

Juite 907 - 110 Erskine Avenue Toronto, Ontario, Canada M4P 1Y4



(416) 481-5781

REPORT ON GEOLOGICAL AND GEOPHYSICAL

**SURVEYS** 

ON THE

HASSET LAKE PROPERTY

OF ROY ANNETT

IN

MACMURCHY AND FAWCETT TOWNSHIPS
LARDER LAKE MINING DIVISION
SHINING TREE AREA
ONTARIO

NTS 41 P 11

September 1991 Shining Tree, Ontario J. L. Tindale Geologist

63,2846





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## MAPS

Location Map, Hasset Lake Claims	1:20000	Figure No. 1
VLF-EM Survey Hasset Lake Area	1"=200'	Back Folder
Geological Survey Hasset Lake Area	1"=200'	Back Folder
Magnetometer Survey Hasset Lake Area	1"=200'	Back Folder

#### INTRODUCTION

The mining property described in the following is registered in the name of Roy Annett, a prospector, residing in Shining Tree, Ontario POM 2XO. During the summer of 1991 explorations by Fort Knox Gold encountered interesting base and precious metal values on the adjoining property to the south Encouraged by this activity it was decided to pursue a systematic evaluation of Annett's claims, known as the Hasset Lake Property, by establishing a grid and carrying out a program of geological mapping and geophysical surveying. Results of this work are described in the following.

#### CLAIMS, LOCATION, ACCESS

The Hasset Lake Property consists of ten contiguous unpatented mining claims partially bounded on the east by the West Montreal River and on the west by the near shore of Foisey Lake. The boundary between Macmurchy and Fawcett Townships passes through the southern third of the property, bisecting Hasset Lake.

Claim numbers are listed as follows: 1146614-616 incl. (3)

1146624-627 incl. (4)

1180358 (1)

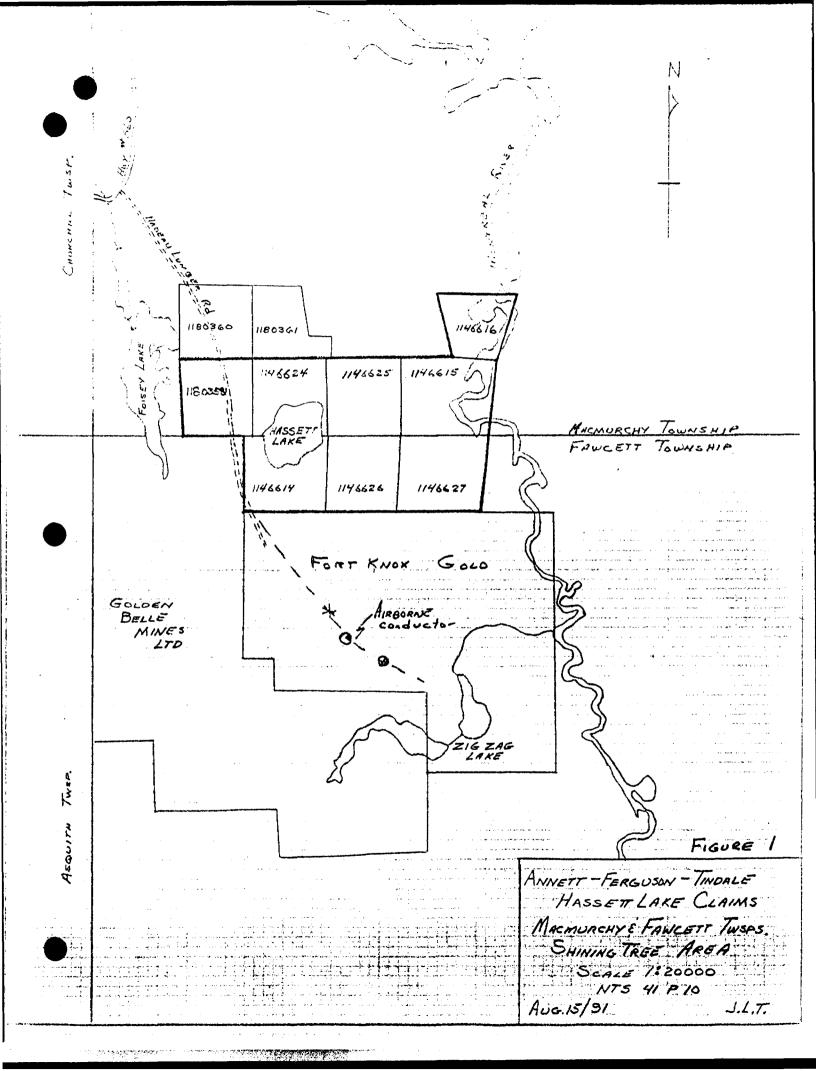
1180360-361 incl. (2)

Access is provided by the Nadeau Lumber Co. road which swings south from Hwy. #560 approximately 5 miles east of Shining Tree village. The Nadeau road crosses the westerly claims in the group. The property has been actively harvested over the past two years leaving large sections of the claims clear cut with a poorly preserved system of haulroads giving further access.

Much of the property east of Hasset Lake is swamp covered with the bulk of the outcrop exposures occurring to the north and west. Soil cover is relatively light.

#### SURVEY CONTROL

Referencing M. W. Carter's Geology of Fawcett and Leonard Townships (GR 146) and consulting with Fort Knox geologist Doug



Hunter it was determined the regional strike of rocks in the area was approximately  $120^{\circ}$ . With this in mind a base line was cut and picketed at 100 foot intervals at a strike of  $120^{\circ}$  starting at the No. 1 post of Claim 1180358 (the Hub) and extending southeasterly to the West Montreal River, a distance of 4,000 feet.

From this base line control flagged lines were chained at 100 foot intervals and turned off every 400 feet at a bearing of  $210^{\circ}$ . West of the Hub the north boundary of Claim 1180358 was chained and flagged at 100 foot intervals and lines turned off at  $210^{\circ}$  every 400 feet along the line to complete coverage of the property.

Total grid coverage is 6.4 miles. Cutting, flagging, chaining and survey control was carried out by Roy Annett and the writer during August-September 1991.

#### GENERAL GEOLOGY

The Shining Tree area is underlain by early Precambrian rocks of the Lower Tisdale Volcanic Series, which are typically comprised of a suite of ultramafic, mafic to felsic metavolcanic and metasedimentary rocks. Intermediate to felsic intrusive rocks are also evident throughout the volcanic sequence, which is commonly cut by north-northwest trending Nipissing-type dykes of the Middle Precambrian age.

The metavolcanic-metasedimentary sequence is tightly folded along gently sinuous NNW-trending axes which trend roughly at  ${\rm N30}^{\rm O}{\rm W}$ . The rocks have been subjected to middle to upper greenschist metamorphism.

#### PROPERTY GEOLOGY

The writer mapped the property during September of 1991. The following table of formation lists the units found on the property in their stratigraphic sequence.

# Table 1: Lithologic Units for Macmurchy and Fawcett Townships

Pleistocene and Recent

Sand, gravel, swamp and alluvial deposits Precambrian

Early to Late Precambrian

Matachewan and quartz diabase dykes

Intrusive Contact

Nipissing Diabase sills and outliers

Early Precambrian (Archean)

Felsic Intrusive Rocks

Granodiorite, porphyry

Ultramafic Intrusive Rocks

Talc schist, serpentinized dunite, gabbro

Intrusive Contact

Metasediments

Greywache, chert

Felsic Metavolcanics

Tuff, lapillituff, aphanitic, quartz-sericite schist

Intermediate Metavolcanics

Aphanitic, pillowed, tuff, amygduloidal, quartz-eye tuff, carbonatized

Mafic Metavolcanics

Basalt, pillowed flows, foliated, amygduloidal and porphyritic flows, amphibolite, calc-alkalic flows

The property has bedrock outcrop exposed over approximately 20% of the claims, about double the normal for Precambrian terrain. This is due to a large portion of the area having recently been clear cut by timber harvesters.

A series of NW striking, approximately 120°, mafic and intermediate metavolcanics underlay the property which are interbedded with minor interflow sedimentary, felsic volcanic and ultramafic units. Relatively fresh outliers of Nipissing diabase occur along the southern boundary and diabase dykes which strike NNW cut all formations.

Mafic volcanics underlay most of the property occupying the southern two-thirds area wise. These rocks are usually green to dark green to black, relatively unaltered, often massive, sometimes pillowed and exhibiting phenocrysts of white feldspar. Where massive and black and fine grained they are mapped as basalts. Well formed pillows with strong selveges are present though tops were indefinite. The mafic volcanics have a gabbrois texture in part and are in these cases medium to coarse grained but grade vertically to finer grained basaltic composition with no evidence of chilled contacts. Amphibole rich units are similarly pictured.

The mafic units are occassionally well foliated usually at 120° and therefore parallel to the regional strike. Shearing and carbonatization is rare in these units on the property.

Occupying the north and northeastern section of the property are intermediate volcanics which are invariably pale green to grey coloured, fine grained and usually aphanitic. Tuffaceous units were recognized as quartz-eye or lapilli tuffs rarely. Biotite as isolated grains aligned parallel to remnant bedding was fairly common in the tuffaceous units. Carbonate rich units were noted near the north boundary on lines 0 to 12E often accompanied by quartz veining, heavy shearing and up to 2% pyrite mineralization. Gold mineralization appears to favour this unit on the property.

Black interflow sedimentary units were noted at two locations on the property, namely crossing the Nadeau Road at 5W, 4S and crossing the ATV haulroad at 6W, 5N. These units appear to be 10 to 20' thick, vertically dipping, strike at 120° and are thin interbeds of carbon rich greywache, basalt and chert with up to 5% pyrite along the bedding planes and disseminated within the bands. Sampling of these units have so far yielded low base and precious metal values.

Felsic volcanics are rare on the property. A 30 foot wide band of quartz-sericite schist occupies the south contact of the interflow band mentioned above on the Nadeau road. Felsic lapilli tuff was noted at the north end of line 4E. The quartz-sericite schist is noteworthy for a proliferation of white quartz veinlets with abnormal tourmaline content.

Ultramafic rocks are present as talc schists crossing line 12E at 4n and at 9W at 7N. We blasted into both of these units due to the carbonate alteration accompanying the occurances. Pyrite is rare and gold values negligible.

Less altered ultramafic outcrops occur in the south western sector of the property. These are coarse grained, green units exhibiting a nobly weathering appearance.

Diabase is present as north westerly striking dykes and as remnants of the Nipissing sill. These are late stage events of little economic significance.

#### MAGNETOMETER SURVEY

A magnetic survey of the grid was completed in September 1991 utilizing a GSM-18 Proton Precision Magnetometer which automatically measures the absolute value of the earth's magnetic field to a resolution within 0.1 gamma. The survey was completed using the baseline-loop method which allows for correction of the data for diurnal variation. Sample readings were taken at each station

along the grid lines as well as along the baseline. A base magnetic value of 58,000 gammas was used for the duration of the survey. Roy Annett of Shining Tree operated the unit which was rented from ACA Howe International Ltd. of Toronto.

The magnetic features are distinguished by a marked enbayment along the north boundary from line 5W to line 16E. This area is underlain by pale green intermediate tuffaceous units, decidedly more acidic in character than the mafic units to the south which may explain the change in magnetic character.

A series of high readings in the northwest quarter of the property is interpreted as a diabasin dyke from geological information.

A set of elevated readings along the baseline from line 0 to 8E is possibly due to an iron-rich unit though outcrop confirmation is lacking in this area of low ground.

Lastly a series of elevated NW trending values east of Hasset Lake probably indicates the presence of a diabase dyke.

#### ELECTROMAGNETIC SURVEY

A Crone Radem VLF EM unit was operated by Kenneth Johnson, a geologist, to complete coverage of the grid during September 1991, utilizing a transmitting station in Cutler, Maine (TxNAA; 24.0 KHz). The Radem is a rugged one man EM unit which is capable of measuring the field strength, dip angle and quadiature components of the VLF communications station. The dip angle is measured in degrees of the magnetic field component, from the horizontal, of the major axis of the polarization ellipse. This measurement is selected by a minimum reading on the field strength meter and is read from an inclinometer which is accurate to ½°. The field strength component of the VLF field (amplitude of the long axis of the polarization ellipse), and is measured as a percent of the normal field strength established at a local base station. This unit was also rented from ACA HoweInternational Ltd.

The VLF survey picked up two strong conductors and two weaker features which are noteworthy. The prime conductor stretches in a NW direction across the north ends of line 0 and 4E and lies adjacent to a strongly carbonate-rich felsic to intermediate tuffaceous unit, a potential gold bearing horizon. Of secondary importance though of considerable strength is a conductive zone along the southern claim boundary from 36E to 24E. This is a swamp covered area.

Lesser strength anomolies exist crossing lines 28E to 20E at 5S which again is swamp covered and may be due to conducive overburden but may be worth some test work. Lastly is a weak zone starting at the western shore of Hasset Lake and extending northwesterly for about 1,000 feet. This may mirror an interflow sedimentary band which carries considerable sulphide (pyrite) and chert and low gold and base metal values. Prospecting and sampling of this zone is warranted.

There are a number of isolated single line weak anomolous zones on the property which the writer feels are not worthy of comment.

# CONCLUSIONS & RECOMMENDATIONS

The geology and geophysical results have turned up a number of areas worthy of further exploratory work. The talc-felsic-carbonate-pyrite sequence which crosses L12E at 4N carries anomolous gold values and requires stripping and sampling to work out the lateral extent and grade. The VLF anomoly in conjunction with the carbonate-rich tuffaceous horizon along the north boundary (L0 to L4E) is deserving of prospecting, trenching and sampling to determine cause and significance. The coincident VLF and interflow band striking NW from Hasset Lake is worth detailed prospecting and sampling to map out the lateral extent. Lastly the talc schist horizon - interflow sequence along the trail between 7 + 75W and 5W requires follow-up trenching and sampling across the interval between these units.

As a final conclusion, the property contains a promising package of rock units, alteration and conductors and could host a significant gold occurrence. Further exploration is definitely warranted to bring the known areas of interest to the drill target stage.

Respectfully submitted,
J. L. TINDALE & ASSOCIATES INC.

Shining Tree, Ontario September 1991 J. L. Tindale, P. Eng. Geologist

#### **BIBLIOGRAPHY**

Carter, N. W.

1977a Geology of Fawcett and Leonard Townships, Ontario Division of Mines, GR146.

1977b Geology of Macmurchy and Tyrrell Townships, Ontario Division of Mines, GR152.

Karvinen, W. O.

1985 Geology and Evolution of Gold Deposits, Timmins Area, Archean Gold Symposium; OGS Special Report.

Valliant, R. I.

1988 The Bousquet Pyritic Gold Deposit, Bousquet Region, Quebec; Geology of Canadian Gold Deposits; CIMM Publication.

#### CERTIFICATE OF QUALIFICATIONS

- I, John Laverne Tindale, of 110 Erskine Avenue, Toronto, Ontario do hereby certify:
- 1. That I am a 1956 graduate of McMaster University, with a B. Sc. in Honours Geology;
- 2. That I have been a practicing geologist for 35 years;
- 3. That I have worked in the Shining Tree area for the past four years;
- 4. That I personally mapped the property at a scale of 1" to 200' and supervised and assisted with grid layout and geophysical survey.

Certified True and Correct

Tindel 632846

September 1991 Shining Tree, Ontario J. L. Tindale, P. Eng. Geologist

# J.L. TINDALE & ASSOCIATES INC.

rite 907 - IIO Erskine Avenue onto, Ontario, Canada M4P IY4

Telephone (416) 481-5781

September 21, 1991

## EXPENSE REPORT - HASSET LAKE PROPERTY

1.	Linec	utting		6.4 mi.	@ \$350/mi.	\$2,240.00	
2.	Magne	tometer Su	rvey	6.4 mi.	@ \$150/mi.	960.00	
3.	Radem	VLF-EM Su	rvey	6.4 mi.	@ \$150/mi.	960.00	
4.	Geolo	gical Mapp	ing				
	_	, Plot, Dr eport	aughting	8 days	@ \$350/day	2,800.00	6960
5.	Expen	ses:				**************************************	*****
	a )	Accommoda	tions - Sprud	ce Shilli	ng Lodge	502.80	
	b)	Food & Su	pplies			548.82	
	c)	Transport	ation 1	1580 km.	@ \$.30/km.	474.00	
	d)	Rentals:	ATV	8 days	@ \$25/day	200.00	
			4 x 4 truck	7 days	@ \$30/day	210.00	
			TOTAI	L EXPENSE	S	\$8,895.62	

Certifiel correct

D. L. Timbelo P. Ens.

Geolosis T





1P11SE0007 2.14343 MACMURCHY

Ministry of Northern Development and Mines Ministère du Développement du Nord et des Mines

Mining Lands Branch Geoscience Approvals Section 159 Cedar Street, 4th Floor Sudbury, Ontario P3E 6A5

Toll Free: Telephone:

1-800-465-3880

Fay.

(705) 670-7264 (705) 670-7262

January 24, 1992

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

Our File: 2.14343

Transaction #: W9180.05042

Dear Sir/Madam:

SUBJECT: APPROV

APPROVAL OF ASSESSMENT WORK ON MINING CLAIMS L. 1146614 ET AL IN MACMURCHY AND FAWCETT TOWNSHIPS.

The assessment work credits for the Geological and Geophysical (Magnetic and Electromagnetic) surveys have been approved as outlined in the attached assessment work credit form on January 22, 1992.

Please indicate on your records.

Yours sincerely,

Ron C. Gashinski

Senior Manager, Mining Lands Branch

Mines and Minerals Division

cc: Assessment Files Office Toronto, Ontario

Resident Geologist Cobalt, Ontario

## ASSESSMENT WORK CREDIT FORM

FILE NUMBER: 2.14343

DATE: January 24, 1992

RECORDER'S REPORT NUMBER: W. 9180. 05042

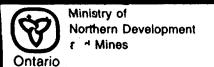
RECORDED HOLDER: ROY ANNETT

CLIENT NUMBER: 102630

TOWNSHIP OR AREA: MACMURCHY AND FAWCETT TOWNSHIPS

CLAIM NO.	VALUE OF WORK DONE ON THIS CLAIM	VALUE APPLIED TO THIS CLAIM	VALUE ASSIGNED FROM THIS CLAIM
L1180358	\$ 1322.00	\$ 1000.00	\$ 322.00
1146624	1322.00	1495.00	0.00
1146625	1592.00	1000.00	592.00
1146626	1457.00	1000.00	457.00
1146627	781.00	1000.00	0.00
1146614	105.00	1400.00	0.00
1146615	240.00	135. 36	104.64
1146616	211. 36	0.00	211.36

\$7,030.36



# **Report of Work Conducted** After Recording Claim

DOCUMENT No. W9180 · 05042

Mining Act

Personal inform collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

0241 (03/91)

- Instructions: Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
  - A separate copy of this form must be completed for each Work Group.

	claims the work is assigned to, must accompar	ny this form.	
Recorded Holder(s)  Roy Ana	/ CF 77-	Client No. /02 6 30	
Address		Telephone No.	
SHINING TREE	ONTARIO POM ZXO	705 - 263 - 2054 M or G Plan No.	
LARDER LAKE	MACMURCHY FAWCETT	G-988 /G-97/	
Dates		20/91	
Vork Performed (Check One Work Gr			
Work Group	Туре		
	ICAL MAGNETOMETER	PROEM - VLF	
Physical Work, Including Drilling			
Rehabilitation		RECEIVED	
Other Authorized Work		OCT 0 2 1991	
Assays			
Assignment from Reserve	M	NING LANDS SECTION	
Total Assessment Work Claimed on the	e Attached Statement of Costs \$	895.62	
holder cannot verify expenditure	essment work credit all or part of the assessme es claimed in the statement of costs within 30 d	lays of a request for verification.	
	Performed the Work (Give Name and Address		
Name	Addre	SS	
ROY ANNETT	SHINING TREE ONTARIO	Pom 2xo	
J. L. TINDALE 907-110 ERSKING AUE., TORONTO, DAT., MAP 184			
KENUETH JOHNSON	1400- 22 FRONT ST., TORONT	0,0NT., MSJ 1C4	
(attach a schedule if necessary)  Certification of Beneficial Interest	I Data	ecorded Holder or Agent (Signature)	
I certify that at the time the work was performed report were recorded in the current holder's name by the current recorded holder.	s, the claims covered in this work	J. L. Tridel	
Certification of Work Report			
I certify that I have a personal knowledge of the its completion and annexed report is true.	he facts set forth in this Work report, having performed the	work or witnessed same during and/or after	
Name and Address of Person Certifying	Page 1		
J.L. TINDALE 907-110 E	FRSKING AUE TORUNTO ONT. IN	DKP 174	
	72/ 1991 D. Line	66 1310N	
For Office Use Only		SET 27 PM 2 00	
Total Value Cr. Recorded Date Recorded	Mining Proorder	Received Stamp 2 28	
	7,1991 Date Date Approved	MED	
Date Notice for Amo	enaments Sent		

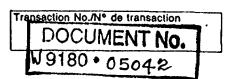


Ministry of
No thern Development
and Mines

stère du Déscippement du Nord et mines

# Statement of Costs for Assessment Credit

# État des coûts aux fins du crédit d'évaluation



Mining Act/Loi sur les mines

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 quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4º étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

### 1. Direct Costs/Coûts directs

Туре	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees	Type Lineculting	2240	
Droits de l'entrepreneur	mausoney	960	
et de l'expert- conseil	VLFEA	960	6960
Supplies Used Fournitures	Galos . a. 1	2800	
utilisées	Supplies	50.62	
			( 7
			50,62
Equipment Rental	AT V	200,00	
Location de matériel	FORD 4X4	210,00	
			410.00
Total Direct Costs  7420,62			

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.

#### 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.

u evaluati	IOI1.			
Type	Descrip	tion	Amount Montant	Totals Total global
Transportation Transport	Type 1580 Ka	E 30	474,00	
				474,00
Food and Lodging Nourriture et hébergement			1001.00	1001.00
Mobilization and Demobilization Mobilisation et démobilisation		• .		
	Sub Total partiel		rect Costs s Indirects	1475,00
Amount Allowable (i Montant admissible				
Total Value of Asser (Total of Direct and A indirect costs)		Valeur tota d'évaluation (Total des c et indirects	oûts directs	8895,65

1475.00

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

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- 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	Evaluation 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.

that as (Recorded Holder, Agent, Position in Company)

to make this certification

# Attestation de l'état des coûts

J'atteste par la présente :

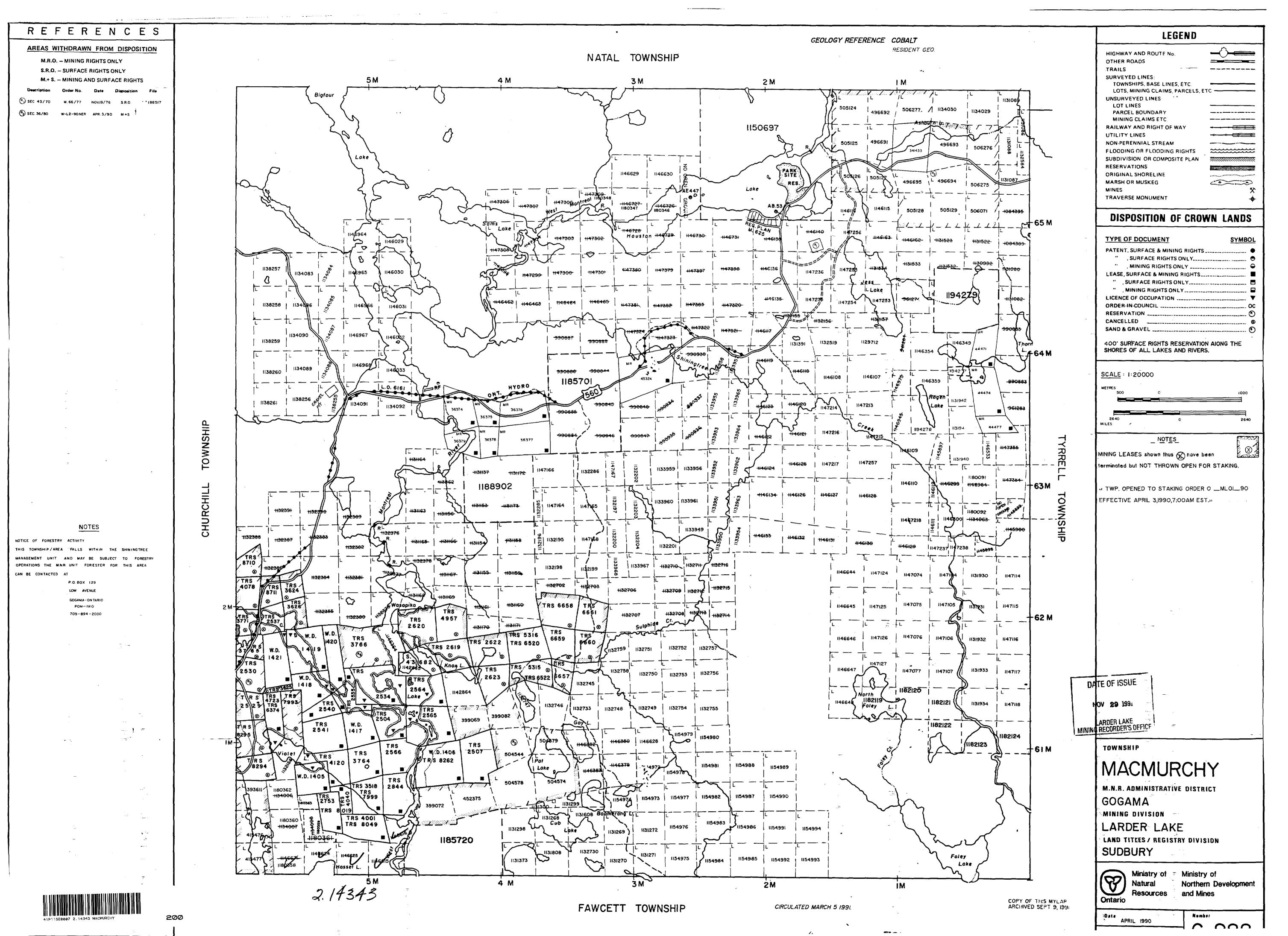
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

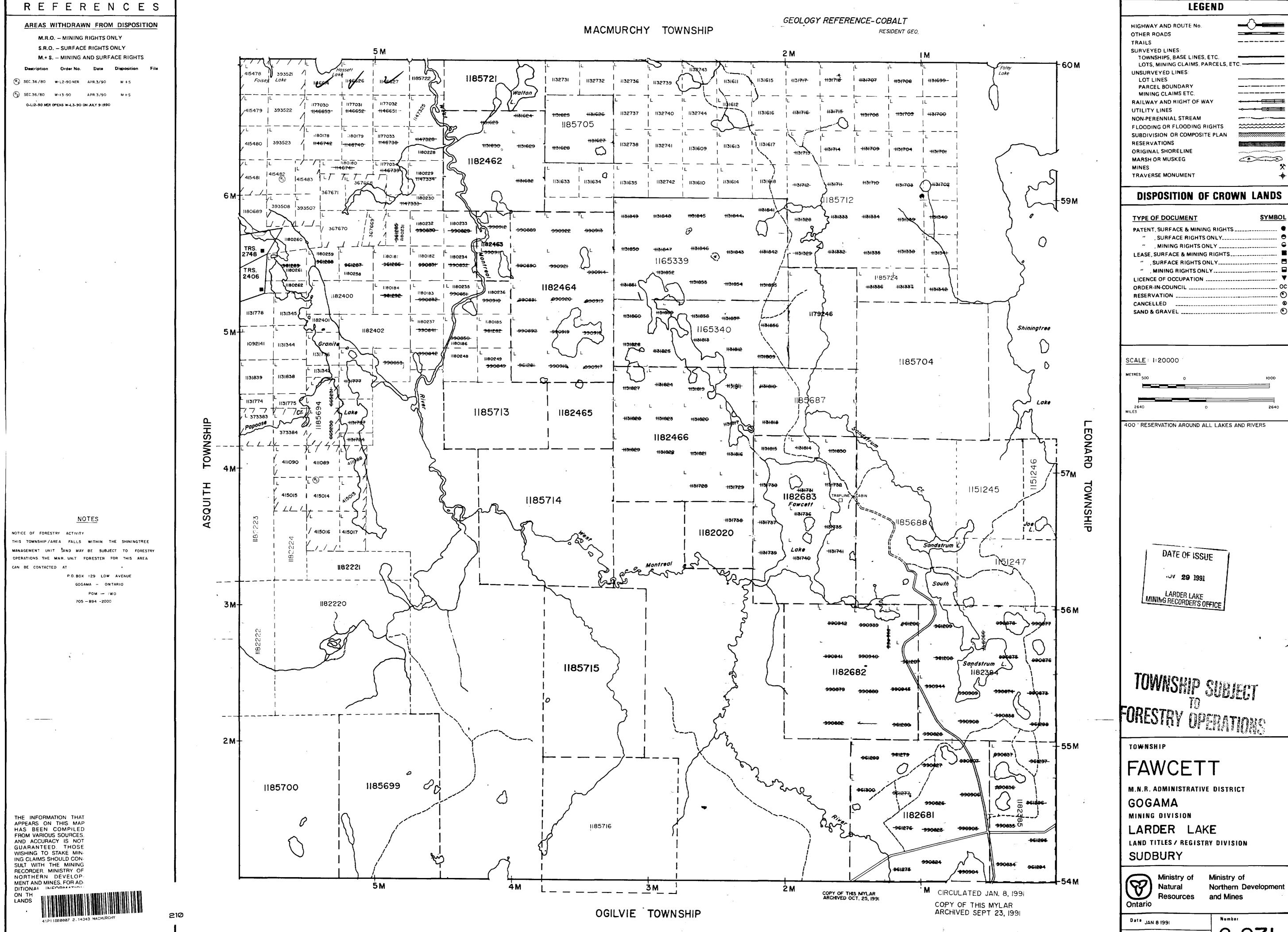
Et qu'à titre de \_\_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature	Date
	C-27/0/
n bookely	Den 2911
7	/

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.





G-971





