



42A02SE0029 2.15802 FLAVELLE

ONTARIO PROSPECTORS ASSISTANCE PROGRAM

OP 94 - 097 and OP 94 - 098

FINAL SUBMISSION 1994

prepared by

DENIS CHARTRE AND ROGER DUFRESNE

Prospectors

2.15802

1994 11 15

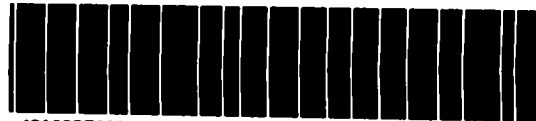
FLAVELLE TOWNSHIP

RECEIVED  
JAN 18 1995  
MINING LANDS BRANCH

THE McCHESNEY PROPERTY

(patented claims: Mr 16939, Mr 16940, Mr 16942, Mr 16943)

(additional work was performed on the following contiguous claims: # 821450, #1014296, #1046203)



42A02SE0029 2.15002 FLAVELLE

010C

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SUMMARY

The McChesney Property, (patented claims Mr. 16939, Mr. 16940, Mr. 16942, Mr. 16943) located in Northwest Flavelle Township, registered in the name of Maitland E. Mcchesney in Sept. 1953 was subject to intensive prospecting work: drilling, stripping, blasting, exploration, etc. between 1934 and 1949.

All work completed during the above time frame (1934 - 1949) is enclosed. (Where records are available)

We would like to express our appreciation for contributions made by the following people who worked in the area during this time frame: K. Griffin, A. E. Bailey, M. E. McChesney, G. Corriveau, J. A. Demers, P. Demers, W. Savage, S. Welsh, M. Allen, B. Coghill, W. S. Dyer, G. H. Charlewood, and others.

In May of 1993 Denis Chartre and Roger Dufresne obtained title to the above patented mining claims; as a consequence Denis and Roger became equal partners in a block of forty claims described in this document.

In 1994, with the aid of an O P A P grant Denis and Roger were able to complete a systematic evaluation of the property as described in this document.

At this time the best information that we have, based on the limited outcrop exposure in Area 3 (outcrop area of 7 meters wide by 17 meters long where 10 samples were taken with average of .063 oz Au/T), is the presence of an extensive, low grade, gold-bearing horizon amenable to an open pit mining operation. (see enclosed report)

### Acknowledgements

We wish to thank David Bending, Senior Geologist with Homestake Canada Ltd., who visited our Holmes-Flavelle Property and has provided for us, a compilation map for the Holmes-Flavelle Property. (see annex "B")

We wish like to thank Ed Chartre of Services Explorations Enrg. for a fine report. (see annex "P-34")

We wish to thank Rex Brommecker, Geologist with Westminer Canada Limited who visited the McChesney Property twice and provided us with direction. (see annex "G-P")

We wish to thank Wayne Benham, Geologist with Queenston Mining Inc., who has provided us with recommendations for future work. (see annex "G-2")

We wish to thank Howard Lovell for his reports and property visits. (see annexes "K" and "M-N")

We wish also to thank Paul Coad and Reno Pressacco, Geologists for Royal Oak Mines Inc for their property visit and recommendations. (see annex "G-1")

Statistical Report - 1994

Job-Creation Summary

<u>Type of work</u>	<u># of days</u>	<u>Money expended</u>
Bulldozer operator	6 (60hrs)	\$2,568.00 (tax inc)
Backhoe operator	6 (57hrs)	2,439.60 (tax inc)
Power Stripping (water pump operator) 14		1,260.00
Assayer (lab tech) etc		1,605.02
Geological report and preparation of maps etc.		1,712.00
		.....
Total money paid to contractors		<u>\$9,584.62</u>

Description of Property

The McChesney Property (patented claims: Mr 16939, Mr. 16940, Mr. 16942, Mr. 16943) were purchased from the Estate of Roy McChesney. The official transfers took place May 31, 1993 and are referred to transfer # 278975 Temiskaming.

The McChesney Property can be seen as the centre part of the block of claims (36 + 4) located in Flavelle, Alma and Holmes Townships. (See annex "A")

The compilation map of Flavelle township shows #177 (A. E. Bailey) and #1798 (M. E. McChesney) (Annex "B")

LOCATION

This Flavelle Township Property is located in the Larder Lake Mining Division in the District of Temiskaming. This property is known as the Dufresne - Chartre - 1994 Property.

The Dufresne - Chartre - 1994 Property is located approximately 10 miles by road (#66 ) East of the Town of Matachewan. Kirkland Lake lies approximately 28.5 miles East of the Property.

ACCESS

Access to the property can be gained by travelling West from Kirkland Lake along Highway 66 for a distance of 28.5 miles to a point in Flavelle Township where Road # 1 of the Separation Lake Road meets Highway 66. From this point you travel North along this branch of the Separation Lake Road for approximately 1,000 feet where a new road has been opened up to the north within the McChesney Property.

REGIONAL GEOLOGY

(as reported by W. J. McGuinty, Geologist with Queenston Mining Inc.)

The northern Flavelle township, Holmes township area was mapped in 1962 by J. C. G. Moore and assistants at 1 inch to 1/2 mile scale for the Ontario Geological Survey. Archean volcanic mafic to intermediate flows and pyroclastics, minor felsic rocks, conglomerates and greywackes in northwestern Flavelle township and southwest Holmes township have been intruded by later plutonic rocks of syenite composition and latterly by granitic rocks. All these rocks have been cut by Matachewan diabase dykes. Sediments of the Cobalt group (Huronian) unconformably overly other rocks in a southwest trending band through southeastern Holmes township into northern Flavelle township. Crosscutting Keweenaw diabase dikes are the youngest rock type and known to cut Huronina rocks.

Study by L. S. Jensen (78-79) relates the local archean volcano-sedimentary strata to the Temiskaming series of rocks found in the Kirkland Lake area, consisting of trachytic volcanic and sedimentary rocks and late alkalic intrusives. These rocks trend easterly to ENE and have a strong easterly foliation. Dips are variable, likely as a result of local folding caused by nearby syenite intrusives. Sedimentary features in these rocks were noted by Moore to face south.

Syenite intrusives consist mainly of orthoclase, plagioclase and hornblende. Various syenite bodies have been identified by features affecting these major components. The Holmes porphyry is defined by its porphyritic orthoclase component. It is located in southwestern Holmes and northwestern Flavelle townships as well as westward into Alma and Cairo townships. An hornblende syenite body in central Holmes township is discriminated by 10-15% hornblende and 5% magnetite.

Cobalt series rocks are generally flat lying, dipping less than 20 degrees, although local steep dips to 80 degrees, particularly on the north contact have been recorded. The strata in Holmes and Flavelle townships is predominantly quartzite with interbeds of greywacke and argillite.

Structurally, several major fault systems traverse the area. Two main fault zones, the northeast trending Kirkland Lake-Larder Lake system and an unnamed north trending graben system intersect



REGIONAL GEOLOGY (CONTINUED)

each other in southeastern Flavelle township. The north trending graben is poorly defined in terms of structural evidence but can readily be seen on map 2205 as containing a long finger of Huronian sediments striking north through the Archean basement. Deposition of the Cobalt series sediments appears to have occurred well after folding and foliation of the archean volcanics but before certain periods of displacement along the Kirkland Lake-Larder Lake fault system as evidenced on a large scale by the apparent right hand (north side east) displacement of the Huronian sediments. In the field, strong foliation conformable to the Kirkland Lake-Larder Lake system can be seen in Huronian sediments which indicate movement in this system may post date Huronian deposition.

PROPERTY GEOLOGY

(as reported by W. J. McGuinty, Geologist with Queenston Mining Inc.)

The Dufresne - Chartre Property located in Northwestern Flavelle township, encloses a package of archean volcano-sedimentary rocks, having its contact to the west and south with the Holmes porphyry syenite. The eastern contact, between Cobalt sediments and both the volcanics and syenite is also enclosed by the claims. Metavolcanic rocks known to occur within the property boundary consist mainly of mafic flows and tuffs.

Felsic to intermediate rocks occur as thin interbeds and can be quite schistose. Sediments of archean age also noted by Moore within the property boundary and consist mainly of south dipping conglomerates. On claim 821445 a strong sericite schist with sulphide and gold mineralization is known to occur. A small vein of cherty quartz in this unit, possibly mylonitized, oriented sub-parallel to foliation, contains free gold. To the northeast of claim 821445 along strike from the schistose unit an old prospect pit containing massive detrital pyrite with no apparent foliation is found.

To the west several thin mylonitized quartz veins similar in nature to those found on claim 821445 are seen cutting

porphyritic syenite on claim 1046205. These are northeasterly trending and shear fabric is restricted to the veins. Similar veins can be seen further north in the syenite body outside the property boundary.

The implications of a possible extension of the Kirkland Lake-Larder Lake fault system through this area are the focus of exploration for this property. Roughly 1 1/2 miles north of the property, the Galer Lake fault is often suspected to be the extension of the Kirkland Lake fault. The Larder Lake break, although not defined by any known analogous structure in Flavelle township would traverse the Dufresne - Chartre Property in the vicinity of Wiley Lake, through the greenstones or, may act as contact between archean and huronian rocks along this portion of the graben system. The importance of the structures as a guide to ore in Kirkland Lake and Larder Lake and their potential influence on gold mineralization in the Matachewan camp underline the exploration potential of this property.

## GEOLOGY

A general compilation map of the area has been provided to us by David Bending, Senior Geologist with Homestake Canada Ltd. on November 10, 1992. This compilation map is enclosed at annex "B". According to David, this map is based on work by Len Cunningham, published maps by Howard Lovell, and reports by Pamourex. The purpose of the map is to provide general information covering the area. In order to prevent duplication a detailed chronology is provided in the history section of this prospecting proposal.

## HISTORY

- 1934 - K. Griffin produced a report re: Allen-Neelands Claims. The north part of property could refer to the McChesney property and the south or east part could be the Chavigny Property (now referred as the Welsh showing). (see annex "H-4")
- 1934 - A. E. Bailey completed exploration work on the M. E. McChesney claim # MR 16939 consisting of prospecting and diamond drilling. Three holes drilled on this claim, are said to have intersected a well mineralized quartz lens containing chalcopyrite, galena and tourmaline in contact with mafic volcanics on the north and a porphyry on the south. No assays were recorded from this drilling. Grab samples by McChesney returned low gold and good silver (3.2 oz/ton) values. (a 1965 report gives .07 oz/ton Au and 3.18/ton Ag) (see annex "H-1")
- 1936 - Dyer reported on the property. (see pages 51 and 52 reproduced by J. C. G. Moore in Geological Report 44 dated 1966 - Geology of Holmes - Burt Area)  
A series of trenches has indicated a well mineralized quartz mass in a fractured zone striking w. 30 degrees S. at right angles to the contact of the Keewatin greenstone schist and the syenite porphyry stock. The mineralization occurs as blebs and masses of fine and

HISTORY (continued)

- 1936 - coarse pyrite and chalcopyrite with a presence of pink carbonate, black tourmaline, galena, purple fluorite and some native gold. (see annex "H-4")
- 1948 - A. E. Bailey completed three diamond drill holes of the McChesney Property. (see annex "H-1")
- 1949 - W. S. Savage, Resident Geologist in Kirkland Lake provides us with information from the work of the Chavigny Gold Mines Ltd. This company's work was completed on the Welsh Showing on the North side of Highway 66 near Middleton Lake. It appears that four holes were drilled. (see annex "C")
- Exploration by Chavigny and later by Welsh included prospecting and drilling of a series of massive white fissure style quartz-tourmaline-pyrite-chalcopyrite-fluorite veins varying in width from 6 inches to greater than 5 feet and trending N30W. Low gold values, trace to 0.1 oz/ton silver ranging to 30.0 oz/ton and picked samples assaying up to 17.0% Pb, 3.05% Cu and 0.1% Zn were obtained. These veins were hosted by syenite.
- 1962 - The northern Flavelle township, Holmes township area was mapped.
- 1965 - McChesney (Allen-Coghill) reported that a well mineralized lens-shaped quartz was uncovered in a fracture zone. (see annex "H-4")
- 1975 - Noranda Exploration conducted geological mapping on a claim line reconnaissance scale over the Western part of Flavelle Township. Little detail is provided.
- 1986 - Falconbridge Ltd. completed a helicopter geophysical survey in the Holmes, Flavelle and Cairo townships.

HISTORY (CONTINUED)

- 1987 - Falconbridge Limited completed a trenching program in Flavelle township. (see annex "I")
- 1990 - Queenston Mining Inc. completed a VLF-EM survey in Flavelle township. (see annex "J")
- 1990 - Howard Lovell completed an evaluation of assessment work performed by Roger Dufresne and Denis Chartre. (see annex "K")
- 1991 - Queenston Mining Inc. completed a geology survey and diamond drilling in Flavelle township. (see annex "L")
- 1991 - Howard Lovell completed an evaluation of assessment work performed by Roger Dufresne and Denis Chartre. (see annex "H")
- 1992 - Howard Lovell completed an evaluation of assessment work performed by Roger Dufresne and Denis Chartre. (see annex "N")
- 1994 - Denis Chartre and Roger Dufresne complete a power stripping programme, a prospecting programme and a geology report. (see enclosed report)

RECOMMENDATIONS AND CONCLUSIONS:

Services Exploration Eng., in their Prospecting Program Report dated November 1994 provides us with the following recommendations:

- Exhaustive and systematic exploration program (geological survey, magnetometer survey, induced polization survey) to outline an economic gold deposit.

Wayne Benham, of Queenston Mining Inc. in his letter of December 7, 1994 recommends:

- Geophysical survey
- I P survey
- Magnetometer survey
- Drilling of Area 3

Paul Coad and Reno Pressacco of Royal Oak Mines visited the property Saturday, November 5, 1994. They provide us with the following recommendations:

- Prepare a grid North and East of Area 3
- Do soil samples (geochemical survey)
- Locate outcrops and/or strip
- Locate the contact where the gold concentration is greatest



**ONTARIO PROSPECTORS ASSISTANCE PROGRAM (OPAP)  
FINAL SUBMISSION FORM 1994**

**INSTRUCTIONS: Please read the guidebook before completing form** Please type or print

Submit completed form and supporting documentation by January 31, 1995 (May 31, 1995 for winter program) to:  
Incentives Office (Mining and Land Management Branch)  
Ministry of Northern Development & Mines  
5th Floor, 933 Ramsey lake Rd., Sudbury, Ontario P3E 6B5

**TO BE COMPLETED BY SUCCESSFUL GRANTEES AFTER PROJECT COMPLETION AND ACCOMPANIED BY WRITTEN REPORTS, MAPS, ETC.**

Regular Project  Winter Project

Applicant DENIS CHARTRIE File Number OP94-098

Proposed project area(s) (Twp. or claim map name, latitude and longitude)	Completed?
1. <u>FLAVELLE TWP. MCCHESENEY PROPERTY</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	Yes <input type="checkbox"/> No <input type="checkbox"/>

Changes to proposed project(s) (if any) N/A

List other co-owners of the property with OPAP grants that worked on project  
ROGER DUFRESNE OP94-097

**I. WORK PERFORMED BY APPLICANT (Summary of Section IV)**

1. Project #1 area/name	<u>FLAVELLE TWP. MCCHESENEY PROPERTY</u>	No. days worked by applicant
Traditional prospecting	No. of samples <u>134 SAMPLES ÷ 2 = 67</u>	<u>3</u> (that's only you)
Geological surveys	Scale <u>SEE ATTACHED REPORT</u>	<u>1</u>
Geophysical surveys	Type _____ Miles/km _____	_____
Geochemical surveys	Type _____ No. of samples _____	_____
Drilling	Type _____ Ft./m _____	_____
Stripping/Trenching	Method <u>POWER STRIPPING PUMP BACKHOE-DOZER MANUAL LABOUR</u>	<u>45</u>
Other	Type <u>PROPERTY VISITS</u>	<u>2</u>
	<b>TOTAL</b>	<u>51</u>

Form filled out by  Applicant  Other (please specify) \_\_\_\_\_  
Report prepared by  Applicant  Other (please specify) SERVICES EXPLORATION

I. WORK PERFORMED BY APPLICANT (Continued)

2. Project #2 area/name _____		No. days worked by applicant _____
Traditional prospecting	No. of samples _____	_____
Geological surveys	Scale _____	_____
Geophysical surveys	Type _____ Miles/km _____	_____
Geochemical surveys	Type _____ No. of samples _____	_____
Drilling	Type _____ Ft./m _____	_____
Stripping/Trenching	Method _____	_____
Other	Type _____	_____
	TOTAL	_____
TOTAL DAYS (ALL PROJECTS)	A.	_____

(Attach additional sheets for additional project areas as required)

II. EXPENDITURES (total of all projects) - Summary of I and II

1. Number of working days by applicant		
(A) x \$100/day	51 X 100	\$ 5100.00
2. Number of report preparation days by applicant x \$100/day	3	\$ 300.00
3. Analyses/Assay costs	50% OF 1605.02	\$ 802.51
4. Equipment rentals/supplies (specify)		
.....	\$ _____	\$ _____
.....	\$ _____	\$ _____
.....	\$ _____	\$ _____
5. Contract services (state type)		
MANUAL LABOUR AND PUMP OPERATOR	7 DAYS @ 90.00 = 630.00	\$ 630.00
GEOLOGY-DRAFTING & REPORT	50% OF 1712.00 = 856.00	\$ 856.00
POWER STRIPPING	50% OF 5007.60 = 2503.80	\$ 2503.80
BACKHOE & DOZER		
6. Travel (state method: road, air, etc.)		
38.4 Km X 0.30 X 5	DAYS	\$ 587.52
.....	\$ _____	\$ _____
.....	\$ _____	\$ _____
7. Food and Accommodation	\$20.00 PER DAY X 51 DAYS	\$ 1020.00
8. Other expenses (specify, e.g. helpers)		
OIL GAS PROPANE	\$ 394.30	\$ 394.30
SUPPLIES	\$ 214.34	\$ 214.34
.....	\$ _____	\$ _____
TOTAL EXPENDITURES		\$ 12408.47







## IV. DAILY REPORTS (Summarize work activity in Section I)

Day	Project Area	Date	Work Performed
	CLAIM#		
1	16943 AREA-1	APRIL 30/94	CUTTING A TRAIL TO PIT #1
2	16943 AREA-1	MAY 1	CUTTING A TRAIL TO PIT #1
3	16943 AREA-1	7	CUTTING A TRAIL TO PIT #1
4	16943 AREA-1	8	CLEARING PIT #1 OF TREES & BRUSH
5	16943 AREA-1 TO 16939 AREA-2	14	CUTTING A TRAIL FROM PIT #1 TO PIT #2
6	16943 AREA-1 TO 16939 AREA-2	15	CUTTING A TRAIL FROM PIT #1 TO PIT #2
7	16939 AREA-2	21	CUTTING TREES & BRUSH AROUND PIT #2
8	16939 AREA-2	22	CUTTING TREES & BRUSH AROUND PIT #2
9	16942 AREA-3	23	CUTTING TREES & BRUSH AROUND TRENCH #3
10	16942 AREA-3	28	CUTTING TREES & BRUSH AROUND TRENCH #3
11	16942 AREA-3	29	CUTTING TREES & BRUSH AROUND TRENCH #3
12	16942 AREA-3	JUNE 4	CUTTING TREES & BRUSH AROUND TRENCH #2
13	16942 AREA-3	5	CUTTING TREES & BRUSH AROUND TRENCH #2
14	16942 AREA-3	11	CUTTING TREES & BRUSH AROUND TRENCH #2
15	16942 AREA-3	12	CUTTING TREES & BRUSH AROUND TRENCH #2
16	16939 AREA-2	18	CUTTING TREES & BRUSH AROUND PIT #2
17	16939 AREA-2	19	CUTTING TREES & BRUSH AROUND PIT #2
18	ALL AREAS TO BE STRIPPED	26	TOOK THE CONTRACTOR TO THE AREA
19	16943	JULY 1	CUT TRAIL TO BEAVER POND
20	16943	2	BROUGHT IN EQUIPMENT AND AUNT DOK
21	16943 AREA-1	3	MANUAL & POWER STRIPPING PIT #1
22		6	SUPERVISING CONTRACTOR & MANUAL STRIPPING
23		7	SUPERVISING CONTRACTOR & MANUAL STRIPPING
24		8	SUPERVISING CONTRACTOR & MANUAL STRIPPING
25	16943 AREA-1 AREA-3	9	SUPERVISING CONTRACTOR & MANUAL STRIPPING
26	16943 AREA-1	10	SUPERVISING CONTRACTOR & POWER STRIPPING PIT #1
27	16943 AREA-1	11	SUPERVISING CONTRACTOR & POWER STRIPPING PIT #1
28	16943 AREA-1	15	MANUAL & POWER STRIPPING PIT #1
29	16943 AREA-1	16	MANUAL & POWER STRIPPING PIT #1
30	16943 AREA-1 & 16939 AREA-2	17	MANUAL & POWER STRIPPING PIT #1 & PIT #2
31	16939 AREA-2	22	MANUAL & POWER STRIPPING PIT #2
32	16939 AREA-2	23	MANUAL & POWER STRIPPING PIT #2
33	16939 AREA-2	24	MANUAL & POWER STRIPPING PIT #2
34	16939 AREA-2	29	MANUAL & POWER STRIPPING PIT #2
35	16939 AREA-2	30	MANUAL & POWER STRIPPING AROUND PIT #2
36	16939 AREA-2	31	MANUAL & POWER STRIPPING AROUND PIT #2
37	16942 AREA-3	AUG. 1	MANUAL & POWER STRIPPING TRENCH #1
38	16942 AREA-3	5	MANUAL & POWER STRIPPING TRENCH #2 & #3
39	16942 AREA 3 & 4	6	MANUAL & POWER STRIPPING TRENCH #2 & #3 & #4
40	16942 AREA 3 & 4	7	TOOK SAMPLES FROM AREA 3 & AREA 4
41	821450 AREA 6	12	STRIPPED WITH 300 GAL. TANK OF WATER AND MOVED EQUIPMENT OUT

Attach additional sheets as required.



**V. SIGNIFICANT RESULTS (please complete)**

Project Area	New Showings and/or Anomalies	Commodity	Best Analyses
FLANELLE TWP McCHESNEY PROPERTY	AREA 3 (SEE REPORT)	GOLD	7 METRES WIDE BY 17 METRES AVERAGING OF 0.063 OZ OF AU

**VI. CLAIMS STAKED DURING/AFTER PROSPECTING ACTIVITY (please complete)**

Project Area	Claim Numbers	Number of Claim Units

**VII. OPTION AGREEMENTS RESULTING FROM OPAP PROJECT (please complete)**

Optionee	Property/Claims	Dollar Value of Work Commitment
TO FOLLOW SEE LETTER FROM ROYAL OAK MINES DATED DEC 13/94		

The Ministry of Northern Development and Mines may verify all statements related to and made herein this application.

1. I am the person named in the Final Submission Form under the Ontario Prospectors Assistance Program.
2. I am ordinarily a resident of Canada.
3. I have complied with all the requirements of the said program.
4. I understand that it is an offence under the Ontario Mineral Exploration Act, R.S.O. 1990, to make a false or misleading statement and that all statements and all other information submitted in support of the said application are true and correct.
5. I was not employed by the Ministry while in receipt of the OPAP grant.
6. I am not the spouse, child, sibling or parent of a Ministry employee.
7. I am aware that any other Provincial or Federal Government financial assistance received for said application will be deducted from the amount of incurred "Total Eligible Expenses".

**It is an Offence under subsection 8(1)(A) of the Ontario Mineral Exploration Act, R.S.O. 1990 to knowingly furnish false or misleading information.**

Personal information on this form is obtained under the authority of the Ontario Mineral Exploration Act, R.S.O. 1990, sections 2, 3 and 4 and the Ontario Prospectors Assistance Program Regulation, sections 4, 5 and 6. The financial and technical information will be used for the purpose of determining the eligibility of the applicant to

have a program designated for financial assistance and the amount of such assistance. Other information, such as statistical information about the individual projects will be used for the purpose of determining the overall effectiveness of the program. It may be disclosed for those purposes and I consent to its disclosure for such

purposes. Questions about this collection should be directed to Supervisor, Incentives Office, Mining and Land Management Branch, Ministry of Northern Development and Mines, 5th Floor, 933 Ramsey Lake Road, Sudbury, Ontario P3E 6B5, Toll free 1-800-265-0834.

Signature of Applicant Denis Chartre Date Jan 8/95  
 Name (print) DENIS CHARTRE



**ONTARIO PROSPECTORS ASSISTANCE PROGRAM (OPAP)  
FINAL SUBMISSION FORM 1994**

**INSTRUCTIONS:** Please read the guidebook before completing form. Please type or print. Submit completed form and supporting documentation by January 31, 1995 (May 31, 1995 for winter program) to: Incentives Office (Mining and Land Management Branch) Ministry of Northern Development & Mines 5th Floor, 933 Ramsey lake Rd., Sudbury, Ontario P3E 6B5

**TO BE COMPLETED BY SUCCESSFUL GRANTEES AFTER PROJECT COMPLETION AND ACCOMPANIED BY WRITTEN REPORTS, MAPS, ETC.**

Applicant ROGER DUFRESNE Regular Project  Winter Project  File Number OP94-097

Proposed project area(s) (Twp. or claim map name, latitude and longitude) Completed? Yes  No   
 1. FLAVELLE TOWNSHIP (MCCHESNEY PROPERTY)  
 2. \_\_\_\_\_ Yes  No

Changes to proposed project(s) (if any) N/A

List other co-owners of the property with OPAP grants that worked on project  
DENIS CHARTRE OP94-098

**I. WORK PERFORMED BY APPLICANT (Summary of Section IV)**

1. Project #1 area/name FLAVELLE TOWNSHIP MCCHESNEY PROPERTY No. days worked by applicant \_\_\_\_\_

	No. of samples	(that's only you)
Traditional prospecting	<u>134/2 = 67</u>	<u>3</u>
Geological surveys	Scale <u>SEE ATTACHED REPORT</u>	<u>1</u>
Geophysical surveys	Type _____ Miles/km _____	<u>0</u>
Geochemical surveys	Type _____ No. of samples _____	<u>0</u>
Drilling	Type _____ Ft./m _____	<u>0</u>
Stripping/Trenching	Method <u>POWER STRIPPING - BACKHOE/EXCAVATOR</u>	<u>45</u>
Other	Type <u>MANUAL LABOUR PROPERTY VISITS</u>	<u>2</u>
TOTAL		<u>51</u>

Report prepared by  Applicant  Other (please specify) \_\_\_\_\_  
 Applicant  Other (please specify) SERVICES EXPLORATION

**I. WORK PERFORMED BY APPLICANT (Continued)**

2. Project #2 area/name _____		No. days worked by applicant _____
Traditional prospecting	No. of samples _____	_____
Geological surveys	Scale _____	_____
Geophysical surveys	Type _____ Miles/km _____	_____
Geochemical surveys	Type _____ No. of samples _____	_____
Drilling	Type _____ Ft./m _____	_____
Stripping/Trenching	Method _____	_____
Other	Type _____	_____
	<b>TOTAL</b>	_____
<b>TOTAL DAYS (ALL PROJECTS)</b>		<b>A.</b> _____
(Attach additional sheets for additional project areas as required)		

**II. EXPENDITURES (total of all projects) - Summary of I and II**

1. Number of working days by applicant	51 X 100	\$ 5100.00
(A) x \$100/day .....		
2. Number of report preparation days by applicant x \$100/day .....	3	\$ 300.00
3. Analyses/Assay costs .....	50% OF \$1,605.02	\$ 802.51
4. Equipment rentals/supplies (specify)		
.....	\$ _____	\$ _____
.....	\$ _____	\$ _____
.....	\$ _____	\$ _____
5. Contract services (state type)		
MANUAL LABOUR AND PUMP (7 X 90.)	630.00	
OPERATOR		
GEOLOGY AND DRAFTING REPORT (50% of 1712)	856.00	\$ 3,989.80
POWER STRIPPING (50% of \$5,076.00)	2538.00	
BACKHUE AND BULLDOZER		
6. Travel (state method: road, air, etc.)		
TRUCK 45.6 X 30 X 51		\$ 697.68
.....		\$ _____
.....		\$ _____
7. Food and Accommodation	\$20.00 (PER DAY) X 51	\$ 1020.00
8. Other expenses (specify, e.g. helpers)		
OUTBOARD / PUMP / KAWASAKI GAS	194.68	
MEDICAL SUPPLIES	335.69	
PROPANE	45.15	
SUPPLIES: \$589.46 + \$354.70 + \$61.38 + \$96.06	252.61	
	1101.60	
<b>TOTAL EXPENDITURES .....</b>		<b>\$ 13,504.03</b>

# GAS AND OIL FOR

## 4X4 KAWASAKI AND PUMP.

### III. DETAILED LIST OF EXPENDITURES (Summarize in Section II)

Date	Recipient of Payment	Explanation	Amount
1994			
JUNE 15	PEYRO CANADA	GAS	10.51
24	"	"	9.63
30	"	"	14.70
JULY 04	"	"	14.00
15	"	"	42.32
AUG. 10	"	"	50.52
14	"	"	25.00
27	"	"	28.00

Mileage rate claimed \_\_\_\_\_ km at 30¢/km for use of own vehicle .....

TOTAL 194.68

Attach additional sheets as required.







# GENERAL SUPPLIES I

## III. DETAILED LIST OF EXPENDITURES (Summarize in Section II)

Date	Recipient of Payment	Explanation	Amount
1994			
JAN 31	MET	HARDWARE	1.15
28	LOEB CLUB PLUS	TWEEZERS	1.14
FEB 16	CANADIAN TIRE	SPARK PLUGS	4.99
17	MULLENAGHAN MARINE	MOTOR PART	15.87
MARCH 5	CANADIAN TIRE	ALLEN KEYS	5.95
4	MULLENAGHAN MARINE	PARTS	27.72
11	CANADIAN TIRE	DRILL BITS	12.60
11	CANADIAN TIRE	LIGHTER	1.73
15	LOEB CLUB PLUS	CAN OPENER	3.00
12	CANADIAN TIRE	TIE DOWNS	5.74
16	LOEB CLUB PLUS	TENSOR BAND	4.60
18	JOE ROSS SCRAP	BACK DUMP PARTS	24.80
18	HOME HARDWARE	ELECTRICAL	17.98
18	CANADIAN TIRE	ELECTRICAL	19.47
18	NORTHERN AUTO	ELECTRICAL	10.07
18	CANADIAN TIRE	PLASTIC BAGS, ETC	24.68
26	GINN-MCLEAN HWY.	NAILS, BOLTS, SCREWS	69.00
26	GINN-MCLEAN HWY.	NAILS	15.00
APRIL 4	CANADIAN TIRE	FUNNEL	3.08
8	WISEWAY	TOOL	18.18
16	HOME HARDWARE	BROOM	14.94
28	CANADIAN TIRE	FLAGGING TAPE	13.31
29	HOME HARDWARE	FLAGGING TAPE	2.86
29	CANADIAN TIRE	CLAMP, ETC	36.78
29	ELMER'S SMALL ENGINES	DIPHARM, ETC.	23.63
29	ELMER'S SMALL ENG.	PART AND OIL BENS	36.63
29	HOBBY SHOP	LEATHER PARTS	3.15
MAY 5	CANADIAN TIRE	PATCHING KITS, ETC	36.67
12	CANADIAN TIRE	PART	20.69
15	B. VALLIER	PLUGGER PARTS	20.00
20	CANADIAN TIRE	GEAR OIL ETC	16.06
20	PHOTO PROCESSING	PHOTO METRO	15.53
22	GUY'S GARAGE	TAPE, FLY DOPE, ETC	14.85
23	GUY'S GARAGE	FLAGGING TAPE	5.19
24	JOHN FAULKNER SHELL	VALVE	2.59
JUNE 1	CANADIAN TIRE	SCREW DRIVER	7.46
11	GUY'S GARAGE	FLY DOPE	3.07
11	CANADIAN TIRE	URSOL	30.10

Mileage rate claimed \_\_\_\_\_ km at 30¢/km for use of own vehicle .....

TOTAL \$ 589.46

Attach additional sheets as required.

# GENERAL SUPPLIES II

## III. DETAILED LIST OF EXPENDITURES (Summarize in Section II)

Date	Recipient of Payment	Explanation	Amount
1994	KIRKLAND LAKE HOME	SHOVEL / ELECT /	16.08
JUNE 18	HARDWARE		20.69
23	CANADIAN TIRE	REF. BOOK	
		MANUAL	
25	PHOTO METRO	PROCESSING	14.99
25	CANADIAN TIRE	KEYS	8.97
30	MCCLENNAGHAN	GAS LINE	6.27
30	HOME HARDWARE	GAS LINE HARDWARE	11.49
30	GUILLEVIN	BAKERY / FLY DOPE / LAMP	33.90
30	HOME HARDWARE	PLUMBING	12.62
JULY 8	GUY'S GARAGE	OIL, TAPE, THERMOS	39.32
11	CANADIAN TIRE	WD40/OIL/TAPE/VALVE	49.02
13	COUNTRY BASKET	SALT/PEPPER	3.87
16		GLOVES/OIL/ETC	32.80
18	MCNEALEAL'S KAWASAKI	SPARK PLUG	
		AND OIL FILTER	20.47
21	NORTHERN AUTO	FILTER	3.15
28	NORTHERN AUTO	ELEC / JOINT / CONNECTOR	2.10
28	CANADIAN TIRE	ELEC / CONNECTOR /	11.78
AUG. 11	RADIO SHACK	TOOL	3.44
SEPT 23	HOME HARDWARE	TAPE	1.26
20	GUILLEVIN	BATTERY	13.49
OCT 7	CANADIAN TIRE	ROPE	40.81
NOV. 25	CANADIAN TIRE	GLUE / EXT. CORD	12.05

Mileage rate claimed \_\_\_\_\_ km at 30¢/km for use of own vehicle .....

TOTAL 354.70

Attach additional sheets as required.



# PAPER SUPPLIES AND REFERENCE BOOKS

## III. DETAILED LIST OF EXPENDITURES (Summarize in Section II)

Date	Recipient of Payment	Explanation	Amount
1994 JAN 27	GIANT TIGER	PAPER	2.73
MARCH 15	PHOTO METRO	PROCESSING	28.44
21	CARL'S OFFICE	ENVELOPES	.46
19	CARL'S OFFICE	PHOTO COPIES	2.41
APRIL 9	THE BOOK PEOPLE	REFERENCE BOOK	32.05
29	GIANT TIGER	PAPER	2.29
MAY 7	K.L. PHARMACY	PAPER	4.88
JUNE 1	CARL'S OFFICE	FLOW CHART	3.00
9	LOEB	ENVELOPE	.40
23	CARL'S OFFICE	STATIONERY	2.99
SEPT 10	GORDON'S STAT.	PAPER	5.29
10	GORDON'S STAT.	RUBBER STAMP.	6.00
10	CARL'S OFFICE	STORAGE BOXES	5.12

Mileage rate claimed \_\_\_\_\_ km at 30¢/km for use of own vehicle .....  
TOTAL \$96.06

Attach additional sheets as required.

IV. DAILY REPORTS (Summarize work activity in Section I)

Day	Project Area	Date	Work Performed
	CAAIM#		
1	16943 AREA-1	APRIL 30/84	CUTTING A TRAIL TO PIT#1
2	16943 AREA-1	MAY 1	CUTTING A TRAIL TO PIT#1
3	16943 AREA-1	7	CUTTING A TRAIL TO PIT#1
4	16943 AREA-1	8	CLEARING PIT#1 OF TREES & BRUSH
5	16943 AREA-1 TO 16939 AREA-2	14	CUTTING A TRAIL FROM PIT#1 TO PIT#2
6	16943 AREA-1 TO 16939 AREA-2	15	CUTTING A TRAIL FROM PIT#1 TO PIT#2
7	16939 AREA-2	21	CUTTING TREES & BRUSH AROUND PIT#2
8	16939 AREA-2	22	CUTTING TREES & BRUSH AROUND PIT#2
9	16942 AREA-3	23	CUTTING TREES & BRUSH AROUND TRENCH#3
10	16942 AREA-3	28	CUTTING TREES & BRUSH AROUND TRENCH#3
11	16942 AREA-3	29	CUTTING TREES & BRUSH AROUND TRENCH#3
12	16942 AREA-3	JUNE 4	CUTTING TREES & BRUSH AROUND TRENCH#2
13	16942 AREA-3	5	CUTTING TREES & BRUSH AROUND TRENCH#2
14	16942 AREA-3	11	CUTTING TREES & BRUSH AROUND TRENCH#2
15	16942 AREA-3	12	CUTTING TREES & BRUSH AROUND TRENCH#2
16	16939 AREA-2	18	CUTTING TREES & BRUSH AROUND PIT#2
17	16939 AREA-2	19	CUTTING TREES & BRUSH AROUND PIT#2
18	16943	JULY 1	CUT TRAIL TO BEAVER POND
19	16943	2	BROUGHT IN EQUIPMENT AND OIL DOLK
20	16943 AREA-1	3	MANUAL & POWER STRIPPING PIT#1
21		6	SUPERVISING CONTRACTOR & MANUAL STRIPPING
22		7	SUPERVISING CONTRACTOR & MANUAL STRIPPING
23		8	SUPERVISING CONTRACTOR & MANUAL STRIPPING
24	16943 AREA-1 AREA-3	9	SUPERVISING CONTRACTOR & MANUAL STRIPPING
25	16943 AREA-1	10	SUPERVISING CONTRACTOR & POWER STRIPPING PIT#1
26	16943 AREA-1	11	SUPERVISING CONTRACTOR & POWER STRIPPING PIT#1
27	16943 AREA-1	15	MANUAL & POWER STRIPPING PIT#1
28	16943 AREA-1	16	MANUAL & POWER STRIPPING PIT#1
29	16943 AREA-1 16939 AREA-2	17	MANUAL & POWER STRIPPING PIT#1 & PIT#2
30	16939 AREA-2	22	MANUAL & POWER STRIPPING PIT#2
31	16939 AREA-2	23	MANUAL & POWER STRIPPING PIT#2
32	16939 AREA-2	24	MANUAL & POWER STRIPPING PIT#2
33	16939 AREA-2	29	MANUAL & POWER STRIPPING PIT#2
34	16939 AREA-2	30	MANUAL & POWER STRIPPING AROUND PIT#2
35	16939 AREA-2	31	MANUAL & POWER STRIPPING AROUND PIT#2
36	16942 AREA-3	AUG 1	MANUAL & POWER STRIPPING TRENCH#1
37	16942 AREA-3	5	MANUAL & POWER STRIPPING TRENCH#2
38	16942 AREA-3 & 4	6	MANUAL & POWER STRIPPING TRENCH#2 & 3 & 4
39	16942 AREA-3 & 4	7	TOOK SAMPLES FROM AREA 3 & 4
40	221450 AREA-6	12	STRIPPED WITH 300 GAL TANK OF WATER
41	16943 AREA-1 16939 AREA-2	13	TOOK SAMPLES FROM PIT#1 & #2

AND MOVED OUT EQUIPMENT

Attach additional sheets as required.





**V. SIGNIFICANT RESULTS (please complete)**

Project Area	New Showings and/or Anomalies	Commodity	Best Analyses
FLAVELLE TWP MC CHESNEY PROPERTY	AREA-3 SEE REPORT	GOLD	7 METERS WIDE BY 17 METERS LONG AVERAGED AT .063 OZ AU/TON

**VI. CLAIMS STAKED DURING/AFTER PROSPECTING ACTIVITY (please complete)**

Project Area	Claim Numbers	Number of Claim Units
		N/A

**VII. OPTION AGREEMENTS RESULTING FROM OPAP PROJECT (please complete) (TO FOLLOW)**

Optionee	Property/Claims	Dollar Value of Work Commitment
(SEE LETTER FROM ROYAL OAK MINES INC. DATED DECEMBER 13, 1994)		

The Ministry of Northern Development and Mines may verify all statements related to and made herein this application.

- I am the person named in the Final Submission Form under the Ontario Prospectors Assistance Program.
- I am ordinarily a resident of Canada.
- I have complied with all the requirements of the said program.
- I understand that it is an offence under the Ontario Mineral Exploration Act, R.S.O. 1990, to make a false or misleading statement and that all statements and all other information submitted in support of the said application are true and correct.
- I was not employed by the Ministry while in receipt of the OPAP grant.
- I am not the spouse, child, sibling or parent of a Ministry employee.
- I am aware that any other Provincial or Federal Government financial assistance received for said application will be deducted from the amount of incurred "Total Eligible Expenses".

**It is an Offence under subsection 8(1)(A) of the Ontario Mineral Exploration Act, R.S.O. 1990 to knowingly furnish false or misleading information.**

Personal information on this form is obtained under the authority of the Ontario Mineral Exploration Act, R.S.O. 1990, sections 2, 3 and 4 and the Ontario Prospectors Assistance Program Regulation, sections 4, 5 and 6. The financial and technical information will be used for the purpose of determining the eligibility of the applicant to

have a program designated for financial assistance and the amount of such assistance. Other information, such as statistical information about the individual projects will be used for the purpose of determining the overall effectiveness of the program. It may be disclosed for those purposes and I consent to its disclosure for such

purposes. Questions about this collection should be directed to Supervisor, Incentives Office, Mining and Land Management Branch, Ministry of Northern Development and Mines, 5th Floor, 933 Ramsey Lake Road, Sudbury, Ontario P3E 6B5, Toll free 1-800-265-0834.

Signature of Applicant Roger J. Dufresne Date JANUARY 8, 1995  
 Name (print) ROGER J. DUFRESNE

SERVICES EXPLORATION SERVICES Enrg.  
Reg'd.

765, BOUL. QUÉBEC  
C.P. 428  
ROUYN-NORANDA, P.Q.  
J9X 5C4  
TÉL.: (819) 797-0853  
FAX: (819) 797-1848

**SANS FRAIS**  
Tél.: 1-800-567-6053  
Fax: 1-800-661-1848

**2.15802**

PROSPECTING PROGRAM

CHARTRE-DUFRESNE OPAP PROJECT

FLAVELLE TWP. PROPERTY

November 1994

RECEIVED  
JAN 18 1995  
MINING LANDS BRANCH

## TABLE OF CONTENTS

I - INTRODUCTION	P 1
II - PROPERTY	P 1
III - LOCATION & ACCESSIBILITY	P 2
IV - PROSPECTING PROGRAM	P 2
V - CONCLUSIONS & RECOMMENDATIONS	P 12

### APPENDIX

- A - Claim Numbers
- B - Assay Certificates

### MAPS

1 - Claim Map	1:50 000
2 - Areas of Prospecting	1:12 500
3 - Geological Map	1" = 1/2 mi.
4 - Location Map	1: 100 000

I - INTRODUCTION:

This report, written at the request of D. Chartré and R. Dufresne, describes the prospecting carried out on the CHARTRE-DUFRESNE Flavelle township property during the months of August, September and October 1994.

The stripping, trenching and sampling programs were carried out within the framework of an OPAP project in an attempt to re-evaluate areas of old gold showings including those of the old McChesney claim group.

II - PROPERTY:

The CHARTRE-DUFRESNE property consists of a block of 40 contiguous claims of which 36 are located in the northwestern corner of FLAVELLE twp., 3 are located in the southwestern quadrant of HOLMES twp. and 1 in the southeast area of Alma Twp.

The list of claim numbers of the CHARTRE-DUFRESNE property appears on Appendix "A" of this report.

The prospecting of the 1994 program has been carried out on claims 16939, 16942, 16943 of the former McChesnay claim block and also on adjoining claims 821450, 1014296 and 1046203.

III - LOCATION & ACCESSIBILITY:

The claim group is located west of highway # 66 in the northwestern corner of FLAVELLE township. It lies at an approximate distance of 22 miles southwest of the town of Kirkland Lake, ONTARIO.

From the town of Matachewan, the area of the claim group may be reached by driving notheastwards along highway # 66 for a distance of 8 miles, then westwards along a bush road which traverses the southern part of the claim group.

IV - PROSPECTING PROGRAM:

A total of 7 areas have been stripped, trenched, cleaned and sampled. The stripping and cleaning of old trenches has been done mostly with a mechanical shovel. The rock surfaces have been cleaned by using a fire hose. Some of the samples were taken with the help of a diamond saw.

The location of the 7 areas is indicated on an accompanying map.

AREA 1:

The main exploration target of AREA 1 is a quartz vein formerly prospected in the 1930's for GOLD.

The main quartz vein had been exposed by trenching over a length of 18 m. This east-west trending vein occurs within a shear zone located at the contact between syenite and a strongly altered sedimentary or volcanic rock inclusion. The vein contains appreciable quantities of pyrite, chalcopyrite and galena - tourmaline is also present.

A north-south trending DIABASE dyke intercepts the eastern limit of the vein.

The 1994 exploration program exposed, by stripping, 10 meter long outcrop areas on either side of the vein. The mechanical shovel was also used to remove debris accumulated over the years on the trenched area of the vein.

Grab samples were taken at various points along the quartz vein and assayed for GOLD.

GOLD appears to be present in small quantities throughout the length of the vein - the best assay obtained indicated 1.65 gr Au/T.

A detailed geological survey should be undertaken in an attempt to locate the extension of the vein east of the diabase dyke.

AREA 2:

The main exploration target of AREA 2 is a quartz vein system which has been prospected in the 1930's for GOLD.

Occurring on the southeastern side of a 3 m wide silicified zone striking at  $60^{\circ}$ , a 5 meter wide fracture zone containing mineralized quartz veins has been exposed by 6 trenches over a length of 50 m.

The main quartz vein within the fracture zone parallels the silicified zone and is adjacent to it. It appears to have a maximum width of 3 meters between trenches # 4 and # 5.

Smaller quartz veins are also present within the fractured zone - these trend in many directions.

The veins contain appreciable amounts of pyrite, chalcopyrite and galena.

The 1994 exploration program has exposed, by stripping, additional bedrock to the southwest for a distance of 50 m and to the north for an additional distance of 40 m. A few small quartz veins containing pyrite, chalcopyrite and tourmaline have been exposed in the western part of AREA 2.



The mechanical shovel was also used to clean out the old trenches filled with debris.

Grab and chip samples were taken at different places along the quartz veins and mineralized areas. The samples were assayed for GOLD.

The most important concentration of GOLD appears to be located in the vicinity of trench # 7 where values of 11.45, 5.42, 3.22 and 1.58 gr/T Au have been recorded.

Trench # 7 is 8 meters long - it exposes quartz along its entire length including the 3 m wide silicified zone. Since it is the most northeasterly exposure, trench # 7 indicates that the main quartz filled fracture zone and accompanying silicified zone extend northeasterly.

The fracture zone occurs at the contact of syenite with strongly altered sedimentary or volcanic inclusions.

To further evaluate this GOLD-bearing zone as a potential open pit mining operation, it is recommended that a detailed systematic drill program be initiated.

AREA 3:

The main exploration target of AREA 3 is a rusted outcrop containing 4 pits; the pits have been blasted by prospectors to investigate small quartz veins for GOLD.

The 1994 exploration program was initiated to further investigate these showings; thus, the outcrop was stripped, cleaned and assayed.

The outcrop consists mostly of sheared, highly altered carbonatized greyish-green sediments containing 1 to 10% disseminated pyrite. As defined by the narrow conglomerate horizon, the local stratigraphy strikes at 50°. A few small quartz veins of random orientation and distribution have been observed.

Random grab and channel samples have indicated a pervasive distribution of GOLD, concentrations of which are located northwest of the conglomerate horizon. A total of 10 samples distributed within an outcrop area of 7 meters wide by 17 meters long averaged 2.17 gr Au/T ( 0.063 oz Au/T)

This limited outcrop exposure could indicate the presence of an extensive, low grade, GOLD-bearing horizon amenable to an open pit mining operation.

The relatively high concentration and pervasive distribution of GOLD outlined in AREA 3 warrants the execution of a detailed and systematic exploration program which would, initially, include geological and Induced Polarization surveys in addition to a continued prospecting program.

---

Assays from 10 samples taken northwest of the conglomerate horizon.

<u>Sample #</u>	<u>Assay gr Au/T</u>
4762	2.95
4763	4.59
17693	2.51
17696	1.92
17697	0.58
17698	0.04
23710	1.31
23711	3.84
23712	2.06
xtra	1.92

average 2.17 gr Au/T      or    0.063 oz Au/T

AREA 4:

Stripping on AREA 4 was undertaken in an attempt to locate a northeast extension of the gold-bearing horizon outlined on AREA 3.

The 26 meter long stripped area has exposed important information relative to the local stratigraphy which trends northeast at 60°. Observations on the exposed bedrock indicate, from south to north the presence of unaltered massive pillowed ANDESITE, SEDIMENTS, a narrow 1 meter wide band of IRON FORMATION containing mm wide bands of magnetite, well bedded SEDIMENTS, followed by altered, sheared and carbonatized SEDIMENTS containing appreciable amounts of pyrite ( 1 - 10%).

Most of the samples taken within the altered sediments contain minor amounts of gold.

Stripping would have to be extended northwestward to intercept the gold-bearing horizon observed on AREA 3.

AREA 5:

A rusted outcrop partially exposed on the north side of the main local access road has been stripped, washed and sampled.

The exposed bedrock indicates the presence of a greyish-green carbonatized sediment containing up to 10% disseminated pyrite.

Samples taken randomly along this 30 meter long rock exposure indicates the presence of low gold values.

AREA 6:

A partially exposed rusted outcrop located on the north side of the main access road between highway 66 and AREA 5 has also been stripped, washed and sampled.

The outcrop indicates the presence of altered sediments hosting narrow silicified zones containing disseminated pyrite. A few small quartz veins have also been observed.

Three of the four samples taken contained minor amounts of gold.

AREA 7:

A rusted outcrop located on the north side of the main access road (Claim # 1046203), west of AREA 5, has been stripped and sampled.

The bedrock exposed indicates the presence of syenite, gabbro and syenitized sediments.

The sheared sediments contain minor amounts of disseminated pyrite. Five of the six samples taken contain minor amounts of GOLD.

V - CONCLUSIONS & RECOMMENDATIONS:

Because of the widely distributed GOLD occurrences within favourable geological contexts, it is strongly recommended that the CHARTRE-DUFRESNE Flavelle Twp. property be subject to an exhaustive and systematic exploration program in an attempt to outline an economic GOLD deposit.

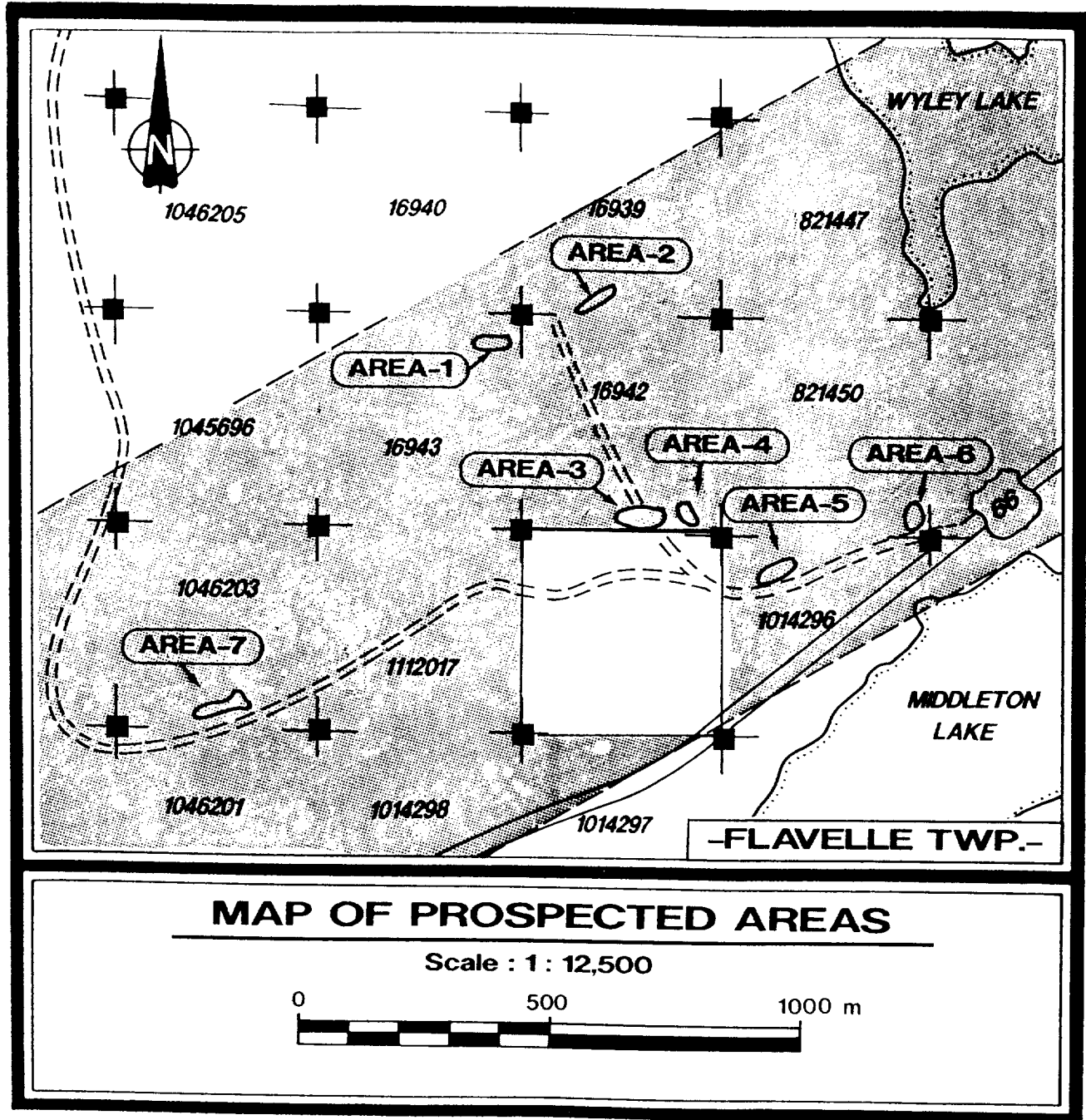
The detailed exploration program, to be concentrated within an area 1 Km wide by 2 Km long on the north side of highway # 66, should include GEOLOGICAL, MAGNETOMETER and INDUCED POLARIZATION surveys, in addition to an aggressive prospecting effort.

Respectfully submitted:

E. Chartré, B.A., B.Sc.: 

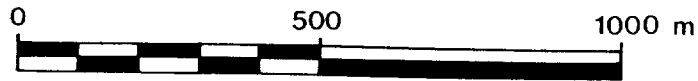
November 30, 1994

AREA OF PROPOSED EXPLORATION PROGRAM



**MAP OF PROSPECTED AREAS**

Scale : 1 : 12,500





APPENDIX "A"

CHARTRE-DUFRESNE CLAIM BLOCK

LIST OF CLAIM NUMBERS

16939 16940 16942 16943  
~~1639~~ - ~~1640~~ - ~~1642~~ - ~~1643~~ McChesnay<sup>E</sup> block

821445 - 821446 - 821447 - <sup>112018</sup>~~821448~~ - 821449 - 821450

1014296 - 1014297 - 1014298 - 1045696 - 1046201 - <sup>1046205</sup>~~1046202~~

1046203 - 1046204 - 1046206 - 1046649 - 1046650 - 1046651

1096955 - 1096956 - 1096957 - 1096958 - 1096959 - 1096960

1112013 - 1112014 - 1112015 - 1112016 - 1112017 - 1137323

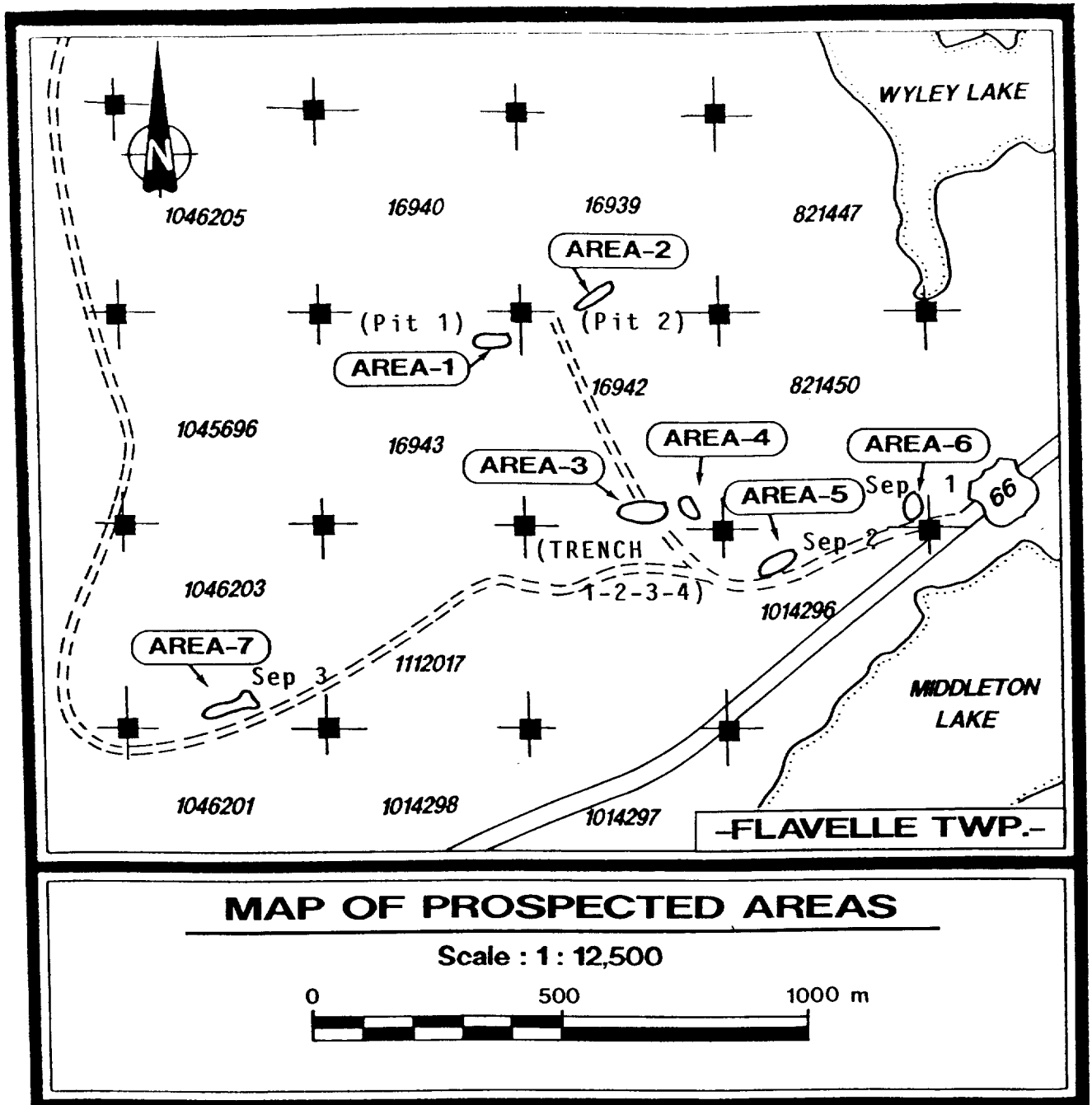
1137324 - 1137325 - 1137326 - 1137327 - 1137328 - 1145867

Total = 40 claims

APPENDIX "B"

ASSAY CERTIFICATES

LEGEND FOR LOCATION OF ASSAY NUMBERS





# Swastika Laboratories

A Division of TSL/Assayers Inc.

Established 1928

Assaying - Consulting - Representation

Page 1 of 2

## Assay Certificate

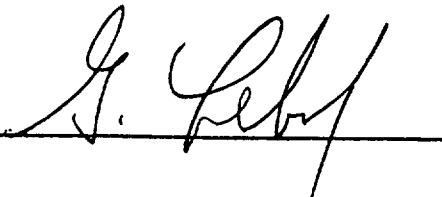
4W-1684-RA1

Company: **R.DUFRESNE**  
Project: **McChesney Property OPAP 1994**  
Attn: **R. Dufresne**

Date: **AUG-12-94**

We hereby certify the following Assay of 46 Rock samples submitted AUG-08-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	Cu %
17680 TR#1	0.16	.005	-	-	-	-	-
17681 TR#1	0.10	.003	0.11	.003	-	-	-
17682 TR#1	0.02	.001	-	-	-	-	-
17683 TR#1	0.08	.002	-	-	-	-	-
17684 TR#2	0.07	.002	-	-	-	-	-
17685 TR#2	0.09	.003	-	-	-	-	-
17686 TR#2	0.33	.010	-	-	-	-	-
17687 TR#2	0.09	.003	-	-	-	-	-
17688 TR#2	0.15	.004	-	-	-	-	-
17689 TR#2	0.08	.002	-	-	-	-	-
17690 TR#2	0.04	.001	-	-	-	-	-
17691 TR#2	0.11	.003	-	-	-	-	-
17692 TR#2	0.02	.001	-	-	-	-	-
17693 TR#2	2.51	.073	2.47	.072	-	-	-
17694 TR#2	0.20	.006	-	-	-	-	-
17695 TR#2	0.66	.019	-	-	-	-	-
17696 TR#2	1.92	.056	1.85	.054	-	-	-
17697 TR#2	0.04	.001	-	-	-	-	-
17698 TR#2	0.58	.017	-	-	-	-	0.09
17699 TR#2	0.42	.012	-	-	-	-	-
17700 TR#2	0.22	.006	0.25	.007	-	-	-
23709 TR#2	0.39	.011	-	-	-	-	0.01
23710 TR#2	1.31	.038	-	-	-	-	-
23711 TR#2	3.84	.112	3.91	.114	3.84	.112	-
23712 TR#3	2.06	.060	2.13	.062	-	-	-
23713 TR#3	0.22	.006	-	-	-	-	-
23714 TR#3	0.13	.004	-	-	-	-	-
23715 TR#3	0.14	.004	0.14	.004	-	-	-
23716 TR#3	0.10	.003	-	-	-	-	0.29
23717 TR#3	0.12	.004	-	-	-	-	0.62

Certified by 

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Assaying - Consulting - Representation

Page 2 of 2

4W-1684-RA1

## Assay Certificate

Company: **R.DUFRESNE**  
Project: **McChesney Property OPAP 1994**  
Attn: **R. Dufresne**

Date: **AUG-12-94**

We hereby certify the following Assay of 46 Rock samples submitted AUG-08-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	Cu %
23718 TR#3	0.04	.001	-	-	-	-	-
23719 TR#3	0.04	.001	-	-	-	-	-
23720 TR#3	0.09	.003	-	-	-	-	-
23721 TR#3	0.25	.007	0.34	.010	-	-	-
23722 TR#3	0.13	.004	-	-	-	-	-
23723 TR#4	Nil	-	-	-	-	-	-
23724 TR#4	0.02	.001	-	-	-	-	-
23725 TR#4	0.02	.001	-	-	-	-	-
23726 TR#4	0.02	.001	-	-	-	-	-
23727 TR#4	0.01	.001	-	-	-	-	-
23728 TR#4	0.04	.001	-	-	-	-	-
23729 TR#4	0.05	.001	-	-	-	-	-
23730 TR#4	0.03	.001	0.04	.001	-	-	-
23731 TR#4	Nil	-	-	-	-	-	-
23732 TR#4	0.03	.001	-	-	-	-	-
23733 TR#4	0.04	.001	-	-	-	-	-

Certified by \_\_\_\_\_

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## Assay Certificate

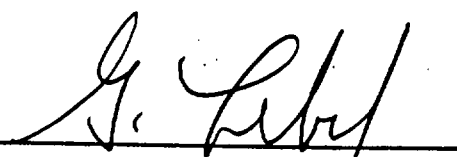
4W-1782-RA1

Company: **R. DUFRESNE**  
Project: **McChesney property OPAP-1994**  
Attn: **R. Dufresne**

Date: **AUG-22-94**

We hereby certify the following Assay of 58 Rock samples submitted AUG-15-94 by .

Sample Number	Au		Au Au Check		Au Check		Au 2nd		Au 2nd Au Check		Au Check		Ag		Cu		Pb	
	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	%	%	%	%
23734 pit 1	0.33	.010	-	-	-	-	-	-	-	-	-	-	15.9	.46	0.60	0.07	-	-
23735 pit 1	0.16	.005	-	-	-	-	-	-	-	-	-	-	2.0	.06	0.56	0.01	-	-
23736 pit 1	0.27	.008	-	-	-	-	-	-	-	-	-	-	4.8	.14	1.10	0.01	-	-
23737 pit 1	0.08	.002	-	-	-	-	-	-	-	-	-	-	1.4	.04	0.21	0.005	-	-
23738 pit 1	0.13	.004	-	-	-	-	-	-	-	-	-	-	3.3	.10	0.42	0.02	-	-
23739 pit 1	0.65	.019	-	-	-	-	-	-	-	-	-	-	1.4	.04	0.31	0.01	-	-
23740 pit 1	0.85	.025	0.82	.024	-	-	-	-	-	-	-	-	10.0	.29	3.55	0.02	-	-
23741 pit 1	0.26	.008	0.30	.009	-	-	-	-	-	-	-	-	137.0	4.00	1.29	1.61	-	-
23742 pit 1	1.65	.048	1.44	.042	-	-	-	-	-	-	-	-	120.5	3.51	1.77	1.02	-	-
23743 pit 1	0.12	.004	-	-	-	-	-	-	-	-	-	-	11.0	.32	1.68	0.09	-	-
23744 pit 1	0.69	.020	-	-	-	-	-	-	-	-	-	-	9.0	.26	4.52	0.02	-	-
23745 pit 1	0.33	.010	0.34	.010	-	-	-	-	-	-	-	-	117.0	3.41	0.17	1.21	-	-
23746 pit 1	0.27	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23747 pit 1	0.05	.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23748 pit 1	0.08	.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23749 pit 1	0.75	.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23750 pit 2 tr 1	0.08	.002	-	-	-	-	-	-	-	-	-	-	-	-	0.33	-	-	-
23751 pit 2 tr 1	0.04	.001	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-
23752 pit 2 tr 2	Nil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23753 pit 2 tr 2	0.03	.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23754 pit 2 tr 2	0.35	.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23755 pit 2 tr 3	0.05	.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23756 pit 2 tr 4	8.85	.258	8.71	.254	-	-	-	-	-	-	-	-	534.0	15.58	0.28	15.48	-	-
23757 pit 2 tr 4	1.65	.048	1.37	.040	-	-	-	-	-	-	-	-	267.5	7.80	0.43	11.73	-	-
23758 pit 2 tr 4	0.21	.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23759 pit 2 tr 4	0.92	.027	-	-	-	-	-	-	-	-	-	-	126.5	3.69	0.52	2.69	-	-
23760 pit 2 tr 4	0.04	.001	-	-	-	-	-	-	-	-	-	-	1.5	.04	0.03	0.02	-	-
23761 pit 2 tr 4	0.58	.017	0.52	.015	-	-	-	-	-	-	-	-	87.5	2.55	0.05	14.20	-	-
23762 pit 2 tr 4	11.79	.344	12.21	.356	-	-	-	-	-	-	-	-	83.0	2.42	5.22	2.08	-	-
23763 pit 2 tr 5	5.97	.174	6.03	.176	-	-	-	-	-	-	-	-	168.5	4.91	0.06	5.06	-	-

Certified by 

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Page 2 of 2

4W-1782-RA1

## Assay Certificate

Company: **R. DUFRESNE**  
Project: **McChesney property OPAP-1994**  
Ann: **R. Dufresne**

Date: **AUG-22-94**

We hereby certify the following Assay of 58 Rock samples submitted AUG-15-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	Au Check g/tonne	Au Check oz/ton	Ag g/tonne	Ag oz/ton	Cu %	Pb %
23764 pit 2 tr 5	1.51	.044	1.51	.044	-	-	-	-	221.5	6.46	0.05	16.68
23765 pit 2 tr 5	0.46	.013	-	-	-	-	-	-	8.5	.25	0.18	0.08
23766 pit 2 tr 6	3.15	.092	3.43	.100	-	-	-	-	211.5	6.17	0.05	3.42
23767 pit 2 tr 6	0.65	.019	-	-	-	-	-	-	18.0	.53	0.45	0.37
23768 pit 2 tr 6	1.52	.044	-	-	-	-	-	-	34.0	.99	0.07	0.46
23769 pit 2 tr 6	0.82	.024	0.84	.025	-	-	-	-	125.0	3.65	0.06	2.28
23770 pit 2 tr 7	0.01	.001	-	-	-	-	-	-	-	-	-	-
23771 pit 2 tr 7	1.66	.048	-	-	-	-	-	-	-	-	-	-
23772 pit 2 tr 7	1.78	.052	-	-	-	-	-	-	-	-	-	-
23773 pit 2 tr 7	0.01	.001	-	-	-	-	-	-	-	-	-	-
23774 pit 2 tr 7	0.75	.022	-	-	-	-	-	-	-	-	-	-
23775 pit 2 tr 8	0.75	.022	0.72	.021	-	-	-	-	1.3	.04	0.20	0.005
23776 pit 2 tr 8	0.07	.002	-	-	-	-	-	-	6.8	.20	0.05	-
3777 pit 2 tr 8	0.75	.022	-	-	-	-	-	-	0.5	.01	0.14	-
23780 pit 2 tr 8	0.80	.023	-	-	-	-	-	-	-	-	-	-
23781 pit 2 tr 8	11.45	.334	10.77	.314	11.66	.340	11.73	.342	1.4	.04	0.27	-
23782 pit 2 tr 8	0.05	.001	-	-	-	-	-	-	-	-	-	-
23783 pit 2 West	0.03	.001	-	-	-	-	-	-	-	-	-	-
23784 pit 2 West	0.60	.018	-	-	-	-	-	-	-	-	-	-
23785 pit 2 West	0.19	.006	-	-	-	-	-	-	-	-	-	-
23786 pit 2 West	0.40	.012	-	-	-	-	-	-	-	-	-	-
23787 pit 2 West	0.09	.003	-	-	-	-	-	-	-	-	-	-
23788 pit 2 West	0.12	.004	0.10	.003	-	-	-	-	-	-	-	-
23789 pit 2 West	0.23	.007	-	-	-	-	-	-	-	-	-	-
23790 pit 2 West	0.16	.005	-	-	-	-	-	-	-	-	-	-
23791 pit 2 West	0.05	.001	0.04	.001	-	-	-	-	-	-	-	-
23792 pit 2 West	0.03	.001	-	-	-	-	-	-	-	-	-	-
23793 trench 2	0.34	.010	-	-	-	-	-	-	-	-	-	-

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## Assay Certificate

4W-2270-RA1

Date: SEP-27-94

Company: **ROGER DUFRESNE**  
Project: **OPAP 94-MacChesney Property**  
Attn: **R.Dufresne**

We hereby certify the following Assay of 1 Rock/Grab samples submitted SEP-26-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton
ED-Trench #2	1.92	.056	2.13	.062

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## Assay Certificate

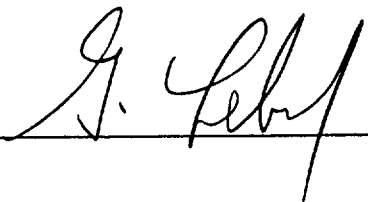
4W-2026-RA1

Company: **R.DUFRESNE**  
Project: **McCHESNEY PROPERTY OPAP 1994**  
Attn: **R.Dufresne**

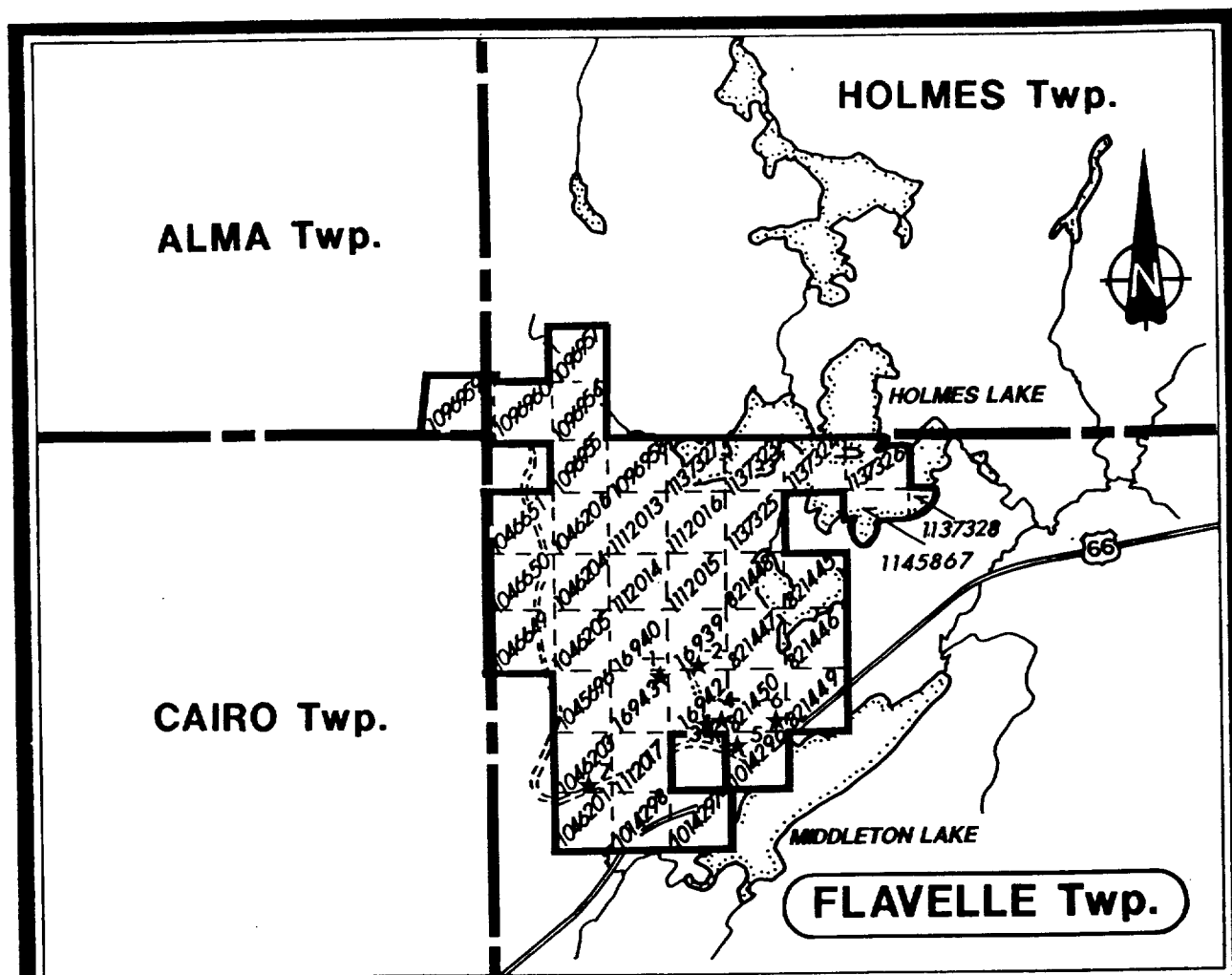
Date: SEP-08-94

We hereby certify the following Assay of 27 Channel samples submitted SEP-06-94 by .

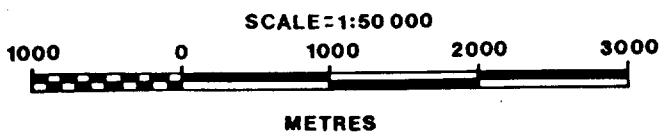
Sample Number	Au	Au Au Check	Au Check	Au 2nd	Au 2nd	Ag	Ag	Cu	Pb	
	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	%	%
23794 SEP.1	0.02	.001	-	-	-	-	-	-	-	
23795 SEP.1	Nil	-	-	-	-	-	-	-	-	
23796 SEP.1	0.01	.001	-	-	-	-	-	-	-	
23797 SEP.2	0.04	.001	0.04	.001	-	-	-	-	-	
23798 SEP.2	0.03	.001	-	-	-	-	-	-	-	
23799 SEP.2	0.05	.001	-	-	-	-	-	-	-	
23800 SEP.2	0.02	.001	-	-	-	-	-	-	-	
4751 SEP.2	0.01	.001	-	-	-	-	-	-	-	
4752 SEP.2	Nil	-	-	-	-	-	-	-	-	
4753 SEP.2	0.02	.001	-	-	-	-	-	-	-	
4754 SEP.3	0.03	.001	-	-	-	-	-	-	-	
4755 SEP.3	0.02	.001	0.02	.001	-	-	-	-	-	
4756 SEP.3	0.03	.001	-	-	-	-	-	-	-	
4757 SEP.3	0.03	.001	-	-	-	-	-	-	-	
4758 SEP.3	0.04	.001	-	-	-	-	-	-	-	
4759 SEP.3	Nil	-	-	-	-	-	-	-	-	
4760 TRENCH 3	0.13	.004	-	-	-	-	-	-	-	
4761 TRENCH 3	0.05	.001	-	-	-	-	-	0.19	-	
4762 TRENCH 3	2.95	.086	3.02	.088	-	-	-	-	-	
4763 TRENCH 3	4.59	.134	4.80	.140	4.53	.132	-	-	-	
4764 TRENCH 3	1.99	.058	1.92	.056	-	-	-	-	-	
4765 TRENCH 3	0.98	.029	-	-	-	-	-	-	-	
4766 PIT 2-TRENCH 8	5.42	.158	5.21	.152	-	-	-	-	-	
4767 PIT 2-TRENCH 8	0.44	.013	-	-	-	-	-	-	-	
4768 PIT 2-TRENCH 8	3.22	.094	3.09	.090	-	-	-	-	-	
4769 PIT 2-TRENCH 8	1.58	.046	1.71	.050	-	-	-	-	-	
4770 PIT 1	0.42	.012	-	-	-	-	52.5	1.53	10.66	0.39

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**INDEX MAP**



**CHARTRE-DUFRESNE PROPERTY**

# H O L M E S

ALMA TOWNSHIP

CAIRO TOWNSHIP

Lot 12

11

10

8

7

III 6



Willard Lake

Golub L.

Kincaid Lake

Cowie Lake

Dixon Lake

Bures L.

Tully Lake

II

Abel Lake

Fault

Galer Lake

Middleton

HOLMES TWP.

FLAVELLE TWP.

Holmes Lake

Wyley Lake

FLAVELLE

Middleton Lake

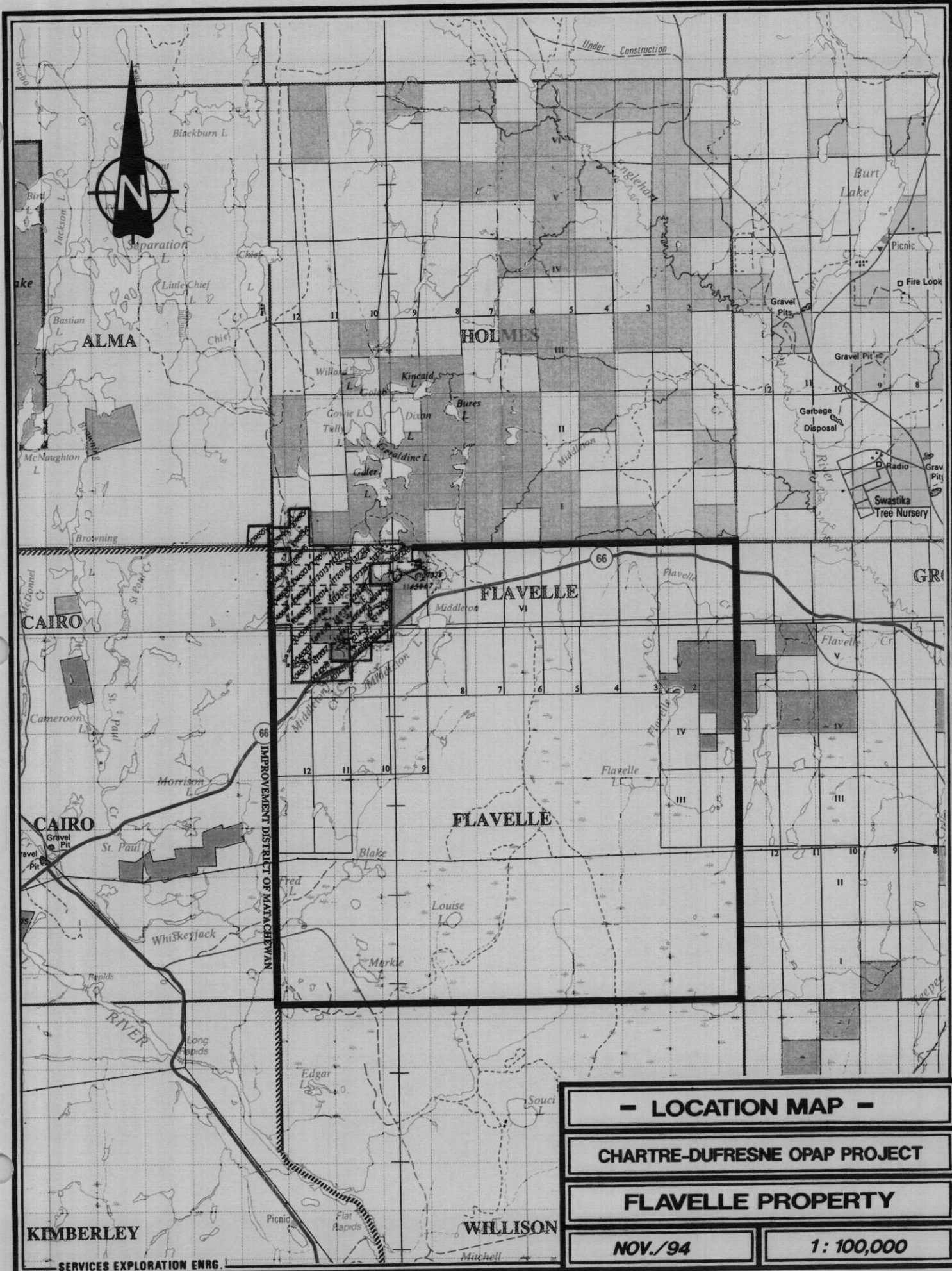
— REGIONAL GEOLOGY MAP —

CHARTRE-DUFRESNE OPAP PROJECT

FLAVELLE PROPERTY

NOV./94

1" = 1/2 Mile



**- LOCATION MAP -**

**CHARTRE-DUFRESNE OPAP PROJECT**

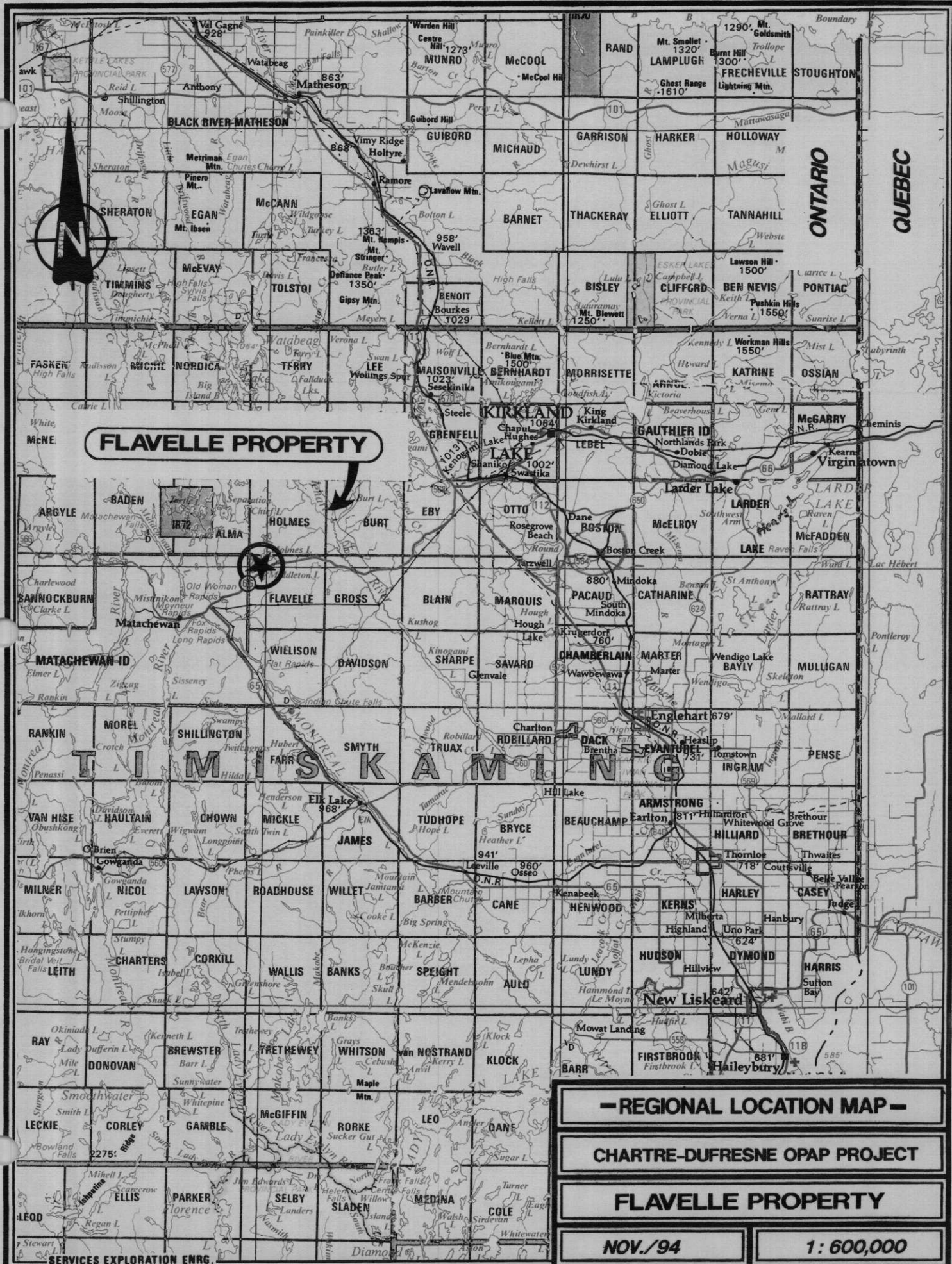
**FLAVELLE PROPERTY**

**NOV./94**

**1: 100,000**

**KIMBERLEY**

**SERVICES EXPLORATION ENRG.**



**FLAVELLE PROPERTY**

**- REGIONAL LOCATION MAP -**

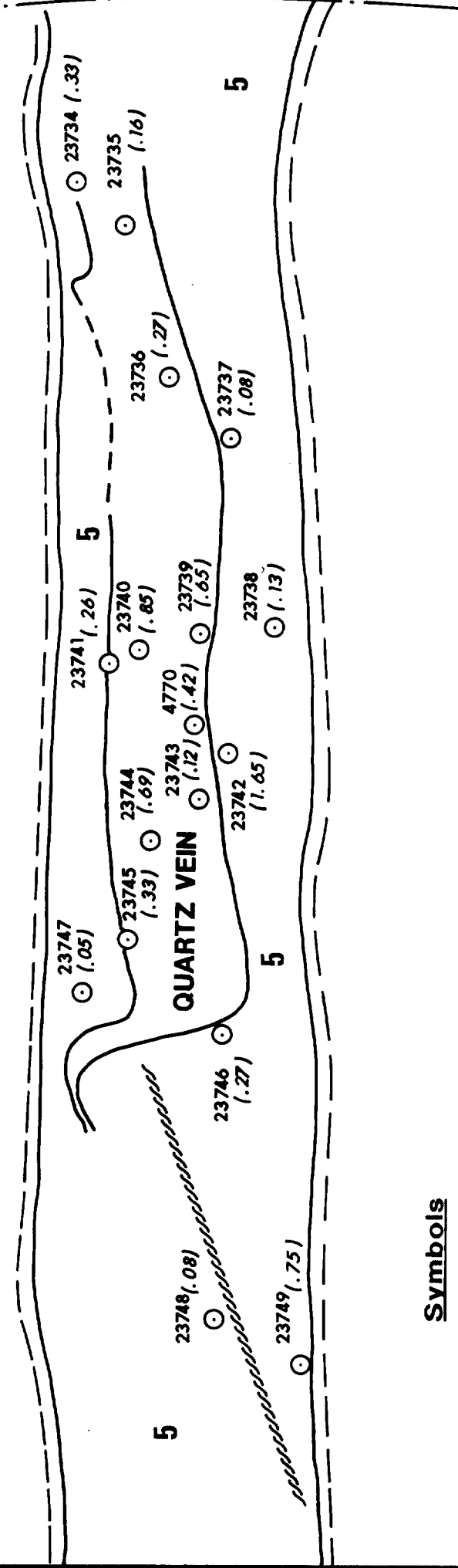
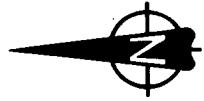
**CHARTRE-DUFRESNE OPAP PROJECT**

**FLAVELLE PROPERTY**

**NOV./94**

**1: 600,000**

- FLAVELLE TWP. -



**Symbols**

- STRIPPED AREA
- OUTCROP
- PIT
- CHIP SAMPLE
- GRAB SAMPLE
- gr. Au/T
- FOLIATION
- GEOLOGICAL CONTACT
- FAULT

**-LEGEND-**

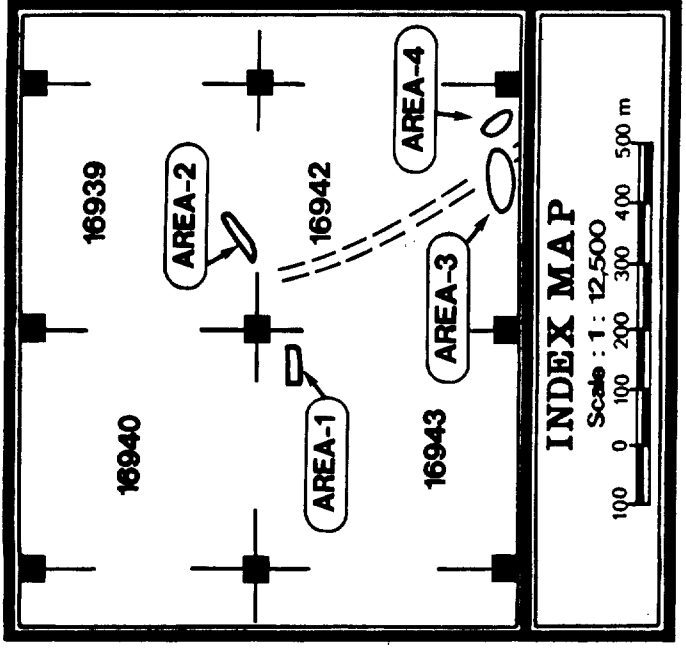
**ROCKS**

- 7 Diabase
- 5 Syenite
- 3 Sediments
- 3a Syenitized Sediments
- IF Iron Formation

**MINERALS**

- Mgt. Magnetite
- Py. Pyrite
- Cpy. Chalcopyrite
- Gn. Galena
- Tour. Tourmaline

**AREA-1**



**PROSPECTING PROGRAM**

CHARTRE-DUFRESNE OPAP PROJECT

FLAVELLE PROPERTY

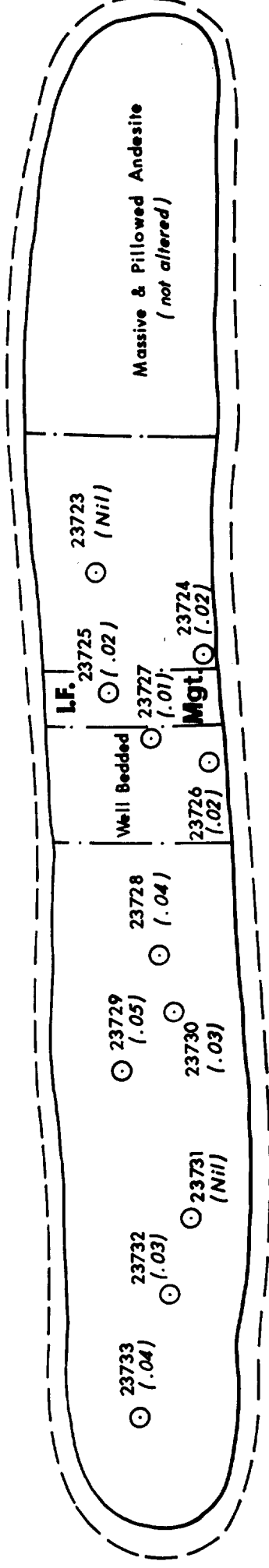
NOV./94

1:100

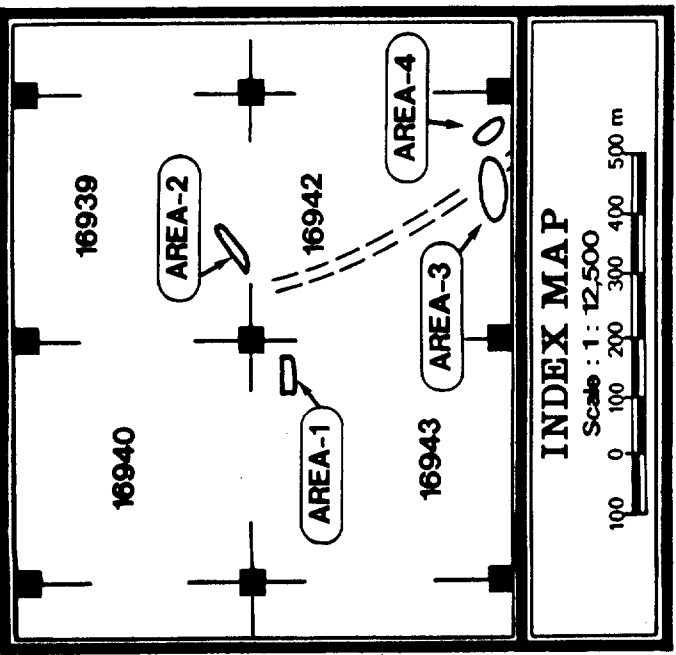


**- FLAVELLE TWP. -**

← ALTERED SEDIMENTS →



**AREA-4**



**Symbols**

- STRIPPED AREA
- OUTCROP
- PIT
- CHIP SAMPLE
- GRAB SAMPLE
- gr. Au/T
- FOLIATION
- GEOLOGICAL CONTACT
- FAULT

**-LEGEND-**

**ROCKS**

- 7 Diabase
- 5 Syenite
- 3 Sediments
- 3a Syenitized Sediments
- LF Iron Formation

**MINERALS**

- Mgt. Magnetite
- Py. Pyrite
- Cpy. Chalcopyrite
- Gn. Galena
- Tour. Tourmaline

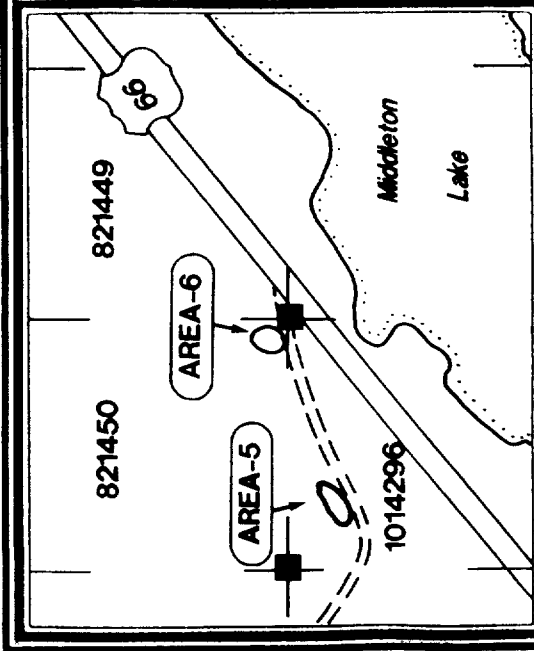
**PROSPECTING PROGRAM**

CHARTRE-DUFRESNE OPAP PROJECT

FLAVELLE PROPERTY

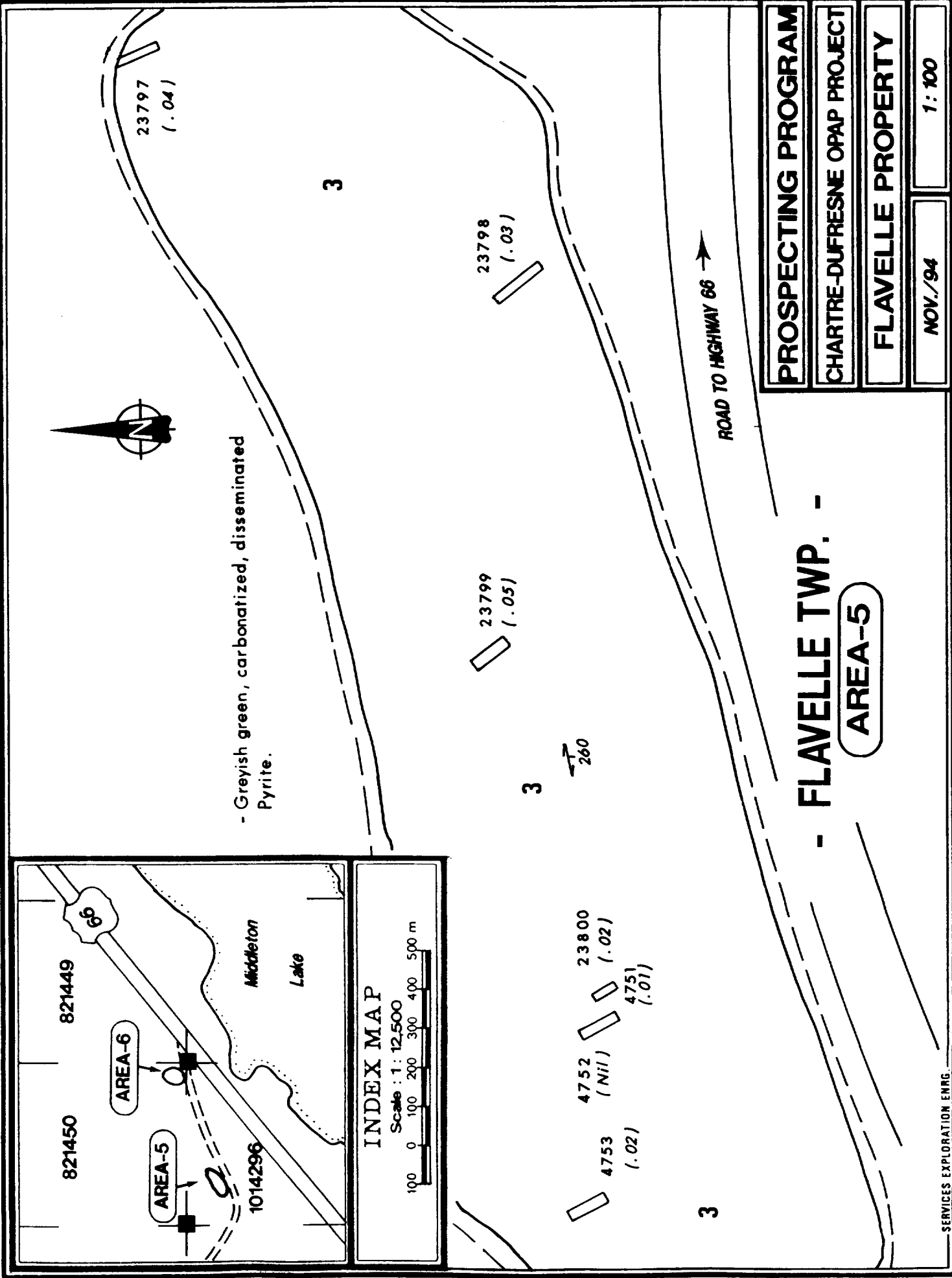
NOV./94

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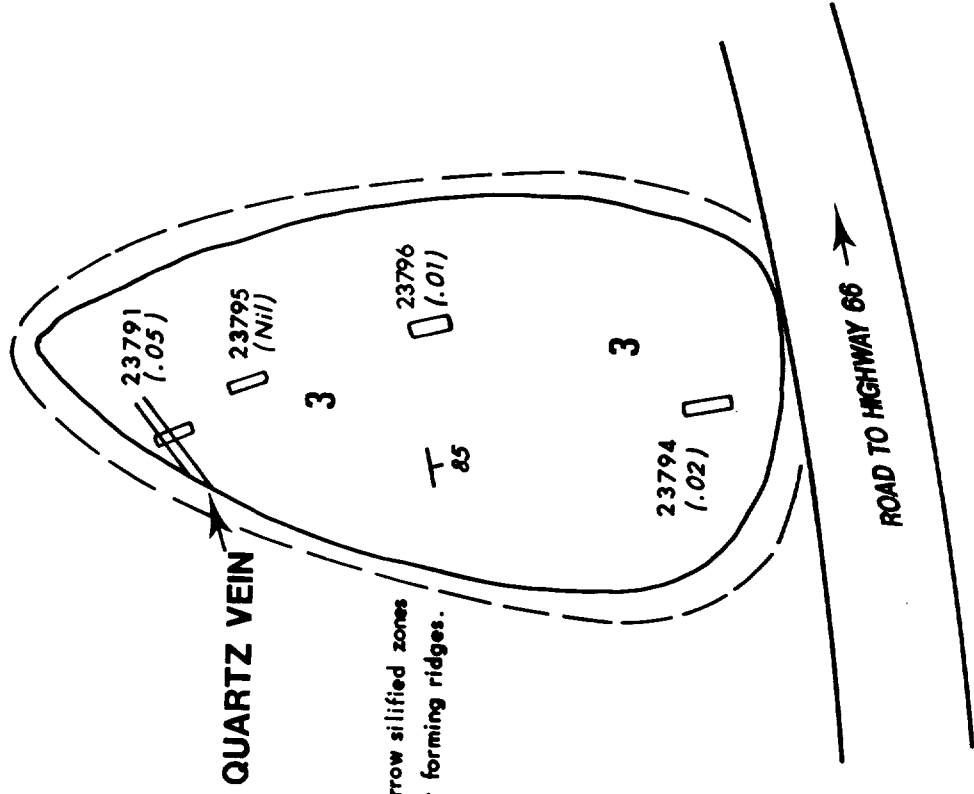
**INDEX MAP**

Scale : 1 : 12,500

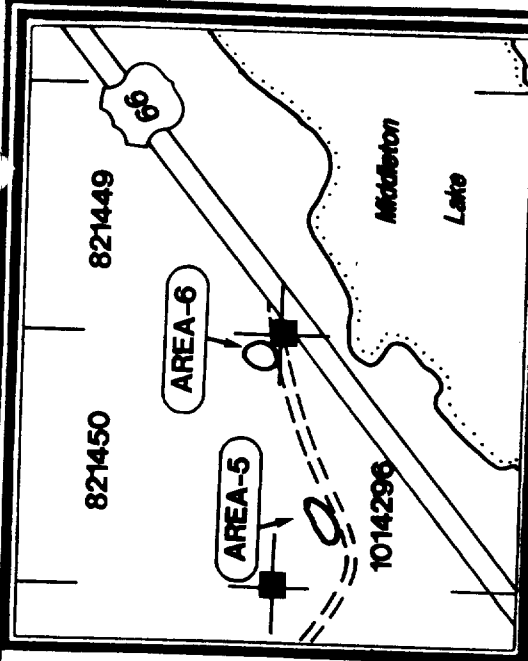




# - FLAVELLE TWP. -



Greyish green, narrow silified zones  
with pyrite center forming ridges.



## INDEX MAP

Scale : 1 : 12,500

100 0 100 200 300 400 500 m

AREA-6

PROSPECTING PROGRAM

CHARTRE-DUFRESNE OPAP PROJECT

FLAVELLE PROPERTY

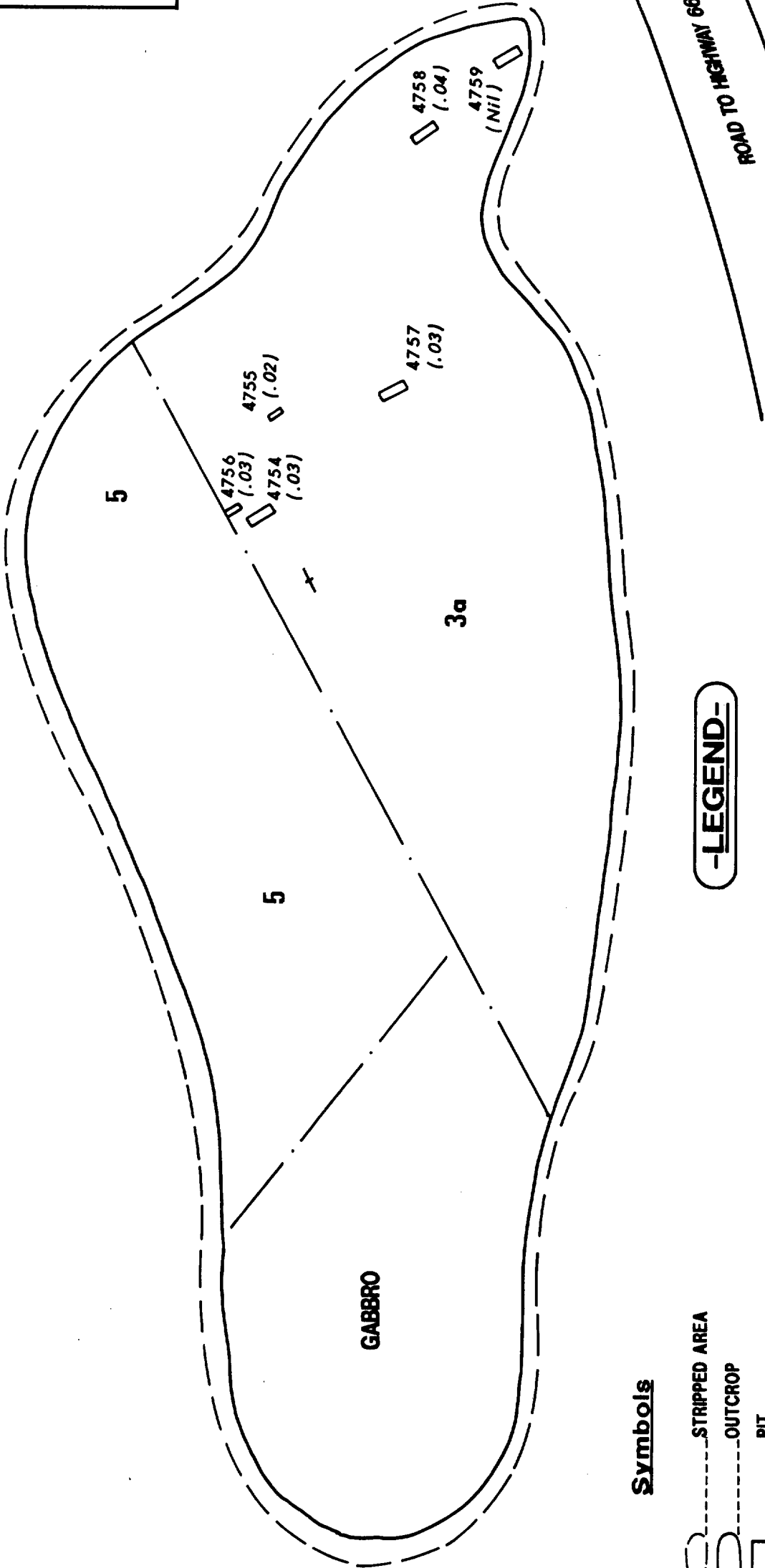
NOV./94

1 : 100



- FLAVELLE TWP. -

GABBRO



AREA-7

-LEGEND-

**Symbols**

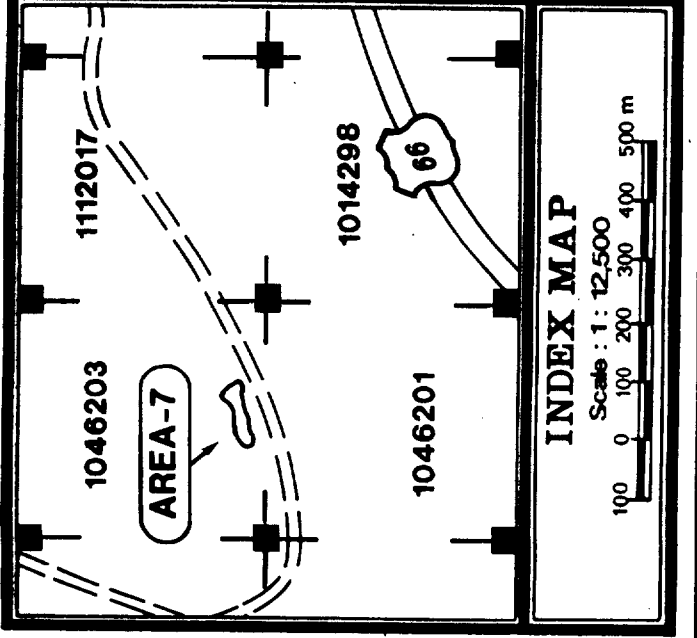
- STRIPPED AREA
- OUTCROP
- PIT
- CHIP SAMPLE
- GRAB SAMPLE
- gr. Au/T
- FOLIATION
- GEOLOGICAL CONTACT
- FAULT

**ROCKS**

- 7 Diabase
- 5 Syenite
- 3 Sediments
- 3a Syenitized Sediments
- IF Iron Formation

**MINERALS**

- Mgt. Magnetite
- Py. Pyrite
- Cpy. Chalcopyrite
- Gn. Galena
- Tour. Tourmaline



INDEX MAP

Scale: 1:12,500

PROSPECTING PROGRAM

CHARTRE-DUFRESNE OPAP PROJECT

FLAVELLE PROPERTY

NOV./94

1:100

Swastika Laboratories  
P.O. Box 10  
Swastika, Ontario  
P0K 1T0

INVOICE

NO: 30510  
DATE: 08-12-94  
PAGE: 1 of 1

SOLD TO:

SHIP TO:

R. Dufresne  
14 Wright-Hargreaves Ave.  
Kirkland Lake, Ontario  
P2N 1B2

Same

GST Number: R132862640

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
46		Code 1	Au	3		10.000	460.00
4		Code 1	Cu	3		2.500	10.00
			Cert. #4W-1684-RA1				
			3-GST @ 7 %				32.90

SWASTIKA LABORATORIES

**PAID**  
AUG 25/94

WITH THANKS

PER

COMMENTS:

Net. 30 Days

TOTAL

502.90

Swastika Laboratories  
P.O. Box 10  
Swastika, Ontario  
P0K 1T0

INVOICE

NO: 30607

DATE 08-22-94

PAGE 1 of 1

SOLD TO:

SHIP TO:

R. Dufresne  
14 Wright-Hargreaves Ave.  
Kirkland Lake, Ontario  
P2N 1B2

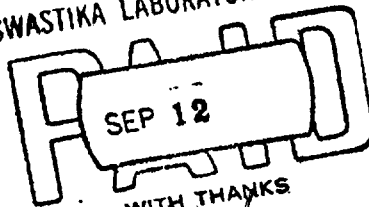
Same

GST Number: R132862640

*McChesney Property OPAP-1994*

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
	58	Code 1	Au	3		10.000	580.00
	29	Code 1	Ag	3		2.500	72.50
	31	Code 1	Cu	3		1.250	38.75
	26	Code 1	Pb	3		1.250	32.50
			Cert #4W-1782-RA1				
			3-GST @ 7 %				50.67

SWASTIKA LABORATORIES



WITH THANKS  
PER *[Signature]*

COMMENTS:

Net 30 Days

TOTAL

774.42

Swastika Laboratories  
P.O. Box 10  
Swastika, Ontario  
P0K 1T0

INVOICE

NO: 30907  
DATE: 09-20-94  
PAGE: 1 of 1

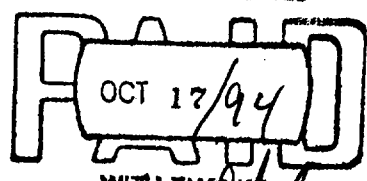
SOLD TO:

SHIP TO:

R. Dufresne  
14 Wright-Hargreaves Ave.  
Kirkland Lake, Ontario  
P2N 1B2

Same

GST Number: R132862640

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
	27	Code 1	Au	3		10.000	270.00
	1	Code 1	Ag	3		2.500	2.50
	2	Code 1	Cu	3		1.250	2.50
	1	Code 1	Pb	3		1.250	1.25
Cert #4W-2026-RA1 3-GST @ 7 %							19.35
SWASTIKA LABORATORIES  WITH THANKS PER <i>[Signature]</i>							
COMMENTS: Net 30 Days						<b>TOTAL</b>	295.60

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P0K 1T0

INVOICE

NO: 31004  
DATE: 09-29-94  
PAGE: 1 of 1

SOLD TO:

SHIP TO:

R. Dufresne  
14 Wright-Hargreaves Ave.  
Kirkland Lake, Ontario  
P2N 1B2

Same

GST Number: R132862640

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
1		Code 1	Au Cert #4W-2270-RA1 3-GST @ 7 %	3		10.000	10.00 0.70

SWASTIKA LABORATORIES  
OCT 12/94  
WITH THANKS  
PER. *[Signature]*

COMMENTS:

Net 30 Days

TOTAL

10.70

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P.O. Box 10  
Swastika, Ontario  
P0K 1T0

INVOICE

NO 31603  
DATE 11-23-94  
PAGE 1 of 1

SOLD TO:  
R. Dufresne  
14 Wright-Hargreaves Ave.  
Kirkland Lake, Ontario  
P2N 1B2

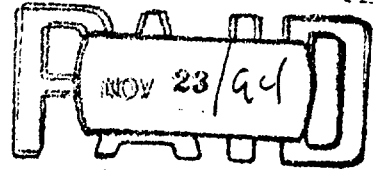
SHIP TO  
Same

GST Number: R132862640

*MCCHESENEY PROPERTY OPAP/94*

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
	2	Code 1	Au		3	10.000	20.00
			Cert #4W-3021-RA1				
			3-GST @ 7 %				1.40

SWASTIKA LABORATORIES



WITH THANKS

PER *[Signature]*

COMMENTS:

Net 30 Days

**TOTAL** → 21.40



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50310  
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Page 1 of 2

## Assay Certificate

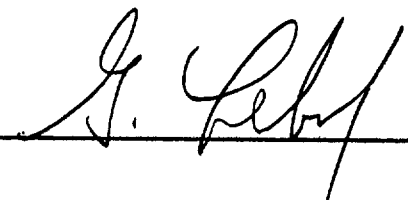
4W-1684-RA1

Company: **R.DUFRESNE**  
Project: **McChesney Property OPAP 1994**  
Attn: **R. Dufresne**

Date: **AUG-12-94**

We hereby certify the following Assay of 46 Rock samples submitted AUG-08-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	Cu %
17680 TR#1	0.16	.005	-	-	-	-	-
17681 TR#1	0.10	.003	0.11	.003	-	-	-
17682 TR#1	0.02	.001	-	-	-	-	-
17683 TR#1	0.08	.002	-	-	-	-	-
17684 TR#2	0.07	.002	-	-	-	-	-
17685 TR#2	0.09	.003	-	-	-	-	-
17686 TR#2	0.33	.010	-	-	-	-	-
17687 TR#2	0.09	.003	-	-	-	-	-
17688 TR#2	0.15	.004	-	-	-	-	-
17689 TR#2	0.08	.002	-	-	-	-	-
17690 TR#2	0.04	.001	-	-	-	-	-
17691 TR#2	0.11	.003	-	-	-	-	-
17692 TR#2	0.02	.001	-	-	-	-	-
17693 TR#2	2.51	.073	2.47	.072	-	-	-
17694 TR#2	0.20	.006	-	-	-	-	-
17695 TR#2	0.66	.019	-	-	-	-	-
17696 TR#2	1.92	.056	1.85	.054	-	-	-
17697 TR#2	0.04	.001	-	-	-	-	-
17698 TR#2	0.58	.017	-	-	-	-	0.09
17699 TR#2	0.42	.012	-	-	-	-	-
17700 TR#2	0.22	.006	0.25	.007	-	-	-
23709 TR#2	0.39	.011	-	-	-	-	0.01
23710 TR#2	1.31	.038	-	-	-	-	-
23711 TR#2	3.84	.112	3.91	.114	3.84	.112	-
23712 TR#3	2.06	.060	2.13	.062	-	-	-
23713 TR#3	0.22	.006	-	-	-	-	-
23714 TR#3	0.13	.004	-	-	-	-	-
23715 TR#3	0.14	.004	0.14	.004	-	-	-
23716 TR#3	0.10	.003	-	-	-	-	0.29
23717 TR#3	0.12	.004	-	-	-	-	0.62

Certified by 

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Page 2 of 2

## Assay Certificate

4W-1684-RA1

Company: **R.DUFRESNE**  
Project: **McChesney Property OPAP 1994**  
Attn: **R. Dufresne**

Date: **AUG-12-94**

We hereby certify the following Assay of 46 Rock samples submitted AUG-08-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	Cu %
23718 TR#3	0.04	.001	-	-	-	-	-
23719 TR#3	0.04	.001	-	-	-	-	-
23720 TR#3	0.09	.003	-	-	-	-	-
23721 TR#3	0.25	.007	0.34	.010	-	-	-
23722 TR#3	0.13	.004	-	-	-	-	-
23723 TR#4	Nil	-	-	-	-	-	-
23724 TR#4	0.02	.001	-	-	-	-	-
23725 TR#4	0.02	.001	-	-	-	-	-
23726 TR#4	0.02	.001	-	-	-	-	-
23727 TR#4	0.01	.001	-	-	-	-	-
23728 TR#4	0.04	.001	-	-	-	-	-
23729 TR#4	0.05	.001	-	-	-	-	-
23730 TR#4	0.03	.001	0.04	.001	-	-	-
23731 TR#4	Nil	-	-	-	-	-	-
23732 TR#4	0.03	.001	-	-	-	-	-
23733 TR#4	0.04	.001	-	-	-	-	-

Certified by \_\_\_\_\_

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P-55

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## Assay Certificate

4W-1782-RA1

Company: **R. DUFRESNE**  
Project: **McChesney property OPAP-1994**  
Attn: **R. Dufresne**

Date: **AUG-22-94**

We hereby certify the following Assay of 58 Rock samples submitted AUG-15-94 by .

Sample Number	Au		Au Au Check Au Check		Au 2nd		Au 2nd Au Check Au Check		Ag		Cu	Pb
	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	%	%
23734 pit 1	0.33	.010	.	.	.	.	.	.	15.9	.46	0.60	0.07
23735 pit 1	0.16	.005	.	.	.	.	.	.	2.0	.06	0.56	0.01
23736 pit 1	0.27	.008	.	.	.	.	.	.	4.8	.14	1.10	0.01
23737 pit 1	0.08	.002	.	.	.	.	.	.	1.4	.04	0.21	0.005
23738 pit 1	0.13	.004	.	.	.	.	.	.	3.3	.10	0.42	0.02
23739 pit 1	0.65	.019	.	.	.	.	.	.	1.4	.04	0.31	0.01
23740 pit 1	0.85	.025	0.82	.024	.	.	.	.	10.0	.29	3.55	0.02
23741 pit 1	0.26	.008	0.30	.009	.	.	.	.	137.0	4.00	1.29	1.61
23742 pit 1	1.65	.048	1.44	.042	.	.	.	.	120.5	3.51	1.77	1.02
23743 pit 1	0.12	.004	.	.	.	.	.	.	11.0	.32	1.68	0.09
23744 pit 1	0.69	.020	.	.	.	.	.	.	9.0	.26	4.52	0.02
23745 pit 1	0.33	.010	0.34	.010	.	.	.	.	117.0	3.41	0.17	1.24
23746 pit 1	0.27	.008	.	.	.	.	.	.	.	.	.	.
23747 pit 1	0.05	.001	.	.	.	.	.	.	.	.	.	.
23748 pit 1	0.08	.002	.	.	.	.	.	.	.	.	.	.
23749 pit 1	0.75	.022	.	.	.	.	.	.	.	.	.	.
23750 pit 2 tr 1	0.08	.002	.	.	.	.	.	.	.	.	0.33	.
23751 pit 2 tr 1	0.04	.001	.	.	.	.	.	.	.	.	0.14	.
23752 pit 2 tr 2	Nil	.	.	.	.	.	.	.	.	.	.	.
23753 pit 2 tr 2	0.03	.001	.	.	.	.	.	.	.	.	.	.
23754 pit 2 tr 2	0.35	.010	.	.	.	.	.	.	.	.	.	.
23755 pit 2 tr 3	0.05	.001	.	.	.	.	.	.	.	.	.	.
23756 pit 2 tr 4	8.85	.258	8.71	.254	.	.	.	.	534.0	15.58	0.28	15.48
23757 pit 2 tr 4	1.65	.048	1.37	.040	.	.	.	.	267.5	7.80	0.43	11.73
23758 pit 2 tr 4	0.21	.006	.	.	.	.	.	.	.	.	.	.
23759 pit 2 tr 4	0.92	.027	.	.	.	.	.	.	126.5	3.69	0.52	2.69
23760 pit 2 tr 4	0.04	.001	.	.	.	.	.	.	1.5	.04	0.03	0.02
23761 pit 2 tr 4	0.58	.017	0.52	.015	.	.	.	.	87.5	2.55	0.05	14.20
23762 pit 2 tr 4	11.79	.344	12.21	.356	.	.	.	.	83.0	2.42	5.22	2.08
23763 pit 2 tr 5	5.97	.174	6.03	.176	.	.	.	.	168.5	4.91	0.06	5.06

Certified by 

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Page 2 of 2

## Assay Certificate

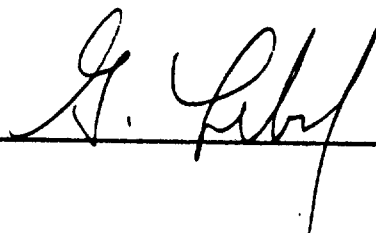
4W-1782-RA1

Company: **R. DUFRESNE**  
Project: **McChesney property OPAP-1994**  
Assn: **R. Dufresne**

Date: AUG-22-94

We hereby certify the following Assay of 58 Rock samples submitted AUG-15-94 by .

Sample Number	Au		Au Au Check Au Check		Au 2nd		Au 2nd Au Check Au Check		Ag	Ag	Cu	Pb
	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	g/tonne	oz/ton	%	%
23764 pit 2 tr 5	1.51	.044	1.51	.044	.	.	.	.	221.5	6.46	0.05	16.68
23765 pit 2 tr 5	0.46	.013	.	.	.	.	.	.	8.5	.25	0.18	0.08
23766 pit 2 tr 6	3.15	.092	3.43	.100	.	.	.	.	211.5	6.17	0.05	3.42
23767 pit 2 tr 6	0.65	.019	.	.	.	.	.	.	18.0	.53	0.45	0.37
23768 pit 2 tr 6	1.52	.044	.	.	.	.	.	.	34.0	.99	0.07	0.46
23769 pit 2 tr 6	0.82	.024	0.84	.025	.	.	.	.	125.0	3.65	0.06	2.28
23770 pit 2 tr 7	0.01	.001	.	.	.	.	.	.	.	.	.	.
23771 pit 2 tr 7	1.66	.048	.	.	.	.	.	.	.	.	.	.
23772 pit 2 tr 7	1.78	.052	.	.	.	.	.	.	.	.	.	.
23773 pit 2 tr 7	0.01	.001	.	.	.	.	.	.	.	.	.	.
23774 pit 2 tr 7	0.75	.022	.	.	.	.	.	.	.	.	.	.
23775 pit 2 tr 8	0.75	.022	0.72	.021	.	.	.	.	1.3	.04	0.20	0.005
23776 pit 2 tr 8	0.07	.002	.	.	.	.	.	.	6.8	.20	0.05	.
23777 pit 2 tr 8	0.75	.022	.	.	.	.	.	.	0.5	.01	0.14	.
23780 pit 2 tr 8	0.80	.023	.	.	.	.	.	.	1.4	.04	0.27	.
23781 pit 2 tr 8	11.45	.334	10.77	.314	11.66	.340	11.73	.342	.	.	.	.
23782 pit 2 tr 8	0.05	.001	.	.	.	.	.	.	.	.	.	.
23783 pit 2 West	0.03	.001	.	.	.	.	.	.	.	.	.	.
23784 pit 2 West	0.60	.018	.	.	.	.	.	.	.	.	.	.
23785 pit 2 West	0.19	.006	.	.	.	.	.	.	.	.	.	.
23786 pit 2 West	0.60	.012	.	.	.	.	.	.	.	.	.	.
23787 pit 2 West	0.09	.003	.	.	.	.	.	.	.	.	.	.
23788 pit 2 West	0.12	.004	0.10	.003	.	.	.	.	.	.	.	.
23789 pit 2 West	0.23	.007	.	.	.	.	.	.	.	.	.	.
23790 pit 2 West	0.16	.005	.	.	.	.	.	.	.	.	.	.
23791 pit 2 West	0.05	.001	0.04	.001	.	.	.	.	.	.	.	.
23792 pit 2 West	0.03	.001	.	.	.	.	.	.	.	.	.	.
23793 trench 2	0.34	.010	.	.	.	.	.	.	.	.	.	.

Certified by 

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## Assay Certificate

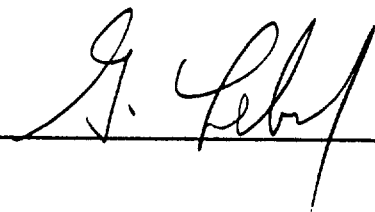
4W-2026-RA1

Company: **R.DUFRESNE**  
Project: **McCHESNEY PROPERTY OPAP 1994**  
Attn: **R.Dufresne**

Date: **SEP-08-94**

We hereby certify the following Assay of 27 Channel samples submitted SEP-06-94 by .

Sample Number	Au g/tonne	Au oz/ton	Au Check g/tonne	Au Check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	Ag g/tonne	Ag oz/ton	Cu %	Pb %
23794 SEP.1	0.02	.001	-	-	-	-	-	-	-	-
23795 SEP.1	Nil	-	-	-	-	-	-	-	-	-
23796 SEP.1	0.01	.001	-	-	-	-	-	-	-	-
23797 SEP.2	0.04	.001	0.04	.001	-	-	-	-	-	-
23798 SEP.2	0.03	.001	-	-	-	-	-	-	-	-
23799 SEP.2	0.05	.001	-	-	-	-	-	-	-	-
23800 SEP.2	0.02	.001	-	-	-	-	-	-	-	-
4751 SEP.2	0.01	.001	-	-	-	-	-	-	-	-
4752 SEP.2	Nil	-	-	-	-	-	-	-	-	-
4753 SEP.2	0.02	.001	-	-	-	-	-	-	-	-
4754 SEP.3	0.03	.001	-	-	-	-	-	-	-	-
4755 SEP.3	0.02	.001	0.02	.001	-	-	-	-	-	-
4756 SEP.3	0.03	.001	-	-	-	-	-	-	-	-
4757 SEP.3	0.03	.001	-	-	-	-	-	-	-	-
4758 SEP.3	0.04	.001	-	-	-	-	-	-	-	-
4759 SEP.3	Nil	-	-	-	-	-	-	-	-	-
4760 TRENCH 3	0.13	.004	-	-	-	-	-	-	-	-
4761 TRENCH 3	0.05	.001	-	-	-	-	-	-	0.19	-
4762 TRENCH 3	2.95	.086	3.02	.088	-	-	-	-	-	-
4763 TRENCH 3	4.59	.134	4.80	.140	4.53	.132	-	-	-	-
4764 TRENCH 3	1.99	.058	1.92	.056	-	-	-	-	-	-
4765 TRENCH 3	0.98	.029	-	-	-	-	-	-	-	-
4766 PIT 2-TRENCH 8	5.42	.158	5.21	.152	-	-	-	-	-	-
4767 PIT 2-TRENCH 8	0.44	.013	-	-	-	-	-	-	-	-
4768 PIT 2-TRENCH 8	3.22	.094	3.09	.090	-	-	-	-	-	-
4769 PIT 2-TRENCH 8	1.58	.046	1.71	.050	-	-	-	-	-	-
4770 PIT 1	0.42	.012	-	-	-	-	52.5	1.53	10.66	0.39

Certified by 

P.O. Box 10, Swastika, Ontario P0K 1T0  
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P-58

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## Assay Certificate

4W-3021-RA1

Company: **R. DUFRESNE**  
Project: **McChesney Property OPAP/94**  
Attn: **R. Dufresne**

Date: NOV-22-94

*We hereby certify* the following Assay of 2 Channel samples submitted NOV-21-94 by .

Sample Number	Au oz/ton	Au Check oz/ton
4771	0.110	0.100
4772	0.008	-

Certified by *R. Landri*

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300



# Swastika Laboratories

P-59

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## Assay Certificate

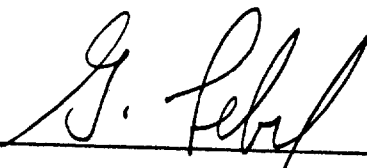
4W-2270-RA1

Company: **ROGER DUFRESNE**  
Project: **OPAP 94-MacChesney Property**  
Attn: **R.Dufresne**

Date: **SEP-27-94**

We hereby certify the following Assay of 1 Rock/Grab samples submitted SEP-26-94 by .

Sample Number	Au		Au Check	
	g/tonne	oz/ton	g/tonne	oz/ton
ED-Trench #2	1.92	.056	2.13	.062

Certified by 

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244      FAX (705) 642-3300

# SERVICES EXPLORATION SERVICES Enrg. Reg'd

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C.P. 428  
ROUYN-NORANDA, P.Q.  
J9X 5C4

TELEPHONE: (819) 797-0853  
1-800-567-6053

FAX: (819) 797-1848  
1-800-661-1848

P-60

Levés géophysiques	Geophysical Surveys
Levés géologiques	Geological Surveys
Jalonnement de claims	Claim staking
Dessin et reproduction	Drafting and Reproduction
Coupage de lignes	Line Cutting
Programmes d'exploration	Exploration Programmes
Ventes d'articles d'exploration minière	Sales of mining exploration articles

En compte avec: Denis CHARTRE  
In account with:

CHARTRE DUFRESNE  
Swastika, ONT.

<b>FACTURE INVOICE</b>	7844
----------------------------	------

Projet: OPAP PROJECT - FLAVELLE TWP. ONTARIO  
Project:

DATE Dec. 10, 1994	NUMERO DU CLIENT CUSTOMER NO.
N° COMMANDE PURCHASE ORDER NO.	

DESCRIPTION	PRIX UNITAIRE UNIT PRICE	TOTAL
<u>PROSPECTING PROGRAM</u>		
GEOLOGY - DRAFTING & REPORT		\$ 1 600.00
GST		\$ 112.00
THANK YOU	TOTAL	\$ 1 712.00

T.P.S./G.S.T.: R105801906  
T.V.P./P.S.T.: Q-10-0169-9225 TV 0001

LF-2132

Code: 3-A-94

TERME: NET 30 JOURS  
TERMS: NET 30 DAYS

COPIE DU CLIENT

NORMAN DUBO  
BOX 147  
MATAIKWAN ONT POKIMU

NAME Roger DATE July 1994  
ADDRESS Denis

QUAN.	DESCRIPTION	AMOUNT				
	J.D. 550-DOZER @ 40.00					
	July 6/94 - 9.0 HRS					
	" 7" 10.0 "					
	" 8" 10.0 "					
	" 9" 10.0 "					
	" 10" 10.0 "					
	" 11" 11.0 "					
TOTAL - 60.0 HRS @ 40.00		2400.00				
TAX		168.00				
REC'D BY <u>[Signature]</u>		TOTAL <del>2568.00</del>				
CLERK	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE RET'D	PAID OUT
<u>[Signature]</u>			<input checked="" type="checkbox"/>			2568.00

NAVY BUSINESS FORMS LIMITED

057883

NORMAN DUBO  
BOX 147  
MATAIKWAN ONT POKIMU

NAME Roger DATE July 1994  
ADDRESS Denis

QUAN.	DESCRIPTION	AMOUNT				
	J.D. BACK HOE @ 40.00					
	July 6/94 - 5.5 HRS					
	" 7" 10.0 "					
	" 8" 10.0 "					
	" 9" 10.0 "					
	" 10" 10.5 "					
	" 11" 11.0 "					
TOTAL - 57.0 HRS @ 40.00		2280.00				
TAX		159.60				
REC'D BY <u>[Signature]</u>		TOTAL <del>2439.60</del>				
CLERK	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE RET'D	PAID OUT
<u>[Signature]</u>			<input checked="" type="checkbox"/>			2439.60

NAVY BUSINESS FORMS LIMITED

057882



DUFRESNE  
EQUIPMENTAL RENTALS  
D. CHARTRE

OUR NUMBER	48933
DATE	DEC 19, 1994
CUSTOMER'S ORDER	
SALESMAN	
TERMS	
F. O. B.	

SOLD TO \_\_\_\_\_  
 \_\_\_\_\_  
 SHIP TO \_\_\_\_\_  
 \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ VIA \_\_\_\_\_

INVOICE

RENTAL OF WAJAX				
MARK III WATER				
PUMP; 1100 FT OF (1 1/2")				
HOSE; AND OPERATOR				
(PAUL DUFRESNE OR				
ASSISTANT)				
7 DAYS ON				
MCCHESENEY PROPERTY				
FLOUELLE TWP AT		90 00	630 00	
Paid				

BLUELINE D 31

DUFRESNE  
EQUIPMENT RENTALS

OUR NUMBER	48934
DATE	DEC 19, 1994
CUSTOMER'S ORDER	
SALESMAN	
TERMS	
F. O. B.	

SOLD TO \_\_\_\_\_  
 \_\_\_\_\_  
 SHIP TO \_\_\_\_\_  
 \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ VIA \_\_\_\_\_

INVOICE

RENTAL OF WAJAX				
MARK III HIGH				
PRESSURE WATER				
PUMP; 1100 FT OF				
HOSE (1 1/2"); AND				
OPERATOR (PAUL				
DUFRESNE OR ASSISTANT)				
7 DAYS (MCCHESENEY				
PROPERTY) AT		90 00	630 00	
Paid				

BLUELINE D 31

Alma Twp.

1152300	1152302	1152303
1152295	1152296	1152299
1152294	1152297	1152298
1152293	1137503	1137502
1152289	1137504	1137501
1152284	1106466	1137500

CAIRO

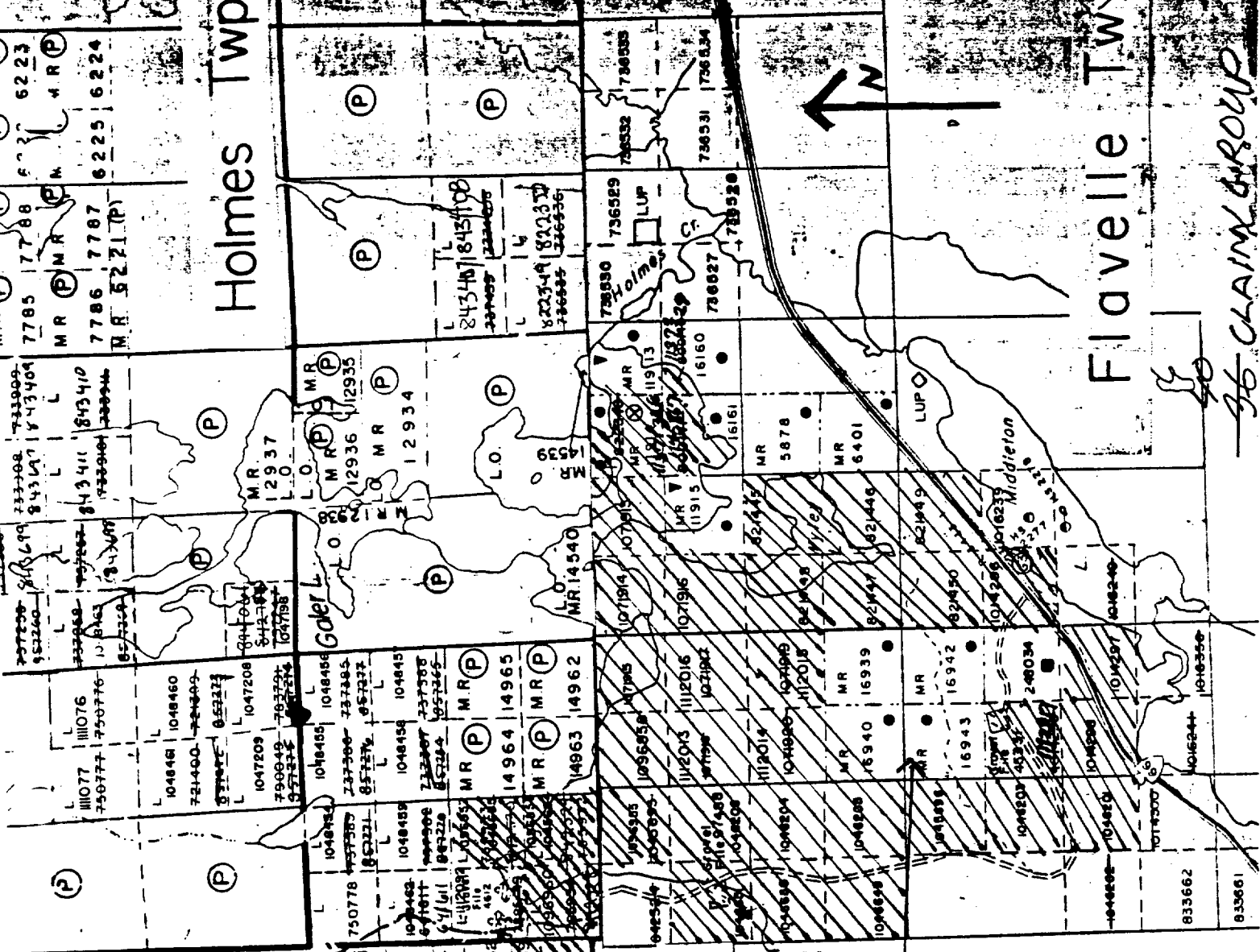
TP.

MCDONNELL PROPERTY

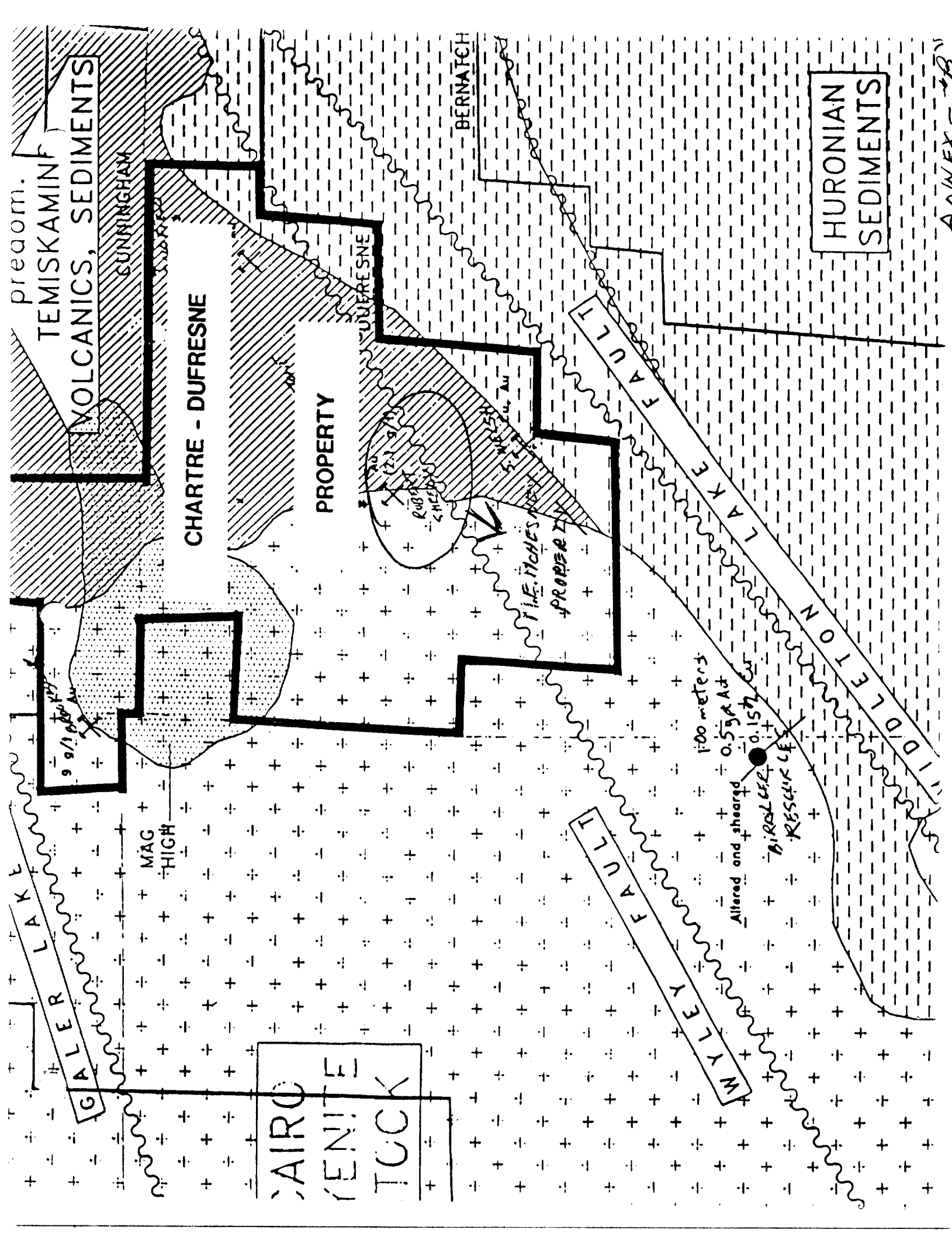
ANNEX "A"

Holmes Twp.

Flavelle Twp.



36 CLAIM AROUND



pre-Permian  
TEMISKAMING  
VOLCANICS, SEDIMENTS

GUNNINGHAM

CHARTRE - DUFRESNE

PROPERTY

BERNATCH

HURONIAN  
SEDIMENTS

9 9/1600 AM

MAG  
HIGH

AIROITE  
TUCK

RUBENS  
SHEPHERD

W. 150' AM

PINES  
PROPERTY

LAKE FAULE

LAKE NOTLETON

100 meters

Altered and sheared

0.59 A Ad

0.157 km

BIRCH CREEK  
RESCUER

ANWEX - 100N

J. A. Demers  
PRES.

H. Pinsonnault  
SEC. TRES.

ANNEX "C"

477 St. François Xavier  
ROOM 204 CHAMBRE

Tel.: LA. 9037

# CHAVIGNY GOLD MINES LTD.

NO PERSONAL LIABILITIES

P.O. Box 415 Place d'Armes Casier Postal 415

MONTREAL, P. Q.

Hole no. 2, - Position N.W. Claims No. 17548 Flavelle twp. angle 70'  
Direction 70° E.

-----

- 0-12 Greenstone, very little mineralisation.  
12-25 Intrusion of pale colored porphyre without mineralisation, small grain of magnetite.  
25-34 Same small veins of quartz without mineralization.  
34-53 Porphyre of a light red color without mineralization, small grains of magnetite.  
53-55 Quartz veins and black tourmaline without mineralization.  
55 to 85A darker porphyre with much more fine grain of magnetite.  
85 to 125 Same with some pyrite.  
125-155 Same.  
155-165 Same with more iron pyrite.  
165-190 Porphyre of darker colors, a few grain of magnetite, a little or few spots of pyrite.  
190-192 Light colored porphyre, a little pyrite, and a lot of fine grains of magnetite.  
192-280 Same.  
280-350 Dark grey porphyre very little pyrite, lot of magnetite.  
350-352 Same.  
352 Quartz vein 2" no mineralization.  
352-372 Porphyre with some pyrite.  
372 Quartz vein  $\alpha$  tourmaline, no mineralization 6"  
372-425 Porphyre of a light color.  
425-437 Porphyre of a darker color.  
437-500 Syenitique porphyre of lighter color, no mineralization.  
500-550 Same.  
550-600 A darker porphyre, a lot of magnetite grains, no mineralization.  
600-622 Dark & light colored porphyre, a little mineralization less magnetite  
622-636 Same with more concentration of iron pyrite with small veins of quartz.  
636 Porphyre turning to dark grey for a length of 8".  
636-650 Greenstone, a little pyrite.

Gerard Corriveau,  
P.E.

Montreal Dec. 7th. 1949.

WELSH SHOWING

ASSESSMENT WORK	
Rec'd from.....	<i>Mining Recorder</i>
	<i>Elk Lake</i>
Date.....	<i>Apr 126/51</i>
	<i>W.S.</i>
	Resident Geologist

# CHAVIGNY GOLD MINES LTD.

## Flavelle Township

A visit was made to the property of the Chavigny Gold Mines Ltd. on June 15th. The writer was accompanied by Philip Demers, son of the president of the company, J. A. Demers.

### Property

The property consists of eight claims located in Lots 9, 10, and 11, Con. V, Flavelle township. The claim numbers are as follows:

MR 12967, 13350, 13466-67, 17237, 17247-48, 17548

Middleton Lake covers approximately half of claims MR 13466-67, 17248.

### Access

The new road which is in the process of construction to connect Matachewan with Kirkland Lake crosses the property. This road which trends NE skirts along the NW shore of Middleton Lake. The property is approximately 5 miles from the point where the new road takes off from Highway No. 65.

### General Geology

The geology of the north half of Flavelle township is shown on Map No. 44b which accompanies the report by W. S. Dyer, Vol XLIV, Part 2, Ontario Department of Mines Annual Report 1935. In the north half of Lot 10, Con. V, a band of syenite porphyry which strikes approximately E-W is exposed between the underlying Keewatin flows to the north and the overlying Cobalt sediments to the south. The nose of this band of syenite porphyry forms a hill which slopes steeply down to the road on the NW side. On the SE side of the road the ground slopes gently down to Middleton Lake over a distance of approx. 300 ft.

The syenite porphyry is part of the large stock which occupies most of the NE quarter of Cairo township and the SE quarter of Alma township. It is not conspicuously porphyritic where observed by the writer in Flavelle township. In his report Dyer states that in the western part of the stock, red and grey colours predominate and porphyritic structure is usual, whereas on the eastern side, in Flavelle and Holmes townships, brown colour are more common and porphyritic structure is less evident.

### Prospecting and Development Work

A number of quartz veins cutting the syenite porphyry have been exposed at intervals by stripping and trenching on the hillside NW of the road. In general these veins strike NW and dip vertical, varying in width from 6" to 2 feet. Preparations are underway to strip the thin overburden from the hillside with a bulldozer to further expose the quartz veins.

WELSH SHOWING

The most southerly quartz vein shown to the writer and arbitrarily numbered "1" is well exposed about 50 ft. uphill from the road where it is about 18" wide. The strike is N 32° W and the dip vertical. Irregular streaks of black tourmaline occur in the quartz and patches of pyrite and galena mineralization can be seen on the contacts and accompanying small quartz stringers into the syenite porphyry wallrock. A few specks of chalcopyrite were observed. A picked sample taken from a small pit blasted into this vein at the side of the road gave the following values (Swastika lab.):

Au	Ag	Lead	Copper	Zinc
0.03 ozs.	25.43 ozs.	8.83%	1.88%	0.10%

Two smaller parallel veins (No. 2 and 3) occur 20' and 40' respectively NE of No. 1 vein.

A picket line striking N 33° W crosses the road 60' to the NE of the pit on No. 1 vein. Vein No. 4 is exposed on the hillside 20' SW of a point on the picket line 240' NW of the centre of the road. This vein, which strikes N 30° W and dips vertical is very irregular in width but averages about 15". Streaks of black tourmaline occur in the quartz and on the contacts. Blebs of pyrite up to 6" in dia. were observed and traces of galena. Fragments of the syenite porphyry wall rock can be seen in the vein.

At the top of the hill, 300' NW from the centre of the road, two more veins are exposed. No. 5 vein is on the picket line and No. 6 vein is 10' to the NE. These veins strike N 20° W and dip vertical. They vary from 18" to 2' in thickness and are well mineralized with coarse pyrite and galena on the contacts. Disseminated pyrite occurs in the wallrock adjacent to the contacts.

Two similar veins (No. 7 & 8) with a NW strike and vertical dip occur about 40 and 50 ft. respectively NE of point 240' NW on the picket line. There appears to be more galena in proportion to pyrite in these veins than in the veins already mentioned.

This property was examined by N. Nelson of the exploration Department of Wright Hargreaves in 1946 at which time the claims were held by Stan Welsh of Matachewan. Grab samples from four of the veins gave the following assays:

Au	Ag	Lead	Copper
\$0.70	2.42 ozs.	0.75%	--
\$2.10	30.16 ozs.	17.0%	-- (picked sample)
\$0.35	4.17 ozs.	2.65%	--
\$0.70	0.98 ozs.	--	3.05% (Picked sample)

The company plans to engage an engineer to supervise the stripping, make a detailed map of the showings, and systematically channel sample the veins.

*W. S. Savage*  
W. S. Savage,  
Resident Geologist.

June 17, 1949.

WELSH SHOWING

CHAVIGNY GOLD MINES LTD.

## Flavelle Township

This property was visited again by the writer on October 13, 1949.

A diamond drill was in operation. The drill crew of two men and the cook were the only persons on the property. The driller informed me that Young Demers was in Matachewan.

Philip Demers was contacted in Matachewan. He did not know any details of the d. drilling but told me that the hole being drilled was No. 4, and that the first two holes were angle holes drilled to intersect the No. 1 vein.

Demers, Sr., president of the company, who had gone to Montreal, was expected to return with an engineer who would supervise the drilling and make a geological map. To date none of the core had been logged.



W. S. Savage,  
Resident Geologist.

October 15, 1949.

WELSH SHOWING



# Swastika Laboratories

A Division of TSL / ASSAYERS INC.

Assaying - Consulting - Representation

Established 1928

## Assay Certificate

3W-2310-RA1

Date: AUG-24-93

Company: **ROGER DUFRESNE**  
Project: **MCCHESENEY**  
Attn:

We hereby certify the following Assay of 1 ROCK samples submitted AUG-23-93 by .

Sample Number	Au oz / ton	Ag oz / ton	Cu %	Pb %
#1	.005	4.49	1.23	1.89

Certified by Cheryl Fletcher





# Swastika Laboratories

ANNEX D-2

A Division of TSL / ASSAYERS INC.

Established 1928

Assaying - Consulting - Representation

## Assay Certificate

3W-2406-RA1

Company: **ROGER DUFRESNE**  
Project: **MCCHESEY PIT #1**  
Attn:

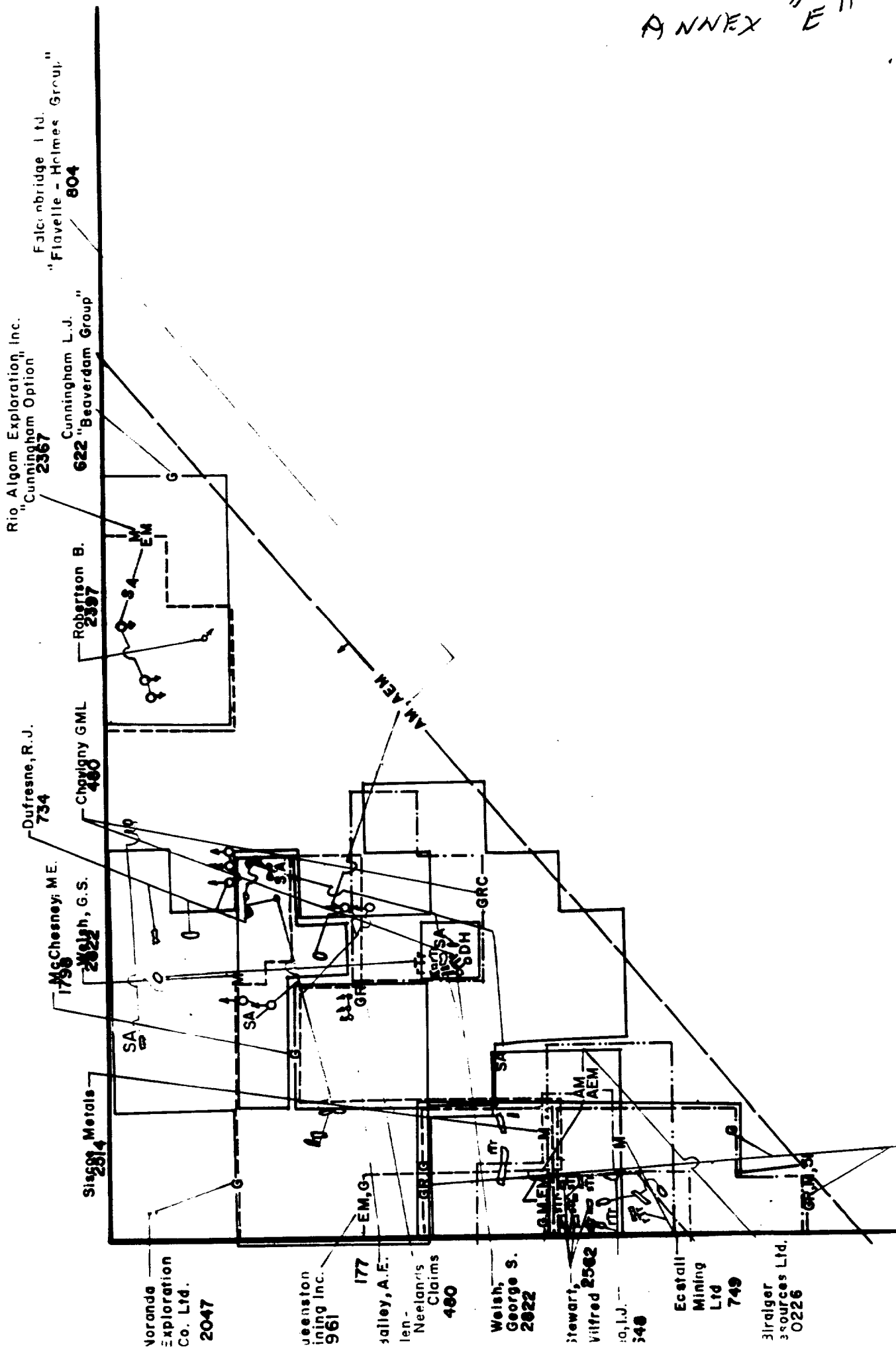
Date: SEP-09-93

We hereby certify the following Assay of 1 ROCK samples submitted SEP-08-93 by .

Sample Number	Au oz/ton	Au oz/ton	Au 2nd oz/ton	Au 2nd oz/ton	Ag oz/ton	Cu %	Pb %
Pit #1	0.106	0.082	0.060	0.064	5.98	3.65	2.04

Certified by

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300



Falconbridge Ltd.  
"Flavelle - Holmes Group"  
804

Rio Algom Exploration Inc.  
"Cunningham Option"  
2367

Cunningham L.J.  
622 "Beaverdam Group"

Robertson B.  
2397

Dufresne, R.J.  
734

Chavigny GML  
480

McChesney, M.E.  
1758

Welsh, G.S.  
2022

Sisler Metals  
2814

Voranda  
Exploration  
Co. Ltd.  
2047

Jeenston  
Mining Inc.  
961

Salley, A.E.  
177  
Neele's  
Claims  
480

Welsh,  
George S.  
2022

Stewart,  
Wilfred  
2562

Ecclell  
Mining  
Ltd  
749

Blirger  
Resources Ltd.  
0226

AM/AEM

GRC

SA

AM/AEM

GRC

SA

SA

EM, G

GRC

GRC

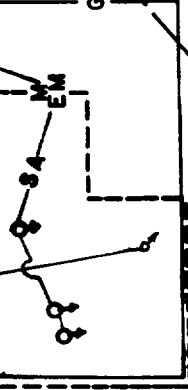
AM/AEM

AM/AEM

AM/AEM

AM/AEM

AM/AEM



SA

SA

EM

EM

EM

EM

EM

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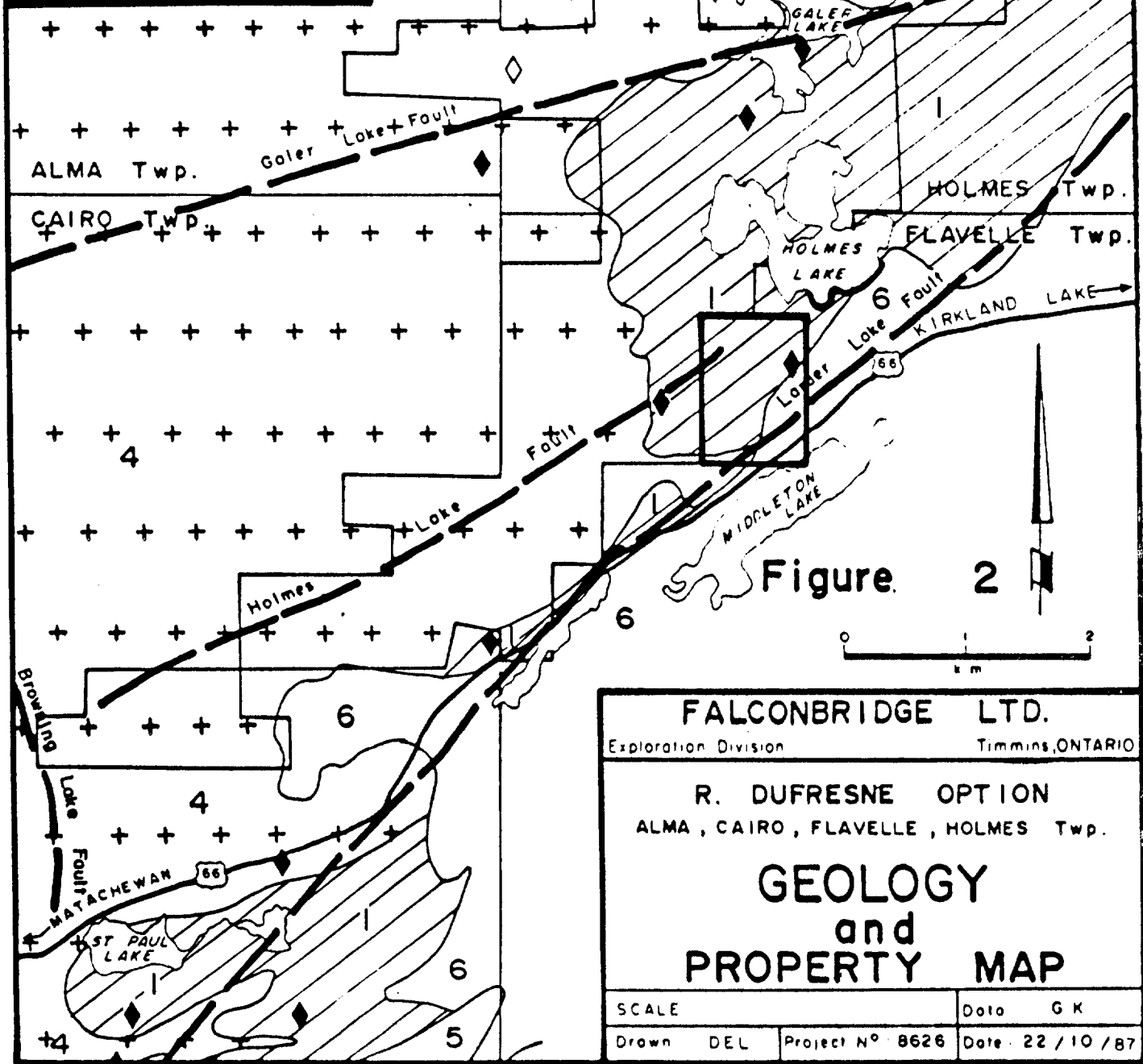
EM

EM

EM

**LEGEND**

- FAULT
- CONTACT
- MAIN GOLD SHOWING
- R DUFRESNE OPTION
- OTHER COMPANY LANDS
- MATACHEWAN SWARMS OMITTED
- COBALT SEDIMENTS
- ROUND LAKE BATHOLITH
- CAIRO BATHOLITH
- HOLMES BATHOLITH
- SYENO - DIORITE STOCK
- ARCHEAN VOLCANIC - SEDIMENTARY COMPLEX



**FALCONBRIDGE LTD.**  
 Exploration Division Timmins, ONTARIO

R. DUFRESNE OPTION  
 ALMA, CAIRO, FLAVELLE, HOLMES Twp.

**GEOLOGY  
 and  
 PROPERTY MAP**

SCALE	Date G K
Drawn DEL	Project No 8626
	Date 22 / 10 / 87

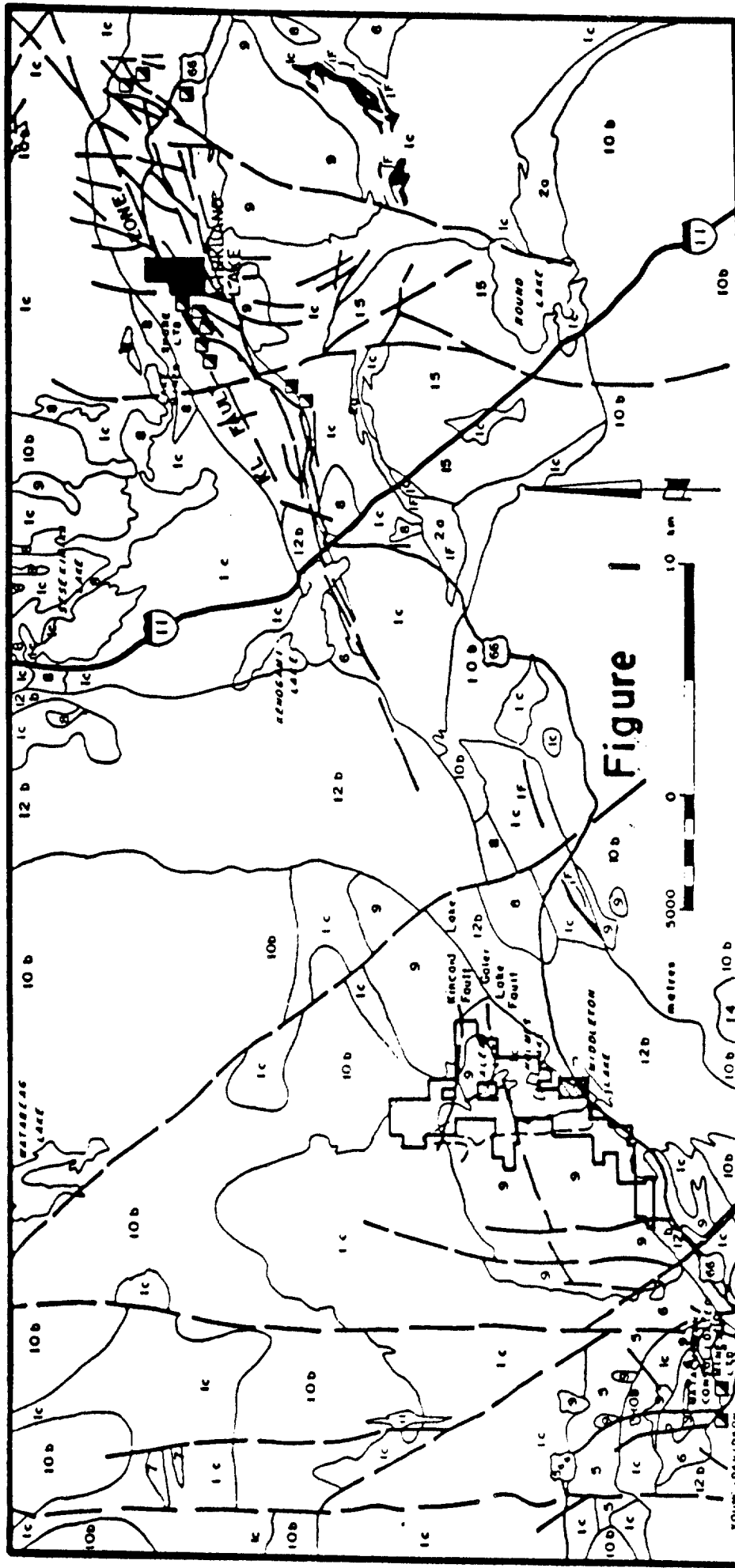


Figure 1

**FALCONBRIDGE LTD.**  
 Exploration Division      Timmins, ONTARIO

**REGIONAL GEOLOGY AND LOCATION MAP**

SCALE: 1 : 253,440      Date: GK  
 Drawn: DEL      Project N°: 8626      Dc' 22/10/87

**KEY**

PAST & PRESENT PRODUCERS (Au)      IRON FORMATION  
 FAULT      CONTACT

<input type="checkbox"/> 14	MAFIC INTRUSIVE ROCKS
<input type="checkbox"/> 12b	GOWANDA FORMATION
<input type="checkbox"/> 10b	FELSIC INTRUSIVE, simple batholiths & stocks
<input type="checkbox"/> 9	SYENITE, MONZONITE, FELDSPAR PORPHYRY
<input type="checkbox"/> 8	GABBRO, DIORITE, LAMPORPHYRE
<input type="checkbox"/> 6	METASEDIMENTS
<input type="checkbox"/> 20	PYROCLASTIC ROCKS
<input type="checkbox"/> 1c	MAFIC FLOWS

R DUFRESNE OPTION  
 OTHER COMPANY LANDS

Township of Flavelle  
Montreal River Mining Division  
A. E. Bailey  
63 Balsam St. S., Timmins

ANNEX "H-1"

1948

No. 4 Post

No. 1 Post

Claim No. 16939

License No. M-13014

IR 16940

MR 16938

ASSESSMENT WORK  
Road from... *Mining Records*  
..... *Elk Lake* ..  
Date... *Sept 7/48* ..... *W.H.*  
Resident Geologist

No. 3 Post

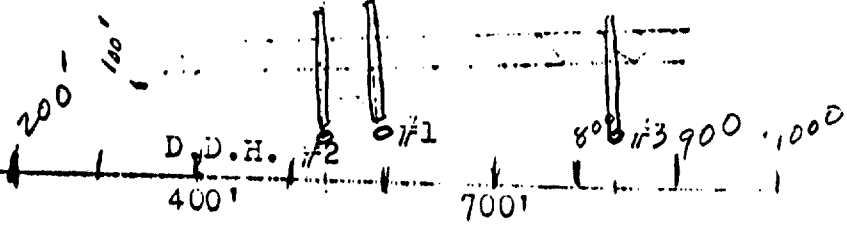
No. 2 Post

ASSAYS  
PIT. X

R 16943

MR 16942

In the North West part, Township of Flavelle



PROPERTY A. E. Bailey

Claim MR 16939

HOLE NUMBER

SHEET NUMBER

SECTION FROM

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_ DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING 50° N  
 DIP \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0-29'	Andesites				
29-69	Quartz well mineralized, chalcoc pyrites, iron pyrites, galena, tourmalene streakes				
69-128	Syenite porphyry with mineralized veinlets	40 ft of minerals			
128-169	Syenite porphyry				
	End of Hole				
	113' taken to Annor Gold Mines for Assay				
	215' on property				

DRILLED BY \_\_\_\_\_

SIGNED \_\_\_\_\_

PROPERTY A. E. Bailey

Claim 16939

HOLE NUMBER

SHEET NUMBER

SECTION FROM

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_

LONG. \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING 62° N

DIP \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0-43'	Andesites				
43-85	Quartz, well mineralized, chalcopirite, iron pyrites, galena, with tourmalene streakes.	427			
85-153	Syenite porphyry, mineralized in section.				
	End of Hole				

500 SEN MINER PRESS LIMITED, TORONTO-STOCK FORM NO. 901 REV. 9/44

DRILLED BY \_\_\_\_\_ SIGNED \_\_\_\_\_

PROPERTY A. E. Bailey  
Claim 16939

HOLE NUMBER \_\_\_\_\_  
SHEET NUMBER \_\_\_\_\_  
SECTION FROM \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_ STARTED \_\_\_\_\_  
                  DEP. \_\_\_\_\_ COMPLETED \_\_\_\_\_  
ELEVATION OF COLLAR \_\_\_\_\_  
DATUM \_\_\_\_\_ ULTIMATE DEPTH \_\_\_\_\_  
  BEARING 45° N PROPOSED DEPTH \_\_\_\_\_  
DIRECTION AT START: \_\_\_\_\_  
  DIP \_\_\_\_\_

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 26	Andesites				
26 - 57	Quartz, well mineralized, chalcopirites, iron pyrites, galena, streaked with tourmalene.	31A			
57-106	Syenite porphyry				
	End of Hole				

DRILLED BY \_\_\_\_\_

SIGNED \_\_\_\_\_



This property consists of 4 patented claims in Flavelle township: MR.16939, MR.16940, respectively the southeast quarter and southwest quarter of the south half of lot 11, concession VI; and MR.16942, MR.16943, respectively the northeast quarter and northwest quarter of the north half of lot 11, concession V.

The property was not examined by the author but is described by Dyer (1936, p. 51, 52) as follows:

In the south half of lot 11, concession VI of Flavelle township, a quarter of a mile west of Wyley lake, a well mineralized quartz mass has been uncovered in a series of trenches, on claim No.10,018, by Mat Allen, Bert Coghill, and associates. This lens-shaped quartz mass occurs in a fractured zone striking W.30°S., at right angles to the contact of the Keewatin greenstone schist and the large syenite porphyry stock of northwest Flavelle and adjacent townships to the west and north. Good examples of slickensiding which occur on the walls and in the syenite and schist inclusions, indicate that there has been considerable shearing along this zone. Dragfolding shows that the direction has been such that the rocks on the side south of the fracture have been moved to the west. The east end of the fractured zone is in greenstone, but the remainder of it is in grey syenite with narrow inclusions of greenstone or rhyolite along the line of fracture. The fracture has been traced for 1,500 feet, but the quantity of quartz and the type of mineralization varies considerably over this length. At the east end there is a lens of quartz about 17 feet, although the lens is irregular, with included masses of grey schist and sheared and altered pink syenitized schist. Most of the quartz is white, although in places it is smoky and black. Mineralization occurs chiefly as blebs and masses of fine and coarse pyrite and chalcopyrite. Some pink carbonate, glassy black tourmaline, and a little galena and purple fluorite are present.

For about 600 feet west of the west end of the quartz lens there is not much evidence of the fracture, but west of this again, narrow lenses of coarse white quartz occur, which are more sparsely mineralized with pyrite and chalcopyrite than the eastern lens, but have a greater amount of tourmaline and fluorite, and in places considerable amounts of pink to brown orthoclase. The high-temperature minerals, tourmaline, fluorite, and orthoclase, are more common in the west end of the fractured zone, where it traverses the syenite, than in the east end in the greenstone. The orthoclase was observed only in the west end. The east end would appear to be more favourable for the occurrence of gold than the west end. Unfortunately the fracture zone strikes into low swampy ground toward the east.

A little native gold was noted in the limonite-encrusted cracks in the quartz of the bigger lens at the east end of the main fracture, and some medium assays have been reported, but consistent values have so far been lacking.

Another fracture, upon which some work has been done, comes in from the east, striking N.75°E., and either intersects or joins up with the first fracture. Narrow, poorly mineralized quartz lenses are found along it.

FLAVELLE TOWNSHIP

PROPERTY

Allen-Neelands Claims

LOCATION

N. W. of Middleton Lake in N. W. corner of Flavelle township.

NOTE: The boundary line between N.T.S. 42-A-2 and N.T.S. 41-P-15 crosses this property.

CHIEF METAL

Au. some Ag. Pb. Cu.

REFERENCES

K. M. G. Files

Correspondence between M. Allen, Elk Lake and J. B. McMillan, Teck Exploration (1932). Assay plans and location of claims.

Report by K. Griffin with assay plans (1934).

O. D. M. Records

Vol. XLIV, 1935, pt. 2 pp. 51-52, by W. S. Dyer.

North part of Flavelle township included in Geological Report No. (19 ), by J. C. Moore. Named "McChesney Property" on Ontario Department of Mines Preliminary Map No. P. 206.

Reported on under the name "Chavigny Gold Mines Limited" by Ontario Department of Mines resident geologist (W. S. Savage), 1949.

GEOLOGY

The eastern claims of the group are underlain by Keewatin flows of basic to intermediate composition and pyroclastics. Porphyrite syenite occupies the greater part of the property, and extends to the west as a stock over 5 miles in diameter. Schistosity parallel to the contact has developed in the intruded volcanics. The strike of the contact on the property is in general N.-S., but a number of tongues of the syenite extend easterly into the older rocks. All these formations are cut by north trending diabase dikes. In the southeast corner of the property sediments of Cobalt age overlie the syenite.

FLAVELLE TOWNSHIP

Allen-Neelands Claims Cont'd.

SHOWINGS

Two showings are described by Griffin, the one in the north part of the property being considered the better one of the two. There is little doubt that this showing is the same one described by Dyer under the title "Allen-Coghill Claims". Griffin describes it as a wide quartz vein (up to 20 feet) that strikes N.72° E. and dips 60° S. The mineralization consists of pyrite, tourmaline and galena and is patchy. Dyer noted that the quartz occurs in a fractured zone as a series of lenses becoming narrower towards the west. He said the east end of the fractured zone is in greenstone, but the remainder of it is in grey syenite with inclusions.

The south showing referred to by Griffin was the only one seen by Savage in 1949. Savage describes it as a number of more or less parallel quartz veins cutting syenite porphyry on the slope facing southeast, north of the road at Middleton Lake. In general these veins strike N. W. and dip vertical, varying in width from 6 inches to 2 feet. Streaks of black tourmaline occur in the quartz with patches of pyrite and galena mineralization, and minor chalcopyrite.

DEVELOPMENT

Griffin states that the north showing was traced for about 2,000 feet by pits. He also mentions a prospect shaft east of which his sampling was done. Most of the samples, which were well mineralized with pyrite and galena, contained only a trace of gold.

The Exploration Department of Wright-Hargreaves took grab samples from four of the veins in the south showing (at Middleton Lake) in 1946. The following assays were obtained:

Ag.	Ag.	Pb.	Cu.
Au			
\$0.70	2.42 Ozs.	0.75%	-
\$2.10	30.16 Ozs.	17.00%	- Picked sample
\$0.35	4.17 Ozs.	2.65%	-
\$0.70	0.98 Ozs.	-	3.05% Picked sample

FLAVELLE TOWNSHIP

Allen-Neelands Claims Cont'd.

DEVELOPMENT Cont'd.

When Savage visited the south showing in June, 1949 the veins on the hillside had been stripped, trenched and pitted. At the time of a second visit in October, 1949 Savage found diamond drilling in progress. The log of one hole was turned in to the Ontario Department of Mines for assessment work credit.

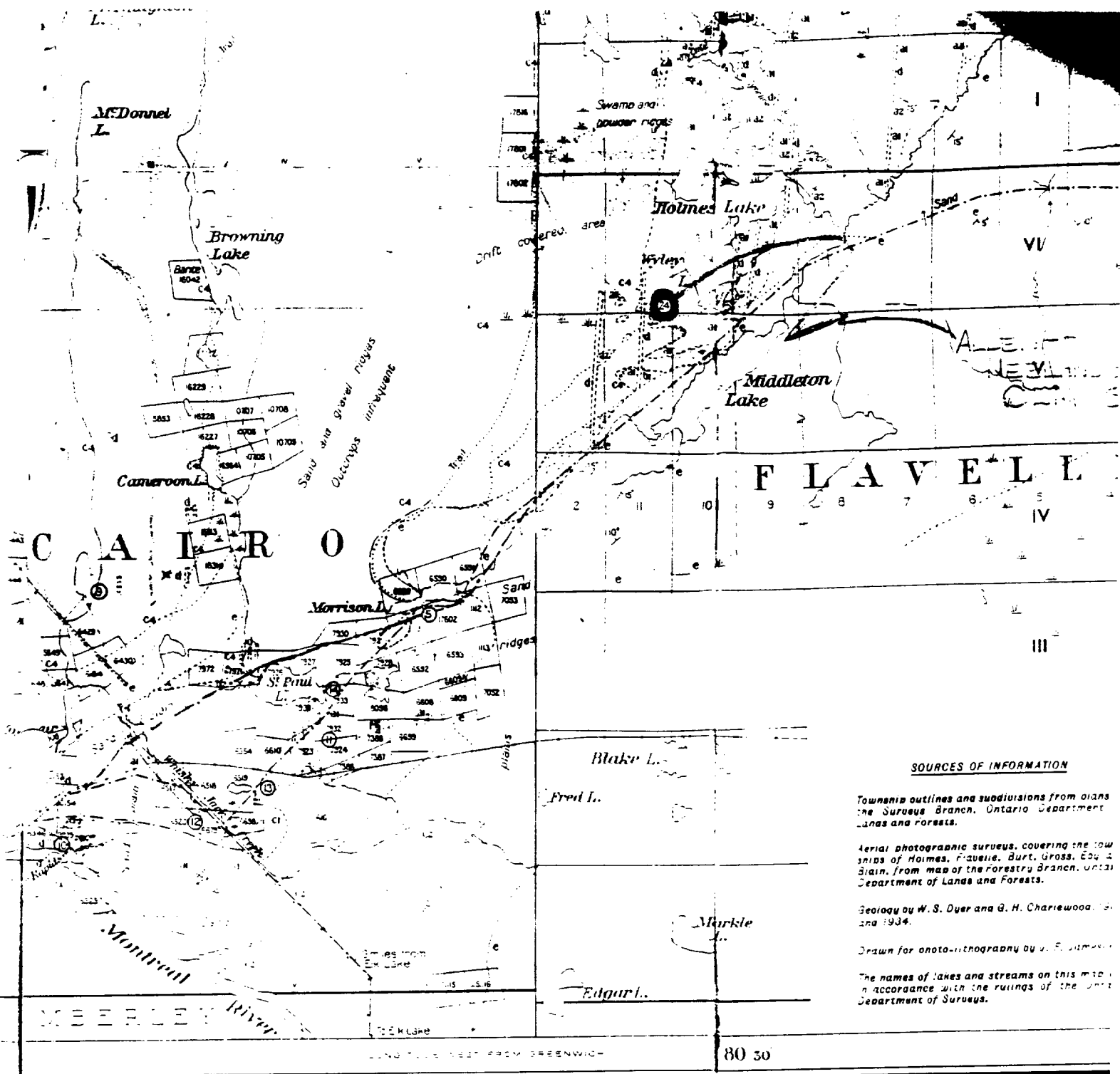
CONCLUSIONS

Griffin concluded his report as follows:

"The south showing does not show from the assays to have any economic values at all.

On the north showing there is a large body of quartz and from nine samples two (gold) values were obtained which ran higher than a trace.

In view of the fact that the mineralization is spotty and the samples were well mineralized it does not appear that a high enough average could be obtained to be worked for a profit."



**SOURCES OF INFORMATION**

Township outlines and subdivisions from plans of the Survey Branch, Ontario Department of Lands and Forests.

Aerial photographic surveys, covering the townships of Houmes, Flavelle, Durt, Gross, Eby & Blain, from map of the Forestry Branch, Ontario Department of Lands and Forests.

Geology by W. S. Dyer and G. H. Charlewood, 1931 and 1934.

Drawn for onto-lithography by J. F. Simpson.

The names of lakes and streams on this map in accordance with the rulings of the Ontario Department of Surveys.

LONG TILES WEST FROM GREENWICH

80 30



**FALCONBRIDGE**

**Falconbridge Limited**  
571 Moneta Ave., Box 1140  
Timmins Ontario P4N 7H9  
Telephone 705-267-1138  
Radiifax 1-705-264-6080

November 17, 1987

Mr. Roger Dufresne  
14 Wright Hargroves  
Kirkland Lake, Ontario

Dear Mr. Dufresne:

Pursuant to the agreement dated October 1, 1985, please find enclosed the "Trenching Program Report, Flavelle Township" by George J. Kazda.

Good luck in any further exploration on your property.

Yours truly,  
FALCONBRIDGE LIMITED

H.F. Keats  
Regional Exploration Manager

HFK/lv

Encl.

FALCONBRIDGE LIMITED  
R. DUFRESNE OPTION  
TRENCHING PROGRAM REPORT  
FLAVELLE TOWNSHIP

AUGUST, 1987

GEORGE J. KAZDA

## SUMMARY AND CONCLUSIONS

The mechanical stripping program was carried out in August 1987 (1 trench 300 sq m) on R. Dufresne Option. The mafic volcanic bedrock was exposed, and three chip samples were taken and analyzed for gold but no significant gold values were obtained.

Sketches of the trench locations are attached (Figure 3, 4). The property is on a low priority list. No further work is recommended.



## INTRODUCTION

A mechanical stripping program on this property began on August 11, 1987 and was completed on August 12, 1987. The property consists of six claims in Flavelle Township totalling a nominal 97 hectares. These claims were acquired because of their proximity to known gold showings (Four patented claims - McChesney Group just west of the property).

The Larder Lake Fault and Holmes Lake Fault are interpreted to cross the property.

The R. Dufresne Option claim group was optioned by Falconbridge Ltd. in 1985.

## PROPERTY LOCATION, ACCESS (Figure 1, 2)

NTS: 42A/2, 41P/15

48°00'N, 80°30'W

The R. Dufresne Option is located in the north west corner of Flavelle Township Lot 10, Con V, VI.

The claim group is located approximately 42 km SW of Kirkland Lake and 16 km NE of Matachewan.

## VEGETATION, TOPOGRAPHY, ACCESS TO WATER

The vegetation consists of mature spruce, poplar, birch and lesser jack pines. The property is mostly relatively low. Water is readily available from Wyley Lake.

## PREVIOUS WORK

In February 1986 an airborne survey was flown over the area. A metric grid was cut and a VLF survey was performed during Fall of 1986.

## REGIONAL GEOLOGY (Figure 1, 2)

The regional geology is illustrated in Figure 1. The dominant feature of the area is the Cairo stock, a large (13 x 8 km) syenite intrusion. The Cairo stock and related dykes and plugs of trachytic syenite and syenite porphyry intrude an isoclinally folded and greenschist facies metamorphosed sequence of Archean volcanic and sedimentary rocks. Granitic to dioritic rocks, locally gneissic, are present mainly in the northern and southeastern parts of the area. All of these rocks are intruded by north trending diabase dykes of the Matachewan swarm. In the southwestern and southeastern parts of the Matachewan area, Proterozoic

sedimentary rocks of the Cobalt Group, mainly Gowganda conglomerate, unconformably overlies older rocks. (Sinclair, 1982).

Several faults, shear zones and topographic lineaments (Figures 1, 2) are present in the area. The dominant structural features strike ENE to ESE through the area and include a shear zone and series of faults along Highway 66, the Galer Lake Fault, the Holmes Lake Fault and Larder Lake Fault.

It has been variously suggested that one of the above mentioned faults or the whole system of faults may represent the southwest strike extension of the Kirkland Lake Main Break.

#### METHOD

The mechanical stripping was done using a backhoe mounted on a bombardier muskeg tractor. The trench was cleaned with water using a water pump, mapped at a scale 1:200 and three chip samples were taken. The samples were sent to Bell-White Analytical Laboratories Ltd. in Haileybury, Ontario and analyzed for Au.



# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 2852

DATE: August 20, 1987

SAMPLE(S) OF: Rock (18)

RECEIVED: August 1987

SAMPLE(S) FROM: Falconbridge Mines Ltd.

PROJECT: #008629

<u>Sample No.</u>	<u>(1 A. T.) Gold ppb</u>
AF 04066	14
AF 04067	6
AF 04068	17
AF 04069	6
AF 04070	3
AF 04071	4
AF 04072	4
AF 04073	3
AF 04074	3
AF 04075	4
AF 04076	3
AF 04077	2
AF 04078	2
AF 04079	6
AF 04080	7
AF 04081	2
AF 04082	3
AF 04083	22

ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER 



David P. Larche  
Mining Exploration  
Contractor



Falconbridge Ltd.  
c/o George Kazda  
Project Geologist  
571 Moneta Ave, Box 1140  
Timmins Ont.

August 16 1987

\*\*\*\*\*

RE: Flavelle TWP. PROJECT # 8626 Heavy Equipment Stripping and  
trenching using a John Deer Backhoe mounted on a S model  
Bombardier muskeg tractor.

Aug 11 and 12

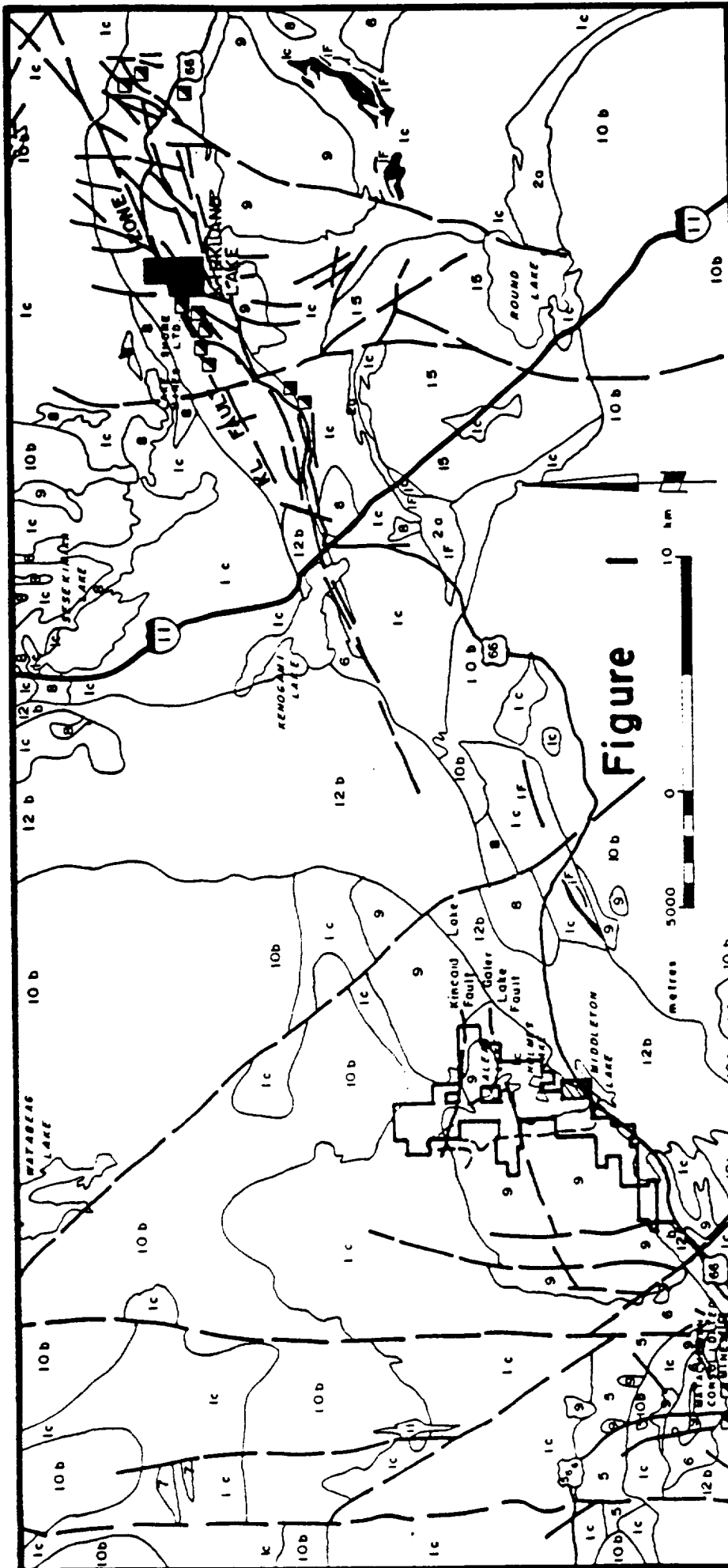
All inclusive rate per day X 2 days.....\$2150.00

Total.....\$2150.00

*Project 601600008626  
C. Green  
17 Aug 87*

Thank You,  
*David Larche*  
David P. Larche  
Mining Exploration Contractor

- 
- Claim Staking • Line Cutting • Power Stripping • Trenching & Blasting •
  - Sampling • Chain Saw Work • E.M. & Mag Surveys • Exploration Access Road •
-



**Figure 1**

**FALCONBRIDGE LTD.**  
 Exploration Division  
 Timmins, ONTARIO

**REGIONAL GEOLOGY AND LOCATION MAP**

SCALE: 1 : 253,440 Date: GK  
 Drawn: DEL Project No: 8626 Da: 22/10/87

**KEY**

- PAST & PRESENT PRODUCERS (Au)
- FAULT
- CONTACT












14	MAFIC INTRUSIVE ROCKS
12b	GOWANDA FORMATION
10b	FELSIC INTRUSIVE, simple batholiths & stocks
9	SYENITE, MONZONITE, FELDSPAR PORPHYRY
8	GABBRO, DIORITE, LAMPROPHYRE
6	METASEDIMENTS
2a	PYROCLASTIC ROCKS
1c	MAFIC FLOWS

□	R	DUFRESNE OPTION
□		OTHER COMPANY LANDS

**IRON FORMATION**

**LEGEND**

-  FAULT
-  CONTACT
-  MAIN GOLD SHOWING
-  R DUFRESNE OPTION
-  OTHER COMPANY LANDS
- MATACHEWAN SWARMS OMITTED
-  COBALT SEDIMENTS
-  ROUND LAKE BATHOLITH
-  CAIRO BATHOLITH
-  HOLMES BATHOLITH
-  SYENO - DIORITE STOCK
-  ARCHEAN VOLCANIC - SEDIMENTARY COMPLEX

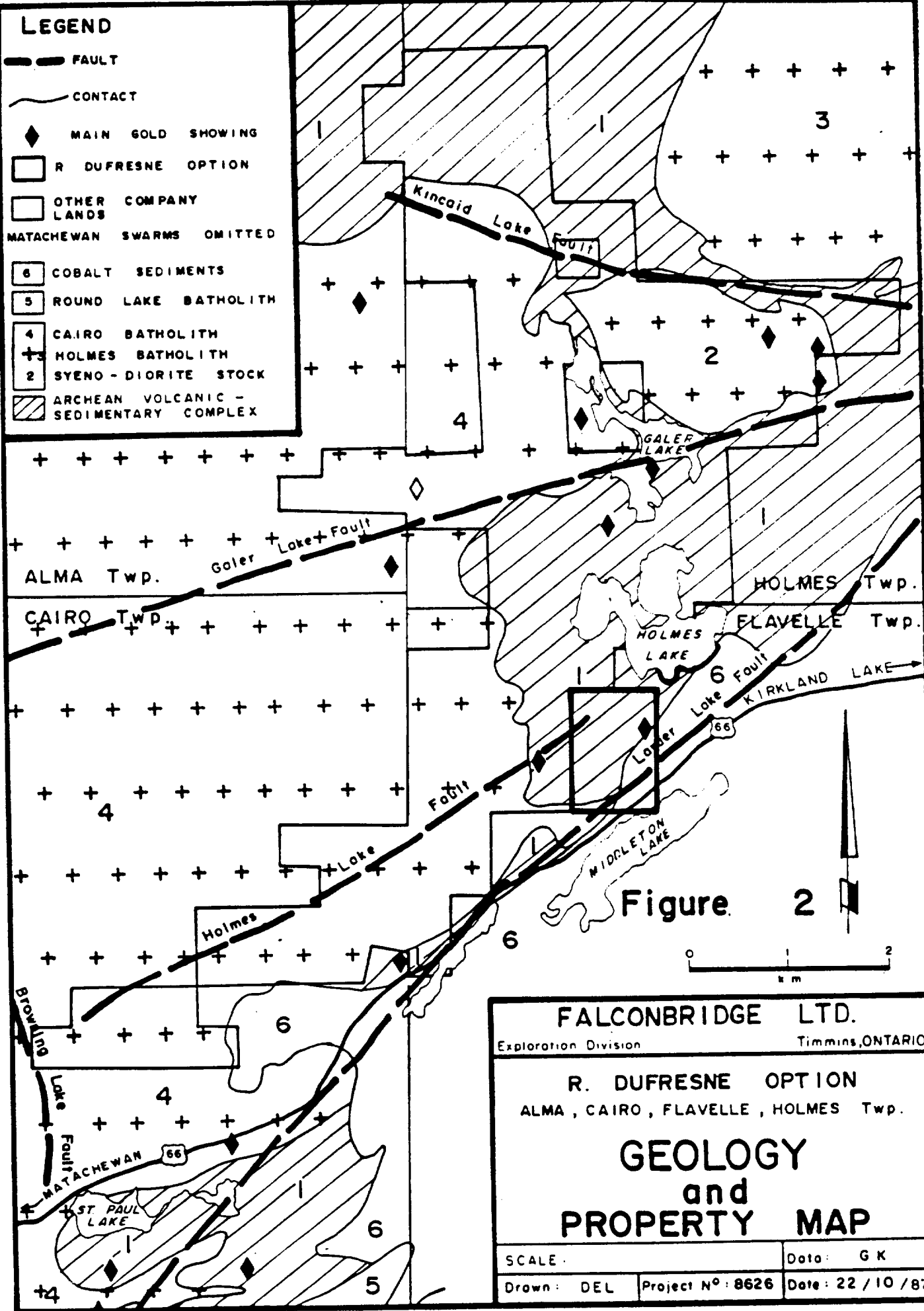
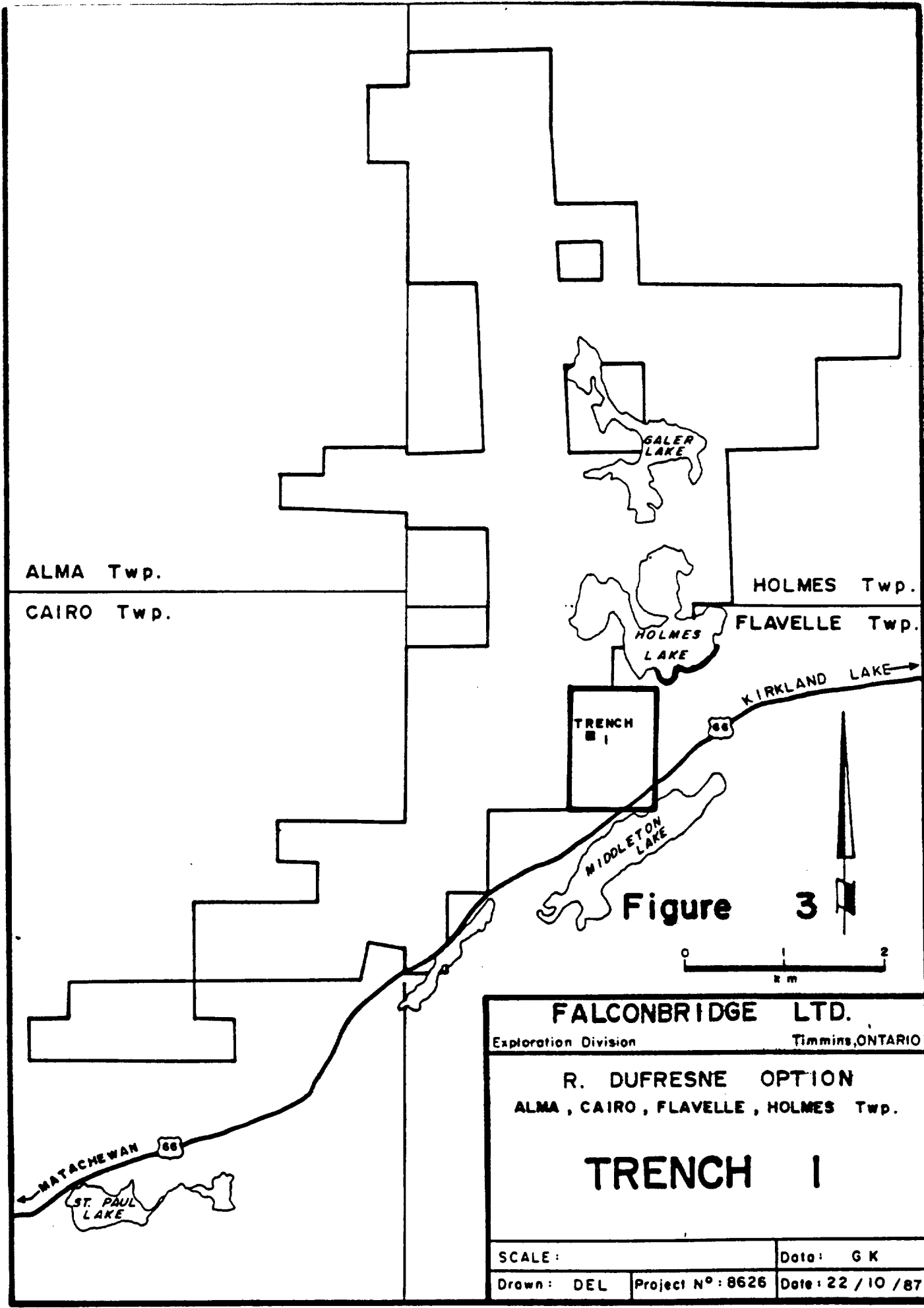


Figure 2



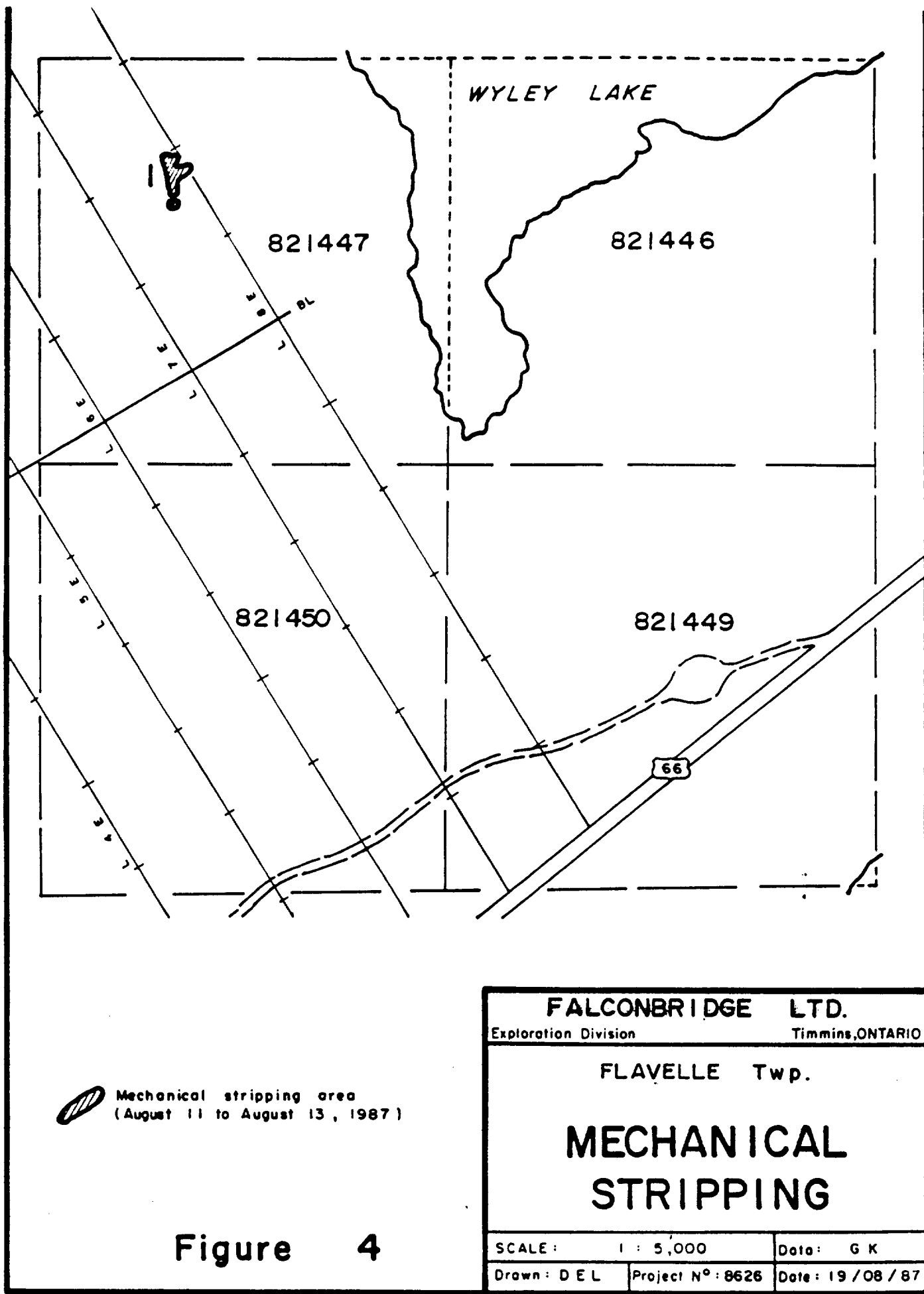
<b>FALCONBRIDGE LTD.</b>		
Exploration Division		Timmins, ONTARIO
R. DUFRESNE OPTION		
ALMA, CAIRO, FLAVELLE, HOLMES Twp.		
<b>GEOLOGY and PROPERTY MAP</b>		
SCALE:		Date: GK
Drawn: DEL	Project N°: 8626	Date: 22 / 10 / 87



**Figure 3**

<b>FALCONBRIDGE LTD.</b>	
Exploration Division	Timmins, ONTARIO
R. DUFRESNE OPTION ALMA, CAIRO, FLAVELLE, HOLMES Twp.	
<b>TRENCH 1</b>	
SCALE:	Date: GK
Drawn: DEL	Project N°: 8626
	Date: 22 / 10 / 87





 Mechanical stripping area  
(August 11 to August 13, 1987)

**Figure 4**

<b>FALCONBRIDGE LTD.</b>	
Exploration Division	Timmins, ONTARIO
FLAVELLE Twp.	
<b>MECHANICAL STRIPPING</b>	
SCALE: 1 : 5,000	Date: G K
Drawn: D E L	Project N°: 8626 Date: 19 / 08 / 87

ANNEX "J" II

REPORT ON  
A VLF-EM SURVEY  
DUFRESNE OPTION  
FLAVELLE TOWNSHIP  
LARDER LAKE MINING DIVISION

July 1990

W. J. McGuinty  
QUEENSTON MINING INC.

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	4	VLF-EM Profile Map	Back pocket
	5	VLF-EM Fraser Filter Contour Map	Back pocket

Appendices

Appendix I	Claims List - Dufresne Option
Appendix II	Geonics EM-16 VLF-EM Equipment Description

## 1.0 Introduction

Queenston Mining Inc. has acquired, under option, a group of 29 unpatented mining claims in Holmes, Flavelle and Alma townships, Larder Lake Mining division. Queenston is conducting geological and geophysical exploration over this group of claims during the summer and fall of 1990. The claims were staked by and acquired from Mr. Roger Dufresne of Kirkland Lake, Ontario.

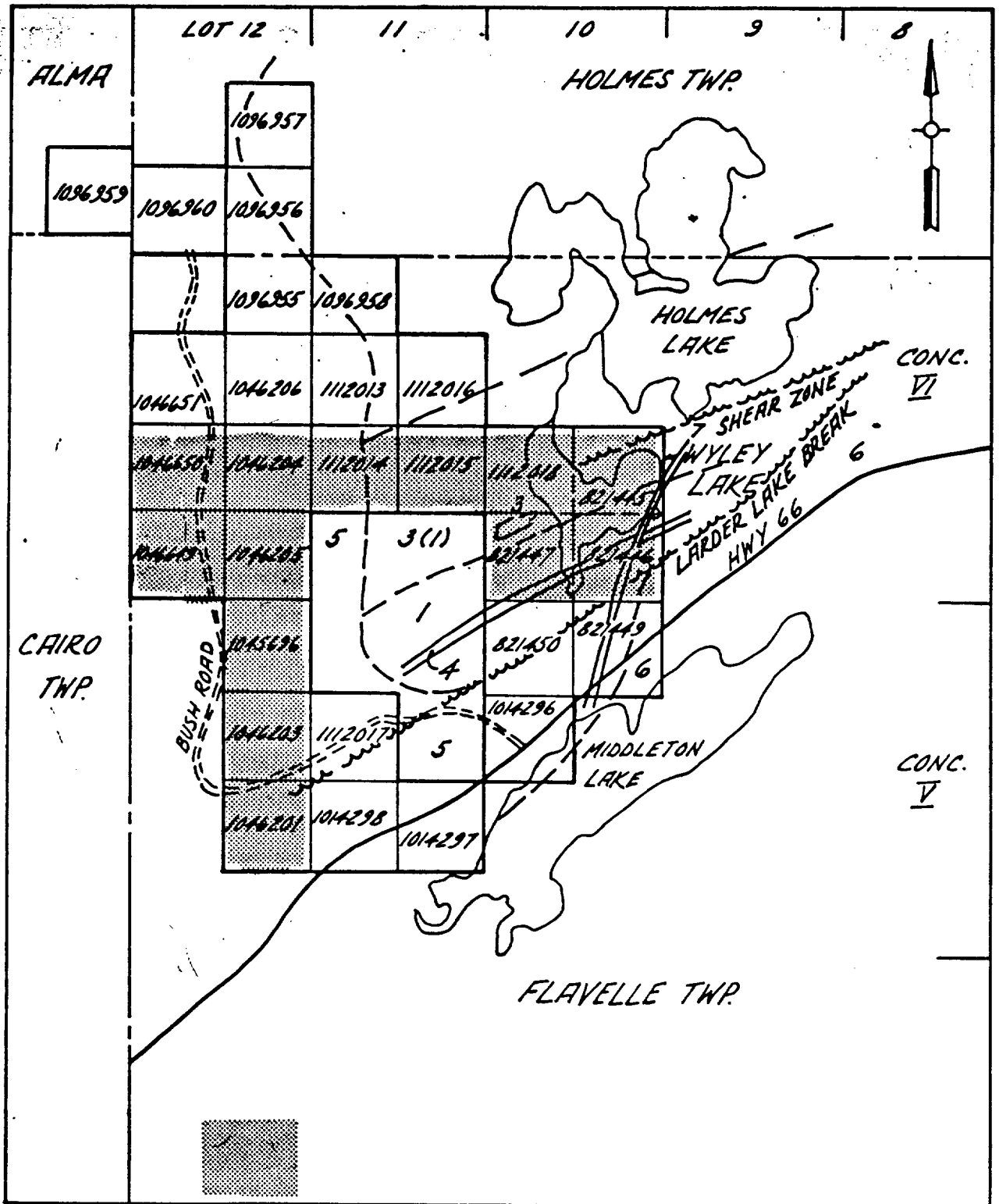
Field visits made to the property and vicinity in August and October 1989 showed strong shear deformation trending southwesterly across the property and beyond, as well as very anomalous gold mineralization related to these structures. The north Flavelle township, south Holmes township area is believed to host the western strike projection of the Kirkland Lake and Larder Lake fault structures. Based on the potential of this location and encouraging assays and geology, the property was optioned from the owner in October, 1989. Queenston is undertaking grid controlled geophysical and geological investigation with a view to extending and further evaluating known structures as a prelude to drill definition.

## 2.0 Property Description, Location and Access

The Dufresne option consists of 29 contiguous unpatented mining claims in Alma, Flavelle and Holmes townships, Larder Lake Mining Division. The claims have been staked over a period of five years from November 1984 to October 1989. All claims are currently in good standing with respect to filed assessment work. Claim numbers and other information are presented in Appendix I. The claims are found in lots 10, 11, 12, concession V, VI Flavelle township; lot 12, concession I Holmes township and Lot 1, Concession I Alma township.

The property is located 9.2 km northeast of the village of Matachewan and 55 km southwest of Kirkland Lake, Ontario. Highway 66, which joins these towns, traverses the Dufresne property through Flavelle township, with several timber roads and trails traversing the claims.

The property has a generally rolling topography with moderate relief in the 100 to 150 foot range throughout the western and southern sections of the claim group. In the northeast, a broad low area is partly occupied by Wiley Lake. The area has been partly clear cut during the past 5 to 10 years. The remaining forest is generally mixed birch, aspen and spruce while clear cut areas are covered with new birch growth alders and hazel.

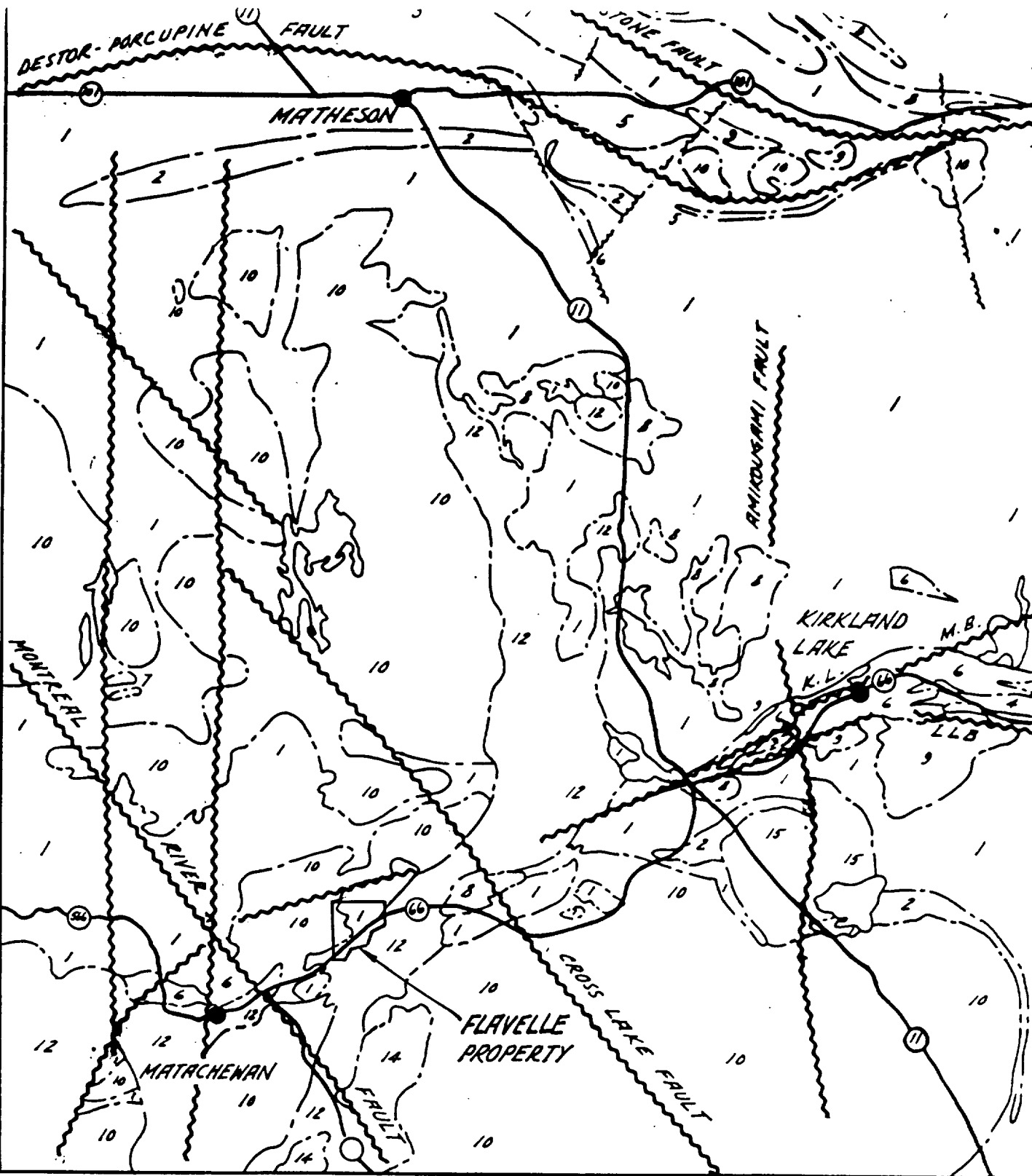


- 7 DIABASE
- 6 HURONIAN SEDIMENTS
- 5 SYENITE COMPLEX
- 4 TRACHYTE INTRUSIVE (?)
- 3 MAFIC INTRUSIVES
- 2 FELSIC VOLCANICS
- 1 MAFIC VOLCANICS

QUEENSTON MINING INC.  
 PROPERTY CLAIM MAP  
 DUFRESNE OPTION  
 FLAVELLE - HOLMES TWP.

0 2640' AUG. 190

FIGURE 2



— LEGEND —

- |  |   |
|--|---|
| <p>15 SYENITE</p> <p>14 DIABASE</p> <p>GONGANDA FORMATION</p> <p>10 QUARTZ-FELDSPAR PORPHYRY</p> <p>9 SYENITE PORPHYRY</p> | <p>8 GABBRO-DIORITE</p> <p>6 CONGLOMERATE, GREYWACKE</p> <p>4 TRACHYTE</p> <p>2 FELSIC VOLCANICS</p> <p>1 MAFIC VOLCANICS</p> |
|--|---|

QUEENSTON MINING INC  
 REGIONAL MAP  
 KIRKLAND LAKE -  
 MATACHEWAN AREA  
 SCALE 1" = 6 MI AUG./89  
 FIG. 3



### 3.0 Previous Exploration of the Property

Recorded exploration by prospectors and mining companies has been carried out on various parts of the Dufresne option since 1946. A chronology of recorded exploration is presented and related to claim numbers from the Dufresne option:

1934, 1938, 1964; A. E. Bailey, M. E. McChesney MR16939

Exploration of this patented claim, just west of Dufresne claim 821447 consisted of prospecting and diamond drilling (Bailey). Three holes drilled in this claim are said to have intersected a well mineralized quartz lens containing chalcopyrite galena and tourmaline in contact with mafic volcanics on the north and a porphyry on the south. No assays were recorded from this drilling. Grab samples by McChesney returned low gold and good silver (3.2 oz/ton) values.

Chavigny 1946-1949, Welsh 1971-1976 claim L1014296.

Exploration by Chavigny and later by Welsh included prospecting and drilling of a series of massive white fissure style quartz-tourmaline-pyrite-chalcopyrite-fluorite veins varying in width from 6 inches to greater than 5 feet and trending N30W. Low gold values, trace to 0.1 oz/ton silver ranging to 30.0 oz/ton and picked samples assaying up to 17.0% Pb 3.05% Cu and 0.1% Zn were obtained. These veins were hosted by syenite. A magnetometer survey over part of the Dufresne claims was also conducted by Welsh 1976 with minimal interpreted results.

Noranda 1975

Noranda Exploration conducted geological mapping on a claim line reconnaissance scale over the Western portion of the Dufresne option in 1975. Little detail is provided with respect to lithology and mapping generally conforms to government mapping.

#### 4.0 Regional Geology

The northern Flavelle township, Holmes township area was mapped in 1962 by J. C. G. Moore and assistants at 1 inch to 1/2 mile scale for the Ontario Geological Survey. Archean volcanic mafic to intermediate flows and pyroclastics, minor felsic rocks, conglomerates and greywackes in northwestern Flavelle township and southwest Holmes township have been intruded by later plutonic rocks of syenite composition and latterly by granitic rocks. All these rocks have been cut by Matachewan diabase dykes. Sediments of the Cobalt group (Huronian) unconformably overly other rocks in a southwest trending band through southeastern Holmes township into northern Flavelle township. Crosscutting Keweenaw diabase dykes are the youngest rock type and known to cut Huronian rocks.

Study by L. S. Jensen (78-79) relates the local archean volcano-sedimentary strata to the Temiskaming series of rocks found in the Kirkland Lake area, consisting of trachytic volcanic and sedimentary rocks and late alkalic intrusives. These rocks trend easterly to ENE and have a strong easterly foliation. Dips are variable, likely as a result of local folding caused by nearby syenite intrusives. Sedimentary features in these rocks were noted by Moore to face south.

Syenite intrusives consist mainly of orthoclase, plagioclase and hornblende. Various syenite bodies have been identified by features affecting these major components. The Holmes porphyry is defined by its porphyritic orthoclase

component. It is located in southwestern Holmes and northwestern Flavelle townships as well as westward into Alma and Cairo townships. An hornblende syenite body in central Holmes township is discriminated by 10-15% hornblende and 5% magnetite.

Cobalt series rocks are generally flat lying, dipping less than 20 degrees, although local steep dips to 80 degrees, particularly on the north contact have been recorded. The strata in Holmes and Flavelle townships is predominantly quartzite with interbeds of greywacke and argillite.

Structurally, several major fault systems traverse the area. Two main fault zones, the northeast trending Kirkland Lake-Larder Lake system and an unnamed north trending graben system intersect each other in southeastern Flavelle township. The north trending graben is poorly defined in terms of structural evidence but can readily be seen on map 2205 as containing a long finger of Huronian sediments striking north through the Archean basement. Deposition of the Cobalt series sediments appears to have occurred well after folding and foliation of the archean volcanics but before certain periods of displacement along the Kirkland Lake-Larder Lake fault system as evidenced on a large scale by the apparent right hand (north side east) displacement of the Huronian sediments. In the field, strong foliation conformable to the Kirkland Lake-Larder Lake system can be seen in Huronian sediments which indicate movement in this system may post date Huronian deposition.

## 5.0 Property Geology

The Dufresne option, in northwestern Flavelle township encloses a package of archean volcano-sedimentary rocks and its contact to the west and south with the Holmes porphyry syenite. The eastern contact, between Cobalt sediments and both the volcanics and syenite is also enclosed by the claims. Metavolcanic rocks known to occur within the property boundary consist mainly of mafic flows and tuffs.

Felsic to intermediate rocks occur as thin interbeds and can be quite schistose. Sediments of archean age are also noted by Moore within the property boundary and consist mainly of south dipping conglomerates. On claim 821445 a strong sericite schist with sulphide and gold mineralization is known to occur. A small vein of cherty quartz in this unit, possibly mylonitized. Oriented sub-parallel to foliation, contains free gold. To the northeast of claim 821445 along strike from the schistose unit an old prospect pit containing massive detrital pyrite with no apparent foliation is found.

To the west several thin mylonitized quartz veins similar in nature to those found on claim 821445 are seen cutting porphyritic syenite on claim 1046205. These are northeasterly trending and shear fabric is restricted to the veins. Similar veins can be seen further north in the syenite body outside the property boundary.

The implications of a possible extension of the Kirkland Lake-Larder Lake fault system through this area are the

focus of exploration for this property. Roughly 1 1/2 miles north of the property, the Galer Lake fault is often suspected to be the extension of the Kirkland Lake fault. The Larder Lake break, although not defined by any known analogous structure in Flavelle township would traverse the Dufresne option in the vicinity of Wiley Lake, through the greenstones or, may act as contact between archean and huronian rocks along this portion of the graben system. The importance of the structures as a guide to ore in Kirkland Lake and Larder Lake and their potential influence on gold mineralization in the Matachewan camp underline the exploration potential of this property.

## 6.0 Current Exploration Program

### 6.1 VLF-EM Survey Parameters

To facilitate ongoing exploration of the Dufresne option, a control grid was cut over 13 claims in Flavelle township during June, 1990. A baseline of 7200 feet in length oriented on 090 degrees was cut along the northern boundary of claims L1046650, 1046204, 1112014, 1112015, 1112018 and 821445. Grid lines were established on 400 foot intervals along the baseline and stations picketed at 100 foot spacing. A 1200 foot tie line is located at line 0+00 51+00S and extends to line 12+00E 51+00S. Another tie line was established a 25+00S from line 40+00E to 72+00E. A total of 14.7 miles of grid was cut.

The VLF-EM survey is the first survey to be completed on the grid. The survey was performed by Mr. Tom Obradovich from                    to                    . Readings were taken at 100 foot intervals along grid lines. In areas of high noise level or where detailing of conductors was necessary, 50 foot interval readings were added. Grid lines were read on frequency 24.0 khz (Cutler). The baseline and 25+00S tie line were also read on 100 foot stations using frequency 21.4 khz (Annapolis). A Geonics Limited, EM-16 Very Low Frequency Electromagnetometer was used to acquire the field data. A description of the unit is presented in Appendix II.

## 6.2 Discussion of Results

Seven linear VLF-EM anomalies have been defined by the current survey. These anomalies are generally northeasterly trending, conforming to the generally known strike of lithologies underlying the claim group. VLF-EM profiles and the interpreted conductive axes are plotted on (figure 4). Fraser filtered and contoured in-phase data is plotted on (figure 5).

### Conductor A

This is a strong in-phase response trending east to west across lines 4+00E, 8+00E and 12+00E at 50+00S. Extension of this axis to the east is not defined as it transgresses the property boundary. In the west on line 0+00 the anomaly is not on trend with A but displaced northward some 500 feet. Lack of quadrature variation over this conductor indicates this anomaly may be an overburden response..

### Conductor B-B

This conductor is roughly conformable to known stratigraphy and is a strong to moderate in-phase response. Conductor B is located on lines 0+00, 4+00E, 8+00E and 12+00E near 38+00S. B1 is located on lines 40+00E, 23+00S through 52+00E, 16+00S. Quadrature response is varied over the length of the conductor. The Fraser filtered data for this anomaly (figure 5) resolves conductor B1 into two parallel conductive trends. B1 is known to be located in low ground



and may represent fault responses.

#### Conductor\_C

This is a weak anomalous trend located between lines 12+00W, 24+00S and 0+00, 3+00S. No corresponding Fraser filtered anomaly is associated to the profiled response. The axis is roughly conformable to known geology and structure and is situated within the syenite intrusion underlying the western section of the grid.

#### Conductor\_D

This anomaly is defined as a linear group of weak to moderate profiled in-phase responses trending discontinuously west to east across the grid from line 12+00W, 2+00S to line 4+00E, 7+00S. Fraser filtering of in-phase data suggests this anomaly may be a single lithology having a more north easterly trend which has been offset by north-northwesterly trending faults crossing near lines 4E, 20E and 32E respectively. Quadrature response on over half the in phase anomalies indicate a bedrock conductor.

#### Conductor\_E

This is a weak in-phase response defined intermittently from line 12+00W, 12+00S to 4+00W, 10+00S a very weak Fraser filtered anomaly is associated to this profiled response. No explanation for this anomaly is currently available. It lies within the western syenite intrusive parallel to conductor C.

#### Anomaly F

This is a broad strong Fraser filter feature (figure 5) trending west to east from line 12+00W, 23+00S to 12+00E, 26+00S. This anomaly, although not defined by a typical in-phase "crossover" type response is noteworthy based on the intensity of the filtered anomaly. No explanation for the anomaly is presented.

#### Anomaly G

Similarly to anomaly F, two east trending weak Fraser filtered linears with no coincident in-phase profile response are found southeast of Wiley lake on lines 60+00E to 72+00E at 15+00S and 68+00E to 72+00E at 15+00S. These anomalies appear to be eastern extensions of the two Fraser filter defined B1 conductive axes. These trends (G) are oriented conformably with foliation in metavolcanics found on this part of the grid.

## 7.0 Conclusions and Recommendations

Five well defined VLF-EM conductors and 2 Fraser filter anomalies unrelated to clear conductive axes have been defined on the Dufresne option grid. Conductors A, B-B1, D and Anomaly G are all situated in volcanic rock sequences, only conductor D displays an observable bedrock response. Anomaly F and conductors C and E are situated within the confines of the syenite body underlying the western part of the claim group. Both conductors are quite weak while Fraser filtered anomaly F is quite strong.

As part of ongoing exploration of this property, all conductors will be examined in the field during the geological mapping program. These anomalies will be further defined with the help of a ground magnetometer survey. The extension of anomalies B1 and D will be examined across Wiley lake during the winter. A ten day mapping program, 15 miles of magnetometer survey and a further 3 miles VLF-EM survey on Wiley lake will be required to complete the current exploration program for this grid.

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Chartre-Dufresne gold occurrences  
Holmes Township

- examined by Howard Lovell and Bob Kajdas 1990 August 29, 30

Purpose:

Request by prospectors Denis Chartre and Roger Dufresne to see results of their Assessment Work, Ontario Prospectors' Assistance Program, and other mineral exploration. PHOTO Dug well at Holmes Lake cottage of Roger Dufresne.

Observations:

Highway 66 northern side's north-trending trench:

100 metres west of the old stripped quartz vein bearing tourmaline and cutting Cairo Stock pink syenite was first stripped by Stan Welsh. Contractor Dube of Matachewan in 1989 December stripped further (PHOTO 2, 3) on behalf of Chartre and Dufresne, who since then optioned the claims to Queenston.

This vein also consists of quartz, tourmaline, pyrite, large blebs of chalcopryrite, and only 0.015 opt Au by assay until now. SAMPLE HL 90-14 Pink syenite with considerable chalcopryrite along fractures, and also as lenses e.g. 1 centimetre long, and to a lesser extent disseminated. This vein resembles somewhat the vein exposed for about 300 feet trending east from Browning Lake east shore, in the middle of the Cairo Stock.

SAMPLE HL 90-15 Pink syenite cut by quartz-tourmaline vein, and containing galena and seemingly associated silver (maximum 14 opt Ag).

About 100 metres west of here is a claim that was leased by Stan Welsh but not worked much; Stan died before he could lease this claim. Denis Chartre (personal communication) said a sample from within 150 metres from here contained 34% Pb, 60 opt Ag, and 0.1 opt Au.

These dominantly north-south strong veins about 0.3 metres wide have been traced intermittently as far as 100 metres.

Lesser quartz veins trend generally east-west between the strong north-south quartz veins. East of here 100 metres is the abovementioned old similar vein on ODM Holmes-Burt map 2078. It contains 10-centimetre (maximum) blebs of pyrite but negligible chalcopyrite nor malachite, and fewer euhedral grains of tourmaline.

At the vein stripped in 1989 the black tourmaline along the main vein's eastern wall forms a lineation that plunges east about 60°.

In the muck pile here is a snake 0.3 metres long and 1 centimetre in diameter that has orange-colored belly and "collar" behind its head, and grey-colored back. 50 years ago the writer saw the same type of snake on the sideroad south alongside Farr limestone quarry at Haileybury.

Trenches exposing bedrock adjoining north of McChesney Au Cu prospect:

PHOTO 4 Stripping of 1989 December is about 200 metres long trending north along the vein system and 5 wide. Au assays from here are on the Chartre-Dufresne sketch accompanying this report.

The host rock is pink syenite porphyry consisting of 15% feldspar phenocrysts 4 centimetres long (maximum) and about 10% mafic (hornblende and chlorite). Presumably this location is inside the Cairo Stock (syenite) contact 400 to 800 metres. Adjoining south of here are the old McChesney (east-west?) trenches along quartz-carbonate veins bearing Au and blebs of chalcopyrite.

In the Chartre-Dufresne trenches the bedrock probably is intrusive, but in places e.g. near the southern end is trachytic texture trending  $060^{\circ}$ . Widespread shallow glacial striae indicate the glacier came from  $335^{\circ}$ . Inclusions in this syenite are not nearly as numerous as in the Otto Stock, perhaps indicating erosion bares the Cairo Stock at a deeper level. The largest inclusion noticed here by writer is 15 centimetres diameter. Its composition is resistant and less resistant mafic material, probably contact metamorphosed basalt. Cutting the syenite are locally numerous small narrow en echelon east-west quartz-carbonate veins and some aplite dikes.

Some of the feldspar phenocrysts have red borders and white interiors, and others are uniformly maroon-colored. Most contacts between the syenitic matrix and both types of feldspar phenocrysts are not distinct.

Adjacent south of the soil cover (remaining at mid-trench where the bulldozer broke down long enough for the soil to freeze) is a different phase of syenite. This phase has the percentage of

mafic country rock inclusions characteristic of the syenite around here (about 5%). However this syenite phase has fewer and much less prominent phenocrysts of feldspar, and spalled off flakes so its surface is not nicely polished by the glacier.

North of the soil-covered area (less than 15 metres along the trench) is syenite porphyry containing prominent phenocrysts as described for south of the spalling phase of syenite.

SAMPLE HL90-16 is from 10 metres north of the soil cover. It consists of dark grey fine-grained vein quartz, 15% disseminated fine grained pale pyrite, and thin flakes of quartz (most of it white colored) along fractures. Denis Chartre (personal communication) said Dome mine assay lab obtained as much as 1 opt Au in samples from here, the Au being with fine grained pyrite in the dark grey vein quartz.

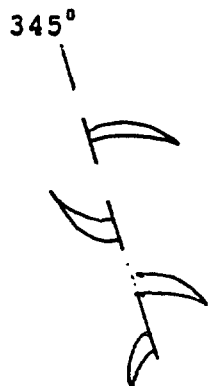
This quartz vein trends  $070^{\circ}$  and pinches where it changes direction at its west end and also 10 metres east where it is covered by soil.

Abundant narrow (3 millimetres) stringers mainly quartz are present every 15 centimetres across their generally east-west strike extending from the soil covered area 15 metres north along the stripped bedrock.

Near the stripping's northern end is trachytic texture trending  $020^{\circ}$ . Near some of the east-west throughgoing quartz veins is the location of the spalling phase of syenite weathering down differentially. One of these quartz veins near the northern end of the stripping contains the large (1 centimetre) blebs of



chalcopyrite that are characteristic of Cairo Stock Au-bearing quartz veins. PHOTO 5 Near this longest (eastern) stripped trench's northern end is a fault trending  $345^{\circ}$  that offsets a dragfolded-appearing (either dragfold-filling or dragfolded) quartz vein that the fault has offset left laterally.



In the syenite here are disseminated grains of magnetite (silvery black colored, magnetic). PHOTO 7 View south along the eastern stripping.

The western (shorter) stripped trench is 60 metres west of the eastern trench, and exposes syenite cut by the same quartz veins bearing chalcopyrite that were seen in the 200-metre-long eastern stripped trench, as indicated by the same north-to-south sequence of vein types. For example the western stripping's southernmost quartz vein (average width 12 centimetres) contains malachite and chalcopyrite and might be the western extension of such a vein 60 metres east of here exposed by the eastern stripping. Also the western stripping exposes the micaceous phase of syenite (almost

pure biotite lamprophyre) that was described in the eastern stripping as being a spalling phase of syenite that weathered differentially down.

Comments:

Although cutting and related to Cairo Stock syenitic phases, the quartz veins here and at the McChesney occurrences trend east-west and contain chalcopyrite blebs and Au, whereas the quartz veins along Highway 66 trend north-south, and although they also contain prominent chalcopyrite blebs they contain tourmaline "instead of" appreciable Au concentrations.

Gold Fields Discovery:

This location is west of the portage between Holmes and Wylie Lakes (for detail see donated map).

PHOTO 8 Old pit in rusty low grade gold-bearing quartz vein trending  $100^{\circ}/80^{\circ}$  north. This vein system contains high percentages of Fe sulfide mineralization of appearance somewhat similar to that in the pit east of this portage's northern end (on Holmes Lake). No malachite, nor chalcopyrite, molybdenite etc. were noticed in either pit. However according to Denis Chartre (pers. comm.) Goldfields channel sampled here and assayed and found 0.12 opt Au, and Denis himself obtained assays of 0.03 to 0.06 opt Au from vein quartz material (not from the "massive" sulfide zones). SAMPLE HL90-17.

The veins cut calc-alkalic (rings tunefully when struck by a prospector's pick) andesite (no quartz eyes observed therefore not dacite) fragmental volcanic pyroclastic (or possibly flow). In The Northern Miner, Queenston reported 18 opt Au from the vein 2 metres south of the old pit. The extension of this vein has been uncovered a short distance by Chartre and Dufresne using pick and shovel.

From SAMPLE HL90-18 a polished section should be cut in hopes of seeing the location of any native gold. In this high grade vein (PHOTO 9) are blue quartz, disseminated fine grained pyrite, and many lenses of medium grained pyrite. North of the old pit vein 6 metres is thinly laminated rock probably fine grained ash fall tuff 0.3 metre thick (between the coarse fragmentals). Coarsest clasts are 15 centimetres long. The laminations in the fine grained tuff are crenulated. As at the Holmes Lake narrows, the fragments' weathered surfaces are cream colored and the matrix pale greenish grey.

PHOTO 10 Stripping along strike from the old pit vein past 6 metres covered by soil and shrubs exposes calc-alkalic fragmental. Some of the fragments are rounded by milling or else by water reworking. Some of the pale fragments contain quartz or chert lenses less than 2 centimetres long plus much more abundant soft spots.

Stratigraphic section:

Fairly coarse fragmental calc-alkalic volcanic

Thinly laminated tuff 0.3 metre thick

Coarse fragmental

Old Pit vein

Fragmental

High Grade quartz vein

Coarse fragmental

The old pit east of the Holmes Lake end of the portage between Holmes and Wylie Lakes has dump muck consisting of what the writer thought 28 years ago was massive "barren white iron" sulfide related to the adjacent diabase dike. Much of the sulfide is almost massive. Denis Chartre (pers. comm.) said Au is in the wallrocks here where disseminated iron sulfide is present in vein quartz gangue. The metallic mineralization is not magnetic. This claim belongs to a U. S. university by inheritance.

Chartre-Dufresne "D" Zone:

East of the creek between Holmes and Wylie Lakes, at the end of the 150-metre prospecting trail from Holmes Lake southern shore, 1 claim length west of the "Goldfields Discovery" described above, is high ground recently stripped of soil to bedrock. The stripping exposes a Matachewan Diabase dike 3 metres wide containing pale green ferrous iron-stained feldspar phenocrysts 5 centimetres (maximum) long. This diabase cuts calc-alkalic volcanic rock (PHOTO 11) that contains numerous irregularly-shaped lenses of green epidote trending east-west and themselves containing median quartz. This banded epidote-feldspar rock is 10 metres wide north-south, and south of it is coarse agglomerate (many fragments are sub-spherical with rounded corners therefore resemble bombs more so than tuff breccia fragments). The fragments or bombs contain

phenocrysts of white feldspar, and the rock rings tunefully from a hammer blow, therefore is calc-alkalic. Red feldspathic dikelets here contain median specular hematite.

A short distance farther south is massive calc-alkalic volcanic rock, and farther south is calc-alkalic ash fall tuff less than 15 centimetres thick and more siliceous (resists erosion) striking  $100^{\circ}$  i.e. parallel to stratification. Farther south is more of the fragmental rock, probably agglomerate. Near the southern end of this cliff that faces west over the marsh off Wylie Lake's northwestern end is a little area of pyrite and magnetite. The very southern end of the cliff exposes fragments containing amygdules (hard grey silica filling gas bubble vesicles). Probably many fragments in these agglomerates here are gassy as these are, but not as well exposed (to enable their detection). These fragments more probably are bombs than flow breccia, partly because most are smoothly rounded bomb and raindrop shapes. The bombs are a maximum of 0.3 metre long.

A rusty vein trending  $100^{\circ}$  on both sides of the diabase dike, with no offset, has been stripped by the prospectors.

PHOTO 12 Differentially eroded calc-alkalic fragmental having a soft, pale green matrix and pale white angular to rounded fragments.

Near this stripping's northern end is  $070^{\circ}$  - trending calc-alkalic porphyry that is a massive dike or else the middle part of a flow. If a flow, tops face northwest possibly, because its southeastern contact is irregular whereas its northwestern contact strikes straight. No gas vesicle is present in the massive calc-

alkalic porphyry flow, but neither is any chilled margin as would be expected if the rock is a dike.

In the stripping's northern part the Matachewan Diabase truncates an east-west vein that probably continues along strike on the other side of the diabase dike, as does the other east-west vein 20 metres away from this.

Chartre-Dufresne "A" Zone:

This old pit 100 metres south of Holmes Lake southwestern bay (see ODM Holmes-Burt map 2078) has been freshened and extended by the 2 present prospectors, using the pick and shovel method. The stripping's eastern edge exposes a Matachewan Diabase dike, westward from which the stripping extends 12 metres (PHOTO 13).

Bedrock here is calc-alkalic fragmental as seen at the two other locations to-day, extending one kilometre along Holmes Lake's southwestern shore. Fragments are 15 centimetres long (maximum). Banding (bedding?) and a rusty shear is of the attitude  $030^{\circ}$ /dip northwest. Cross-cutting are pink feldspar and yellowish green epidote veins, and flat steeply dipping veins of fine grained quartz trending  $080^{\circ}$ . This is the "break" referred to by Ontario Prospectors' Assistance Program inspector Gary Grabowski when he was here with these prospectors. The shear is in what seems to be lapilli (smaller fragments than at the showings southeast of here) tuff less than 0.6 metre thick. Rusty fractures here are more numerous than in the calc-alkalics in the previous two gold occurrences seen to-day.

This "A Zone" has no gas bubble vesicles filled with silica (as are abundant in the "D Zone" fragments, which fragments are larger than here). Black stain here might be "manganese wad" or "mountain leather" or else modern organic growth.

*Howard Lovell*

Howard L. Lovell  
Regional Staff Geologist  
1990 12 04  
HLL:fl1

ANNEX "L"

REPORT ON GEOLOGY AND  
DIAMOND DRILLING  
DUFRESNE OPTION  
FLAVELLE TOWNSHIP  
LARDER LAKE MINING DIVISION  
ONTARIO

February 1991

W. J. McGuinty  
Bradley Leonard  
QUEENSTON MINING INC.



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Appendices

Appendix	I	Claims List - Dufresne Option
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## 1.0 Introduction

Queenston Mining Inc. has acquired, under option, a group of 29 unpatented mining claims in Holmes, Flavelle and Alma townships, Larder Lake Mining division.

Field visits made to the property and vicinity in August and October 1989 showed strong shear deformation trending southwesterly across the property and beyond, as well as very anomalous gold mineralization related to these structures. The north Flavelle township, south Holmes township area is believed to host the western strike projection of the Kirkland Lake and Larder Lake fault structures. Based on the potential of this location and encouraging assays and geology, the property was optioned from the owner in October, 1989.

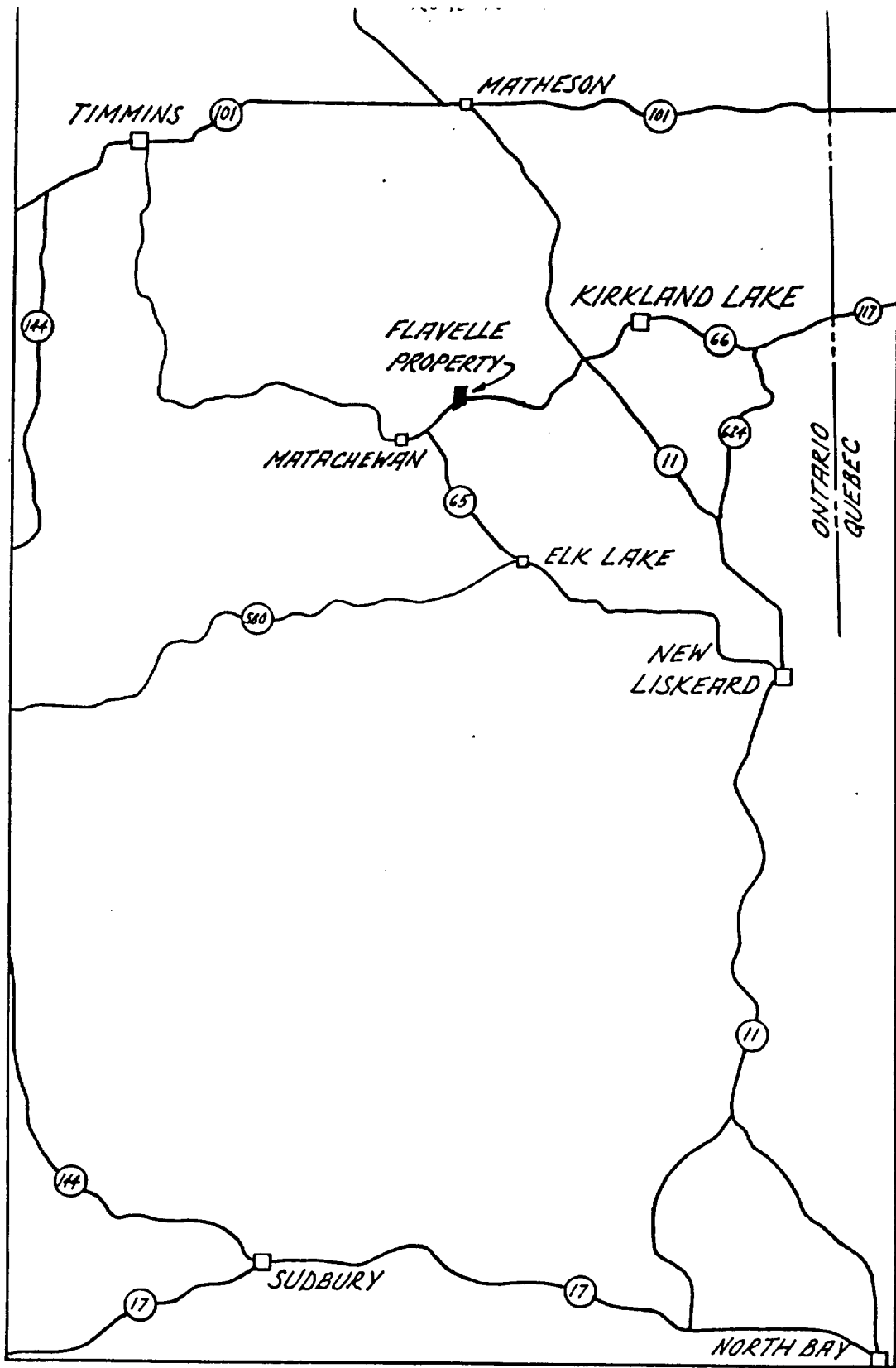
The aim of the present program is to drill test these favorable gold bearing structures as a follow up to geological mapping and geophysical survey completed in the summer and fall of 1990.

## 2.0 Property Description, Location and Access

The Dufresne option consists of 29 contiguous unpatented mining claims in Alma, Flavelle and Holmes townships, Larder Lake Mining Division. The claims have been staked over a period of five years from November 1984 to October 1989. All claims are currently in good standing with respect to filed assessment work. Claim numbers and other information are presented in Appendix I. The claims are found in lots 10, 11, 12, concession V, VI Flavelle township; lot 12, concession I Holmes township and Lot 1, Concession I Alma township.

The property is located 9.2 km northeast of the village of Matachewan and 55 km southwest of Kirkland Lake, Ontario. Highway 66, which joins these towns, traverses the Dufresne property through Flavelle township, with several timber roads and trails traversing the claims.

The property has a generally rolling topography with moderate relief in the 100 to 150 foot range throughout the western and southern sections of the claim group. In the northeast, a broad low area is partly occupied by Wiley Lake. The area has been partly clear cut during the past 5 to 10 years. The remaining forest is generally mixed birch, aspen and spruce while clear cut areas are covered with new birch growth alders and hazel.

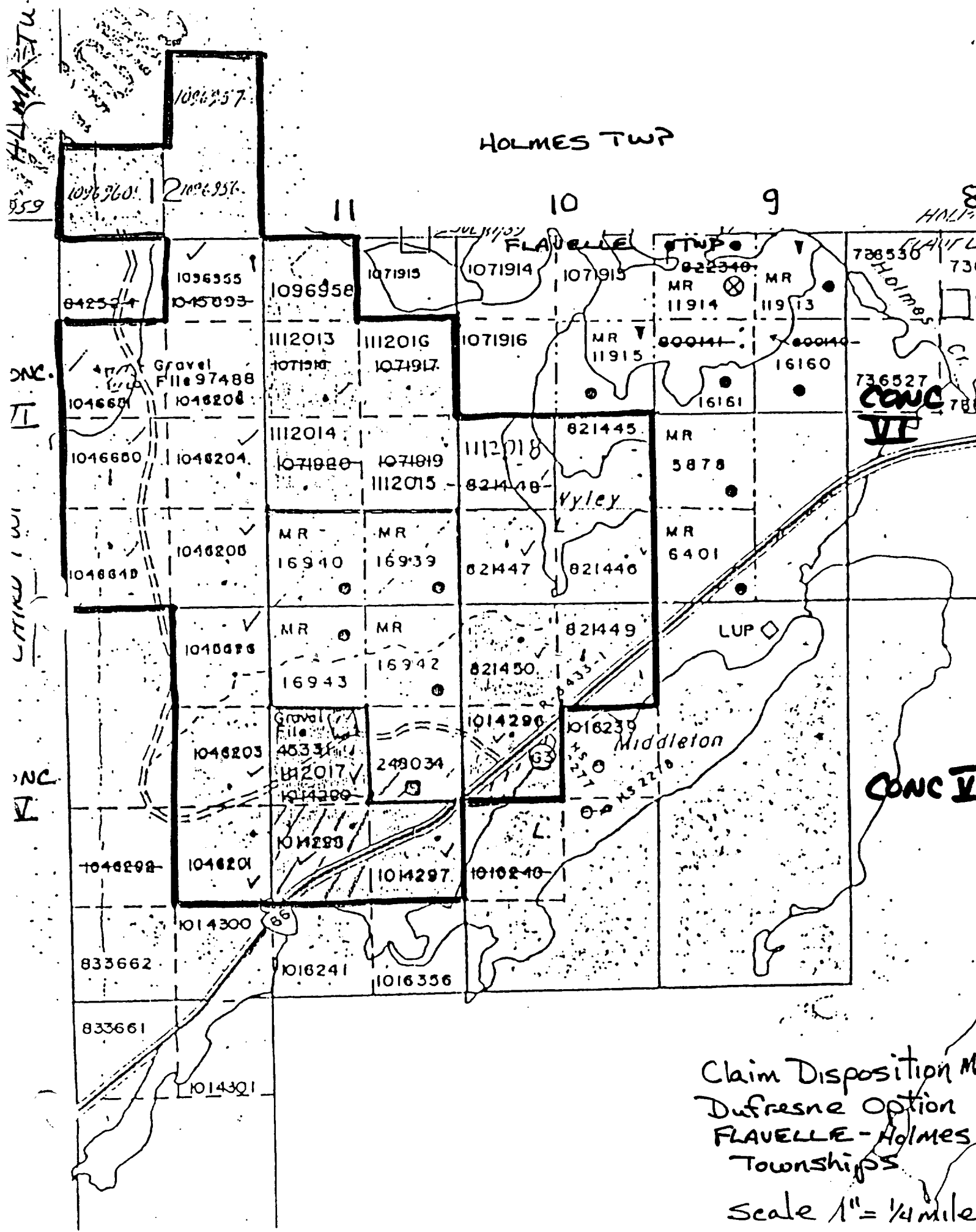


QUEENSTON MINING INC  
PROPERTY LOCATION MAP  
DUFRESNE OPTION  
FLAVELLE - HOLMES TWP.

FIGURE 1

SCALE - 1" = 20 mi. AUG./90

HOLMES TWP



Claim Disposition Map  
 Dufresne Option  
 FLAVELLE - Holmes  
 Townships  
 Scale 1" = 1/4 mile

### 3.0 Previous Exploration of the Property

Recorded exploration by prospectors and mining companies has been carried out on various parts of the Dufresne option since 1946. A chronology of recorded exploration is presented and related to claim numbers from the Dufresne option:

1934, 1938, 1964; A. E. Bailey, M. E. McChesney MR16939

Exploration of this patented claim, just west of Dufresne claim S21447 consisted of prospecting and diamond drilling (Bailey). Three holes drilled in this claim are said to have intersected a well mineralized quartz lens containing chalcopyrite galena and tourmaline in contact with mafic volcanics on the north and a porphyry on the south. No assays were recorded from this drilling. Grab samples by McChesney returned low gold and good silver (3.2 oz/ton) values.

Chavigny 1946-1949, Welsh 1971-1976 claim L1014296.

Exploration by Chavigny and later by Welsh included prospecting and drilling of a series of massive white fissure style quartz-tourmaline-pyrite-chalcopyrite-fluorite veins varying in width from 6 inches to greater than 5 feet and trending N30W. Low gold values, trace to 0.1 oz/ton, silver ranging to 30.0 oz/ton and picked samples assaying up to 17.0% Pb 3.05% Cu and 0.1% Zn were obtained. These veins were hosted by syenite. A magnetometer survey over part of the Dufresne claims was also conducted by Welsh 1976 with minimal interpreted results.

#### Noranda\_1975

Noranda Exploration conducted geological mapping on a claim line reconnaissance scale over the Western portion of the Dufresne option in 1975. Little detail is provided with respect to lithology and mapping generally conforms to government mapping.

#### Queenston\_1989

Queenston Mining Inc. optioned the property in October 1989 and cut a control grid over 13 claims in Flavelle township with a baseline of 7200 feet, gridlines at 400 foot intervals and stations at 100 foot intervals on the gridlines. Subsequent to the linecutting a VLF-EM survey and a magnetometer survey were conducted over the entire grid using Cutler, Maine and Annapolis, Maryland as the transmission stations for the VLF survey.



#### 4.0 Regional Geology

The northern Flavelle township, Holmes township area was mapped in 1962 by J. C. G. Moore and assistants at 1 inch to 1/2 mile scale for the Ontario Geological Survey. Archean volcanic mafic to intermediate flows and pyroclastics, minor felsic rocks, conglomerates and greywackes in northwestern Flavelle township and southwest Holmes township have been intruded by later plutonic rocks of syenite composition and latterly by granitic rocks. All these rocks have been cut by Matachewan diabase dykes. Sediments of the Cobalt group (Huronian) unconformably overlie other rocks in a southwest trending band through southeastern Holmes township into northern Flavelle township. Crosscutting Keweenawian diabase dykes are the youngest rock type and known to cut Huronian rocks.

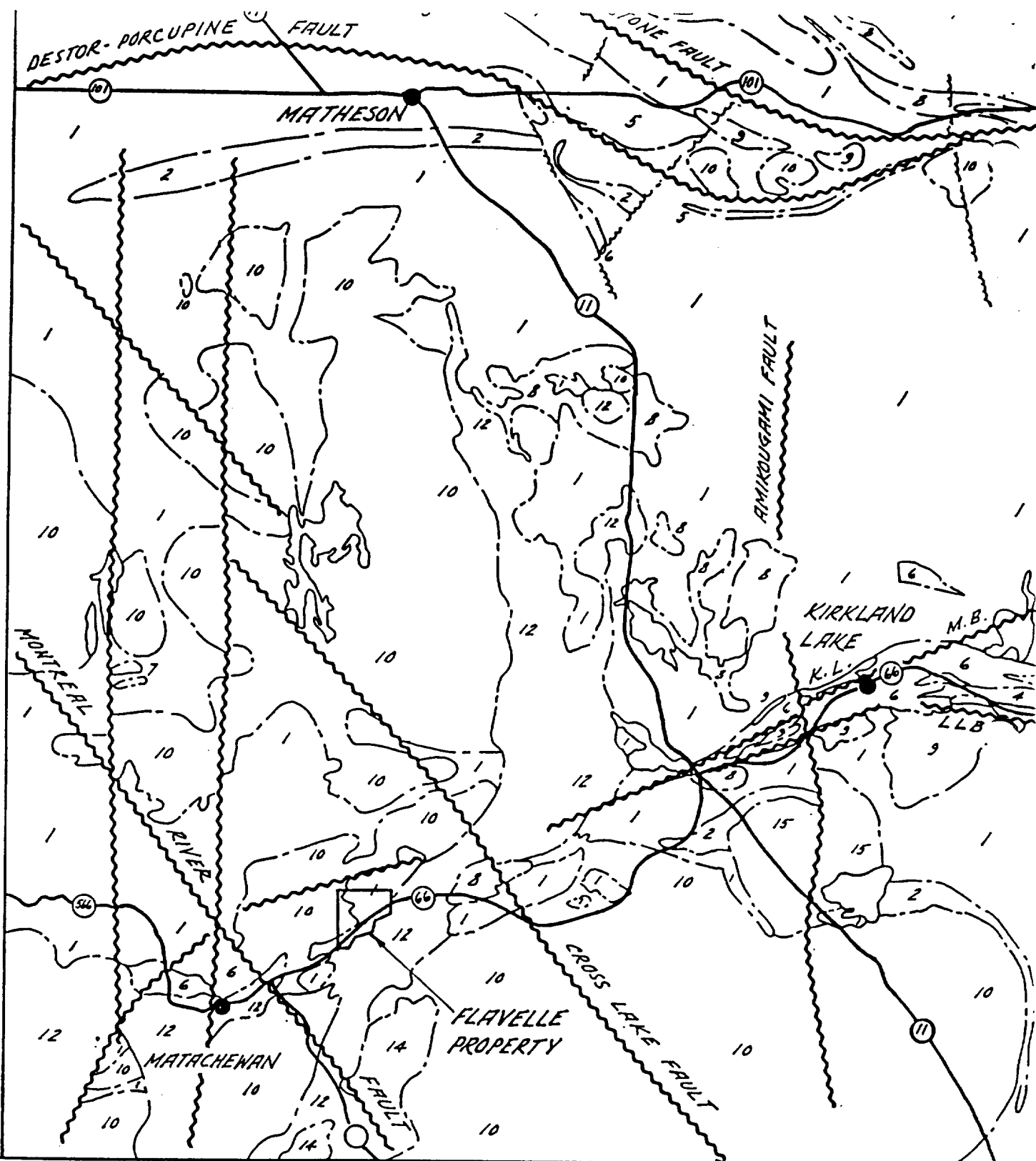
Study by L. S. Jensen (78-79) relates the local archean volcano-sedimentary strata to the Temiskaming series of rocks found in the Kirkland Lake area, consisting of trachytic volcanic and sedimentary rocks and late alkalic intrusives. These rocks trend easterly to ENE and have a strong easterly foliation. Dips are variable, likely as a result of local folding caused by nearby syenite intrusives. Sedimentary features in these rocks were noted by Moore to face south.

Syenite intrusives consist mainly of orthoclase, plagioclase and hornblende. Various syenite bodies have been identified by features affecting these major components. The Holmes porphyry is defined by its porphyritic orthoclase

component. It is located in southwestern Holmes and northwestern Flavelle townships as well as westward into Alma and Cairo townships. An hornblende syenite body in central Holmes township is discriminated by 10-15% hornblende and 5% magnetite.

Cobalt series rocks are generally flat lying, dipping less than 20 degrees, although local steep dips to 80 degrees, particularly on the north contact have been recorded. The strata in Holmes and Flavelle townships is predominantly quartzite with interbeds of greywacke and argillite and conglomerate.

Structurally, several major fault systems traverse the area. Two main fault zones, the northeast trending Kirkland Lake-Larder Lake system and an unnamed north trending graben system intersect each other in southeastern Flavelle township. The north trending graben is poorly defined in terms of structural evidence but can readily be seen on map 2205 as containing a long finger of Huronian sediments striking north through the Archean basement. Deposition of the Cobalt series sediments appears to have occurred well after folding and foliation of the archean volcanics but before certain periods of displacement along the Kirkland Lake-Larder Lake fault system as evidenced on a large scale by the apparent right hand (north side east) displacement of the Huronian sediments. In the field, strong foliation conformable to the Kirkland Lake-Larder Lake system can be seen in Huronian sediments which indicate some movement in this system may post date Huronian deposition.



— LEGEND —

- |   |   |
|---|---|
| <span style="border: 1px solid black; padding: 2px;">15</span> SYENITE                  | <span style="border: 1px solid black; padding: 2px;">8</span> GABBRO-DIORITE          |
| <span style="border: 1px solid black; padding: 2px;">7</span> DIABASE                   | <span style="border: 1px solid black; padding: 2px;">6</span> CONGLOMERATE, GREYWACKE |
| <span style="border: 1px solid black; padding: 2px;">12</span> GOWGANDA FORMATION       | <span style="border: 1px solid black; padding: 2px;">4</span> TRACHYTE                |
| <span style="border: 1px solid black; padding: 2px;">10</span> QUARTZ-FELDSPAR PORPHYRY | <span style="border: 1px solid black; padding: 2px;">2</span> FELSIC VOLCANICS        |
| <span style="border: 1px solid black; padding: 2px;">9</span> SYENITE PORPHYRY          | <span style="border: 1px solid black; padding: 2px;">1</span> MAFIC VOLCANICS         |

QUEENSTON MINING INC  
 REGIONAL MAP  
 KIRKLAND LAKE  
 MATACHEWAN AREA  
 SCALE 1" = 6 Mi AUG./89  
 FIGURE 3

## 5.0 Property Geology

The Dufresne option, in northwestern Flavelle township encloses a package of archean volcano-sedimentary rocks and its contact to the west and south with the Holmes porphyry syenite. The eastern contact, between Cobalt sediments and both the volcanics and syenite is also enclosed by the claims. Metavolcanic rocks known to occur within the property boundary consist mainly of mafic flows and tuffs.

Felsic to intermediate rocks occur as thin interbeds and can be quite schistose. Sediments of archean age are also noted by Moore within the property boundary and consist mainly of south dipping conglomerates. On claim 821445 a strong sericite schist with sulphide and gold mineralization is known to occur. A small vein of cherty quartz in this unit, possibly mylonitized and oriented sub-parallel to foliation, contains free gold. To the northeast of claim 821445 along strike from the schistose unit an old prospect pit containing massive detrital pyrite with no apparent foliation is found.

To the west several thin mylonitized quartz veins similar in nature to those found on claim 821445 are seen cutting porphyritic syenite on claim 1046205. These are northeasterly trending and shear fabric is restricted to the veins. Similar veins can be seen further north in the syenite body outside the property boundary.

The implications of a possible extension of the Kirkland Lake-Larder Lake fault system through this area are the

focus of exploration for this property. Roughly 1 1/2 miles north of the property, the Galer Lake fault is suspected by certain authors to be the extension of the Kirkland Lake fault. The Larder Lake break, although not defined by any known analogous structure in Flavells township would traverse the Dufresne option in the vicinity of Wiley Lake, through the greenstones or, may act as contact between archean and huronian rocks along this portion of the graben system. The importance of the structures as a guide to ore in Kirkland Lake and Larder Lake and their potential influence on gold mineralization in the Matachewan camp underline the exploration potential of this property.

## 6.0 Current Exploration Program

### 6.1 Geological Mapping

Geological mapping of the Dufresne option was undertaken during the months of September and October 1990. Control for mapping was provided by a cut grid established earlier in 1990 for geophysical surveys. A total of 15.7 miles of grid lines trending due north with 400 foot spacings was traversed (see figure 4).

Four distinct rock groupings and several late intrusives are found within the map area. The western half of the grid area from line 32E to line 12W was marked by few outcroppings, all of which belong to the Cairo Stock syenite. This is a medium to coarse grained pink to grey colored rock with minor hornblende and mica. The rock is generally massive with little or no foliation and only moderate jointing. Near line 16E 15008 an area of stripped outcrop shows numerous small deformation zones with narrow, finely laminated quartz veins at the cores. Anomalous gold values were obtained from vein samples by the sponsors of the stripping prior to option by Queenston. These zones strike easterly and dip vertically. Other than washing and remapping of the stripped area, no further work was undertaken during the 1990 exploration program at this showing. Contacts with greenstones were not seen.

In the southeastern corner of the grid is a large hillside exposure of Huronian group Cobalt conglomerate. This is a framework to weakly matrix supported conglomerate, with well

rounded cobbles of several varieties of granitoid rock. No bedding or fine sediment interbeds were seen to provide information regarding orientation of the conglomerates. Nearby Huronian siltstones located to the southeast of the grid are seen to be flat lying to southeasterly dipping at a shallow angle. No contact is found between these rocks and neighboring volcanics. The area of the contact is defined by a sharp drop along the northern edge of the conglomerates and likely represents a faulted contact. Regionally this contact may form part of the Larder Lake fault system.

Volcanic rocks on the property have been subdivided into two main groups within the confines of the grid. These groupings are well defined within the map area and are referred to as the Northern andesite group and Southern mafic group. The Southern mafic group has a apparent thickness of roughly 2500 feet within the confines of the grid. It is bounded on the south by Cobalt sediments and the west by the Cairo stock. To the north, the mafic group is bounded by the Northern andesite group of rocks. This group is composed of fine to medium grained basalt flows and pillowed flows, mafic tuffs and tuffaceous wackes. All rocks are dark green in colour and weakly to moderately chloritized. Tuffs are fine grained and generally massive. Wackes have fine grained chloritized matrices supporting rounded to angular clasts of quartz and volcanics. South of Wylie Lake, bedding and/or banding in these rocks, is northeasterly in trend varying from 058 to 078 degrees with a

subvertical to steep northerly dip. Along the east shore of Wylie lake bedding trends in a more northerly direction varying from 035 to 045 degrees while maintaining a steep to vertical dip. All rocks in this section have been fractured and jointed allowing for localized quartz-calcite fill and epidote alteration. Pyrite mineralization is associated to veining and alteration but is generally minor. Magnetite and quartz mineralization in fractures and interbands is common to all rocks of the mafic group.

The Northern andesite group is a package of andesitic flows and flow breccias with a flanking unit of intermediate to felsic pyroclastic rocks on the Southern limit between the andesites and the southern mafic group. These pyroclastics are mainly laminated felsic tuffs and lapilli tuffs trending 045 degrees and dipping vertically. Laminated tuffs show small scale drag folds trending parallel to foliation and banding. Locally beds of andesitic flow breccia can be seen in this sequence. These rocks are visible only at the north eastern corner of Wylie Lake. The andesite flows and flow breccias are found north of Wylie lake and are known to extend westward roughly 3000 feet, where they have been located in subcrop.

The main gold showing on the Dufresne option is located in the northeast corner of claim L821445 and is hosted by the northern andesite group. In the vicinity of the showing, the andesites also contain thin interbeds of ash or tuffaceous material and sulphide rich cherty exhalatives. All rocks appear



well foliated and finer tuff and flow bands are chloritized, kink banded with well developed crenulation cleavage. Exhalative zones are composed of grey chert and pyrite (15%) and form undulose bands with diffuse lateral borders, trending roughly 100 degrees.

Coarse flow breccia fragments are generally rounded and often amygdaloidal and weakly porphyritic, resting in a fine to coarse grained chloritic groundmass which is well silicified locally. Breccia and tuff layers also strike roughly 100 degrees. Four whole rock samples were taken from the northern andesite group. Three samples come from the line 68E-72E area near the main gold showing and one from the subcrop area near line 40E. Jensen cation ratios and AFM ratios for these samples are plotted on figure 5. Sample FWR 2 is from a sulphide rich basalt unit located at line 72E 2+00N. This unit is singular in the northern andesite group and may represent a flow which has been faulted into juxtaposition with the andesite. A possible north easterly trending fault is located between lines 68E and 72E. Whole rock geochemistry indicates this sample is basaltic with a good tholeiitic affinity. The outcrop sampled was heavily sulphidized and silicified and the sample may reflect these influences. Samples FWR 1 and FWR 3 are also from the northeast corner of the grid and represent more felsic rocks. FWR 1 is a sample of the intermediate tuff unit. This sample's geochemistry indicates an andesitic composition of indeterminate affinity. The Jensen cation plot infers a tholeiitic composition.

while the AFM plot is calc-alkaline. FWR 3 is a sample of andesite flow breccia taken in the vicinity of the main showing. This sample also has a conflicting chemical affinity and a dacitic composition. It is possible this sample is somewhat silicified by exhalative material found locally and composition plots consequently skewed. Sample FWR 4 was taken from the L38W 2+00N area in subcrop. This rock is believed to form part of the northern andesite group. Its geochemical signature is on the basalt andesite boundary and shows a weak calc-alkaline affinity. The plots of this sample could easily represent an unsilicified example of FWR 3.

Three late intrusive events are known to exist on the Dufresne option grid. No cross cutting relationships have been seen in the field so that relative ages are inferred from regional occurrences. The oldest intrusive body is a coarse grained gabbroic sill. The only exposure of this rock is located on the west shore of Wylie Lake. It is very coarse grained and massive with narrow fractures having weak epidote and/or chlorite alteration. No orientation can be seen for the intrusion but it is interpreted to be sill like and parallel to local volcanic lithologies.

The second intrusion noted on the property is a trachytic dyke trending 060 degrees and crossing from line 40E 25S to line 72E 1750S. This dyke is red to pink in colour with a fine grained groundmass hosting small euhedral feldspar crystals making up 80% of the mode. The dyke is massive and hard,

supporting low topographic highs where it outcrops. This dyke shares a common orientation with structures related to the Larder Lake break. It is believed this dyke is related to trachytic intrusive and extrusive rocks in the Kirkland Lake area.

The youngest intrusive on the property is a north-northeasterly trending diabase dyke located on the east side of Wylie Lake. This dyke is approximately 150 feet in thickness with a coarse grained core and finer grain near contacts which are chilled.

Gold mineralization is associated with pyrite and/or quartz veining. Limited sampling was performed on the property during the course of field mapping. Seven samples were taken by the author during the initial property visits and 3 during the mapping.

Samples show weak to strong gold mineralization. A description of the samples is found below:

<u>Samples_No.</u>	<u>Assay</u>	<u>Location</u>	<u>Description</u>
28016	Nil	16E 15+00S	Shear vein in syenite
28017	480 ppb	16E 15+00S	Veins in shears syenite
72201	40 ppb	Brookbank showing	Syenite with quartz fluoroite vein, cpy, py
72202	940 ppb	72E 2+00N	Banded sulphides in basalt with sericite
72203	200 ppb	71E 3+00N	Banded sulphides in andesite flow breccia

72204	18.64 oz/ton	71E 3+00N	Chip sample-quartz vein with pyrite banding
72205	0.406 oz/ton	71E 3+00N	Chip sample from banded quartz vein
8501	165 ppb	72E 7+35S	Grab sample mafic volcanic with pyrite, magnetite, calcite
8502	117 ppb	60E 23+00S	Carbonate chlorite schist with minor pyrite
8516	103 ppb	71+30E 2+20N	Andesite flow breccia with quartz vein and cpy

## 6.2 Diamond Drilling

A 7 hole diamond drilling program totalling 2970 feet was conducted by Nighthawk drilling of Timmins, Ontario between October 31, 1990 and February, 1991 on the Dufresne Option. Core size drilled is ADBGM, and is presently stored at the Upper Canada minesite. 175 samples were collected and sent to Swastika Laboratories in Swastika, Ontario for analysis of gold only. Drill logs and assay certificates are appended to this report. See table 1 for drilling summary.

## 7.0 Discussion of Results

### Diamond Drilling

Holes FLV-90-1 to 90-4 were drilled in the northeast corner of the property on claim 821445 to test a cherty quartz vein containing free gold.

Holes 90-1, 90-3 and 90-4 were drilled south to north, while hole 90-2 was drilled north to south. Host rocks encountered in all holes consist of dark to medium green, chloritic, sericitic andesite flow breccia. The fragments are often amygdaloidal and/or (feldspar) porphyritic with varying amounts of epidote alteration and no magnetite. Pyrite content varies from trace to 1% up to 40% in banded and disseminated sections. There are also semi-massive pyrite bands up to 4" thick, often associated with local chlorite-magnetite-epidote bands. Other units include fine grained massive dark green andesite flows and hard, dark grey to dark pink feldspar porphyry intrusives with varying amounts of silicification and epidote alteration.

The best assay from sampling returned a value of 1301 ppb Au across 1.8 feet in hole FLV 90-2 from a thin white carbonate fracture at shallow angles to the core axis in an andesite flow breccia host. This carbonate fracture was not the desired target. Most gold values from sampling these 4 holes are above background (40-60 ppb Au) to weakly anomalous (100-300 ppb Au) in the vicinity of the proposed target.

Hole FLV-90-5 was intended to test a weak VLF conductor approximately 5200 feet west of holes 1 to 4. The hole was abandoned in overburden after 225 feet because of drilling

complications.

Hole FLV-91-6 was designed to test a similar package of rocks to that hosting gold bearing veins 1600 feet to the east. The hole was drilled from south to north. Bedrock encountered consists of andesitic flow breccia similar to that found further east, but these rocks are moderately magnetic and the fragments are both amygdaloidal and extremely (feldspar) porphyritic. There is generally trace to 1% fine pyrite, and varying amounts of epidote alteration. There is no anomalous gold mineralization in this hole.

Hole FLV-91-7 and 91-8 were drilled approximately 1200 feet west of Highway #66, near the eastern property boundary. Both were drilled south to north. Hole 91-7 was designed to test a chlorite carbonate schist. Bedrock encountered consists of mostly volcanoclastic matrix supported pebble conglomerate, with 3-5% disseminated pyrite and varying amounts of epidote alteration. Towards the bottom of the hole, there are several graded greywacke-conglomerate sections, and a dark green-purple porphyritic syenite intrusive. The graded greywacke-conglomerate sections are inconclusive for stratigraphic top determinations. There is no anomalous gold mineralization with this hole, and no evident chlorite-carbonate schist as noted at surface.

Hole FLV-91-8 was designed to test the contact between a diabase intrusive and the host volcanic rocks. Bedrock encountered consists of dark grey-green, medium to coarse, massive nondescript diabase in contact with volcanoclastic

conglomerate, similar to those encountered in hole 91-7. The altered diabase contact zone is 32.5 feet wide (downhole thickness) and is heavily fractured and brecciated, with numerous silicified sections local, epidote sections and 5-7% disseminated pyrite.

Table 1  
Diamond Drilling Summary

<u>Hole No.</u>	<u>Co-Ordinates</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Depth</u>
FLV-90-1	7060E 140N	000 deg	-45 deg	330
FLV-90-2	7060E 140N	000 deg	-60 deg	400
FLV-90-3	7200E 220N	180 deg	-45 deg	500
FLV-90-4	6900E 150N	000 deg	-45 deg	290
FLV-90-5	L3600E 800S	000 deg	-45 deg	225 *
FLV-91-6	L3800E 000	000 deg	-45 deg	302
FLV-91-7	L6000E 7300S	000 deg	-45 deg	523
FLV-91-8	L6000E 7575S	000 deg	-45 deg	400
		TOTAL		2970 feet

L36W 1200S  
(10)

\* ended in overburden



## 8.0 Conclusion and Recommendations

A total of 7 diamond drill holes tested various targets over the property. Holes FLV-90-1 to 90-3 drill tested a strongly anomalous east-west trending gold-quartz stringer. Host rocks were found to be andesite flow breccia with varying pyrite and epidote. Weakly anomalous gold values were collected from the projected target zone. Hole 90-4, drilled southward away from the gold bearing veins intersected. Hole FLV-90-6, drilled to the west in similar geology did not return any anomalous gold values. Holes FLV-90-7 and 91-8, drilled west of the highway near the eastern property boundary also failed to intersect anomalous gold mineralization from volcanoclastic, clastic, and diabase host rocks.

Further work is not recommended at this time.

## References

- Various authors - Assessment records from the office of the Resident Geologist, Kirkland, Ontario.
- Jensen L. S. and  
F. F. Langford - Geology and Petrogenesis of the Archean Abitibi Belt in the Kirkland Lake Area  
O. G. S. Misc. Paper 123, 1985.
- Lovell H. L. - Geology of the Matachewan Area. O. G. S. Geological Report 51, 1967.
- Thurston P. C.  
and A. Fanconi - O. G. S. Map 2484  
Lithostratigraphic Map of the Abitibi Sub-  
province, 1984.

CERTIFICATE OF QUALIFICATIONS

I, William John McGuinty of 63 Rand Avenue, West in the town of Kirkland Lake in the Province of Ontario,

Do hereby certify:

1. That I am a graduate of the University of Ottawa (1983) with a degree of Bachelor of Science (B.Sc.) with Honours in Geology.
2. That I have been practicing my profession as a Geologist and been engaged in mineral exploration since 1981.
3. That this report is based on visits to the property and personal appraisal of available data.
4. That I have disclosed in this report all relevant material which to the best of my knowledge might have a bearing on the viability or recommendations to the project.
5. That I do not have, nor do I expect to receive, directly or indirectly any interest in the property reported on herein.
6. That I am exploration manager for Queenston Mining Inc.

January 1991

W. J. McGuinty,  
Kirkland Lake,  
Ontario

## CERTIFICATE OF QUALIFICATIONS

I, Bradley C. Leonard of 2081 Sunnyside Road in the City of Sudbury, in the Province of Ontario

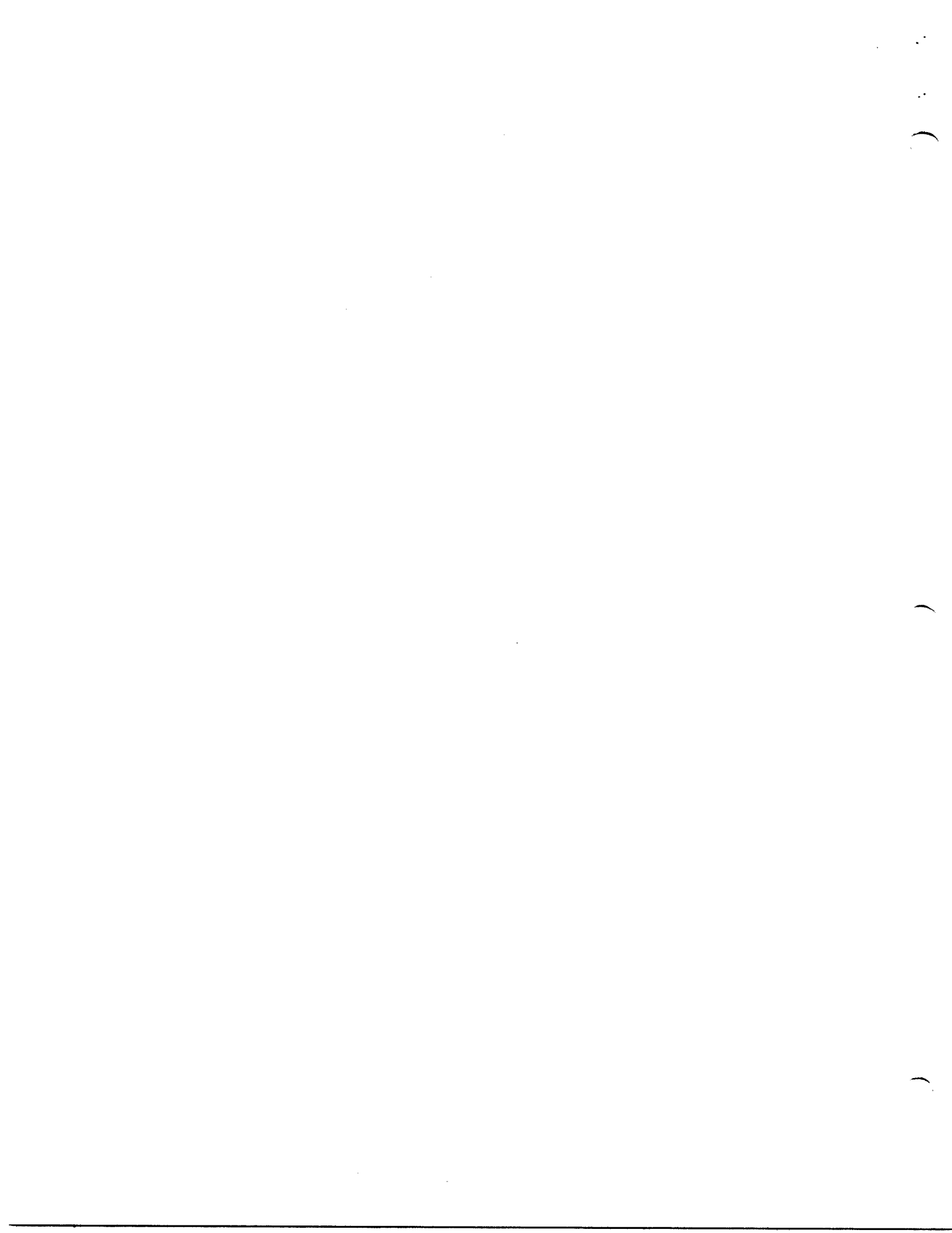
Do Hereby Certify that:

- 1) I am a graduate of the University of Toronto (1983) with a bachelor of Science degree (B.Sc.) with honours in geological sciences.
- 2) I have been practicing my profession as a geologist since 1983, and a consultant since 1988.
- 3) I have no interest, directly or indirectly in the property, Queenston Mining Inc., nor do I expect to acquire any interest, directly or indirectly in either the aforementioned company, or the property.
- 4) This report was prepared by me using government maps and reports; miscellaneous data on file in the files of the resident geologist, Ministry of Northern Development and Mines, Kirkland Lake, Ontario; and field visits to the property.

Bradley C. Leonard B.Sc.  
Consulting Geologist  
Kirkland Lake, Ontario

Appendix I  
Claims List Dufresne Option

CLAIM_NO	TOWNSHIP	DATE_REC	DAYS_WORKED
821445	Flavelle	11/29/84	240.0
821446	Flavelle	11/29/84	240.0
821447	Flavelle	11/22/84	244.4
1112018	Flavelle	12/11/89	140.0
821449	Flavelle	04/04/85	200.8
821450	Flavelle	04/04/85	200.0
1014296	Flavelle	11/12/87	162.4
1014297	Flavelle	01/18/88	167.0
1014298	Flavelle	01/18/88	90.3
1046201	Flavelle	07/11/88	60.0
1046203	Flavelle	07/11/88	60.0
1046204	Flavelle	10/31/88	160.0
1046205	Flavelle	10/31/88	160.0
1046206	Flavelle	10/31/88	120.0
1046649	Flavelle	01/09/89	60.0
1046650	Flavelle	01/09/89	60.0
1046651	Flavelle	01/09/89	20.0
1045696	Flavelle	10/31/88	147.0
1096955	Flavelle	05/02/89	20.0
1096956	Holmes	05/02/89	20.0
1096957	Holmes	05/02/89	20.0
1096958	Flavelle	08/14/89	20.0
1096960	Holmes	07/31/89	20.0
1112013	Flavelle	08/14/89	20.0
1112014	Flavelle	08/14/89	60.0
1112015	Flavelle	08/14/89	60.0
1112016	Flavelle	08/14/89	20.0
1112017	Flavelle	10/31/89	0.0
1096959	Alma	07/31/89	20.0



Appendix II  
Drill Logs and Assays  
Flavelle Property



QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 3

PROJECT: Flavelle

COMMENCED: PROPERTY: Dufresne Option DDH NO: FLV90-1  
 FINISHED: Oct 31, 1990 TOWNSHIP: Flavelle ELEV: Lake Level  
 CORE SIZE: ADBGM PROVINCE/NTS: Ontario AZIM: 000 deg  
 TOTAL DEPTH: 330 Ft. LOCATION: 7060E 140N DIP: -45 deg  
 (re Grid):

CONTRACTOR: Nighthawk Drilling

LOGGED BY: W. J. McGuinty (re Claim):

UNITS:		Feet	
FROM	TO	CORE LENGTH	
0	33.0	33.0	Casing in boulder
33.0	36.4	3.4	Broken core - fault zone polymict fragments and blocks, rounded to subangular shape with rusty limonite cement, sand to cobble sized fragments.
36.4	75.0	38.6	Broken core
36.4	76.0	39.6	Basalt flow breccia? no calcite reaction although well carbonatized numerous rusty fractures with quartz or chlorite fill 74.5-75.0 strong fracturing and ground core
76.0	76.1	.1	Fault rusty ground core
76.1	92.0	15.9	Chloritized, sericitized, sulphide banded flow breccia 10-20% pyrite locally in irregular bands to 1/4" thick Sericite is crenulated. 76.6-77.6 40% pyrite within bleached host rock, banding at 50 deg to C.A. 77.6-87.0 15% banded pyrite in dark green chloritized flow breccia banding at 40 deg to C.A. 87.0-90.0 massive flow breccia weak sulphide mineralization, abundant irregular corroded fractures with 2-3% pyrite and chlorite 90.0-92.0 pyrite and chlorite "loby" contact zones with grey buff altered basalts -lower contact faulted at 30 deg to C. A. with strong chlorite slip and 1/2 inch banded

			pyrite layer
92.0	125.3	33.3	Massive grey basalt with corroded fractures very minor sulphide to locally broken core throughout 120.6-120.9 band of laminated pyrite
125.3	127.1	1.7	Banded flow top? 5-15 deg to C.A. variable weakly brecciated pale buff colored bands in dominated kinked darker bands
127.1	157.5	30.4	Sulphide rich sericite chloritized altered basalt flow breccia well banded roughly parallel to C.A. 134.0-140.0 15-20% pyrite 142.0-146.0 10-15% pyrite 146.0-152.0 bleached weakly silicified basalt 10% pyrite in irregular bands some sp 152.0-155 strong pyrite banding 25% pyrite 155.0-157.5 fine banding with thin pyrite lamination 5-10% pyrite 10 deg to C.A.
157.5	172.4	14.9	Massive pale green basalt some fine white quartz stringers weak sulphide mineralization in general locally bleached 160.0-161.5 bleached zone with bands of pyrite subparallel to C.A. 10-15% overall. 161.5 - sharp chlorite lined slip 161.5-162.0 chloritized foliated basalt with thin sulphide sands 168.0-172.4 irregular banding with 5-10% pyrite
172.4	179.6	7.2	Silicified buff colored basalt very convoluted banding, irregularly banded pyrite 10-15% 178.0 banding at 35 deg to C.A.
179.6	190.2	10.6	Pale green irregularly banded basalt minor pyrite calcite in irregular fractures and stringers conformable to banding
190.2	231.5	41.3	Sheared? chloritic basalt pervasive white calcite veining parallel to foliation and as irregular fracture fill 191.0-199.0 foliation 45-50 deg to C.A. 5-10% pyrite overall 192.0-193.0 quartz pink calcite vein in parallel foliation 199.0-209.0 foliation 10-20 deg to C.A. 201.2-202.3 calcite pyrite 30% filled breccia with quartz pebble and foliated host

rock fragments

209.0-216.0 foliation approximately 45 deg to C.A. crenulated locally undulose  
216.0-231.5 disrupted banding 30-45 deg to C.A. warped by low angle slips numerous calcite filled breccia veins with shards of host rock oriented at 45 deg to C.A.  
231.0-231.5 sulphide banded with calcite at 10 deg to C.A. 10% pyrite

231.0      330.0      99.0      Massive basalt flow breccia pervasive calcite. fracture fill  
240.0-243.1 calcite pyrite banding 5-10% pyrite  
287.0-300.0 broken core numerous fractures parallel to C.A.  
296.0-300.1 fault zone  
296.0 - 1/4" fault gouge 30 deg to C.A.  
297.0-298.5 very broken fault gouge  
298.5-300.0 numerous slips and quartz carbonate veinlets parallel to C.A.  
300.0-305.5 carbonated flow breccia abundant buff pink and gray carbonate bands with chloritized flow bands minor pyrite  
314.0-323.0 fault breccia weakly banded at 45 deg to C.A. predominantly contorted chlorite with irregular white calcite fragments and band less than 1% pyrite.

330.0

END OF HOLE

## DIAMOND DRILL REPORT

## ASSAY RESULTS

PROJECT: Dufresne Option

DDH NO: FLV-90-1

PROPERTY: Flavelle

TOWNSHIP: Flavelle

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHECK
75.8	78.5	3.0	L4298	171.5*	168/175
78.5	80.0	1.5	4299	Nil	
80.0	85.0	5.0	4300	75	
85.0	87.0	2.0	4301	27	
90.0	92.5	2.5	4302	69	
127.0	132.0	5.0	4303	147	
132.0	137.0	5.0	4304	110	
137.0	142.0	5.0	4305	144	
142.0	147.0	5.0	4306	168	
147.0	152.0	5.0	4307	137	
152.0	155.0	3.0	4308	180*	178/182
155.0	157.5	2.5	4309	93	
159.0	162.2	3.2	4310	127	
165.0	168.0	3.0	4311	38	
168.0	173.0	5.0	4312	120	
173.0	178.0	5.0	4313	276*	223/329
178.0	183.0	5.0	4314	110	
183.0	188.0	5.0	4315	Nil	
188.0	193.0	5.0	4316	72	
193.0	198.0	5.0	4317	51	
198.0	203.0	5.0	4318	178.5*	182/175
203.0	208.0	5.0	4319	99	
208.0	213.0	5.0	4320	120	
213.0	218.0	5.0	4321	158	
218.0	223.0	5.0	4322	69	
223.0	228.0	5.0	4323	86	
228.0	231.5	3.5	4324	216	
240.0	243.0	3.0	4325	145.5*	147/144
243.0	245.0	2.0	4326	89	
245.0	248.0	3.0	4327	51	
288.0	293.0	5.0	4328	27	
293.0	298.0	5.0	4329	62	
298.0	301.0	3.0	4330	34	

Notes and Reference (Assay Certificate): Swastika Labs DW-1707-RG1

average of two analyses (\*)  
 average of four " (\*\*)

QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 3

PROJECT: Flavelle

COMMENCED: PROPERTY: Dufresne Option DDH NO: FLV-90-2  
 FINISHED: TOWNSHIP: Flavelle ELEV: Lake Level  
 CORE SIZE: ABDGM PROVINCE/NTS: Ontario AZIM: 000 deg ast.  
 TOTAL DEPTH: 400 FT LOCATION: 7060E 140N DIP: -60 deg  
 (re Grid):  
 CONTRACTOR: Nighthawk Drilling  
 LOGGED BY: Brad Leonard (re Claim):

UNITS: Feet		CORE LENGTH	
FROM	TO		
0	36	36	Overburden
36	400	360	Andesite Breccia-fine grained to aphanitic, medium green, massive with local moderate foliation around veins and fractures. Soft, non magnetic, no carbonate alteration. Heavily fractured and rubbly to 150 ft. Generally trace to 2% pyrite in irregular fractures. Strong limonitic stain to pyrite fractures most of which are strongly rotted and vuggy to 150 ft. Fragments are up to several cm in size and are bleached off-white to light pink or brown to medium green and are generally angular. There is also several bleached and altered patches up to 2 ft. in length. Generally 95% core recovery. 77.0-77.8 bleached cream coloured banded section 5% fracture filled py. Bands are approx. 75 degs to C.A. and pyrite fractures are various angles 79.0-80.1 heavy pyrite section. Approx. 20% pyrite in massive irregular fracture filled bands up to 3/8" thick in pale green to cream coloured bleached host. 89.2-91.0 pale green section with irregular pyrite stringers(to 3%) and an extremely vuggy white quartz vein approx. 3/4" thick at 90.2. Quartz vein is 45 degs to C.A. with trace diss. pyrite; 2nd smaller quartz vein appears to have been at 90.5, but was ground. Towards 150 ft, core gradually becomes dark green

154.0-164.8 abundant ribbon irregular qtz fractures due to hydraulic fracturing. Part of a flow top feature (?) Pyrite commonly associated with fractures as disseminated aggregates

164.8-174.0 magnetite-py-exhalative section. Strongly magnetic, well laminated and wispy at shallow angles to C. A. (along C. A. in places) with 25% crystalline blobs of pyrite surrounded by wispy, laminated soft magnetite chlorite matrix. Minor vuggy sections up to 6 inches wide with chlorite-epidote-magnetite, pyrite is not as abundant. Upper contact is gradual

174.0-183.0 - pyrite section - same as above texturally and in pyrite content, but magnetite sharply disappears at 174.0. Lower contact is gradual after 183.0 breccia fragments, when present gradually become increasingly epidote altered.

280.0-400.0 epidote is present not only in fragments, but also in narrow fractures (10% to 20%) and disseminated in matrix

210.0-235 pyrite content of andesite increases to 3-5% as irregular fractures and blebs, within pyritic fractures and blebs is 1-2% disseminated magnetite. There are also abundant narrow irregular carbonate fracture and quartz-hematite veinlets and stringers. Fractures are at various angles to C.A.

223.0 - 1 inch thick massive white-pink quartz vein at 65-70 degrees to C.A.

237.0 - 1/2 inch thick white irregular quartz vein at 30 degrees to C. A. Vein has red hematite along margins and in micro fractures to 6 inches on either side. Vein has several large blebs of cpy up to 1.5cm in size.

273.0-280.0 several narrow quartz veinlets at 70 degrees to C.A. in a patchy bleached host. Local pale green patches are up to 1 foot thick and have sharp dark green chloritic fracture boundaries

294.0-296.0 thin white carbonate fracture 10 deg to C.A. with abundant pyrite and red hematite along margins

340.0-1/2 inch thick white qtz. carbonate vein at 75 deg to C.A. Roughly 20%-25% of vein is cpy in large blebs

381.0-385.0 increase in pyrite content, 10% pyrite in semi-massive patches and

irregular fractures with minor carbonate.  
386.2-386.6 Epidote section with sharp  
contacts at approximately 30 deg to C.A.

END OF HOLE

DIAMOND DRILL REPORT

ASSAY RESULTS

PROJECT: Flavelle

DDH No. FLV-90-2

PROPERTY: Defresne Option

TOWNSHIP: Flavelle

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHECK
75.0	77.0	2.0	L4331	62	
77.0	77.8	.8	4332	45	
77.8	79.0	1.2	4333	41	
79.0	80.0	1.0	4334	87.5 *	106/69
80.0	82.5	2.5	4335	17	
89.2	91.0	1.8	4336	31	
158.4	161.3	2.9	4337	38	
161.3	164.8	3.5	4338	34	
164.8	169.0	4.2	4339	48	
169.0	174.0	5.0	4340	94*	99/89
174.0	179.0	5.0	4341	65	
179.0	183.0	4.0	4342	106	
214.0	219.0	5.0	4343	62	
222.4	223.4	1.0	4344	38	
236.5	238.0	1.5	4345	41	
274.0	278.0	4.0	4346	24	
294.0	295.8	1.8	4347	1301*	1265/1337
339.6	340.6	1.0	4348	99	
381.0	385.0	4.0	4349	389*	387/391
385.0	390.0	5.0	4350	55	

Notes and Reference (Assay Certificate): Swastika Labs DW-1824-RG-1

average of two analyses (\*)  
 average of four " (\*\*)



QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 6

COMMENCED: PROPERTY: Dufresne Option DDH NO: FLV-90-3  
 FINISHED: TOWNSHIP: Flavelle ELEV: Lake Level  
 CORE SIZE: ADBGM PROVINCE/NTS: Ontario AZIM: 180 deg  
 TOTAL DEPTH: 500 feet LOCATION: DIF: -45 deg.  
 (re Grid):  
 CONTRACTOR: Nighthawk Drilling (re Claim):  
 LOGGED BY: B. Leonard & W. J. McGuinty

UNITS: Feet		CORE LENGTH	
FROM	TO		
0	13.0	13.0	Overburden
13.0	63.5	50.5	<p><u>Andesite breccia</u> dark to med green, chloritic fine grained, massive to locally well foliated, (or bedded?) soft, non magnetic, no carbonate. Fragments are generally large, over 5cm in size. Foliated sections are generally crenulated, but foliation is roughly 45 deg to C.A. There is generally 1-2% fine diss. pyrite</p> <p>25.8-32.5 leucoxene rich section, 15-20% leucoxene flakes, light green, up to 2mm in size and stretched in the crenulated areas</p> <p>13.0-52.0 core is rubbly and broken, no core loss</p> <p>32.5-34.0 semi massive py section, crystalline py in a light grey, fairly soft massive matrix. py is very fine grained. Contacts are sharp at 24 deg. to C.A.</p> <p>47.0 - 1 1/2 inch semi massive py band at 75 deg. to C. A.</p> <p>48.5 - 2-3 inch section of massive fine py., rubbly core</p> <p>51.0 - 1/2-2 inch massive milky white quartz vein at approximately 45 deg to C.A. with 1-2% py on margins</p> <p>60.9 - 3 inch section of semi massive py in light grey massive matrix</p>

63.5	83.8	20.3	<p>Feldspar porphyry. Aphanitic, very hard (cherty) massive, non descriptive dark grey matrix with local pink sections. There is 10-15% fine 1mm white to light grey anhedral to subhedral feldspar phenocrysts and 5% clear, quartz (?) phenocrysts, anhedral and less than 1mm. There is 1-2% fine diss and fracture filled py. The rock has an overall finely fractured appearance. Upper and lower contacts are sharp, upper contact is 20 deg to C.A., lower contact is 65 degs to C.A. and is marked by 3 inch pyritic alteration halo in the host andesite. Porphyry is pink 1-2 feet from contacts</p> <p>79.2- 1 1/2 in thick semi massive py section. Granular looking py in black soft matrix at 45 degs to C.A. with 1-2 inch sharp light grey alteration halo contacts are sharp. also at 45 deg to C.A.</p>
83.8	113.7	29.9	<p>Andesite flow - massive, fine grained dark green chloritic, non magnetic, no carbonate. Unit is finely fractured with 5-7% epidote along fractures. There is 1-2% diss py and 1-2% fine leucoxene (purplish colour)</p> <p>88.6-91.6 semi-massive to massive py in light grey matrix with a one foot section of dark grey to grey green host. Host has 3-5% py and is 50 deg to C.A.</p> <p>91.6-96.5 dark grey-green, mottled andesite, slightly pinkish and light grey patches, strongly magnetic, 3-4% finely diss py</p> <p>96.5-98.0 semi massive py section in a light grey massive matrix and is approximately 55-60 deg to C.A.</p>
113.7	128.0	14.3	<p>Feldspar porphyry - dark pink grey, aphanitic finely fractured. 2-5% diss and fracture py. Upper contact sharp at undulating at 40 deg to C.A. Lower contact sharp but masked by 4 inch semi-massive py section @ 50 deg to C.A.</p> <p>115.4-115.8 4 inch thick semi massive py section in light grey-pink hard matrix at 45 deg. to C.A.</p>

128.0	207.8	79.9	<p>Andesite flow - massive fine grained dark green chloritic non descript, slightly mottled light pink, non-magnetic 2-3% fine diss py. 5-7% fracture filled and diss epidote alteration</p> <p>135.2 - 1/2 inch massive py band at 45 deg to C. A.</p>
207.8	223.0	15.2	<p>Feldspar porphyry - massive fractured, aphanitic extremely altered, mottled red to dark grey, hard (cherty). 2-3% fine diss py. and 1-2% fine diss epidote. Contacts are not sharp, but gradual and highly altered over 3-4 inches</p> <p>208.5 - 2 inch massive magnetite band at roughly 20 deg to C.A. adjacent to 2-3 inch section of semi massive py (uphole). Pyrite is 50 deg to C.A.</p> <p>280.9-281.2 3-4 inch semi-massive magnetite band with trace cpy</p> <p>222.0-223.0 - 3 inch semi-massive py band with 1-2 inch irregular white quartz-carbonate vein roughly 60 deg to C.A. in magnetite rich crenulated and banded host</p>
223.0	235.0	12.0	<p>Altered feldspar porphyry modified at 45-50 deg to C.A.</p> <p>dark green 3-5% up to 1cm rounded to oval blebs of epidote, elongated along foliation 1-2% fine py. There is an underlying dark red hue to unit, mostly along narrow irregular fractures and fractures along foliation. Epidote blebs are altered feldspar phenocrysts. Lower contact is sharp at 45 deg to C.A.</p> <p>233-233.8 sheared chlorite schist-altered andesite xenolith</p>
235.0	247.5	12.5	<p>Andesite flow - dark green, chloritic massive to locally moderately foliated at 45 deg to C.A. 3-5% py in narrow irregular magnetite rich fractures (5% in abundance)</p> <p>244.4-247.5 bleached and altered section close to contact. 5-6% py in irregular stringers and veinlets</p> <p>231.8-237.9 1/2-2 inch thick irregular quartz carbonate veinlet meandering 10 deg to C.A. Strong hematite stain (dark red) along vein margins plus 3-4% diss. py, 1-2% py in vein</p>

247.5	250.0	2.5	Altered feldspar porphyry-massive dark green-grey-light pink colour, 40% oval, anhedral, light pink feldspars, 1-2% fine diss py. Abundant narrow dark red hematitic fractures at high angles to C.A. also magnetite rich. 249.0-249.5 altered section-red hematitic with irregular 1-2 inch dark grey-blue translucent quartz veins at approximately 45 deg to C.A. but undulating contacts are sharp. Upper contact is 20 deg to C.A.
250.0	258.5	8.5	Banded rhyolite - well banded aphanitic medium green, moderately magnetic (narrow magnetite bands moderately hard with minor sericite, crackled texture to bands almost brecciated. Some bands are light pink in colour and are approximately 50 deg to C.A. 1-2% fine py, mostly along bands, minor narrow red hematitic fractures along bands
258.5	271.8	13.3	Altered andesite massive to locally well foliated dark green chloritic, fine grained. Foliated sections are 30-50 degs to C.A. 5-7% fine leucoxene, 1-2% fine py diss, moderately magnetic. Magnetite is along narrow fractures - 5-7% fine diss epidote and fracture filled epidote 260.8-261.0 - 2 1/2 inch thick semi-massive py and quartz-carbonate vein (equal proportions at each) at 45 deg to C.A.
271.8	273.1	1.3	Banded rhyolite - sharp contacts at 30 deg to C.A. Minor pink colour medium green, well banded, trace py.
271.3	403.7	132.4	Andesite flow - non magnetic dark green chloritic, massive, abundant epidote in microfractures at all angles, trace to 1% fine py 275.8-276.8 bleached epidote rich section 288.5-290.8 bleached altered light pink to green section. Several red hematitic fractures at 45 deg to C.A. - moderately magnetic 302.5-303.0 red buff altered zone silicified and fractured quartz carbonate fill, minor pyrite 304.8-305.7 red buff alteration 305.7-306.0 mafic dyke? with epidotized breccia fragments 306.0-308.2 red buff alteration 306.5 thin black quartz vein, 30 deg to C.A.

316.9, 319.5, 321.0 thin carbonate-quartz  
 -pyrite +/- chalcopyrite, 45 deg to C.A.  
 322.4-322.8, 323.8-324.0, 324.3-324.6 massive  
 epidote/sericite? alteration  
 325.6 banded hematized quartz-carbonate ve.  
 with minor fine grained pyrite  
 326.0 - 1/4 inch pyrite band  
 326.5-328.3 dark green coloration with the  
 dark grey quartz veinlets, some associated  
 pyrite  
 328.3-328.4 quartz breccia vein with cpy, py.  
 330.4-330.6, 340.5-340.6, 344.0, 348.5,  
 349.7, 351.0, 353.3, 353.5 calcite-pyrite  
 veins with weak quartz  
 360.8-361.5 fault zone - strongly contorted  
 banding with late calcite-pyrite  
 mineralization, chlorite sericite alteration  
 372.8-374.5 weak buff coloured alteration  
 with small grey quartz veinlets  
 384.5-385.0 as above  
 382.2-382.3 quartz-calcite-chlorite-pyrite  
 veinlet 50 deg to C.A.  
 396.0-403.7 weak buff colour, silicification,  
 some grey quartz veining  
 396.5-396.6, 397.7-398.0, 399.3 calcite-  
 quartz-chalcopyrite veins irregular shape  
 generally 30-35 deg to C.A.

403.7	405.9	2.2	Fine grained andesitic breccia, upper contact irregular and diffuse at 45 deg. Breccia buff altered lapilli size fragments in a chloritic groundmass, numerous epidote filled fractures sub parallel to C.A.
405.9	431.9	26.0	Dark green to grey andesite 411.7-413.5 weakly banded grey andesite, banding at 45 deg to C.A. 2-3% diss pyrite 412.1-412.5 brecciated quartz-calcite vein 421.7-422.0 irregular quartz-calcite vein with minor pyrite 424.0-425.0 massive epidote alternation 430.0-431.9 abundant calcite filled fractures some grey quartz veining
431.9	500.0	68.1	Flow banded andesite mainly green-grey, fine grained with small to large altered amygdaloidal fragments. Fragments are silicified and hematized having a reddish buff colour or weakly altered with chloritic filled amygdules 449.0-450.0 quartz-calcite-pyrite veining

irregular orientations from 60 to 30 deg to  
C.A.

465.0 chlorite lined slip plane, 45 deg to  
C.A

479.0-480.5 epidote-calcite quartz pyrite  
chlorite mineralization weakly banded 40 deg  
to C.A. 3% pyrite

490.2-493.2 strongly hematized fault zone

490.2-490.6 silicified grey andesite with  
fracture controlled pyrite

490.6-492.6 hematized brick red groundmass  
with green massive andesite, calcite-quartz  
and amygdaloidal andesite fragments, all  
angular

492.6-493.2 broken core, blocky hematized  
andesite

497.9-500.0 silicified andesite flow breccia  
pyrite and quartz-calcite-pyrite veining

500.0

END OF HOLE

## DIAMOND DRILL REPORT

## ASSAY RESULTS

PROJECT: Dufresne Option

DDH NO. Flav-90-3

PROPERTY: Flavelle

TOWNSHIP: Flavell

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHECK
32.3	34.0	1.7	L4351	117	
46.0	50.0	4.0	4352	86	
50.0	52.3	2.3	4353	110	
52.3	55.3	3.0	4354	65	
60.0	63.5	3.5	4355	58	
63.5	66.0	2.5	4356	17	
66.0	70.0	4.0	4357	41	
70.0	75.0	5.0	4358	48	
75.0	78.3	3.3	4359	Nil	
78.3	79.6	1.3	4360	192	
79.6	83.8	4.2	4361	41	
88.6	91.6	3.0	4362	240*	233/247
96.5	98.0	1.5	4363	182	
101.0	102.5	1.5	4364	254	
113.7	117.0	3.3	4365	58	
117.0	122.0	5.0	4366	31	
122.0	125.4	3.4	4367	17	
125.4	128.4	3.0	4368	41	
128.4	133.0	5.0	4369	27	
133.0	136.0	3.0	4370	58	
207.5	210.0	2.5	4371	75.5*	72/79
210.0	215.0	5.0	4372	24	
215.0	220.0	5.0	4373	89	
220.0	223.0	3.0	4374	79	
223.0	227.0	4.0	4375	96	
227.0	230.0	3.0	4376	62	
236.8	237.9	1.1	4377	151	
244.4	247.5	3.1	4378	65	
247.5	251.4	4.0	4378	164.5*	147/182
251.4	256.0	4.6	4389	89	
256.0	260.0	4.0	4381	144	

Notes and Reference (Assay Certificate): Swastika Labs OW-1824-RG1  
OW-1857-RG1

average of two analyses (\*)  
average of four " (\*\*)

DIAMOND DRILL REPORTS  
PROJECT:  
PROPERTY

ASSAY RESULTS

PAGE OF  
DDH NO.  
TOWNSHIP:

DIAMOND DRILL REPORTS			ASSAY RESULTS	PAGE OF	DDH NO.	TOWNSHIP:
250.0	261.3	1.3	4382	213		
261.3	263.7	2.4	4383	106		
288.5	290.8	2.3	4384	147		
301.3	303.3	2.0	4385	31		
303.3	308.3	5.0	4386	113		
308.3	310.3	2.0	4387	96		
316.5	320.0	3.5	4388	86		
325.0	329.0	4.0	4389	108*	117/99	
329.0	334.0	5.0	4390	41		
334.0	339.0	5.0	4391	46		
348.0	353.0	5.0	4392	58		
353.0	357.0	4.0	4393	55		
357.0	360.5	3.5	4394	89		
360.5	362.0	1.5	4395	193.5*	209/178	
373.0	376.0	4.0	4396	231.5*	216/247	
376.0	381.0	4.0	4397	113		
389.0	390.0	1.0	4398	99		
395.0	399.0	4.0	4399	147		
411.0	413.5	2.5	4400	141		
430.0	432.0	2.0	4401	147		
449.0	450.5	1.5	4402	117		
457.0	458.5	1.5	4403	51		
471.0	472.0	1.0	4404	41		
479.0	480.5	1.5	4405	303.5*	319/288	
490.2	493.2	3.0	4406	65		
498.0	500.0	2.0	4407	192		

Notes and Reference (Assay Certificate): Swastika Labs OW-1824-RG1  
OW-1857-RG1

average of two analyses (\*)  
average of four " (\*\*)



QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 2

COMMENCED: PROPERTY: Dufresne DDH NO: FLV-90-4  
 FINISHED: TOWNSHIP: Flavelle ELEV:  
 CORE SIZE: ADBGM PROVINCE/NTS: Ontario AZIM: 000  
 TOTAL DEPTH: 290 feet LOCATION: DIP: -45 degs  
 (re Grid):  
 CONTRACTOR: Nighthawk Drilling  
 LOGGED BY: W. J. McGuinty (re Claim):

UNITS:		Feet	
FROM	TO	CORE LENGTH	
0	50.6	50.6	Casing in Overburden
50.6	53.3	2.7	Casing in boulders
53.3	290.0	236.7	Andesitic flow breccia pale buff coloured, rounded to irregular shaped amygdaloidal andesite in green chloritic groundmass. Fragments from 1/8" to 2" diameter 55-55.7, 56.6-56.8, 59.8-60.2, 62.9-63.4 68.6-69.7 banded & fracture controlled semi massive pyrite bands at 45 deg to C.A. 94.6-94.8 black chert-pyrrhotite-pyrite vein contacts roughly 30 deg to C.A. irregular 104.7-108.5 quartz epidote vein upper & lower contacts at 40 deg to C.A. 109.8-110.5 chert-pyrrhotite banding in flow breccia 123.0-124.2 calcite-quartz-pyrite zone with hematite staining on calcite stringers 146.0-191.0 increased hematite alteration, fracture controlled, affecting fragments and some banding differentially 158.0-169.0 small fault breccia zones with hematized calcite matrix 202.0-204.0 bleby pyrrhotite mineralization in calcite band 205.0-210.0 some chloritic bands in buff altered flow breccia 216.5-218.5 stringers of pyrite in joints in groundmass also hematized calcite veining 237.0-254.0 carbonate-sulphide mineralized

zone, 5-10% pyrite overall in association with fine grained grey calcite in bands or stringers, numerous fractures and fragments are hematized.

290.0

END OF HOLE

DIAMOND DRILL REPORT  
 PROJECT: Dufresne Option  
 PROPERTY: Flavelle

ASSAY RESULTS  
 DDH NO. FLV-90-4  
 TOWNSHIP: Flavelle

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHEC
54.5	57.0	2.5	4408	45	
57.0	59.5	2.5	4409	41	
59.5	63.0	3.5	4410	45	
63.0	66.0	3.0	4411	79	
66.0	70.0	4.0	4412	65	
94.0	95.0	1.0	4413	104.5*	106/103
104.7	108.5	3.8	4414	31	
109.8	111.3	1.5	4415	19*	21/17
111.3	115.3	4.0	4416	62	
123.0	125.0	2.0	4417	79	
167.5	170.0	2.5	4418	17	
202.0	204.0	2.0	4419	21	
216.5	218.5	2.0	4420	93	
218.5	221.0	2.5	4421	24	
237.5	241.5	4.0	4422	82	
241.5	244.0	2.5	4423	65	
244.0	247.0	3.0	4424	192*	233/151
247.0	252.0	5.0	4425	117	
252.0	254.5	2.5	4426	79	

Notes and Reference (Assay Certificate): Swastika LabsOW-1857-RG1  
 average of two analyses (\*)  
 average of four " (\*\*)

QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 1

PROJECT: Flavelle

COMMENCED: PROPERTY: Dufresne Option DDH NO: FLV90-5  
FINISHED: TOWNSHIP: Flavelle ELEV:  
CORE SIZE: BQ PROVINCE/NTS: Ontario AZIM: 000 deg  
TOTAL DEPTH: 225 ft LOCATION: 3600E 800S DIP: -45 deg  
(re Grid):

CONTRACTOR: Nighthawk Drilling

LOGGED BY: Brad Lenoard (re Claim):

UNITS:		Feet	
FROM	TO	CORE LENGTH	
0	225.0	225.0	OVERBURDEN

QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 2

PROJECT: Flavelle

COMMENCED: PROPERTY: Flavelle DDH NO: FLV91-6  
 FINISHED: TOWNSHIP: Flavelle ELEV:  
 CORE SIZE: PROVINCE/NTS: Ontario AZIM: 000 deg  
 TOTAL DEPTH: 302' LOCATION: L3800E 000 DIP: -45 deg  
 (re Grid):

CONTRACTOR: Nighthawk Drilling

LOGGED BY: Brad Leonard (re Claim):

UNITS:		Feet	
FROM	TO	CORE LENGTH	
0	55.0	55.0	Overburden
55.0	302.0	247.0	<p>Mafic Volcanic flow breccia, dark green -grey, extremely rubbly and blocky core (down to 210). Massive, hard silicified, no carbonate, moderately magnetic to locally, strongly magnetic. Subrounded oval amygdular mafic volcanic fragments with embayed edges in soft chloritic matrix. Fragments are up to 20 cm (?) in size, and are typically composed of oval translucent glassy amygdules and opaque white to light green feldspathic amygdules. The feldspathic amygdules are quite irregular in outline, often looking like knots or subhedral feldspar crystals. There is trace to 1% very fine pyrite and moderate epidote alteration in light green feldspathic amygdules, patches in the fragments and surrounding matrix.</p> <p>245.5-253.0 heavily altered section mostly light green aphanitic epidote alternate with local dark pink sections. Heavily fractured with pervasive epidote, carbonate and dark pink fractures at various angles to C.A.</p> <p>250.0-251.0 - to 3-4 cm thick semi-massive magnetite bands at 70-80 deg to C.A.</p>

248.5 - 3-5 cm thick white quartz carbonate vein at 45 deg to C.A.

297.0-302.0 pervasive bleaching and alteration in fragments, white to light green to dark pink in colour.

302.0

END OF HOLE

DIAMOND DRILL REPORT  
PROJECT: Dufresne Option  
PROPERTY: Flavelle

ASSAY RESULTS  
DDH NO. FLV 91-6  
TOWNSHIP: Flavelle

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHECK
120.0	130.0	10.0	123688	10	
185.0	190.0	5.0	123689	Nil	
190.0	195.0	5.0	123690	Nil	
245.5	250.0	4.5	123691	24	
250.0	251.5	1.5	123692	Nil	

Notes and Reference (Assay Certificate): Swastika Labs 1W-2151-RG1

average of two analyses (\*)  
average of four " (\*\*)

QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 3

PROJECT: Flavelle

COMMENCED:

PROPERTY:

DDH NO: FLV91-7

FINISHED:

TOWNSHIP: Flavelle

ELEV:

CORE SIZE: ABDGM

PROVINCE/NTS: Ontario

AZIM: 000 deg

TOTAL DEPTH: 523 ft.

LOCATION: L6000E 7300S  
(re Grid):

DIP: -45 deg

CONTRACTOR: Nighthawk Drilling

LOGGED BY: Brad Leonard (re Claim):

UNITS:		Feet	
FROM	TO	CORE LENGTH	
0	8.0	8.0	Overburden
8.0	454.0	446.0	<p>Volcaniclastic matrix supported pebble conglomerate; dark green-grey grained massive to weakly bedded/foliated matrix composed of fine biotite and chlorite. There is 20-30% rounded to subangular light to dark pink extremely altered amygdular volcanic fragments up to 3 cm in size, but more commonly 1 cm and less with minor dark grey to black biotitic clasts. Bedding (foliation, when present is 50 deg to C.A. Conglomerate is matrix supported and moderately sorted. Clasts also have ghostly oval "amygdules", and light green-white or pink opaque feldspathic phenocrysts (when visible). There is 5-7% fine disseminated and fracture filling pyrite. Pyrite is also present rimming fragments. Some fragments also appear to be shattered. There are minor carbonate-epidote micro-fractures at various angles to C.A.</p> <p>180.0-200.0 unit takes on medium pink overprint and clasts become less distinct, some with embayed edges.</p> <p>207.0-263.0 pink overprint is less intense, but rock is moderately to locally extremely fractured (hydraulic fracturing) with pervasive carbonate micro-fractures at various angles to C.A. Most intense portion is between 240.0 and 260.0</p>



230.0-233.5 less than 1 cm thick carbonate quartz veinlet at 5 deg to C.A. minor disseminate pyrite.

283.0 - 10 cm thick cherty light grey band 40 deg to C. A. trace pyrite

286.0 - 20 cm thick band of cherty grey-pink material at 45-50 deg to C.A. trace pyrite

346.0-3474.0 quart carbonate vein breccia running length of core approximately 1-2 cm thick

378.0-380.0 2 cm thick translucent white quartz vein running length of core with pervasive dark-red-brown streak and blebs associated with the margin, trace to 1% fine pyrite

409.3-411.6 - 1-2 cm thick white quartz vein running length of core with abundant pink-red steaks along margins. Trace to 1% pyrite

400.0 gradual increase in epidote alteration in micro-fractures, rimming clasts and as part of some clasts. There is also an appearance and increase in hematitic altered (dark red-brown) fractures associated with the epidote fractures.

439.0      454.0      15.0      Conglomerate, upper contact is sharp at approximately 70 deg to C.A. Upper part is very fine grained greywacke gradually increasing in clast size downhole to a maximum of 3 cm towards the bottom. Tops appear to be up hole. The rock is moderately to extremely silicified in the coarser conglomeratic sections. This conglomerate is largely clast supported. Clasts are rounded to subangular light green to slight pink syenite, trachyte, porphyritic trachyte, and altered amygdular andesite. There is 3-5% pyrite in black chlorite-quartz patches that are part of the matrix and up to 1 cm in size.

454.0      460.0      6.0      Greywacke fine grained massive no obvious bedding, 1-3% fine pyrite, and black chlorite, trace lavender leucoxene. Rock is non magnetic. Both contacts are sharp but undulatory.

460.0      464.0      4.0      Clast supported conglomerate clasts are subangular to rounded gradually becoming a fine grained greywacke towards end of pulse sharp contact. Tops appear to be down hole.

Greywacke area is 30 cm thick.

464.0	485.0	21.0	Clast supported conglomerate. Subangular to rounded clasts up to 15 cm in size, poorly sorted 1-3% pyrite in black chloritic blebs in matrix rock is moderately silicified.
485.0	489.8	4.0	Greywacke, weakly foliated at 55 deg to C.A., no bedding obvious fine grained upper and lower contacts, sharp upper contact is marked by pyrite fracture at 55 deg to C.A. Lower contact is sharp and schistose at 45 deg to C.A.
489.8	503.6	13.8	Porphyritic syenite, dark green-purple colour, weakly foliated at 55 deg to C.A. medium grained with 20-30% 1 mm - 2 mm oval to subhedral white to light pink feldspar phenocrysts and minor black mafic (amphibolitic) xenoliths, trace to 1% fine disseminate pyrite. 492.0-495.0 minor epidote? fractures at 45-55 deg to C.A. with 3-5% pyrite blebs. Lower contact is sharp at 80 deg to C.A. and is schistose.
503.6	523.0	19.4	Clast supported conglomerate, as 464.0-485.0 1-2% pyrite as blebs in fracture and disseminated. 510.0-515.0 several fractures with blebby pyrite.
523.0			END OF HOLE

DIAMOND DRILL REPORT  
 PROJECT: Dufresene Option  
 PROPERTY: Flavelle

ASSAY RESULTS  
 DDH NO. FLV91-7  
 TOWNSHIP: Flavelle

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHUCK
45.0	50.0	5.0	123693	36*	45/27
50.0	55.0	5.0	123694	24	
80.0	85.0	5.0	123695	34	
130.0	135.0	5.0	123696	10	
135.0	140.0	5.0	123697	22	
215.0	220.0	5.0	123698	Nil	
230.0	233.5	3.5	123699	Nil	
240.0	245.0	5.0	123700	27	
245.0	250.0	5.0	123701	Nil	
250.0	255.0	5.0	123702	34	
255.0	260.0	5.0	123703	Nil	
280.0	285.0	5.0	123704	Nil	
285.0	290.0	5.0	123705	Nil	
345.0	350.0	5.0	123706	Nil	
375.0	380.0	5.0	123707	10	
407.5	411.6	4.1	123708	Nil*	
482.2	485.0	2.8	123709	Nil	
485.0	489.0	4.0	123710	Nil	
489.0	493.8	4.8	123711	Nil	
493.8	498.0	4.2	123712	Nil	
498.0	503.7	5.7	123713	Nil	
510.0	515.0	5.0	123714	Nil	

Notes and Reference (Assay Certificate): Swastika Labs 1W-2151-RG1

average of two analyses (\*)  
 average of four " (\*\*)

QUEENSTON GROUP  
DIAMOND DRILL REPORT

Page 1 of 2

PROJECT: Flavelle

COMMENCED: Jan 21, 1991      PROPERTY: Dufresne Opt.      DDH NO: FLV91-8  
 FINISHED: Feb 3, 1991      TOWNSHIP: Flavelle      ELEV:  
 CORE SIZE: BQ      PROVINCE/NTS: Ontario      AZIM: 000  
 TOTAL DEPTH: 400 ft      LOCATION: L36WS+00S      DIP: -45 deg  
 (re Grid):

CONTRACTOR: Nighthawk Drilling

LOGGED BY: Brad Lenoard (re Claim):

UNITS:		Feet	
FROM	TO	CORE LENGTH	
0	7.0	7.0	Overburden
7.0	216.5	211.5	Diabase, massive, medium to coarse grained nondescript interlocking appearance, with subophitic texture, weakly to moderately magnetic; local fine grained sections up to 2' wide, and rare local very coarse (pegmatitic) sections. Average crystal sizes 1-2 mm generally but can be 5 mm in coarser sections. Trace to fine pyrite. Minor chlorite, epidote microfractures. Minor 1 cm white to little green xenoliths.
216.5	249.0	32.5	Altered diabase (?) dark grey, massive fine grained heavily fractured and brecciated. Soft and sericitic with numerous local lighter grey silicified sections. There is abundant light grey cherty fractures at steep angles to C.A. In general, there is 5-7% disseminated pyrite. There is minor local epidote blebs, associated with the thicker cherty fractures. Upper and lower contacts are not sharp, but gradual over 1-2 feet. 225.0 pyritic, epidote fracture 1/2" thick 229.5-230.0 cherty dark grey quartz vein (approximately 1" thick) along C.A.
249.0	296.3	52.7	Volcaniclastic conglomerate, dark grey to

grey-pink, massive. Numerous dark grey moderately porphyritic, rounded to subangular clasts up to 3 cm in size. Clasts are rimmed by 1-2 mm thick carbonate halo. There are numerous light grey-green quartz carbonate fractures. Mostly at steep angles to the C.A. Dark grey areas are soft and sericitic; the grey-pink areas (over 60% of rock) are hard and silicified. There is 2-5% fine disseminated pyrite.

296.3	321.2	24.9	<p>Diabase, medium pink-grey, fine grained massive moderate carbonate alteration, non-magnetic, hard. There are numerous thin dark red-brown fractures at steep angles to C.A. with minor specular hematite, and lesser grey quartz-carbonate fractures. Upper contact is sharp at 65 deg to C.A.; lower contact is gradual and altered over 1-2 feet. 317.0-321.2 fractured and locally brecciated with 5-7% pyrite. Hard silicified dark red-grey.</p>
321.2	400.0	78.8	<p>Volcaniclastic conglomerate, dark grey to grey-pink rounded to subangular clasts, hard, silicified in dark grey-pink hard, silicified matrix. There is 2-3% fine pyrite and minor epidote in light grey quartz carbonate fractures. (Similar to 249.0-296.3)</p> <p>327.5-327.8 mottled tan, light grey cherty quartz-carbonate vein at 80 deg to C.A., 2-4% fine pyrite.</p> <p>356.0 light-grey quartz carbonate vein approximately 1" thick at 30 deg to C.A. with minor pyrite.</p> <p>357.2 - 1/2" thick translucent grey quartz vein at 80 deg to C.A.</p> <p>359.5 1" thick light green quartz carbonate vein at 45 deg to C.A.</p> <p>395.8 - 1/2" thick pyrite - epidote-quartz-carbonate vein at 50 deg to C.A.</p>
400.0			<p>END OF HOLE</p>

DIAMOND DRILL REPORT

PROJECT: Flavelle

PROPERTY: Flavelle

ASSAY RESULTS

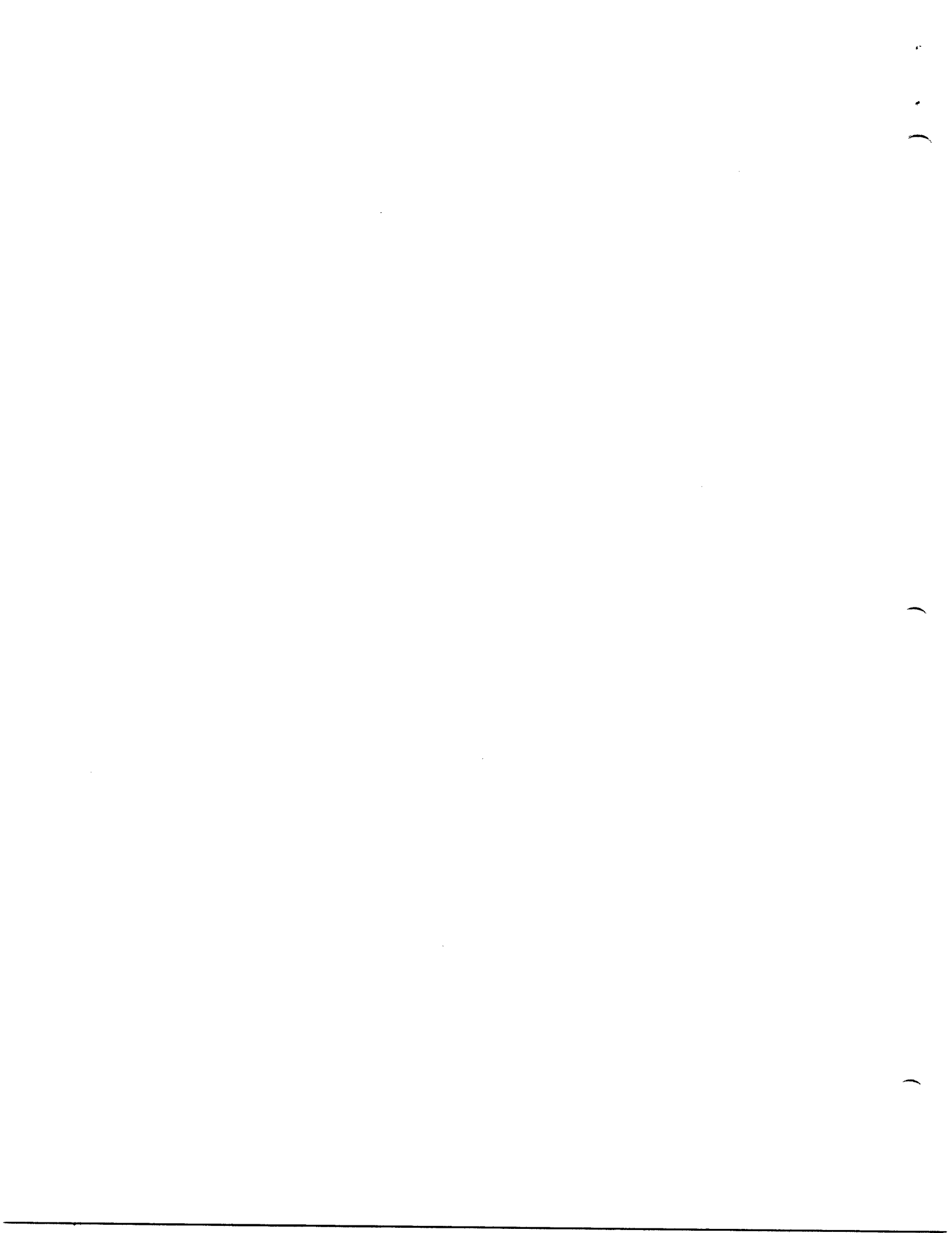
DDH NO. FLV91-8

TOWNSHIP: Flavelle

FROM	TO	LENGTH	SAMPLE #	ASSAY	RECHECK
214.0	216.5	2.5	123774	7	
216.0	221.5	5.0	123775	17	
221.5	226.2	4.7	123776	41	
226.2	227.8	1.6	123777	27	
227.8	230.0	2.2	123778	38	
230.0	235.0	5.0	123779	45	
235.0	240.0	5.0	123780	68.5*	72/65
240.0	244.7	4.7	123781	55	
244.7	249.0	4.3	123782	21	
249.0	252.6	3.6	123783	21	
272.5	277.5	5.0	123784	10	
280.0	285.0	5.0	123785	17	
285.0	290.0	5.0	123786	24	
317.0	321.2	4.2	123787	49.5*	51/48
321.2	326.4	5.2	123788	17	
353.5	355.0	1.5	123789	21	
355.0	359.8	4.8	123790	27	
359.8	362.0	2.2	123791	14	
392.0	397.0	5.0	123792	7	

Notes and Reference (Assay Certificate): Swastika Labs 1W-2263-R61

average of two analyses (F)  
 average of four " (FF)



ANNEX  
"m 11"

Chartre - Dufresne Property

Flavelle Township

- visited by Howard Lovell and Marc Goudreau, 1991 October 11

Purpose

Invitation to be guided by claimholder, Denis Chartre to their 1991-stripping.

Observations

Stripped bedrock overlooking Wyley Lake NW bay from the E has been extended 6m in similar coarse fragmental calc-alkalic flow breccia (or pyroclastic bombs?) cut by E-trending quartz veins the walls of which are lined "here and there" with epidote. NE 25m is another zone of bedrock stripped 18m long N-S by 6m wide, exposing additional calc-alkalic fragmental. Fragments contain abundant (about 20%) phenocrysts of white feldspar, each phenocryst averaging 3mm long, in pale grey fine grained matrix. Amygdules average a nucleus 3mm in diameter, rimmed by chlorite. This size of gas bubble might indicate hydrostatic pressure characteristic of medium depth water. Stratification is indistinct or else thick. Quartz veins with yellowish green epidote walls trend E. No quartz eyes present



indicate this composition is andesite or possibly basalt. The vein quartz is grey (caused by magnetite, not hematite or molybdenite), not white "bull quartz" colour nor the black colour imparted by carbon content. The white feldspar phenocrysts are subhedral to small aggregates. Pink hue is along fractures and in some fragments. Some fragments are 0.3m long although not necessarily indicating proximity to a vent; perhaps instead these are larger blocks of a flow that solidified and subsequently broke during continued flowage. However stratification is not distinct therefore the possibility remains of this being a vent area (or subaerial?). Possible stratification trends about 240 degrees approximately parallel to many veins. Float of the same rock type as the bedrock here contains abundant medium and fine grained pyrite cubes in fractures. Many of the fragments contain cusped grains of chlorite that might be crushed pumice.

Farther S overlooking Wyley Lake NW bay a 32m length of the same type of bedrock has been stripped in 1991. This is calc-alkalic andesite (?) fragmental as seen by the writer in Holmes Lake narrows while mapping here 22 years ago. Small zones of epidote-carbonate-pyrite are present as well as roughly E-trending rusty veins that branch and contain a little black splintery metallic lustre hard magnetic magnetite. Free silica

## Observations

3

is present in veins and amygdules - not as phenocryst grains.

Farther S the stripped bedrock is all fine fragmental (perhaps the only distinct bedding here) cut by magnetite-epidote-hematite veins. Fragments average 2cm in diameter. To the north the coarse fragmental and the fine fragmental are 30m thick and the soil cover is 5m wide. The stripped fine fragmental is 2m with the soil cover 15m. The 2nd stripped bedrock from the S is 10m long and the southern stripped bedrock zone is 20m long.

The N-S ridge E of these stripped bedrock zones is Matachewan Diabase more than 10m wide, E of which is calc-alkalic coarse fragmental cut by stringers such as those mentioned above.

## Chartré - Dufresne Au Prospect

## Flavelle Township

visited by Howard Lovell - 1992 09 24

Purpose

Request by prospector - assayer Denis Chartré, who did the guiding.

Observations

The claims' Chief Lake Road east fork to Highway 66 has a small gravel roadside borrow pit exposing rusty-fractured maroon colored feldspathic rock containing greensish black chloritic slips. When the writer mapped these townships 30 years ago they were called "syenitized basalt" implying that pre-existing basalt had been intruded by peripheral syenite of the Cairo Stock. However on the Holmes Lake cottages road north side opposite Holmes (formerly George Creek) Creek the writer and later O.G.S. Geologist Larry Jensen agreed with claimholder Len Cunningham that the rock might be extrusive (mafic trachyte). Here on the Chief Lake Road in its location a short distance along strike northeast of steeply dipping slightly sheared Temiskaming conglomerate containing Cairo Stock boulders, the bedrock probably is mafic trachyte possibly subaerial (as is the Timiskaming Conglomerate) volcanic roughly contemporaneous with the nearby conglomerate and the Cairo Stock Syenite.

At least some of the prominent rust on fracture surfaces is oxydized pyrite derived from fine grained pyrite and a little chalcopyrite and malachite here also.

About 1 km farther north along the Chief Lake Road is an exposure of thin-banded (060%) alternate cream and pink banded rock in the eastern ditch. Where a pyrite-bearing quartz vein fills a fracture sub-parallel to the banding (shearing) Denis Chartré obtained 0.01 oz per ton Au. This shearing and banding might have originated as laminated fine grained sediment (no pebble seen in this small exposure); however, probably it is a gneissic contact phase of the Cairo Stock (although the writer cannot recall having seen a gneissic contact phase of the Cairo Stock at any other segment of the Stock's periphery).

Farther along the Chief Lake Road 1.7 km is Matachewan Diabase and east of it is homogeneous red fine grained syenite. Probably this is a Cairo Stock chilled margin rather than trachyte, which to be here would have to change from its

northeast trend near Highway 66 to a north trend here, wrapping around the Cairo Stock's eastern contact.

Farther east 450 m is solid bedrock exposed consisting of fine and medium grained (in different zones) red felsic syenite, fairly homogeneous except for greenish black chloritic slips. Actually the medium grained syenite has 3mm feldspar phenocrysts in fine grained feldspathic matrix. The rock is cut by quartz veins that have tourmaline along parts of their walls. Probably this rock is not volcanic flow trachyte because laterally it is fairly homogeneous. However the rock is not coarsely porphyritic as is the contact phase of the Otto Stock Syenite and internal parts of the Cairo Stock Syenite. The gravel pit across the Chief Lake Road here is cut by numerous quartz veins containing abundant tourmaline.

Tourmaline in this part of the Cairo Stock is associated with Cu but typically not with Au. Some stringers are pure black tourmaline devoid of quartz gangue, but at a glance no Cu (neither chalcopryrite nor malachite) was noticed.

Rex Brommecker  
Westminer Canada Ltd.  
22 Gurdwara Rd.  
Nepean, Ontario  
K2E-8A2  
Phone-(613) 727-3937  
Fax- (613) 727-3970

Roger Dufresne  
14 Wright Hargreaves  
Kirkland Lake, Ontario  
P2N 1B2

Dear Roger

Thank-you for showing me your property and introducing me to some of the prospecting community in Kirkland Lake. I will be reviewing Westminer's opportunities in the Abitibi belt with management. I will mention your property in this overall review with management.

We have received the gold assays for the samples I took on your property. A copy of the assay certificate is included. Following is a brief description of the samples:

- CR408099 Location- Goldfield Showing  
 Comments- Mainly blue-grey quartz in a discrete shear  
           - 3% pyrite  
 Value    - 3.33 g/ton Au = 0.097g/ton
- CR408100 Location- Goldfield Showing  
 Comments- Main blue-gray quartz-vein with reported high grades  
           - 2% pyrite  
 Value    - 5.35 g/ton Au = 0.156g/ton
- CR410744 Location- Near Goldfield Showing (south approx. 100m)  
 Comments- Chloritic dacitic breccia  
           - with 3% disseminated pyrite  
 Value    - 77ppb Au = 0.002g/ton
- CR410745 Location- McChesny trench 1  
 Comments- Moderately sheared and strongly carbonatized (ankeritized) mafic (volcanic?) rock  
           - 1-2% pyrite  
 Value    - 72ppb Au 0.002g/ton
- CR410746 Location- McChesny trench 1  
 Comments- Strongly ankeritized mafic (volcanic?) rock  
           - 2-3% pyrite  
 Value    - 56ppb Au 0.002g/ton

CR410747 Location- McChesny trench 2  
Comments- Sericitized, ankeritized, sheared mafic  
(volcanic?) rock  
- small pyrite stringer  
- minor quartz stringers  
- 5% pyrite total  
- trace tourmaline  
Value - 86ppb Au = 0.003g/ton

CR410748 Location- McChesney trench 3  
Comments- Sericitized, ankeritized, sheared mafic  
(volcanic?) rock  
- local weak silicification  
- minor quartz stringers  
- 3% pyrite  
Value - 301ppb Au 0.009g/ton

CR410749 Location- Welsh Zone  
Comments- quartz vein in syenite  
-1% tourmaline  
-1% chalcopyrite  
-1% pyrite  
Value -91ppb Au 0.003g/ton

I feel the most interesting result is the anomalous values obtained in the McChesney trenches. The alteration and shearing looks promising in these trenches, combined with the anomalous 301ppb Au sample would suggest it is an area you may want to consider some follow-up work. I would consider the area close to (but not necessarily directly within) this shear/alteration zone favourable.

Good-luck to you and I hope to speak with you soon.

Note that we have a new address and phone number which I have indicated on the letterhead.

Sincerely,

  
Rex Brommecker, MSc



# LES LABORATOIRES XRAL LABORATORIES

UNE DIVISION DE / DIVISION OF SGS INC  
150 RUE • ROUYN NORANDA • QUERBEC J9X 2H6  
TEL (819) 764 9108 FAX (819) 764-4673

## CERTIFICAT D'ANALYSE / CERTIFICATE OF ANALYSIS

540

Nom de la Compagnie/Company: Westminex Canada Exploration  
N° de Commande No/ P.O. No:  
Objet/ Project No : 4036-3-C10  
Date Soumis/ Submitted : Jun 28, 1993  
Attention : ALAN SEXTON

Jul 06, 1993

Échantillon / Sample No.	AU PPB	AU CHK PPB	AU CHK PPB	AU g/ton	AU CHK g/ton	AU CHK g/ton
408087	251	262	242			
408088	8					
408089	*			2.50		
408090	58					
408091	11					
408092	<5					
408093	7					
408094	<5					
408095	5					
408096	<5					
408097	*					
408098	336			101.28	102.86	99.70
408099	* Gold Field #2			3.33		
4100	* Gold Field #1			5.35		
410744	77 Gold Field #3					
410745	72 McChesny A2 Trench 1					
410746	56 McChesny B1					
410747	86 Trench #2 - McChesny					
410748	301 Trench #3 - McChesny					
410749	91 Welsh Zone					

*> 2.953 ton*

Rex Brommecker  
Westminer Canada Ltd.  
22 Gurdwara Rd.  
Nepean, Ontario  
K2E-8A2  
Phone-(613) 727-3937  
Fax- (613) 727-3970

Roger Dufresne  
14 Wright Hargreaves  
Kirkland Lake, Ontario  
P2N 1B2

Dear Roger

We have received the assays from the samples of the McChesney vein. I took nine samples when I was out with Denis. A copy of the assay certificate is included.

Following is a brief description of the samples:

- CR411960 LOCATION: McChesney Vein Pit #1  
DESCRIPTION: Quartz vein with 6% chalcopyrite, 1% galena, and 1% pyrite
- CR411961 LOCATION: McChesney Vein Pit #1  
DESCRIPTION: Quartz vein with 2% chalcopyrite and trace tourmaline
- CR411962 LOCATION: McChesney Vein Pit #1  
DESCRIPTION: Sheared syenite wallrock with trace pyrite and chalcopyrite. It is slightly magnetic and contains about 5% quartz veinlets.
- CR411963 LOCATION: 100m east of pit #1  
DESCRIPTION: 15% barren quartz veinlets in pink syenite
- CR411964 LOCATION: McChesney Vein Pit #2  
DESCRIPTION: Quartz vein with 20% pyrite, trace chalcopyrite and trace galena
- CR411965 LOCATION: McChesney Vein Pit #2  
DESCRIPTION: White, glassy quartz vein with 2% pyrite and 1% tourmaline
- CR411966 LOCATION: McChesney Vein Pit #2  
DESCRIPTION: Quartz vein with 10% pyrite, 3% galena, and 1% chalcopyrite
- CR411967 LOCATION: McChesney Vein Pit #2  
DESCRIPTION: Quartz vein with 8% pyrite, 2% galena, and trace chalcopyrite



CR411968 LOCATION: McChesney Vein Pit #2  
DESCRIPTION: Pinkish glassy quartz vein with 10% pyrite,  
trace chalcopyrite, and 1% tourmaline

It is clear from this sampling that the gold and silver are associated with the galena. This relationship and the high silver to gold ratios indicate that it is not a typical mesothermal lode gold system.

Good-luck in your continued exploration.

Sincerely,



Rex Brommecker, MSC



# Swastika Laboratories

A Division of TSL / ASSAYERS INC.

Assaying - Consulting - Representation

Established 1928

## Assay Certificate

3W-2591-RA1

Company: WESTMINER CANADA LIMITED

Date: OCT-04-93

Project:

Attn: Rex Brommecker

We hereby certify the following Assay of 9 ROCK samples submitted SEP-29-93 by .

Sample Number	Au g/tonne	Au oz/ton	Au Ck g/tonne	Au Ck oz/ton	Ag g/tonne	Cu %	Pb %	Zn %
CR-411960 ✓	1.17	.034	1.23	.036	27.4	2.55	0.27	0.005
CR-411961 ✓	0.33	.010			11.8	1.76	0.02	0.005
CR-411962	0.01	.001			0.6	0.02	0.01	0.01
CR-411963	0.01	.001			0.1	0.005	0.005	0.005
CR-411964 ✓	0.31	.009			18.8	0.44	0.10	0.005
CR-411965 ✓	0.09	.003			3.1	0.01	0.04	0.005
CR-411966 ✓	2.10	.061	2.37	.069	101.4	0.47	2.05	0.005
CR-411967	3.36	.098	3.22	.094	96.0	0.23	1.49	0.005
CR-411968	1.89	.055			9.2	0.17	0.09	0.005

Certified by

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244

FAX (705) 642-3300



Eastern Canada Exploration Division  
P.O. Bag 2010  
Timmins, Ontario  
P4N 7X7

Tel: (705) 360-1141  
Fax (705) 360-1532

December 13, 1994

Mr. Roger Dufresne and Mr. Denis Chartre  
14 Wright Hargreaves  
Kirkland Lake, Ontario  
P2N 1B2

Dear Roger and Denis:

Please find attached your data package for your Flavelle Twp. property. I have made a copy of this for our files and future reference. We have not had time to digest all of this yet but have received the assay results from our sampling in the field. The highest assay was returned from the area where Denis made the 1' saw cut (ie. 11738 grading .102 opt Au). The other results are mixed as you can see. We would like to have another look at your property in the spring and complete some additional sampling if the property is still available at that time. Thank you again for allowing Royal Oak to review your property. Have a good Christmas and best of luck in '95.

Yours truly,

A handwritten signature in black ink that reads "Paul Coad". The signature is stylized and written in a cursive-like font.

Paul Coad  
Chief Geologist  
Eastern Canada Exploration

cc. R.F. Burns  
R. Pressacco  
file (dufresn.DEC)

Roger Dufresne  
Dennis Chartre  
FLAVELLE Twp  
Machesney Property

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1100

DATE: Nov 24/94

SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DXR 11737	.010	340	chip 15' N of Trench #2	sericitized $\bar{c}$	
2	38	.102	-	x sawed across 1'	ser + silic alt. mafic dx.	1-4% Py tr - 0.5% cp
3	39	.044	1510	ser + silic, yell. alt.	patches of $SiO_2^n$	1-1.5% py
4	40	.002	70	(1') chip across strong shear (060° Az)		1-3% py, 0.5% cp
5	41	.004	135	Grab (12' south of 11740)	pinkish yell. due to hemat + sericite	local mt zite
6	42	.015	515	Grab @ Trench #3	6' S of picket	pinkish-yellow 6.5% v to cp local Qtz + hematite
7	43	.002	70	Grab $\bar{c}$ hematite + sericite	tr cp	trench #4
8	44	.003	105	2nd STOP structure @ 070°	(next to NS diabase dike)	
9	45	.003	105	PIT #1	pinkish mineral (annite/ortho?)	+ Qtz
10	46	.006	205	PIT #1	edge of Qtz Trench vein	1-3% AS 40' east of dike
11	DXR 11747	.001	35	Trench #8 (last stop)	060° Az structure	
12					GW in sericite $\bar{c}$ hornblende	
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

Lab 16 P. COAD

Chief Chemist: 

# Queenston Mining Inc.

111 Richmond Street West, Suite 1116  
Toronto, Ontario, Canada M5H 2G4  
Telephone (416) 364-0001  
Facsimile (416) 364-5098

December 7, 1994

Mr. Roger Dufresne  
14 Wright Hargreaves  
Kirkland Lake, Ontario  
P2N 1B2

Dear Roger and Denis:

**Re: McChesney Patents  
Flavelle Twp., Ontario**

I apologize for taking so long to give our decision on your McChesney Patents.

Due to other commitments at this time, Queenston is not interested in optioning your claims. If you do any more work next year and the property is still available next summer, we would be interested in reviewing your gold prospect.

I collected two samples during my field examination. A copy of the assay results are attached.

As I mentioned to you during my visit, your prospect has some good potential. Geophysical surveys, such as IP and detailed magnetometer would be proposed. The best way to test the Trench # 3 showing would be to drill it. I think you would have problems with surface channel sampling.

I thank you and Denis for showing to me the results of your 1994 prospecting programme. Keep up the good work and good luck in your future exploration efforts.

Best wishes to you and your families for the Christmas and New Year holidays.

Yours truly,



Wayne Benham



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Assay Certificate

4W-2556-RA1

Company: **QUEENSTON MINING INC**  
Project:  
Attn: **W. Benham**

Date: OCT-21-94

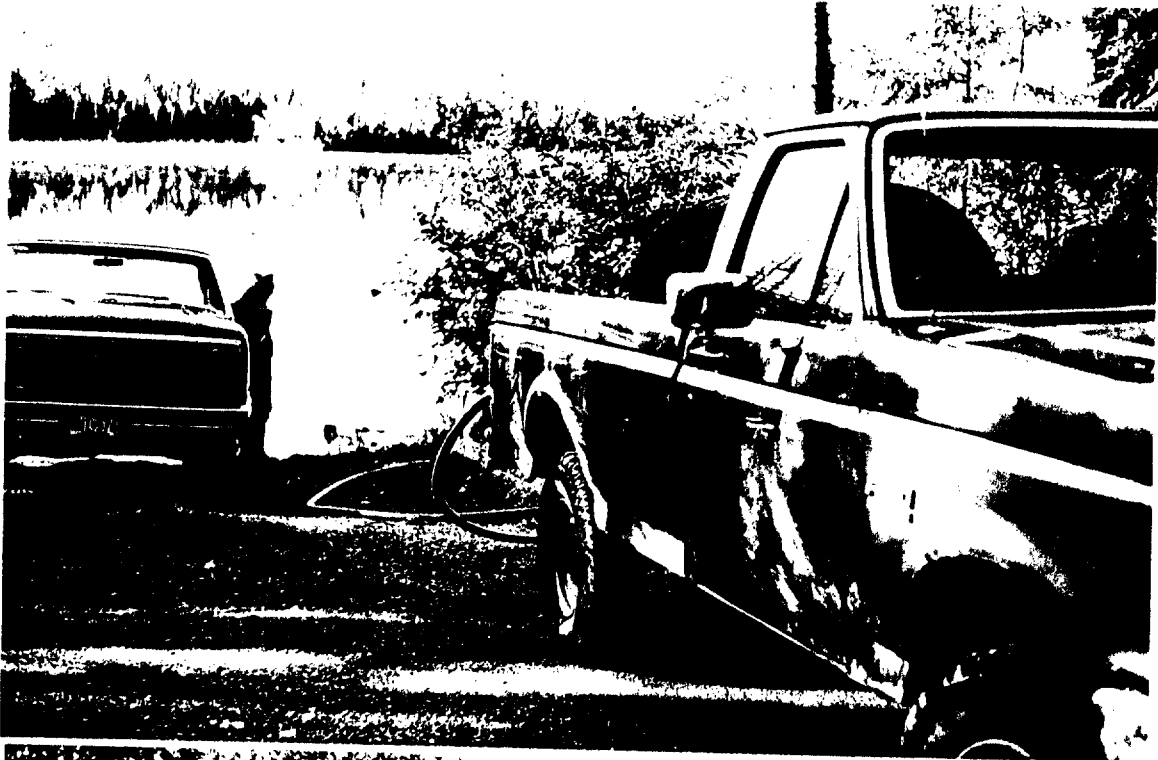
We hereby certify the following Assay of 2 Rock samples submitted OCT-18-94 by .

Sample Number	Au oz/ton	Au Check oz/ton	Location
7061	0.007	0.008	North edge of Trench #3
7062	0.001	-	pyritic sgenite Carbonate zone to South of Trench 3

One assay ton portion used.

Certified by *Denis Chantre*

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300















Ministry of Northern Development and Mines

Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transact DOCUMENT No. W 9580:0000R

Personal information collected on this form is obtained under the authority of the this collection should be directed to the Provincial Manager, Mining Lands, 1 Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.



42A02SE0029 2.15802 FLAVELLE

900

- Instructions: - Please type or print and submit in duplicate. - Refer to the Mining Act and Regulations for Recorder. - A separate copy of this form must be completed for each Work Group. - Technical reports and maps must accompany this form in duplicate. - A sketch, showing the claims the work is assigned to, must accompany this form.

RECEIVED JAN 18 1995 MINING LANDS BRANCH

Recorded Holder(s): ROGER DUFRESNE 14 Wright-Hargreaves Kirland Lake, Ontario P2N 1B2. Client No. 127749. Telephone No. 567-3725. Mining Division LARDER LAKE Township/Area FLAVELLE TWP. Dates Work Performed From: APRIL 1, 1994 To: DEC 31, 1994

Work Performed (Check One Work Group Only)

Table with columns Work Group and Type. Rows include: Geotechnical-Survey (PROSPECTING PROGRAM), Physical Work, Including Drilling (SERVICES EXPLORATION \$1712.00 P. 60), Other Authorized Work, Assays (SWASTIKA LAB P.48 1605.02), Assignment from Reserve.

Total Assessment Work Claimed on the Attached Statement of Costs \$ 3317.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Table with columns Name and Address. Rows include: SWASTIKA LAB SWASTIKA, ONTARIO; SERVICES EXPLORATION ROLYN NORANDA, QUEBEC.

(attach a schedule if necessary)

Certification of Beneficial Interest - See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder. Date 09/01/95 Recorded Holder or Agent (Signature) Roger Dufresne

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: ROGER DUFRESNE 14 Wright-Hargreaves Kirland Lake, Ontario P2N 1B2. Telephone No. 567-3725 Date 09/01/95 (Certifying) (Signature) Roger Dufresne

For Office Use Only

Total Value Cr. Recorded \$ 3317. Date Recorded Jan 10/95. Mining Recorder [Signature] Date Approved [Signature]. Received Stamp: 10 JAN 16 PM 12 30



**Statement of Costs for Assessment Credit**

**État des coûts aux fins du crédit d'évaluation**

Mining Act/Loi sur les mines **31 1995**

GAD

Please add to Report sent to you

DOCUMENT NO. 9580-00008

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CARDER LAKE  
MINING DIVISION

2.15802

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

**1. Direct Costs/Coûts directs**

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type PROSPECTING PROGRAM SERVICES EXPANSION	1,712.00	
	SWASTIKA LAB	1605.02	
			3317.02
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			3317.02

**2. Indirect Costs/Coûts indirects**

\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démoblisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excedant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			

RECEIVED  
FEB 3 - 1995  
MINING LANDS BRANCH

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

**Filing Discounts**

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

**Remises pour dépôt**

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

**Certification Verifying Statement of Costs**

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form. ROGER DUFRESNE  
that as Roger Dufresne (Recorded Holder, Agent, Position in Company) I am authorized **RECORDED HOLDER** to make this certification

**Attestation de l'état des coûts**

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.  
Et qu'à titre de \_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie) à faire cette attestation.

Signature Roger Dufresne Date JAN. 31, 1995

**Statement of Costs  
for Assessment Credit**

Transaction DOCUMENT NO. 9580-00008

**État des coûts aux fins  
du crédit d'évaluation**

RECEIVED  
CARDER LAKE  
MINING DIVISION

2.15802

Nord

Mining Act/Loi sur les mines

Information obtained on this form is used to maintain a record and mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

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**1. Direct Costs/Coûts directs**

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type PROSPECTING PROGRAM SERVICES EXPANSION	17,200	
	SWASTIKA LAB	1605.02	
			3317.02
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
<b>Total Direct Costs Total des coûts directs</b>			<b>3317.02</b>

**2. Indirect Costs/Coûts indirects**

\*\* Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
<b>Sub Total of Indirect Costs Total partiel des coûts indirects</b>			
<b>Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)</b>			
<b>Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)</b>		<b>Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)</b>	

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

**Filing Discounts**

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2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	× 0.50 =

**Remises pour dépôt**

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
	× 0,50 =

**Certification Verifying Statement of Costs**

I hereby certify:  
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form. **ROGER DUFRESNE**  
that as **Roger Dufresne** I am authorized  
(Recorded Holder, Agent, Position in Company)  
**RECORDED HOLDER**  
to make this certification

**Attestation de l'état des coûts**

J'atteste par la présente :  
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.  
Et qu'à titre de \_\_\_\_\_ je suis autorisé  
(titulaire enregistré, représentant, poste occupé dans la compagnie)  
à faire cette attestation.

Signature **Roger Dufresne** Date **JAN. 31, 1993**

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Geoscience Approvals Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (705) 670-5853  
Fax: (705) 670-5863

February 24, 1995

Our File: 2.15802  
Transaction #: W9580.00008

Mining Recorder  
Ministry of Northern Development & Mines  
4 Government Road East  
Kirkland Lake, Ontario  
P2N 1A2

Dear Mr. Spooner:

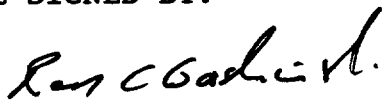
**Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS  
MR16939 et al. IN FAVELLE TOWNSHIP**

Assessment work credits have been approved as outlined on the report of work form. The credits have been approved under Section 9 (Prospecting), and Section 17 (Assays) of the Mining Act Regulations.


The approval date is February 23, 1995.

If you have any questions regarding this correspondence, please contact Steven Beneteau at (705) 670-5858.

ORIGINAL SIGNED BY:



Ron C. Gashinski  
Senior Manager, Mining Lands Section  
Mining and Land Management Branch  
Mines and Minerals Division

 SBB/jl  
Enclosure:

cc: Resident Geologist  
Kirkland Lake, Ontario

Assessment Files Library  
Sudbury, Ontario



**NOTES**

400' surface rights reservation along the shores of all lakes and rivers.

The subdivision of this Township into lots and concessions is partially annulled. December 3rd 1963

- ① M.T.C. GRAVEL PIT 203.
- ② M.T.C. PIT 1394.

- (H) SURFACE AND MINING RIGHTS WITHDRAWN FROM STAKING. SECTION 36/80 ORDER NO. W93/84, 8/6/1984.
- (S) SURFACE RIGHTS WITHDRAWN FROM STAKING. SECTION 31(B) AUGUST 13, 1987.

**NOTICE OF FORESTRY ACTIVITY**

THIS TOWNSHIP / AREA FALLS WITHIN THE P.O.R. MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P. O. BOX 129 SWASTIKA, ONTARIO P0K 1T0 (705)642-3222

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

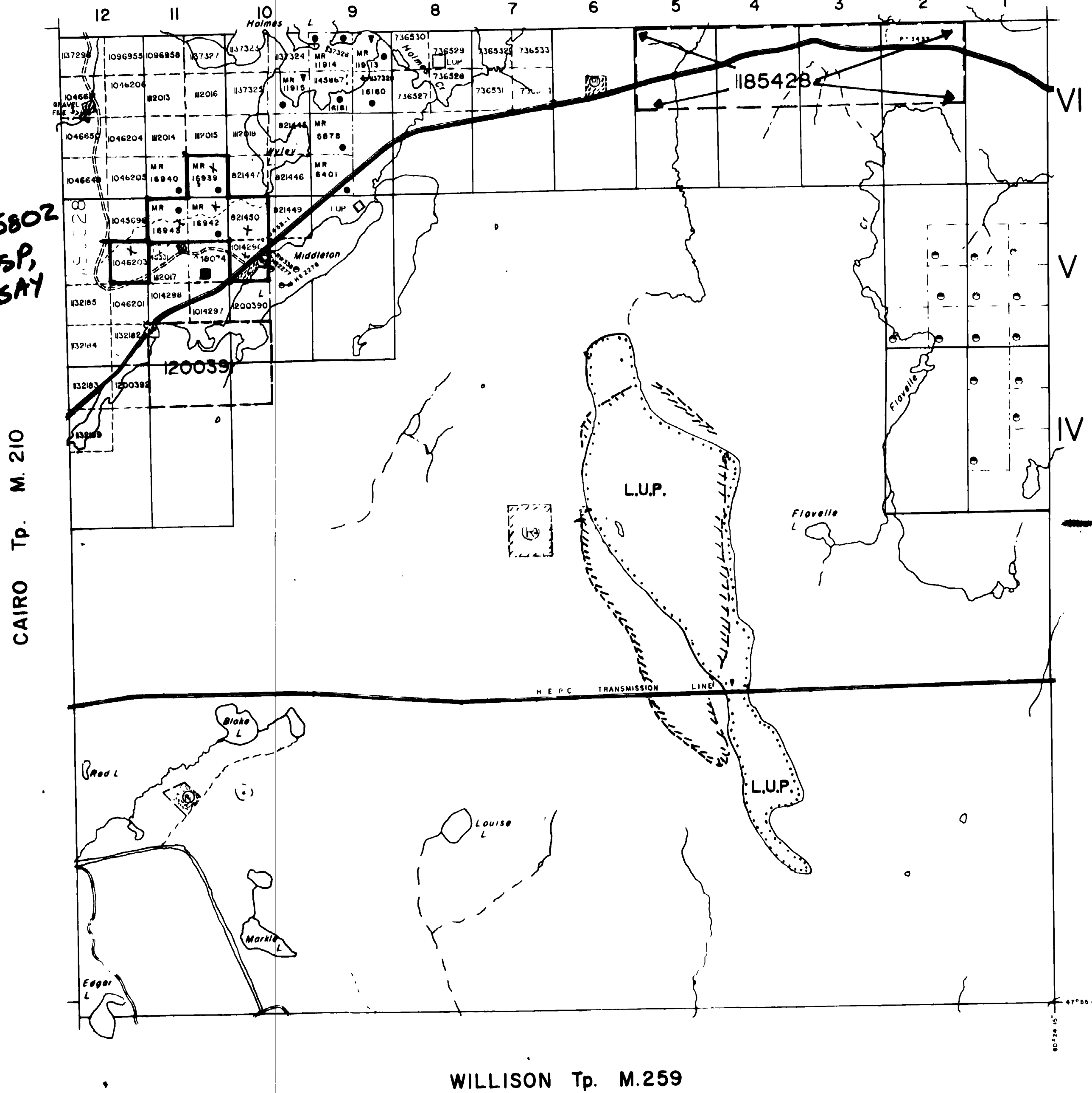
DATE OF ISSUE

JAN 12 1995

LARDER LAKE

MINING RECORDER'S OFFICE

HOLMES Tp. M. 224



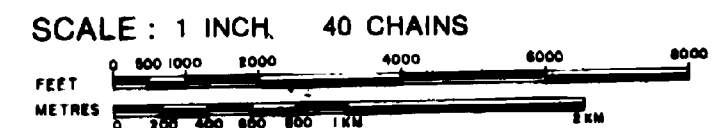
**LEGEND**

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES. TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES. LOT LINES.
- PARCEL BOUNDARY. MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY. UTILITY LINES.
- NON-PERENNIAL STREAM. FLOODING OR FLOODING RIGHTS.
- SUBDIVISION. ORIGINAL SHORELINE. MARSH OR MUSKEG. MINES.

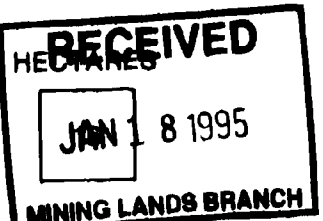
**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	○
MINING RIGHTS ONLY	◐
LEASE. SURFACE & MINING RIGHTS	■
SURFACE RIGHTS ONLY	◼
MINING RIGHTS ONLY	◻
LICENCE OF OCCUPATION	▼
CROWN LAND SALE	CS
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊗
SAND & GRAVEL	⊘

**2.15802**



ACRES  
40



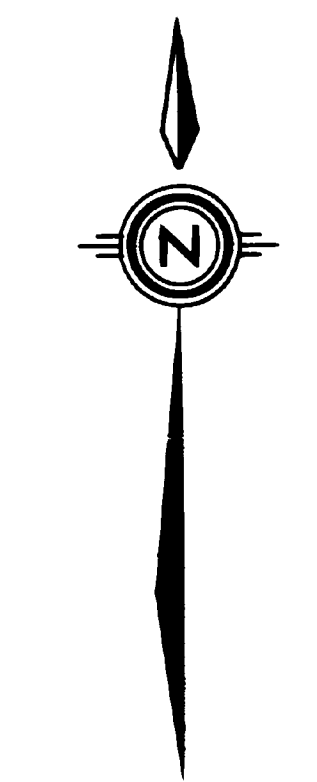
TOWNSHIP  
**FLAVELLE**  
DISTRICT  
TIMISKAMING  
MINING DIVISION  
LARDER LAKE

Ministry of Natural Resources  
Ontario Surveys and Mapping Branch

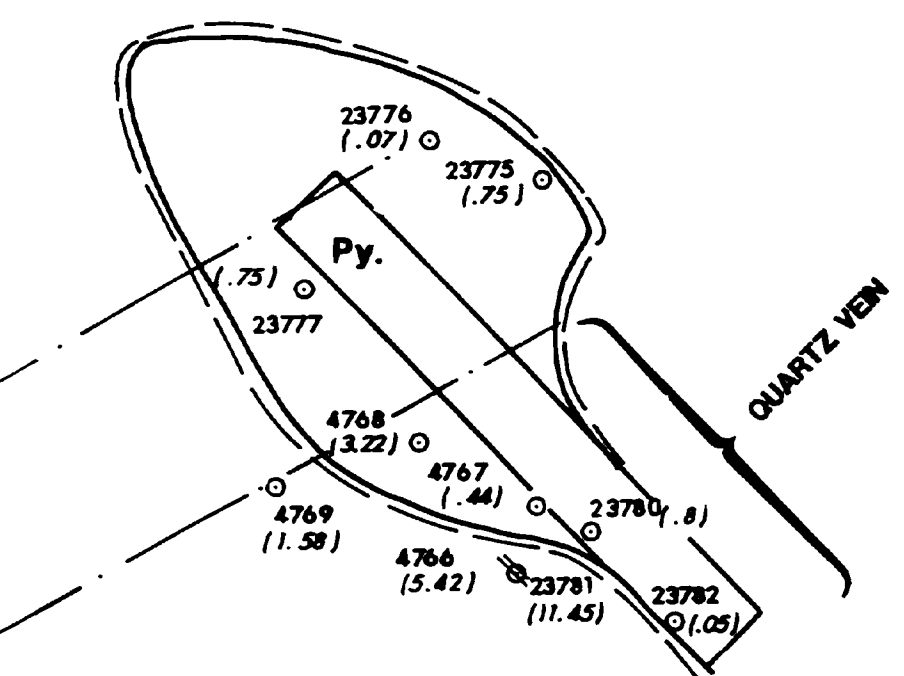
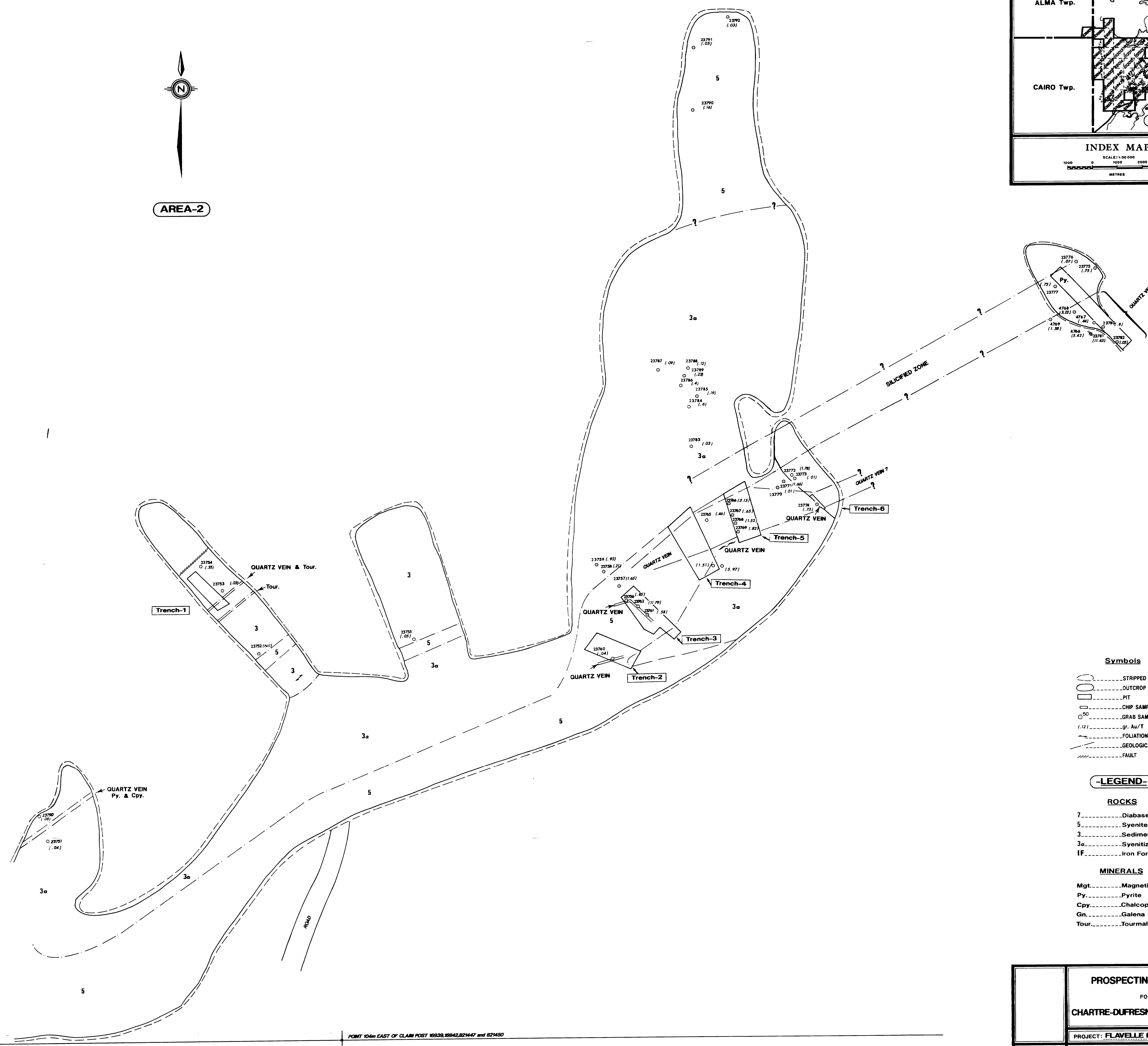
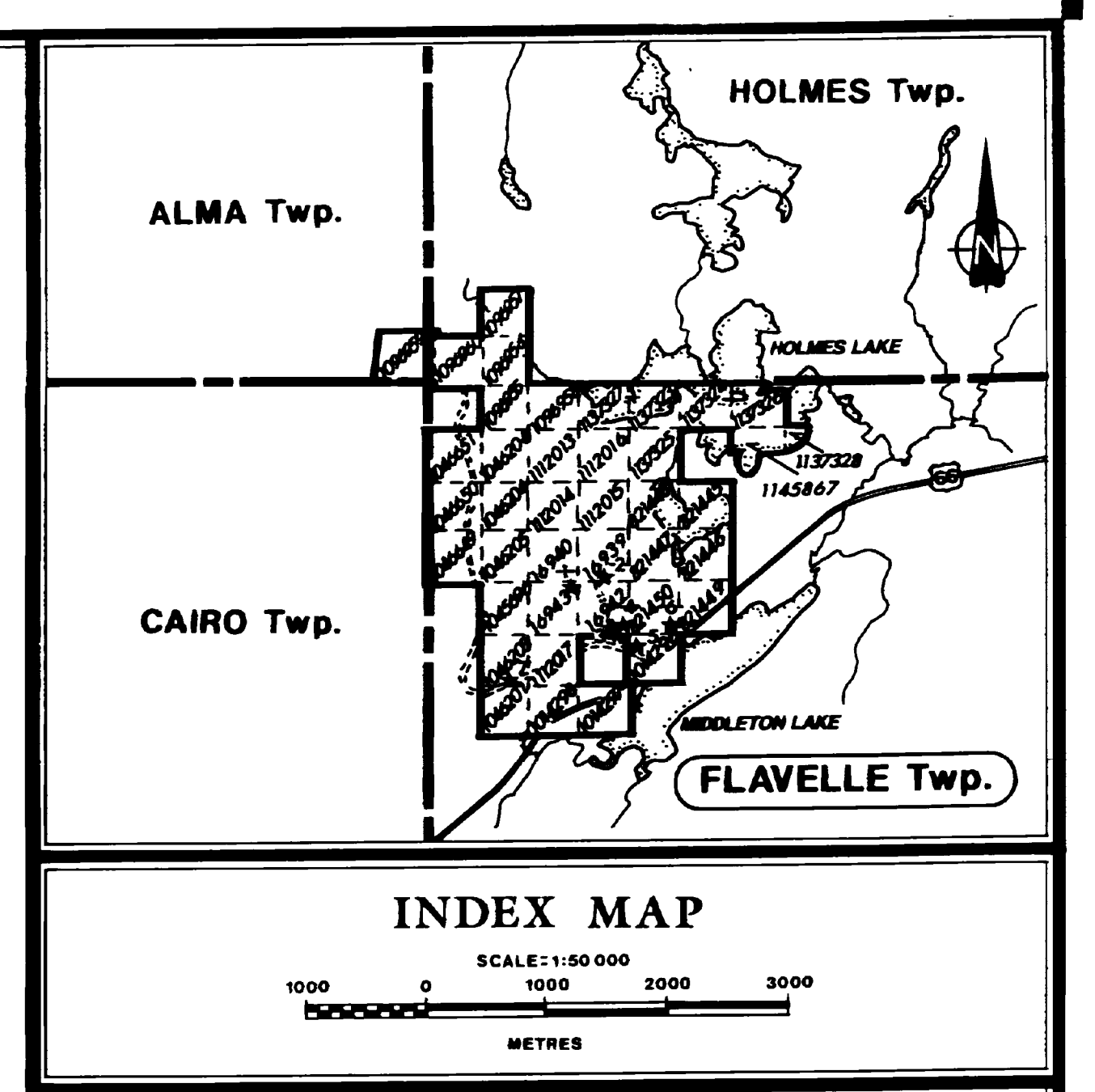
Date Feb '73 Plan No. M. 220  
Whitney Block Queen's Park, Toronto

(CIRCULATED OCTOBER 10, 1994)





AREA-2



- Symbols**
- STRIPPED AREA
  - OUTCROP
  - PIT
  - CHIP SAMPLE
  - GRAB SAMPLE
  - gr. Au/T
  - FOLIATION
  - GEOLOGICAL CONTACT
  - FAULT

**-LEGEND-** 2.15002

- ROCKS**
- 7.....Diabase
  - 5.....Syenite
  - 3.....Sediments
  - 3e.....Syenitized Sediments
  - IF.....Iron Formation
- MINERALS**
- Mgt.....Magnetite
  - Py.....Pyrite
  - Cpy.....Chalcopyrite
  - Gn.....Galena
  - Tour.....Tourmaline

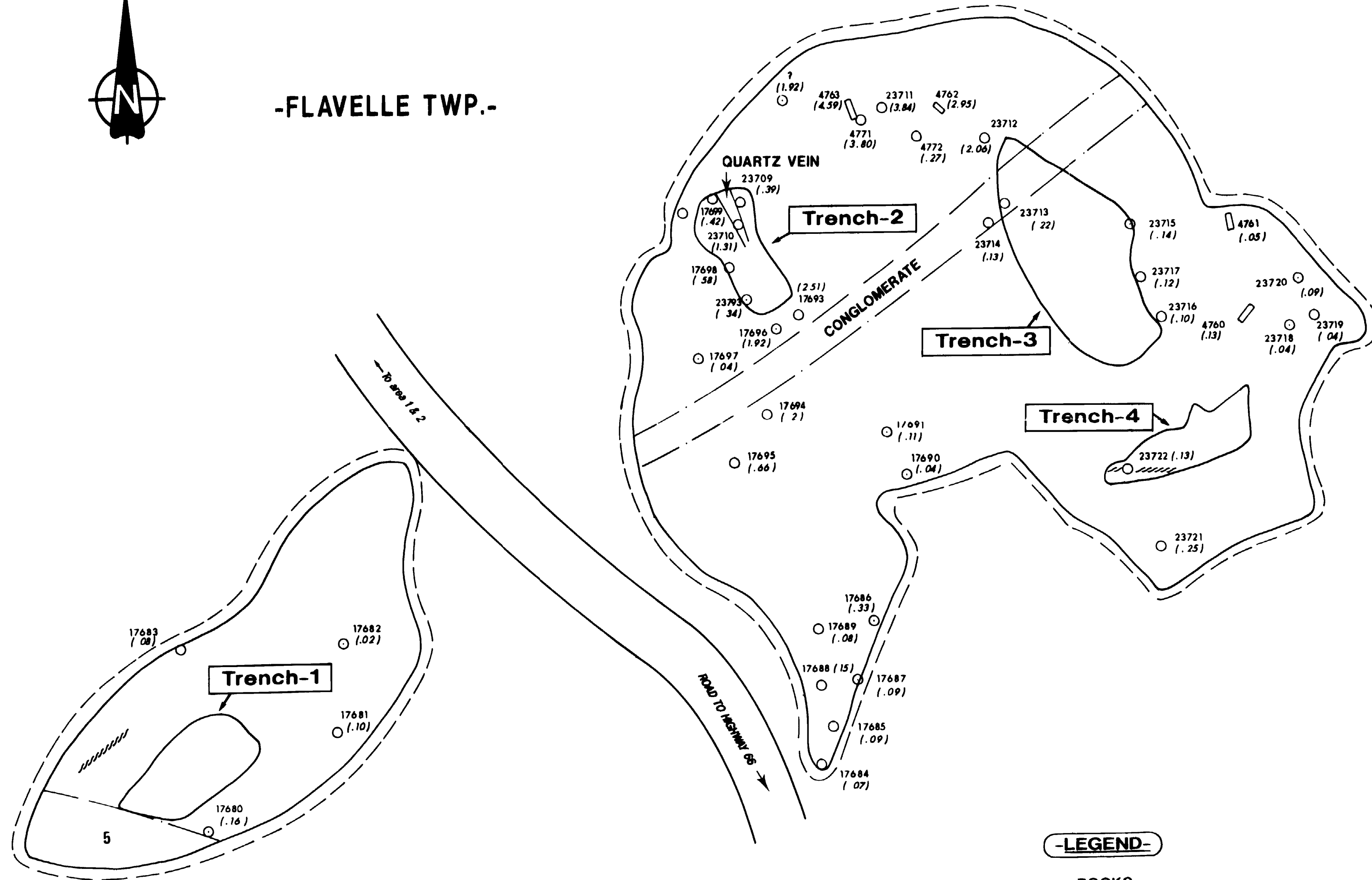
RECEIVED  
JAN 18 1995  
MINING DIV. BRANCH

POINT 104m EAST OF CLAIM POST 18933, 18942, 821447 and 821450

<b>PROSPECTING PROGRAM</b>	
FOR	
<b>CHARTRE-DUFRESNE OPAP PROJECT</b>	
PROJECT: <b>FLAVELLE PROPERTY (AREA-2)</b>	
Instrument:	SURVEYED BY: <b>E. CHARTRE</b> DATE: <b>NOV. 94</b>
TWP: <b>FLAVELLE</b>	DRAWN BY: <b>S. SIGOURN</b> SCALE: <b>1:100</b>
	SERVICES EXPLORATION SERVICES ENRG. REGD.



-FLAVELLE TWP.-

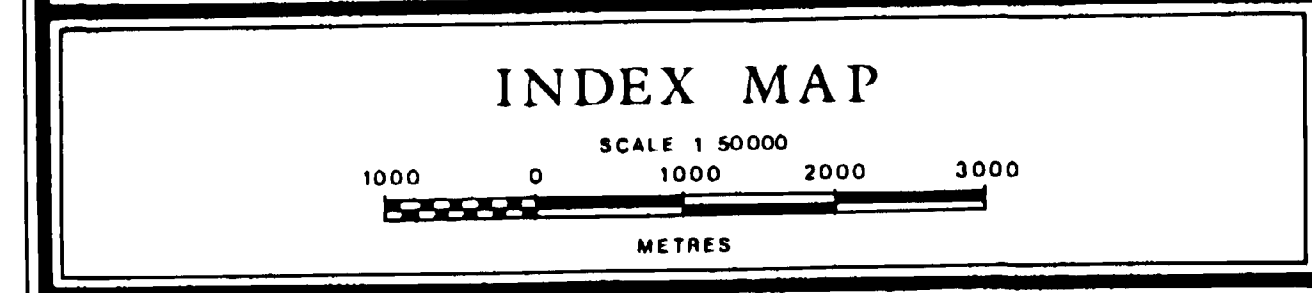
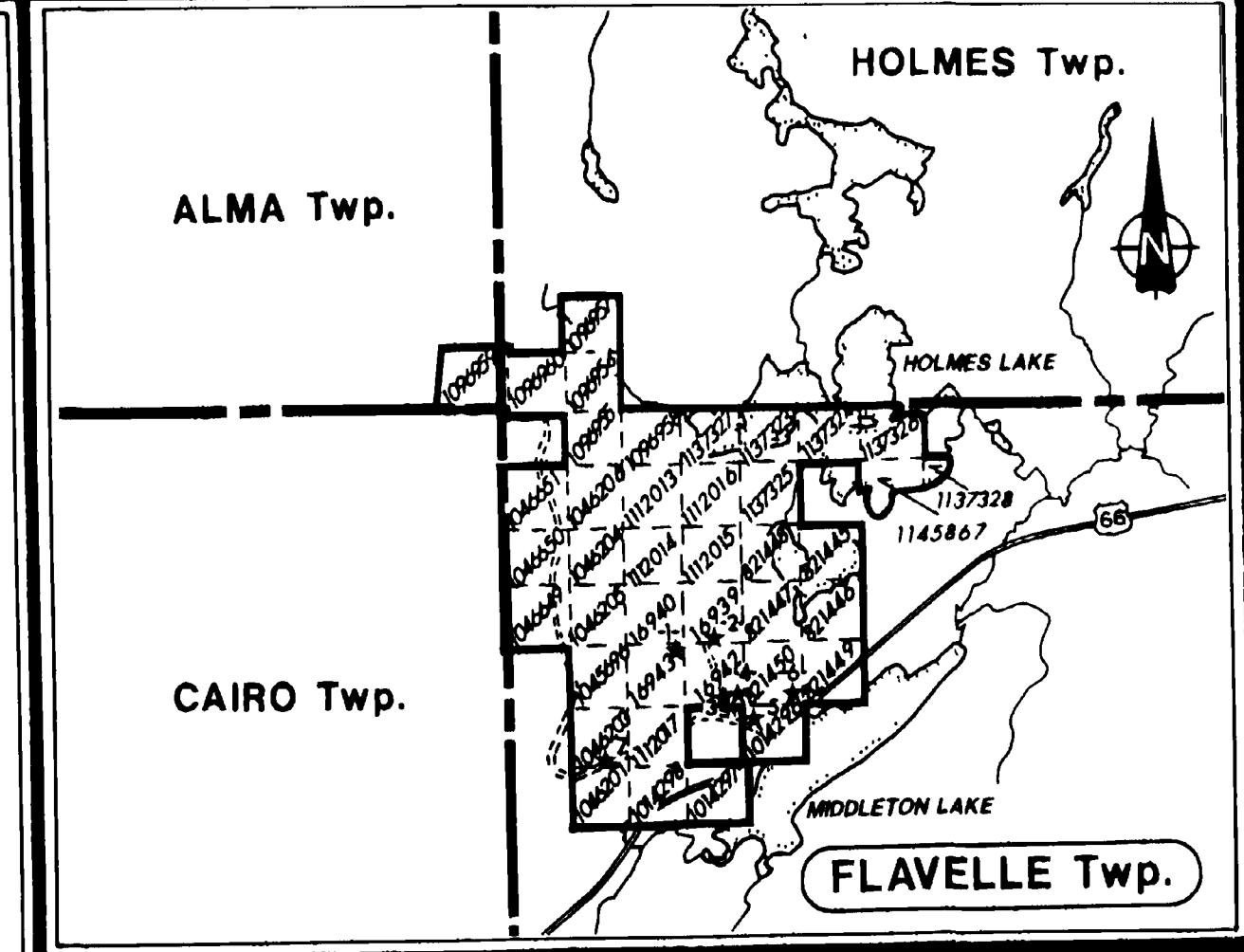


- Symbols**
- STRIPPED AREA
  - OUTCROP
  - PIT
  - CHIP SAMPLE
  - GRAB SAMPLE
  - gr Au/T
  - FOLIATION
  - GEOLOGICAL CONTACT
  - FAULT

**-LEGEND-**

- ROCKS**
- 7.....Diabase
  - 5.....Syenite
  - 3.....Sediments
  - 3a.....Syenitized Sediments
  - IF.....Iron Formation

- MINERALS**
- Mgt.....Magnetite
  - Py.....Pyrite
  - Cpy.....Chalcopyrite
  - Gn.....Galena
  - Tour.....Tourmaline



2.15802

**AREA-3**

RECEIVED  
JAN 18 1995

**PROSPECTING PROGRAM**

FOR

**CHARTRE-DUFRESNE OPAP PROJECT**

PROJECT: **FLAVELLE PROPERTY AREA-3**

Instrument:

SURVEYED BY: E. CHARTRE DATE: NOV. 24  
DRAWN BY: S. SIGOUIN SCALE: 1:100

TWP FLAVELLE

SERVICES EXPLORATION SERVICES ENRG. REGD.

