

010

**MAGNETOMETER SURVEY** 

ON THE

HALCROW CREEK PROPERTY

HALCROW TOWNSHIP

PORCUPINE MINING DISTRICT, ONTARIO

2.16341

by

William R. Troup

RECEIVED

JAN 11 1996

MINING LANDS BRANCH

Alcanex Ltd.

Mississauga, Ontario

May 8, 1995

#### **SUMMARY**

A program of line cutting and ground geophysics was completed on the Halcrow Creek Property during the period September 20 and November 15, 1995.

The four known gold zones on the property all have a strong magnetic correlation.

The south gold zone occurs over a conformable linear magnetic high that can be traced along strike for over 800 meters (2600 feet).

The north gold zone occurs over the west extension of a broad magnetic low that extends off the grid to the east, a distance of more than 1000 meters. A limited, reconnaissance V.L.F survey was completed on pace and compass lines, in 1993, and a broad conductive horizon was delineated coincident with the western 400 meters of this magnetic low. The survey did not cover the eastern half of the grid.

The two central gold zones occur on the north and south flanks of a circular magnetic high that measures some 400 meters in diameter.

On the Halcrow Creek Property, gold typically occurs with disseminated pyrite in zones of sheared volcanics and/or quartz-feldspar-porphyry intrusive. This type of mineralization should respond well to detection by I.P. survey.

A two phase exploration program is proposed to evaluate the economic potential of the Halcrow Creek Property.

In phase 1, LP surveying is proposed over all areas of known gold mineralization. V.L.F surveying is recommended over the entire grid. Prospecting and detailed mapping is recommended to tie all known mineralized zones in with the recently established grid. Geochemical sampling should be attempted over geophysical anomalies of interest which occur in overburden covered areas.

A phase 2 program of diamond drilling (1200 meters) is anticipated to provide an initial test of deserving gold targets.





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#### I. INTRODUCTION

During the period Oct. 1 to Nov. 15, 1994, Timmins North Exploration Ltd. completed a program of line cutting and Ground magnetic surveying on the Halcrow Creek property.

The area has been subjected to sporadic exploration over a period of more than 50 years, and identified as highly prospective for gold.

The current program was directed at an area encompassing four known gold zones. Twenty-six kilometers of grid were established and surveyed by proton magnetometer in an effort to delineate the extent of the known mineralized zones.

#### IL LOCATION & ACCESS

The property is located in Halcrow Township, approximately 90 miles west of Timmins, and within the Porcupine Mining District. The center of the property is at Lat: 47 50'N, and 82 57'W (Figure 1). in NTS quadrangle 41/0,15.

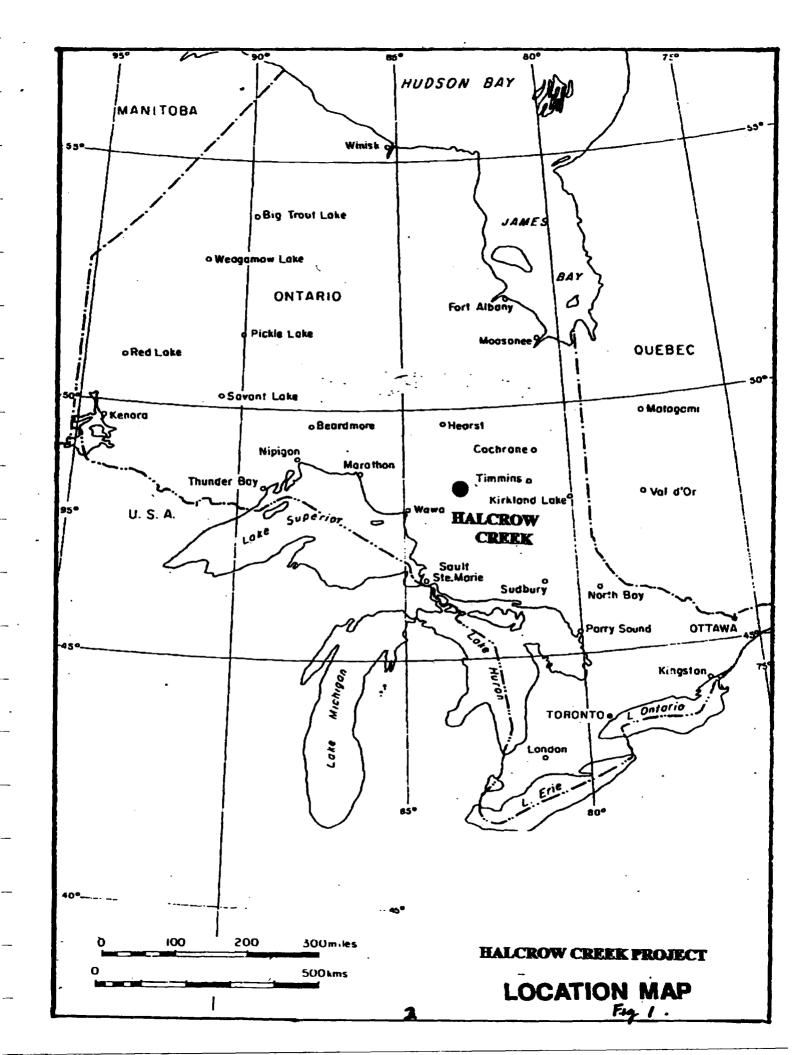
A system of logging roads extends southwest from highway 101, from a point 40 kilometers west of the town of Foleyet, for 28 km's to the northwest corner of the claim group.

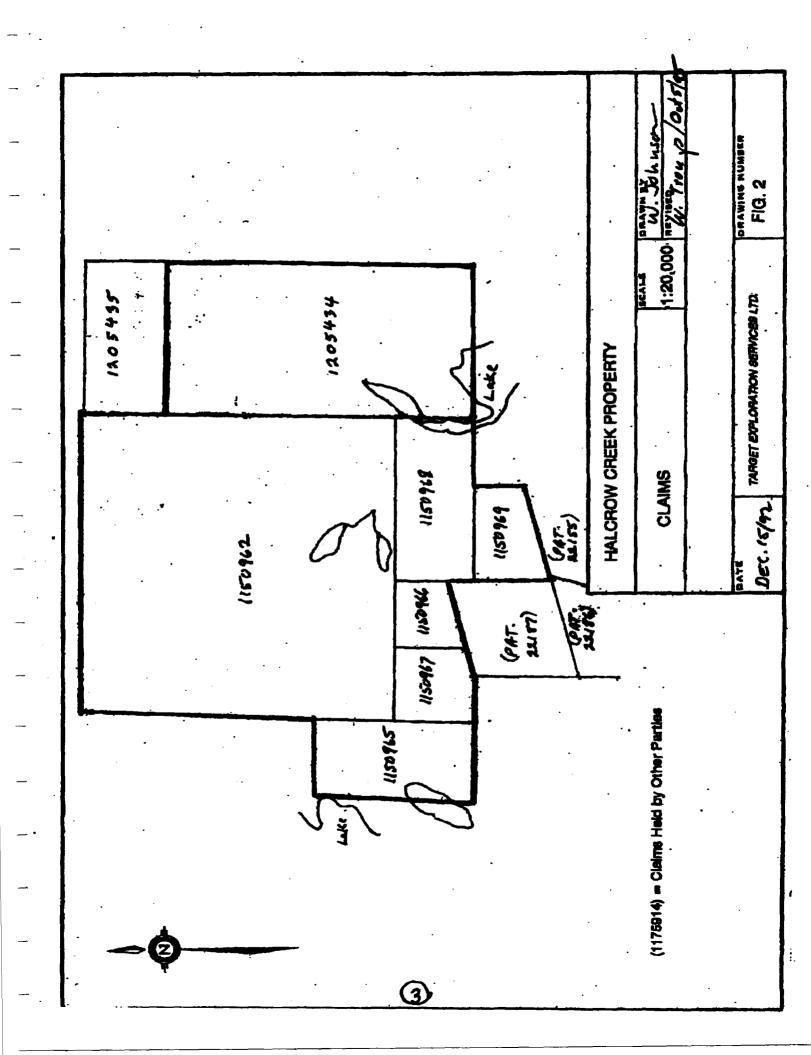
The Ivanhoe River crosses the northwest corner of the property, immediately south of the end of the access road. Locally, the river narrows to approximately 3 meters and is less than 1 meter in depth, and can be crossed on a series of fallen logs.

### III. PROPERTY

The property consists of 7 claims totaling approximately 1,240 acres. The recorded owner of the claims is Alcanex Ltd., 1365 Clarkson Rd. N., Mississauga, Ont., L5J-2W6.

CLAIM#	SIZE	RECORDING DATE
1150962	16(40 acre) Units	Oct. 23, 1991
1150965	2(40 acre) Units	Oct. 23, 1991
1150966	1(40 acre) Unit	Oct. 25, 1991
1150967	1(40 acre) Unit	Oct. 25, 1991
1150968	2(40 acre) Units	Oct. 25, 1991
1150969	1(40 acre) Unit	Oct. 25, 1991
1205434	8(40 acre) Units	Oct. 17, 1994 ?





Topography in the area is gently rolling with maximum relief of about 50 meters. The high ground on the property is covered mainly by a mixed forest of poplar, white spruce, white birch, balsam, fir, jack pine and alders. White cedar and black ash are present in lower areas. Much of the area between highway 101 and the north boundary of the property has been clear-cut in recent years.

#### IV. PREVIOUS WORK

The area has received intermittent waves of exploration since the initial discovery of gold at Timmins in the early 1900's.

The patented claims located immediately south of the Halcrow Creek property, and formally held by Halcrow-Swayze Mines Ltd., received considerable exploration in the period 1932-1934. A shaft was sunk to a depth of 371 feet. The company estimated a reserve of 127,000 tons with a grade of 0.11 oz/ton on one vein to the 354 foot level.

W. Hammerstrom and W.J. Koski prospected the area in the mid 1940's and identified 5 areas favorable for hosting gold mineralization. They apparently located one showing north of the small pond near the south boundary of the Halcrow Creek claim block which returned .12 oz/ton Au.(see Karvinen (1980). This is presumed to be the showing located in the south central part of our claim block. A mineralized boulder from south of the property which assayed 3.65 oz/ton Au was suggested to have a possible source from beneath the pond mentioned previously. In consideration of the direction of glacial transport, the source could be south of the Halcrow Property, or any one of the four known zones on the property.

Parts of the current property were staked in the 1950's and 1960's.

In 1977 Granges explorations drilled one hole on an airborne electromagnetic anomaly located in the southeastern part of the current property. The hole intersected 10-30% pyrite over a few feet in tuff and argillite. the target was base metal massive sulphides. No gold analyses were recorded.

In 1980, W. Karvinen prospected and mapped the area for Gossan Resources. No detailed surveys or drilling was initiated.

In 1984, Regal Petroleum carried out geological mapping and prospecting over the current area of interest as part of a larger area evaluation. They completed airborne magnetic, electromagnetic and VLF surveys over the area. Several areas of geochemically anomalous gold values were identified and detail follow-up was recommended over the central part of the property.

In 1990 & 1991 W. Troup and B Otton prospected the area and located four distinct zones of anomalous gold mineralization. An initial block of 6 claims was staked in the area.

In 1992, Lorac Properties optioned the claim block and completed reconnaissance geological mapping over approximately 1/2 of the property. Three of the four known gold zones were examined and hand stripped and sampled. In all instances anomalous gold values were confirmed and a follow-up program of geophysics and drilling was planned but never completed. The property was returned to Troup & Otton when Lorac was unsuccessful in financing a 1993 exploration program.

In the current 1994 program, Alcanex Ltd. established 26 kilometers of grid over the property and completed a proton magnetometer survey.

#### V. GEOLOGY

### Va) General Geology

The survey area is located within and near the western extremity of the Swayze Greenstone Belt, which in turn represents the western extension of the larger Abitibi Greenstone Belt of the Canadian Precambrian Shield. The area is underlain by an east-west trending sequence of mafic volcanics and associated sediments interrupted locally by mafic and felsic intrusives.

#### Vb) Property Geology

The property is underlain in part by andesite flows, tuffs and associated sediments, intruded locally by felsic intrusive dykes and/or sills. The northern and western extremities of the property are underlain by granodiorite. Pyritic argillite and quartz-magnetite iron formation occur in two areas near the southern margin of the property.

Most of the rock formations are at least weakly foliated. In places this foliation becomes strong and pervasive and locally grades into schistosity or shearing. Pyrite and occasional quartz veining are typically present in areas of shearing.

Four gold enriched shear zones have been identified on the property. In all instances, gold occurs with disseminated pyrite in amounts of up to 10 percent.

At the south zone, gold occurs with disseminated to massive pyrite, in a unit of conformably sheared interflow sediment. The three north zones all occur near the contacts between mafic volcanics and granitic and/or quartz-porpyry intrusives.

#### VI 1994 MAGNETOMETER SURVEY

In November 1994, Timmins North Exploration Services cut 25 kilometers of grid on the Halcrow Creek property and completed a total field magnetic survey on all newly established grid. Survey logistics, instrument specifications and survey results are presented in appendix 3 of this report.

The magnetic survey outlined a number of magnetic features for future evaluation.

The most southerly of the four known gold zones (Zone 1) on the property occurs on the axis of a conformable linear magnetic high with a strike length of over 300 meters.

The next gold zone to the north (Zone 2) occurs on the south flank of a strong magnetic high and near the west end of a linear magnetic low that extends for over 500 meters to the west.

The two north zones (Zones 3&4) occur on the north flank of the magnetic high that is associated with zone 2. A government airborne E.M survey indicates a linear VLF anomaly in the area of zones 3&4 that extends eastward across the property for over 800 meters.

Two additional linear magnetic highs occur between Zones 1&2 and warrant investigation by prospecting and/or geochemical and geophysical sampling.

#### VII FUTURE RECOMMENDATIONS

Ground magnetic surveying reveals that the known gold zones on the property occur proximal to linear magnetic highs or lows. Previously sampling on the property has shown that gold mineralization commonly occurs in pyritic shears located on or proximal to the contacts between granitic intrusives and host volcanics.

It is recommended that an I.P. geophysical survey be initiated over the area encompassing the known gold zones. All coincident I.P & Magnetic anomalies should be examined along their length by prospecting, geochemical sampling and/or diamond drilling.

#### VIII REFERENCES

Donovan, J.F, 1968; Geology of Halcrow-Ridout Lakes Area; Ont. Dept. of Mines, Geol. Rept. 63.

Johnson, W. L. 1993; Geological Mapping, Trenching and Sampling on the Halcrow Creek Property, Halcrow Township, Porcupine Mining District, Ontario; Target Exploration Services Ltd. (available in assessment files)

Karvinen, W.O. 1980; Report on the Gossan Resources Property, Halcrow Township, district of Sudbury, Ontario.; unpub. report (available in assessment files)

Ontario Geological Survey, 1982; Airborne Electromagnetic Survey Swayze Area, (Input Survey).

Troup, W.R. and Otton, B. 1991; Swayze Project - OPAP Grant #91-611 (Report on OPAP Project).

# APPENDIX 1 STATEMENT OF COSTS

1. Field Program (Line Cutting & Magnetic Survey) a. Contract Timmins North Exploration Linecutting & Ground Magnetic Survey
b. In House
3 days Supervision of project start up - W. Troup\$ 1,605.00 (\$500.00/day + 7% G.S.T.)
Sub Total\$ 9,330.00
2. Mob-Demob W. Troup
Travel by truck to & from property\$ 300.00 1000 km's x \$0.30/km)
Accommodation & food for 3 days @ \$50/day\$ 150.00
Sub Total\$ 450.00
Project Total\$ 9,780.00

- \* The 1994 work program was completed in the time period September 20'th to November 15'th 1994.
- \* W. Troup mobilized to the property on Sept. 19'th, 1994 to show contractor access, tie in points, etc., left area on Sept. 22, 1994.

### **CERTIFICATE OF QUALIFICATIONS**

I, William R. Troup, of Mississauga, Ontario, hereby certify and declare the following:

- I am a Consulting Geologist and President of Alcanex Ltd., a service company providing geological services and project management to the mineral exploration industry.
- 2. I graduated from the University of Waterloo with an Msc. degree in Geology in 1975.
- 3. I have been practising my profession for the past 24 years.
- 4. I am a fellow in the Geological Association of Canada.
- 5. I personally planned and supervised the Halcrow Creek project completed in the fall of 1994.
- 6. The opinions expressed in this report are based on my own observations and on my review of public geological reports on the area.

William R. Troup, Msc.

F.G.A.C.

Mississauga, Ontario May 8, 1995



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

Transaction Number

900

**Mining Act** 

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

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.								
Recorded Holder(e) ALCANEX						nt No. 101 — 512		
Address 1365 CLAI	RKSON RD. P.,	Mississau	10,0	ntario LS	1 204 90	uphone No. 15) 823 — 288 / 1°G Plan No. 6 — 889		
Mining Division PORCUP	INE	HAL	CROW	Twp	34 0	6 - 889		
Detec Work From: Performed	SEPT 19 1	11994		To: NO	V 301	1994		
Work Performed (Che				<u>-</u>		•		
Work Group				Туре				
Geotechnical Survey	V LINE Cu:	77106	+ MA	LONETOI	METER	SURVEY		
Physical Work, including Drilling								
Rehabilitation						DECENTE		
Other Authorized Work					<del></del>	RECEIVED		
Assays	<b> </b>					JAN 11 1996		
Assignment from Reserve						MINING LANDS BRANCH		
Total Assessment Worl	k Claimed on the Attac			· 5	9.42			
	verify expenditures claim	imed in the st	atement of o	costs within 3 ne and Addres	0 days of a	submitted if the recorded request for verification.  of Report)		
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<b>,</b>								
(attach a schedule if nec	icial Interest * See N	Note No. 1 or	I Date	ide	[Recorded Hol	der ar Agent (Signature)		
	work was performed, the clai surrent holder's name or held u ider.							
Certification of Work	Report							
its completion and annexe	d report is true.	set forth in this \	Nork report, he	wing performed t	he work or witr	nessed same during and/or after		
Name and Address of Person		CLARKS	ion RD	). N.,	His 5 135	exaa, Ont		
405) 823-28	1365 (8) Oct 11	/ 1995	Corta		RT	* may		
or Office Use Only								
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120.	Deemed Approval Date	Date	Approved f	White	-	······································		
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Credits you are claiming in this report may be cut back. In order to minimize the adverse affects of such deletions, please indicate from which cigims you wish to priorize the deletion of credits. Please mark (>) one of the following:

- 1. Credits are to be cut back starting with the claim listed last, working backwards.
- 2. LJ Credits are to be cut back equally over all claims contained in this report of work.
- 3. Credits are to be out back as priorized on the attached appendix.

in the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or teased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Willer Ktruf

Oct 12/ 45



Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

# Statement of Costs for Assessment Credit

# État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No.N° de transaction W9560: 00 4/2

2.102

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	Type Timmins W/L.c.+ Mag	7, 725	
Fees Droits de l'entrepreneur	Timming W/L.C+ Mag ALCANEY SUPERUSON	1,605	
et de l'expert- conseil			9,3300
Supplies Used Fournitures utilisées	Туре		
		1.	
			_
Equipment Rental	Туре		
Location de matériel			
ı	Total Dir Total des cod	ect Costs	9,330

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.

Туре	Description	Amount Montant	Totals Total global
Transportation Transport	TRUCK	3000	
F			
	RECEIVE	D	
	JAN 11 1996	nj.	
	IINING LANDS BRANG	<b>N</b>	300
Food and Lodging Nourriture et hébergement	W. JROOF /3 Pags	15000	150 02
Mobilization and Demobilization Mobilisation et démobilisation			
	Sub Total of India Total partiel des coûts		45000
Amount Allowable ( Montant admissible	90=		
Total Value of Asse (Total of Direct and / Indirect costs)		dts directs	9,4200

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

- 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	1		Total Assessment Claimed
	×	0.50 =	

# Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achévement 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				
×.	Mar				
Attestation de l'état des c	JCT 18 1995				
J'atteste par la présente : que les montants indiqués sor	le plus exact possible et que ces				
	ir effectuer les travaux d'évaluation formule de rapport de travail ci-joint.				
Et qu'à titre de	je suis autorisé nt, poste occupé dans la compagnie)				
à faire cette attestation.					

# 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.

'hat as	Recorded Holder,	Agent, Position in Co	I am	authorized
---------	------------------	-----------------------	------	------------

to make this certification

212 (04/91)

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



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

Our File: 2.16341

Transaction #: W9560.00412

January 15, 1996

Mining Recorder
Ministry of Northern Development & Mines
60 Wilson Avenue, 1st Floor
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: APPROVAL OF ASSESSMENT WORK SUBNITTED ON MINING CLAIMS P.1150962 ET AL IN HALCROW TOWNSHIP

A Notice of Deficiency was not issued on this Report of Work prior to the 90 day deemed approval date and as outlined in subsection 6(5) of the Mining Act Regulations this Report of Work is deemed approved as of JANUARY 11, 1995.

If you require further information please contact Lucille Jerome at (705) 670-5858.

Yours sincerely, ORIGINAL SIGNED BY:

[A C Gallin ].

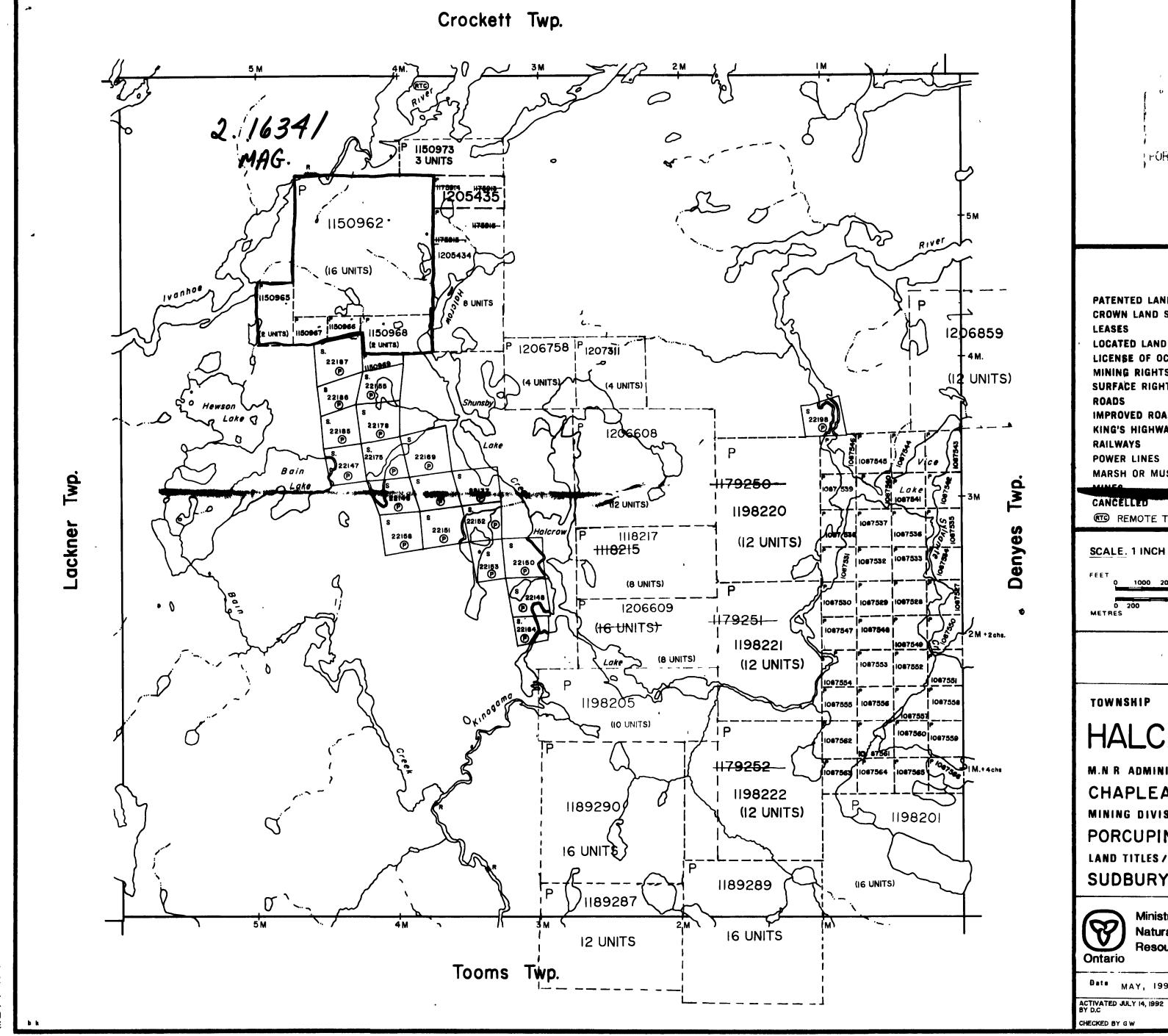
Ron C. Gashinski

Senior Manager, Mining Lands Section Mining and Land Management Branch

Mines and Minerals Division

LJ/jl

cc: Resident Geologist Timmins, Ontario Assessment Files Office Sudbury, Ontario



LEORGUFING , WED DIVEN A

LEGEND

C.S

M.R.0

RECEIVEL

M JAN 11 1996

M.N.R. ADMINISTRATIVE DISTRING LANDS BRANCE

Ministry of

and Mines

Northern Development

G-1135

LAND TITLES / REGISTRY DIVISION

Ministry of

Resources

Natural

PATENTED LAND

LOCATED LAND

LEASES

ROADS

RAILWAYS POWER LINES

CANCELLED

TOWNSHIP

CHAPLEAU

MINING DIVISION

PORCUPINE

**SUDBURY** 

Date MAY, 1992

(B)

**Ontario** 

CROWN LAND SALE

LICENSE OF OCCUPATION

MINING RIGHTS ONLY

SURFACE RIGHTS ONLY

IMPROVED ROADS KING'S HIGHWAYS

MARSH OR MUSKEG

REMOTE TOURIST CAMP

SCALE. 1 INCH = 40 CHAINS

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



