Geological Mapping Report
on the
Cleaver Gold Property
Cleaver Township
Larder Lake Mining Division,
Ontario

by

Henry P. Hutteri H.BSc.

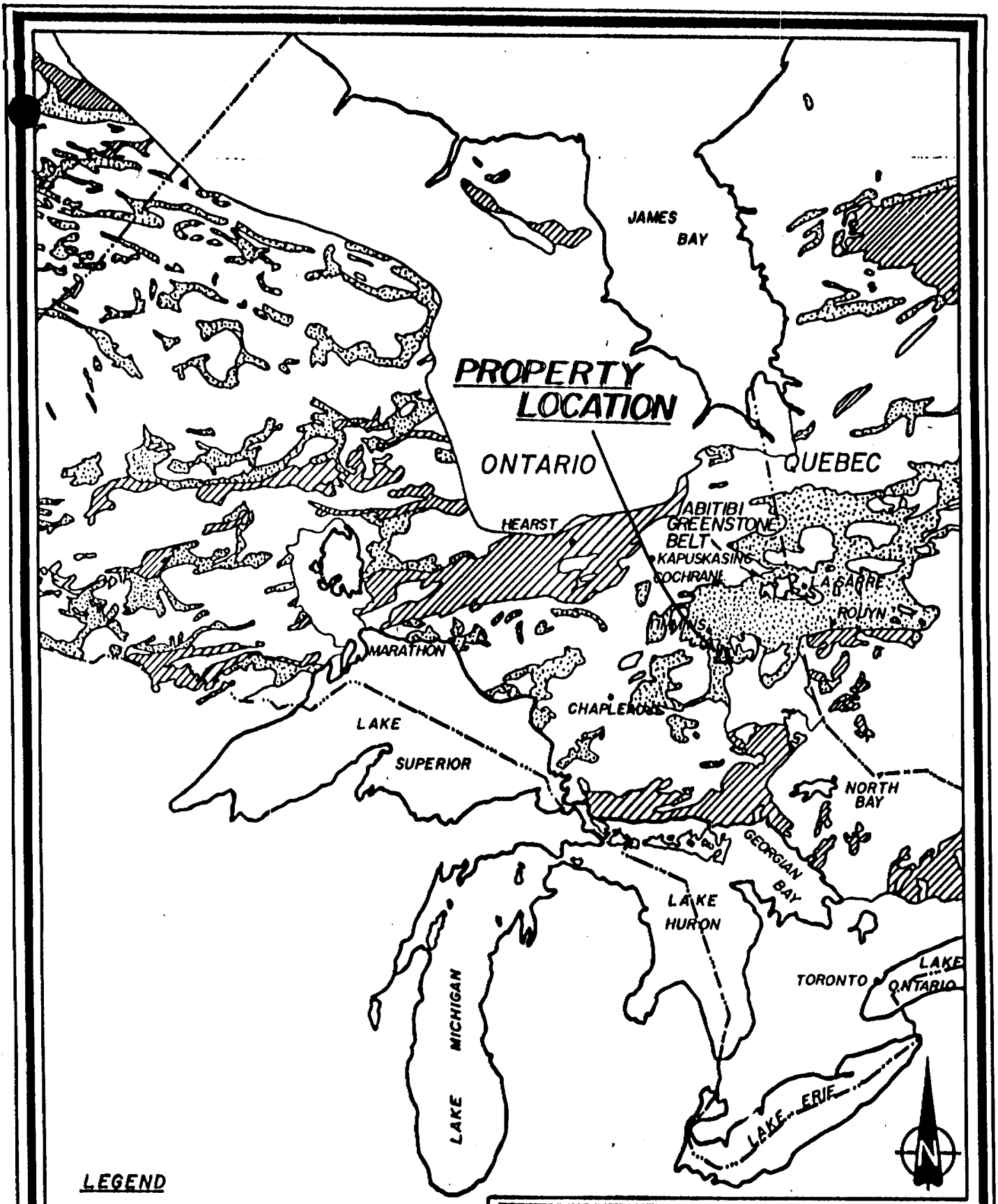
Box 1330
Timmins, Ontario
P4N 7J8

October 1989

TABLE OF C

LIST OF FIGURES

APPENDIX


JAMES BAY
PROPERTY LOCATION
ONTARIO
QUEBEC
HEARST
ABITIBI GREENSTONE BELT
KAPUSKASING
COCHRANE
LA SARRE
ROUYN
MARATHON
CHAPLEAU
LAKE SUPERIOR
NORTH BAY
GEORGIAN BAY
LAKE HURON
LAKE MICHIGAN
TORONTO
LAKE ONTARIO
LAKE ERIE
N
LEGEND
Archean greenstone and associated Sediments
Granitic Terrain
Archean Sediments, some volcanics and intrusions
Revisions
CLEAVER GOLD PROPERTY
PROPERTY LOCATION
Date:
Drawn
Scale 1:7603200
Job No.
Approved
Figure 1

INTRODUCTION

Geological mapping was carried out over 1 unpatented mining claim located within Cleaver Township, approximately 40 kilometers southeast of Timmins, Ontario.

The mapping was carried out from May 13 to 14,1989 and was initiated in order to define the bedrock lithologies and locate the various old pits and trenches scattered throughout the mining claim.

The geological mapping was carried out by Henry Hutteri, Box 1330, Timmins, Ontario.

PROPERTY DESCRIPTION, LOCATION & ACCESS

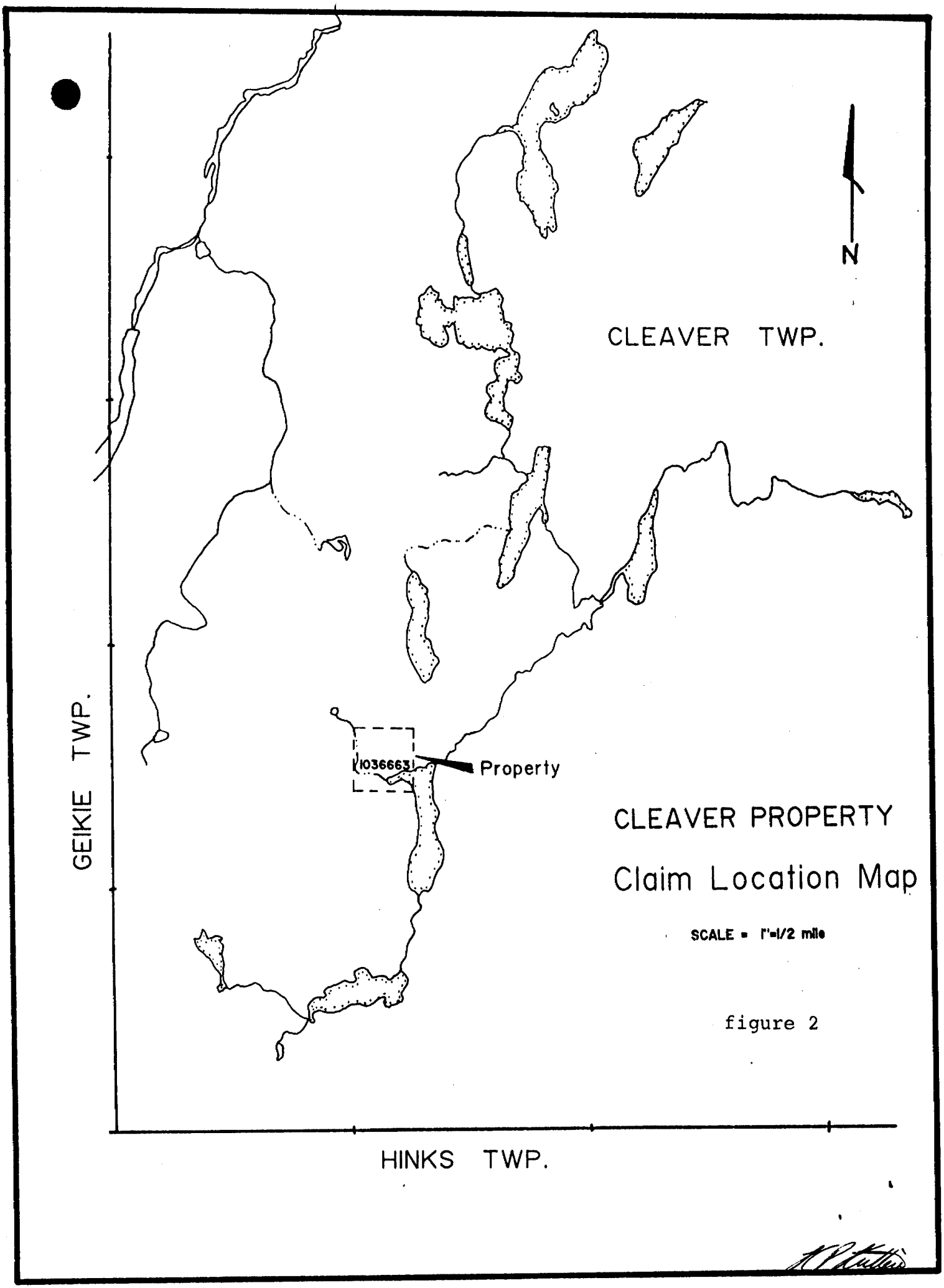
The Cleaver Gold Property consists of 1 unpatented mining claim (1036663) located within the southwest corner of Cleaver Township, Larder Lake Mining Division of Ontario.

The property lies approximately 40 kilometers southeast of Timmins, Ontario and access is gained by travelling southward from South Porcupine along a series of gravel logging roads which pass approximately one kilometer west of the claim.

The claim is currently registered to David Jones of South Porcupine, Ontario.

PREVIOUS WORK

There is very little recorded work within the western half of Cleaver Township. A limited amount of geophysical surveying trenching and diamond drilling was carried out in the past on two base metal occurrences located a few kilometers north of the subject property. In the 1920's, a large amount of trenching was performed on the Cleaver Property and on the surrounding claims by Dan O'Connor and others. In a report by Chas.B. Morgan dated July 1, 1924, strong northeast trending quartz vein systems were described striking across the Cleaver Property.



CLEAVER PROPERTY

Claim Location Map

SCALE = 1"=1/2 mile

figure 2

Visible gold was also observed within the two main vein systems examined.

The quartz vein systems were also examined during 1923 by Ontario Department of Mines personnel while conducting a study on the McNeil Township gold occurrences to the east. Visible gold was reported to be observed within quartz stringers cutting a syenite dyke within a shear zone.

Reconnaissance mapping was carried out on the western half of Cleaver Township by the Ontario Geological Survey in 1972. The mapping was part of a program which covered several townships within the Peterlong Lake area. The quartz veins within the Cleaver Property were probably not examined as they were not discussed in the report and the occurrence was not indicated on the accompanying map.

The quartz vein/shear zones which traverse the Cleaver Gold Property appear to have been overlooked for the past 60 years. possibly due to the poor documentation by the government. There is no record of any recent exploration activity on or within the area of the property.

REGIONAL GEOLOGY

The Cleaver Property lies within the Abitibi Greenstone Belt of the Superior Province of the Canadian Precambrian Shield. Locally, the property area is underlain by Archaean-age mafic and felsic volcanic rocks and younger, possibly downfaulted Cobalt Group sediments. The Geikie Pluton, a large granodiorite intrusion has intruded the supracrustal rocks and lies to the west, covering most of Geikie Township. Northeast and northwest striking diabase dykes have intruded all of the above lithologies.

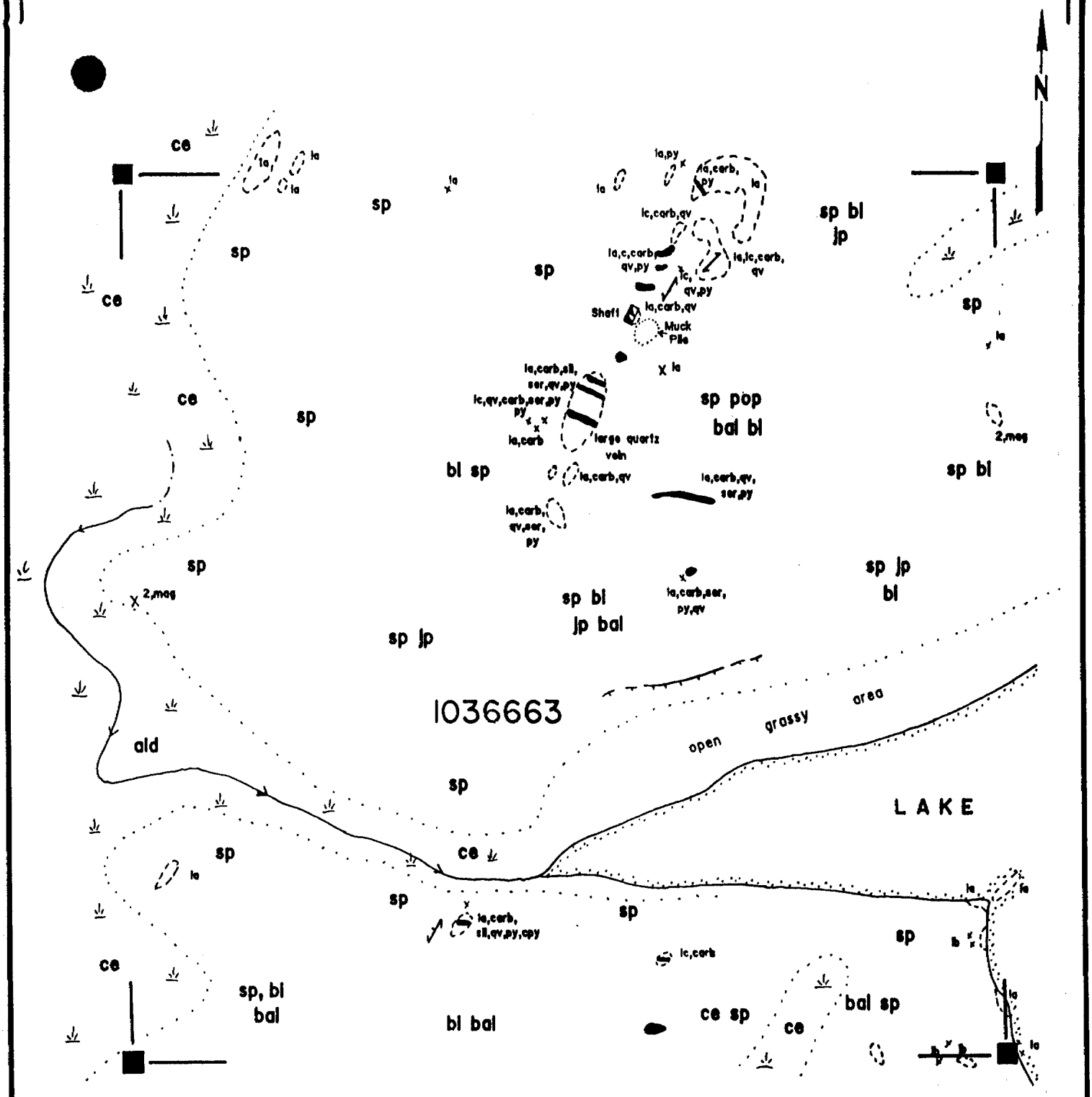
PROPERTY GEOLOGY

Geological mapping was carried out over the Cleaver Property at a scale of 1:2500 (figure 3). The mapping was

carried out by the author from May13 to 14 ,1989. The pace and compass survey method was used to tie in all the bedrock exposures and trenches located during the course of the survey. All claim boundaries were walked and two additional north-south traverses were made in the central portion of the claim. Due to the large number of closely spaced trenches and bedrock exposures in the north-central portion of the property,an additional chained grid line trending southwest was established to provide further control.

Lithologies encountered consisted primarily of mafic volcanics and minor diabase. The mafic volcanic rocks are generally dark green, massive, and fine grained to medium grained and porphyroblastic and are composed of hornblende and lesser plagioclase. The mafic volcanics have been altered to a carbonate-chlorite-sericite schist in several locations throughout the property. These shear zones appeared to have a strike direction which varied from 032° to 044°. There are several parallel zones which are characterized by a strong iron carbonate weathering rhind and an abundance of quartz vein material. The quartz veins varied from narrow veinlets and stringers to large veins and lenses which exceeded 15 feet in width. They are white, massive to sheared in appearance with variable amounts of pyrite, chalcopyrite and brownish iron carbonate. A bluish variety of quartz and arsenopyrite mineralization have also been reported by previous workers on the property, however, many of the old trenches are overgrown and bedrock exposure is poor. One speck of visible gold was observed within a large white quartz vein in the east -central portion of the claim.

Two exposures of diabase were observed along the east and west boundaries. The diabase is greenish-grey, magnetic and is composed mainly of medium grained hornblende and plagioclase. The width and strike of these dykes was not determined during the course of the survey due to a lack of exposed contacts and poor outcrop exposure in parts of the claim.



LEGEND

1 Mafic Volcanics

- la fine grained mafic volcanics
- lb medium grained, porphyroblastic mafic volcanics
- lc sheared, chloritic mafic volcanics

2 Diabase Dykes

SYMBOLS

carb	iron carbonate		old trench	bl	birch
ser	sericite		outcrop	ald	alders
qv	quartz veining	sp	spruce	ce	cedar
py	pyrite	jp	jackpine	pop	poplar
cpy	chalcopyrite	bal	balsam		swamp

Cleaver Property

GEOLOGY MAP

1:2500

figure 3

CONCLUSIONS AND RECOMMENDATIONS

The Cleaver Property was found to be underlain by mafic volcanic rocks and minor diabase. Several northeast striking carbonate-chlorite-sericite altered shear zones containing quartz veining cross the property. A two compartment shaft and several old pits and trenches were located during the course of the survey, most of which were grown over. Visible gold mineralization has been reported by previous workers and was also observed by the author within the quartz veins on the property.

A comprehensive exploration program consisting of linecutting, magnetometer and limited I.P. surveying,mechanical stripping and detailed channel sampling is recommended. Diamond drilling would then follow depending upon the results of the previous programs.

Respectfully submitted,

Henry P. Hutteri H.B.Sc.
Geologist

2.8385

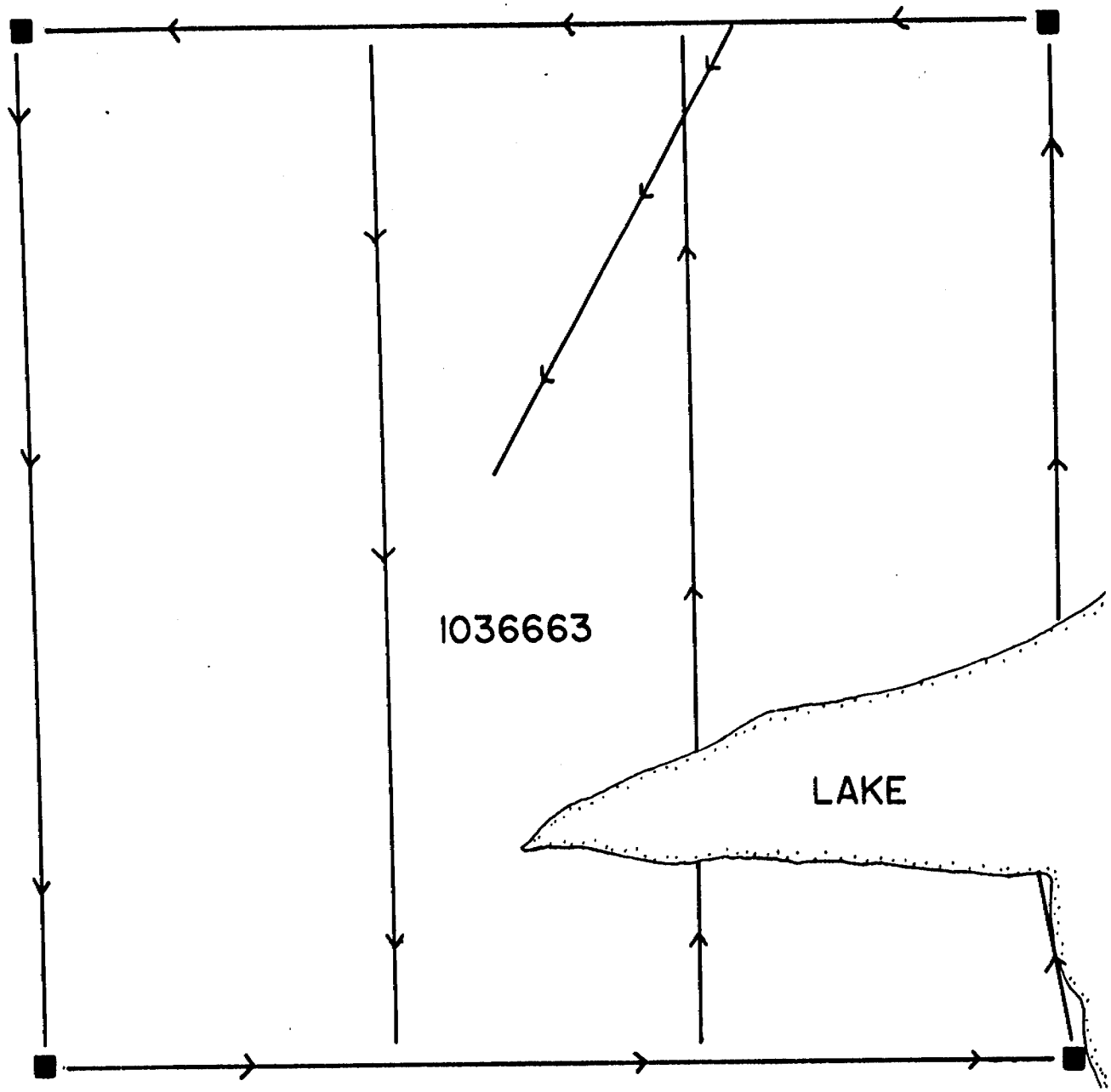
REFERENCES

Hopkins, P.E.
1924: Notes on Gold in McNeil and Other Townships; Ont. Dept. Mines, Vol. 33, pt. 3, p.37-40. Accompanied by Sketch Map

Pyke, D.R.
1978: Geology of the Peterlong Lake Area,Districts of Timiskaming and Sudbury, OGS Report 171. Accompanied by Map 2345, scale : 1:50000.

Ministry of Northern Development and Mines Assessment Files Office, Kirkland Lake, Ontario.

APPENDIX A



Location Map for Traverses with Direction Indicated

1:2500

APPENDIX B

TABLE 1 | TABLE OF LITHOLOGIC UNITS FOR THE PETERLONG LAKE AREA.

PHANEROZOIC
CENOZOIC
QUATERNARY
PLEISTOCENE AND RECENT
Clay, sand, gravel, swamp, and stream deposits

UNCONFORMITY

PRECAMBRIAN
LATE PRECAMBRIAN
MAFIC INTRUSIVE ROCKS
Olivine diabase

INTRUSIVE CONTACT

MIDDLE PRECAMBRIAN
MAFIC INTRUSIVE ROCKS
Quartz diabase

INTRUSIVE CONTACT

HURONIAN SUPERGROUP
COBALT GROUP
Gowganda Formation
Greywacke, arkose, greywacke and argillite, conglomerate

UNCONFORMITY

EARLY PRECAMBRIAN (ARCHEAN)
MAFIC INTRUSIVE ROCKS
Diabase

INTRUSIVE CONTACT

FELSIC INTRUSIVE ROCKS
Porphyritic hornblende monzonite; porphyritic hornblende granodiorite; hornblende-biotite trondhjemite, biotite-hornblende trondhjemite, diorite and quartz diorite, biotite granodiorite, porphyritic hornblende granodiorite, leucocratic granodiorite and alaskite; quartz-feldspar porphyry, trondhjemite

INTRUSIVE CONTACT

METAMORPHOSED MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS
Gabbro, gabbroic anorthosite, pyroxenite, serpentinized peridotite, peridotite largely altered to talc-carbonate, quartz gabbro

INTRUSIVE CONTACT

METAVOLCANICS AND METASEDIMENTS
Intermediate to Felsic Metavolcanics
Tuff and lapilli-tuff, volcanic breccia, massive and pillowed flows, variolitic flows, interlayered siltstone and greywacke, garnet-and staurolite-bearing tuffs

Mafic Metavolcanics
Massive and pillowed flows, variolitic flows, tuff and lapilli-tuff, volcanic breccia, amphibolitized and gneissic lavas, pyroxene spinifex-textured flows, tremolitic-(low Fe) bearing flows and pyroclastic rocks

Ultramafic Metavolcanics
Massive polysutured serpentinized peridotite, spinifex textured flows, tuff and lapilli-tuff, cummingtonized flows, steatized and carbonatized peridotite

From OGS report 171 by D.R.Pyke, 1978

Ministry of Northern Development and Mines
Ontario

DOCUMENT No. W8908•335

42A03NE1030 2.12916 CLEAVER

900

Mining Act — Report of Work
(Geophysical, Geological and Geochemical Surveys)

Mining Lands Section, Mineral Development and Lands Branch:

Type of Survey(s)	Mining Division	Township or Area
Geological Mapping	Larder Lake	Cleaver

Recorded Holder(s): Dave Jones 2.12916 — Prospector's Licence No.: M 21190

Address: Box 1330, Timmins, Ont. P4N 7J8 — Telephone No.: 268-6644

Survey Company: Durham Geological Services Inc.

Name and Address of Author (of Geo-Technical Report): Henry Hutteri, Box 1330, Timmins, Ont. P4N 7J8

Date of Survey (from & to): 13 05 89 (Day / Mo. / Yr.) — 14 05 89

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Other	

Total miles flown over claim(s).

Date: Oct 6, 1989 — Recorded Holder or Agent (Signature): Henry P Hutteri

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
L	1036663				

RECEIVED
NOV 06 1989
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 1

Certification Verifying Report of Work

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

Name and Address of Person Certifying: Henry Hutteri Box 1330 Timmins Ont. P4N 7J8

Telephone No.: 268-6644 — Date: Oct 6, 1989 — Certified By (Signature): Henry P Hutteri

ONTARIO SURVEY ASSESSMENT FILES
FEB 21 1990
RECEIVED

For Office Use Only

Received Stamp: RECEIVED OCT 18 1989 9:40am

Total Days Cr. Recorded	Date Recorded	Mining Recorder
20	Oct 12/89	J Bettinger
	Date Approved as Recorded: Feb 16/90	Provincial Manager, Mining Lands: [signature]

1362 (89/06)

RFS

Henry P Hutteri
Box 1330, Timmins, Ont.
P4N 7J8

November 27, 1989

Susam Hurst
Mining Lands Section
880 Bay Street,
3rd floor, Toronto, Ont.
M5S 1Z8

Dear Ms. Hurst:

Enclosed are two copies of a report describing a geological mapping program carried out on a one claim property within Cleaver Township, Larder Lake Mining Division, Ontario.

The single claim is held by Dave Jones of Timmins, Ontario. I have also enclosed a copy of the report of work which was filed in October. Please contact me if there are any deficiencies in the work submitted. For further information, I can be reached at (705)-268-6644. Thank you.

Sincerely,

Henry P. Hutteri
Geologist

TRIM LINE

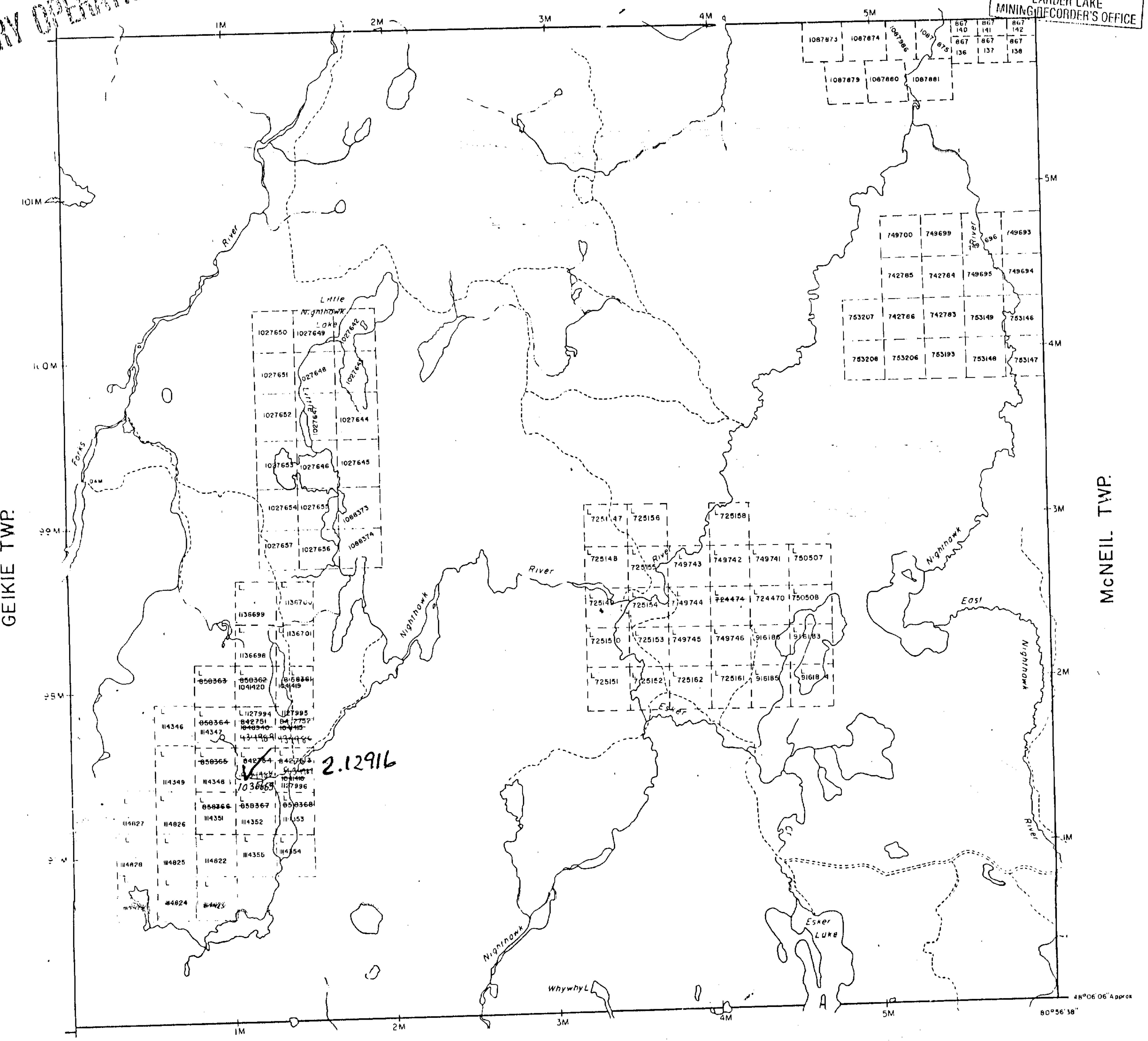
TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

DATE OF ISSUE

NOV 6 1989

LARDER LAKE MINING RECORDER'S OFFICE

FALLON TWP.



HINCKS TWP.

PLAN UP DATED OCT 27/89

NOTES

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

NORTH EAST CORNER REDRAFTED OCT 28, 1988

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE ONTARIO PAPER FOREST MANAGEMENT AGREEMENT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: 896 RIVERSIDE DR.
TIMMINS, ONT.
P4N 3W2
705-267-7951

LEGEND

PATENTED LAND	Ⓟ or ● *
PATENTED FOR SURFACE RIGHTS ONLY	◓ *
LEASE	Ⓛ
LICENSE OF OCCUPATION	L.O.
CROWN LAND SALES	C.S.
LOCATED LAND	Loc.
CANCELLED	C.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
HIGHWAY & ROUTE NO.	
ROADS	
TRAILS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

*used only with summer resort locations or when space is limited

TOWNSHIP OF

CLEAVER

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE : 1 INCH 40 CHAINS (1/2 MILE)

DR.
DATE JULY 1986

PLAN NO. G-3619

Ontario Ministry of Natural Resources

Ministry of Northern Development and Mines

G-3619

42A03NE1030 2.12916 CLEAVER

200