPLE #1	<.5	254	<4	3.1	<.05	175	<1	<5	5
SAMPLE #2	<.5	207	<4	1.4	<.05	95	<1	<5	7
SAMPLE #3	<.5	2790	<4	6.3	.11	266	<1	<5	4
#1-STR.	.09	209	-----	3.13	.023	89.6	.1	.9	.5
#1-WASHED	.07	154	-----	1.46	.019	19.6	<.1	.7	.1
#2-STR.	.07	220	-----	1.36	.032	83.5	<.1	.6	.4
#2-WASHED	.10	157	-----	.60	.052	9.0	<.1	.7	<.1

SAMPLE ID	CU PPM	FE PPM	K PPM	LG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM
SAMPLE #1	4.3	280	200	116	7	<30	200	<5	<60
SAMPLE #2	1.5	207	100	51	3	<30	100	<5	<60
SAMPLE #3	3.5	282	1000	83	9	<30	1400	<5	<60
#1-STR.	3.27	209	150	102	3.0	<3	60	1.9	<6
#1-WASHED	.84	38.2	120	23.3	.4	<3	40	<.5	<6
#2-STR.	1.48	184	120	50.2	2.0	<3	60	2.5	<6
#2-WASHED	.33	32.5	90	12.3	.5	<3	50	<.5	<6

HARRINGER MAGENTA LIMITED

FILE: T2-0407  
DATE: 20/04/82  
MATRIX: HF

A.C. HOWE

WO NO. 82-040

SAMPLE ID	PB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	ZR PPM
SAMPLE #1	<5	1.1	<1	31.4	.8	5	<5
SAMPLE #2	<5	1.1	<1	22.0	<.5	<5	<5
SAMPLE #3	<5	6.6	<1	17.6	<.5	6	<5
#1-STR.	<1	1.26	.7	26.6	.43	1.8	<.5
#1-WASHED	<1	.51	.6	21.4	.18	<.5	<.5
#2-STR.	<1	1.49	.6	21.4	.42	2.8	<.5
#2-WASHED	<1	.48	.7	18.6	.18	.6	<.5



# BARRINGER MAGENTA LIMITED

304 CARLINGVIEW DRIVE  
METROPOLITAN TORONTO  
REXDALE, ONTARIO  
CANADA M9W 5G2  
PHONE: 416-675-3870  
TELEX: 06-989183

5.11.1

A.C. Howe Limited  
159 Bay St., Ste. 501  
Toronto, Ontario  
M5J 1J7

*Rec'd 10/5/82*

DATE: Oct. 5, 1982

PROJECT: 108.41

PERIOD COVERED:

SALES ORDER:

PROGRESS BILLING:

SHIPPING REPORT:

WORK REPORT: 82-407

FED. SALES TAX: N/A

ONT. SALES TAX: N/A

TERMS: NET 30 days

AUTHORITY:

TO: ANALYSIS

7 Rocks for ICP - HF @ \$58.00  
3 Rocks for B @ \$13.00  
3 Sample Preparation @ \$10.00

\$406.00

39.00

30.00

TOTAL INVOICE

\$475.00

*12/11/82  
6/2/82  
3 out 82*

INVOICE No 8238



31C10SE8586 2.5304 BEDFORD

900

1984 06 20

Your File: 82-42  
Our File: 2.5304

Mrs. R.M. Charnesky  
Mining Recorder  
Whitney Block, Room 2548  
99 Wellesley Street West  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Dear Madam:

M.W. Rennick recorded 10.5 days Geological and 7 days Geochemical and 21 days assaying assessment work credits on each of Mining Claims E0.627240-41 inclusive on October 21, 1982.

The additional data required to assess this survey was not received in this office.

You are hereby authorized to delete the work credits recorded on October 21, 1982 from each of the claim record sheets. Please inform the recorded holder accordingly.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416)965-4888

A. Barr:mc

cc: M.W. Rennick  
234 Donlea Drive  
Toronto, Ontario  
M4G 2N2

1984 06 20

Your File: 82-43  
Our File: 2.5304

Mrs. R.M. Charnesky  
Mining Recorder  
Whitney Block, Room 2548  
99 Wellesley Street West  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Dear Madam:

M.W. Rennick recorded 21 days Geological assessment work credits on each of Mining Claims E0 627626-27 inclusive on October 21, 1982.

The additional data required to assess this survey was not received in this office.

You are hereby authorized to delete the work credits recorded on October 21, 1982 from each of the claim record sheets. Please inform the recorded holder accordingly.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416)965-4888

A. Barr:mc

cc: M.W. Rennick  
234 Donlea Drive  
Toronto, Ontario  
M4G 2N2

1984 06 20

Our File: 2.5304

Resident Geologist  
Ministry of Natural Resources  
Box 70  
Tweed, Ontario  
K0K 3J0

Dear Sir:

RE: Geological and Geochemical Survey submitted  
on Mining Claims EO 627240 et al in the  
Township of Bedford

---

Further to my letter of December 29, 1982 which acknowledged receipt of the above-mentioned survey, the data has not been assessed since the additional information requested has not been received in this office.

Enclosed is a copy of the report (no maps) for your information.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416) 965-4888

A. Barr:mc

cc: M.W. Rennick  
234 Donlea Drive  
Toronto, Ontario  
M4G 2N2

cc: Mining Recorder  
Toronto, Ontario

Encl.

REGISTERED

January 30, 1984

Our File: 2.5304

Mr. M.W. Rennick  
234 Donlea Drive  
Toronto, Ontario  
M4G 2H2

Dear Sir:

RE: Geological and Geochemical Survey  
submitted on Mining Claims E0 627240  
et al in the Township of Bedford

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Enclosed is a copy of our letter dated August 4, 1983,  
requesting additional information for the above-mentioned  
survey.

Unless you can provide the required data by February 10,  
1984, the mining recorder will be directed to cancel the  
work credits recorded on October 21, 1982.

For further information, please contact Mr. F.W. Matthews  
at (416)965-1380.

Yours very truly,

J.R. Morton  
Acting Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416)965-1380

R. Pichette:mc

cc: Mining Recorder  
Toronto, Ontario

Encl.

August 4, 1983

2.5304

Mr. M.W. Rennick  
234 Donlea Drive  
Toronto, Ontario  
M4G 2N2

Dear Sir:

RE: Geological & Geochemical Survey on Mining Claims  
EO 627240 et al in the Bedford Township

---

Returned herein are the plans (in duplicate) for the above mentioned survey. Please have the author of the report sign all plans.

In order to assess your report, we will require the following:

1. signed receipts or cancelled cheques verifying all expenditures.
2. a key map showing the location of the property with respect to township boundaries, established reference lines or points.
3. a geochemical plan, as outlined on pages 16-17 of the enclosed booklet.
4. complete the enclosed Assessment Work Breakdown (in duplicate) for each survey.

When returning this material, please quote file 2.5304.

For further information, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1380

S. Hurst:sc

Encls:

cc: Mining Recorder, Toronto.

Mining Lands Comments

*Handwritten notes:*  
- No geophysical  
- No key map  
- No geochem

To: Geophysics

Comments

Approved  Wish to see again with corrections Date Signature

To: Geology - Expenditures *De Kustra*

Comments  
*Key map should have been provided; copy of  
claim map may suffice*

Approved  Wish to see again with corrections Date *Mar 15/83* Signature *Kustra*

To: Geochemistry *De Fortescue*

Comments  
*No geotechnical map; few sample analyses* *L.D.*

Approved  Wish to see again with corrections Date *Mar 16<sup>th</sup> 1983* Signature *JL-AC Fortescue*

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

82-42, 82-43

1982 12 29

2.5204

Mrs. R.M. Charnesky  
Mining Recorder  
Ministry of Natural Resources  
Whitney Block, Room 2548  
99 Wellesley Street West  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Dear Madam:

We have received data for Assaying and Sampling Credits submitted under Section 77(19) of the Mining Act R.S.O.1980 for Mining Claims E0 627240 et al in the Township of Bedford.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1380

DW:sc

cc: M.W. Rennick  
Toronto, Ontario

cc: B. MacIsaac  
Port Credit, Ontario



The Mining Act

Type of Survey(s) GEOLOGICAL GEOCHEMICAL Township or Area BEDFORD.  
 Claim Holder(s) M.W. REUNICK Prospector's Licence No. A 29835  
 Address 234 DONKEA DRIVE TORONTO ONT M4G 2N2  
 Survey Company ACA HOWE INTERNATIONAL LTD Date of Survey (from & to) 12 07 82 21 07 82 Total Miles of line Cut  
 Name and Address of Author (of Geo-Technical report) B. MAC ISAAC 46 ONAWAY ROAD PORT CREDIT ONT.

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
		10.5
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	Radiometric	7

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
<del>EO</del>	<del>627240</del>	<del>31.5</del>			
<del>EO</del>	<del>627241</del>	<del>31.5</del>			
	627240	13.5			
	627241	13.5			

RECEIVED  
OCT 26 1982  
MINING LANDS SECTION

MINING RECORDS OFFICE - TORONTO  
RECEIVED  
OCT 21 1982  
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Expenditures (excludes power stripping)  
 Type of Work Performed ASSAYING  
 Performed on Claim(s) EO 627240 627241  
 Calculation of Expenditure Days Credits  
 Total Expenditures \$ 406.00 ÷ 15 = Total Days Credits 27  
 Instructions  
 Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. 2

For Office Use Only  
 Total Days Cr. Recorded 62 Date Recorded Oct 21/82 Mining Recorder AMC James  
 Date Approved as Recorded \_\_\_\_\_ Branch Director \_\_\_\_\_

Date Oct 5/82 Recorded Holder or Agent (Signature) B. Mac Isaac

Certification Verifying Report of Work  
 I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  
 Name and Postal Address of Person Certifying BERNARD MAC ISAAC 46 ONAWAY ROAD  
 Date Certified \_\_\_\_\_ Certified by (Signature) \_\_\_\_\_

## Assessment Work Breakdown

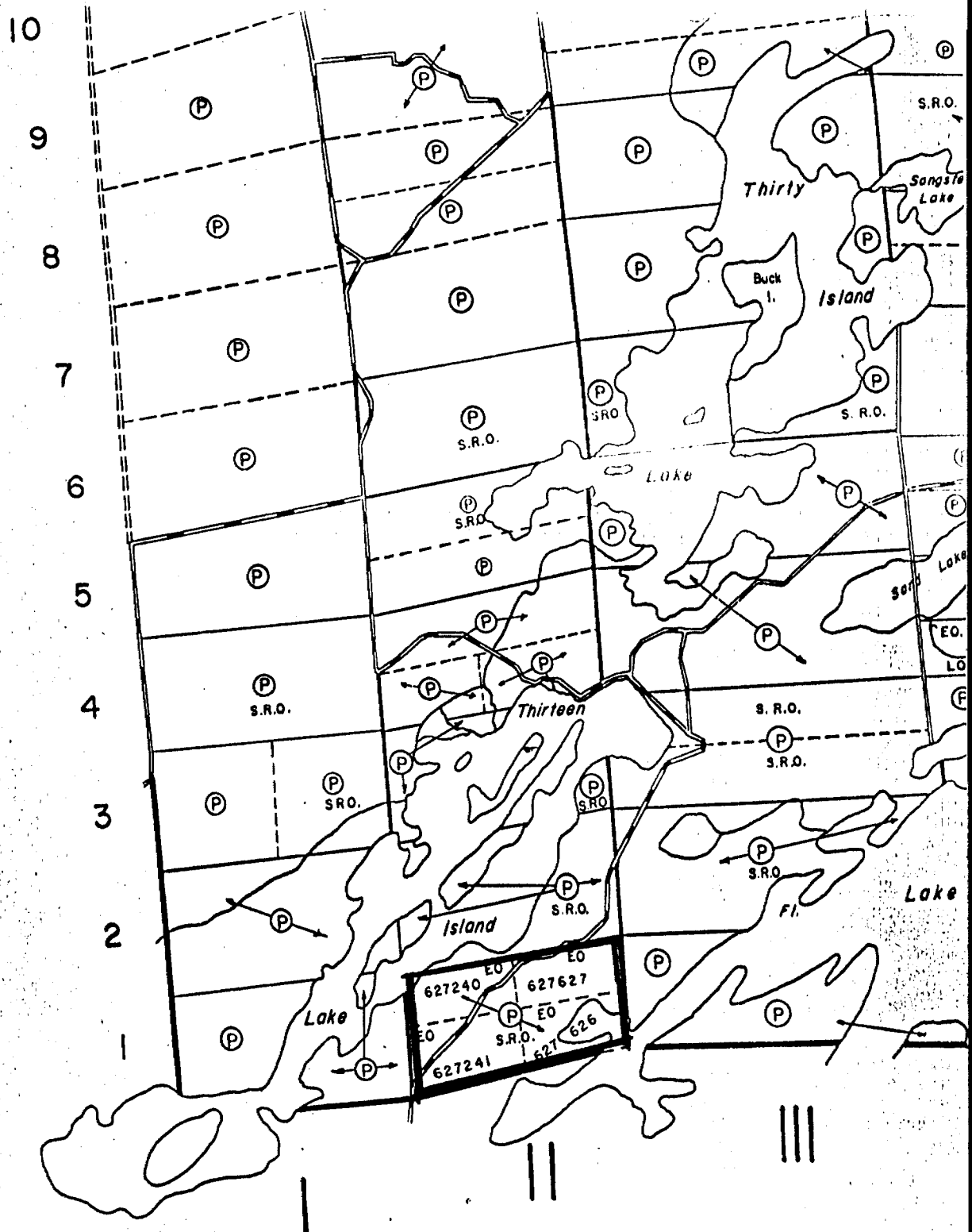
Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey <i>GEOLOGICAL</i>						
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days
<input style="width: 40px;" type="text" value="3"/>				<input style="width: 40px;" type="text" value="21"/>		<input style="width: 40px;" type="text" value="0"/>
				=	Total Credits	+
					<input style="width: 40px;" type="text" value="21"/>	+
					<input style="width: 40px;" type="text" value="2"/>	=
					<input style="width: 40px;" type="text" value="10.5"/>	
Days per Claim						

Type of Survey <i>GEOCHEMICAL</i>						
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days
<input style="width: 40px;" type="text" value="2"/>				<input style="width: 40px;" type="text" value="14"/>		<input style="width: 40px;" type="text" value="0"/>
				=	Total Credits	+
					<input style="width: 40px;" type="text" value="14"/>	+
					<input style="width: 40px;" type="text" value="0"/>	=
					<input style="width: 40px;" type="text" value="7"/>	
Days per Claim						

Type of Survey						
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days
<input style="width: 40px;" type="text"/>				<input style="width: 40px;" type="text"/>		<input style="width: 40px;" type="text"/>
				=	Total Credits	+
					<input style="width: 40px;" type="text"/>	+
					<input style="width: 40px;" type="text"/>	=
					<input style="width: 40px;" type="text"/>	
Days per Claim						

Type of Survey						
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days
<input style="width: 40px;" type="text"/>				<input style="width: 40px;" type="text"/>		<input style="width: 40px;" type="text"/>
				=	Total Credits	+
					<input style="width: 40px;" type="text"/>	+
					<input style="width: 40px;" type="text"/>	=
					<input style="width: 40px;" type="text"/>	
Days per Claim						





Ministry of  
Natural  
Resources

Report of Work (BEDFORD TWP)  
(Geophysical, Geological, Geochemical and Expenditures)

M-52

#82-43  
(file E0627626)

- Instructions: - Please type or print.  
- If number of mining claims traversed exceeds space on this form, attach a list.  
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.  
- Do not use shaded areas below.

The Mining Act

Type of Survey(s) GEOLOGICAL Township or Area BEDFORD.  
 Claim Holder(s) M W BENNICK Prospector's Licence No. A 29839  
 Address 234 DONLEA DRIVE TORONTO ONT. M4G 2N2  
 Survey Company ACA HOWE INTERNATIONAL LTD Date of Survey (from & to) 12 07 82 to 21 07 82 Total Miles of line Cut  
 Name and Address of Author (of Geo-Technical report) R. MAC ISAAC 41 ONAWAY ROAD PORT CREDIT ONTARIO.

Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	21
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claim			Expend. Days Cr.	Mining Claim			Expend. Days Cr.
Prefix	Number			Prefix	Number		
<u>EO</u>	<u>627626</u>		<u>21</u>				
	<u>627627</u>		<u>21</u>				

RECEIVED  
OCT 26 1982  
MINING LANDS SECTION

MINING RECORDS OFFICE - TORONTO  
RECEIVED  
OCT 20 1982  
21 PM  
10:11:21 12:14:56

Expenditures (excludes power stripping)  
 Type of Work Performed  
 Performed on Claim(s)  
 Calculation of Expenditure Days Credits  
 Total Expenditures \$  ÷ 15 = Total Days Credits   
 Instructions  
 Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. 2

For Office Use Only  
 Total Days Cr. Recorded 42 Date Recorded OCT 21/82 Mining Recorder [Signature]  
 Date Approved as Recorded \_\_\_\_\_ Branch Director \_\_\_\_\_

Date Oct 5/82 Recorded Holder or Agent (Signature) [Signature]

Certification Verifying Report of Work  
 I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  
 Name and Postal Address of Person Certifying BERNARD MACISAAC 41 ONAWAY ROAD  
 Date Certified \_\_\_\_\_ Certified by (Signature) [Signature]

## Assessment Work Breakdown

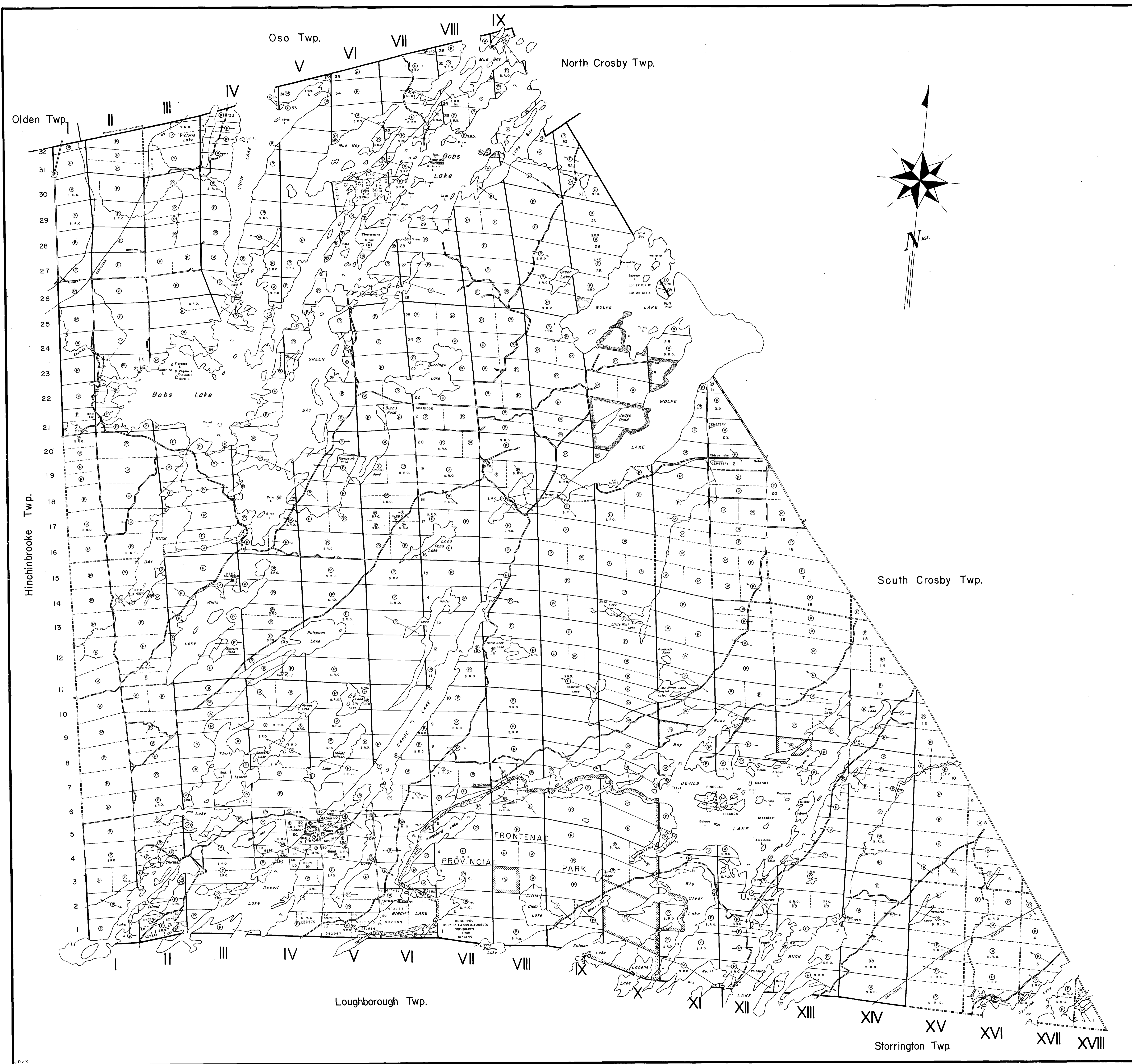
Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey <i>GEOLOGICAL</i>												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
6				42		-		42		2		21

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim



THE TOWNSHIP  
OF  
**BEDFORD**  
COUNTY OF  
FRONTENAC  
EASTERN ONTARIO  
MINING DIVISION  
SCALE: 1-INCH = 40 CHAINS

**LEGEND**

PATENTED LAND	⊙
CROWN LAND SALE	⊙
LEASES	⊙
LOCATED LAND	⊙
LICENSE OF OCCUPATION	⊙
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KINGS HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKOG	—
MINES	—
CANCELLED	C.

**NOTES**

This Map is Not To Be Used  
—FOR SURVEY PURPOSES—

400' Surface Rights Reservation along the shores of all Lakes & Rivers.

L.O. 6123 Covers Dam in E 1/2 Lot 5 Con. IV and Flooding Rights on Canoe Lake & Eel Lake to elevation 464.00. File: 125488.

Flooding Rights on Bob's Lake controlled by the Dept. of Railways & Canals-Ottawa-File: 58014.

Area shown thus: INDIAN LAND.

For Status of Islands in This Township Please Contact Dept of Lands & Forests.

L.O. 6098 Covers Dam in Lot 5 Con. XIV And Flooding Rights in Buck Lake to Elevation 434.80'. File: 11237.

L.O. 6099 Covers Dam in Lots 6 & 7 Con. VIII And Flooding Rights in Kingsford Lake, Birch Lake & Desert Lake to Elevation 446.6'. File: 11237.

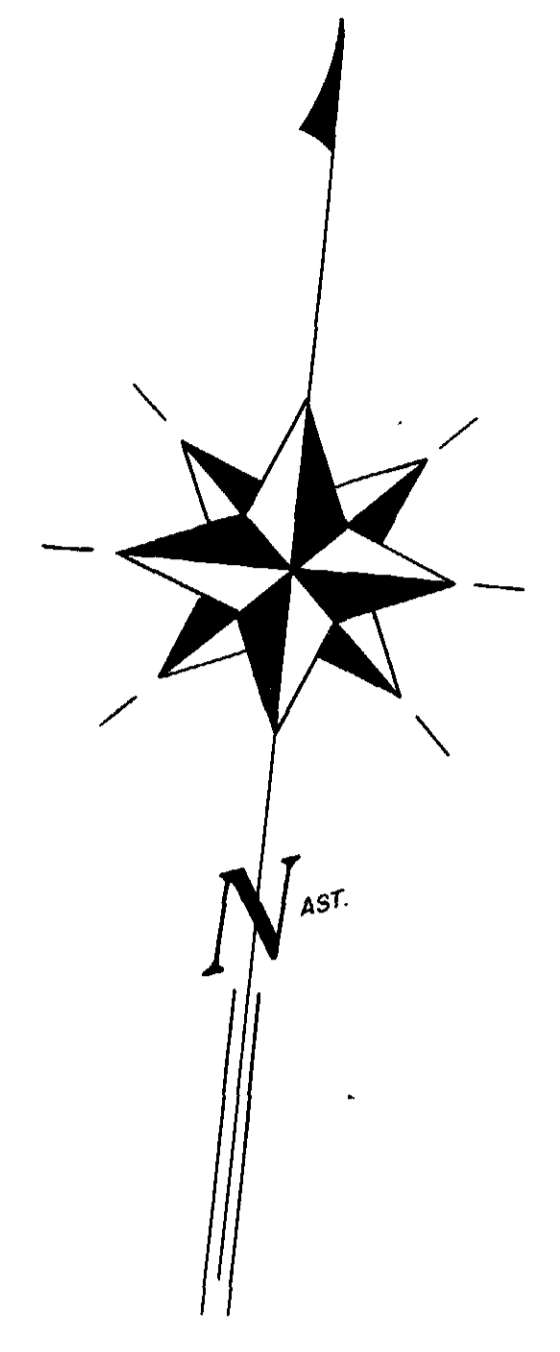
Flooding Rights in Devils Lake Reserved to Ganoque Electric Light & Water Supply Co. Ltd. To Elevation 6'. File: 11237 Vol. 3.

**AREAS WITHDRAWN FROM STAKING**

S.R.	SURFACE RIGHTS	M.R.	MINING RIGHTS	File
Sec.	Order No.	Date	Stake	File
42	(S.O. 1960)	—	S.R.	81751
42	(S.O. 1960)	—	S.R.	84637
42	(S.O. 1960)	—	S.R.	176586
42	(S.O. 1960)	—	S.R.	81751
42	S.R.O. Reserved for Public Use F 81719			

PLAN NO.-M.52  
ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

JUN 25 1984  
Ministry of Natural Resources  
TORONTO



195

195

BEDFORD TWP.

BEDFORD TWP.

24 M

24 M

