52F09SW2001 2.19493 SATTERLY 010

PROV... RECORDING
MAY 19 1999
A.M. P.M.
7 8 9 10 11 12 1 2 3 4 5 6

ASSESSMENT REPORT ON THE 1998 GEOCHEMICAL SAMPLING, LINECUTTING, GROUND GEOPHYSICS AND GEOLOGICAL MAPPING PROGRAMS

BURNING LAKE AREA

Satterly Township

Kenora Mining District

NTS 52F/09

(Lat. 49° 36' N and Long. 92° 27' W)

ONTARIO

RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

2.19493

FALCONBRIDGE LIMITED
21C MURRAY PARK ROAD
WINNIPEG, MANITOBA

Kevin Wells
Project Geologist
May 18, 1999

SUMMARY AND CONCLUSION

The property was acquired in 1998 through an option agreement with Earl Hansson of Waldolf, Ontario. The purpose of the acquisition was to investigate a newly discovered nickel-bearing sulphide showing discovered by Mr. Hansson in the fall of 1997.

The property originally consisted of two claims (1220575 & 1220576) consisting of 9 claim units covering 144 hectares. In September 1998, six (6) adjoining claims (24 claim units) were added to the property.

A total of 45.55 km of linecutting , 45.55 km of magnetics and 38.87 km of HLEM was completed on the property by Mtec Geophysics Inc. of Murillo, Ontario in September. In October, Clark-Eveleigh Consulting of Thunder Bay, Ontario conducted a small reconnaissance geological mapping program.

No significant EM conductors were identified on the property that would warrant drill testing. The geological mapping program revealed the property is dominantly underlain by massive to pillowed mafic flows that are locally intruded by possible medium-grained gabbroic sills.

The nickel mineralization is believed to be hosted in a strongly carbonitized gabbroic body. Petrographic work was not able to conclusively identify the host rock due to the intense carbonate alteration.

The lack of an EM response associated with the nickel-bearing sulphide showing suggests the mineralization has a limited strike and depth extent. Based on these results, no further work is recommended at this time.

52F09SW2001 2.19493 SATTERLY 010C

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF MAPS

LIST OF TABLES

APPENDICES

LOCATION, ACCESS AND TOPOGRAPHY

The property is centered on Lat. 49° 36' N and Long. 92° 27' W, located approximately 32 km southeast of Dryden, Ontario (Figure 1). The claims occur in the township of Satterly on NTS sheet 52F/09.

The property is readily accessible from the Snake Bay logging road that extends south off the Trans Canada Highway at the eastern end of Jackfish Lake. A series of secondary logging roads cut across the claims providing excellent excess.

Topography consists of low rolling hills reaching heights of approximately 15 metres above the background elevation. Roughly half of the claims are covered by forest and the remaining area has been exposed to logging operations.

PROPERTY STATUS

The property consists of 8 mineral claims totalling 33 claim units covering 528 hectares (Figure 2). The property originally consisted of claims 220575 & 1220576 staked by Earl Hansson in November 1997 and March 1998, respectively. In September 1998, six (6) adjoining claims (24 claim units) were added to the property by Falconbridge.

TABLE 1 - BURNING LAKE PROPERTY

Claim No.	Units	Township	NTS	Recorded Date	Holder
K1220575	3	Satterly	52F/09	13 Nov 1997	Falconbridge
K1220576	6	Satterly	52F/09	19 Mar 1998	Falconbridge
K1226721	4	Satterly	52F/09	29 Sep 1998	Falconbridge
K1223611	4	Satterly	52F/09	29 Sep 1998	Falconbridge
K1226722	1	Satterly	52F/09	29 Sep 1998	Falconbridge
K1226711	8	Satterly	52F/09	29 Sep 1998	Falconbridge
K1226713	3	Satterly	52F/09	29 Sep 1998	Falconbridge
K1226720	4	Satterly	52F/09	29 Sep 1998	Falconbridge
Sub-Total	33				

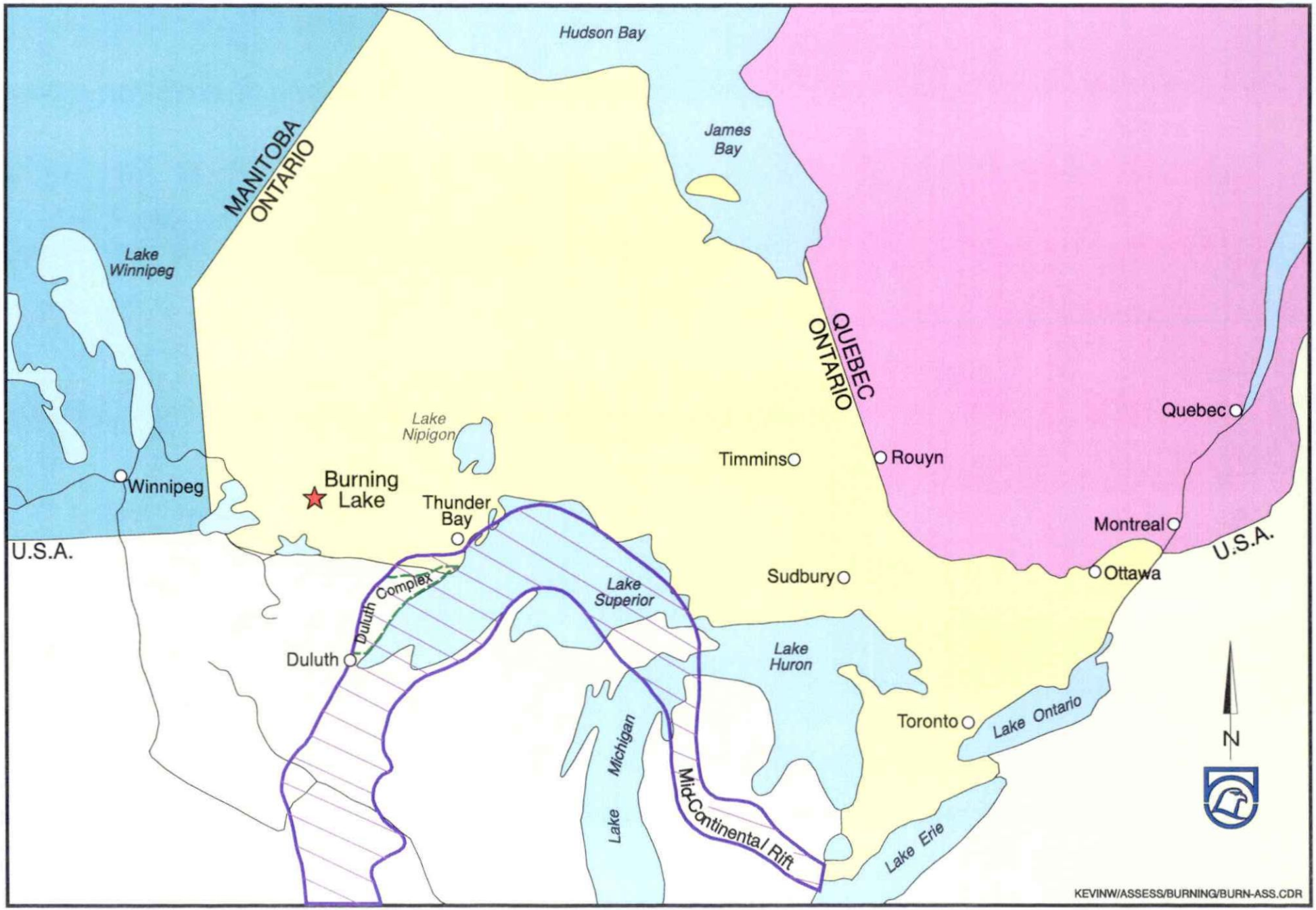
PREVIOUS WORK

Prior to 1997, no previous exploration was conducted on the property.

In 1997, Earl Hansson discovered the prospect while investigating a small gossan along a logging road. A small pit (1.5m x 1.5m x 0.5m deep) was blasted, exposing an intensely carbonatized, sulphide-bearing rock. Two grab samples (#1, #2B) were collected by Mr. Hansson and sent to Accurassay Laboratories in Thunder Bay, Ontario for a 32 element analytical package. The samples returned values of 12,528 ppm Cu, 10,536 ppm Ni and 3,648 ppm Cu, 2,105 ppm Ni.

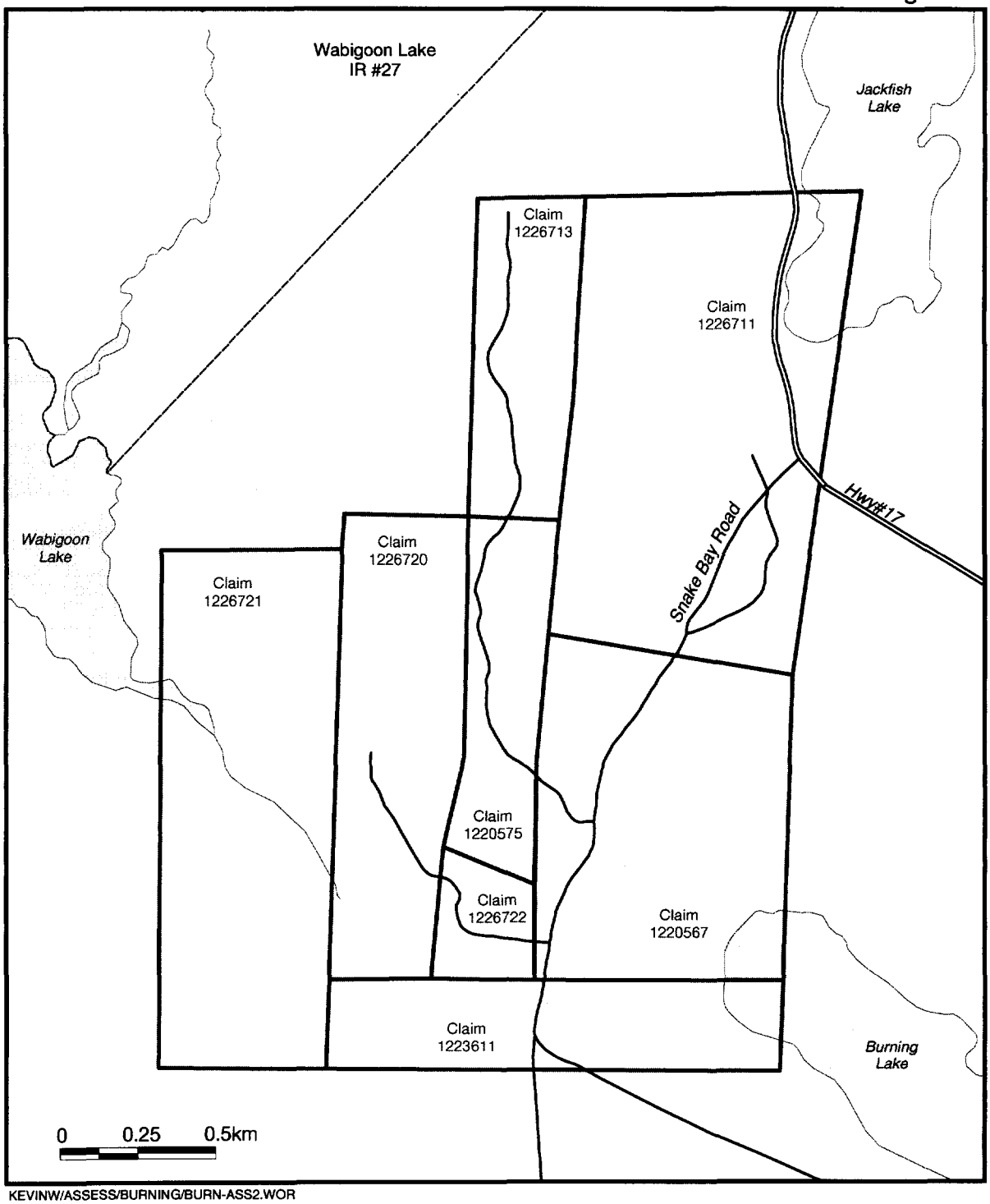
BURNING LAKE, ONTARIO - LOCATION MAP

Figure 1



BURNING LAKE PROPERTY
Claim Location Map

Figure 2



KEVINW/ASSESS/BURNING/BURN-ASS2.WOR

REGIONAL AND PROPERTY GEOLOGY

The Burning Lake Ni-Cu prospect occurs within the Archean Wabigoon Subprovince greenstone belt (2755 to 2700 Ma.) of north-western Ontario. The Wabigoon Subprovince is comprised of metavolcanic and metasedimentary rocks.

The provincial geology maps show the project area to be underlain by mafic volcanics. A field visit in April, 1998 confirmed that altered to non-altered pillowed basalts dominate the local geology in the area.

The main nickel sulphide showing appears to be hosted by an extremely carbonatized gabbro to diorite intrusion that has undergone several phases of brecciation.

1998 WORK PROGRAM

The work carried out in 1998 consisted of petrographic work, rock geochemcial sampling, linecutting, reconnaissance mapping, magnetic and HLEM geophysical surveys.

In January 1998, Earl Hansson provided Falconbridge with representative samples collected from the showing. Six samples were sent to TSL Laboratories in Saskatoon, Saskatchewan and analyzed for Cu, Pb, Zn, Ni, Co, Ba, As, Ag, Au, Pt and Pd. The highest values returned for Cu and Ni were 1.87% (WR24724) and 1.74% (WR24721), respectively. During a field visit in April, two (2) additional samples were collected of the more concentrated sulphides. These samples returned values of 1.16% Ni, 1.23% Cu and 1.07% Ni, 1.45% Cu (WA24736 & WA24737 respectively).

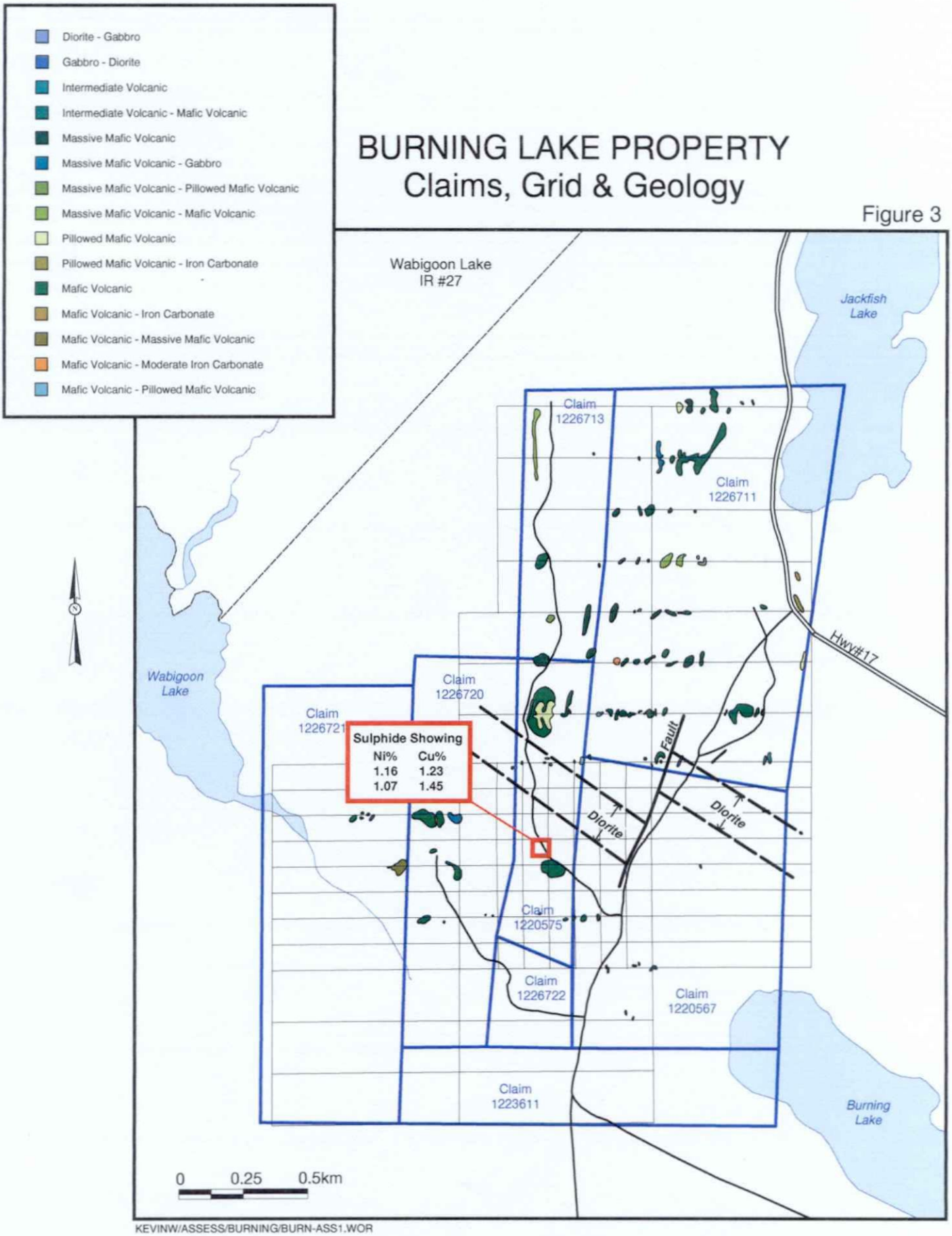
Petrographic work was carried out on 5 of the samples (Appendix II). The thin-section work failed to identify the host rock due to the extreme carbonate alteration. However, the field observation would suggest the parent rock-type is gabbroic.

The sulphides typically constitute 1-2% of the rock, locally increasing to 30%. The sulphide occurs as irregular disseminated blebs, which commonly coalesce to form semi-massive, sub-rounded masses up to 10 cm in diameter. The disseminated sulphide within these masses are strongly insitu-brecciated and rehealed with carbonate. Chalcopyrite occurs as disseminated blebs throughout the rock and also along late stage carbonate veins/fractures. Petrographic work indicates a secondary sulphide assemblage comprising typically of 7-12% pyrite/marcasite with up to 3-7% violarite, 2-5% chalcopyrite, trace amounts of digenite, millerite and minor to 1-2% Fe-oxides in the form of magnetite and hematite. Although not substantiated by the petrographic work, the original primary sulphides assemblage is suggested to have been pyrrhotite/ pentlandite.

Between September 15th to 30th, 1998, Mtec Geophysics Inc. of Murillo, Ontario carried out 45.55 km of linecutting, 45.55 km of magnetic surveying and 38.87 km of HLEM

BURNING LAKE PROPERTY
Claims, Grid & Geology

Figure 3



KEVINW/ASSESS/BURNING/BURN-ASS1.WOR

surveying. The survey logistics, survey equipment, field procedures, personnel and processing techniques are appended under a separate cover tilted "LOGISTICS REPORT ON THE 1998 GROUND GEOPHYSICAL SURVEY, BURNING LAKE AREA" (Appendix III).

A reconnaissance geological mapping program was completed between October 21st to 25th, 1998 by Clark-Eveleigh Consulting of Thunder Bay, Ontario. The mapping revealed the property is underlain predominantly of massive to pillowed basalt flows with local outcrops of diorite-gabbro. No well developed gabbroic textures were observed. The logistics of the mapping program, field procedures, personnel, results and conclusions are appended under a separate cover tilted "REPORT ON 1998 GEOLOGICAL MAPPING AND SAMPLING, BURNING LAKE PROPERTY" (Appendix IV).

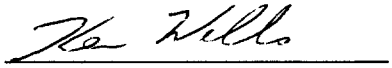
CONCLUSION AND RECOMENDATION

The mapping revealed that the local geology is dominated by mafic volcanic flows with no significant size gabbroic intrusion exposed on the property. The intense carbonate alteration and secondary brecciation obliterating the host rock at the main showing suggests the sulphide is structurally controlled.

The geophysical surveys identified two weak conductors on the property but neither anomaly correlates with the main showing. These two conductors do not warrant diamond drill testing.

Based on the lack of EM conductor associated with the main showing, the strong structural deformation, the secondary mineral assemblage and the nature of the local surface geology, no further work is recommended at this time.

Respectfully submitted,



Kevin Wells
Project Geologist
Falconbridge Limited

REFERENCES

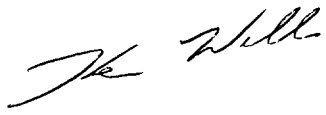
Blackburn, C.E., Geological Map – Kenora-Fort Frances, Kenora and Rainy River Districts, Map 2443, Geological Compilation Series, Ontario Geological Survey, 1979.

Blackburn C.E., Johns G. W., Ayer J. A., and Davis D. W. 1991., Wabigoon Subprovince; in Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 1, p.303-381.

Satterly, J., Geological Map – Dryden-Wabigoon Area, District of Kenora, Ontario, Map No. 50e, 1941.

STATEMENT OF COSTS
BURNING LAKE PROPERTY
FOR THE PERIOD – JANUARY 28, 1998 TO MARCH 31, 1999

GEOLOGY	
Salaries	$ 7,500.00
Contract Payments	$ 3,713.47
Field Expenses	$ 26.14
Assays	$ 838.75
GEOPHYSICS	
Salaries	-
Linecuting	$ 15,814.75
Contract Payments	$ 12,225.00
Field Expenses	-
PROJECT EXPENDITURES	**$40,118.11**



DECLARATION OF WORK

CANADA	)	IN THE MATTER OF the Mining Act-
	)	Ontario Regulation 6/96
	)	
Province of Ontario	)	AND IN THE MATTER OF Exploration
	)	**on the Burning Lake Property located in Kenora Mining District**
	)	
TO WIT:	)	Province of Ontario

I, Kevin Wells of the City of Winnipeg, Province of Manitoba, Geologist,

DO SOLEMNLY DECLARE THAT:

1. I have caused **linecutting, geochemical sampling, geophysical surveys and geological mapping** to be carried out on the aforesaid property.

2. To date the sum of **$ 40,118.11** has been expended on the said **linecutting, geochemical sampling, geophysical surveys and geological mapping** carried out by **Mtec Geophysics Inc. and Clark-Eveleigh Consulting** on behalf of Falconbridge Limited.

   Expenditures cover the following:

   Salaries, contract payments, analytical work, report writing and Supervision

   $ 40,118.11

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath, and by virtue of "The Canada Evidence Act".

DECLARED at the City of Winnipeg, in the Province of Manitoba, this 18th day of May A.D. 1999.

STATEMENT OF QUALIFICATION

I, **Kevin Wells,** certify that:

1. I am currently employed by Falconbridge Limited, operating from the Regional Exploration Office in Winnipeg, Manitoba.

2. I graduated in 1994 from Laurentian University, Ontario with an Honours B. Sc degree in Geology.

3. I have been working as a exploration geologist for 5 years and have been employed in the mining industry for 17 years.

4. I have no financial interest in the property described in this report.

Winnipeg, Manitoba
May 18, 1999

Respectfully submitted,

Kevin Wells
Project Geologist
Falconbridge Limited

APPENDIX I

GEOCHEMICAL RESULTS

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

Company:	Falconbridge Limited
Geologist:	K. Wells
Project:	5407
TSL Report:	S8249
Date Received:	Nov 25, 1998
Date Reported:	Nov 26, 1998
Invoice:	32296

Sample Type:	Number	Size Fraction		Sample Preparation
Rock	12	Crush	65% at -10 mesh	Crush, Riffle, Pulverize
		Pulv.	90% at -150 mesh	

All samples for Fire Assay/AA (Au ppb) are weighed at 30 grams.
All samples for Ag, Base Metals (ppm) are weighed at 1 gram.
All samples for Base Metals (%) are weighed at .5 gram.
All samples for S (%) are weighed at .2 grams.
All samples for Pt, Pd (ppb) are weighed at 30 grams

Element Name	Unit	Extraction Technique	Lower Detection Limit	Upper Detection Limit
Au	ppb	Fire Assay/AA	5	1000
Ag	ppm	$HCl-HNO_3$/AA	.2	50
Base Metals	ppm	$HCl-HNO_3$/AA	1	5000
Base Metals	%	$HCl-HNO_3$/AA	.01	100
S	%	Leco	.01	100
Pt	ppb	Fire Assay/AA	20	20 oz/t
Pd	ppb	Fire Assay/AA	10	20 oz/t

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Falconbridge Limited
21C Murray Park Road
Winnipeg, Manitoba
R3J 3S2

REPORT No.
S6441

SAMPLE(S) OF 7 Rock/1 Pulp

INVOICE #: 30218
P.O.:

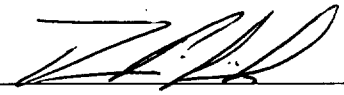
K. Olshefsky
Project: 5402

Corresponding Report S6440

	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ba ppm	Co ppm	As ppm
STD 7707	1.8	190	190	220	210	32	190	150
WR24719	4.0	>5000	<1	66	>5000	3	670	790
WR24720	.8	1600	<1	71	3200	3	230	87
WR24721	4.0	>5000	<1	63	>5000	1	760	2300
WR24722	3.6	>5000	<1	84	>5000	4	720	130
WR24723	5.2	>5000	<1	50	>5000	2	1100	4200
WR24724	.8	>5000	<1	64	2500	2	230	880
WR24725	2.2	>5000	<1	69	>5000	4	690	100
WR24728	.2	720	<1	53	>5000	33	200	58

COPIES TO: K. Olshefsky, P. Tirschmann
INVOICE TO: Falconbridge Ltd. - Winnipeg

Feb 02/98

SIGNED 

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Falconbridge Limited
21C Murray Park Road
Winnipeg, Manitoba
R3J 3S2

REPORT No.
S6447

INVOICE #: 30218
P.O.:

SAMPLE(S) OF 6 Rock/1 Pulp

K. Olshefsky
Project: 5402

Corresponding Report S6441

	Cu %	Ni %
STD Su-1a	.92	1.21
WR24719	1.63	1.00
WR24721	1.52	1.74
WR24722	.98	1.20
WR24723	1.87	.88
WR24724	.52	
WR24725	.60	.83
WR24728		1.43

COPIES TO: K. Olshefsky, P. Tirschmann
INVOICE TO: Falconbridge Ltd. - Winnipeg

Jan 28/98

SIGNED _____

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Falconbridge Limited
21C Murray Park Road
Winnipeg, Manitoba
R3J 3S2

REPORT No.
S6440

SAMPLE(S) OF 7 Rock/1 Pulp

INVOICE #: 30218
P.O.:

K. Olshefsky
Project: 5402

* Denotes values based on 5 gram sample

	Au ppb	Pt ppb	Pd ppb
STD Ma-1b	18600		
STD PTM-1a		7140	9930
WR24719	290/300	70	50
WR24720	50	20	10
WR24721	220	85	30
WR24722	200	65	70
WR24723	200	50	45
WR24724	170	30	15
WR24725	110	40	30
WR24728 *	55	120	210

COPIES TO: K. Olshefsky, P. Tirschmann
INVOICE TO: Falconbridge Ltd. - Winnipeg

Jan 28/98

SIGNED _____

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Falconbridge Limited
21C Murray Park Road
Winnipeg, Manitoba
R3J 3S2

REPORT No.
S6862

SAMPLE(S) OF Rock

INVOICE #: 30706
P.O.:

Project: 5406/5402

Values >5000 ppm have been assayed

	Ni ppm	Co ppm	Cu ppm	S ppm	Pt ppb	Pd ppb
WB09901						
WB09902						
WB09903						
WB09904						
WB09905						
WA24729						
WA24730						
WA24731						
WA24732						
WA24733						
WA24734						
WA24735					--	---
WA24736	11600	830	12300	90500	100	70
WA24737	10700	920	14500	79900	60	40
WA24738						
WA24739						
WA24740						--
STD RTS-2	2500	55	600			
STD Su-1a	12300		9700			

COPIES TO: K. Olshefsky
INVOICE TO: Falconbridge Ltd. - Winnipeg

Apr 29/98

SIGNED 

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

EARL HANSSON
GENERAL DELIVERY (227-5436)
WALDHOF, ONTARIO
POV 2X0
FAX (807)227-5383

Nov 11, 1997

Job# 9741025

SAMPLE # Accurassay	Customer		Gold ppb	Gold Oz/t
1				
2	Check	1	41	0.001
		1	42	0.001

1st Assays
SURFACE

Certified By: John Beven

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

EARL HANSSON
GENERAL DELIVERY (227-5436)
WALDHOF, ONTARIO
POV 2X0
FAX(807)227-5383

Page 1

Nov 20, 1997

Job #9741025

SAMPLE #	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	La	Mg
	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	ppm	%
#1 (Hansson)	<.1	0.99	37	42	37	0.9	<3	2.42	2.8	771	272	3648	17.48	<.01	2	4.35
	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr	Ti	V	W	Zn
	ppm	ppm	%	ppm	ppm	ppm	%	ppm	PPM	%	PPM	ppm	%	ppm	ppm	ppm
#1 (Hansson)	982	<1	0.03	2105	306	4	1.48	<2	<5	0.08	<5	38	<.01	63	4	158

1st Assays
SURFACE

Certified By: J. Chunick

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

EARL HANSSON
GENERAL DELIVERY
WALDHOF, ONTARIO
POV 2X0

Page 1

Dec 3, 1997

Job #9741060

SAMPLE #	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	La	Mg
	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	ppm	%
2B	8.2	0.47	4638	53	40	0.8	<3	2.97	13.3	989	415	12528	21.13	<.01	<1	3.46

SAMPLE #	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Si	Sn	Sr	Ti	V	W	Zn
	ppm	ppm	%	ppm	ppm	ppm	%	ppm	PPM	%	PPM	ppm	%	ppm	ppm	ppm
2B	1179	<1	0.07	10536	243	3	9.38	18	55	0.07	24	43	<.01	61	<2	156

2nd Assay
2' Depth BLAST

Certified By:

APPENDIX II

PETROGRAPHIC AND POLISHED THIN SECTION DESCRIPTIONS

Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V3A 4P9
PHONE (604) 888-1323 • **FAX** (604) 888-3642

February 16, 1998

Falconbridge Limited
21C Murray Park Road
Winnipeg, Manitoba R3J 3S2
Attention: Kevin Olshefsky

Dear Kevin;

RE: Your samples WA 24722; 24723; 24726; 24727; 24728
Our job #980062

Please find attached the mineral identification and analysis of the above-noted samples, including photomicrographs.

These samples have undergone multiple episodes of crushing and carbonate alteration. The rocks now consist largely of carbonate with lesser quartz and chlorite. Textural evidence to support a determination of parent rock type (as you requested) has been obliterated. Field relations may provide better information in this case.

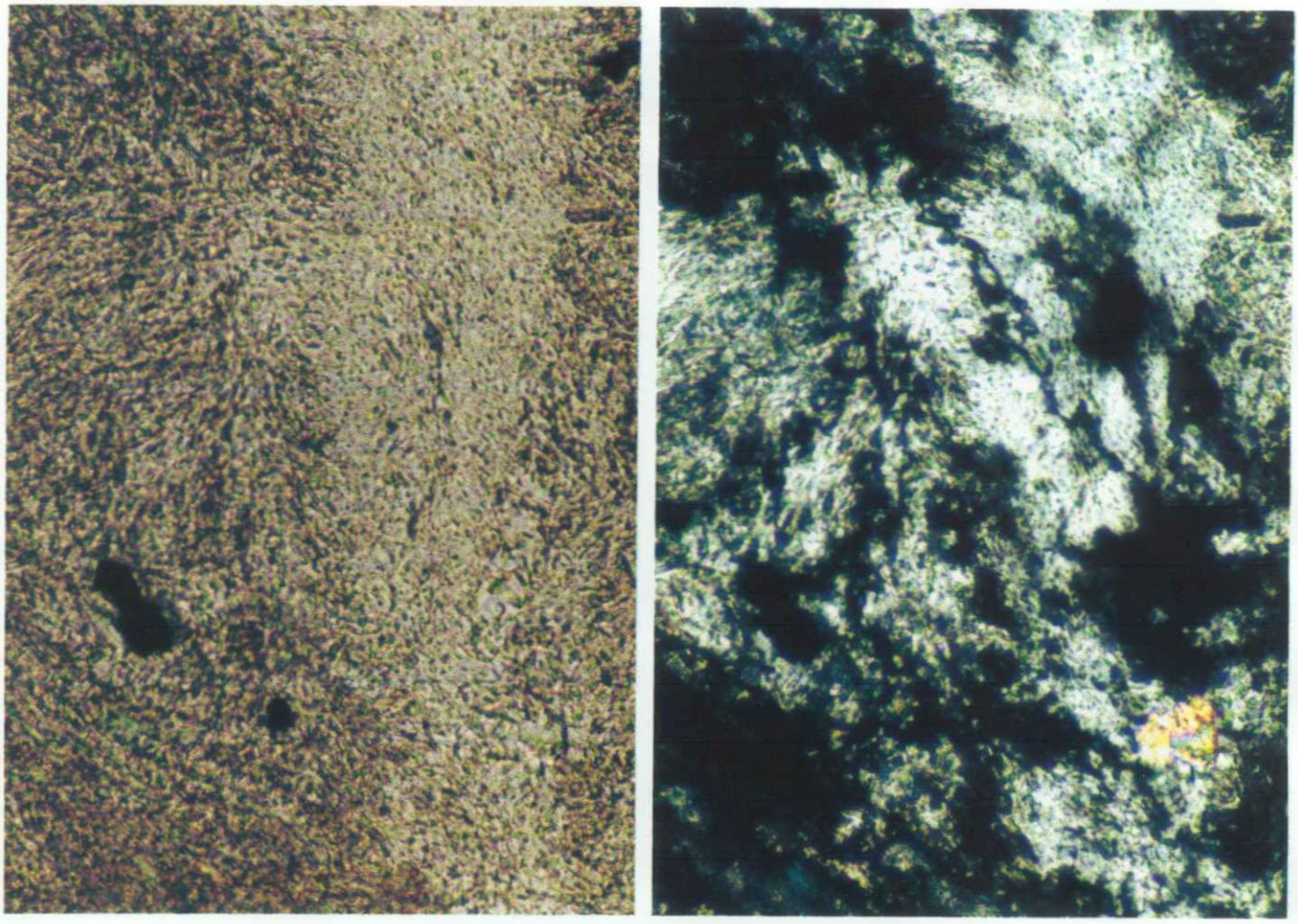
Do not hesitate to call if you have any questions.

Sincerely,

Per:
Bruce Northcote, LL.B., M.Sc. (Geol.)
K.E. Northcote & Associates Tel. (604) 859-4618

BKN/slc
Encl.

[1] WA 24722
Multistage carbonate-, quartz-, chlorite-altered, mineralized breccia



Photomicrographs 98R V 2 and 3 Plane polarized and Cross polarized light
Scale 0.1 mm,_____,
Interpreted as intergrowth of chlorite group mineral in quartz.

Summary description

Strongly carbonate-altered rock consisting mainly of carbonate with lesser quartz, chlorite, sericite, and magnetite. Mineralization consists of aggregates of pyrite, marcasite, violarite, and chalcopyrite, with other sulphides in very minor or trace amounts. The rock, including mineralization is brecciated (crushed) and veined by a later stage of carbonate with lesser quartz and sericite. This late phase contrasts with earlier quartz/carbonate in that late quartz and carbonate contains relatively few inclusions. Previous generation(s) have carbonate with abundant inclusions and quartz with oriented, intergrown chlorite.

Sulphide paragenesis is believed to be as follows: early pyrrhotite and pentlandite, no longer present, altered to pyrite / marcasite and violarite, respectively. Chalcopyrite postdates enclosing pyrite / marcasite, occupies interstices -- probably exsolved phase. Chalcopyrite has undergone some alteration to covellite and other sulphides, sulphosalts. Millerite locally observed within violarite.

[1] Continued

Microscopic description

Transmitted light

Carbonate; 65-70%, anhedral / subhedral interlocking (<0.01 to 1.0 mm). Makes up majority of rock. Much of the carbonate has a dusty appearance -- has abundant minute inclusions. A discontinuous crosscutting vein has clearer, subhedral and euhedral carbonate associated with chlorite and muscovite. Carbonate contains fine disseminated magnetite and sulphide, probably accounting for its dark colour in hand specimen. Reacts with dilute HCl when heated -- dolomitic / ankeritic?

Quartz; 3-5%, anhedral (<0.01 to 0.3 mm). In small aggregates, commonly interstitial to carbonate and sulphides. There appear to be two generations of quartz. One contains abundant inclusions (mineral and fluid), and contains oriented intergrowths of fine chlorite, some sericite -- probably accounts for green quartz in hand specimen. Other quartz has less abundant inclusions and is relatively free of chlorite intergrowths. Both observed in discontinuous veins with carbonate.

Chlorite A; 2-3% (microcrystalline). Aggregates of very fine bladed chlorite are interstitial among subhedral carbonate. Some discontinuous chlorite veining. Strongly green coloured with anomalous blue birefringence.

Chlorite group mineral (?) B; 2-3% (microcrystalline fibrous). Mineral is pale green, fibrous, and commonly intergrown with quartz. Has inclined extinction. Interference figures for this fibrous material are uniaxial (+) with dispersion typical of quartz -- leading to the interpretation as an intergrowth.

Muscovite / sericite; 2-3%, anhedral (<0.01 to 0.3 mm). Scattered coarse flakes, small clusters of flakes. Some finer muscovite / sericite occurs as inclusions in quartz and carbonate. Muscovite / sericite occurs with carbonate, chlorite, and quartz in discontinuous veins.

Reflected light

Pyrite / marcasite intergrowth; 7-12%, subhedral / anhedral (0.01 to 0.4 mm). Brecciated aggregates have irregular outlines, suggesting originated as pyrrhotite. Anisotropic marcasite with pale green pleochroism is intimately intergrown with isotropic pyrite. The pyrite / marcasite is itself intergrown with violarite (/ bravoite).

Violarite; 5-7%, anhedral (0.01 to 0.3 mm). Intergrown with pyrite / marcasite in the brecciated aggregates. Smooth contacts with examples of "cusp and carie" texture on both sides of contact, suggesting the two (or their precursors) have similar paragenetic position. Violarite has characteristic shrinkage fractures. Locally contains millerite.

[1] Continued

Chalcopyrite; 5-7%, anhedral (<0.01 to 0.3 mm). Fills interstices among subhedral pyrite / marcasite. Also occurs as rounded blebs with the pyrite / marcasite, and largely interstitial disseminated in gangue.

Magnetite; 1-2%, anhedral (<0.01 to 0.4 mm). Disseminated. Larger grains are generally fractured.

Hematite; <0.5%, anhedral (<0.01 to 0.1 mm). Mostly as an alteration product of chalcopyrite, some is alteration of magnetite.

Secondary Ti oxides; trace (+), microcrystalline. Irregular aggregates are commonly associated with magnetite.

Millerite; trace (+), euhedral / subhedral (<0.01 to 0.05 mm). Needles, clusters of needles in violarite. Characteristic straw yellow and blue anisotropy. Trace observed in altered chalcopyrite with covellite, hematite.

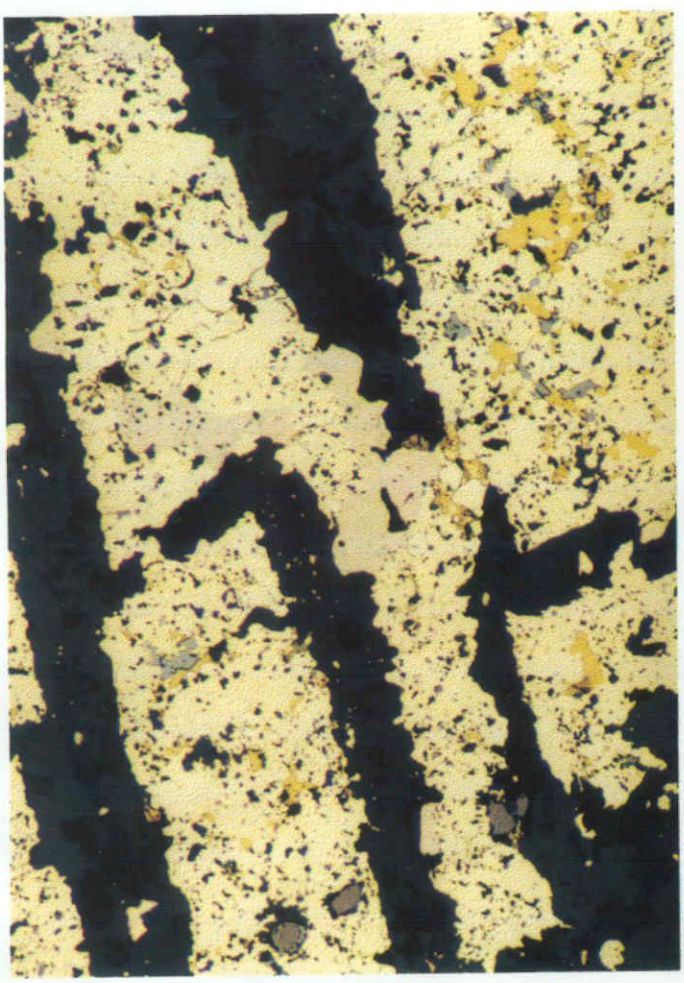
Covellite; traces, anhedral (<0.002 to 0.01 mm). Local alteration of chalcopyrite, with hematite.

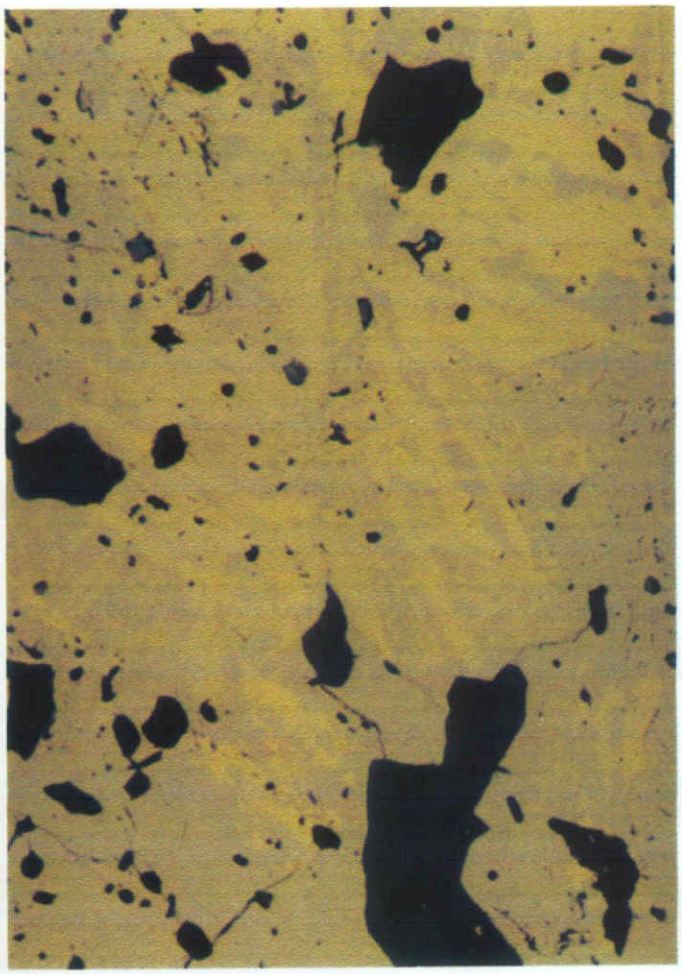
Biotite; trace, anhedral (<0.002 to 0.01 mm). Mainly as alteration product of chalcopyrite.

Digenite (?); trace (<0.002 to 0.01 mm). Very minor alteration product of chalcopyrite.

Enargite (?); trace (<0.002 to 0.01 mm). Very minor alteration product of chalcopyrite.

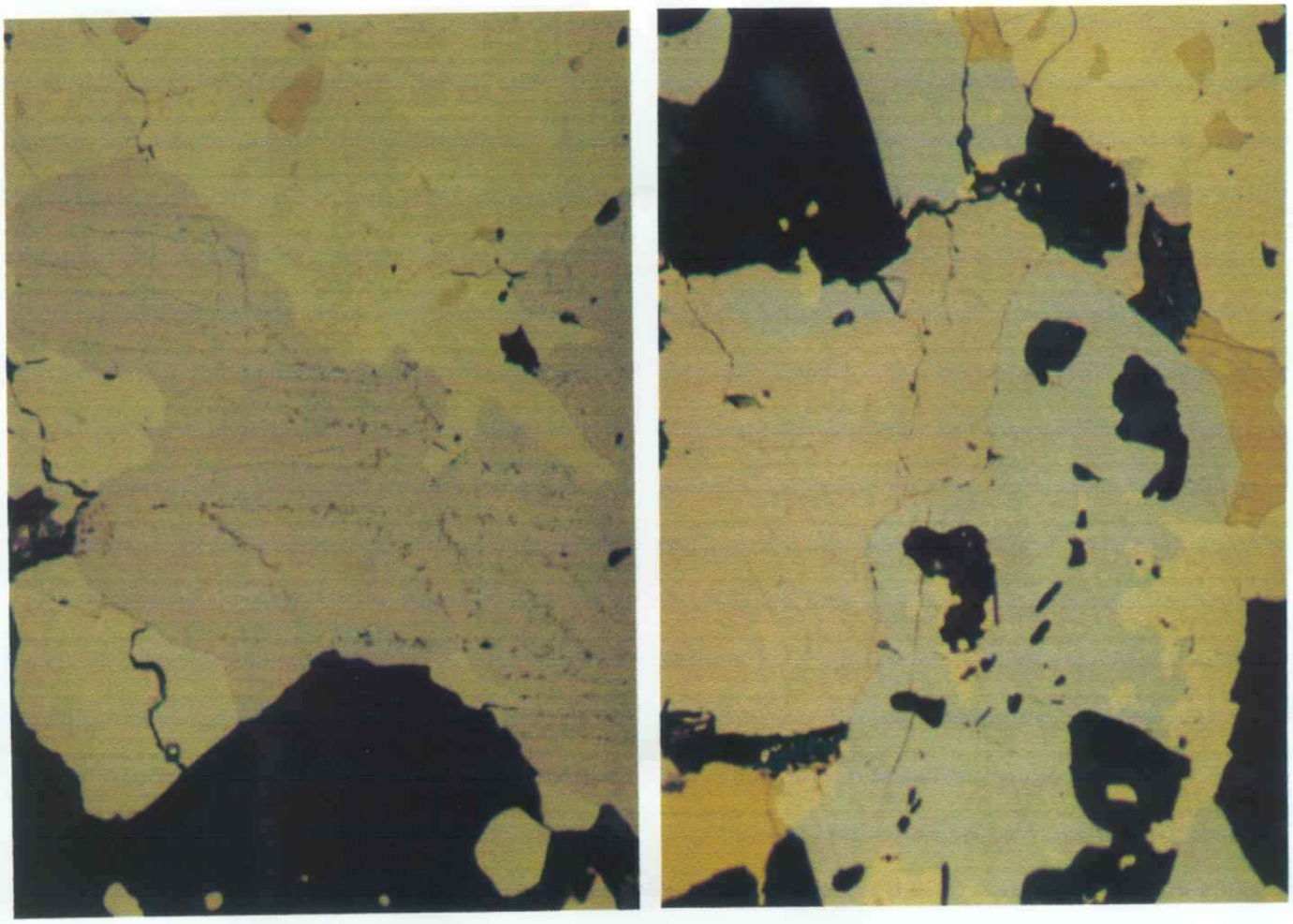
[1] Continued





Photomicrographs 98R V 4 and 8 Reflected light
Scale 0.1 mm Scale 0.1 mm
Pictured 4 -- Brecciated aggregate of pyrite (+ marcasite).
Pictured 8 -- Millerite in violarite.

[2] WA 24723
Multistage carbonate-, quartz-, chlorite-altered, mineralized breccia



Photomicrographs 98R V 12 and 13 Reflected light
Scale 0.1 mm ⌊_____⌋
Pictured 12 -- Violarite altering to grey isotropic along fractures.
Pictured 13 -- Violarite, unknown grey isotropic, pyrite, and chalcopyrite.

Summary description

Similar to [1], strongly altered and crushed rock has undergone multiphase carbonate, quartz, chlorite, sericite alteration. Mineralized with pyrite / marcasite, violarite, and chalcopyrite aggregates which have also been brecciated / crushed. Healed with carbonate and sericite.

An early generation of quartz has abundant intergrown microcrystalline chlorite. Subhedral quartz and carbonate in discontinuous vein / breccia infillings has fewer inclusions than early quartz.

Sulphide paragenesis: suspected early pyrrhotite and pentlandite (no longer present) are altered to pyrite / marcasite and violarite respectively. A white / grey isotropic undetermined mineral appears locally to replace pyrite and violarite (see photomicrographs). Chalcopyrite is interstitial to pyrite / marcasite.

[2] Continued

Microscopic description

Transmitted light

Carbonate; 70-75%, anhedral, interlocking (<0.01 to 0.3 mm). Composing most of the sample. Dusted with abundant minute inclusions consisting of magnetite, Ti-oxides, and sulphides, among others. Coarser subhedral carbonate which is relatively free of inclusions represents vein material and open space filling. Veins are discontinuous, contain lesser sericite and quartz in addition to carbonate. Locally, carbonate displays evidence of deformation and recrystallization.

Quartz; 7-10%, anhedral (<0.01 to 0.5 mm). As in [1], there are two occurrences. One is mainly interstitial to carbonate and contains abundant inclusions and oriented intergrowths of suspected chlorite group mineral. Appears to have undergone deformation. Second type is clearer and is more commonly surrounding brecciated sulphide aggregates. Some of the intergrowth type has the appearance of a separate mineral, but interference figures are generally consistent with quartz.

Muscovite / sericite; 3-5%, anhedral / subhedral (microcrystalline to 0.05 mm). Scattered flakes throughout. Some coarser muscovite occurs with quartz and chlorite. Some is intergrown with carbonate.

Chlorite group mineral; 2-3% (microcrystalline). Forms bladed, oriented intergrowths in deformed, recrystallized quartz. Has a pale green / brownish-green colour.

Chlorite; trace (+), microcrystalline. Some aggregates of very fine bladed chlorite occur interstitial to carbonate and are not intergrown with quartz. Associated with sericite.

Reflected light

Pyrite / marcasite intergrowth; 7-10%, anhedral / subhedral (<0.01 to 0.5 mm). Pyrite and marcasite are intimately intergrown in brecciated aggregates. Marcasite, recognized on basis of pale green colour and anisotropism, appears to be in the minority. Irregular outlines of aggregates suggest that the intergrowth replaces pyrrhotite. Chalcopyrite and violarite also present in these aggregates.

Pyrite; 2-3%, subhedral (0.01 to 1.0 mm). A portion of brecciated sulphide aggregate appears to consist entirely of isotropic pyrite, without intergrowths. Generally coarser, smoother and unmottled in comparison with adjacent material.

Chalcopyrite; 2-3%, anhedral (<0.01 to 0.3 mm). Occupies an interstitial position with respect to pyrite / marcasite. Much occurs in the pyrite / marcasite /

[2] Continued

violarite aggregates, but chalcopyrite is also disseminated throughout carbonate, quartz, and chlorite.

Violarite / bravoite; 1-2%, anhedral (<0.01 to 0.5 mm). Intergrown with pyrite / marcasite in brecciated aggregates. Smooth contacts with examples of "cusp and carie" texture on both sides of contact, suggesting the two (or their precursors) have similar paragenetic position. Violarite has characteristic shrinkage fractures. Material with brownish-grey colour occurs along fractures --probably further alteration of violarite to unidentified mineral.

Undetermined light grey / white isotropic; trace (+), anhedral / subhedral (<0.01 to 0.2 mm). With pyrite / marcasite, chalcopyrite, violarite in the aggregates. Suggestion of crystal forms against chalcopyrite -- probably earlier than chalcopyrite, but possibly replacing pyrite / marcasite and violarite. Lacks internal reflections, harder than chalcopyrite. Possibly a Cu / Ni / Co mineral such as skutterite, carrolite, or linnaeite. Suggest SEM / microprobe analysis and analysis for cobalt.

[3] WA 24726
Multistage carbonate-, quartz-, chlorite-altered, mineralized breccia

Summary description
Similar to [1] and [2], a multistage, altered, crushed rock. Consists of carbonate, quartz, and chlorite of at least two generations with lesser sericite. Some presumably original magnetite remains. The rock, including sulphides, shows evidence of crushing and healing, with a subsequent generation of carbonate with lesser quartz and sericite.

As in [1] and [2], an early generation of quartz contains intergrowths of chlorite (?), early carbonate contains abundant inclusions and fragments, whereas much of the late carbonate and quartz are relatively clear, more obviously associated with sericite.

Sulphide paragenesis: pyrite+marcasite, and violarite are probably after early pyrrhotite and pentlandite respectively. Chalcopyrite is interstitial to pyrite / marcasite, and shows some alteration to digenite.

Microscopic description

Transmitted light

Carbonate; 60-65%, anhedral / subhedral (<0.01 to 1.0 mm). Anhedral, interlocking carbonate with abundant inclusions is more abundant, but subhedral, clearer carbonate is more obviously vein / breccia infilling. This is typically associated with sericite. Carbonate contains abundant disseminated sulphides, magnetite, and hematite, probably accounting for its dark colour.

Quartz; 7-10%, anhedral (<0.01 to 0.5 mm). In small aggregates, commonly interstitial to carbonate and sulphides. There appear to be two generations of quartz. One contains abundant inclusions (mineral and fluid), and contains oriented intergrowths of fine chlorite, some sericite -- probably accounts for green quartz in hand specimen. Oriented intergrowths of fine chlorite / chlorite group mineral give the intergrowth the appearance of a separate mineral in places, but where interference figures are obtainable, they are uniaxial (+).

Sericite; 7-10%, anhedral / subhedral (<0.1 to 0.1 mm). Flakes scattered throughout, but commonly with quartz that lacks chloritic intergrowths.

Chlorite group (?) B; 3-5%, microcrystalline. Mineral is pale green / brownish-green, fibrous, and commonly intergrown with quartz. Has inclined extinction. Interference figures for this fibrous material are uniaxial (+) with dispersion typical of quartz -- leading to the interpretation as an intergrowth.

Chlorite A; <1%, anhedral (<0.01 to 0.2 mm). Mainly surrounding sulphide aggregates. Strong green colour and intense anomalous blue interference colours. Not intergrown with quartz, and distinguished from chlorite B, below.

[3] Continued

Reflected light

Pyrite / marcasite intergrowth; 7-12%, subhedral / anhedral (<0.01 to 2.0 mm). Brecciated aggregates have irregular outlines, suggesting originated as pyrrhotite. Anisotropic marcasite with pale green pleochroism is intimately intergrown with isotropic pyrite. The pyrite / marcasite is itself intergrown with violarite (/ bravoite).

Violarite; 3-5%, anhedral (<0.01 to 1.0 mm). Intergrown with pyrite / marcasite in the brecciated aggregates. Smooth contacts with examples of "cusp and carie" texture on both sides of contact, suggesting the two (or their precursors) have similar paragenetic position, although some subhedral pyrite forms are visible against violarite. Characteristic shrinkage cracks are visible in violarite, but much less common than in [1].

Chalcopyrite; 3-5%, anhedral (<0.01 to 0.5 mm). Fills interstices among subhedral pyrite / marcasite. Also occurs as rounded blebs with the pyrite / marcasite, and largely interstitial disseminated in gangue. Chalcopyrite commonly shows some alteration to digenite around grain edges.

Magnetite; ≤0.5%, anhedral / subhedral (<0.01 to 0.3 mm). Disseminated in carbonate, less in pyrite / marcasite. Altered appearance. Associated hematite and microcrystalline Ti-oxides.

Digenite; trace (+), anhedral (<0.01 to 0.1 mm). Forms alteration rims around chalcopyrite -- in some cases, completely replacing chalcopyrite.

Hematite; trace (+), anhedral (<0.01 to 0.1 mm). Alteration product of magnetite, locally an alteration product of chalcopyrite with digenite.

Secondary Fe- / Ti-oxides; trace (+), microcrystalline. Fine granular material with sugary orange and yellow internal reflections occurs with altered magnetite.

[4] WA 24727 (covered slide)
Multistage carbonate-, quartz-, chlorite-altered, mineralized breccia

Summary description

Intensely carbonate- / quartz- / chlorite-altered rock. Has undergone multiple (at least two) stage alteration and crushing / deformation, similar to [1] through [3], but less well-mineralized. As with [1] through [3], early quartz is recrystallized and contains intergrowths of what appears to be fine chlorite (giving quartz a green colour in the hand specimen). Quartz associated with late, crosscutting carbonate veins lacks intergrowths. Late chlorite occurs without quartz in late veins also. Sericite occurs in these late veins and disseminated throughout the section.

Parent rock type is undetermined, as original textures and most mineral phases have been obliterated by subsequent crushing and alteration.

Microscopic description

Transmitted light

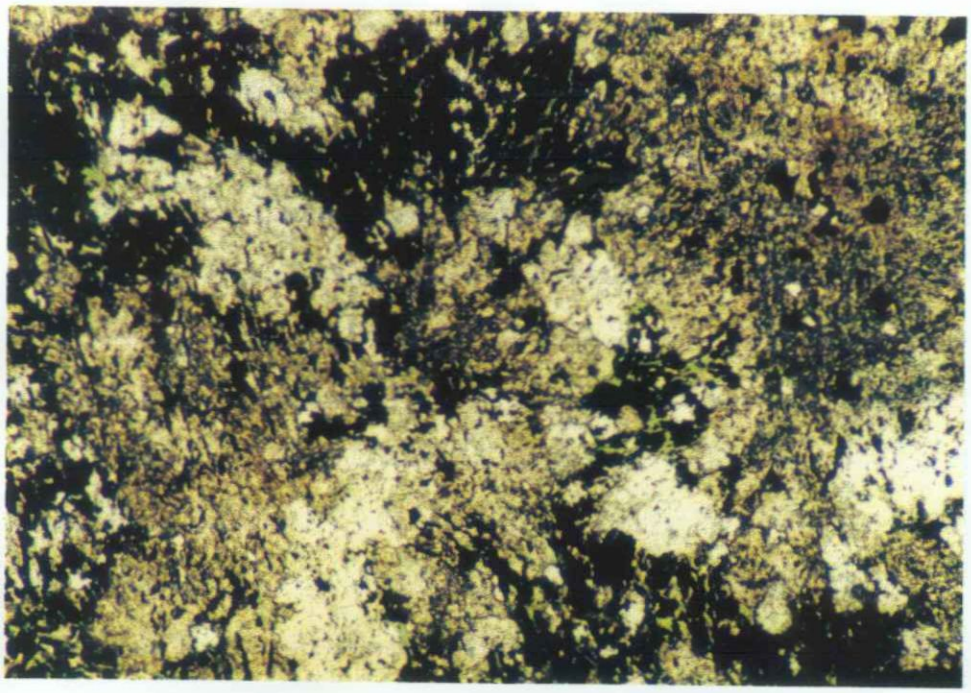
Carbonate; 75-80%, anhedral interlocking (<0.01 to 0.6 mm). Composes most of the sample. Much of the carbonate has a dusty appearance -- has abundant minute inclusions. A discontinuous crosscutting vein has clearer, subhedral, and euhedral carbonate associated with chlorite and muscovite. Carbonate reacts weakly with cold, dilute HCl when powdered. Stronger reaction produced when heated.

Quartz; 10-15%, anhedral (<0.01 to 0.3 mm). In small aggregates. There are two types. One has abundant inclusions and is intergrown with chlorite (?), giving it a fibrous pale green appearance. Interference figures are uniaxial (+) with low dispersion. A second type has less abundant inclusions and is observed in discontinuous veinlets.

Chlorite; 3-5% (microcrystalline). Fine aggregates interstitial to carbonate. Has a fibrous appearance. Some is associated with, intergrown with, quartz. Unlike samples [1] through [3], chlorites intergrown and not intergrown with quartz are commonly observed together. A late, crosscutting carbonate vein contains chlorite without quartz, suggesting that this occurrence of chlorite is later.

Muscovite / sericite; 3-5%, anhedral / subhedral (<0.01 to 0.1 mm). Mainly interstitial to carbonate, commonly with quartz and chlorite. Envelopes discontinuous carbonate + chlorite vein. Less commonly enclosed by carbonate.

[5] WA 24728
Multistage carbonate-, quartz-, chlorite-altered, mineralized breccia



Photomicrograph 98R V 5 Plane polarized light
Scale 0.1 mm
Abundant magnetite, hematite, and chalcopyrite in carbonate produce dark colour in hand specimen.

Summary description

Similar to [1] through [4]. Multiphase carbonate- / quartz- / chlorite-altered rock. Has undergone crushing as indicated by fractured and disaggregated magnetite and sulphide. Mineralized with chalcopyrite and pyrite / marcasite, but violarite or other nickel minerals were not recognized. As in [1] through [4], early quartz contains what appears to be oriented intergrowths of chlorite, whereas quartz and carbonate in recognizable late veins is clearer. Some pyrite occurs in these later veins, but the majority of pyrite / marcasite occurs in disseminated irregular aggregates with interstitial chalcopyrite.

Parent rock remains undetermined, as original textures / mineralogy are obliterated.

[5] Continued
Microscopic description
Transmitted light

Carbonate; 70-75%, anhedral (<0.01 to 4.0 mm). Irregular interlocking carbonate composes most of the sample. Much of the carbonate contains abundant inclusions of magnetite. Carbonate is dark grey or black in hand specimen, reacts very weakly with cold, dilute HCl only when powdered.

Quartz; 7-10%, anhedral (<0.01 to 1.0 mm). In small irregular aggregates. Apparently two generations, one of which contains abundant inclusions of chlorite +/- sericite with other, unidentified mineral and fluid inclusions. Clearer quartz occurs with suggestion of veining (with pyrite) and this is disrupted by later carbonate. Quartz is generally unstrained.

Chlorite; 3-5%, microcrystalline. Scattered, irregular aggregates with fibrous (in some cases radiating) appearance. Interstitial position among carbonate and magnetite. Aggregates commonly surround magnetite and chalcopyrite. Green / yellowish-green pleochroic with anomalous blue interference colours.

Muscovite / sericite; 3-5%, anhedral (<0.01 to 0.3 mm). Scattered coarser grains, small clusters. Finer muscovite / sericite occurs as inclusions in quartz and carbonate. Muscovite commonly occurs among the fractured metallics and interstitially among carbonate.

Reflected light

Magnetite; 3-5%, anhedral / euhedral (<0.01 to 0.4 mm). Larger, commonly euhedral grains are fractured. Smaller grains occur in loose aggregates and abundantly disseminated in carbonate, probably resulting in the carbonate's dark colour. Much of the magnetite is partly altered to hematite around grain edges.

Hematite; 1-2%, anhedral / euhedral (<0.01 to 0.1 mm). Forms rims on magnetite, partially replaces magnetite and also occurs locally in clusters of elongate euhedral hematite crystals (possibly where magnetite completely altered).

Pyrite / marcasite; 1-2%, anhedral / subhedral (<0.01 to 0.1 mm). In small (<0.5 mm) irregular clusters, typically with some chalcopyrite, but violarite / bravoite is not observed, unlike other samples of this suite. As in [1] through [4], the aggregates appear to be an intergrowth of pyrite and marcasite in which pyrite is more abundant. Irregular outlines of aggregates suggest that they replace earlier pyrrhotite, although no original pyrrhotite remains.

Chalcopyrite; <1%, anhedral, rarer subhedral (<0.01 to 0.1 mm). Disseminated in the carbonate and also observed in pyrite aggregates, where it appears to mainly occupy an interstitial and void-filling position, and in magnetite aggregates.

APPENDIX III

LOGISTICS REPORT ON
THE 1998 GROUND GEOPHYSICAL SURVEY
BURNING LAKE AREA

LOGISTICS REPORT ON THE 1998 GROUND GEOPYSICAL SURVEY

BURNING LAKE AREA

Satterly Township, Kenora Mining District

NTS 52F/09,

ONTARIO

Mtec Geophysics Inc.
P.O. Box 88
Murillo, ON.

Mike Milani
Mtec Geophysics Inc.

TABLE OF CONTENTS

LIST OF MAPS

Mtec Geophysics Inc.

LOGISTICAL REPORT

BURNING LAKE AREA
NTS 52 F/09

Introduction

Mtec Geophysics Inc. was contracted to undertake staking, linecutting and geophysical surveys in the Burning Lake Area of Northwestern Ontario for Falconbridge Limited of Winnipeg. Work was carried out between September 15, 1998 and September 30, 1998.

Location and Access

The Burning Lake grid is situated within Satterly Township, approximately 33 km Southeast of the town of Dryden, Ontario. The Trans Canada Highway 17 transects the Northeast corner of the grid. The Snake Bay logging road extends south from the highway and allows access to the western portion of the property via a series of logging tote roads.

Survey Procedures and Equipment

Magnetic

Total field magnetic readings were taken with an EDA Omni IV magnetometer at 25 meter station intervals along E-W and N-S survey lines. Baselines and tielines were also read at 25 meter intervals and duplicate readings at the line intersections were taken to insure a measure of quality control. A synchronized Omni IV base station was used to monitor and correct for diurnal variations. A specification sheet is attached (Attachment 1).

Electromagnetic

An Apex Maxmin I was used for the horizontal loop survey. Inphase and quadrature readings at two frequencies (440 and 1760 Hz.) were taken at 25 meter intervals along the E-W and N-S grid lines using a 250 meter coil separation. A specification sheet is attached (Attachment 2).

Personnel

The following Mtec Geophysics Inc. personnel were employed on this project.

Staking: Francois Morin, 2860 R6 Villebois P.Q.
Luc Morin, 30 Principale Ave. Lasarre P.Q.
Michel Larose, Val St-Gilles P.Q.

Linecutting:
Francois Morin, Villebois, P.Q.
Luc Morin, Lasarre P.Q.
Michel Larose, Val St-Gilles P.Q.
Yvon St. Lamond, Lasarre P.Q.
Gabriel Morin, Villebois P.Q.

Magnetometer Survey: Andy Bonneman, Thunder Bay ON. (807) 767-2860

Max Min I Survey: Mike Milani, P.O. Box 88, Murillo, ON.
(807) 935-3146
Chris Zarecki, Thunder Bay, ON (807) 683-8041

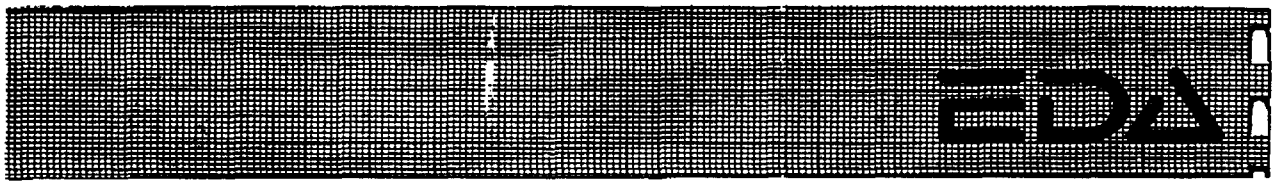
Summary
The following chart summarises work details on the property.

PROJECT	STAKING	LINECUT-TING	MAG SURVEY	EM SURVEY
Burning Lake	24 Units 6 Claims	45.55 km	45.55 km	38.875 km
WORK/SURVEY DATES	Sep 15- 16/98	Sep 16- 25/98	Sep 25- 30/98	Sep 25- 30/98

With the submittal of this report and the accompanying maps and data diskettes the obligations of Mtec Geophysics Inc. have been fulfilled for the Burning Lake property.

Oct, 1998

M. Milani
Mtec Geophysics Inc.



Specifications

Dynamic Range	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method	Tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning	± 15% relative to ambient field strength of last stored value
Display Resolution	0.1 gamma
Processing Sensitivity	± 0.02 gamma
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	± 1 gamma at 50,000 gammas at 25°C ± 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient	1,200 data blocks or sets of readings
Tie-Line Points	100 data blocks or sets of readings
Base Station	5,000 data blocks or sets of readings
Display	Custom-designed, ruggedized liquid crystal display with an operating temperature range from –40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial I/O Interface	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance	6,000 gammas per meter (field proven)
Test Mode	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)
Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable	Remains flexible in temperature range specified, includes strain-relief connector
Cycling Time (Base Station Mode)	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range	–40°C to +55°C; 0–100% relative humidity; weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation.
Battery Cartridge/Belt Life	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings
Weights and Dimensions	
Instrument Console Only	2.8 kg, 238 x 150 x 250mm
NiCad or Alkaline Battery Cartridge	1.2 kg, 235 x 105 x 90mm
NiCad or Alkaline Battery Belt	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt	1.8 kg, 540 x 100 x 40mm
Sensor	1.2 kg, 56mm diameter x 200mm
Gradient Sensor (0.5 m separation - standard)	2.1 kg, 56mm diameter x 790mm
Gradient Sensor (1.0 m separation - optional)	2.2 kg, 56mm diameter x 1300mm
Standard System Complement	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.
Base Station Option	Standard system plus 30 meter cable
Gradiometer Option	Standard system plus 0.5 meter sensor

E D A Instruments Inc.
4 Thorncliffe Park Drive
Toronto, Ontario
Canada M4H 1H1
Telex: 06 23222 EDA TOR
Cable: Instruments Toronto
(416) 425 7800

In U.S.A.
E D A Instruments Inc.
5151 Ward Road
Wheat Ridge, Colorado
U.S.A. 80033
(303) 422 9112

Printed in Canada

Attachment 1

MAXMIN I-8 ELECTROMAGNETIC SYSTEM SPECIFICATIONS:

FREQUENCIES:	110, 220, 440, 880, 1760, 3520, 7040 & 14080 Hz.
COIL SEPARATIONS:	SET NO. 1: 12.5, 25, 50, 75, 100, 125, 150, 200, 250, 300 and 400 metres (the standard set). SET NO. 2: 10, 20, 40, 60, 80, 100, 120, 160, 200, 240 and 320 metres (selected with grid switch in receiver). SET NO. 3: 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200 and 1600 feet (selected with grid switch in receiver).
TRANSMITTER DIPOLE MOMENTS:	110 Hz: 220 Atm² — 1760 Hz: 160 Atm² 220 Hz: 215 Atm² — 3520 Hz: 80 Atm² 440 Hz: 210 Atm² — 7040 Hz: 40 Atm² 880 Hz: 200 Atm² — 14080 Hz: 20 Atm²
MODES OF OPERATION:	MAX 1: Horizontal loop or slingram - transmitter and receiver coil planes horizontal and coplanar. MAX 2: Vertical coplanar loop mode transmitter and receiver coil planes vertical and coplanar. MIN 1: Perpendicular mode 1 - transmitter coil plane horizontal and receiver coil plane vertical. MIN 2: Perpendicular mode 2 - transmitter coil plane vertical and receiver coil plane horizontal.
PARAMETERS MEASURED:	In-phase and quadrature components of the secondary magnetic field, in % of primary field.
READOUTS:	Analog direct edgewise meter readouts for in-phase, quadrature and tilt. Additional digital LCD readouts provided in the optional MMC computer. Interfacing and controls are provided for ready plug-in of the MMC.
RANGES OF READOUTS:	Switch activated analog in-phase and quadrature scales: 0±4 %, 0±20 % and 0±100 %, and digital 0±199.9 % autorange with optional MMC. Analog tilt 0±75 % and 0±99 % grade with MMC.
RESOLUTION:	Analog in-phase and quadrature 0.1 to 1 % of primary field, depending on scale used, digital 0.01 % with autoranging MMC; tilt 1 % grade.
REPEATABILITY:	0.01 to 1 % of primary field, typical, depending on frequency, coil separation and conditions.
SIGNAL FILTERING:	Powerline comb filter, continuous spheric noise clipping, autoadjusting time constant, and more.
WARNING LIGHTS:	Receiver signal and reference warning lights to indicate potential error conditions.
SURVEY DEPTH PENETRATION	From surface down to 1.5 times coil separation for large horizontal target and 0.75 times coil separation for large vertical target, values typical.
REFERENCE CABLE	Lightweight unshielded 4/2 conductor teflon cable for maximum operating temperature range and for minimum pulling friction.
INTERCOM	Voice communication link provided for operators via the reference cable.
TEMP RANGE	Minus 40 to plus 60 degrees Celsius, operating.
RECEIVER BATTERIES	Four standard 9 V - 0.6 Ah alkaline batteries. Life 25 hours continuous duty, less in cold weather. Optional 1.2 Ah extended life lithium batteries available (recommended for very cold weather).
TRANSMITTER BATTERIES	Standard rechargeable gel-type lead-acid 12V-14Ah batteries (4 x 6 V - 7.2 Ah) in nylon belt pack. Optionally rechargeable long life 12 V - 14 Ah nickel-cadmium batteries (20 x 1.2 V - 7 Ah) with ni-cad chargers - best choice for cold climates.
TRANSMITTER BATTERY CHARGERS	Lead acid battery charger: 14.4 V @ 1.25 A, Ni-cad battery charger: 1.4 A @ 16 V, nominal output. Operation from 110 - 120 and 220 - 240 VAC, 50 - 60 Hz, and 12 - 15 VDC supplies.
RECEIVER WEIGHT	8 Kg carrying weight (including the two ferrite cored antenna coils), 9 Kg with MMC computer.
TRANSMITTER WT	16 Kg carrying weight.
SHIPPING WEIGHT	60 Kg plus weight of reference cables at 2.8 Kg per 100 metre, plus optional items if any. Shipped in two aluminum lined field / shipping cases.
STANDARD SPARES	Spare transmitter battery pack, spare transmitter battery charger, two spare transmitter retractile connecting cords, spare set of receiver batteries.
OPTIONS AND ACCESSORIES, PLEASE SPECIFY	• MMC, MaxMin Computer option • Data interpretation and presentation programs • Reference cables, lengths as required • Reference cable extension adapter • Handheld inclinometer for rough terrain • Receiver extended life lithium batteries • Transmitter ni-cad battery & charger option • Minimal, regular or extended spare parts kit

Specifications subject to changes without notification

93 - 10 - 15

Telephone: (1) 905 852 5875 Facsimile: (1) 905 852 9688 P. O. Box 818, Uxbridge, Ontario, Canada L9P 1N2

APEX PARAMETRICS LIMITED Airport: Toronto International

Attachment 2

APPENDIX IV

REPORT ON 1998 GEOLOGICAL MAPPING AND SAMPLING,
BURNING LAKE PROPERTY

Falconbridge Limited

Report on

1998
Geological Mapping and Sampling

BURNING LAKE PROPERTY

Dryden Area
Northwestern, Ontario
N.T.S. 52F/9

November, 1998
Thunder Bay, ON

Brian Nelson, H.BSc.
Geologist.
Clark-Eveleigh Consulting

SUMMARY

Clark-Eveleigh Consulting of Thunder Bay, Ontario was contracted by Falconbridge Ltd. of Winnipeg, Manitoba to conduct a program of geological mapping and sampling on the Burning Lake Property located in Satterly Township approximately 32 km southeast of Dryden, Ontario. The purpose of the program was to assess the potential of the property for hosting economic concentrations of gabbro associated magmatic nickel mineralization. This report presents the results of this exploration program.

The program was conducted from October 21 to 25, 1998 and was performed by B. Nelson (geologist) and M. Masson (geologist).

Approximately 22 line kilometres were mapped at 1:5000 scale. The mapping was conducted over 200 metre - spaced grid lines.. Eleven grab samples were collected. Nine samples were analyzed using a Falconbridge whole rock package and two samples were assayed to determine their gold content.

The geology observed during this mapping program consisted predominantly of massive to pillowed mafic flows along with rare outcrops of diorite - gabbro (medium grained mafic flows?). Intensely iron carbonitized intermediate flows / dykes locally exhibiting strong pyritization were also observed.

No rocks exhibiting well developed gabbroic textures were observed. Suphide mineralization was essentially restricted to iron carbonate altered dykes / flows.

No further work is recommended for the Burning Lake Property at this time.

TABLE OF CONTENTS

List of Figures

List of Tables

List of Maps

List of Appendices

1.0 INTRODUCTION

Clark-Eveleigh Consulting of Thunder Bay, Ontario was contracted by Falconbridge Ltd. of Winnipeg, Manitoba to conduct geological mapping and sampling program on the Burning Lake Property located in Satterly Township approximately 32 km southeast of Dryden, Ontario. The purpose of the program was to assess the potential for hosting economic concentrations of magmatic nickel mineralization. This report presents the results of this exploration program.

1.1 PROPERTY LOCATION, ACCESS AND TOPOGRAPHY

The Burning Lake Property is located in Satterly township approximately 32 km southeast of Dryden, Ontario (Figure 1). The approximate centre of the property is located at 92° 27' longitude and 49° 36' latitude and lies within N.T.S. block 52F/9.

The property is easily accessed by motor vehicle via the Snake Bay logging road which extends south off Trans Canada Highway 17 at the easterly end of Jackfish Lake. A series of logging roads extend off the Snake Bay road and provide excellent access to most of the grid.

Topography within the area consists of gently rolling hills that define outcrop areas. Approximately half of the grid area has been clear cut by logging operations. Rock outcrop comprises approximately 10% of the property. Maximum relief within the grid is approximately 15 metres.

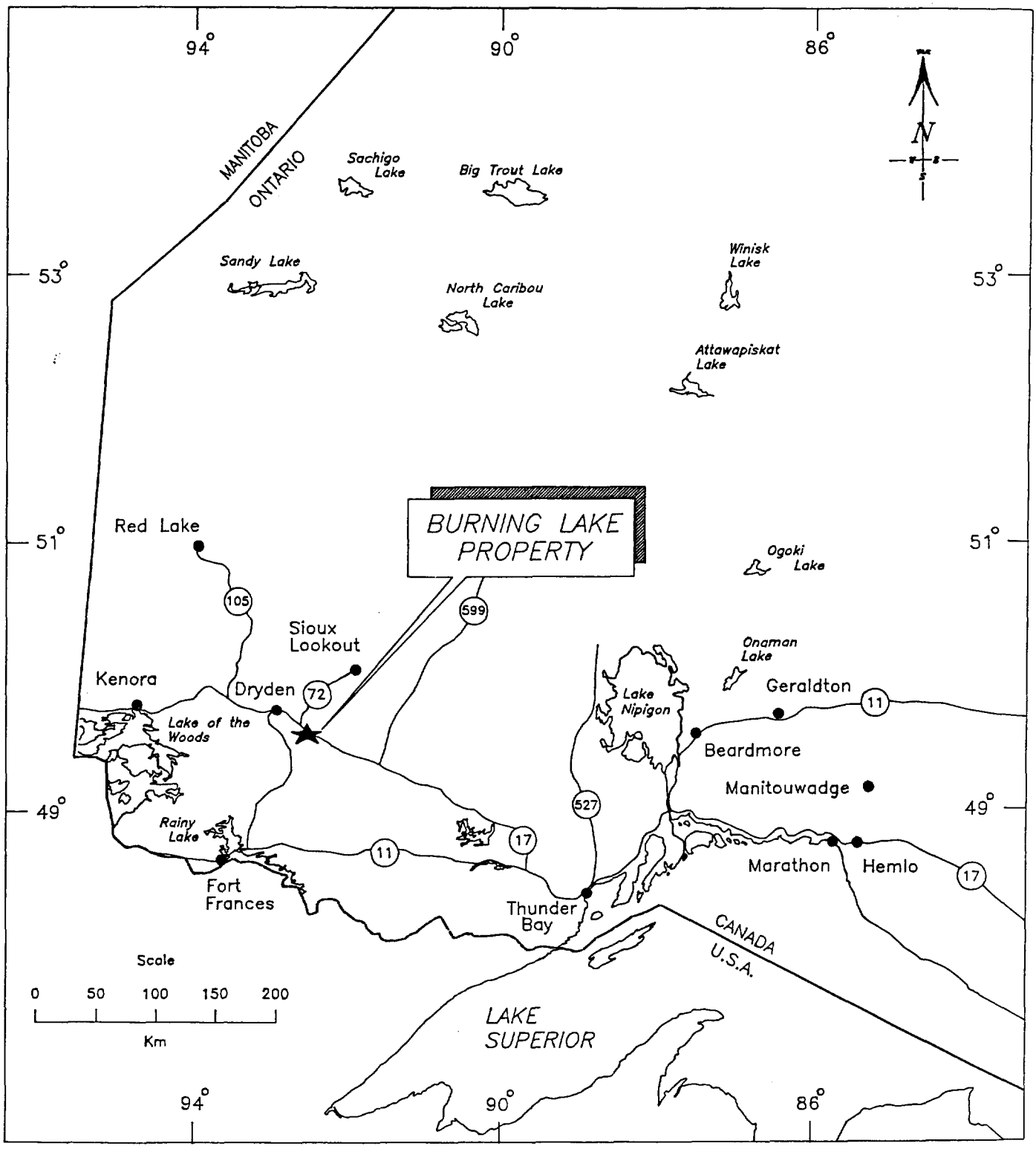


Figure 1. Regional–Scale Location Map

1.2 CLAIMS

The Burning Lake Property comprises 8 contiguous unpatented mining claims (33 units) recorded in good standing in the Kenora Mining Division (Satterly Township Claim Map, G-0833) (Figure 2).

Table 1. Claims summary and current status.

CLAIM NUMBER	SIZE (units)	DATE RECORDED	DATE DUE	ASSESSMENT REQUIRED
K1220515	3	November 13, 1998	November 13, 2000	1200
K1220576	6	March 19, 1998	March 19, 2000	2400
K1223611	4	September 29, 1998	September 29, 2000	1600
K1226711	8	September 29, 1998	September 29, 2000	3200
K1226713	3	September 29, 1998	September 29, 2000	1200
K1226720	4	September 29, 1998	September 29, 2000	1600
K1226721	4	September 29, 1998	September 29, 2000	1600
K1226722	1	September 29, 1998	September 29, 2000	400
	33			**13200**

Table 1.

G-0833 - SATTERLY - KENORA Division

Tools
elp

GO

Adjacent Map

help

Order Hard Copy Map help

Order Form

Downl image

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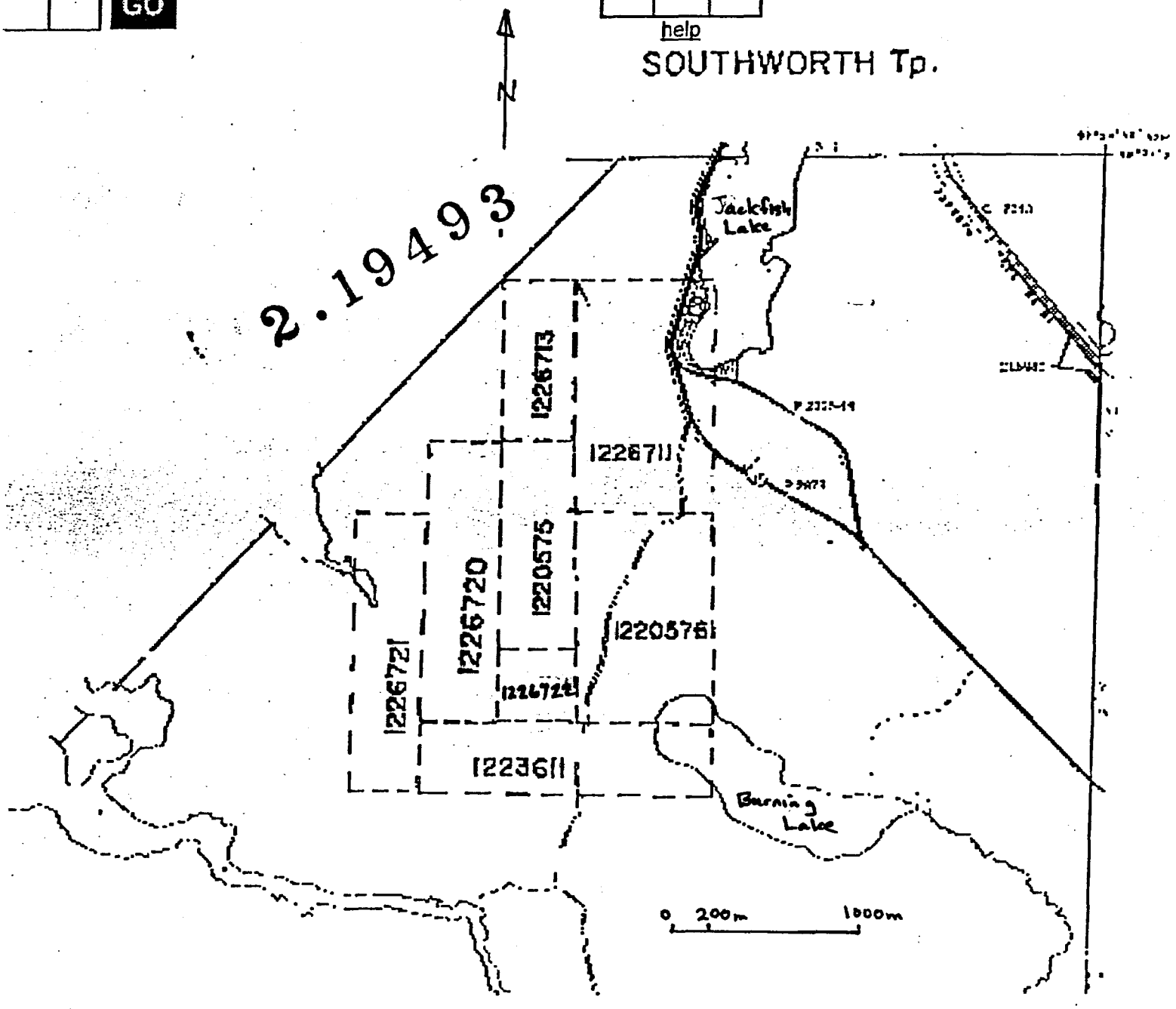


Figure 2.

Ontario
This site maintained by the Government of Ontario
Comments and feedback to: benetest@epo.gov.on.ca

1.3 PREVIOUS EXPLORATION

No previous mineral exploration has been conducted on the Burning Lake claims (K. Wells, Falconbridge Ltd., personal communication).

1.4 REGIONAL GEOLOGY

The Burning Lake property occurs within the Archean age (2775 to 2700 Ma.) Wabigoon Subprovince of northwestern Ontario. The Wabigoon greenstone belt is composed of a thick succession of metavolcanic and metasedimentary rocks. The metavolcanic rocks are composed of submarine to subaerial, mafic to felsic, tholeiitic to calc-alkaline rocks. Intermixed with the metavolcanic rocks are clastic and chemical metasedimentary rocks. Provincial geological maps show the project area is underlain by predominantly mafic metavolcanic rocks.

2.0 1998 EXPLORATION PROGRAM

2.1 INTRODUCTION

Approximately 22 line kilometres were mapped at 1:5000 scale. The mapping was completed over 200 metre - spaced grid lines. The work was conducted from October 21 to 25, 1998 and was performed by B. Nelson (geologist) and M. Masson (geologist). Eleven grab samples were collected. Nine samples (9101, 9102, 9104-0107, 9202,9203,9204) underwent whole rock analysis and two samples (9103 and 9201) were assayed to determine their gold content.

2.2 PROPERTY GEOLOGY

The property geology is dominated by fine-grained massive to pillowed mafic flows trending approximately north-south.. These rocks are predominantly very fine-grained, exhibit weak to moderate chloritization, weak incipient carbonitization (calcite) and locally contain trace amounts of fine-grained disseminated pyrite. Locally medium-grained mafic flows (gabbroic sills?) are found inter-layered with the fine-grained mafic flows. Rare leucocratic gabbroic / dioritic rocks possibly define a east-west trending dyke within the central portion of the property. Intensely iron carbonitized intermediate flows / dykes locally exhibiting strong pyritization, occur in the west-central portion of the property and trend north-south.

3.0 RESULTS

The lithogeochemical sampling failed to detect any geochemical signatures that would indicate the presence of a magmatic nickel sulphide deposit.

4.0 CONCLUSIONS

1) Rocks exhibiting good gabbroic textures were not observed.

2) No magmatic sulphide mineralization was observed.

3) An iron carbonatized intermediate flow (sill?) containing up to 5% pyrite outcrops locally in the west-central part of the property.

4) The potential for the property to host economic amounts of nickel mineralization is considered to be poor.

5.0 RECOMMENDATIONS

No further work is recommended for the Burning Lake Property at this time.

6.0 REFERENCES

Blackburn C.E., Johns G. W., Ayer J. A., and Davis D. W. 1991. Wabigoon Subprovince; in Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 1, p.303-381.

6.0 STATEMENT OF QUALIFICATIONS

I, **Brian William Nelson,** of 372 N. Algoma Street, Thunder Bay, Ontario, P7A 5B6, do hereby certify that:

1. I have received a H.B.Sc. degree in Geology (1984) from Lakehead University, Thunder Bay, Ontario.

2. I have been involved in mineral exploration for the last 17 years exploring for gold and base metals.

3. I am currently an employee of Clark-Eveleigh Consulting of Thunder Bay, Ontario.

4. I have no financial interest in the Burning Lake Property.

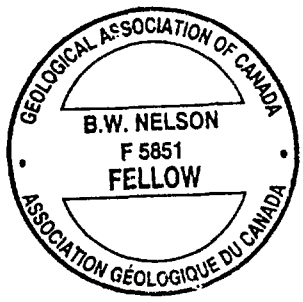
5. From October 21 to 25, 1998 I conducted a geological examination of the Burning Lake Property and the information presented in this report is based largely on the results obtained during that examination.

6. I am a Fellow (F5851) of the Geological Association of Canada.

7. I am a member of the Northwestern Ontario Prospectors Association.

November 30, 1998

Brian Nelson, H.B.Sc.
Geologist
Clark-Eveleigh Consulting



APPENDIX A

ASSAY CERTIFICATES

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

Company: Falconbridge Limited
Geologist: K. Wells
Project: 5407

TSL Report: S8249
Date Received: Nov 25, 1998
Date Reported: Dec 03, 1998
Invoice: 32296

Sample Type:	Number	Size Fraction	Sample Preparation
Rock	9	Crush 65% at -10 mesh Pulv. 90% at -150 mesh	Crush, Riffle, Pulverize

Element Name	Method	Extraction Technique	Unit	Lower Detection Limit	Upper Detection Limit
SiO_2	ICP	$LiBO_2$ - Fusion	%	.01	100%
Al_2O_3	ICP	$LiBO_2$ - Fusion	%	.01	100%
Fe_2O_3	ICP	$LiBO_2$ - Fusion	%	.01	100%
CaO	ICP	$LiBO_2$ - Fusion	%	.01	100%
MgO	ICP	$LiBO_2$ - Fusion	%	.01	100%
Na_2O	ICP	$LiBO_2$ - Fusion	%	.01	100%
TiO_2	ICP	$LiBO_2$ - Fusion	%	.01	100%
K_2O	ICP	$LiBO_2$ - Fusion	%	.01	100%
MnO	ICP	$LiBO_2$ - Fusion	%	.01	100%
P_2O_5	ICP	$LiBO_2$ - Fusion	%	.01	100%
LOI	ICP	$LiBO_2$ - Fusion	%	.01	100%
Ba	ICP	$LiBO_2$ - Fusion	ppm	10	10000
Sr	ICP	$LiBO_2$ - Fusion	ppm	10	10000
Zr	ICP	$LiBO_2$ - Fusion	ppm	10	10000
Sc	ICP	$LiBO_2$ - Fusion	ppm	1	10000
Y	ICP	$LiBO_2$ - Fusion	ppm	2	10000

TSL Assaye Saskatoon
#2 - 302 East 48th Street, Saskatoon, Saskatchewan, S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

Falconbridge Limited
Attention: K. Olshefsky, P. Tirschmann
Project: 5407
Sample: Rock

Report No : S8249
File No : 8M8249 PL
Date : Dec-03-98

ICP Whole Rock Assay

Fusion Analysis

Sample Number	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	TiO_2 %	MnO %	P_2O_5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	Total %
WB09101	48.56	13.42	15.27	9.23	5.66	1.99	0.04	1.31	0.21	0.12	40	380	70	20	25	3.69	99.55
WB09102	48.22	12.53	14.92	9.71	5.62	2.12	0.04	1.37	0.22	0.12	20	180	70	20	20	4.62	99.54
WB09104	45.10	11.34	14.34	6.43	5.06	2.86	0.07	1.69	0.16	0.15	30	60	90	40	25	12.70	99.93
WB09105	47.53	13.87	9.13	6.35	7.01	1.97	0.12	0.78	0.14	0.15	40	290	80	15	15	12.38	99.47
WB09106	49.95	12.03	10.17	5.59	6.66	2.70	0.43	0.95	0.14	0.17	100	100	90	15	15	10.92	99.74
WB09107	48.56	14.85	12.17	10.74	7.10	1.92	0.05	0.70	0.17	0.05	10	300	30	15	25	3.27	99.64
WB09202	42.72	17.91	11.08	9.55	8.48	1.68	0.03	0.85	0.16	0.11	20	460	40	15	15	7.26	99.88
WB09203	48.58	13.58	15.10	9.64	5.82	2.43	0.02	1.38	0.20	0.13	20	420	80	25	20	2.65	99.58
WB09204	48.11	13.81	15.43	9.76	5.79	1.93	0.02	1.41	0.23	0.14	20	370	90	25	20	3.05	99.71

Sample is fused with Lithium Metaborate or Sodium Peroxide and dissolved with either HNO3 or HCl respectively.

Signed:

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

Company: Falconbridge Limited
Geologist: K. Wells
Project: 5407

TSL Report: S8249
Date Received: Nov 25, 1998
Date Reported: Nov 26, 1998
Invoice: 32296

Sample Type:	Number	Size Fraction		Sample Preparation
Rock	12	Crush	65% at -10 mesh	Crush, Riffle, Pulverize
		Pulv.	90% at -150 mesh	

All samples for Fire Assay/AA (Au ppb) are weighed at 30 grams.
All samples for Ag, Base Metals (ppm) are weighed at 1 gram.
All samples for Base Metals (%) are weighed at .5 gram.
All samples for S (%) are weighed at .2 grams.
All samples for Pt, Pd (ppb) are weighed at 30 grams

Element Name	Unit	Extraction Technique	Lower Detection Limit	Upper Detection Limit
Au	ppb	Fire Assay/AA	5	1000
Ag	ppm	HCl-HNO_3/AA	.2	50
Base Metals	ppm	HCl-HNO_3/AA	1	5000
Base Metals	%	HCl-HNO_3/AA	.01	100
S	%	Leco	.01	100
Pt	ppb	Fire Assay/AA	20	20 oz/t
Pd	ppb	Fire Assay/AA	10	20 oz/t

T S L LABORATORIES
DIVISION OF TSL/ASSAYERS INC.
2 - 302 - 48 th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4
☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Falconbridge Limited
21C Murray Park Road
Winnipeg, Manitoba
R3J 3S2

REPORT No.
S8249

INVOICE #: 32296
P.O.: 5407

SAMPLE(S) OF Rock

K. Wells
Project: 5407

	Ni ppm	Co ppm	Cu ppm	S ppm	Au ppb	Ag ppm	Pt ppb	Pd ppb
WB09103	130	25	13	5500	<5	<.2	<20	<10
WB09201	130	28	53	1900	<5/<5	<.2	<20	<10
WB09205	21	11	130	14900	<5	.2	<20	<10
RTS-1				17200				
RTS-2	2500	53	510	189200		1.6		
Ma-1b					15000			
PTM-1a							7000	9600

COPIES TO: K. Olshefsky, P. Tirschmann
INVOICE TO: Falconbridge Ltd. - Winnipeg

Dec 03/98

SIGNED _____

APPENDIX B

BURNING LAKE ROCK SAMPLES

Burning Lake Rock Samples

SAMPLE #	SAMPLE TYPE	LOCATION	ROCK TYPE	ALTERATION/MINERALIZATION	COMMENTS	ASSAY
WB09101	Whole Rock	28+00N, 1+15E	Mafic flow / Gabbro	trace fine grained disseminated pyrite	Massive and medium grained, not good gabbroic texture, likely a medium grained mafic flow	
WB09102	Whole Rock	26+00N, 0+25E	Mafic flow / Gabbro	trace fine grained disseminated pyrite, not magnetic	Looks more like a massive medium grained flow than gabbro	
WB09103	Gold Assay	16+25N, 4+90W	Intermediate Dyke / Mafic Dyke	strong iron carbonate, 3-5% quartz stringers and veinlets, 3-5% fine grained to medium grained disseminated pyrite, minor pyrhhotite? - locally magnetic	From small, shallow pit - blasted?, sample flags - CZ-7, 7A, didn't see brecciation, instead crude quartz vein stockwork	
WB09104	Whole Rock	14+00N, 1+05E	Diorite/Gabbro	trace fine grained disseminated pyrite, not magnetic	Massive medium grained, greenish-grey with minor visible grey matrix quartz - intermediate to mafic intrusive	
WB09105	Whole Rock	13+98N, 3+97W	Diorite/Gabbro	local iron carbonate, no visible pyrite	massive, medium grained, rusty weathered surface, looks intrusive, sample altered and weathered	
WB09106	Whole Rock	14+00N, 4+03W	Diorite/Gabbro	local disseminated iron carbonate, no visible pyrite		
WB09107	Whole Rock	12+07N, 4+35E	Gabbro/Diorite	trace fine grained disseminated pyrite, not magnetic	massive, medium grained composed of 60% amphibole and 40% feldspar, looks intrusive	
WB09201	Gold Assay	22+00N, 4+15W	Mafic Volcanic	strong iron carbonate, trace pyrite	altered and bleached	
WB09202	Whole Rock	12+00N, 7+50W	Massive Mafic Flow	calcite, no pyrite	medium grained and massive	
WB09203	Whole Rock	10+00N, 9+60W	Massive Mafic Flow	weak calcite, weak chlorite, no pyrite	medium grained and massive	
WB09204	Whole Rock	10+00N, 4+25W	Massive Mafic Flow / Gabbro	weak iron carbonate, trace pyrite	medium grained	

3/5

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Transaction Number (office use)
W9910.00100
Assessment Files Research Imaging

section 65(2) and 66(3), R.S.O. 1990

Copy

subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this ment work and correspond with the mining land holder. Questions about this collection ment and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

52F09SW2001 2.19493 SATTERLY 900

PROVINCIAL RECORDING OFFICE - SUDBURY
RECEIVED
MAY 19 1999
3:30 pm

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name: FALCONBRIDGE LIMITED	Client Number: 130879
Address: SUITE 1200, 95 WELLINGTON STREET WEST, TORONTO, ONTARIO, M5J 2V4	Telephone Number: (416) 956-5786
	Fax Number: (416) 956-5749
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling stripping, trenching and associated assays ☐ Rehabilitation

Work Type	Office Use
Geological Mapping, Sampling and Ground Geophysics	Commodity Ni-Cu
	Total $ Value of Work Claimed ~~40,118.11~~ 40,119.00
Dates Work Performed: From 28 (Day) 01 (Month) 1999 (Year) To 31 (Day) 05 (Month) 1999 (Year)	NTS Reference 52 F/09
Global Positioning System Data (if available) — Township/Area: Salmely; Id or G-Plan Number:	Mining Division: Kenora
	Resident Geologist District: Kenora

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: KEVIN WELLS (Falconbridge Limited)	Telephone Number: 204 888-6860
Address: 21C MURRAY PARK ROAD, WINNIPEG, MANITOBA, R3J 3S2	Fax Number: 204 885-4152
Name: Mac Geophysics Inc.	Telephone Number: 807 935-3146
Address: P.O. Box 88, Marlie, Ontario, P0T 2G0	Fax Number: 807 935-2009
Name: Clark – Eveleigh Consulting	Telephone Number: 807 625-9291
Address: 1000 Alloy Drive, Thunder Bay, Ontario, P7B 6A5	Fax Number: 807 625-9293

RECORDED
MAY 19 1999

2.19493

4. Certification by Recorded Holder or Agent

I, KEVIN WELLS (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: Kevin Wells		Date: May 18, 1999
Agent's Address: 215-838 Cavalier Drive, Winnipeg, Manitoba, R2Y 1Z8	Telephone Number: (204) 897-4419	Fax Number

0241 (03/97)

RECEIVED
MAY 26 1999
9:21 pm
GEOSCIENCE ASSESSMENT OFFICE

RECEIVED
1st Rec'd.
MAY 19 1999
3:50pm.
GEOSCIENCE ASSESSMENT OFFICE

I, KEVIN WELLS (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: Kevin Wells		Date: May 18, 1999
Agent's Address: 215-838 Cavalier Drive, Winnipeg, Manitoba, R2Y 1Z8	Telephone Number: (204) 897-4419	Fax Number

0241 (03/97)

RECEIVED
MAY 19 1999
3:50pm.
GEOSCIENCE ASSESSMENT OFFICE

4/5

5. **Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

Revised Copy W.9910.00100

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
1	K1220576	6	~~$9,745.71~~	$2400.00	7346	~~$7,345.71~~
2	K1220575	3	$5,078.16	$1200.00		$3,878.16
3	K1226720	4	~~$4,566.32~~ 4267	$1600.00	3367	~~$2,966.32~~
4	K1226713	3	$1675.25	$1200.00		$475.25
5	K1226711	8	~~$7,620.88~~ 3621	$3200.00	4421	~~$4,420.88~~
6	K1226722	1	$942.36	$400.00		$542.36
7	K1226721	4	$7,560.00	$1600.00		$5,960.00
8	K1223611	4	~~$2,829.52~~ 1530	$1600.00	930	~~$928.52~~
9						
10						
11						
12						
13						
14						
15						
	Column Totals	33	~~$46,116.11~~ 40,119	$ 13,200.00	26,919	~~$29,916.11~~

I, KEVIN WELLS (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
	May 18, 1999

6. **Instructions for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

RECORDED MAY 19 1999

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

RECEIVED MAY 26 1999 GEOSCIENCE ASSESSMENT OFFICE

RECEIVED MAY 19 1999 GEOSCIENCE ASSESSMENT OFFICE

2.19493

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

RECEIVED MAY 19 1999 GEOSCIENCE ASSESSMENT OFFICE

5/5

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W.9910.00100

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Revised Copy

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
GEOLOGICAL CONTRACTOR	GEOLOGICAL REPORT (~ 10 MAN DAYS)	INCLUSIVE COST	3713.47
LINECUTTING	45.95 KILOMETRES	345.00	15714.75
HLEM	38.875	200	7775.00
MAGNETICS	45.50	100	4550.00
SUPERVISION AND REPORT WRITING	SALARIES AND SUPERVISION		7500.00
Associated Costs (e.g. supplies, mobilization and demobilization).			
ASSAYS AND THIN SECTIONS			838.75
FIELD EXPENSES			26.14
Transportation Costs			
Food and Lodging Costs			

RECORDED
MAY 19 1999

Total Value of Assessment Work ~~$40,116.11~~ 40119

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

2.19493

Certification verifying costs:

I, KEVIN WELLS (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as PROJECT GEOLOGIST (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
Ken Wells	May 18, 1999

RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

RECEIVED
MAY 26 1999
GEOSCIENCE ASSESSMENT OFFICE

I, KEVIN WELLS (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as PROJECT GEOLOGIST (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature: Ken Wells Date: May 18, 1999

RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

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Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

May 31, 1999

FALCONBRIDGE LIMITED
SUITE 1200, 95 WELLINGTON STREET WEST
TORONTO, ONTARIO
M5J-2V4

Dear Sir or Madam:

Submission Number: 2.19493

Subject: Transaction Number(s):		**Status**
	W9910.00100	Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 13817
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.19493

Date Correspondence Sent: May 31, 1999 **Assessor:** Bruce Gates

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9910.00100	1220576	SATTERLY	Deemed Approval	May 31, 1999

Section:
12 Geological GEOL
14 Geophysical EM
14 Geophysical MAG
18 Other MICRO

Correspondence to:
Resident Geologist
Kenora, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
Kevin Wells
WINNIPEG, MANITOBA

FALCONBRIDGE LIMITED
TORONTO, ONTARIO

Correspondence ID: 13817

NOTES

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

FLOODING RESERVING THE RIGHT TO HOLD THE WATERS OF WABIGOON RIVER, INCLUDING KAWABEGAMUK AND MINNIH RIVERS, MELGUND CREEK, AND KAWNOSA LAKE TO AN ELEVATION NOT EXCEEDING 1208.92'. W.P.L.A. NO.1 FILES 996, 63499

AREAS WITHDRAWN FROM STAKING

(R1) M.T.C. PARK RESERVE PLANS P-2326-19, P-2078-I

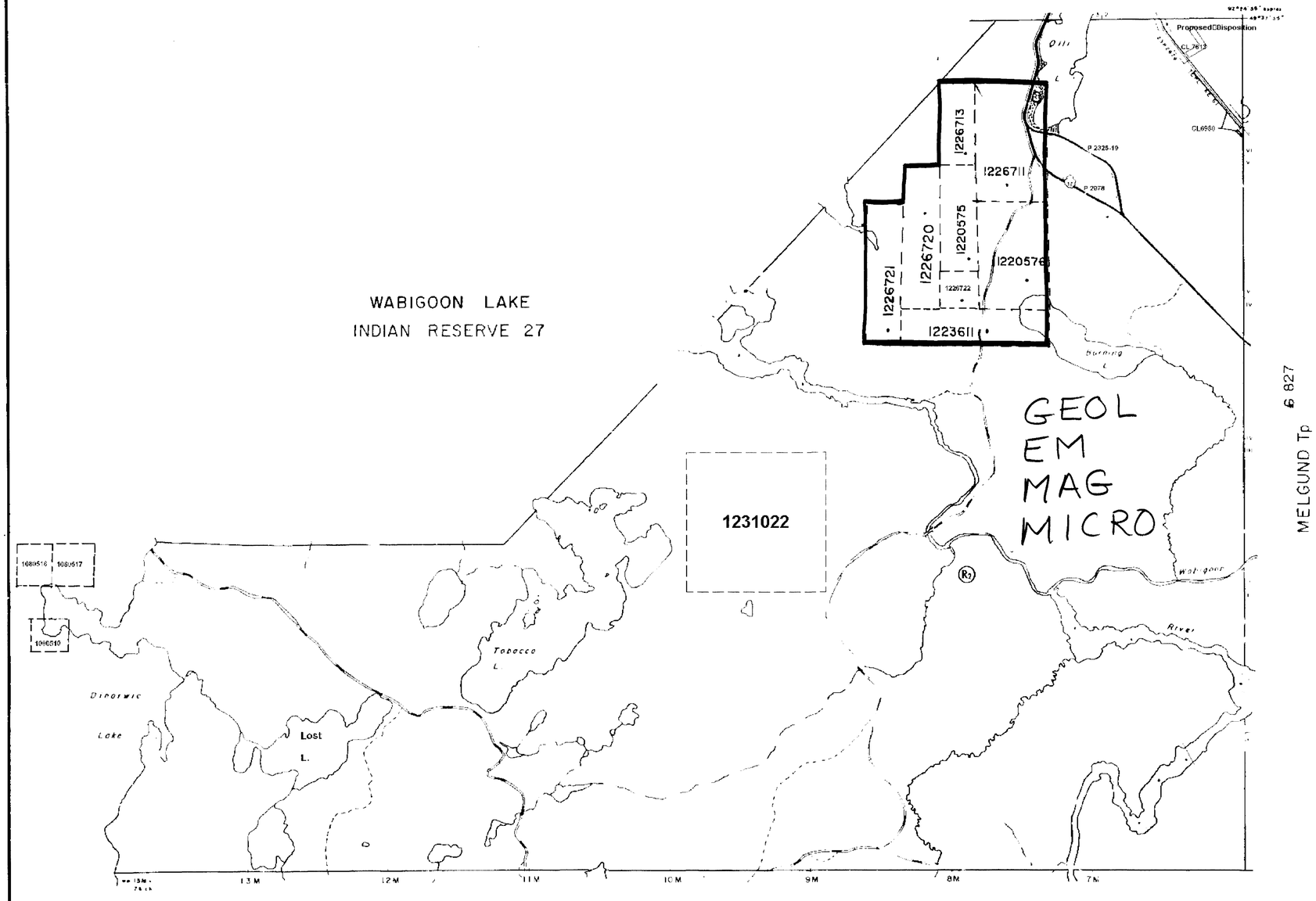
SEC 35 W-LL-C2316 /99 ONT MAY12/99 M&S

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 NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

G 835

SOUTHWORTH Tp.

WABIGOON LAKE
INDIAN RESERVE 27



G 827

MELGUND Tp

G 2595

TURTLEPOND LAKE

G 2592

TABOR LAKE

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT: SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	◒
" MINING RIGHTS ONLY	◒
LEASE: SURFACE & MINING RIGHTS	■
" SURFACE RIGHTS ONLY	■
" MINING RIGHTS ONLY	■
LICENCE OF OCCUPATION	▼
CROWN LAND SALE	CS
ORDER-IN-COUNCIL	OC
RESERVATION	(R)
CANCELLED	(C)
SAND & GRAVEL	(S)

SCALE : 1 INCH 40 CHAINS

ACRES	HECTARES
40	16

TOWNSHIP

SATTERLY

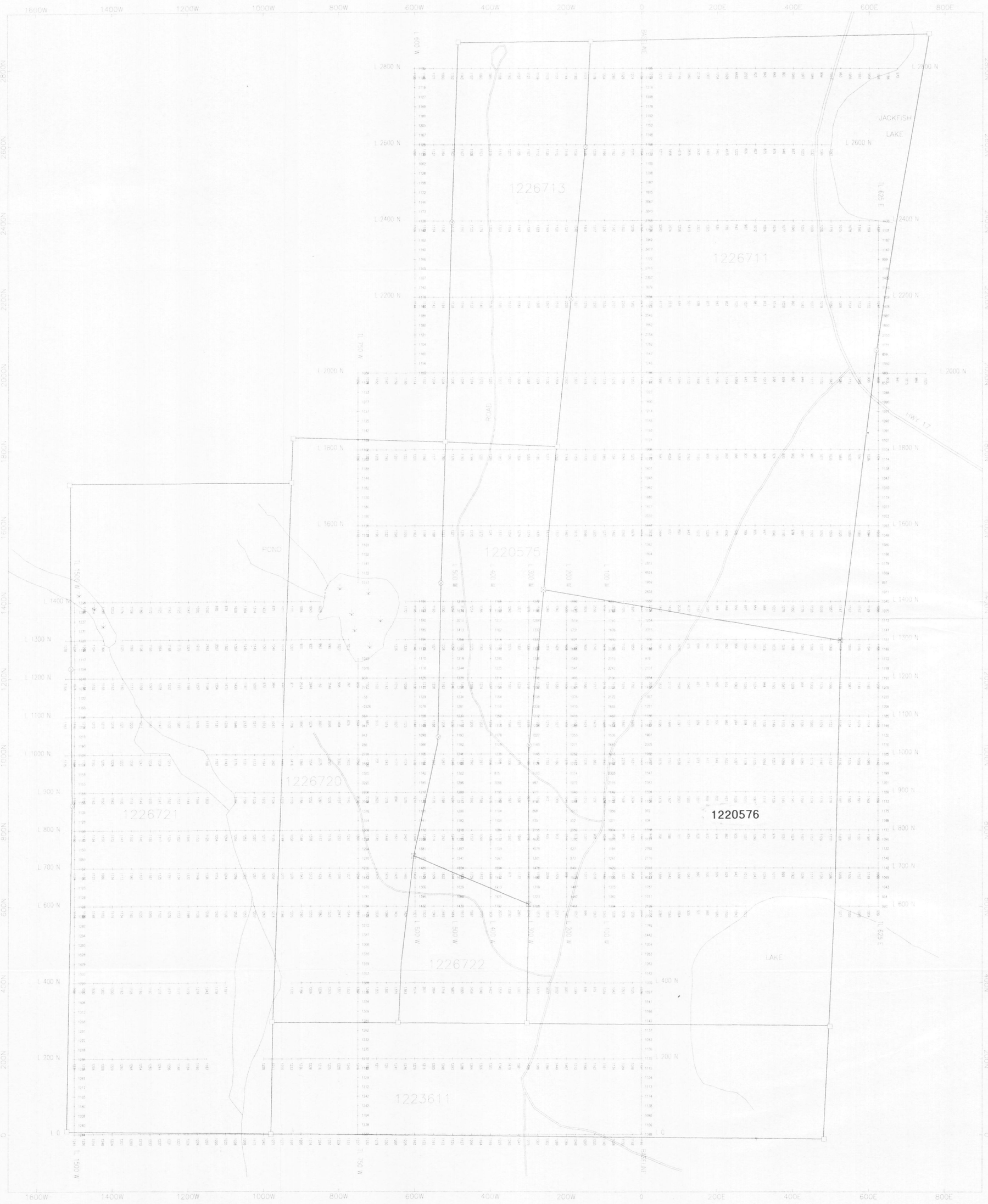
DISTRICT
KENORA

MINING DIVISION
KENORA

Ministry of Natural Resources
Ontario Surveys and Mapping Branch

Date | Plan No.
Whitney Block, Queen's Park, Toronto | G-0833

52F09SW2001 2.19493 SATTERLY 200



Scale 1:5000

100 0 100 200 300

(metres)

2.19493

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MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

MAP 1

FALCONBRIDGE LTD.

TOTAL FIELD MAGNETOMETER SURVEY

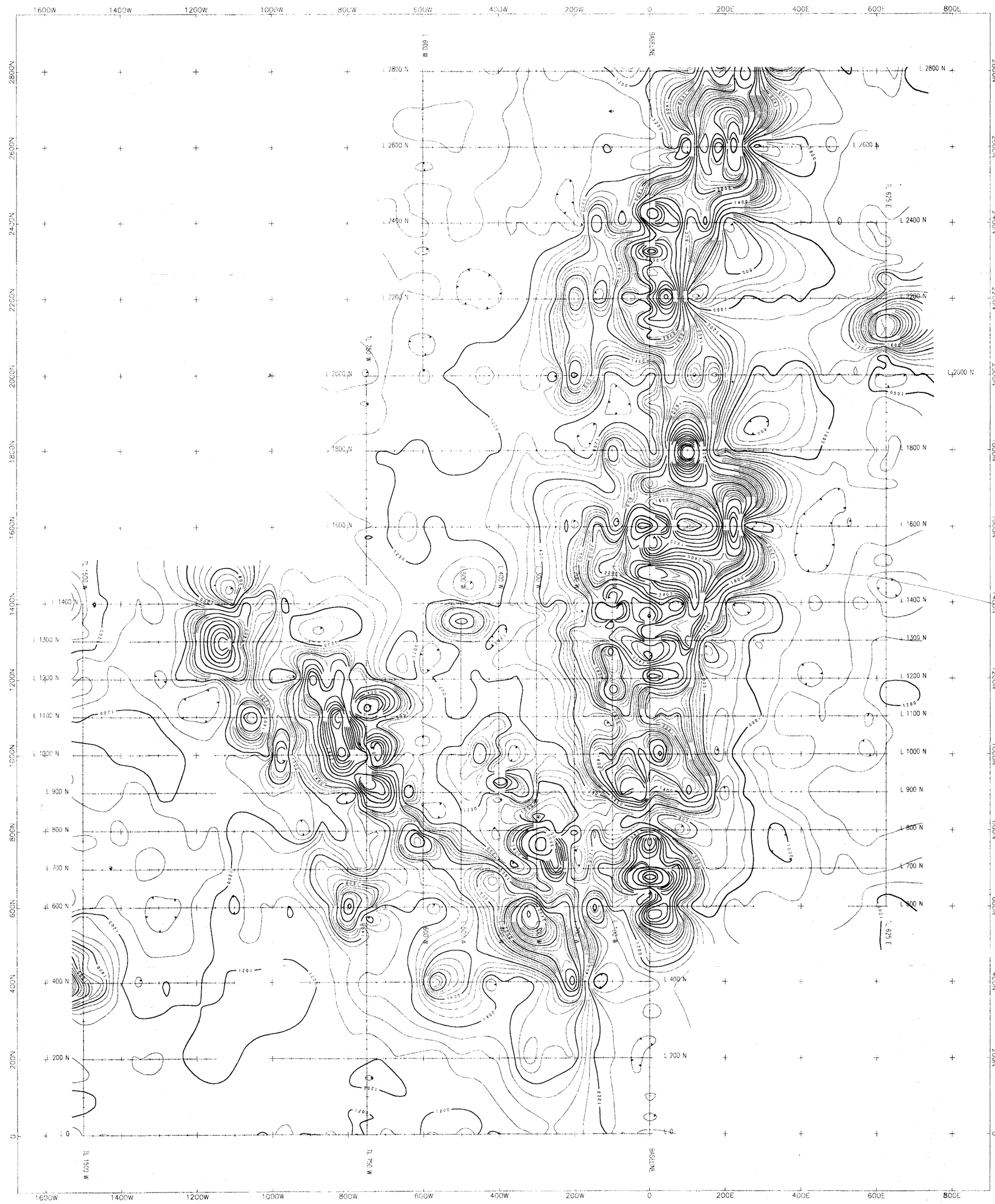
BURNING LAKE PROPERTY
NORTHWESTERN ONTARIO

NTS 52F/9 SW
BASE STATION CORRECTED POSTINGS

MTEC GEOPHYSICS INC.

Instrument: EDA Omni
Datum: 57000 nT

52F09SW2001 2.19493 SATTERLY 210



Scale 1:5000

0 100 200 300 (metres)

2.19493

RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

MAP 2

FALCONBRIDGE LTD.

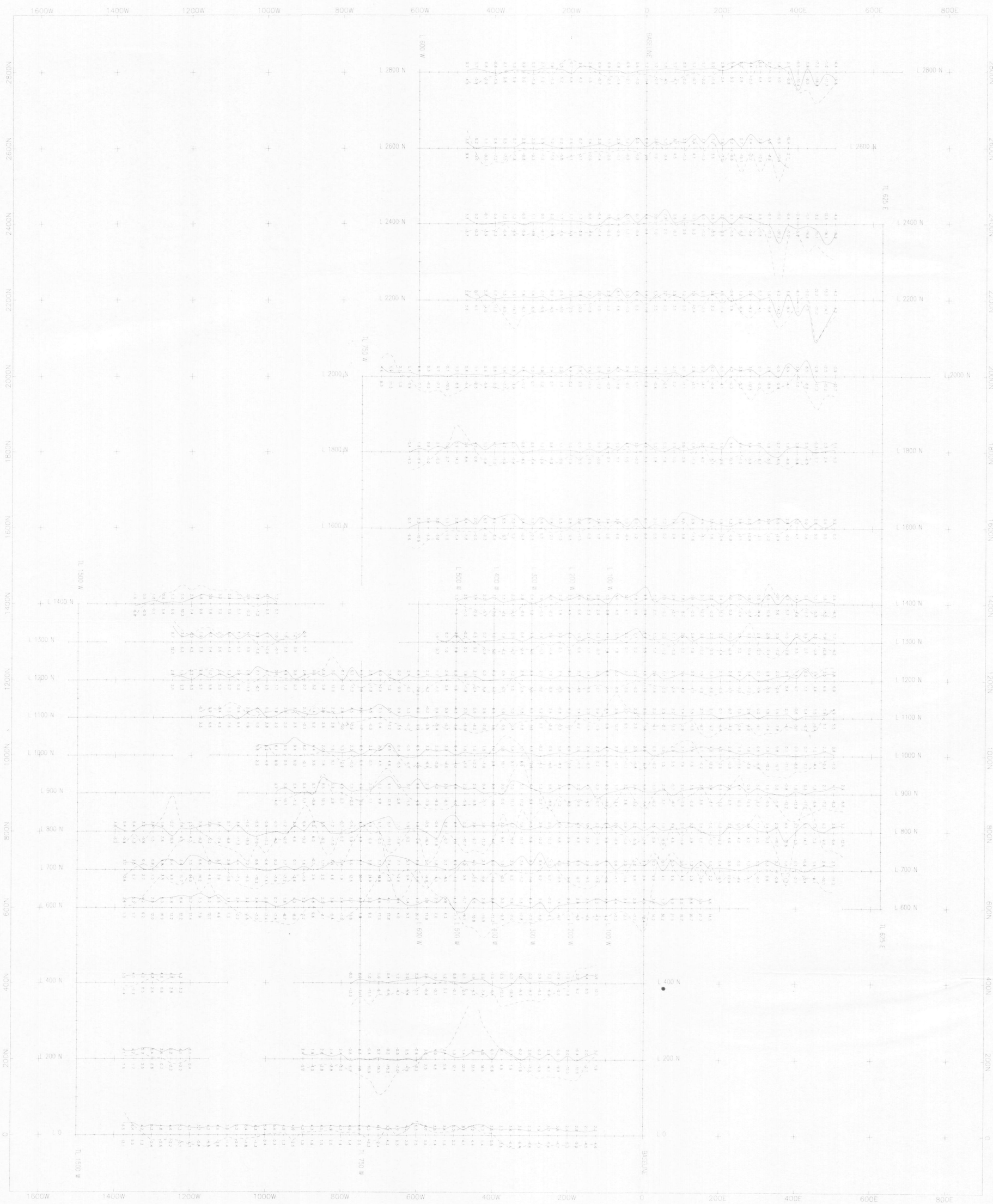
TOTAL FIELD MAGNETOMETER SURVEY
BURNING LAKE PROPERTY
NORTHWESTERN ONTARIO

NTS 52F/9 SW
CONTOURS
CONTOUR INTERVAL: 50 nT

MTEC GEOPHYSICS INC.

Instrument: EDA Omni
Datum: 57000 nT

52F09SW2001 2.19493 SATTERLY 220



Scale 1:5000

100 0 100 200 300 (metres)

2.19493

RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

MAP 3

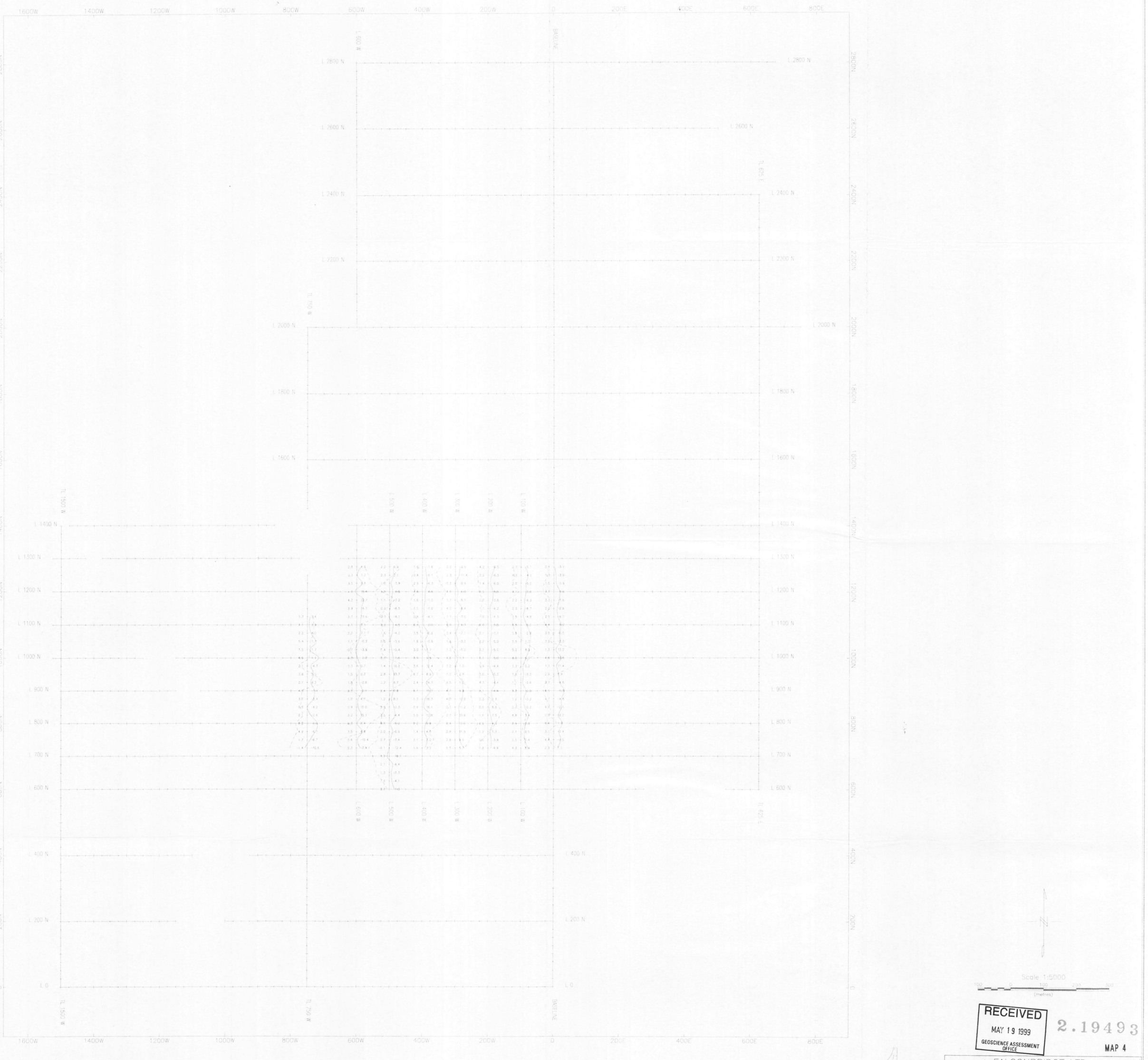
FALCONBRIDGE LTD.

HLEM SURVEY
BURNING LAKE PROPERTY
NORTHWESTERN ONTARIO

NTS 52F/9 SW
FREQUENCY: 440 Hz
INSTRUMENT: MAX-MIN I
(EAST-WEST LINES)

MTEC GEOPHYSICS INC.

52F09SW2001 2.19493 SATTERLY 230



Scale 1:5000

(metres)

RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

2.19493

MAP 4

FALCONBRIDGE LTD.

HLEM SURVEY
BURNING LAKE PROPERTY
NORTHWESTERN ONTARIO

NTS 52F/9 SW
FREQUENCY: 440 Hz
INSTRUMENT: MAX-MIN I
(NORTH-SOUTH LINES)

MTEC GEOPHYSICS INC.

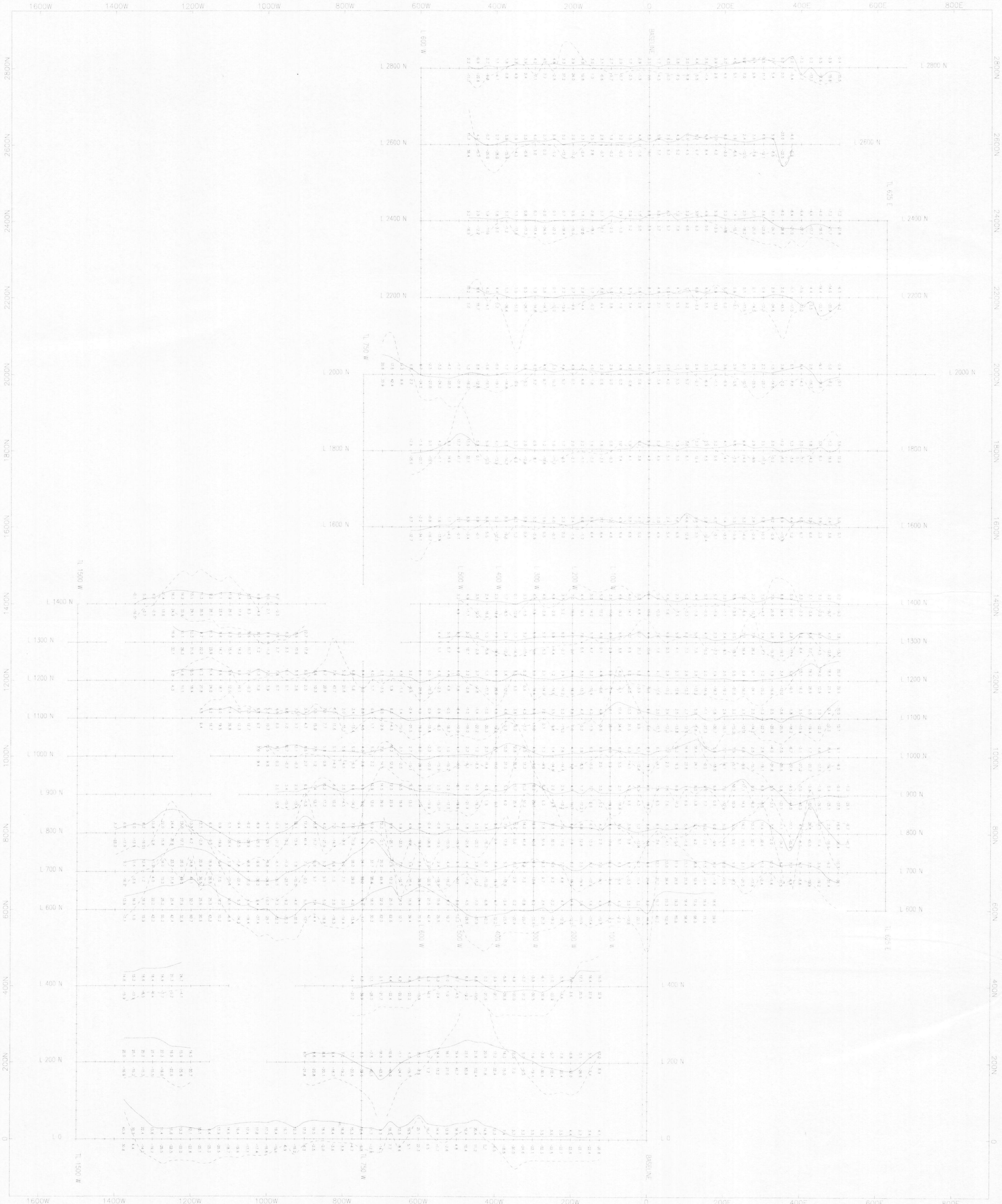
Quadrature — In Phase

-10% 0% 10%

Profile Scale: 1 cm = 10%

Coil Separation: 250m

52F09SW2001 2.19493 SATTERLY 240



RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

2.19493

Scale 1:5000

100 0 100 200 500
(metres)

MAP 5

In Phase

Quadrature

Profile Scale: 1 cm = 20%
Coil Separation: 250m

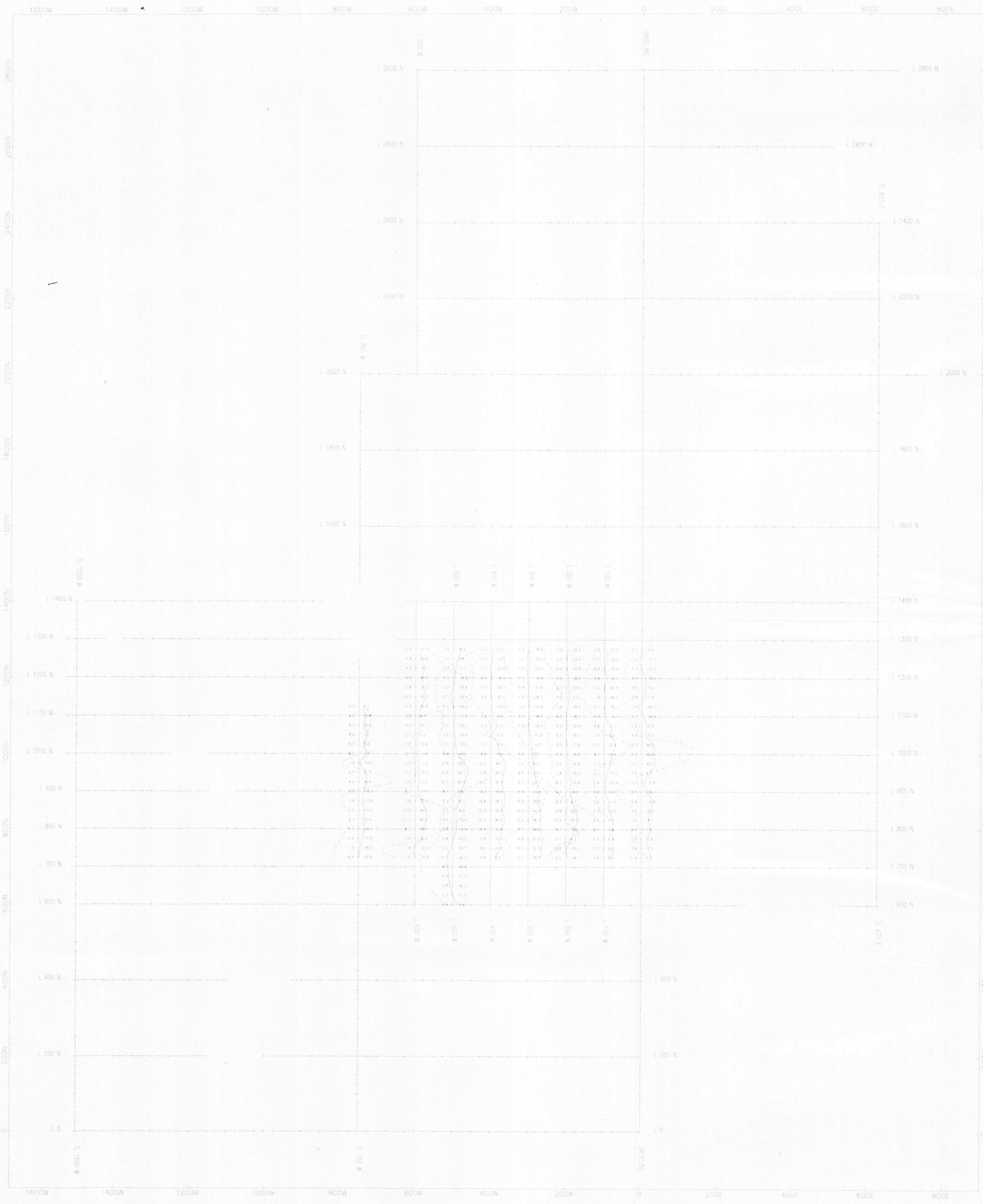
FALCONBRIDGE LTD.

HLEM SURVEY
BURNING LAKE PROPERTY
NORTHWESTERN ONTARIO

NTS 52F/9 SW
FREQUENCY: 1760 Hz
INSTRUMENT: MAX-MIN I
(EAST-WEST LINES)

MTEC GEOPHYSICS INC.

52F09SW2001 2.19493 SATTERLY 250



RECEIVED
MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

2.19493

Scale 1:5000

100 0 100 200 300
(metres)

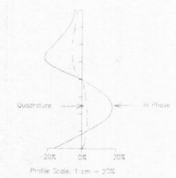
MAP 6

FALCONBRIDGE LTD.

HLEM SURVEY
BURNING LAKE PROPERTY
NORTHWESTERN ONTARIO

NTS 52F/9 SW
FREQUENCY: 1760 Hz
INSTRUMENT: MAX-MIN I
(NORTH-SOUTH LINES)

MTEC GEOPHYSICS INC.



52F09SW2001 2.19493 SATTERLY 260

- Diorite - Gabbro
- Gabbro - Diorite
- Intermediate Volcanic
- Intermediate Volcanic - Mafic Volcanic
- Massive Mafic Volcanic
- Massive Mafic Volcanic - Gabbro
- Massive Mafic Volcanic - Pillowed Mafic Volcanic
- Massive Mafic Volcanic - Mafic Volcanic
- Pillowed Mafic Volcanic
- Pillowed Mafic Volcanic - Iron Carbonate
- Mafic Volcanic
- Mafic Volcanic - Iron Carbonate
- Mafic Volcanic - Massive Mafic Volcanic
- Mafic Volcanic - Moderate Iron Carbonate
- Mafic Volcanic - Pillowed Mafic Volcanic

Jackfish Lake

Clearcut Area

TL6+00W

BL0+00

28+00N

CLAIM 1226713

CLAIM 1226711

WB09101

WB09102

TL6+25E

WB09201

TL7+50W

20+00N

Clearcut Area

WB09205

Wabigoon Lake IR #27

Wabigoon Lake

CLAIM 1226720

CLAIM 1220575

CLAIM 1226721

Hwy #17

Snake Bay Road

Fault

WB09103

TL15+00W

6+00W

1+00W

WR24719-25,28
WA24722,23,26-28,36,37

Sulphide Showing

Ni%	Cu%
1.16	1.23
1.07	1.45

WB09106 WB09105

WB09104

Diorite

Diorite

WB09107

WB09202

10+00N

WB09203

WB09204

Clearcut Area

CLAIM 1226722

CLAIM 1220567

CLAIM 1223611

0+00N

Burning Lake

N

SAMPLES

- Samples taken by Falconbridge Limited
- Samples taken by Clark-Eveleigh Consulting

2.19493

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MAY 19 1999
GEOSCIENCE ASSESSMENT OFFICE

0 0.25 0.5km

Map 7
BURNING LAKE PROPERTY
CLAIMS, GEOLOGY & SAMPLES

Scale 1:5000

Geological Interpretation by Clark-Eveleigh Consulting
Drafting by Y. Zawislak, Falconbridge Limited

52F09SW2001 2.19493 SATTERLY 270

MAPINFO\MISC\KEVINW\ASSESS\BURNING\5000-1.WOR