Ø1Ø



GEOLOGY OF THE PICHETTE OPTION

(Project 54019)

VINCENT TWP., ONTARIO

NTS 42/E/12

RECEIVED

NOV 9 1988

MINING LANDS SECTION

Toronto, Ontario October 17, 1983

D.H. Waddington



TABLE OF CONTENTS

	<u>P</u>	AGE
SUMMARY AND CONCLUSIONS	. • •	1
LOCATION AND ACCESS	. • •	2
TOPOGRAPHY AND VEGETATION		2
PAST WORK		5
GENERAL GEOLOGY	• • •	6
DETAILED GEOLOGY	• • •	6
STRUCTURAL GEOLOGY	• • •	8
ECONOMIC GEOLOGY	• • •	10
RECOMMENDATIONS	• • •	13
FIGURES		
FIGURE 1		3
FIGURE 2		4
FIGURE 3back	pock	et
FIGURE 4		, 9
APPENDIX		
APPENDIX 1: Schedule of Claims		
APPENDIX 2: Assay data from main showing		

SUMMARY AND CONCLUSIONS

A geological survey was conducted over 6 claims of the 16 claim Pichette Uption block during June, 1983. The claims cover the original showing where the presence of visible gold has been known for many years. The south part of the survey area is underlain by mafic volcanic rock with thin interflow units of banded iron formation (chert + magnetite, chert + chlorite or chert + tremolite) while the north part is totally drift covered. A quartz vein containing arsenopyrite and tourmaline as well as anomalous gold was also located in one of the iron formation units.

LOCATION AND ACCESS

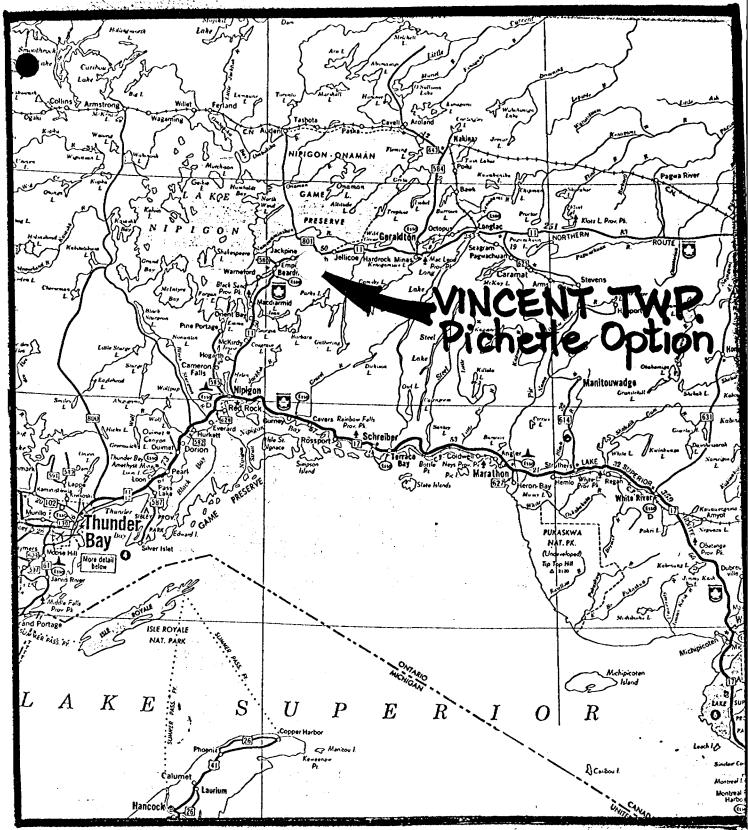
The 6 claims covered by the present survey are located in Vincent Township, 9 miles WSW of Jellicoe, Untario, and 1/2 mile south of the CNR tracks and the Blackwater River as shown in Figures 1 and 2. The only major difficulty for access is the Blackwater River which can be next to impassable during high water although at low water a four wheel drive truck can allow access to the centre of the property on good bush roads.

TOPOGRAPHY & VEGETATION

Relief on the northern 3 surveyed claims is minimal with thin swamp cover overlying sand and clay. The southern 3 claims display much sharper relief with steep sided rock ridges up to 50 feet high forming prominent east-west ridges separated by swampy valleys. Crosscutting (fault?) valleys occur in a few places.

Vegetation cover is relatively open for the most part.

In the northeast and south central parts of the block are some substantial areas of cedar and alder swamp. High, sandy terrain



CANAMAX RESOURCES INC.,
Vincent Township

PICHETTE OPTION

LOCATION MAP

1" = 30 mi.

WALTERS TWP G-171 PICHETTE PROJ. S1019 5 M Nezoh 645\1631 1614122 | 614121 | TB | TB 1TB TB TB 535285 535284 1614117 1 TB TB TB 645169 16451 1614118 614119 614120 645049 645048 645047 645168 1 A WAK TB EdilA LS 1 TB S614228 ,614231 645052 TB 1535288 53 5289 459787 /418431 513154 513156 5 604197 513497 B TB TB ITB TIS TO TB TB 645055 1645054 645053 1513155 |513157 \ 1513 441 |513440) 603297 603296 1603295 TB. 604207 10347 TB () TB 28936 | 28933 551507 TB 76 2,7794 2,7795 2,7794 2,7795 0 0 0 42248 9044 1614504 614511 614512 TB O TB O TB O TB O TB 27791 27793 41984 41983 TTB TB 11984 2 1614510 1614513 ; 41991 © TB 78 (L) TB (C) 41985 27792 41989 41987 Blockwoter 614501 614505 614509 614514 S14507 614508 614515 1814498 614 499 614500 FIGURE 2 THE HEART BURGERS OF THE PARTY OF THE PROPERTY OF THE PARTY.

in the northwest corner is covered by open, mature jackpine and poplar. The rocky ridges are covered by a mixed second growth of fir, spruce and poplar after an approximately 40 year old cut. The rest of the low ground is wet and consists of spruce and/or alder growth.

PAST WORK

Although the showing appears to have been known for some time, little assessment work has been filed. the only rport clearly describing the property is a property examination report by W.S. Hamilton from 1938 which describes the original showing as free gold in quartz veins encountered during trenching of apparently barren material along strike from the Northern Empire Mine. The property was known as the Morrison-Smith claims and the Toronto assessment files number is 63.3860.

The area was covered, but not described, in G. B. Langford's 1928 Ontario Dept. of Mines report (Vol. 37 part 4) entitled "Geology of the Beardmore-Nezah Gold Area, Thunder Bay district, Ontario". More exhaustive descriptions of the Dalton and other claim blocks close by to the south are included in Langford's report.

During the summer of 1983 the townships of Vincent and McComber were being re-mapped by M. Carter of the Ontario Geological Survey.

GENERAL GEOLOGY

According to ODM maps 37K and 2102 the property lies in the Beardmore-Geraldton greenstone belt, with the present baseline being near a contact between metasedimentary rocks on the north and metavolcanics on the south. To the west at the Northern Empire, Sand River and Leitch Mines underground workings encountered a thick sheet of Logan (Proterozoic) diabase at depth. A unit of this material outcrops about 2 miles east of Beardmore, possibly implying a possible pre-erosional diabase sheet existing above the present property.

DETAILED GEOLOGY

The accompanying geological map, (Figure 3) at a scale of 1:2000 illustrates the distribution of outcrops and lithologies encountered in the present survey. The grid lines were cut from an East-West (magnetic) baseline at intervals of 125 meters, with stations picketted every 25 meters.

The most common lithology is mafic volcanic (unit 1)with coarser layers or lenses of more massive, gabbroic to dioritic material (Unit 4), probably in part coarse flow-material. Locally pillows can be, found only slightly flattened, and tops are indicated to the north although for the most part the volcanics occur as massive schistose flows.

By reason of comparison with the Tombill and Dalton properties to the south the rock unit receiving much attention was the iron seiments (map unit 2). These consist of relatively thin (0.5 to 5 meter) interflow units of limited strike length, varying from poorly bedded to thinly bedded, sugary textured metachert (crumbly weathering) with interbeds of magnetite, chlorite, sulphides or amphiboles (tremolite) at different locations. Often more than one iron mineral was found at a given outcrop. No grab samples taken from iron sediment materials gave any significant gold values.

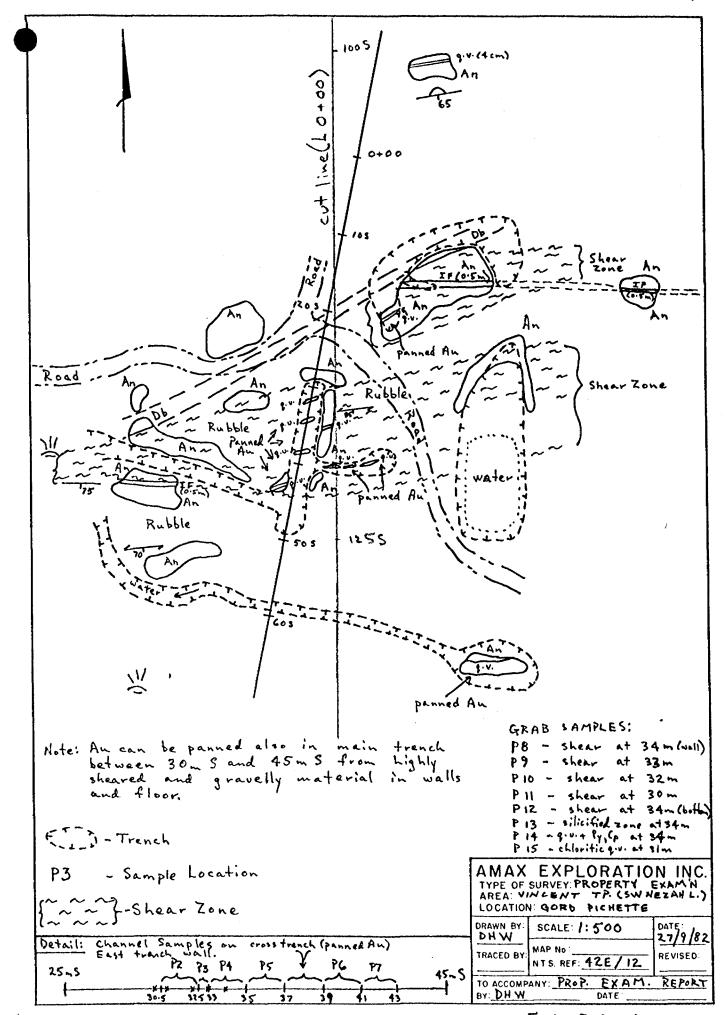
In many places the iron formations of unit 2 seemed to grade along strike or up and down into more felsic, sericitic sedimentary rock (unit 3) which thus can form an envelope around the unit 2 rocks. This is particularly noticeable around 250S, Line 0+00.

One very small, fine grained diabase unit occurs on the northwest side of the main showing, striking about 060° but it

was not encountered in the December 1982 drill holes and so is of obviously limited extent. It is uncertain whether this would be a Keeweenawan age dyke or a feeder to a Logan sill.

STRUCTURAL GEOLOGY

Strikes of the bedding and schistosity are quite uniformly between 075° and 090° on this property which is typical of the whole belt as well. Dips are steep to the south with pillows indicating tops to the north. The sequence is thus overturned. Apart from the so-called shear zone at the main showing, no great amount of shearings or bedding parallel faulting was observed. The presence of en echelon lenses of relatively thick quartz veins at the main showing may indicate disruption and rotation due to extreme shearing. Regionally, linear features tend to plunge shallowly to the west but that could not be determined on this property. No folding was observed, although this could be in part due to a general lack of laminated rocks with suitable markers.



FIGURE

ECONOMIC GEOLOGY

Gold was encountered at two locations on the property. The main showing, examination of which resulted in optioning of the ground by Amax Minerals Exploration (now Canamax Resources Inc.) is that described in OGS assessment file report 63.3860, "Morrison-Smith Claims". It is impossible to see details discussed therein by Hamilton due to extensive stripping and trenching by the present owner which has resulted in a lot of material being moved around the area. The second showing occurs west of 250S on Line 0+00 and consists of quartz veins within iron formation. The quartz veins carry well developed needles of arsenopyrite and tourmaline and gave Au assays in the 0.1 to 0.5 ppm range. There is both a mag and VLF expression of this unit at surface extending west to line 125W. Subsequent drilling showed that more than one iron formation is present, that both iron formation and quartz veins contain arsenopyrite that the veins dip out of the iron formation, that neither carries significant gold values and that neither thickens down dip.

The main showing as shown in Figure 4 is a shear zone striking roughly east-west. At surface it is so weathered that it can be scooped out of the trench walls with a bare hand.

On panning this flaky, deeply weathered material, parts of the trench system give good gold colours of an extremely fine, very pale gold. Seiving the material to -10 and +10 mesh fractions gives assays in a ratio of about 3:1 in fine material vs coarse. Small rusty patches in the rotten rock give the best colours on panning.

A panned concentrate was made from 16 pans of coarsely screened material and submitted for heavy mineral separation.

The 5.15 grams of concentrate gave a total of 58 milligrams of gold in partly crystalline grains. It is possible that some gold contained in the pyrite fraction was lost during magnetic separation as well.

Drilling beneath the main trenches in 1982 showed no visible gold but did show some gold values associated with heavy to massive pyrrhotite mineralization in one hole only. The iron formations did not carry significant gold. The rock in the "shear zone" appears in core as an angular breccia of small, platy volcanic fragments cemented with calcite.

Based on the above observations, it appears that the surface gold showings are basically a residual deposit after leaching of the sulphides and the calcareous host rock.

The crystal faces may suggest further chemical concentration in special conditions of pH and eH due to the leaching of the sulphides and calcite. Similar mineralization was neither found along strike from, nor beneath, the showing.

RECOMMENDATION:

The two areas of gold mineralization observed during this survey have now (October, 1983) been drilled satisfactorily with negative results. No further work would seem appropriate at this time.

APPENDIX I

SCHEDULE OF CLAIMS

Our Project: 54019-01

Vincent Township

TB 519316

TB 519428

TB 534700

TB 534701

TB 535205

TB 614162

Total - 6 Claims



P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0 TELEPHONE: (705) 642-3244 ANALYTICAL CHEMISTS ◆ ASSAYERS ◆ CONSULTANTS

Certificate of Analysis

Certificate No.	5403	31	_	Date:Octob	er 13, 1	982
Received Sept.	28, 1982	15	Samples of	Chips/Or	е	
Submitted by A	max Minerals	Exploration,	Toronto, Ont	ario Attn:	Mr. D.	Waddington
		Proj	ect # 54017			
				·		
SAMPLE NO.	GOLD PPM	SILVER PPM		SAMPLE NO.	GOLD PPM	SILVER PPM
P-1 P-2	0.03 1.74	0.2 1.2		P-12"A"	3.43 3.76 5.83	1.7
P-3 P-4	0.08 3.98	0.4 0.8		P-12"B"	1.21 1.85	0.6
) P-5	2.72 3.64 0.40	0.6		P-13	5.90 4.21 6.86	1.6
P-6	1.21	0.9		P-14	1.30	1.2
P-7	1.94	0.8		P-15	1.60	1.1
P-8	7.20 4.48 6.17	1.9				
P-9	1.47	0.7				
P-10	1.61	1.2			,	
P-11"A"	20.44 18.17	4.9				•
P-11"B"	7.55	3.7				

[&]quot;A" is fine fraction

9.81

Per

[&]quot;B" is coarse fraction



P.O. BOX 10, SWASTIKA, ONTARIO POK 1TO TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No.	54127			Date:	October	19,	1982	
Received	Harriston drawn Bris handiget Trayle desert of the whole	2	Samples of	r Pulp	prepared	from	stored	reject
Submitted by	Amax Minerals	Exploration,	Toronto,	Ontario	Attn:	Mr. D	. Waddi	ngton
	Projec	t # 54017						

SAMPLE NO.	GOLD PPM
P-11"C"	17.35
P-11"D"	7.27
P-12"C"	4.25
P-12"D"	2.19

"C" is fine fraction
"D" is coarse fraction

new samples from fine and warso rejects of samples PIHIX A and B) for comparison.

Per



P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0 TELEPHONE: (705) 642-3244 ANALYTICAL CHEMISTS ◆ ASSAYERS ◆ CONSULTANTS

Certificate of Analysis

Certificate	No.		54031 - A	er principality on a company or make a definite form of the call of the		Date:	October .	21,	198	2
Received_	Sept.	28,	1982	15	Samples of	No and an incidental and incidental	Chips/Ore			· ············
Submitted	by	Ama	x Minerals	Exploration,	Toronto,	Ontario	Attn:	Mr.	D.	Waddington
	-		Projec	t # 54017						

SAMPLE NO.	ARSENIC PPM
P-1	9
-2	38
-3	34
-4	850
-5	225
-6	1110
-7	920
-8	178
-9	250
-10	183
-11	236
-12	417
-13	12
-14	21
-15	14

Per





P.O. BOX 10, SWASTIKA, ONTARIO POR TELEPHONE: (705) 642-3244

TELEPHONE: (705) 642-3244 | [7] | ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

OCT 21 1982

AIVIAX TORONTO

Certificate No.		54031	- B	Date	october 18, 1982
Received Sept.	28,	1982	3	Samples of	Sample Bags (empty)
Submitted by	Amax	Minerals	Exploration,	Toronto, Ontario	Attn: Mr. D. Waddington
			Project # 54	017	

Sample bags approximate weight (9.2g) asked and analysed for total gold content.

SAMPLE NO.	GOLD Milligrams		
P-1	0.0003		
P-2	0.002		
P-11	0.19		

The amount of gold found in Bag # 11 when calculated on the basis of a 5 lb. sample would cause a correction of 0.08 PPM to be added to the assay result. Since some gold would come from bits of samples adhering to the bag, the 0.19 mg. found would not seem significant.

Per

Sample	Description	`Au ppm
P1	Deeply weathered IF (1.5m chip)	
P2	Shear zone material (2m)	
Р3	Slightly sheared andesite (0.5m)	
P4	Shear zone material (2m)	
P5	Shear zone material (2m)	
P6	Shear zone material (2m)	
P 7	Shear zone material and till (2m)	
P8	Shear zone - top of trench wall	
P9	Shear zone - middle of trench wall	
P10	Shear zone - bottom of trench wall	
P11	Shear zone - bottom of trench - fine fraction	
	- coarse fraction	
P12	Shear zone - bottom of trench - fine fraction	
	- coarse fraction	
P13	Silicified material beside quartz vein in shear zone	
P14	Quartz vein material with heavy Py, Cp, Chlorite	
P15	Quartz vein with green chlorite	

Ag

ppm

As ppm

Note: Samples P2 through P5 are one continuous sample separated from P6 and P7, which are also continuous, by an unsampled interval of 2m which is occupied by a trench in which quartz was found and traces of Au can be panned.



Ministryof Natural Resources

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

2.6002 1482 Jul



() h	63648048	م	The Mining	TEC TENCOTOS	2.6002 VINC	ENT Do not use snaueu areas us	900
Type of Survey(s)	ogical				Township	or Area	
Claim Holder(s)					Vii	ncent Township [Prospector's Licence No.	6163
Gord	on J. Pichette,	·				E. 26904	
Address P.O.	Box 971, Nipi	gon, Or	ntario P(T 2J0			
Survey Company				Date of Survey	ı	Total Miles of li	ne Cut
			***************************************	913 M	83 29	AG 43	
Name and Address of Author (D. H. Waddington		iversi	tv Ave	Toronto, Or	ntario M5	SH 3M7	
Credits Requested per Each				laims Traversed (
Special Provisions	Geophysical	Days per Claim	Prefix	lining Claim Number	Expend, Days Cr.	Mining Claim Prefix Number	Expand. Days Cr.
For first survey:	- Electromagnetic		ТВ	519316 -			
Enter 40 days. (This includes line cutting)	- Magnetometer			519428 _		1 4	
For each additional survey:	- Radiometric			534700			
using the same grid:	- Other			534701			
Enter 20 days (for each)	Geological	20		535205	┨		
	Geochemical	20		614162			
Man Days		Days per		014102	-		
Complete reverse side	Geophysical	Claim			 		
and enter total(s) here	- Electromagnetic						
nect	* * - Magnetometer				-	1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /	
	- Radiometric						
}}**	- Other						
	Geological					A Company	
Phillips IA	Geochemical						
Airborne Credits		Days per Claim					
Note: Special provisions	Electromagnetic						
credits do not apply to Airborne Surveys.	Magnetometer				1		
to Airborne Surveys.	Radiometric						
Expenditures (excludes pow	<u> </u>				-		
Type of Work Performed	er stripping)						
Performed on Claim(s)		Ì					
						8	
Calculation of Expenditure Day	ו	fotal					
Total Expenditures		Credits		 		18 (1 · 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1	
\$	<u> </u>]				Total number of mining claims covered by this	6
Instructions Total Days Credits may be a	pportioned at the claim h	older's		F - 046 - 11- 0	N=1.	report of work.	
choice. Enter number of day in columns at right.	s credits per claim selecte	d		For Office Use C	/	Mining Recorder	
			Recorded	Od 2	4/83 A	yeary M. La	yes
Oct. 17/83	corded Holder or Agent (S	· 1	120	84.3.	2 8	Al Liertor L	7
Certification Verifying Repo				10			
I hereby certify that I have a or witnessed same during and					of Work anner	xed hereto, having performed	the work
Name and Postal Address of Per	son Certifying						
	on, 1100 - 181	Univer	sity Ave	Date Certified		Certified by (Signature)	
Toronto, Ontari	o M5H 3M7			Oct. 17	/83	Depart de	the last



Ministry of Natural Resources

Geotechnical Report Approval

File			
2.	60	0	2

FCC 24/89 Mining Lands Comments To: Geophysics Comments Signature Approved Wish to see again with corrections Mr. Kustra. To: Geology - Expenditures March 19/84 Chistra Approved Wish to see again with corrections To: Geochemistry Comments Date Signature Approved Wish to see again with corrections (Tel: 5-1380)

To: Mining Lands Section, Room 6462, Whitney Block.

2.6002

Mrs. Audrey Hayes Mining Recorder Ministry of Natural Resources P.O. Box 5000 Thunder Bay, Ontario P7C 5G6

Dear Madam:

We have received reports and maps for a Geological survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims TB 519316 et al in the Township of Vincent.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-1380

A. Barr:mc

cc: Gordon J. Pichette P.O. Box 971 Nipigon, Ontario POT 2J0

cc: D.H. Waddington
Suite 1100
181 University Avenue
Toronto, Ontario
M5H 3M7

Ontario

Ministry of Natural Resources

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 Vincent Town	nship			
Claim Holder(s) Gordon J. Pi		MINING CLAIMS TRAVERSED List numerically		
Survey Company	·	ТВ	519316	
Author of Report D. H. Waddir	ngton	(prefix) TB	(number) 519428	
Address of Author 1100 - 181 U	Iniversity Ave., Toronto	ТВ	534700	
Covering Dates of Survey June 13	(linecutting to office)	ТВ	534701	
Total Miles of Line Cut		ТВ	535205	
SPECIAL PROVISIONS CREDITS REQUESTED	DAYS Geophysical	ТВ	614162	
ENTER 40 days (includes line cutting) for first survey.	Electromagnetic Magnetometer Radiometric			
ENTER 20 days for each	-Other			
additional survey using	Geological		•••••••	
same grid.	Geochemical			
AIRBORNE CREDITS (Special provisio	n credits do not apply to airborne surveys)			
MagnetometerElectromagne (enter day	tic Radiometric s per claim)		•••••	
DATE: Oct. 17/83 SIGNAT	URE: Author of Report or Agent			
Pos Cool Ovolisio				
Res. Geol. Qualific Previous Surveys	ations	N OF 6		
File No. Type Date	Claim Holder	NOV	⁹ 1983	
		WINING L	ANDS SEC.	
		TOTAL CLAIMS	6	

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations	Number	of Readings
Station interval	Line spa	cing
Profile scale		
Contour interval		
C)		
Accuracy - Scale constant		
Accuracy — Scale constant Diurnal correction method Base Station check-in interval (ho		
Base Station check-in interval (ho	ours)	
Base Station location and value		
_		
Instrument		
回 Coil configuration		
Coil separation		
Ol '		
Method: Fixed	d transmitter	☐ In line ☐ Parallel line
Frequency	(specify V.L.F. station)	
Instrument		
Scale constant		
Corrections made		
Corrections made		
ප් ප් Base station value and location		
Elevation accuracy		
Instrument		
Method Time Domain		Frequency Domain
Parameters - On time		Frequency
→ Off time	F	Range
— Delay time		
- Integration time		
- Delay time - Integration time Power		
Electrode array		
•		
•		

INDUCED POLARIZATION

SELF POTENTIAL	
Instrument	Range
Survey Method	
C	
Corrections made	
RADIOMETRIC	
Instrument	
Values measured	
Energy windows (levels)	
Height of instrument	Background Count
Size of detector	
Overburden	
	(type, depth — include outcrop map)
OTHERS (SEISMIC, DRILL WELL LOG	GING ETC.)
Type of survey	·
Instrument	
Accuracy	
·	
Additional information (for understanding	results)
	,
AIRBORNE SURVEYS	
Type of survey(s)	
Instrument(s)	`
, ,	(specify for each type of survey)
Accuracy	(specify for each type of survey)
Aircraft used	
Sensor altitude	
Navigation and flight path recovery metho	d
	Line Spacing
Miles flown over total area	Over claims only

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken		
Total Number of Samples	ANALYTICAL METHODS	
Type of Sample(Nature of Material)	Values expressed in: per cent	
Average Sample Weight.	p. p. m. 1	
Method of Collection		
	Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)	
Soil Horizon Sampled	Others	
Horizon Development	Field Analysis (tests)	
Sample Depth	Extraction Method	
Terrain	Analytical Method	
	Reagents Used	
Drainage Development.	Field Laboratory Analysis	
Estimated Range of Overburden Thickness	No. (tests	
	Extraction Method	
	Analytical Method	
	Reagents Used	
SAMPLE PREPARATION	Commoraial Laboratorus (
(Includes drying, screening, crushing, ashing)	Commercial Laboratory (tests)	
Mesh size of fraction used for analysis	Name of Laboratory	
	Extraction Method	
	Analytical Method	
	Reagents Used	
	General	
General	- Contract	



TORONTO, ONTARIO 181 UNIVERSITY AVE. SUITE 1100 M5H 3M7 TELEPHONE 416-364-6188

November 7, 1983

Mr. F. W. Matthews, Ontario Ministry of Natural Resources, Room 6450 - Whitney Block, Queen's Park, Toronto, Ontario M7A 1W3

Dear Sir:

Re: Geological Survey - Mining Claims TB 519316, TB 519428, TB 534700, TB 534701, TB 535205 & TB 614162, Vincent Township Our Project 54019-01

Enclosed are two copies of a Report and Plans in the above connection. A Report of Work was filed with the Mining Recorder in Thunder Bay on October 17, 1983.

Thank you.

Yours truly,

Elizabeth A. Barclay

E. enc1.

cc: K. R. Clemiss

cc: D. H. Waddington

cc: F. F. Pichette

NOV 9 1983
MINING LANDS SECTION

