

010

GEOLOGICAL REPORT ON

URANIUM PROPERTIES IN

ROBERTS AND CREELMAN TOWNSHIPS

SUDBURY MINING DIVISION, ONTARIO

For
TX RESOURCES LIMITED'

November 20, 1978

TORONTO, ONT



INTRODUCTION

Following up on recommendations made by E. O. Cisholm, in report dated March 25, 1978, for TX Resources Limited, mapping of 61 claims and surveying with scintillometer of 75 claims were completed in November, 1978.

The geological and geophysical work is separately described. A report on the scintillometer survey companies this report:

HISTORY

Mr. Chisholm reported as follows:

"Three low grade uranium occurences were located some years on the adjoining property - at the contact between the Huronian sediments and the Archean basement complex. This favourable contact extends through most of the property. The down dip extension of the discoveries and the favourable contact is adequately protected.

Previous drilling of the showings has established the presenceand down dip continuity - of uranium bearing sediments of Huronian age (Mississagi) in conformable contact with the Archean basement. The tonnage and grade indicated to date does not constitute an economic body of mineralized material.

The property presents an exploration potential-in that additional discoveries may be located along the favourable contact and these along with the existing showings may provide the tonnage and grade combination required for an ore body."

PROPERTY & LOCATION

The property consists of 75 continuous unpatented claims in Roberts & Creelman Townships, Sudbury Mining Division. Claim numbers are as follows:

429861-69 incl; 442765-85 incl; 442866-86 incl; 443220-31 incl; 443698-703 incl; 438845;

438849-52 incl; and 450064.

The property is located about 20 miles north of Capreol, Ontario and is reached - on the eastern or Creelman side - by rail via the Canadian National Railways to mileage 19.5 a siding named Raphoe from which point a drill road leads southward to the small lake on the Burns property. The western of Roberts portion is best served by a private road through the Hanna Mining Company in Hutton Township. A branch road also might serve the southern part of the Creelman group since it approaches within a quarter mile of the south-west corner of the property.



GENERAL GEOLOGY

The geology is briefly described in an abstract in a report by H.D.Meyn, O.D.M., in Geological Peport No. 91 dated 1971:

"The oldest rocks are Archean metavolcanics and metasediments consisting of mafic and felsic flows, iron formation, and metasedimentary mafic and felsic schists with conglomerate. These rocks have been intruded by granitic rocks of predominantly quartz monzonite composition but ranging in composition from granite to granodiorite. Pegmatitis are common locally. Mafic dikes of diabase and metadiabase intrude the older rocks. The above rocks are conformably overlain by, or in fault contact with, Proterozoic (Huronian) metasedimentary rocks composed of quartzite, argillite, conglomerate and limestone. These can be subdivided into the following formations: Mississagi, Bruce, Espanola, Serpent, Gowganda and Lorrain. All the above rocks types are intruded by dikes and sills of Nipssing type quartz diabase and by olivine diabase.

The rocks have all been folded into essentially vertical position and are faulted into a large number of fault blocks. Some adjacent fault blocks show no structured or stratigraphic continuity with each other. Folds and other minor structural elements are poorly developed.

Sulphide mineralization is found associated with shears in the metavolcanics: copper, gold, silver, lead and zinc mineralization is associated with shears in the Nipissing type diabase especially near the Upper Wanapitei fault. Very minor molybdenum mineralization is found in association with a granite and the Mississagi Formation rocks in Roberts Township. Uranium mineralization in pyritiferous quartz-pebble conglomerate and argillaceous beds at, or near, the base of the Huronian metasedimentary sequence."

GEOLOGY OF THE LESLIE SHOWINGS

Three areas of uranium mineralization were discovered on the Leslie Property - part of which is now the Burns group of claims.

The No.1 showing, in the north-west corner of the Burns group, consists of quartz-pebble conglomerate in contact with granite.

Argillite is interbedded with the conglomerate and is the better mineralized. Both the conglomerate and the argillite are pyritiferous

No. 2 showing, 1400 ft. South of No.1 is similar to No. 1 in so far as the argillite carries the best values.

No. 3, some 400 ft. south of the south boundary of the Burns group is again similar except that dips are lower than at No. 2.

Diamond Drilling, starting in 1967 by Assembly Mines and followed by Hudson Bay Mining & Smelting proved the down dip continuity of the radio-active beds. While the depth to the basement was some 750 ft. for 1000' horizontal distance at the No.2 showing, the uraniferous zone was something on the order of 200 ft. at Nos. 1 and 3.

GEOLOGY OF THE TX CLAIMS

Sixty one of the 75 claims in the group were mapped at 400 feet to 1 inch. Claims mapped are as follows:

429864-69 inc; 442765-85 inc; 442866-71 incl; 442874-86 incl; 443225-31 inc; 443700-701 inc; 438845; 438849-52 inc; and 450864.

The geology is shown on two maps in back of this report.

Baselines were established to be approximately parallel to strike of formations and traverse lines were spaced at 400 foot intervals.

As shown in the accompnaying maps, the Mississagi formation, in Creelman, is confined to the Burns property and southwards to the south boundary. A single outcrop of quartzite, north of the Lake, may be connectable with the large mass shown on the Roberts sheet and if so, a substantial length of favorable formation is added to the western extension of the Mississagi formation known on the Burns property where uranium mineralization has been located and drilled in two locations.

The area south of the Burns group has little outcrop but while the overburden is extensive it is thought that in many places the bedrock is close to surface. Boulder 'hillocks' are numerous and in certain cases an outrcrop is found at the summit while in others only boulders are found. The area is generally boulder strewn and range in size from pebbles to rocks thirty feet in section. The Creelman mapping was done before the leaves were off the trees and the thick growth of moose maple and hazel probably masked outcrops that would be visible at a later date.

The Mississagi is represented mostly by the quartzite but conglomerate and argillite are also traceable for long distances on the Roberts side. The Mississagi formation mapped south of the Burns property probably represents the best target for further exploration since it constitutes the extension of rocks with known mineralization on the Burns and on the No.3 showing which is probably in the anomalous area just south of the Burns group. (See report on radio-activity).

While no quartz-pebble conglomerate was found on the Roberts side, a careful search might locate it since the small exposure of this rock type on the Burns group could easily have been missed in the mapping.

The extensive Gowganda formation is well



described in the O.D.M. Report No.91 and the present mapping found no windows of earlier formations. Dips were 45 to 65 degrees north and the predominant rock was a thin bedded argillite. Numerous rock-cuts through the Gowganda along the CNR are not mapped since they are well shown on the O.D.M. Report Map No. 2212.

The diabase shown on the south side of the Roberts section of the map may, in part, be pre-Huronian and part of the basement complex and may also include some coarse mafic flow but the general lack of shearing and fresh appearance of the rock suggests an intrusive origin.

RECOMMENDATIONS

In conjunction withthe mapping results and the map showing radio-activity, careful prospecting should be carried out in the areas considered to be underlain by Mississagi rocks. Whether or not radio-activity is known to be present, prospecting along the assumed contact areas may be rewarding. The anomalous areas shown on the radio-activity maps should have careful attention. The use of a bulldozer in the area south of the Burns might be advantgaeous. The prospecting should be scheduled for either before or after the leaves are on the extensive growth of scrub deciduous trees.

POOR QUALITY ORIGINAL TO FOLLOW

RECEIVED

NOV 2 7 15:8

MINING LANDS SECTION

GEOLOGICAL RELORT OF

URENIUM PROPERTIES IN

ROBERTS & CRECIMAN TOWNSHIPS
CUDBURY MINING DIVISION, OSTARIO

For TX RESOURCES DIMITED

Hovember 20, 1978

TORONTO Ont.

INTRODUCTION

Following up on recommendations made by E. O. Cisholm, in a report dated March 25, 1978, for TX Resources Limited, mapping of 61 claims and surveying with scintill-ometer of 75 claims were completed in November 1978.

The geological and geophysical work is separately described. A report on the scintillometer survey accompanies this report.

HISTORY

Er. Chisholm reportass follows:

"Three low grade uranium occurrences were located some years ago on the adjoining property - at the contact between Huronian sediments and the Archean basement complex. This favourable contact extends through most of the property. The down dip extension of the discoveries and the favourable contact is adequately protected.

Provious drilling of the showings has established the presence - and down dip continuity - of uranium bearing sediments of Huronian age (Hississagi) in unconformable contact with the Archean basement. The tonnage and grade indicated to date does not constitute an economic body of mineralized material.

The property presents an exploration potential - in that additional discoveries may be located along the favourable contact and these along with the existing showings may provide the tonnage and grade combination required for an ore body.

copace

PROPER Y & LOCATION

The property consists of 75 contiguous unpatented claims in Roberts & Creelman Townships, Sudbury Mining Division. Claim numbers are as follows:

429861-69 incl; 442765-85 incl; 442866-86 incl; 445220-31 incl; 445698-705 incl; 458345; 458849-52 incl; and 450064.

The property is located about 20 miles north of Capreol, Ontario and is reached - on the eastern or Creelman side- by rail via the Canadian National Railways to mileage 19.5 a siding named Raphoe from which point a drill road leads southward to the small lake on the Burns property. The western or Roberts portion is best served by a private road through the Hanna Mining Company in Sutton Township. A branch road also might serve the southern part of the Creelman group since it approaches within a quarter mile of the south-west corner of the property.

GENERAL GEOLOGY

The geology is briefly described in an abstact in a report by H.D. Meyn, O. D. M., in Geological Report No. 91 dated 1971.

The oldest rocks are Archean metavolcanics and metasediments consisting of mefic and felsic flows, iron formation, and metasedimentary mafic & felsic schists with conglomerate. These rocks have been intruded by granitic rocks of predominantly quartz monzonite composition but ranging in composition from granite to granodiorite. Pegmatites are common locally. Maric dikes of diabase and metadiabase intrude the older rocks. The above rocks are unconformably overlain by, or in fault contactwith, Proterozoic (Huromian) metasedimentary rocks composed of quartzite, argillite, conglomerate and limestone. These can be subdivided into the following formations: Mississegi, Bruce, Espanola, Serpent, Gowgande and Lorrain. All the above rock types are intruded by diker and sills of Nipissing type quaruz diabse and by olivine diabase.

The rocks have all been folded into essentially vertical position and are faulted into a large number of fault blocks. Some adjacent fault blocks show no structural or stratigraphic contiuity with each other. Folds and other minor structural elements are poorly developed.

Sulphide mineralization is found associated with shears in the metavolcanics; copper, gold, silver, lead and zinc mineralization is associated with shears in the Nipi sing type diabase especially near the Upper Wanapitei fault. Very minor molybdenum mineralization is found in association with a granite and the Mississagi Formation rocks in Roberts Yownship. Uranium

mineralization occurs in myritiferous quartzpebble conglomerate and argillaceous beds at, or
near, the base of the Huromian metasedimentary
sequence."

GEOLOTY OF THE LESLIE SHOWINGS

Three areas of urenium mineralization were discovered on the Leslie property - part of which is now the Burns Group of claims.

The No. 1 showing, in the north-west corner of the Burns group, consists of quartz-rebble conglomerate in contact with granite. Argillite is interbedded with the conglomerate and is the better mineralized. Both the conglomerate and the argillite are pyritiferous.

No. 2 showing, 1400 Ft. south of No. 1 is similar to No. 1 insofar as the argillite carryles the best values.

No. 3, some 400 ft. south of the south boundary of the Burns group is again similar except that dips are lower than at No. 2.

Diamond drilling, starting in 1967 by Assembly Mines and followed by Hudson Bay Mining & Dmelting proved the down dip continuity of the radio-active beds. While the depth to the basement was some 750 ft. for 1000 horizontal distance at the No. 2 showing, the unsuiferous zone was something on the order of 200 ft. at Nos. 1 and 3.

GEOTOGY OF THE TX CIAL

Sixty-one of the 75 claims in the group were mapped at 400 feet to 1 inch. Claims mapped are as follows:

429864-69 incl; 442765-85 incl; 442866-71 incl; 442874-86 incl; 443225-51 incl. 443700-701 incl; 458845; 438849-52 incl and 450864.

The geology is shown on two maps in back of this report.

Baselines were entablished to be approximately parallel to strike of formations and traverse lines were spaced at 400 foot intervals.

As shown on the accompanying maps, the hississediformation is confined to the Burns property and southward the to the south boundary. A single sutcrop of quartzite may be connectable with the large mass shown on the Roberts sheet and if so a substantial length of lavourable formation is added to the western extension of the Hississedi formation known on the Burns property whereuranium mineral has been located and drilled in two locations.

The area south of the Burns group has little outcrop but while the overburden is extinsive it is thought that in many, laces the bedrock is close to surface. Boulder 'hillocks' are numerous and in certain cases an outcrop is found at the samit while in others only boulders are found. The area is generally boulder strewn and range in dize from pebblen to rocks whirty feet in section. The mapping was done before the leaves were of the trees and the thick growth of mouse maple and hazel probably masked outcrops that would be visible at a later date.

The Mississagi is represented mostly by the quertzite but conglomerate and argillite are also traceble for long distances. The Mississagi formation mapped south of the Burns property probably represent the best target for further exploration since it constitutes the extension of rocks with known mineralization on the Burns and on the No. 3 showing which is robely in an enomalous area just south of the Burns grow. (see reservoir on radio-rectivity)

While no quartz-people conglomerate was found on the Roberts side, a careful search might locate it since the small exposures of this rock type on the Burns group could easily have been missed in the mapping.

The extensive Gowganda formation is well described in the O.D. M. Report No. 91 and the present mapping found no windows of earlier formations. Dips were 45 to 65 degrees north and the predominant rock was a thin bedded argillite. Numerous rock-cuts through the Gowganda along along the CNRwère not map, ed since they are well shown on the U.D. M. Report map No. 2212.

The diabase shown on the south side of the Roberts section of the map may, in part, be pre Horonian and part of the basement couplex and may also include some coarse mafic flow but the generall lack of shearing and the fresh apprarance of the rock suggests an intrusive origin.

RECOMMENDA LECUS

In conjuntion with the mapping reults and the map showing radio-activity, careful prospecting should be carried out in the areas considered to be underlain by Mississagi rocks. Whether or not radio-activity is known to be present prospecting along the ass med contact areas may be rewarding. The anomalous areas shown on the dario-activity maps should have careful attention. The use of a bulldozer in the area south of the Burnds might be advantageous. The prospecting should be scheduled for either before or after the leaves are on the extensive growth of scrub deciduous trees.





41114NE0003 0018A1 CREELMAN

The second secon

- umano

tural Resources

900 GICAL - GEOCHEMICAL LECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological	PROJI	PROJECTS UNIT.	
Township of ArçaRoberts & Creelman Twps Claim Holder(s)_ Ingarmar Explorations Ltd		MINING CLAIMS TRAVERSED List numerically	
Sitivey Company	5-429861 5-4	42875	
Author of Report Tom Gledhill, P. Eng.	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(numger) 7	
Address of Author 21 Sandalwood Place,	84	878 879	
Covering Dates of Survey Don Mils, Ont. Aug. /Sep. 78 (binecutting to office)	865	880	
Total Miles of Line Cut Flagged - 75 miles	867 868	881 883	
SPECIAL PROVISIONS CREDITS REQUESTED Complemental Per claim	5-442765	885 886	
Ocophysical 1	767 5-	443220	
ENTER 40 days (includes	769 769	233	
line cutting) for first Magnetometer	770	233	
	772	224 225	
ENTER 20 days for each additional survey using Geological 40	173	226	
same grid. Geochemical	774	227 221	
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)	775	224	
MagnetometerElectromagneticRadiometric	777	·····જેર્કુઢું····	
(enter days per claim)	778	231	
DATE: Nov. 27/78 SIGNATURE: VAuthor of Report or Agent		-443648	
Author of Report or Agent	_ 1 781	443.694 443.700	
	783	443701	
0.00	784	702	
Res. Geol. Qualifications 63,1085	785 -	703	
File No. Type Date Claim Holder	5-442866	5-430 000	
7 Date Canni Honer	868 3	- 432840	
	86	250	
	870	851 852	
	872 5	-4 Sooku	
	873	- 700007	
	874		
	TOTAL CLAIMS	4	

OFFICE USE ONL

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

	WW = WF	
Type of Survey Gelagical		
Township or Area Roberts 1 (Rehyaan lup'		
Claim holder(s) In Ganer application Ltd.	MINING CLAIMS TRAVERSED	
Oldini nolaci (s)—Statistica Cyprae Laboration	List numerically	
700000000000000000000000000000000000000	C HACKLY CHILDRY	
Author of Report 10m Coledfull Fithy.	S-429861 S-442881	
Address 21 Sondalunced Place	, I	
Covering Dates of Survey Don Mills On Tluy - Surta	4 1986 3 4 4 4 7 8 5 4	
	476865 441885	
Total Miles of Line cut & Flagged. 75 Miles	421,826 442866	
	429867 5-45220	
	476868	
SPECIAL PROVISIONS DAYS	1419861 44322 z 5-442765 443223	
CREDITS REQUESTED Geophysical per claim	2111776/	
Electromagnetic	141767 443225	
ENTER 40 days (includes	147769 AU2127	
line cutting) for first -Magnetometer	4.4.2.7.7.6	
surveyRadiometric	442771 443228	
ENTER 20 days for each —Other	442773 443230	
additional survey using Geological 40	142770 443131	
same grid.	442773 3-45348	
Geochemical	442776 443696	
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)	142777 443700	
MagnetometerElectromagneticRadiometric	142776	
(enter days per claim)	447.779 443703	
60.07 is	1 1167781 14 38 45	
DATE: Nov. 27/18 SIGNATURE: Author of Report or Agent	1112787 5-438849	
Author of Report of Agent	142783 43818	
PROJECTS SECTION	4112780	
Res. Geol. Qualifications 63. 108	5-450064	
Res. Geor. Qualifications Qualifications	1/1/7867	
Previous Surveys	447868	
	147869	
Checked bydatc	447876	
	14 7871	
.' •	4425)3	
GEOLOGICAL BRANCH	1412874	
	1417878	
Approved bydate	44787	
	942877	
	147875	
GEOLOGICAL BRANCH	447380	
Approved bydate	TOTAL CLAIMS	



Your file:

Our file: 2.2853

1979 05 23

Mrs. R.M. Charnesky Mining Recorder Ministry of Natural Resources 174 Douglas Street West Sudbury, Ontario P3E 1G1

Dear Mrs. Charnesky:

Re: Mining Claims S. 429864 et al. Creelman and Roberts Twps. File 2.2853

The Geological assessment work credits as listed with my Notice of Intent dated April 24, 1979, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

J.B. Morton

Acting Director

Lands Administration Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3

Phone: 416/965-6918

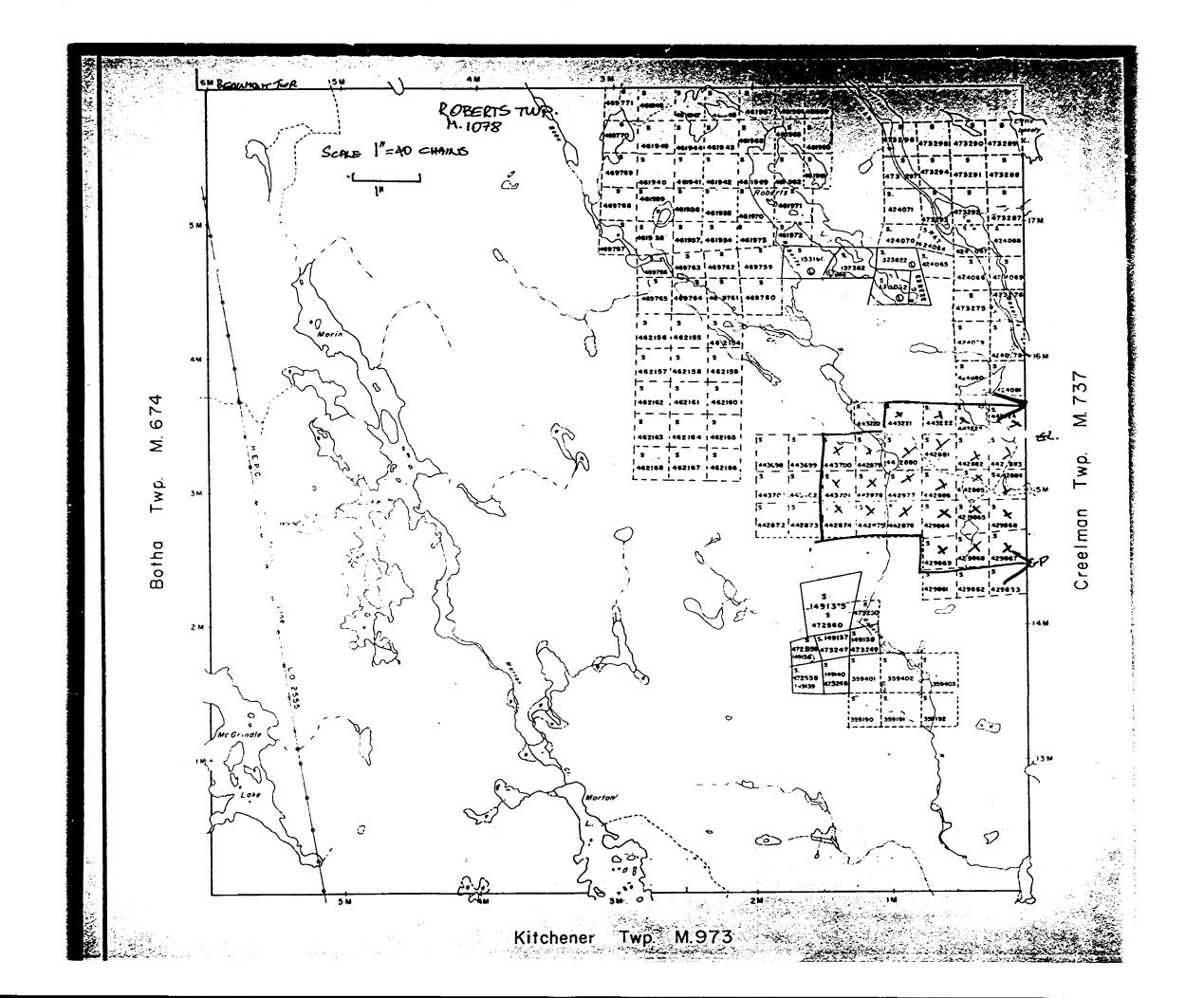
DN:ie

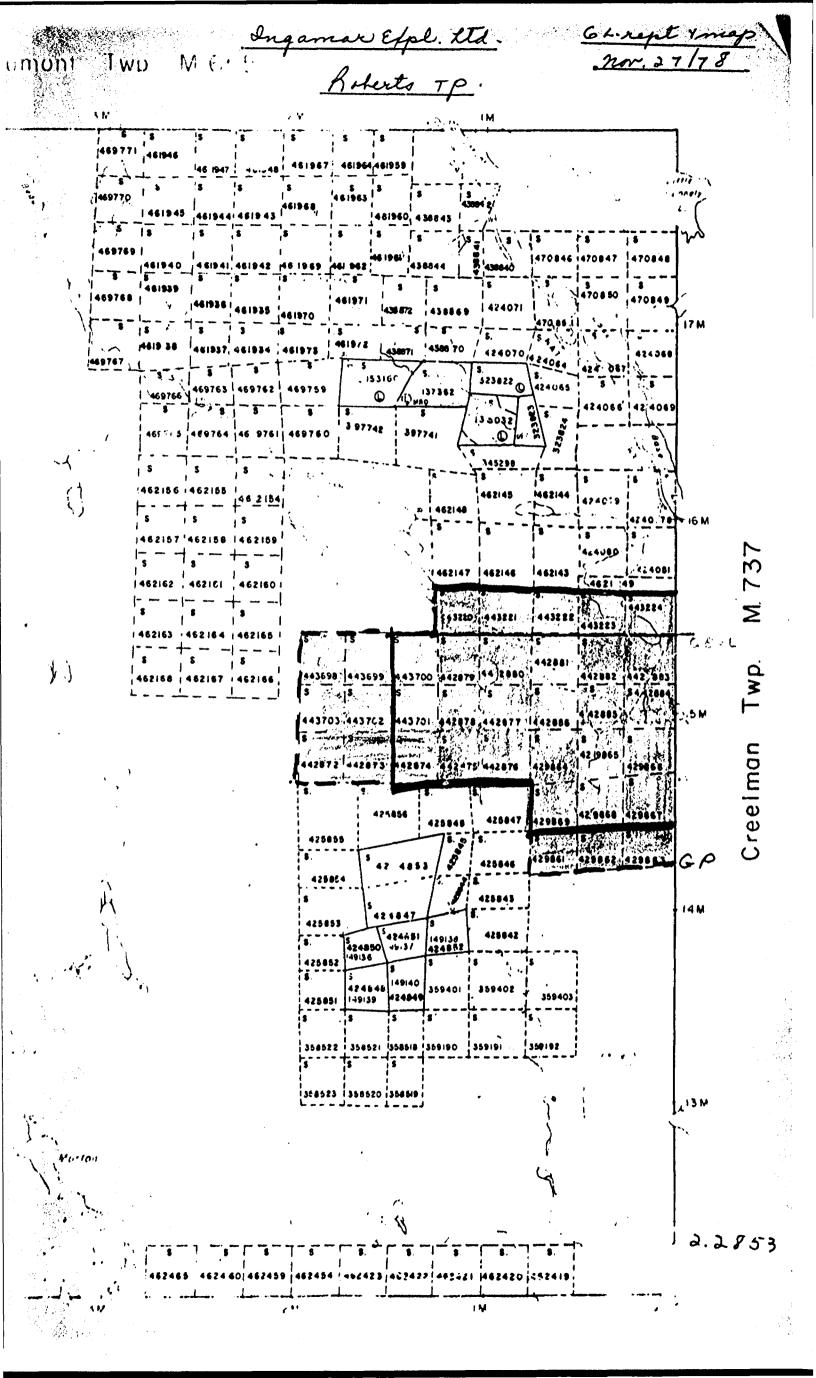
cc: Ingarmar Explorations Ltd.
Connaught, Ontario

Mr. Tom Gledhill Don Mills, Ontario

Deputy Regional Director Sudbury, Ontario Attn: Resident Geologist

FRALECK TWP. M. 816





SEE ACCOMPANYING MAP(S) IDENTIFIED AS

CREELMAN - 0018-A1 #	*/
#	2

LOCATED IN THE MAP CHANNEL IN THE FOLLOWING SEQUENCE (X)

