

GEOLOGY OF CLAIMS P758990 & P758991

DELORO TOWNSHIP, ONTARIO

bу

John L. Kirwan

RECEIVED

001 02 1984

MINING LANDS SECTION

Earth Resource Associates, P.O.Box 2150, Timmins, Ontario, P4N 7X8

September 27, 1984

GEOLOGY OF CLAIMS P758990 & P758991

DELORO TOWNSHIP, ONTARIO

by

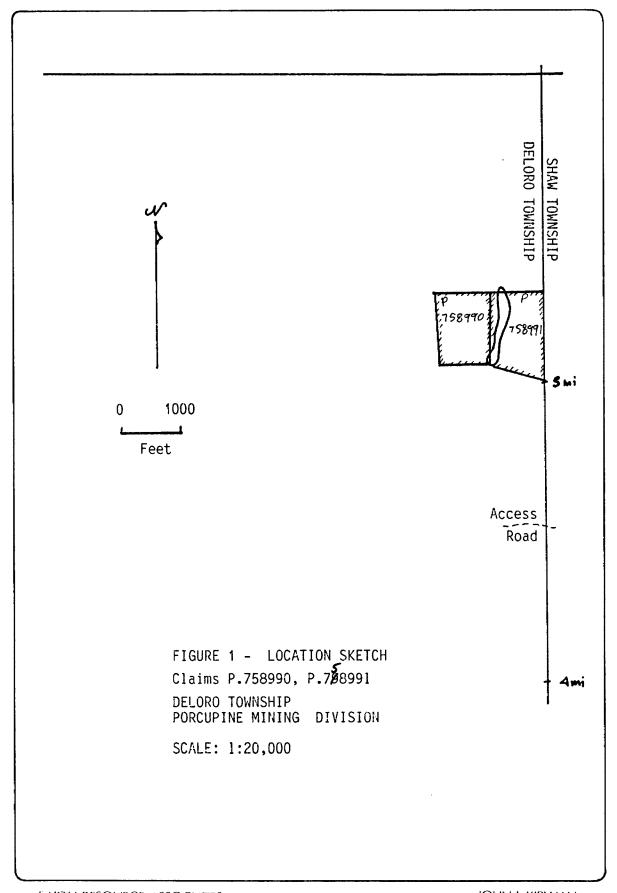
John L. Kirwan

INTRODUCTION

This is intended to be a brief report to describe the geology of two unpatented mining claims numbered P.758990 and P.758991, both situated in the eastern part of Deloro Township, Porcupine Mining Area, District of Cochrane, Ontario.

LOCATION, ACCESS

The two claims adjoin each other, the more easterly of the two touching the eastern township line of Deloro Township with Shaw Township to the east, immediately north of the 5-mile post on the line separating these two townships (see Figure 1, page 2). Access is most conveniently to a point about a half mile (0.8 km) south of the 5 mile post by means of a bush road about 2½ miles (4 km) long which



branches from an all-weather gravel road known as the Langmuir Road from a point 4½ miles (7 km) south of the Town of South Porcupine in the Regional Municipality of Timmins. From the point where the bush road crosses the Deloro-Shaw township line, the property may be reached on foot along a trail which follows an old wagon road, and the township line.

CHARACTER OF THE GROUND

The area is of low relief, generally consisting of swampy alder covered terrain interrupted by areas of outcrop with mixed forest consisting of poplars, birches and fir. The alders are particularly difficult to walk through, the flat-lying branches forming an inpenetrable tanglewood in places. This inconvenience is compounded by the fact that Dome Mines Limited has cut the trees from much of the western parts of the area to prepare that part of the ground as a flood basin for a tailings area, leaving the cut trees as deadfall. The wastern part of the area, and an area east of the middle, are in the process of being flooded by the operations already referred to by Dome Mines Limited. It is expected, to judge from the areas of deadfall, that most of the ground marked by swamp symbols on the map which accompanies this report will be eventually flooded and form a lake behind the Dome tailings dam about a quarter mile to the northwest of the claims.

MESTHOD OF SURVEY

Pace and compass traverses were run in a north-south direction at intervals of about 100 metres (330 feet) along the lines shown. Outcrops were sketched in and geological observations as to rock-type, structure and alteration made. These are plotted up on the accompanying geological map at a scale of 400 feet to the inch (Figure 2). In all cases observed the claims appear to be properly staked in accordance with the Mining Code, and all claim lines were seen to be properly blazed and flagged.

GENERAL GEOLOGY

All the rocks observed on the claims consist of gently north-dipping, easterly-trending metavolcanics, pyroclastics and sedimentary rock of Precambrian (Archaean) age, all altered to the greenschist facies of regional metamorphism and some intruded by quartz veins and calcite stringers or else generally, in mappable layers, carbonatized. The volcanic rocks are of andesitic or basaltic composition, the metasediments are iron formations and phyllites, and the pyroclastics range from fine-grained tuffs to coarse felsic agglomerates. A general east southeast foliation is visible in the rocks, but there is some evidence that the actual strike is to the east northeast.

Andesite

This rock type was mapped only in the eastern part of the ground, near both the southeast and the northeast corners. It consists of a fine grained assemblage of hornblende now partly altered to chlorite, with fine pale green laths of feldspar and minor quartz, the green color in the feldspar being presumably due to its breakdown under the influence of regional metamorphism to albite and clinozoisite. No structures were observed in the andesites to indicate that they are, or are not, of volcanic origin. The high mafic content of the rock and the type of alteration in the feldspars suggest that the rocks may be chemically of basaltic composition.

Fragmentals

These are generally felsic in composition, and mappable as rhyolite to dacite. In the coarser-grained varieties the rock consists of fist-sized angular, flinty, cream-colored fragments held in a similar groundmass, with the fragmental nature of the rock only recognizable be differential weathering on the weathered surface. Finer-grained fragmentals were mapped as "spotted tuffs" in the field, appearing as an aggregate of fine fragments and single minerals in the 1 to 5 mm range, with very little sorting or stratification.

Sedimentary Rocks

Several areas of phyllite were found, those on the township line being typically slate-like and gray in color. Farther west the outcrops show more chlorite, though the phyllitic structure is nonetheless well-displayed.

The iron formation is found in one location only, in an old adit, now flooded, in which lean, siliceous, magnetite-bearing, banded iron formation occurs.

Carbonates

A broad band of carbonate is indicated on the accompanying map, though it is probable that the rock unit is more complicated than is indicated. On the township line this carbonate consists of almost pure calcium-magnesium and iron carbonates, being made up of an assemblage of rhombohedral crystals and with a distinctive rust-colored weathered surface. Westward the percentage of carbonate is less and talc is present. Whether the two are the same unit is not confidently known

STRUCTURE

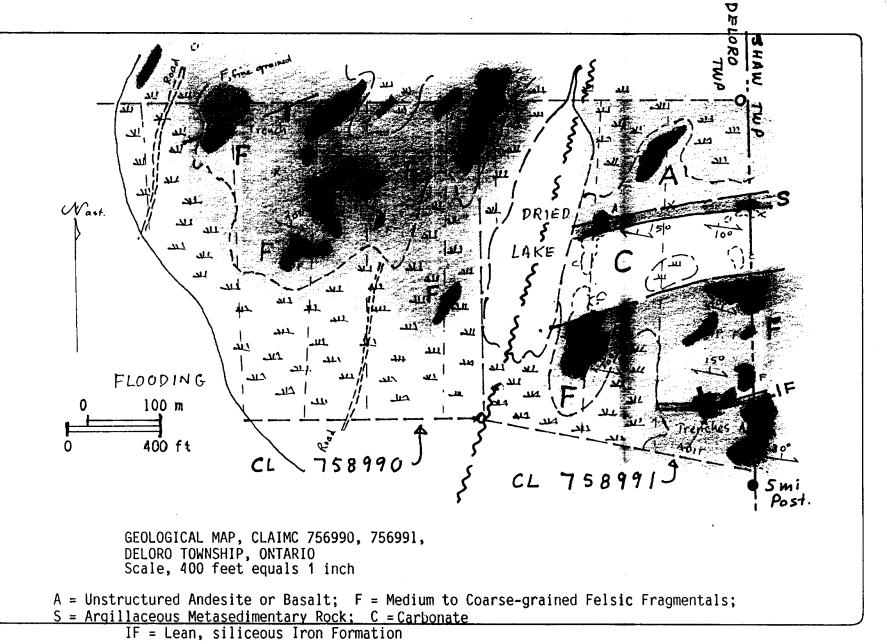
The rocks all dip gentle northward at angles of 10 to 25°, the lower angles being commonest.

A fault is inferred to underly the north-south oriented dried lake in the east central parts of the claims as evidenced by the physiographic linear in which the lake rests and by the inability to correlate rocks across the lake.

ECONOMIC GEOLOGY

File T-271 in the Ontario Geological Survey Resident Geologist's Assessment Files in Timmins contains an undated contemporary section through the adit which occurs in the southeasterly part of claim P.758991. This section shows a zone of quartz about 8 feet thick at the bottom of the adit, with the statement on the map: "Work done to 11th July Drift in Solid Quartz Hanging Wall not Reached. Average Assay Value Over \$20.00 per ton". This would indicate gold values

JOHN L.KIRWAN



in the one ounce class (with gold at \$20.67 per ton as it was before 1934) or in the half ounce class (with gold at \$35 per ton). The adit at the time of the writer's visit was filled with water and the face described above inaccessible—as it must also have been during the visit of geologists from Amax Exploration in 1981 (Assessment FIle T-1978) who report that a sample from the iron formation assayed .025 ounces of gold to the ton.

Respectfully submitted,

John L. Kirwan

DECLARATION

I, John Laurence Kirwan, of the Town of Centre Harbor, State of New Hampshire, United States of America, and of the City of Timmins, Province of Ontario, Canada, do hereby state:

- that I am a practising Consulting Geologist with offices in Old Meredith Road, Centre Harbor, NH, USA 03226.
- 2. that I am President of Earth Resource Associates (John L. Kirwan and Associates Limited) which was incorporated in the Province of Ontario in 1976.
- 3. that I have practised my profession as Geologist continuously since 1961 and as a Consulting Geologist continuously since 1972.
- 4. that I am a Professional Engineer of the Province of Ontario and of the State of New Hampshire and that my licence to practise is not under suspension or revocation in either juristiction. I am also a Fellow of the Geological Association of Canada and of several other professional and licensing bodies in Canada, the USA, England, Ireland and Brazil.
- 5. that I am a graduate with the Degree of Bachelor of Science in Geology and Mathematics from Carleton University in Canada and with the Degrees of Master of Science and Doctor of Philosophy from the University of London in England.
- 6. that I am familiar with the material contained in this report, having examined the original material myself, and with the property in question, having visited it on several occasions in the field, and
- 7. that I do not now have and do not anticipate receiving, any direct or indirect financial interest in the property described in this report.

Respectfully submitted,

Joh¶ L. Kirwan

DATES AND PERSONNEL ON THE SURVEY

The present geological survey of the claime was made during the period September 17 to 24, 1984 and included the following personnel:

John L. Kirwan, PhD, Geologist, 115 Golden Avenue, South Porcupine, Ontario. 4 days

Kenneth J. Lapierre, BSc, Geologist, P.O.Box 2150, Timmins, Ontario, 2 days.





Mining Lands Section Control Sheet

File No 2. 3354

		TYPE	OF SURVE	Y	GEOPHYSICAL GEOLOGICAL GEOCHEMICAL EXPENDITURE		
MINING	LANDS	COMME	NTS:				
	· · · · · · · · · · · · · · · · · · ·						
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
						· **	
						•	

LD

Signature of Assessor

25/10/84

Date



**Ministry** of Nathral Resources

Report of Work (Geophysical, Geological, Geochemical and Expenditures) 2.7254 Instructions: -

Instructions: -

Please type or print.
If number of mining claims traversed exceeds space on this form, attach a list. Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

The Mining Act Do not use shaded areas below. Type of Survey(s) Township or Am **GEOLOGICAL DELORO** Claim Holder(s) 4.5247 CANAMAX RESOURCES INC., T-1318 Address 255 Algonquin Blvd W., TIMMINS, ONTARIO P4N 2R8 Survey Company Date of Survey (from & to) Total Miles of line Cut EARTH RESOURCE ASSOCIATES 17. 09. 84 24 09

Name and Address of Author (o	( Geo. Technical reners)			Day Mo.	YY. Day	Y6.   Y7.		·······
Dr.	J.L.Kirwan, P.		150, TIM	MINS, ONTARI	0, P4N	7X8		
Credits Requested per Each (	Claim in Columns at r	ight	Mining C	laims Traversed (L	ist in nun	nerical sequer	nce)	
Special Provisions	Geophysical	Days per Claim		lining Claim	Expend.		ning Claim	Expend.
For first survey:	- Electromagnetic	Claim	Prefix	Number	Days Cr.	Prefix	Number	Days Cr.
Enter 40 days. (This includes line cutting)	- Magnetometer		6 B	758990	24			
For each additional survey:	- Radiometric		P	- <del>798991-21</del> .	21			
using the same grid: Enter 20 days (for each)	- Other		o	75899127	21		<del></del>	
•	Geological		private.	P				
	Geochemical						N 14	****
Man Days	Geophysical	Days per Claim	**************************************					
Complete reverse side and enter total(s) here	- Electromagnetic		3.5					
•	- Magnetometer	,						
	- Radiometric							
•	- Other							
	Geological	21						
	Geochemical							
Airborne Credits		Days per Claim	122				· · · · · · · · · · · · · · · · · · ·	
Note: Special provisions	Electromagnetic						·	
credits do not apply to Airborne Surveys.	Magnetometer		436	4,				·
	Radiometric				**/ _{EQ} 3/			
Expenditures (excludes power	er stripping)				<u> </u>	100	7	
Type of Work Performed						35%		
Performed on Claim(s)						4	Ž	
						0		
PORCUPINE	MINING DIVISION							
Calculation of Expandituse Pays	E VE M	Total s Credits						
\$	-+		· L		L	Total num	ber of mining [	
521	25 <b>384</b> P.M.						ered by this	2
Total Days Cragity new here choice. Enter nulmic to day	12 12 8 4 5 6	nolder's	[	For Office Use O	nly			
in columns at right.				Cr. Date Decorded	1/2	Mining rec	Dr.	<del> </del>
Sept.25 84	Tortied Holder of Agent (		42		15 189 15 Records 15 74	ining	Garley Topology	<i></i>
Certification Verifying Rep	<u> </u>	لـــــــــــــــــــــــــــــــــــــ	L	1.70		y y		)
I hereby certify that I have	personal and intimate k				of Work and	xed hereto, h	aving performed	the work
or witnessed same during and		and the ann	exec report is	true.		$\sim$	·	

Date Certified 25 Sept. 1984

Certified by (Signature)

John L. Kirwan, P.O.Box 2150, TIMMINS, Ontario, P4N 7X8

# Assessment Work Breakdown

Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

								:			
Technical Days	J		Technical Days Credits	1	Line-cutting Days	•	Total Credits	· ·	No. of Claims	<del></del>	Days per Claim
6	7 × [	7 =	42	+		] =	42	] +	2	] =	21
of Survey	<del></del>		-	-			· .	-			
Technical Days			Technical Days Credits		Line-cutting Days		Total Credits	<del></del>	No. of Claims		Days per Claim
	X 7	<u>'</u>		+		=		} +		] =	
										_	
f Survey	· · · · · · · · · · · · · · · · · · ·	-		· ·							
Technical Days			Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
Technical	] x [7		Technical Days Credits	+	Line-cutting Days	= [	Total Credits	+		] =	Days per
Technical	] x [7	]=	Technical Days Credits		Line-cutting Days	= [	Total Credits	+		] =	Days per
Technical Days	J L.	] =	Credits		Days	= [		] +		] =	Days per

Commonweal Section 1



Ministry of Natural Resources

#### Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act

2.7254/Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s)		· · · · · · · · · · · · · · · · · · ·				Township	or Area	e snaded areas Deli	ow.
GEOL	LOGICAL			· · · · · · · · · · · · · · · · · · ·	······································		DELO		
	AMAX RESOURCES	INC.,						318	
	Algonquin Blvd	I W., T	I۷	MINS. O	NTARIO	P4N 2R	8		
Survey Company		<del></del>			Date of Surve	y (from & to)		Total Miles of ligh	e Cut
	TH RESOURCE ASS	OCIATE	S		17 R9	84 24 Vr. 84	Q2. ₁ 84.	/	
Name and Address of Author (c Dr.	of Geo-Technical report) J.L.Kirwan, P.	O.BOX	21	50, TIM					
Credits Requested per Each (	Claim in Columns at r	<del>,</del>	<b>.</b>		aims Traversed				
Special Provisions	Geophysical	Days per Claim	]	Prefix	ining Claim Number	Expend. Days Cr.	Prefix	Nymber	Expend. Days Cr.
For first survey:	- Electromagnetic							7	
Enter 40 days. (This includes line cutting)	- Magnetometer			P.3	758990	24			
For each additional survey:	- Radiometric			Р	798991	24		] /	
using the same grid: Enter 20 days (for each)	- Other		1			71		7	
Enter 20 days (for each)	Geological		1			<del>                                     </del>	respective of	/	
	Geochemical		1	Puldia.		1			
Man Days	Geochemical		4			11 /	177		
·	Geophysical	Days per Claim				V /I			
Complete reverse side and enter total(s) here	- Electromagnetic						و المالية		
	- Magnetometer		1		Γ	1			
	- Radiometric		1		<del>\</del>				
			-	22			11 11 Wayne		
	- Other		١,				(1)		
	Geological	21	И				And the state of t		
	Geochemical		$\mathbb{N}$						
Airborne Credits		Days per Claim	1 \						
Note: Special provisions	Electromagnetic	7131111	1	No.		<del>-    </del> .	<b>Fay</b>		
credits do not apply		<del></del>	1	<b>X</b>			***	<i>v</i>	
to Airborne Surveys.	Magnetometer		1				MA.	•	
	Radiometric	\	Į.			1000		1984	
Expenditures (excludes pow	er stripping)		$\Gamma_{c}$	3 1 1 1		thin.	1/1.703	· .	
Type of Work Performed	/		1					<del></del>	
Performed on Claim(s)			┨						_
	/								
			1						,
	MINING DIVISION		┨						
Total Expenditure Cay		Fotal s Credits					7		
\$ 11	つ. 点た 単作						<u> </u>	<u> </u>	
SEP	52.13347: T						claims co	mber of mining vered by this	2
Instructions A.M. Total Days Credita may be the	P.M.	older's					report of	work.	
Total Days Predits may be chorce. Enter number of the day in columns at right.	Credit Cour Fra mission	ed .		Total Days	For Office Use		Mining	corde	
	<del>/</del>		J	Recorded		25/84	1		_
Sept.25'84 Re	Total Holder of Agent (			42		d as Recorded	Branch D Minin	Recorder	
Certification Verifying Repa	<del>/</del>		_						
I hereby certify that I have a or witnessed same during and	d/dr after its completion					rt of Work anne	xed hereto,	having performed	the work
Name and Postal Address of Per	•	T T SAKA T N	ıc	0~+	A DAN TVA				
John L. Kirwan,	r.u.box 2150,	TIMMT	15,	, untari	o, ran /x8				

Date Certified 25 Sept. 1984

## Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Technical Days

Credits

Line-cutting Days

Total Credits

No. of Claims

Claims

Claims

Type of Survey

Type of Survey

Technical Days
Days
Technical Days
Credits
Line-cutting
Days
Total Credits
No. of Claims
Claims
Claim

X 7 = + = + = = + = =

Type of Survey

Technical Days Line-cutting Total Credits No. of Days per Credits Days Total Credits + = + = =

Type of Survey

Technical Days Line-cutting Total Credits No. of Days per Claim

X 7 = + = + = + = + = =

Part De la Caracter d

Service State of the State of t

1984 10 12

Your File: 2.7254

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We received reports and maps on October 2, 1984 for a Geological Survey submitted on Mining Claims P 758990-91 in the Township of Deloro.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-6918

#### A. Barrisc

cc: Canamax Resources Inc 283 Algonquin Blvd W Timmins, Ontario P4N 2R8

cc: Dr. John L. Kirwin P.O. Box 2150 Timmins, Ontario P4N 7X8

# Ontario

## **Ministry of Natural Resources**

# GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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

Type of Survey(s)GEOLOGICAL		
Township or Area DELORO	MINING CLA	IMS TRAVERSED
Claim Holder(s) CANAMAX RESOURCES INC.,		umerically
283 Algonquin Blvd W., TIMMINS, Ont. P4N 2R8		
Survey Company EARTH RESOURCE ASSOCIATES		• • • • • • • • • • • • • • • • • • • •
Author of Report Dr. John L. Kirwan	(prefix)	(number)
Address of Author P.O.BOX 2150, TIMMINS, ONTARIO P4N 7X8	Р	750000
Covering Dates of Survey September 17-24, 1984 (linecutting to office)	P	758990 758991
Total Miles of Line Cut	r	/58991
	]	
SPECIAL PROVISIONS CREDITS REQUESTED Geophysical DAYS per claim.		
ENTER 40 days (includes line cutting) for first — Radiometric — Radiomet		
ENTER 20 days for each —Other		••••••
additional survey using Geological 21		***************************************
same grid.  Geochemical		
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)		
Magnetometer Electromagnetic Radiometric (enter days per claim)		_
DATE: Sept. 25, 1984 SIGNATURE: Ally Kurwan	Ŋ	ECEIVED
Abutor of Report of Agent	'9'	02 1984
Res. Geol. Qualifications 43.2257	MINING	LANDS SECTION
Previous Surveys		
File No. Type Date Claim Holder		
	TOTAL CLAIM	s 2