

A Report on the

HARKER TOWNSHIP PROPERTY

Larder Lake Mining Division

. of

Argentex Resource Expl. Corp.

Kirkland Lake, Ontario
June 19, 1984

S. Carmichael, B.Sc. 2.7032

RECEIVED

JUL 17 1984

MINING LANDS SECTION





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SUMMARY

The Argentex Resource Expl. Corp. property, comprising 6 unpatented, unsurveyed mining claims was worked on by the author during June 1984. The purpose of the work was to complete a ground V.L.F. survey, magnetometer survey, and geological mapping carried out at a scale of 1:2,500 metric.

The rocks of the property consist of Archean mafic volcanics of the Kenojevis Group including massive diabasic basalt, pillowed flows including a variolitic variety, flow breccia and tuffaceous rocks varying from fine grained laminated ash to lapilli in fargment size. No sediments or intrusives were found on the property and no areas of mineralization were located.

The geophysical survey shows that numerous small V.L.F. conductors occur, however, they are probably due to an overburden response as most of the property is overlain by thick Pleistocene clay. A relative magnetic low traverses the property north of the base line and may be due to a sequence of flow breccias and tuffs. This low is in part flanked by two small magnetic highs which may represent part of a volcanic flow relatively enriched in magnetite or pyrrhotite.

Little indication of mineralization or rock units which may host gold mineralization were found on the property, however an overburden geochemical survey over the north part of the property is recommended to further explore the tuffaceous horizon.

A Report on the Harker Township Property Larder Lake Mining Division, Ontario

of

Argentex Resource Expl. Corp.

Introduction

This report on the Argentex Resource Expl. Corp. Harker claim group had been prepared by S.J. Carmichael, B.Sc. geology on behalf of Mr. R.J. Kasner, President of Argentex Resource Expl. Corp. The property lies in the south central portion of Harker Township, Larder Lake Mining Division, District of Cochrane, Ontario.

The purpose of this report is to summarize the work completed on the property for assessment work and provide recommendations for further work to be done on the property.

Property Location, Access and Facilities

The property is located in south central Harker Township and covers an area of approximately 1.3km², rectangular in shape. The nearest populated centre is the town of Matheson, 50 km to the west. A dirt road traverses the central part of the property running south from highway 101. No facilities suitable for support of a mining operation are present on the property although milling facilities are present in the town of Timmins, 125 km to the west.

Land Tenure and Ownership

The claims were recorded on February 10, 1984 and bear the following numbers: 738086, 738087, 738088, 738089, 738090, 738091

and are registered to Argentex Resource Expl. Corp. Sufficient work by Argentex has been completed this year to maintain tenure through the 1984 claim year.

page 3

Previous Work Done

The government assessment files in Kirkland Lake show that no work has been recorded on the property. Recent discoveries of gold mineralization in sediments by Camflo Mines to the north east has sparked much interest in Harker township and a continuation of the gold bearing sedimentary unit is postulated to pass through the north section of the property or north of its borders. It is thought that secondary parallel units may occur making the Argentex property an attractive exploration target.

Geological Survey

Geological mapping was carried out at a scale of 1:2,500 metric utilizing grid lines spaced at 100 meters picketed every 25 meters. Most of the property is overlain by thick Pleistocene clay cut by deep ravines often dammed by beavers. 5-10% bedrock exposure does occur in the north central portion of the property.

Rock types mapped include medium to coarse grained diabasic basalt overlain by pillowed basalt flows, often variolitic.

The flows strike between 075° to 085°, dipping steeply south with flow tops to the south. One particular variolitic flow may be traced a distance of 300 meters along strike.

The pillowed flows appear to be overlain by coarse fragmented lapilli tuff and fine grained ash. No faults or sheared outcrops were observed although a north south trending right lateral fault is postulated to occur through the east section of the property (O.D.M. Map#1951-4, J.Satterly, 1951). No zones of significant sulfide or alteration mineralization were found on the property.

Magnetometer Survey

The magnetometer survey was carried out on grid lines separated by 100 meters picketed every 25 meters. A geometrics G-826 proton magnetometer on staff was used with an accuracy of ±1 gamma. The base station (claim post #1-738090, #4-738089) was set to read 58,900 gammas and diurnal fluctuations were corrected by reading the base station at the beginning and end

of each daily survey. The results were then contoured at 250 gamma intervals.

The general strike of the magnetics is approximately 080° and the survey shows relatively minor magnetic fluctuations. A relative magnetic low occurs north of the base line and may reflect basaltic tuffs and flow breccias. No interflow sediments which may give a magnetic depression were located during the course of geological mapping. Two small magnetic highs flank this depression and may represent basaltic flows relatively enriched in magnetite. A right-hand lateral fault striking north-south may occur between lines 5+00W and 6+00W, however this fault could not be verified on surface.

V.L.F. Survey

The V.L.F. Survey was conducted using the Cutler, Maine (NAA) transmitter station on a grid utilizing lines spaced at 100 meters picketed every 25 meters. A Phoenix V.L.F.-2 instument was used. Numerous small conductors were located, however they do not persist for any greater length than 100 meters and their orientation generally does not agree with the strike of the geology. Most of the property is overlain by clay and these small conductors may be due to a groundwater response.

Conclusions and Recommendations

The property appears to lie too far south to contain the main gold bearing sedimentary horizon postulated to pass through central Harker Township. The occurance of volcanic tuffs and flow breccias may indicate that a narrow horizon of possible sediments may exist on the property striking between 075° and 080°, approximately 150 meters north of the base line between lines 5+00W and 8+00W. It is recommended that an overburden geochemical survey be carried out between lines 4+00W and 11+00W from the base line to 3+50N to determine if an anomalous gold source exists on the property.

Respectfully submitted

S.J. Carmichael, B.Sc. Geology

Kirkland Lake, Ontario June 19, 1984

Appendix 1

Satterly, J., Geology of Harker Township, Ontario
Department of Mines. Volume LX, Part VII,
1953.

Other published and private geological information, maps and reports, Ontario Ministry of Natural Resources assessment files.

CERTIFICATE OF QUALIFICATIONS

I, Stewart J. Carmichael, of the Town of Dundas, County of Wentworth, in the Province of Ontario, Canada, do hereby certify that:

- 1. I am a geologist with Argentex Resource Expl. Corp.
 with an office at 1816-44 Victoria St. Toronto, Ontario.
 M5C 1Y2.
- 2. I am a graduate of McMaster University, Hamilton, Ontario having received the degree of Bachelor of Science, Geology, from the Faculty of Science in 1982. I have since practised in the field of mineral exploration.
- 3. I have knowledge of, and experience in the region in which the Argentex Harker Group Property is located.
- 4. In addition to my personal knowledge of the area, I have made use of the records of the Ministry of Natural Resources of Ontario, and of Argentex Resource Exploration Corporation in the preparation of this report. I examined the property relevant to this study from June 4/84 to June 11/84.

Dated this 5 day of July 1984

S. J. Karmuhah

Stewart J. Carmichael, B.Sc.Geology



Report of Work

(Geophysical, Geological, Grochemical and Expenditures

File 2



900

Geophysical, Geological

Argentex Resource Exploration Corporation

Harker Township

T-1692

1816-44 Victoria Street, Toronto, Ontario

Argentex Resource Expl. Corp.

or witnessed same during and/or after its completion and the annexed report is true.

Stewart Carmichael, Box 209, Matheson, - Ontario

Date of Survey (from & to)

84 | 06 | 84 | 11 | 06 | 84 Date of Survey (from & to)

12 km

Name and Address of Author (of Geo-Technical report)

Stewart Carmic			atheson,	Ont. POK	1NO		
Credits Requested per Each C	Claim in Columns at r	ight	Mining Cl	aims Traversed (List in nume	rical sequence)	
Spec al Provisions	Geophysical	Days per Claim	M Prefix	ning Claim Number	Expend. Days Cr.	Mining Claim Prefix Number	Expend. Days Cr.
For first survey: Enter 40 days, (This	Electromagnetic	40	L	738086	ŧφ		
includes line cutting)	Magnetometer	20		738087	40		
For each additional survey:	- Radiometric			738088	do		
using the same grid: Enter 20 days (for each)	- Other			738089	60		
	Geological	20		738090	60		
	Georgiemical			738091	dø		
Man Days	Geophysical	Days per Claim		738560	d 0		
Complete raverse side and enter total(s) here, 🦠 I	19 Electromagnetic			738561	40		
Villa .	Magnetonieter					P	
M. Bleen	Magnet Officier Radiometric Other						
Willen	- Other						
	Geological		:				
	Geochemical				1		
Airborne Credits		Days per Claim		HOER DIV			/
Note: Special provisions credits do not apply	Electromagnetic			BORIN	[E]]]]		
to Airborne Surveys.	Magnetorneter			81911011115111 AUG - 91	984		
	Radiometric			AUG	1,3,4,5,6	1	
Expenditures (excludes power stripping) Type of Work Performed 7 18 191			8 19 10 11 11 21 11	413111	T		
Type of tronk renterines]	ا ا				
Performed on Claim(s)							
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Calculation of Expenditure Days	s Credits	T	:				
Total E≠penditures		Total s Credits					
\$	_					Total number of mining claims covered by this	3
Instructions Total Days Credits may be an	oportioned at the claim h	nolder's				report of work.	<u>ح</u>
choice. Enter number of days credits per claim selected in columns at right.		Total Days	For Office Use C	Jnly	Mining Recorder		
	20.11-14 Mahai - A 4		Recorded	AUG	- 1884	TRANSP DIAMETER	
Date July 9/04 Res	orded Holder or Agent /	p(phartyre)	640	See De	pas Recorded	Thatenest	
Certification Verifying Repo							
I horeby restable that I have a	riorcopal and intimate ke	nowledge of	t the facts set fo	orth in the Report	of Mark anno	ved hereto, having performed th	PARIOTE

1362 181 91

Name and Postal Address of Person Certifying

OFFICE USE ONLY



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)	eological, G	beophysical	
Township or Area Hace Claim Holder(s) Arge		•	MINING CLAIMS TRAVERSED List numerically
Survey Company Arge Author of Report Ste Address of Author Ro Covering Dates of Survey. km Total Miles of Line Cut	wart Carn x 209 Matt Sone 4/8	heson, Ont. Pok-111 14 to Sone 11/84 ting to office)	- L 738086 - (prefix) (number) - L 738087 - L 738088 - L 738089 - L 738090
MagnetometerEle DATE: July 5/84	D Geop -Ele les -May -Rad -Rad Geol Geoc pecial provision credits ectromagnetic (enter days per clai	Author of Report or Agent	738091
Res. Geol. Previous Surveys File No. Type	Qualifications Date	Claim Holder	_
			TOTAL CLAIMS

GEOPHYSICAL TECHNICAL DATA

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

)

N	umber of StationsNumber of Readings
	tation interval 25 meters Line spacing
Pı	rofile scale
C	ontour interval 250 gammas
MAGNETIC	Instrument <u>Geometrics G-826</u> proton magnetometer on staff Accuracy - Scale constant <u>tagamma</u> Diurnal correction method <u>Base station check before and after each daily some Base Station check-in interval (hours) G hrs</u> Base Station location and value <u>Claim post #4-738089</u> #1-738090, 58900 gammas
ELECTROMAGNETIC	Instrument Phoenix V.L.F2 Coil configuration Coil separation Infinite Accuracy
ELECTRO	Method: Fixed transmitter Shoot back In line Parallel line Frequency Cutter Maine (specify V.L.F. station) Parameters measured Orien tation and magnitude of the Major and Minor ares of the Eol. pse of Polanization
	Instrument
	Scale constant
Z	Corrections made
RAVITY	Corrections made
GR/	Base station value and location
	Elevation accuracy
	Instrument
	Method
	Parameters – On time Frequency
> ₁	- Off time Range
/II	- Delay time
SIL	- Integration time
RESISTIVITY	Power
R	Electrode array
	Electrode spacing
	Type of electrode

INDUCED POLARIZATION

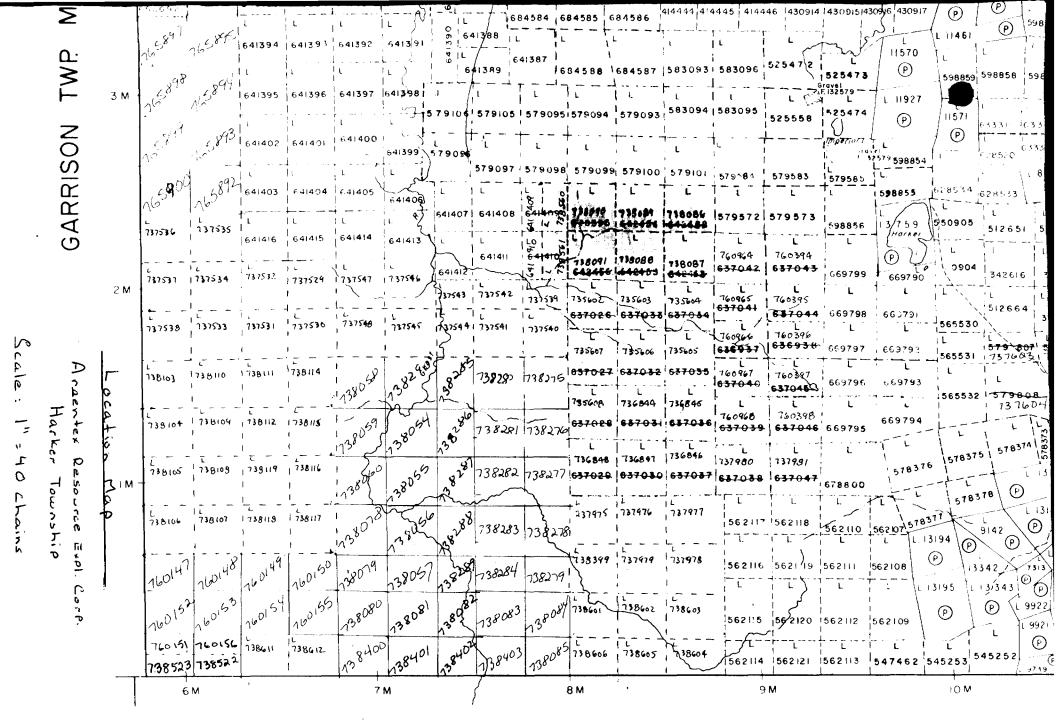


SELF POTENTIAL _____ Range _____ Instrument_____ Survey Method _____ Corrections made_____ **RADIOMETRIC** Instrument_____ Values measured _____ Energy windows (levels) Height of instrument ______Background Count _____ Size of detector____ Overburden _____ (type, depth -- include outcrop map) OTHERS (SEISMIC, DRILL WELL LOGGING ETC.) Type of survey_____ Instrument _____ Accuracy____ Parameters measured_____ 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 method ______ Aircraft altitude_____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	
Type of Sample(Nature of Material) Average Sample Weight Method of Collection	—————————————————————————————————————
Soil Horizon Sampled	Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle) Others
Horizon Development Sample Depth Terrain	Extraction MethodAnalytical Method
Drainage Development Estimated Range of Overburden Thickness	Field Laboratory Analysis
SAMPLE PREPARATION	Analytical Method Reagents Used
(Includes drying, screening, crushing, ashing) Mesh size of fraction used for analysis	Commercial Laboratory (tests Name of Laboratory Extraction Method Analytical Method
	Reagents Used
General	General



ELLIOTT TWP M-347

1984 10 19

Your File: 309 Our File: 2.6958

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Notice of Intent dated September 25, 1984.
Geophysical (Electromagentic & Magnetometer)
and Geological Survey on Mining Claims
L 738086 et al in the Township of Harker.

The assessment work credits, as listed with the above mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.E. Yundt Director Land Management Branch

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

S. Hurst:sc

cc: Argentex Resource Exploration Corporation Suite 1816 44 Victoria Street Toronto, Ontario M5C 1Y2

cc: Mr. G.H. Ferguson cc: Resident Geologist
Mining & Lands Commissioner Kirkland Lake, Ontario
Toronto, Ontario



Technical Assessment Work Credits

	2.6958
Date	Mining Recorder's Report of
1984 09 19	Work No. 309

File

Recorded Holder	
	ARGENTEX RESOURCE EXPLORATION CORPORATION
Township or Area	HARKER TOWNSHIP

Type of survey and number Assessment days credit per c		Mining Claims Assessed
Geophysical		
Electromagnetic	40 days	L 738086 to 091 inclusive
Magnetometer	days	
Radiometric	days	
Induced polarization	days	
Other	days	
Section 77 (19) See "Mining Claims Ass	sessed" column	
Geological	20 days	
Geochemical	days	
Man days 🗌	Airborne 🗌	
Special provision	Ground 🗓	
Credits have been reduced be coverage of claims.	cause of partial	
Credits have been reduced becauto work dates and figures of appli		
77 (40)		
Special credits under section 77 (16) for	or the following n	nining claims
No credits have been allowed for the fo		
not sufficiently covered by the surve		Insufficient technical data filed
	L	. 738560-61



Oct 10/84

1984 09 25

Your File: 309 Our File: 2.6958

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt Director

Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

∫ S. Hurst:mc

Encls.

cc: Argentex Resource Exploration Corporation Suite 1816 44 Victoria Street Toronto, Ontario M5C 1Y2

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario



Notice of Intent for Technical Reports

1984 09 25

2.6958/309

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



Tot 4, 1984

1984 09 19

Your File: 309 Our File: 2.6958

Mining Recorder Ministry of Natural Resources Ontario Government Building Box 324/

Red Lake, Ontario POV/2MO

Dear Sir:

Enclosed are two copies of listing a reduced rate of for a technical survey. P holder of the claims and re fifteen days from the above these credits will be sent letter, you may then change sheets.

For further information, if

Mr. R.J. Pichette at 416/965

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ter out lake daine; d

Yours sincerely,

Yundt Director

tand Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

RS. Hurst:mc

Encls.

cc: Argentex Resource Exploration Corporation **Suite 1816** 44 Victoria Street Toronto, Ontario M5C 1Y2

Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario



Notice of Intent for Technical Reports 1984 09 19 2.6958/309

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AZGENTEX RESOURCE EXPLORATION CORPORATION

HEAD OFFICE Ste. 500, 67 Richmond St. W. TORONTO, Ontario M5H 1Z5 (416) 361-0737 *** EXECUTIVE OFFICE Suite 1816, 44 Victoria Street TORONTO, Ontario M5C 1Y2 (416) 947-1465/6

FILE: 2.6958

September 10, 1984

Ministry of Natural Resources Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

RECEIVED

Attention:

S.E. Yundt Director SEP 18 1984

Land Management Branch

MINING LANDS SECTION

Dear Sirs:

Re: Geophysical (Magnetic & Electormagnetic) and Geological Survey submitted on Mining Claims
L 738086 et al in Harker Township - File 2.6958

Enclosed please find the following completed information as per your request of August 20, 1984.

- 1) all plans signed by author of the report;
- 2) readings now shown on magnetometer plans;
- 3) readings contoured/profiled on EM plans; and
- 4) nature of overburden indicated on geological plans where no outcrops occur.

Yours very truly,

ARGENTEX RESOURCE EXPLORATION CORP.

R.'J. Kasner, President

RJK/jac Encl.

хc

August 20, 1984

Gar File: 2,6958

Argentex Resource Exploration Corporation Suite 1816 44 Victoria Street Toronto, Ontario M5C 1Y2

Dear Sirs:

RE: Geophysical (Magnetic & Electromagnetic) and Geological Survey submitted on Mining Claims L 738086 et al in Harker Township

Returned herein are the plans (in duplicate) for the above-mentioned survey. The following information is required in order to complete your submission.

- 1) all plans to be signed by author of the report
- 2) readings to be shown on magnetometer plans
- 3) readings to be contoured or profiled on EM plans
- 4) nature of overburden to be shown on geological plans where no outcrops occur.

Please return this material quoting file 2.6958.

For further information, please contact Mr. Ray Pichette at (416)965-4888.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-4888

S. Hurst:mc

cc: Mining Recorder
Kirkland Lake, Ontario

cc: Stewart Carmichael Box 209 Matheson, Ontario POK 1NO

Encl.

1984 07 24

Your File:

Our File: 2.6958

Mr. George J. Koleszar Mining Recorder Ministry of Natural Resources 4 Government Road East P.O. Box 984 Kirkland Lake, Ontario P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) and Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 738086 et al in the Township of Harker.

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

S. Hurst:sc

cc: Argentex Resource Exploration Corp 1816-44 Victoria Street Toronto, ontario M5C 1Y2

cc: Stewart Carmichael Box 209 Matheson, Ontario POK 1NO

File No 2.6958

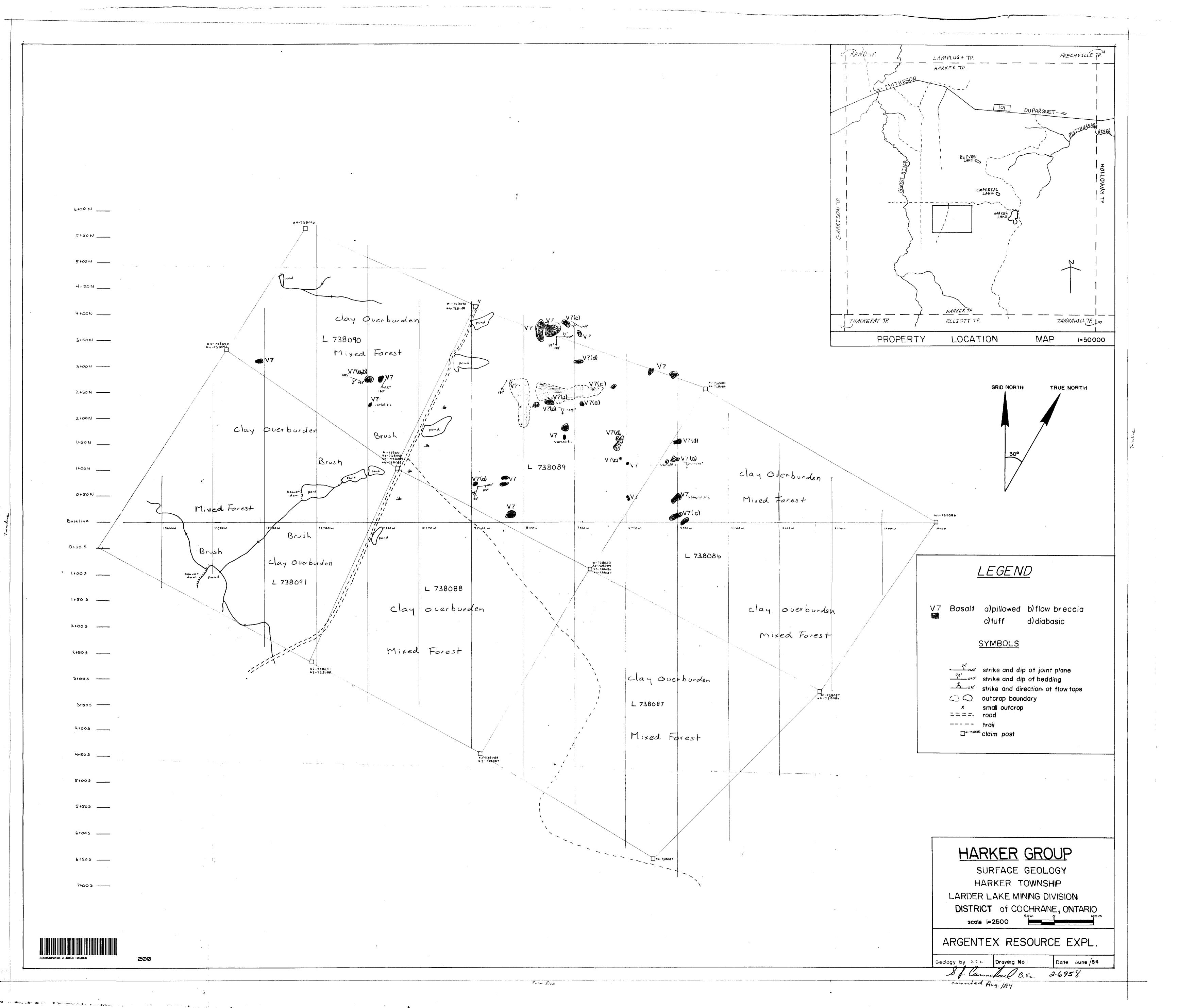
Mining Lands Section

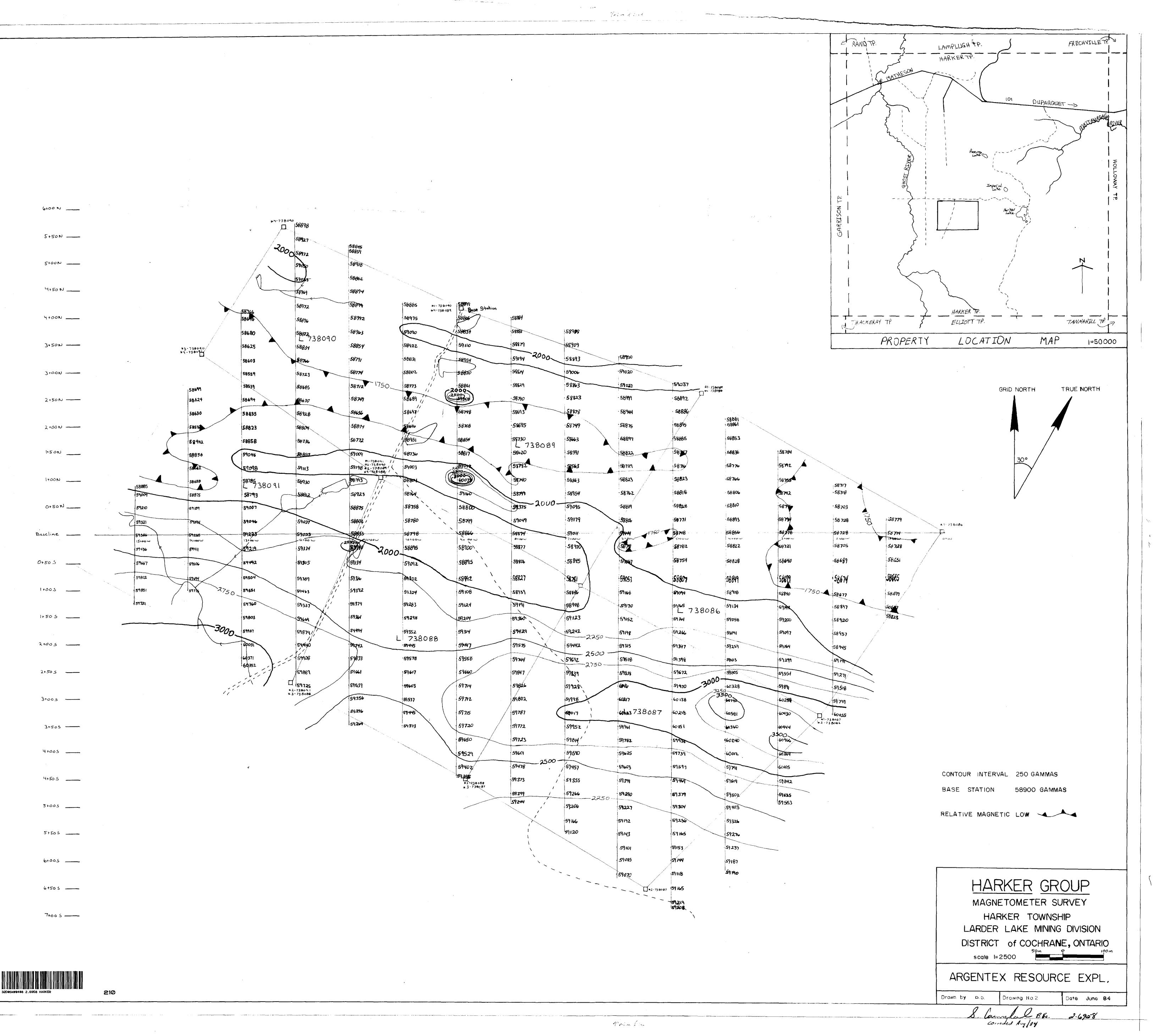
Control Sheet

	•
TYPE OF SURVEY	GEOPHYSICAL
	GEOLOGICAL
	GEOCHEMICAL
•	EXPENDITURE
MINING LANDS COMMENTS:	
no quantications	
- no signature on s	rapi
-no overburden	
-no mag madings	
- no profins a cont	Louis on EM.
L.D. lage.	
0	

Signature of Assessor

Date





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