010

Diamond Drilling

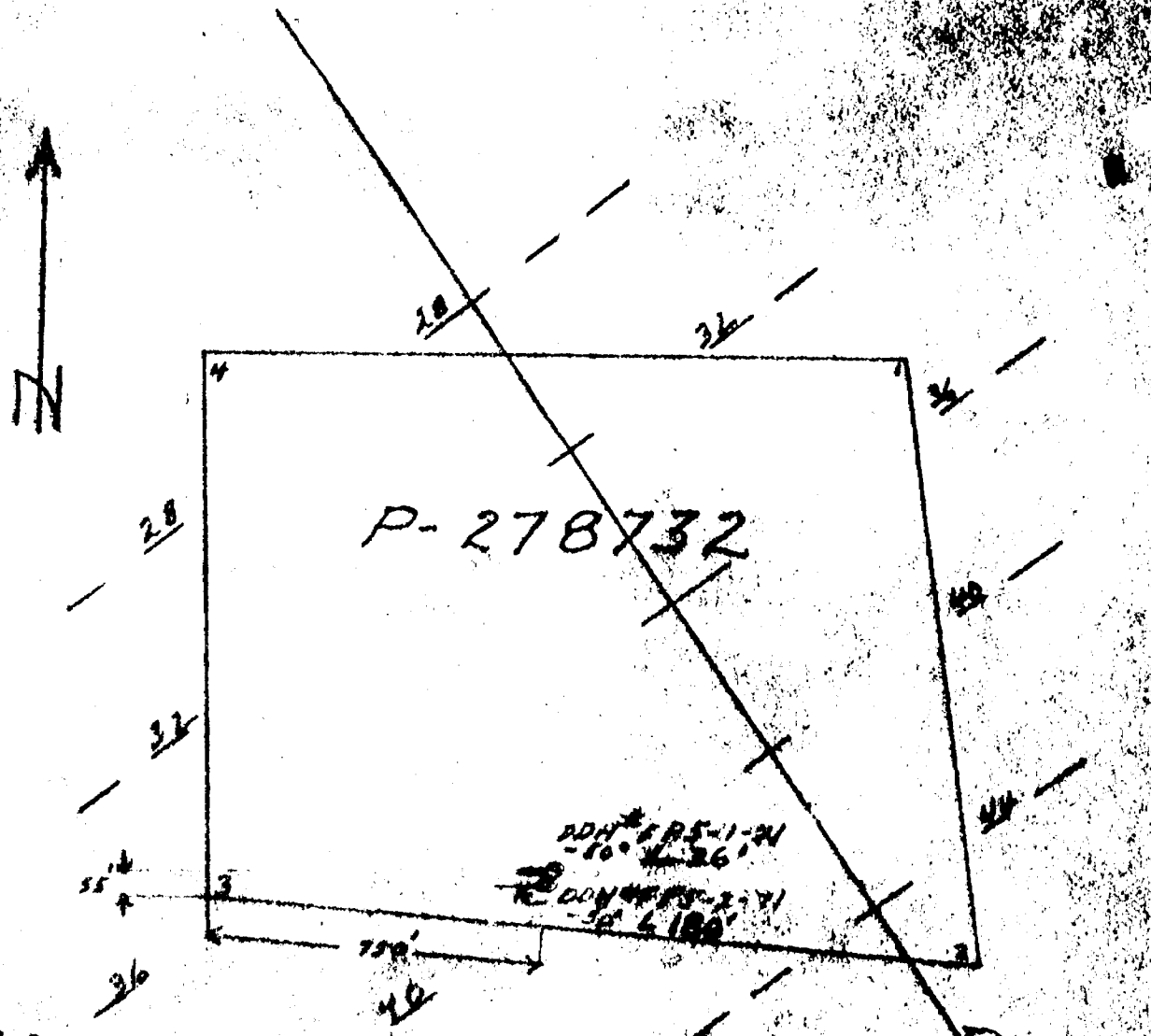
Township of FRIPP

Report Nº 18

Work performed by: Hollinger Mines

Claim Nº	Hole Nº	Footage	Date	Note
P 278732	FP5-1-71	26.0'	July/71	
	FP5-2-71	180.0'	July/71	
	FP5-3-71	689.0'	Oct-Nov/71	
	FP5-4-71	320.0'	Nov/71	
P 278736	FP5-5-71	258.0'	Nov/71	

Notes:



FBL-1-71
Location - 5+35 W of BL. on 39+335
Started - July 2/71
Finished - July 19/71
X-Ray Drill - 7/8" Core (EX)
Contractor - Ingamar Explorations, Timmins

APPROVED
JUL 23 1971

PLAN OF DDH FBL-1-71 W.B. Hansen

[illegible] GROUP [illegible] LIMITED
[illegible] DIVISION
[illegible] TIMMINS, ONTARIO

July 19/71

Location of Collar from #3-P278732 (North 55')
(East 750')

FORM 822

NORTH 5 + 35' W of BL
EAST 017 XL 39 + 33 S
ELEV. Azi. 269° Ast.
AZIM.
DIP 50°

ex Core

DIAMOND DRILL REPORT

PROPERTY Fripp #5 Group
Claim P-278732, Fripp Twp., Ontario.

HOLE NO. FP-5-1/71
COMMENCED July 2/71
FINISHED July 5/71
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
0	5	Casing.						
5	20	80% qtz with chalcopyrite						
20	26	Lost core and abandoned hole in fault zone.						
		End of Hole @ 26'.						

D MacKenzie
HOLLINGER MINES LIMITED
TIMMINS, ONTARIO

Location ofCollar 1 foot ahead of FP-5-1/71

FORM 522

NORTH
EAST.
ELEV.
AZIM. 269° Ast.
DIP 50°

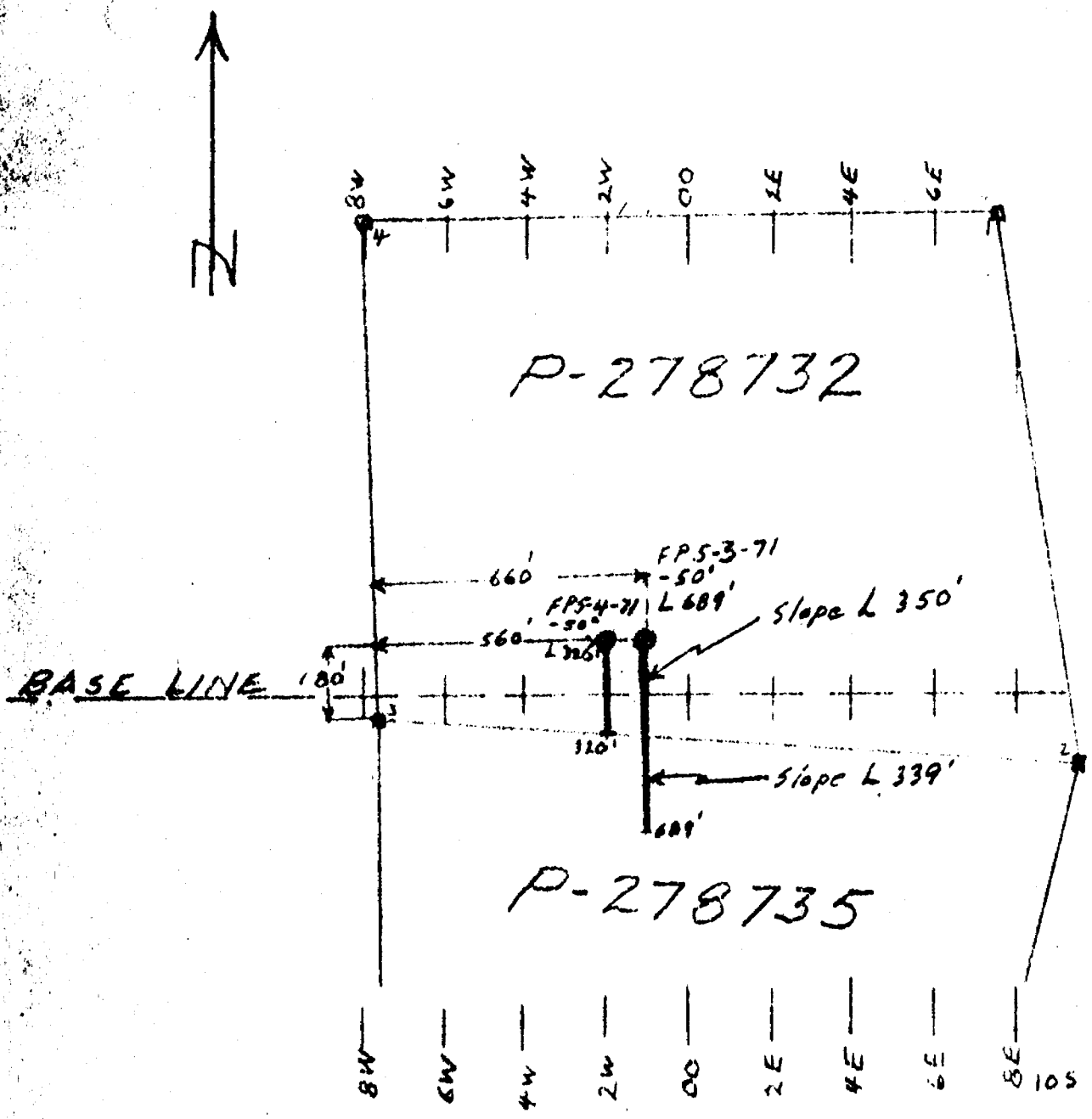
DIAMOND DRILL REPORT

PROPERTY Fripp /5 Group
Claim P-276732, Fripp Twp., Ontario.

HOLE NO. FP-5-2/71
COMMENCED July 5/71
FINISHED July 19/71
PURPOSE OF HOLE Drilling continuing

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
0	5	Casing.						
5	20	60% qtz in chloritized granite.						
20	25	Black chloritic breccia.						
25	75	Highly sheared chloritic granitized andesite? Fault zone very minor chalcopyrite and pyrite, occ. qtz stringer.						
75	160	Highly sheared chloritized granite or qtz diorite.						
		160 ± hole continuing.						

L. D. MacKenzie
HOLLINGER MINES LIMITED
TIMMINS, ONTARIO



DDH#FP5-3-71
Started - Oct. 25/71
Finished - Nov. 1/71
Bradley Bros Ltd
Wire Line (A.Q. Core)

DDH#FP5-4-71
Started - Nov. 2/71
Finished - Nov. 4/71
Bradley Bros Ltd
Wire Line (AQ Core)

PLAN OF DDH#FP5-3-71 & FP5-4-71

#202/71
Fripp Jo
Hollinger Mines Ltd

FRIPP#5 GROUP
FRIPP TWP., ONT.
Scale - 1" = 400'

W H Hansen Nov. 11/71

HOLLINGER MINES LTD.
TIMMINS, ONTARIO

Location of Collar from #3 post of Claim P-278732

FORM 522
NORTH 1 + 25 N
EAST XL 1 + 00 W
ELEV. Surface
AZIM. 180°
DIP Collar 50°; 400' - 49°; 630' - 44°

6 + 60' E, 1 + 80' N

DIAMOND DRILL REPORT

PROPERTY FRIPP GROUP 5
Claim P-278732 Fripp Township

HOLE NO. FP5-3-71
COMMENCED Oct. 25, 1971
FINISHED Nov. 1, 1971
PURPOSE OF HOLE Test EM Conductor

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
0	12	Casing.						
12	70	Quartz-diorite - coarse grained. 50% plagioclase and 50% mafics. Non-magnetic. Much of the feldspar has a pinkish tint due to hematite staining. Upper contact sharp.						
70	78	Meta sediment - fine grained, green to pinkish in colour. Good banding 75° to core axis. Mafics along shear planes. Non-magnetic. Lower contact sharp. No chilled margin. Granitized in places.						
78	85.2	Qtz. diorite as above.						
85.2	105.7	Fine grained phase of the quartz diorite colour - dark green, fine to medium grained. Cut by qtz. diorite stringers from 2" to a foot in width, less feldspar.						
105.7	151	Qtz. diorite as before with small zones of the fine grained phase intermixed.						
151	372	Qtz. diorite introduction of black chlorite. Sheared from 20° to core axis to 80° to core axis. 185.5-211 - fine grained phases. From 178 to 210 occasional blebs of cp, py and red hematite. 230-231 - Cp. minor.						

FORM S22
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP GROUP 5
Fripp Township

HOLE NO. FP5-3-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		240-243.5 - chilled phase.						
		250 - shearing parallel to core axis. Shearing predominantly at low angle to core axis. Occasional shearing 70-80° to core axis.						
		After 238 much less shearing becomes massive.						
		238-372 massive with chilled phase. 335 to 342 - chilled phase small zones at 361 and 356; bleb of galena at 347.3.						
372	383.4	Meta sediment - greywacke; banding at 70° to core axis; green in colour; fine to med. grained. Minor py. Granitized. Chloritized.						
383.4	489.3	Qtz. diorite - mainly massive with fine grained phase at 464.5-487 and 465-468.6.						
489.3	509.3	Qtz. diorite - fine grained phase but granitized to a great extent.						
509.3	520	A fine grained dense rock, possibly an inclusion. Black. Minor amount of sulfides with 20% magnetite in places. Specific gravity of rock is high. Fine magnetite gives a reddish to brass tint on outside of core.						

FORM 822
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP GROUP 5
Fripp Township

HOLE NO. FP5-3-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
520	540	Qtz. diorite, fine grained phase.						
540	689	Qtz. diorite with intermittent zones of the fine grained phase.						
		566 to 507						
		636.5-637.5.						
		END OF HOLE						
		R. E. Kirkbride.						
		HOLLINGER MINES LIMITED						
		TIMMINS, ONTARIO						

FORM S22
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP GROUP 5
Fripp Township

HOLE NO. FP5-3-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		THIN SECTION						
	13	Qtz. diorite						
	73	Meta-sediment						
	98	Qtz. diorite - fine grained						
	158	" " sheared chloritized						
	183	" "						
	198	" " fine grained phase						
	233	" "						
	273	" "						
	318	" "						
	383	Meta sed. - greywacke						
	418	Qtz. diorite						
	473	" "						
	513	Dense magnetic inclusion						
	538	Qtz. diorite - fine grained phase						
	588	" "						
	638	" "						
	658	" " fine grained phase						
	683	" "						

FORM 822
NORTH
EAST
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP GROUP 5
Fripp Township

HOLE NO. FP5-3-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		GEOCHEMISTRY						
	18'	Qtz. diorite						
	73	Meta-sed.						
	89	Qtz. diorite - fine grained						
	133	" "						
	173	" " sheared						
	223	" "						
	258	" "						
	313	" "						
	373	" " fine grained phase						
	413	" "						
	468	" " " " "						
	510	Fine grained dense incl.						
	538	Qtz. diorite - fine grained phase						
	583	" "						
	637	" " " " "						
	683	" "						

FORM 822
NORTH
EAST
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP GROUP 5
Fripp Township

HOLE NO. FP5-3-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		ASSAY						
173	177	Qtz. dio. - chloritized, sheared, Cu.						
177	183	" "						
183	188	" "						
188	193	" " fine grained phase						
193	198	" " " " "						
198	203	" " " " "						
203	208	" " " " "						
208	213	" "						
213	218	" "						
230	231	" "						

Location of Collar from #3 of P-278732 East 560'

FORM 522

NORTH 1 + 25 N North 180'
EAST 2 + 00 W
ELEV. Surface
AZIM. Grid South - 180°
DIP Collar @ 50° @ 200' - 46°

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 - BRUCE LAKE
Claim P-P-278732 Fripp Township

HOLE NO. FP5-4-71
COMMENCED November 2, 1971
FINISHED November 4, 1971
PURPOSE OF HOLE Test extension of showing.
Drilled by Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
0	10	Casing. Casing left in the hole.						
10	277.4	Diorite - coarse grained generally -						
		with coarse feldspars, some hornblende or						#s by CPG
		amphibole, quartz and a lot of chlorite in						for Cu, Zn, Ni, Pb
		the matrix. The feldspars are usually white	159	164		5		mostly coarse diorite-magnetic
		but some iron staining has coloured						locally - no min.
		numerous feldspars pinkish.	164	169		5		mostly fine diorite minor py,
		There are some small quartz-carbonates						mgt, cp, hem.
		stringers cutting the diorite - some	169	174		5		coarse minor cp mgt hem
		chlorite in the stringers as well. Very	174	179		5		coarse minor cp mgt hem
		rarely is any mineralization seen in the	179	184	(183)	5		coarse minor cp hem
		coarse diorites - speck of po @ 33.	184	189		5		coarse " cp
		73-73.6 small siliceous, pinkish inclusion	189	194		5		fine " cp
		70-78.8 inclusion or acidic dyke - differ-	194	199		5		fine " cp
		entiate - contacts broken but rather	199	204		5		fine " cp
		regular @ 60° to core axis - no chilling -	204	209		5		fine " cp
		inclusion is siliceous locally pinkish	209	214		5		fine very little cp py
		zones and locally some black specks -	214	219		5		fine very little cp
		minor epidote along hairline stringers -	219	224		5		fine very little cp
		some pyrite - usually associated with	224	229	(222)	5		fine w. qtz minor cp
		the epidote.	229	234		5		coarser w. qtz minor cp
		78.8-82.5 coarse diorite.	234	239	(232)	5		contact minor cp
		82.5-83.3 small ultrabasic dyke?						
		contacts are chilled and brecciated -						
		somewhat normal to the core axis largely						
		CO_3 - some epidote alteration - non-magnetic no mineralization.						

FORM 822
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Fripp Township

HOLE NO. FP5-4-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		83.3-91.7 coarse diorite, very minor py.						
		91.7-102.2 finer grained differentiate - usually has a finer dioritic texture, can become very siliceous locally, some epidote, contacts @ 45° to core axis.						
		102.2-116.3 coarse grained diorite.						
		116.3-137 differentiate - contacts are gradational and there are gradations into short zones of coarser diorite in this section.						
		137-157.8 back into coarse grained diorite - rock becomes more highly altered around 150, 156.8 some specks cp in coarse grained diorite.						
		157.8-230.5 start of a zone of differentiate-local coarse sections. These are the boundaries of the copper zone. The chalcopyrite is usually associated with quartz-CO_3 strs. There is some minor disseminated pyrite. Locally there is magnetite in both the coarse and fine grained sections - most of the magnetite weathers to hematite and there is very little magnetite after approximately 177. Around 220 the quartz-CO_3 content increases both as stringers and as a brecciation phenomenon. The zone appears to end along a stringer.						

FORM S22
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Fripp Township

HOLE NO. FP5-4-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		230.5-277.4 zone of coarse diorite with only local finer grained patches - minor pyrite - no chalcopyrite; the feldspares are stained pinkish as before; near the fault gouge @ 277.4 the diorite becomes more siliceous and a bit finer grained.						
277.4	320	Ultrabasic - peridotite - generally fine grained - blue black. The start of the zone is in a fault gouge approximately 3' wide. After this zone the ultrabasic is more competent. The peridotite is highly fractured with serpentine and carbonate introduced. The U.B. is magnetic overall but there are also small bands of magnetite found associated with the carbonate fractures as @ 296.5. There is some minor pyrrhotite in the ultrabasic as well. 314.7-316.5 small dyke or inclusion?? Contacts broken - the ultrabasic is highly carbonatized around this zone. The zone is very soft and composed mainly of chlorite. There is no mineralization in it and it is non-magnetic.						Geochemistry
			284	285		1		Peridotite, CO_3 strs, magnetite, po
			292	293		1		" " " " "
			312	313		1		Peridotite - CO_3 - some rosettes magnetic, no visib. min.
	320	END OF HOLE						

FORM 822
NORTH
EAST.
ELEV.
AZIM.
DIP

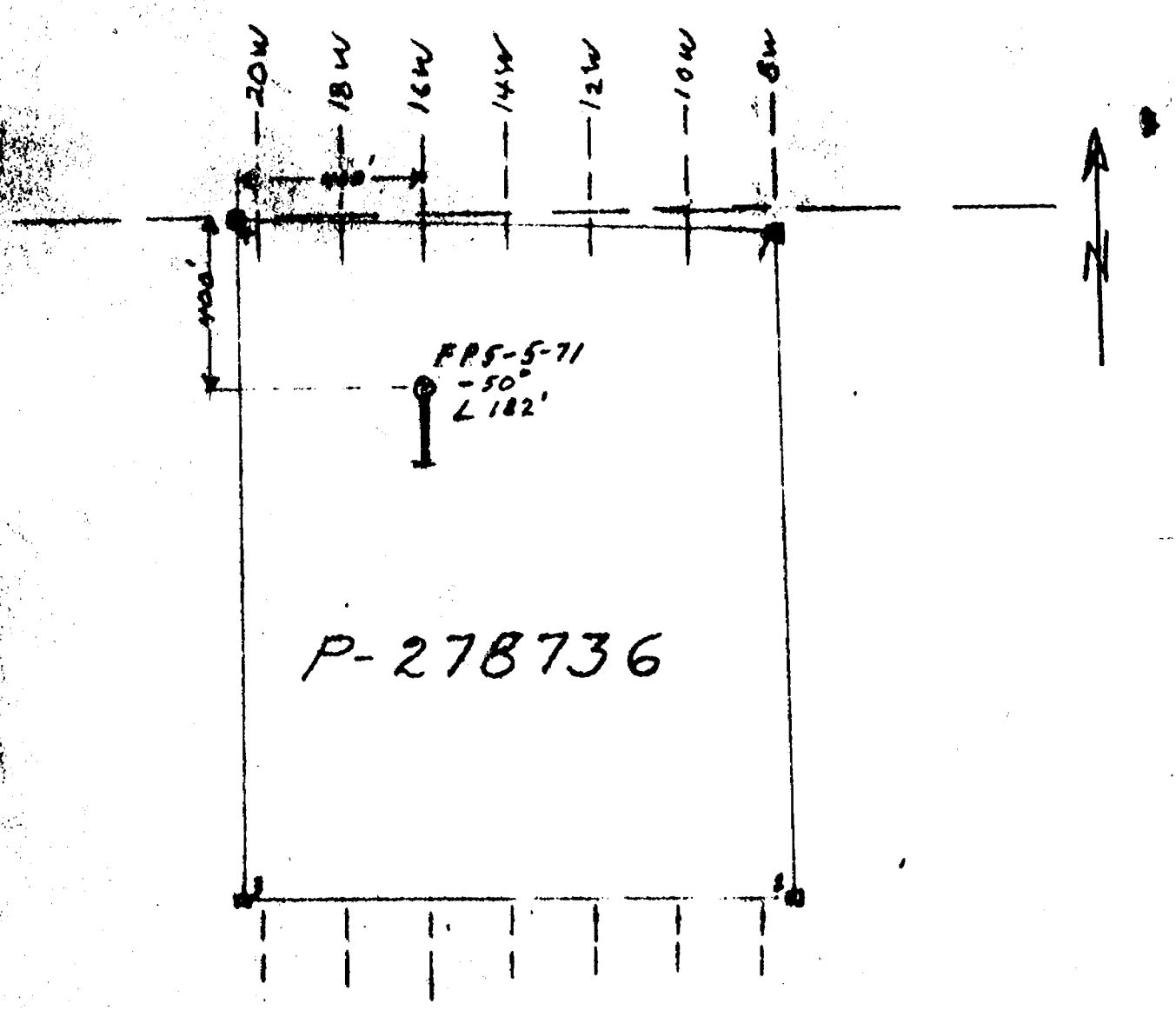
DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Fripp Township

HOLE NO. FP5-4-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		GEOCHEMISTRY AND THIN SECTIONS						
7737	35'	coarse grained diorite						
7738	85	" " " + minor py						
7739	135	" " "						
7740	158	fine grained differentiate - magnetic						
7741	178	coarse diorite in copper zone						
7742	229	coarse diorite w. qtz in copper zone						
7743	272	ultrabasic						
7744	300	"						
7745	311	inclusion or dyke						
7746	320	ultrabasic.						

Dan R Alexandu
HOLLINGER MINES LIMITED
TIMMINS, ONTARIO



Started. Nov. 6/71
Finished-Nov. 8/71
Bradley Bros. Ltd.
Wire Line (AQ Core)

PLAN OF DDH* FP5-5-71

FRIPP #5 GROUP
FRIPP TWP, ONT.
Scale- 1" = 400'

W. H. Hansen
[illegible] MINES LIMITED
TIMMINS, ONTARIO

Nov. 14/71

Location of Collar from #4 of P-278736 East 460'
South 400'

FORM S22

NORTH 4 + 00 S
EAST XL 16 W
ELEV. Surface
AZIM. Grid South 180°
DIP Collar @ 45°
No other tests.

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Claim P-P-278736 Fripp Township

HOLE NO. FT5-5-71
COMMENCED November 6, 1971
FINISHED November 8, 1971
PURPOSE OF HOLE Test fault zone + EM
Drilled by Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
0	16	Casing.						
16	18.6	The fine grained phase of the diorite - dark brown to black in colour - has the same texture as the coarser diorite. Non-magnetic. No mineralization.						
18.6	30.5	Ultrabasic - peridotite? - mostly carbonate, magnetic; it is grey to blue-grey in colour, usually has a speckled appearance (from carbonate). Locally there are numerous small black blobs of exsolved magnetite. There is a bit of talc and serpentine near the contacts. Upper contact ground, lower contact @ 50° to core axis. Very minor pyrite mineralization.						
30.5	248.6	Start of a zone of diorite - the first few feet are very dark and chloritic due to the adjacent ultrabasic. The black chlorite content gradually decreases away from the above zone. This first section is mainly coarse grained diorite and the finer grained material starts to appear at 86.8. The first bit of mineralization appears in this zone as well. The first mineral seen is pyrite, but further on there are occasional specks of chalcopyrite						Split. Cu,Zn,Ni,Ag,Pb.
			91	96		5		Fine grained dior. - minor py, cp, pb.
			128	133		5		Some fine and coarse dior. - 3% py.

FORM 822
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Fripp Township

HOLE NO. FP5-5-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		and galena. Mineralization is not confined						
		to the fine grained variety, although there						
		is generally more sulphides there. This						
		main zone of fine grained material, with						
		a few coarse sections, ends at 111.						
		After 111, the diorite is generally						
		coarse grained with a few fine grained						
		sections:						
		120-121 - grey, hard, minor py, cp, epidote.						
		161.6-163 - grey, hard, minor py, cp, PbS, epidote.						
		182.1-183.2 - grey, hard, few specks py.						
		208.6-214 - " " " " "						
		237.2-243.2 - black, with feldspar specks	238	243		5		Black - fine grained diorite
		minor pyrite.						with specks of feldspar
		acidic differentiate or inclusion.						minor pyrite.
		132.7-133.5, 134.8-135.3, 143.2-148						
		These zones are pink, hard, minor min.,						
		very irregular contacts.						
		The remainder of this zone is coarse						
		grained diorite - feldspars from time to						
		time are stained pinkish by iron.						
		Other constituents include hornblende,						
		chlorite and minor quartz. Mineralization						
		is generally very minor - mainly pyrite,						
		only a few specks of chalcopyrite and galena.						

FORM 822
NORTH
EAST.
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Fripp Township

HOLE NO. FP5-5-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
248.6	258	Start of an ultrabasic - serpentinite						
		along a shear at 45° to the core axis.						
		The rock is only weakly magnetic.						
		Serpentine - talc are the main constituents.						
		The rock is very soft and highly altered.						
		Minor brownish carbonate, no mineralization.						
		@ 258 - cement - could not drill so						
		hole was stopped.						
	258	END OF HOLE.						

FORM 822
NORTH
EAST
ELEV.
AZIM.
DIP

DIAMOND DRILL REPORT

PROPERTY FRIPP #5 GROUP - BRUCE LAKE
Fripp Township

HOLE NO. FP5-5-71
COMMENCED
FINISHED
PURPOSE OF HOLE

FROM	TO	DESCRIPTION	CORE SAMPLES FROM	TO	RECOV.	WIDTH	ASSAY	DESCRIPTION OF SAMPLE
		GEOCHEMISTRY AND THIN SECTIONS						
7750	@ 27'	Carbonatized peridotite w. exsolved magnetite						
7751	@ 86'	Coarse grained diorite						
7752	@ 94'	Fine grained diorite - minor pyrite						
7753	161	Coarse grained diorite						
7754	209	Fine grained diorite - very minor py						
7755	243	" " " - black - very minor py						
7756	249	Serpentinite.						

Dan R. Alexander
HOLLINGER MINES LIMITED
TIMMINS, ONTARIO