



52F155E0359 14 LAVAL

Diamond Drilling

010

Township of LAVAL

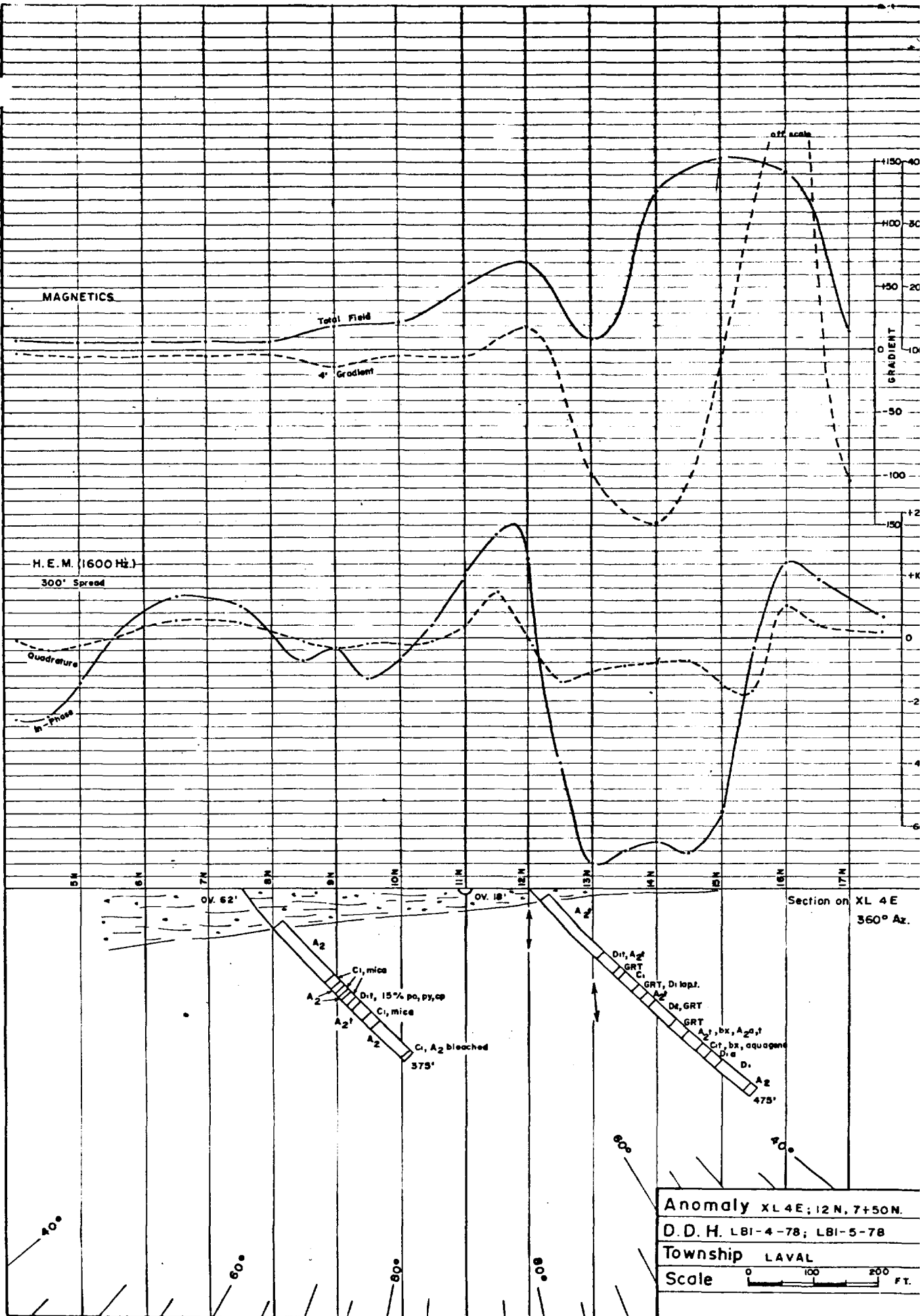
Report N^o 14

Work performed by: Hollinger Mines Limited

Claim N ^o	Hole N ^o	Footage	Date	Note
K 449695	LBL-1-78	352.0'	Feb/78	(1)
K 449700	LBL-3-78	384.0'	Feb/78	(1)
K 449558	LB1-4-78	475.0'	Mar/78	(1)
K 449558	LB1-5-78	375.0'	Mar/78	(1)

Notes:

(1) #20-78 (Laval & Brownridge Twps.)



DIAMOND DRILL REPORT

HOLE NO. LBI-1-78
 COMMENCED Feb. 17, 1978
 FINISHED Feb. 20, 1978

NORTH 20+00N
 EAST 19+40W
 ELEV. SURFACE
 AZIM. 3350 az.
 DIP COLLAR: -520; 300'; -470

PROPERTY LAVAL-BROWNBRIDGE #1

PURPOSE OF HOLE to test electromagnetic anomaly.
 Drilled by: Bradley Bros.

BQ Core

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		SUMMARY LOG					
0'	90'	OVERBURDEN					
90'	117.5'	META-ANDESITE TUFF - 90.2' to 90.9' and 97.1' to 97.9' - bleached andesite or dacite tuff; 7%-10% po,py - 102.3' to 102.6' - dykelet of feldspar porphyry					
117.5'	123.2'	RHYODACITE to DACITE TUFF - 118.5' to 121.7' - 10%-15% po,py, tr.cp					
123.2'	142.8'	PILLOWED META-ANDESITE - 127.1' to 129' - bleached andesite or dacite tuff					
142.8'	150.8'	QUARTZ-FELDSPAR PORPHYRY					
150.8'	224.4'	PILLOWED META-ANDESITE - 224.4' - fault gouge					
224.4'	249.5'	META-DACITE to META-ANDESITE TUFF - 238.5' to 240.5' - agglomeratic section					
249.5'	352'	INTERCALATED RHYODACITE TUFFS and AGGLOMERATES - 8 agglomeratic sections - 251.5' to 257' - black chert - greater proportion of more mafic material below 333'					

E.O.H. - 352'

DIAMOND DRILL REPORT

NORTH 20+00N
 EAST 19+40W
 ELEV. Surface
 AZIM. 3350 az.
 DIP Collar: -520; 300': -470

PROPERTY LAVAL-BROWNBRIDGE #1
 Claim K-449695 BQ Core

COMMENCED Feb. 17, 1978
 FINISHED Feb. 20, 1978
 PURPOSE OF HOLE to test electromagnetic anomaly.
 Drilled by: Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES				ASSAY	DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH		
0'	90'	OVERBURDEN - Casing to 102'						
90'	117.5'	META-ANDESITE TUFF - fine-grained; grey-green to dark grey; discrete, closely-packed, subrounded to subangular fragments averaging 1.0 mm in diameter are mixed with numerous scattered dark grey fragments of similar size, and a few local pale green 'patches' of highly altered cement; below 92', the unit is uniform and weakly to moderately foliated @ 450 to 500 to C.A. -- as well as being mottled medium and pale grey/ dark and pale green (some black and brown mica along foliation planes); weakly to strongly magnetic and carbonatized (both listed @ end of log); very fine pyrrhotite and pyrite with a trace of chalcopyrite are disseminated throughout (listed below); there are several narrow white-grey quartz or quartz-carbonate gash stringers (from 3 to 6 mm wide) cutting the C.A. at 200', 450', and 750' core angles; the margins of several of these seams contain reddish-orange and/or honey-coloured material that may be either sphalerite or the product of local iron-staining; several hairline fractures at 50' and 90' to the C.A. are filled with selenite (clear, soft, non-	90'	92'		2'	Cu ppm	(All samples assayed for gold & Ag ran TRACE)
			92'	97'		5'	Zn ppm	1% to 3% strygs
			97'	100'		3'		1% to 2% strygs
			100'	102'		2'		2% to 3% strygs
			102'	105'		3'		3% to 5% strygs
			105'	110'		5'		1% to 3% strygs
			110'	113'		3'		"
			113'	115'		2'		1% to 2% strygs
			115'	118'		3'		"

DIAMOND DRILL REPORT

HOLE NO. LB1-1-78

2.

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNBRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		fizz), and @ 105' a quartz seam appears to have been 're-opened', then the quartz fragments cemented in selenite. From 113.6' to 116.7', there are scattered quartz fragments (up to 2 mm diameter) rimmed by selenite; metamorphic grade is probably low greenschist facies (textures are well-preserved); the basal contact is sharp and distinct @ 450 to C.A.						
		- 90.2' to 90.9' - bleached andesite or dacite tuff; light grey; 7% to 10% pyrite and pyrrhotite along seams parallel to foliation (here @ 500 to 550 to C.A.) as well as finely disseminated throughout rock.						
		- 97.1' to 97.9' - as from 90.2' to 90.9'						
		- 102.3' to 102.6' - dykelet of feldspar porphyry with medium- to closely-spaced subhedral white feldspar phenocrysts (to 5 mm in length) in a dark grey medium-grained matrix of quartz feldspar and mafic minerals.						
		- mineralization = 90' to 92' - 2% to 5% po, py; 92' to 99' - 1% to 2% po, py; 99' to 100.5' - up to 1% po, py, tr, sp.?, 100.5' to 100.7' - 3% to 5% po, minor py, tr, sp & cp?; 100.7' to						

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

HOLE NO. LBI-1-78
 COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				ASSAY	DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH		
		102' - 1% - 2% po, minor py, tr.sp.?, 102' to 104.4' - up to 1% po,py, and 2% sp.?, 104.4' to 105.3' - 1% - 2% po,py,sp.?, 105.3' to 113' - up to 1% po,py (except for 1% - 2% po,py,sp. @ 110'); 113' to 113.6' - 2% - 3% po,py; 113.6' to 116.7' - up to 1% po,py; 116.7' to 117.5' - 2% to 3% po,py.					Cu Zn ppm ppm	
117.5'	123.2'	RHYODACITE to DACITE TUFF - fine-grained; pale grey to dark grey with some colour banding parallel to well-developed foliation (varies from 25° to C.A. to mainly between 55° and 70° to C.A.); some dark grey, shard-like, medium- to close-spaced, quartz fragments (to 2 mm across) in a cream to pale grey cement... suggest a vitro-clastic tuff.	118'	120'		2'	Tr. Tr.	5% to 7% strgrs*
		- from 118.5' to 121.7', 10% to 15% disseminated and semi-massive pyrrhotite and pyrite; trace of chalcopyrite (especially @ 120.2'; 5% to 10% disseminated pyrrhotite and pyrite from 122.8' to 123.1'; rest of unit contains 2% to 3% pyrrhotite and pyrite; numerous slips from top to 118.5' are coated with a very fine-grained black	120'	121'		1'	" "	3% to 5% strgrs
			121'	123'		2'	" "	5% to 7% strgrs

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVALL-BROWNBRIDGE #1

HOLE NO. LBI-1-78
 COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				ASSAY	DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH		
		5% to 7% pyrite and pyrrhotite as blebs and narrow seams parallel to foliation, - @ 130.6' and 133.7', 5% to 7% pyrite and pyrrhotite as narrow seams along selvages @ 450 to 500 to C.A.					Cu Zn ppm ppm	
142.8'	150.5'	QUARTZ-FELDSPAR PORPHYRY (?) - fine- to medium-grained; dark grey; wide-scattered white, sub-rounded, quartz and feldspar phenocrysts up to 6 mm across; slightly pitted surface where soft green to brown mafic mineral worn or plucked out (possibly altered mica); fine disseminated pyrite with minor pyrrhotite, up to 5% throughout; upper and basal contacts are relatively sharp and distinct @ 450 to 500 to C.A.	142'	145'		3'	Tr. Tr.	2% to 3% strgrs
			145'	148'		3'	" "	1% to 3% strgrs
			148'	151'		3'	" "	1% to 2% strgrs
150.5'	224.4'	PILLOWED META-ANDESITE - as described above; narrow zones of widely-spaced, light green-grey, rounded, amygdules (up to 2.5 mm diameter) marginal to selvages in upper(?) part of some pillows (tends to indicate tops up hole); a few scattered hairline fractures @ 50 to C.A. filled with selenite (especially @ 192'); generally 1% to 2% fine disseminated pyrite,						

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

HOLE NO. _____
 COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					ASSAY	DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH			
		with some pyrrhotite, throughout -- 3% to 5% pyrite and pyrrhotite as narrow seams and blebs in sections from 178.5' to 179.5', @ 181', 195' to 195.5', 207.5' to 210.5', and @ 219.4'; basal contact is marked by fault gouge and finely broken core.							
224.4'	249.5'	META-DACITE to META-ANDESITE TUFF - fine-grained; abundant, generally closely-spaced, medium to light grey felsic fragments (usually 2.5 mm by 1 mm) in a medium to dark green-grey andesitic matrix; felsic 'lapilli' (4 by 1.5 mm) are widely scattered throughout; where fragments are particularly numerous, the unit has a rhyodacite 'look'; well-foliated throughout with core angles varying from 40° to 50° to C.A. (45° predominates); green, subangular, amphibole rich fragments (up to 12 by 50 mm) medium-spaced in a fine-grained, white-grey, carbonatized cement comprise sections from 232.9' to 233.7' and 241.2' to 243.7'; about 1% disseminated pyrite and pyrrhotite except where noted below.							
			224'	225'		1'	Tr. Tr.	Fault gouge xn for Ad + Geo.	
			225'	230'		5'	" "	3% to 5% strgrs	
			230'	235'		5'	" "	"	
			235'	240'		5'	" "	1% to 2% strgrs	
			240'	245'		5'	" "	5% to 7% strgrs	
			245'	250'		5'	" "	3% to 5% strgrs	
		- agglomeratic section, from 238.5' to 240.5', featuring wide- to medium-spaced, subrounded							

DIAMOND DRILL REPORT

FORM 522
 NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWN RIDGE #1

HOLE NO. LBI-1-78
 COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE	
			FROM	TO	RECOV.	WIDTH	ASSAY		
		elongate felsic fragments (bombs) from 4 by 15 mm to 6 by 30 mm) in a grey-green to dark green andesitic matrix.							
		- white quartz-carbonate veins bordered by coarse green amphibole, and creamy feldspar (honey sphalerite?) @ 450 to C.A. from 228.8' to 229.1' and 244.4' to 245.1',							
		- 5%-7% pyrrhotite and pyrite in seams from 225.1' to 226.3', @ 227.4', 233.3' to 235.1', @ 236.1', and 241.2' to 244.4',							
		- 3%-5% pyrrhotite and pyrite disseminated from 245.9' to 247.1', and 249.1' to 249.5'							
249.5'	352'	INTERCALATED RHYODACTITE PUFFS and AGGLOMERATES - fine- to very fine-grained; light- to medium-grained; hard; closely-spaced felsic fragments (from 1 to 6 mm across); wispy reddish-orange alteration occurs in sections from 250.5' to 257.1', 282.3' to 284.8', 287.5' to 287.8', 289.1' to 290.5', @ 315.5', and 345.2' to 345.7', and appears to be due to feldspathization (however, it may be due, in part, to iron staining or sphalerite(???)); agglomeratic sections similar to that from 238.5' to 240.5' (only with some-							
			275'	280'		5'	Tr. Tr.	1% to 2% strgrs	
			280'	285'		5'	" "	3% to 5% strgrs	
			313'	315'		2'	" "	75% to 80% strgrs	

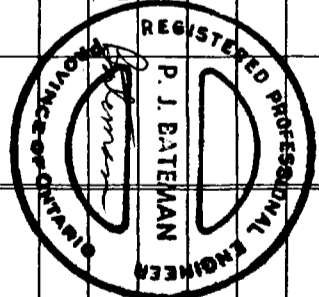
DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

HOLE NO. _____
 COMPLETED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE	
			FROM	TO	RECOV.	WIDTH		ASSAY
		what more felsic matrix) occur from 279.6' to 281.4', 283.7' to 285.5', 289.5' to 292.6', 294.7' to 295.7', 297.5' to 299', 311.6' to 320' and 327.7' to 330.4'; greater proportion of mafic material below 333'; numerous fine carbonate stringers from 331.7' to 340.5', foliation angles throughout between 50° to 55° to C.A.						
		- 251.5' to 257' - black, very fine-grained, chert, finely-fractured (also traces @ 287.5' and 297.3')						
		- 3% to 5% disseminated pyrrhotite and pyrite from 278.5' to 279.2', 304' to 308', @ 323', @ 338.5', 340.8' to 341.6', and 342.2'.						
		- 1% to 3% disseminated pyrrhotite and pyrite @ 293.9'						
		- white quartz veins, with minor carbonate along hairline cracks, from 313.5' to 314.7', 319.9' to 320.3', 322.4' to 322.9', and 345.3' to 345.6'						
		E.O.H. - 3521						

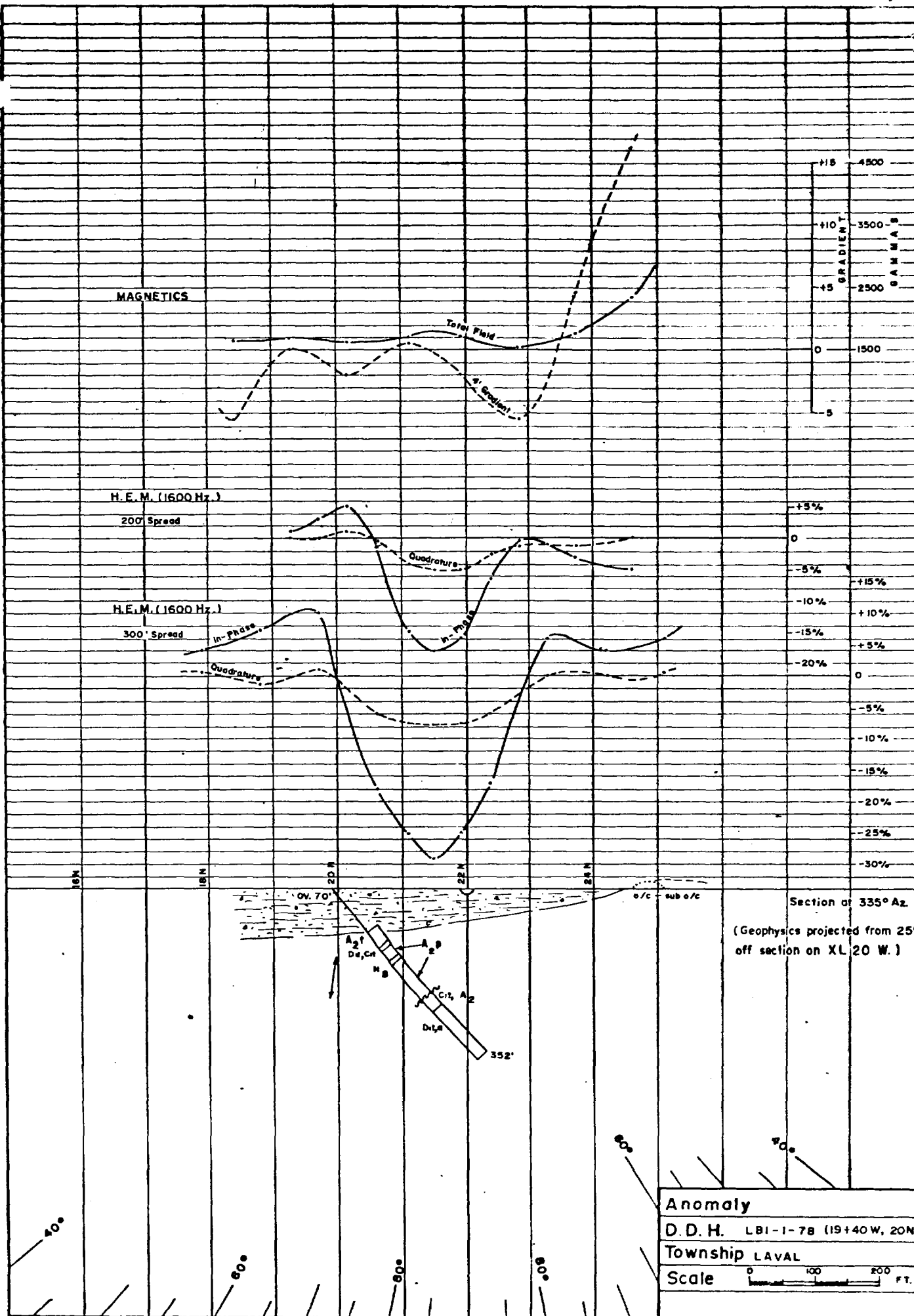


Magnetism

non to weakly magnetic	wkly to mod magnetic	mod to strgly magnetic	strongly magnetic
92' - 100.5'	104' - 105.5'	90' - 92'	113.5' - 127'
101.5' - 104'	130' - 131.5'	100.5' - 101.5'	128' - 130'
105.5' - 111'	143' - 147'	111' - 113.5'	@ 225.3' & 226.2' & 227'
131.5' - 135'	183' - 191'	127' - 128'	232.5' - 235.1'
138' - 140'	212.3' - 213'	135' - 138'	235.7' - 235.9'
158' - 161'	@ 214' & 215'	140' - 143'	241' - 247' (except for qv)
165' - 183'	228' - 228.5'	147' - 158'	263.2' - 264.3'
204' - 207.3'	231.6' - 231.9'	161' - 165'	279.5' - 286.2'
209' - 212.3'	267' - 268'	191' - 204'	299' - 310'
213' - 218.6'	278.2' - 279.5'	@ 206.3'	
220' - 221.4'	@ 288'	207.3' - 209'	
224' - 228'	292.8' - 295.9'	218.6' - 220'	
228.5' - 231.6'	297.5' - 299'	221.4' - 224'	
231.9' - 232.5'	317.4' - 317.6'	257' - 262'	
235.1' - 235.7'	322' - 332'	269.4' - 276.6'	
235.9' - 241'		289.4' - 291.7'	
247' - 257'		342' - 352'	
262' - 263.2'			
264.3' - 267'			
268' - 269.4'			
276.6' - 278.2'			
286.2' - 288'			
288' - 289.4'			
291.7' - 292.8'			
295.9' - 297.5'			
310' - 317.4'			
317.6' - 322'			
332' - 342'			

Carbonatization (ccc)

non to weakly ccc	weakly to mod ccc	mod ccc	mod to stry ccc	strgly ccc
120.5' - 138'	100' - 104'	97' - 100'	104' - 106'	90' - 97'
203' - 205.5'	147' - 167'	106' - 109'	113' - 116'	109' - 113'
206' - 208.5'	179' - 193'	116' - 118.5'	118.5' - 120.5'	205.5' - 206'
213.5' - 214.5'	214.5' - 217'	138' - 147'	167' - 179'	244.4' - 245.1'
225.3' - 233'	239' - 244.4'	208.5' - 213.5'	193' - 203'	
235' - 239'	267' - 268'	217' - 225.3'		
245.1' - 267'	301' - 312'	233' - 235'		
268' - 281.5'	317.6' - 318.3'	281.5' - 286'		
286' - 290'	331.7' - 340.5'	290' - 291'		
291' - 301'		312' - 314'		
314' - 317.6'		322' - 323'		
318.3' - 322'				
323' - 331.7'				
340.5' - 352'				



MAGNETICS

Total Field

In-Phase

H.E.M. (1600 Hz.)

200' Spread

Quadrature

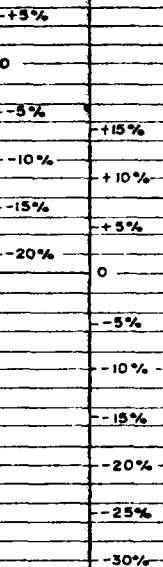
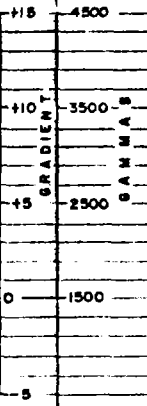
H.E.M. (1600 Hz.)

300' Spread

In-Phase

In-Phase

Quadrature



18N

19N

20E

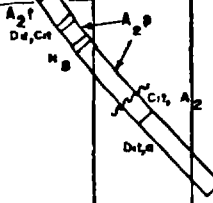
21N

22N

o/c sub o/c

Section at 335° Az.

(Geophysics projected from 25° off section on XL 20 W.)



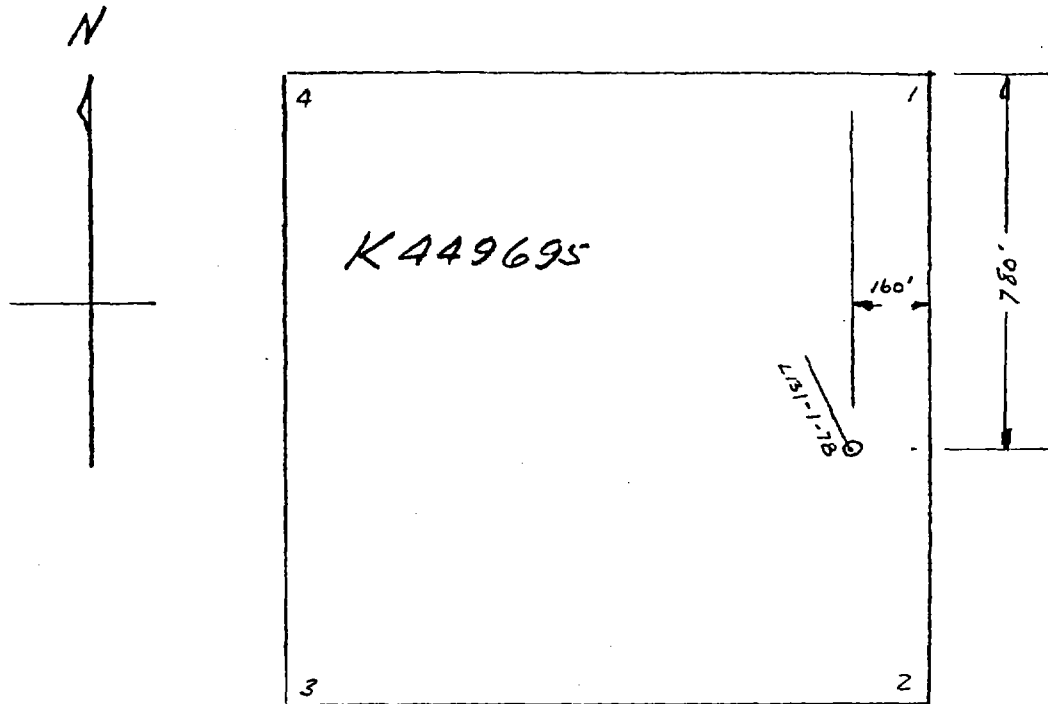
Anomaly

D.D.H. LBI-1-78 (19+40 W, 20N

Township LAVAL

Scale 0 100 200 FT.

PLAN OF DDH LBI-1-78



LAVAL TOWNSHIP

Scale 1" = 400'

START FEB. 17/78

FINISHED FEB. 20/78

DIA. of CORE . 1.44"

WIRE LINE BQ CORE

CONTRACTOR Bradley Bros

Timmins ON

LENGTH 352'

Dip -52°

Az 335°

[Handwritten signature]
 [Faint printed text]

DIAMOND DRILL REPORT

HOLE NO.

IBI-3-78

1.

NORTH 0+255
 EAST XI. 8W
 ELEV. Surface
 AZIM. 3600 az.
 DIP Collar: -50°; 300': -32.5°

PROPERTY BQ Core

LAVAL-BROWNRIDGE #1

K-449700

BQ Core

Drilled by: Bradley Bros.

COMMENCED Feb. 28, 1978

FINISHED Mar. 4, 1978

PURPOSE OF HOLE to test electromagnetic conductor

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
0'	152'	OVERBURDEN - Casing to 156'					
152'	189.3'	'SHEARED' META-ANDESITE TUFF - fine-grained; medium grey to grey-green with numerous streaks and flecks of dark grey; possibly a succession of relatively thin tuff beds (0.6 to 3.0 metres thick), as several finer dark olive-grey sections are abruptly overlain (tops up hole) by coarser, conformable 'ashy' sections; many sections look sedimentary (i.e. meta-greywacke or meta-quartzite), especially where fine disseminated phlogopite is particularly abundant -- however, the detritus appears to be definitely volcanogenic, and a few scattered light grey augen-shaped fragments (up to 4 mm long) support a volcanic tuff classification; the unit is well-foliated and/or sheared throughout with local minor crinkling (core angles are 55° to C.A. @ 169', and two sets @ 30° and 45° to C.A. @ 181'); there are rare scattered pinkish-white subrounded garnets (to 1 mm diameter) and, locally, numerous black to dark green amphibole or biotite grains	185'	190'		5'	2% to 3% strgrs

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNBRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE	
			FROM	TO	RECOV.	WIDTH		ASSAY
		(to 1.2 mm across); the core is quite blocky, and there is 4.5 feet lost core between 152' and 156', 1 foot lost core from 156' to 164', and 2 feet lost core from 177' to 182'; a narrow grey-white quartz-carbonate vein cuts the core @ 550 to 600 to C.A. from 164' to 164.2'; non-carbonatized except on sparse narrow stringers; moderately to strongly magnetic from 177' to base; fine graphite in matrix and along slips from 177' to 182' and 183' to 185'						
		- 159.9' to 160' and @ 160.3' - mg to cg, speckled white and green, dioritic section (2%-3% po,py) @ 750 to C.A.						
		- 165.4' to 165.9' - vfg, dark grey, chloritic rhyodacite(?) section						
		- 185' to base - light to medium grey section of dacite(?) or meta-arkose(?)						
		- 5% to 10% dissem. & strgr py,po = 185' to base						
		- 3% to 7% dissem. po & py = 177' to 182' and 183' to 185'						
		- 3% to 5% dissem. po,py = 168.7' to 169.4'						
		- py along hairline seams @ 45° to C.A. @ 156.3'						

DIAMOND DRILL REPORT

HOLE NO. LB1-3-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

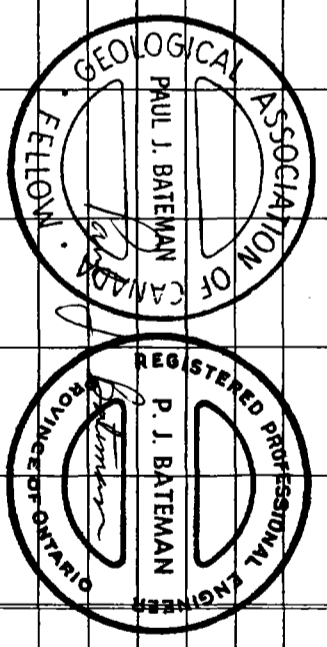
FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		259.21 to 260.11, and 262.21 to 264.91						
		- 1% to 2% cp,po,py = 243.41 to 253.11, 274.11 to 278.81 and 288.31 to 289.51						
294.11'	384'	DIORITE to 'B'-FLOW - medium-grained; dark to medium green, somewhat mottled with blacks and pale green-greys; generally non-foliated and quite uniform; probably diorite, partially as lines up with discordant diorite body mapped in outcrop, but the Hollinger 'B'-flow classification may apply as it means a sill-like basic flow that may, in part, be intrusive; scattered blue quartz 'eyes' throughout (up to 1.5 mm diameter); felsic grains and aggregates are commonly 2.5 mm across, and they are mixed with felted white feldspar laths (up to 2.5 by 0.5 mm) and black to dark green amphibole grains up to 5 mm diameter; the section from the top to 297' is possibly a chill or transition zone as it is progressively finer-grained and better-foliated toward the top; a finer-grained, better-foliated section also occurs from 316.7' to 318', and is bordered for 1 foot						

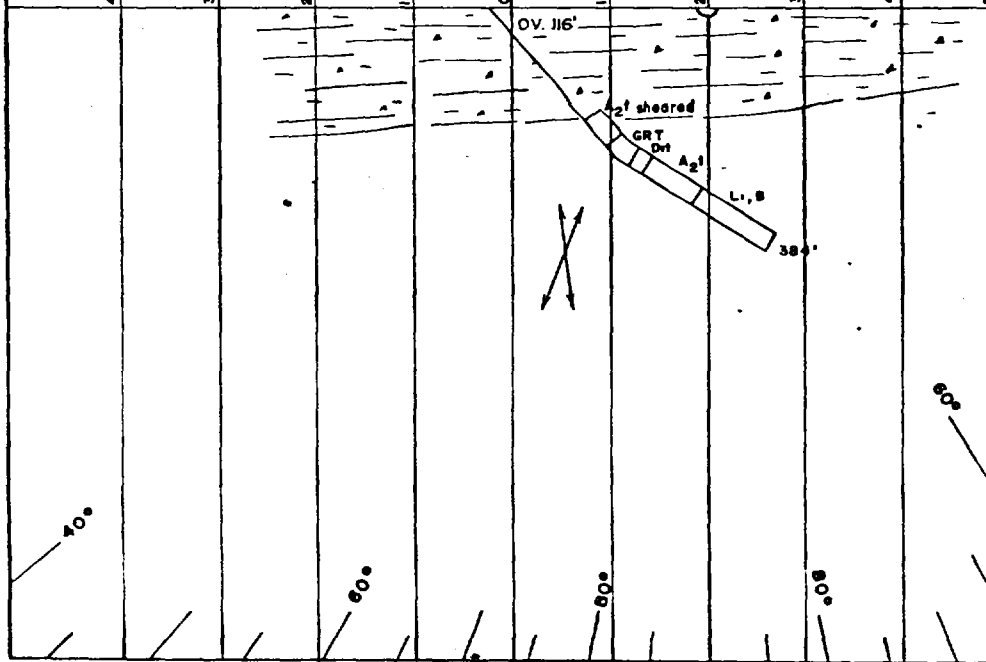
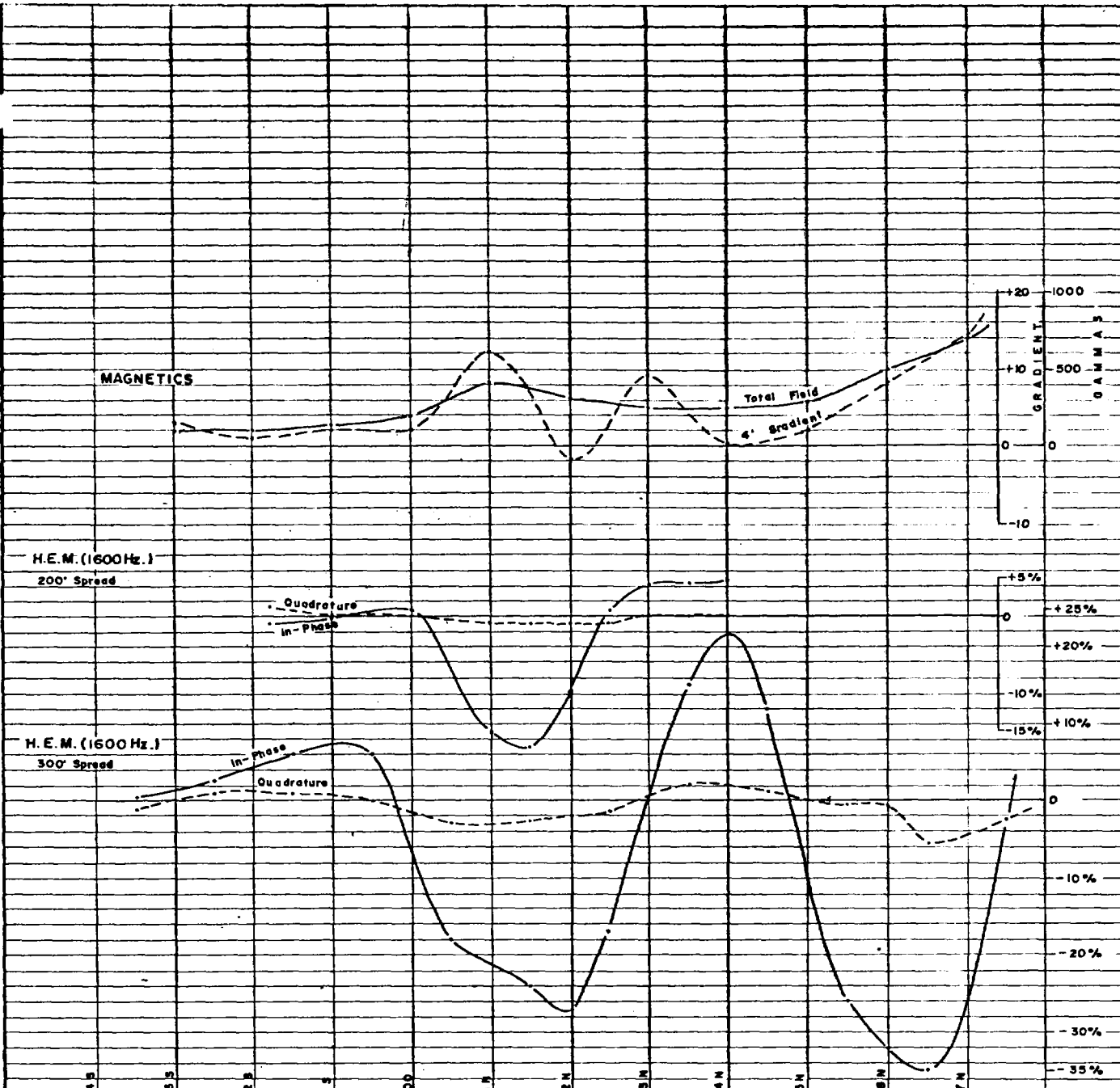
NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

HOLE NO. LBI-3-78 8.
 COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		minor quartz-carbonate stringers					
		- 3% to 7% po,py,tr.cp = 295' to 296' and @ 297.4'					
		- 3% to 5% po,cp,py = 343' to 343.7', and 372.8' to 375'					
		- 2% to 5% cp,tr.po,py 346.2' to 350.2' and 354.3' to 355.7'					
		- 2% to 3% py,po,tr.cp = 323.9' to 324.1', @ 324.8', 330' to 330.6', 337.7' to 338.2', and 383' to 384'					
		- 1% to 3% cp,tr.py,po = 340.8' to 343'					
		- 1% to 2% cp,py,po = 302.4' to 302.8', 306.9' to 308', @ 320.9', 330.6' to 335.5', 350.2' to 354.3', 359' to 360.8', and 370.2' to 371.3'.					
		E.O.H. - 384'					





Section on XL B W
360° Az.

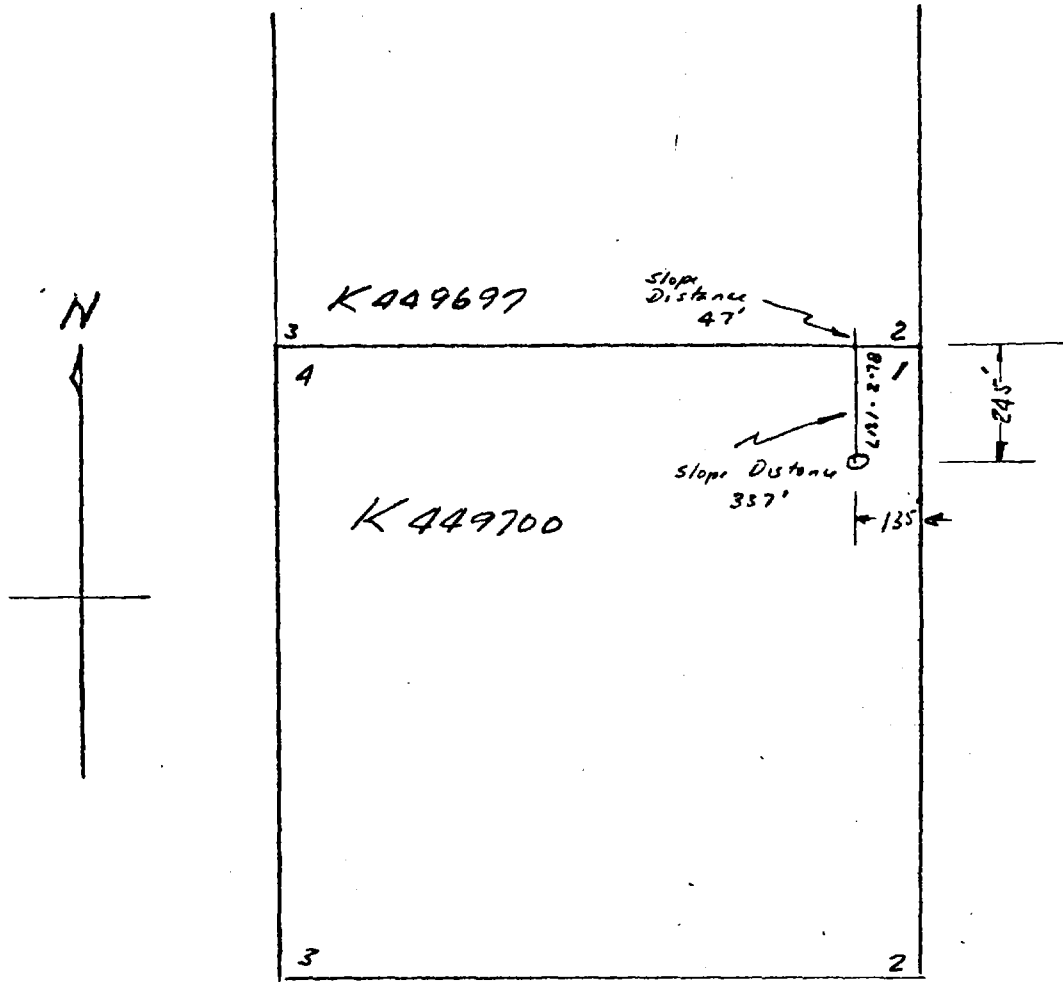
Anomaly

D. D. H. LB1-3-78 (XL B W; 0+25 S)

Township LAVAL

Scale 0 100 200 FT.

Plan of DOH LBI-3-78



LAVAL TOWNSHIP
 SCALE 1" = 400'

START FEB 20/78

FINISH MAR 4/78

DIA of Core 1.44"

WIRE LINE BQ core

Contractor Bradley Bros

Timmins

LENGTH 384'

DIP -50°

A2 360°

[Signature]
 ENGINEER
 1978

DIAMOND DRILL REPORT

NORTH 12+00N
 EAST XL 4E
 ELEV. Surface
 AZIM. 360° az.
 Collar: -49°; 150'; -44.50';
 Dip 300'; -42°; 450'; -40°

PROPERTY Laval-Brownridge #1

BQ Core

HOLE NO. LBI-4-78
 COMMENCED March 5, 1978
 FINISHED March 9, 1978
 PURPOSE OF HOLE to test electromagnetic conductor in vicinity of Pb-Ag-Zn showing
 Drilled by: Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		SUMMARY LOG						
0'	22'	OVERBURDEN						
22'	152.7'	META-ANDESITE TUFF - 33.5'-39.9' - series of graded dacite to - 132.2'-145.5' - rhyodacite tuff beds - well-foliated mica schist (or interflow metasediment?)						
152.7'	158.6'	RHYODACITE to RHYOLITE TUFF						
158.6'	163.2'	META-ANDESITE TUFF						
163.2'	166.6'	RHYODACITE TUFF						
166.6'	186.5'	META-ANDESITE TUFF						
186.5'	197.8'	GRAPHITIC TUFF and RHYODACITE TUFF - 40° to C.A.						
197.8'	229.4'	META-DACITE						
229.4'	245.6'	GRAPHITIC TUFF and RHYODACITE LAPILLI TUFF						
245.6'	261.7'	META-ANDESITE TUFF						
261.7'	307.5'	INTERCALATED RHYODACITE and GRAPHITE TUFFS						
307.5'	335.3'	GRAPHITIC TUFF - 45° to C.A. - qtz-cemented breccia zone @ 300° to C.A. from 312' to 312.2'						
335.3'	362.9'	INTERCALATED META-ANDESITE TUFF-BRECCIA and AGGLOMERATIC TUFFS						
362.9'	381.3'	AQUAGENE TUFF-BRECCIA - overall dacitic composition						
381.3'	404.4'	FELSIC AGGLOMERATE - fragments to 25 by 10 mm						
404.4'	460.5'	RHYOLITE to RHYODACITE						
460.5'	475'	META-ANDESITE						

E.O.H. - 475'

DIAMOND DRILL REPORT

HOLE NO. LBI-4-78

1.

NORTH 12+00N
 EAST XL 4E
 ELEV. SURFACE
 AZIM. 360° az.
 COLLAR: -490; 150'; -44.50';
 DIP 300'; -42.00; 450'; -400

PROPERTY LAVAL-BROWNRIDGE #1

K-449558 BQ Core

COMMENCED March 5, 1978
 FINISHED March 9, 1978
 PURPOSE OF test electromagnetic conductor
 HOLE in vicinity of Pb-Ag-Zn showing
 Drilled by: Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES					ASSAY	DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH			
0'	22'	OVERBURDEN - Casing to 23'							
22'	152.7'	META-ANDESITE TUFF - fine- to medium-grained; medium to dark green, and very similar to like units described in previous holes (though generally less well-foliated); foliations to C.A. are 450 @ 36', 450 @ 64.8', 300 @ 101', 450 @ 105', and 520 @ 139.5'; there are a very few scattered small blue quartz 'eyes' and no visible sign of garnets; the unit is moderately carbonatized from the top to 37', 82.5' to 102', and 132.2' to 149'; strongly magnetic throughout except for sections from 33.5' to 39.9', 114.5' 134.3', and quartz veins in fact, from 148.5' to base, magnetite blebs are scattered throughout, and are commonly rimmed by pyrrho- tite; phlogopite and/or biotite is commonly present, and is particularly heavy from 23' to 24.7', 33.5' to 39.9', 44.5' to 47', 82.3' to 95.6', approx. 99.5' to approx. 102', 132.2' to 145.5' (well-foliated mica schist, and possibly an interflow metasediment? - from top to 142.8', sulphides are mainly along qtz-carb veinlet	22'	24'	21	Tr. Tr.	3%-5% strygs		
			24'	27'	3'	"	50%-60% strygs		
			27'	30'	3'	"	5%-7% strygs		
			30'	34'	4'	"	"		
			40'	45'	5'	"	5%-10% strygs		
			45'	47'	2'	"	10%-15% strygs		
			47'	50'	3'	"	3%-5% strygs		
			50'	52'	2'	"	50%-60% strygs		
			52'	57'	5'	"	3%-5% strygs		
			57'	62'	5'	"	5%-7% strygs		
			62'	67'	5'	"	"		
			67'	70'	3'	"	3%-5% strygs		
			70'	73'	3'	"	"		
			73'	78'	5'	"	"		
			78'	83'	5'	"	5%-7% strygs		
			83'	88'	5'	"	5%-10% strygs		
			88'	93'	5'	"	5%-7% strygs		
			93'	98'	5'	"	40%-50% strygs		
			98'	100'	2'	"	80%-90% strygs		
			100'	102'	2'	"	20%-30% strygs		

DIAMOND DRILL REPORT

HOLE NO. LB1-4-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVALL-BROWN RIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		margins - from 142.8', there is less mica, and simply a well-foliated andesite tuff, and						
		147.6' to 148.5'; the unit is cut by several chloritic slips subparallel to the C.A.; white quartz veins (with carbonate only on margins) occur from 24.7' to 26.5' (@ 250 to 300 to C.A.)	102'	107'		5'	Tr. Tr.	5%-7% strgrs
		40.4' to 40.6' (@ 500 to C.A.), 45.2' to 45.5' (550 to 600 to C.A.), 50.5' to 51.8' (350 to 400 to C.A.), 83.8' to 84.2' (approx. 400 to C.A.), 95.6' to 101.6' (250 to 400 to C.A.) (no galena visible on upper contact 'though traces in cracks throughout, especially lower half - 5% to 10% po,py, tr.cp and gn in mica-rich, schistose andesite tuff section from 98.7' to 99' - and a considerable amount from 99.5' to base), 131.4' to 132.3' (@ 400 to C.A.) (no visible gn on either contact), 134.8' to 135.6' (@ 250 to C.A.) (galena on both contacts.....and some orange-pink feldspar), and 145.6' to 147.6' (@ 500 to C.A.) (some fracture-breccia with 75% to 80% veining and considerable cp and gn throughout); narrow quartz-carbonate vein subparallel to C.A. from 122.3' to 127'; sulphide distribution is detailed below (po and cp as specks, and in	107'	112'		5'	"	"
			112'	117'		5'	"	"
			117'	122'		5'	"	3%-5% strgrs.
			127'	131'		4'	"	3%-5% strgrs
			131'	134'		3'	"	30%-40% strgrs
			134'	136'		2'	"	25%-30% strgrs
			136'	141'		5'	"	10%-15% strgrs
			141'	145'		4'	"	2%-3% strgrs
			145'	148'		3'	"	60%-70% strgrs
			148'	153'		5'	"	5%-7% strgrs

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		blebs up to 4 mm across - commonly with chalcopyrite marginal to the pyrrhotite)					
		- 33.5' to 39.9' - series of graded dacite to rhyodacite tuff beds from 0.3' to 1.2'					
		wide; sharp contacts @ 400 to C.A.; tops up hole; considerable disseminated fine phlogopite and/or biotite					
		- 10% po,cp,gn = @ 46', 51.2' to 52.2' (cp more abundant in lower part; all sulphides coarse on gv margins (up to 6-7 mm)					
		- 5% to 7% dissem. po,py,cp,tr.gn = top to 24.7', 26.5' to 34', 68'-71', 78'-107.8' (except gv)					
		- 3% to 7% dissem. po,py,cp,tr.gn and sp(?) = 39.9' to 68', 71' to 78', 107.8' to 121.2', 127' to base					
		- 2% to 5% po,py,gn(?),sp(?) and tr.cp = 24.7' to 26.5'					
		- 2% to 3% po,py,tr.cp and sp(?) = @ 37.5'					
		- 1% to 3% po,py,tr.cp = 34' to 39.9' and 121.2' to 127'					
152.7'	158.6'	RHYODACITE to RHYOLITE TUFF - very fine-grained; medium to light grey; faint suggestion of graded bedding (tops up hole), with fine dark grey	153'	158'		5'	3% to 5% stringers

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		upper beds particularly concentrated in fine disseminated pyrrhotite; 3% to 7% fine po,py,cp & tr.gn disseminated throughout section also..... and along hairline fractures cross-cutting foliation; some scattered biotite and/or phlogopite lending a metasedimentary 'look' to unit; weak breccia @ base; upper and lower contacts sharp and distinct @ 40° to 50° to C.A.; foliation @ 40° to C.A. @ 157'.					
158.6'	163.2'	META-ANDESITE TUFF - similar to unit @ top of hole; weakly to moderately magnetic; from 158.6' to 160.4' are narrow zones with medium-spaced, white, carbonate, subrounded amygdules(?) (to 4 mm diameter) every 0.6' or so; from 160.4' to base, the unit features considerable biotite and/or phlogopite, less sulphides, and weaker magnetism					
		- 3% to 7% po,py,cp,tr.gn from top to 159.4'					
		- 1% to 2% po,py,tr.cp from 159.4' to base (except for narrow qcv @ 162' and 162.4')					
163.2'	166.6'	RHYODACITE TUFF - fine-grained; alternate bands of medium grey rhyodacite tuff with light green	163'	166'		3'	5%-7% strers

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNBRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		andesite tuff - bands from 12 to 25 mm true width; trace of graded bedding with tops up hole; fine speckled sulphides throughout, but especially in narrow dark grey sections and green andesitic sections parallel to foliation (sharp and distinct @ 40°-45° to C.A.); weakly magnetic						
		- 7%-10% po,py,tr.cp - 163.8' to 165.1'						
166.6'	186.5'	META-ANDESITE TUFF - similar to previous andesitic units; weakly to moderately magnetic; weakly carbonatized from 174' to base; from 166.6' to 167.7' and 169.6' to 169.9' are coarser, medium grey tuff sections with a rather high felsic content; from 174.6' to 177.7' is a coarser, medium green, 'ashy', andesitic tuff section; there is considerable biotite and/or phlogopite from 179.1' to 179.1'; from 185.7' to base, the section is speckled with a few equant green amphibole and brown phlogopite crystals up to 2.0 mm long; broken and blocky from top to 175' by chloritic slips subparallel to C.A.	166'	171'		5'		5%-7% strgrs
		- 5% to 7% po,tr.py & cp = 167.8' to 169.4'	171'	176'		5'		3%-5% strgrs
		- 3% to 5% po,py and variable cp = 170.8' to	176'	181'		5'		5%-7% strgrs
			181'	186'		5'		3%-5% strgrs

DIAMOND DRILL REPORT

HOLE NO. LB1-4-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		171.2', 171.9' to 173.2', 174.2' to 174.6', 175.8' to 178.4', @ 179.5', and 180.8' to 185.3'						
186.5'	197.8'	GRAPHITIC TUFF and RHYODACITE TUFF - fine- to very fine-grained; upper and lower contacts sharp and distinct @ 40° to 45° to C.A.; foliations also clear @ 40° to C.A. at 187' and 40° to C.A. @ 197'; similar to alternating tuff unit from 163.2' to 166.6' over upper part - down to 191.3' - with graded bedding (beds from 9 to 20 mm true width) showing tops up hole; finer, dark grey tops of individual beds contain heavier concentrations of fine sulphides as well as minor graphite; considerable phlogopite and minor green amphibole speckled throughout felsic sections; most heavily graphitic from 193.8' to base; white and grey quartz veins cut the unit from 188.8' to 189' (35° to 40° to C.A.) and 189.9' to 190' (35° to 40° to C.A.); 3% to 5% po with traces of py and cp throughout - heavier sections detailed below - 5%-7% po, minor py, cp = 187.5' to 188', 189.1'-190.1', 191.3'-191.8', 193.5'-194', 195' to base.	186'	190'		4'	5%-10% strgrs	
			190'	194'		4'	3%-5% strgrs	
			194'	197'		3'	5%-7% strgrs	

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY Laval-Brownridge #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
197.8'	229.4'	META-DACITE - fine-grained; green-grey; trends to medium-grey rhyodacite in a very few narrow zones; narrow sections near top feature white, subrounded, quartz-carbonate amygdules (?) (up to 1.2 mm diameter); significant white quartz vein from 205.7' to 208.8' @ 550 to 600 to C.A.	197'	200'		3'	3%-5% strgrs
			200'	205'		5%	5%-10% strgrs
			205'	207'		2'	50%-60% strgrs
			207'	209'		2'	85%-90% strgrs
			209'	212'		3'	15%-20% strgrs
		((Galena is present throughout, but especially on both contacts, and as 20%-30% massive in fracture zone from 207' to 207.6' - also some chalcopyrite)); numerous narrow quartz stringers (stringer-breccia) from 208.8' to 211.5'; from base of main quartz vein, there is considerable speckled equant phlogopite and a few green amphibole crystals in a dacite to bleached andesite section (with 1%-2% po,py,tr.cp); moderately carbonatized from 198.5' to 205.7'; strongly magnetic @ 201', 222', and 228' to base, white quartz veins from 216' to 216.5'	225'	227'		2'	3% to 5% strgrs
			227'	230'		3'	"
		(600 to C.A.) and 217.6' to 217.9' (@ 450 to C.A.); altered andesitic section speckled with green amphibole, brown-black mica, and pinkish garnets (to 3 mm diameter) from 228' to base - there are also a few blue quartz 'eyes' and numerous fan clusters of white acicular crystals (tremolite?)					

PROPERTY LAVALL-BROWN RIDGE #1

COMMENCED _____ FINISHED _____ PURPOSE OF _____ HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		in this last section (green amphibole starts increasing @ 224.5'); section with heavy biotite/ phlogopite from 221.5' to 222'; small grey-white quartz veins from 218.8' to 219' (40° to C.A.) and 220.4' to 220.5' (50° to C.A.)					
		- 5% to 10% po,py,tr,cp = 225.6'-226.7'					
		- 5% to 7% po, variable cp & py = 211.4' to 211.5', 214.2' to 214.5', 216' to 216.6', and 227.8' to base					
		- 3% to 5% po,py = 220.4' to 220.5'					
		- 2% to 3% po,py = 216.6' to 218.4'					
229.4'	245.6'	GRAPHITIC TUFF and RHYODACITE LAPILLI TUFF -	230'	233'		3'	3% to 5% strgrs
		fine- to very fine-grained; dark grey to pale green-grey with local brownish-grey mottling; foliations clear in upper half (350-400 to C.A. @ 234'; some swirling below); broken throughout, but particularly so from 239' to 241.5' (about 1.5' lost core here); strongly magnetic throughout most of unit; coarser fragmental sections have a white-grey matrix which is weakly to moderately carbonatized; sections of felsic lapilli tuff (to lapillistone, as coarser fragments are locally abundant) feature	233'	236'		3'	"
			236'	240'		4'	5% to 7% strgrs
			240'	245'		5'	2% to 3% strgrs

DIAMOND DRILL REPORT

HOLE NO. LBI-4-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNBRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		green-grey, subrounded to subangular fragments (to 5 mm), and only traces of graphite in the matrix - these sections occur from 233.8' to 234.7', 239.6' to 240', and 240.5' to 244.7'; sections heaviest in graphite are from top to 233.5', 236.7' to 239.6', and 245.6' to base						
		- 5%-15% po,py,tr.cp = top to 233.5'						
		- 5%-10% po,py,tr.cp = 233.5' to 240.5', and 241.5' to 244.4'						
		- 5%-7% po,py,tr.cp = 240.5' to 241.5'						
		- 3%-7% po,py,tr.cp = 244.4' to base						
245.6'	261.7'	META-ANDESITE 'TUFF' - fine-grained; dark green to green-grey; generally similar to like units above, only foliations are less distinct (50° to C.A. @ 248.5'), there is a section with scattered white, round, quartz-carbonate, amygdules(?) (to 8 mm across) from 248.5' to 250', there is a section of relatively heavy biotite/phlogopite from 252.8' to 253.6', and there is an altered section featuring coarse green amphibole crystals (to 4 mm) and pinkish garnets (to 5 mm) from 260.5' to base; weakly to non-magnetic; moderately carbonatized throughout; coarser	245'	247'		2'		3% to 5% strgrs
			260'	262'		2'		3% to 5% strgrs

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

HOLE NO. _____
 COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		sections from 247' to 248', and 251.2' to 252.8'					
		weakly brecciated(?) to 248' from top					
		- 5&-10% po,py = 260.3' to base					
		- 5&-7% po,py,tr.cp = top to 247'					
		- 2&-5% po,py,tr.cp = 247' to 260.3'					
261.7'	307.5'	INTERCALATED RHYODACITE and GRAPHITE TUFFS - fine- to medium-grained; green-grey to medium grey, with brownish tinge where there is con- siderable fine phlogopite, and dark grey to black where graphitic; although there is no graded bedding apparent in individual beds (possible slight coarsening down-hole), there appears to be a sequence of very fine- to medium-grained beds - from upper graphitic tuffs and rhyolite, to basal rhyodacite, dacite, and andesitic tuffs - that repeats throughout the unit, and imparts an overall 'graded' bedding (top up hole).....the 'upper' beds are yellow-green rhyolite from 264.7' to 265', graphitic tuff from 266.2' to 266.7', yellowish- green rhyolite to bleached dacite from 278.9' to 280.8', graphitic tuff from 287.8' to 289.2', graphitic rhyolite tuff from 290.7' to 291.7'	262'	267'		5'	2% to 3% strgrs
			287'	292'		5'	2% to 3% strgrs

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY _____
 LAVAL-BROWNBRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		'eyes' - 'though more common from 266' to 279', and 291' to base; speckled with considerable scattered black and brown mica (biotite and/or phlogopite) from 234' on; weakly to moderately magnetic; moderately to strongly carbonatized from top to 274.6'; hairline cracks filled with selenite, @ 500 to C.A. @ 247.3'; a 16 mm wide zone of white-grey quartz-carbonate vein-breccia cuts the core @ 600 to C.A. @ 267.6' (with 5%-7% disseminated po,py,cp); a narrow quartz-carbonate veinlet @ 288' is enveloped in fine brown phlogopite, and there is considerable fine phlogopite from 291' to base; there is 20% to 50% quartz-carbonate veining with minor breccia from 292.1' to 292.4', and a white quartz vein cuts the core @ 450 to 500 to C.A. from 293.4' to base (1% to 2% small blebs of pyrite and chalcopyrite along its margins)					
		- 233' to 247' - a section of dark green chloritic andesite to dacite					
		- 3% to 7% po,py,cp = 266' to 268'					
		- 3% to 5% po,py,tr,cp = 233' to 234.5', 237' to 238', 242' to 243.4', 253.1' to 254',					

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		and @ 298.3'; coarser, green andesitic sections are from 269.8' to 270.5', 284.9' to 285.4', 293.6' to 295', and 299.5' to 300.6' (with pink garnets); these sequences are generally non to weakly carbonatized @ tops, becoming moderately to strongly carbonatized in coarser basal 'beds', strongly magnetic from 266.2' to 266.7' and 268.5' to 269' - moderately magnetic from 269' to 273', and weakly to moderately magnetic from 293.6' to 295'; a foliated section with considerable biotite/phlogopite and a few scattered blue quartz 'eyes' from 281' to 287.8'; foliations locally make clear and sharp angles to the C.A. (35° @ 266.2', 45° @ 271', 50° @ 282', and 45° @ 298')						
		- 5% to 10% po,py,cp = top to 262.8' and 266.2' to 266.7'						
		- 5% to 7% po,py = 268.8' to 269.2', 269.8' to 270.5', 287.8' to 289.2', 290.4' to 292', 293.5' to 295'						
		- 3% to 7% po,py = 298' to 301.5', and 306.4' to 307.5'						
		- 3% to 5% po,py = 270.5' to 273' (in narrow seams), 276.9' to 277.4', and 284.9' to 285.4'						

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		the unit is strongly magnetic throughout except for a weakly to moderately magnetic section from 435' to 451'; non-carbonatized; quartz-carbonate-cemented breccia from 456.3' to base; also white quartz veins from 442' to 442.4' (@ 200' to C.A. - with some galena), and 452' to 453.1' (@ 600' to C.A. - with some orange-pink chert or feldspar, and some galena)	458'	461'		3'		10% to 15% strgrs
		- 5% to 15% py,po,cp and gn (galena with narrow gv @ 448' and 451.4') = 455.5' to base						
		- 3% to 7% py,po, variable cp and gn = 436.8' to 440', 447.4' to 455.5'						
		- 3% to 5% py, variable po, tr.cp and gn = 404.4' to 424', 428' to 436.4' (heavier @ 432.7'), and 441' to 443.3'						
		- 2% to 3% py = 445.2' to 447.4'						
460.5'	475'	META-ANDESITE - fine-grained; dark green to green-grey; a few scattered subrounded light green-grey amygdules(?) (to 5 mm across); variably magnetic (weak to strong); weakly to moderately carbonatized along a few narrow white seams; sulphide distribution detailed below: - 3% to 7% py, po = top to 462.6'						

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE	
			FROM	TO	RECOV.	WIDTH		ASSAY
		a few scattered pink garnets throughout, especially in andesitic matrix; some distinct foliation to C.A. (400-450 @ 388', 400 @ 402.5')						
		- 3% to 5% py, tr.po, gm? = top to 384.3'						
		- 2% to 5% py, tr.cp = 392.7' to 394.7', 398.2' to 400', and 402.2' to 403'						
		- 1% to 3% py = 384.3' to 392.7', and 403' to base.						
404.4'	460.5'	RHYOLITE to RHYODACITE - fine- to very fine-grained; light grey to bluish grey; upper section is somewhat tuffaceous and down to 424' features some disseminated biotite/phlogopite; bluish-grey cherty rhyolite sections from 424' to 424.8', 428.5' to 434.5', and 436.4' to 456.3' (this section features closely-packed rounded spherules up to 2 mm diameter); foliations to C.A. are locally distinct (350 @ 425', and 650 @ 435'); white quartz veins from 429' to 429.5' (@ 400 to C.A.), and 437' to 437.4' (@ 250 to C.A. - also features considerable salmon pink cherts or feldspar); sections from 424.8' to 428.5' and 434.5' to 436.4' feature rhyolitic subrounded elongate fragments (to 12 mm long) in a fine-grained micaceous andesitic matrix;	428'	433'		5'	5% to 7% strgrs	
			433'	437'		4'	3% to 5% strgrs	
			437'	442'		5'	5% to 10% strgrs	
			442'	447'		5'	3% to 5% strgrs	
			447'	452'		5'	7% to 10% strgrs	
			452'	455'		3'	20% to 25% strgrs	
			455'	458'		3'	7% to 10% strgrs	

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		Internal fractures); small bluish-grey felsic subrounded fragments and a crude foliation show up near the base					
		- 3% to 7% py, tr.po = 371.6' to 376'					
		- 3% to 5% py, tr.po, gn? = top to 369.5', 380' to base					
		- 1% to 3% py, tr.po = 369.5' to 371.6', 376' to 380'					
381.3'	404.4'	FELSIC AGGLOMERATE - generally fine-grained fragments and matrix; dark to medium grey with local green andesitic matrix; sections with medium- to close-spaced, subrounded to rounded, rhyolitic fragments (to 25 by 10 mm) in green andesitic matrix from 387.7' to 390' and 399.2' to base; medium-grained 'ashy' section from 387' to 387.7'; rest of unit composed of close-spaced medium grey to dark grey rhyolitic subrounded fragments (averaging 4 by 7 mm) in either a light green andesite/dacite matrix or a light grey felsic matrix; moderately to strongly magnetic throughout; weakly carbonatized over basal 10 feet; white quartz vein from 390' to 390.2' (@ 400 to C.A. - tr. gn on contacts(?));	380'	384'		4'	

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
		- 5% to 10% py,po,tr.cp = 352.7' to 355'					
		- 5% to 7% po,py = 339.5' to 339.8'					
		- 3% to 7% py,tr.po,cp,gn(?) = top to 337', 362.7' to base					
		- 3% to 5% py, variable po, tr.cp = 345' - 350.7', 352' to 352.7', 357' to 358.6', 359.9' to 360.5'					
		- 1% to 3% py,tr.po = 337' to 339.5', 355' to 357', and 360.5' to 362.7'					
362.9'	381.3'	AQUAGENE TUFF-BRECCIA - fine-grained; a very distinctive unit with an overall dacitic composition; delicately preserved, angular, dark-grey andesitic fragments (up to 30 by 12 mm - but commonly 7 by 1 mm) with thin white quartz-feldspathic rims are medium- to close- spaced throughout; the entire unit is strongly magnetic; non-carbonatized except along a few hairline cracks; no apparent foliation; white quartz veins from 364.6' to 365.6' (@ 60° to C.A. - up to 5% gn, cp, py on contacts and internal fractures), 370.8' to 371.2' (25°-30° to C.A. - fg gn on contacts), and 380.3' to 381' (@ 60° to C.A. - fg gn on contacts and					
			363'	366'		3'	25% to 30% strgrs
			366'	371'		5'	10% to 15% strgrs
			371'	376'		5'	5% to 7% strgrs

DIAMOND DRILL REPORT

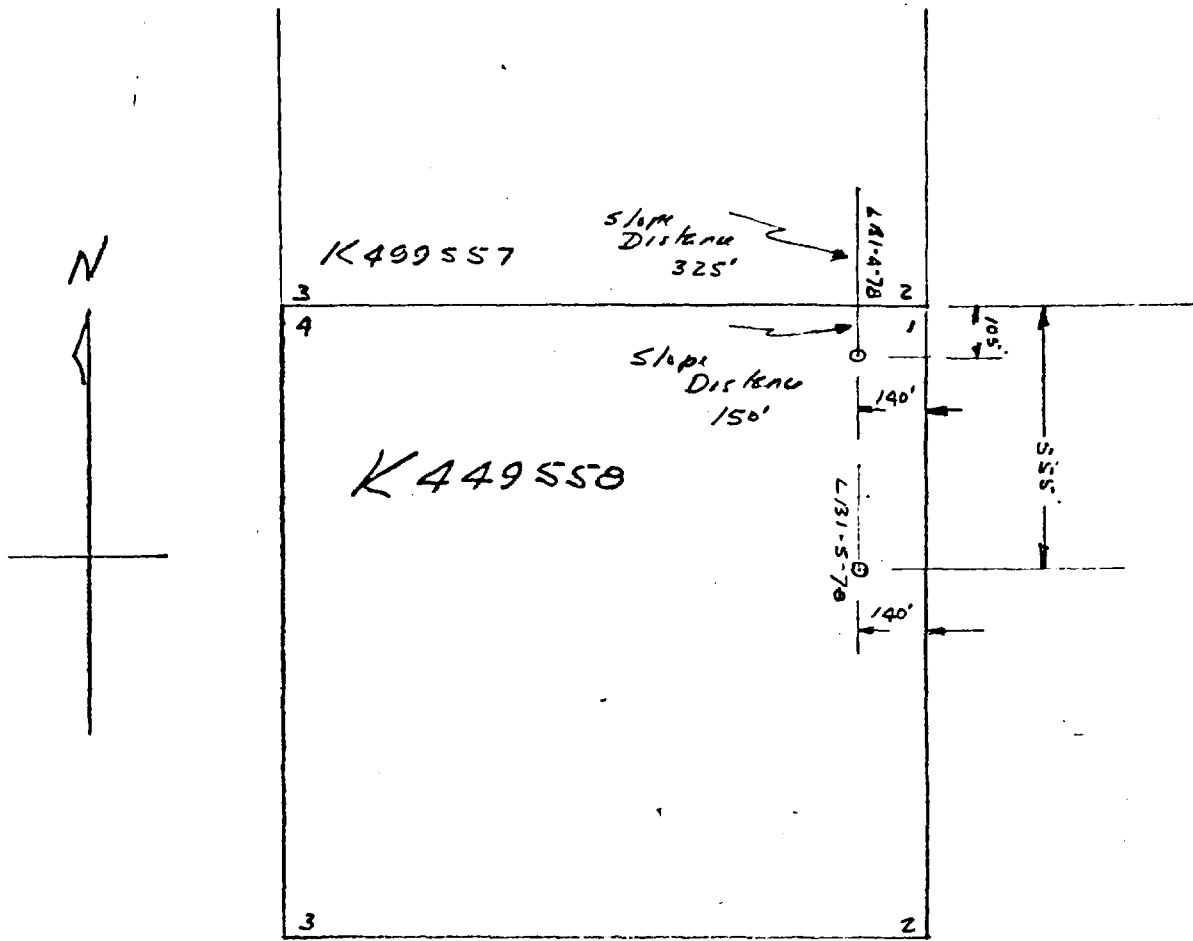
NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE	
			FROM	TO	RECOV.	WIDTH	ASSAY		
335.31	362.91	INTERCALATED META-ANDESITE TUFF-BRECCIA and AGGLOMERATE TUFFS - fine-grained; green to medium grey matrix/cement with scattered dark to bluish-grey, rhyolitic, subrounded agglomeratic fragments (to 30 by 15 mm) - light green, angular, dacitic breccia fragments (to 40 mm across) from top to 337.3'; in several sections (342' to 342.4', 347.6' to 350.3', and 353.6' to 355.8') the proportion of agglomeratic fragments increases until the rock grades into completely rhyolitic sections; foliations are distinct (50° to C.A. @ 339', 50° to 55° to C.A. @ 347.5', and 40° to 45° to C.A. @ 361'); the core is non-carbonatized throughout except for a few hairline cracks and narrow stringers; white quartz vein from 358.6' to 359.9' (@450 to 500 to C.A. - minor galena with a trace of cp on contacts); strongly magnetic (speckled with magnetite blebs to 1.0 mm) throughout except for weakly to non-magnetic sections from 355' to 360'; lapilli tuff, well-foliated section with pinkish garnets from 338.3' to 343.4'; medium-grained 'ashy' section from 357' to 358.6'							
			352'	356'		4'		3% to 7% strgrs	
			356'	360'		4'		25% to 30% strgrs	

Plan of DOH LBI-4-78 & LBI-5-78



LAVAL TOWNSHIP
 Scale 1" = 400'

	LBI-4-78	LBI-5-78
START	MAR 5/78	MAR 10/78
FINISH	MAR 9/78	MAR 14/78
DIA of CORE	1.44"	
WIRE LINE	BQ CORE	
CONTRACTOR	BRADLEY BROS TOWNSHIPS	

[Signature]

DIAMOND DRILL REPORT

HOLE NO. LBL-5-78

COMMENCED March 10, 1978
 FINISHED March 14, 1978

PURPOSE OF HOLE to test electromagnetic conductor

NORTH 7+50N
 EAST XL 4E
 ELEV. Surface
 AZIM. 3600 az.
 COLLAR: -550'; 70'; -490';
 DIP 150'; -46.50'; 300'; -44.50'

PROPERTY LAVAL-BROWNRIDGE #1

BQ Core

Drilled by: Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	
SUMMARY LOG							
0'	80'	OVERBURDEN					
80'	200.4'	META-ANDESITE					
		- 110.1' to 110.5' - Felsic Tuff ?					
200.4'	214.5'	MICACEOUS META-DACITE					
		- 208.6' to 209.1' - Rhyolite					
214.5'	225.5'	META-ANDESITE					
225.5'	231.6'	MICACEOUS DACITE to RHYODACITE TUFF					
231.6'	237.2'	META-ANDESITE					
237.2'	247'	MICACEOUS DACITE to RHYODACITE TUFF					
247'	258.5'	RHYOLITE to RHYODACITE TUFF; @ 450 to C.A. - 10% to 15% po,py,sp with local massive seams up to 25 mm wide					
258.5'	282.3'	META-ANDESITE TUFF					
282.3'	300'	MICACEOUS DACITE to RHYODACITE TUFF					
300'	366'	META-ANDESITE - mg to cq					
366'	375'	BLEACHED META-ANDESITE to DACITE					
		E.O.H. - 375'					

DIAMOND DRILL REPORT

NORTH 7+50N
 EAST XL 4E
 ELEV. SURFACE
 AZIM. 360° AZ.
 DIP Collar: -55°, 70'; -49°;
150'; -46.5°; 300'; -44.5°

PROPERTY LAVAL-BROWNRIDGE #1

K-449558 BQ Core

COMMENCED March 10, 1978
 FINISHED March 14, 1978
 PURPOSE OF to test electromagnetic conductor
 Drilled by: Bradley Bros.

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE		
			FROM	TO	RECOV.	WIDTH		ASSAY	
0	80'	OVERBURDEN - Casing to 87'							
80'	200.4'	META-ANDESITTE - fine- to medium-grained; dark green to dark green-grey; some mottling with light greenish-cream feldspar, variable phlogopite or biotite, and scattered blue quartz 'eyes' (to 1.5 mm diameter, a few to 9 mm); cut by numerous narrow white quartz-carbonate seams @ 200 to 400 to C.A. - as well as wider white quartz-carbonate veins (trace of bright green unknown mineral) from 95.3' to 95.8' (@ 150 to C.A. - minor po,py), and 125.7' to 126' (@ 150 to C.A. - 3% to 5% po,py,tr.cp); ashy, sericitic, somewhat friable section @ 300 to C.A. from 116.7' to 117.1'; locally tuffaceous, but generally uniform and massive; non to very weakly magnetic throughout except for moderately magnetic sections from 110.1' to 110.5', 170' to 170.5' and 173.2' to 176'; moderately to strongly carbonatized throughout; medium to bluish-grey felsic tuff section (numerous blue qtz 'eyes' - medium-grained - sharp and distinct contacts) @ 300 to C.A. from 110.1' to							3% to 5% strgrs 5% to 10% strgrs

DIAMOND DRILL REPORT

HOLE NO. LBI-5-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES				DESCRIPTION OF SAMPLE	
			FROM	TO	RECOV.	WIDTH		ASSAY
		to 110.5' (also 3%-5% disseminated pyrrhotite and minor pyrite); up to 1% po and py disseminated throughout except for sections with 3% to 7% pyrrhotite and pyrite from 117' to 127' and 161.5' to 176' (minor cp here also), and 2% to 3% po and py from 141' to 142.5'.	161'	166'		5'		5% to 7% strgrs
			166'	171'		5'		"
			171'	176'		5'		"
200.4'	214.5'	MICACEOUS META-DACITE - fine-grained; mottled light grey and dark brown; heavy content of phlogopite throughout - foliations clear and sharp (40° to C.A. @ 208'); narrow section brecciated(?) or minor-dragfolded broken rhyodacite/rhyolite from 204.2' to 204.6' (subrounded fragments up to 30 mm long); section of light grey, very fine-grained, rhyodacite/rhyolite from 208.6' to 209.1' (@ 25° to 30° to C.A. - very fine pyrite - 3%-5% - disseminated throughout); moderately to strongly carbonatized throughout; non- to very weakly-magnetic; up to 1%-2% very fine disseminated pyrite.						
214.5'	225.2'	META-ANDESITE - fine- to medium-grained; medium to dark green; broken core from 217' to 218'; non- to weakly-magnetic; non-carbonatized;						

DIAMOND DRILL REPORT

HOLE NO. LB1-5-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
225.2'	231.6'	MICACEOUS DACITE to RHYODACITE TUFF - fine-grained; dark to medium grey; widely-scattered dark green to black amphibole and/or minca 'grains' (to 4-5 mm across) and considerable matrix mica; some suggestions of either an interflow metasediment or a lamprophyre (when dry, the core displays a slight pinkish caste) - however, apart from the mica content, the mineralogy appears similar to rhyodacite tuff-units in previous holes; upper contact is sharp and distinct @ 750 to C.A. - lower contact is sharp and distinct @ 400 to C.A.; moderately to strongly carbonatized; non-magnetic; 3% to 7% disseminated pyrite with a trace of pyrrhotite.	228'	233'		5'		3% to 5% strgrs
231.6'	237.2'	META-ANDESITE - fine-grained; medium green to dark green; slight increase in phlogopite content near lower contact; non- to very weakly-magnetic; non-carbonatized; 3% to 5% po,py to 233', then 5% to 7% po,py,tr.cp and gn (with a	233'	235'		2'		1% to 2% strgrs

DIAMOND DRILL REPORT

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVAL-BROWNIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE								
			FROM	TO	RECOV.	WIDTH	ASSAY									
		few scattered quartz blebs).														
237.2'	247'	MICACEOUS DACITE to RHYODACITE TUFF - fine-grained; similar to unit from 225.2' to 231.6'; upper contact sharp and distinct @ 250 to C.A.; from top to 241' is a section of very fine-grained, chloritic, rhyolite with 3% to 7% disseminated pyrite; white quartz veinlet @ 300 to C.A. from 246.4' to 246.6' (small po and py blebs on contacts); strongly carbonatized; non-magnetic; 3% to 5% pyrite with a trace of pyrrhotite from 241' to base.	237'	242'	242'	247'	5'	3% to 5% strgrs "								
247'	258.5'	RHYOLITE to RHYODACITE TUFF - fine- to very fine-grained; medium to dark grey with crude graded bedding suggesting tops up hole - the 'beds' are 10 to 40 mm true width, with some of the darker upper sections containing considerable fg biotite (and possibly some magnetite or graphite?); upper contact is sharp and distinct @ 750 to C.A. - the lower contact is sharp but indistinct; foliations are clear (450 to C.A. @ 250' - local swirling, or minor drag-folding); similar to graphitic rhyodacitic tuffs in	247'	249'	249'	251'	253'	255'	257'	259'	2'	2'	2'	2'	2%	to 3% strgrs " ' 3% to 5% strgrs 3% to 7% strgrs 2% to 3% strgrs

DIAMOND DRILL REPORT

HOLE NO. LBL-5-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY LAVALL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		earlier holes - only here, there is little or no graphite; vuggy section @ top; distinguished by stringer pyrrhotite, pyrite and chalcopyrite up to 10%-15% throughout (local massive seams are up to 25 mm wide); non-carbonatized; strongly magnetic; broken core from 257' to 259.8'.						
258.5'	282.3'	META-ANDESITE TUFF - fine- to medium-grained; dark green-grey with some scattered grey and blue quartz 'eyes'; progressively coarser down-hole, especially from 276' to base; non-magnetic; non-carbonatized; 2% to 5% disseminated pyrite and pyrrhotite; broken core from 263.5' to 264.5'.						
282.3'	300'	MICACEOUS DACITE to RHYODACITE TUFF - fine-grained; green-grey; similar to unit from 225.2' to 231.6' - with scattered dark grey mica(?) 'grains' up to 9 mm across; upper contact is sharp and distinct @ 300' to C.A. - lower contact is sharp and distinct @ 250' to C.A.; quartz veinlets from 288' to 288.2' (@ 250' to 400' to C.A. - with some galena) and 285' to 285.2' @ 250' to C.A.; weakly to moderately magnetic;	285'	287'				5% to 10% strgrs "
			287'	289'				

DIAMOND DRILL REPORT

HOLE NO. LBI-5-78

NORTH _____
 EAST _____
 ELEV. _____
 AZIM. _____
 DIP _____

PROPERTY _____
 LAVAL-BROWNRIDGE #1

COMMENCED _____
 FINISHED _____
 PURPOSE OF _____
 HOLE _____

FROM	TO	DESCRIPTION	CORE SAMPLES					DESCRIPTION OF SAMPLE
			FROM	TO	RECOV.	WIDTH	ASSAY	
		moderately carbonatized; generally 2% to 5% py with traces of pyrrhotite and galena; the last 19 feet skim the contact with the lower unit - and reveal narrow marginal bleaching.						
300'	366'	META-ANDESITE - medium- to coarse-grained; mottled medium green, brown (phlogopite) and creamy-white or grey-white; some coarser sections with felted, green, amphibole, acicular crystals to 15 mm long; cut by several narrow white qcv @ 40° to 50° to the C.A. (especially from 325.2' to 325.5', 340.3' to 340.6', and 347.5' to 347.8'); a few local coarse 'ashy' sections; generally 1% to 2% pyrite with traces of po and cp from top to 330.2'; from 330.2' to 340', 3% to 7% po, py, tr. cp (with blebs to 6 mm across); foliation @ 75° to C.A. @ 309'; moderately carbonatized from 339' to 342' and 359' to 361'; non-magnetic except weakly to moderately magnetic from 330' to 340'.	330'	335'		5'		1% to 2% strgrs
			335'	340'		5'		3% to 7% strgrs
366'	375'	BLEACHED META-ANDESITE to DACITTE - fine-grained; light to 'pasty' green-grey with scattered dark grey, mafic, crystals (to 3 mm long) and						

