

Diamond Drilling



41114NE9650 ROBERTS 0011 ROBERTS

010

Township of ROBERTS

Report No: 14

Work performed by: Assembly Mines (Hudson Bay Expl.)

Claim No	Hole No	Footage	Date	Note
S 127800	A-1	403'	Oct/66	
	A-2	313'	Oct/66	
	A-3	294'	Oct/66	
	A-4	242'	Oct/66	
	A-5	293'	Oct/66	
	A-7	504'	Oct/66	
	A-18	375'	Jan/67	
S 127801	A-6	261'	Oct/66	
	A-8	252'	Nov/66	
	A-9	267'	Nov/66	
	A-10	314'	Nov/66	
	A-11	344'	Nov/66	
	A-12	224'	Nov/66	
	A-13	348'	Nov/66	
	A-14	257'	Nov/66	
	A-15	299'	Dec/66	
	A-16	325'	Dec/66	
	S 135303	A-17	395'	Dec/66
S 135328	A-19	490'	Jan/67	
S 135325	A-20	498'	Feb/67	
	A-21	470'	Feb/67	
	A-22	471'	Feb/67	

22 DH 7617 FT

Notes:

autopositive enclosed for plan of holes 1 to 18

Hole: A-1

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94.1'-106.8' Argillite (as before) contact is sharp but first foot of argillite is brecciated

	<u>Width</u>	<u>Reading - Background = Corr. Reading</u>	
	94.1'-95.0'	.158 - .012	.146 (Mr/Hr)
	95.0'-97.5'	.098 - .012	.086
	97.5'-98.3'	.007 - .004	.003
	98.3'-99.2'	.028 - .012	.016
	99.2'-101.6'	.011 - .004	.007
	101.6'-102.8'	.041 - .012	.029
	102.8'-104.4'	.015 - .004	.011
	104.4'-106.8'	.028 - .012	.016
106.8'-173.7'	Quartz-pebble conglomerate		
	106.8'-107.0'	.014 - .004	.010
	107.0'-109.4'	.010 - .004	.006
	109.4'-111.1'	.013 - .004	.009
	111.1'-112.1'	.004 - .004	.000
173.7'-185.4'	Quartz-cobble conglomerate		
	173.7'-174.4'	.030 - .012	.018
185.4'-197.2'	Quartz-pebble conglomerate		
197.2'-403.0'	Mississagi quartzite, fine to coarse-grained		
End of hole			

Core angles: 400' acid test = 51° uncorrected

6' - 30°
24' - 30°
44' - 30°
68' - 45°
96' - 55°
167' - 55°
315' - 60°
375' - 55°



Hole: A-6

- 2 -

78.3'-129.0' - con't

vein-quartz, highly-altered volcanics, and schist; matrix foliated with abundant biotite; carbonate alteration common

129.0'-140.5' Argillite, banded, greenish, siliceous

140.5'-143.4' Quartzite-Pebble Conglomerate; high percentage of vein-quartz pebbles; matrix of quartzite, chlorite, pyrite, sericite

143.4'-146.1' Greywacke, banded, greenish

146.1'-151.1' Quartzite-Pebble Conglomerate; high percentage of vein-quartz pebbles; blue-grey

151.1'-153.8' Argillite, dense, greenish, fractured, siliceous

153.8'-261.0' Polymictic Conglomerate; dark green, highly chloritic; highly pyritic; boulders up to 12"

End of hole

Core Angles:

17.5' - 30°

25.0' - 30°

31.0' - 35°

49.0' - 30°

69.0' - 30°



Hole: A-7

- 2 -

- 107.1'-114.1' Argillite, dense, greenish, fractured
- 114.1'-120.5' Quartzite, fine-grained, grey, pyritic, feldspathic
- 120.5'-132.8' Greywacke, dark, uniform; grading to siliceous Argillite
- 132.8'-146.2' Quartzite, medium to coarse-grained, grey, feldspathic, scattered pebbles
- 146.2'-147.0' Greywacke, grey, banded
- 147.0'-150.1' Quartzite, light grey, coarse, feldspathic
- 150.1'-154.8' Quartz-Pebble Conglomerate; blue-grey quartzite pebbles; pyritic; quartzite matrix
- 154.8'-159.1' Quartzite, medium-grained, grey, feldspathic
- 159.1'-160.2' Greywacke
- 160.2'-190.8' Quartzite; light grey to white; dense, banded, feldspathic
- 190.8'-198.5' Greywacke
- 198.5'-203.1' Quartzite, light-coloured, dense, feldspathic, banded
- 203.1'-210.5' Quartzite-Pebble Conglomerate, blue-grey; up to 40' vein quartz pebbles; matrix of quartzite with pyrite, biotite, sericite
- 210.5'-211.1' Greywacke
- 211.8'-215.8' Quartzite, light to dark grey, coarse, feldspathic
- 215.8'-231.1' Greywacke, intraterrane breccia
- 231.1'-250.8' Quartzite; white to light grey, dense, medium-grained, feldspathic
- 250.8'-256.3' Quartzite, grey, coarse, feldspathic
- 256.3'-257.6' Quartzite, white, dense, thin Aplite veinlet at 257.6'
- 257.6'-268.3' Greywacke, highly fractured, intraterrane breccia
- 268.3'-279.2' Quartzite, light-coloured, dense, coarse, feldspathic
- 279.2'-285.9' Greywacke, dense, grey
- 285.9'-290.5' Quartzite, argillaceous, dense, light grey
- 290.5'-292.2' Quartz-Pebble Conglomerate, matrix of quartzite, pyrite, sericite

292.2'-300.6' Quartzite, coarse, grey, feldspathic
 300.6'-305.0' Greywacke, fractured
 305.0'-309.5' Quartzite, coarse, grey, feldspathic
 309.5'-313.5' Greywacke; intraformational breccia
 313.5'-351.0' Quartzite, medium-grained, banded, aplite veinlets
 351.0'-355.2' Greywacke, banded
 355.2'-356.2' Quartzite, grey, coarse, feldspathic
 356.2'-358.3' Greywacke
 358.3'-406.9' Quartzite, coarse to medium-grained, grey, feldspathic
 406.9'-420.8' Greywacke, dark, uniform
 420.8'-460.0' Quartzite, coarse to medium-grained, grey, feldspathic
 460.0'-470.0' Quartzite, very coarse, grey, feldspathic
 470.0'-478.8' Quartzite, coarse, grey, feldspathic
 478.8'-481.1' Greywacke, argillite bands
 481.1'-497.7' Quartzite, coarse, grey, feldspathic
 497.7'-501.5' Quartz-Pebble Conglomerate; matrix pyritic, sericitic; quartz hematite-stained
 501.4'-504.0' Quartzite, light grey, medium
 End of hole

Core Angle:

22.5' - 40°	248.0' - 50°
32.5' - 35°	332.0' - 50°
53.5' - 30°	348.0' - 55°-65°
124.5' - 25°	386.0' - 70°
146.0' - 30°	416.5' - 60°-70°
168.0' - 30°	425.5' - 50°-60°
174.0' - 40°	449.0' - 60°
193.0' - 30°	454.0' - 40°-55°
202.0' - 30°	476.0' - 60°
224.0' - 30°	

Note:
 All readings in this column are from foliation in quartzite, except 416.5', which is in Greywacke

No significant mineralized zones were encountered

Hole: A-7

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The following are new readings taken from samples
in Hole A-7

<u>Sample</u>	<u>Reading (Background Subtracted)</u>
4081	.004
4072	<.001
4073	.003
4074	<.001
4075	.003
4076	<.001
4077	<.001
4078	.001 (.005 ; 81.2' - 81.5')
4079	.007 (.014 ; 88.8' - 89.1')
4080	<.001



DIAMOND DRILL LOG

Claim: 127801 Location: Assembly Option, Roberts Township, Ontario

Hole: A-8 Angle: -50° Direction: S

Depth: 252' Grid: A Co-ordinates: 1 + 90N
6 + 10E

Started: November 5, 1966 Finished: November 8, 1966

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

0'-8.0' Casing: gravel

8.0'-8.9' Quartzite, very coarse, grey, feldspathic, some small pebbles

8.9'-10.2' Greywacke, dark

10.2'-12.2' Argillite, dense, greenish, fractured

12.2'-22.6' Quartzite-Pebble Conglomerate; blue-grey; cobbles up to 3"; matrix mainly biotite and mafic minerals, some chlorite throughout and abundant in patches; pyrite abundant in matrix, often in pods of subhedral crystals

22.6'-26.4' Argillite, grey, banded

26.4'-28.8' Quartzite-Pebble Conglomerate, chloritic matrix

28.8'-31.5' Argillite, grey, fractured, dense

31.5'-49.7' Polymictic Conglomerate; highly altered lithic pebbles and cobbles (mainly quartzite) in a matrix of chlorite, biotite

49.7'-54.1' Greywacke; coarse, greenish

54.1'-90.2' Greywacke; generally a greenish, highly chloritized greywacke with clumps of lithic pebbles (mainly blue-grey quartzite and quartz-biotite schist) along certain distinct "foliation" planes; abundant pyrite associated with pebbles; smaller lithic and vein-quartz pebbles scattered throughout; biotite abundant; irregular foliation due to alignment of biotite, chlorite, hornblende parallel to pebble surfaces; cobbles up to 4"

90.2'-93.8' Greywacke, grey, banded, good slump structures at 92.0'

Hole: A-8

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- 93.8'-96.0' Quartz-Pebble Conglomerate, grey quartzitic matrix
- 96.0'-110.9' Greywacke, grey, uniform
- 110.9'-160.0' Quartzite-Pebble Conglomerate; high percentage of vein-quartz pebbles (usually larger); matrix quartzitic, chloritic; abundant biotite; irregular stringers of mafic minerals in places; matrix irregularly foliated around pebbles; minor argillaceous sections
- 160.0'-177.1' Quartzite-Pebble Conglomerate; high percentage of vein-quartz pebbles; matrix is blue-grey quartzite, cut by wide irregular dark stringers and patches of biotite and other mafic minerals; pyrite abundant
- 177.1'-179.8' Quartzite-Cobble Conglomerate; blue-grey; matrix is secondary silica towards lower contact
- 179.8'-180.9' Quartz-Cobble Conglomerate, quartzitic matrix
- 180.9'-183.2' Quartzite, blue-grey, fine-grained
- 183.2'-252.0' Quartzite; white to light-grey to pink; very dense; fine-grained; translucent; cut by thin irregular dark argillaceous, pyritiferous veinlets

Core Angles:

11.4' - 40°
25.0' - 40°
26.0' - 35°
49.8' - 40°
91.0' - 40°

Not reliable beyond 100.0'

Sampled mineralized zone extends from 96.3' to 163.3'

The following are new readings obtained for samples from Hole A-8

<u>Sample</u>	<u>Reading (Background already subtracted)</u>
4082	<.001
4083	.004 (.007 : 96.5'-96.7')
4084	.003
4085	.002 (.007 : 99.1'-99.4')
4086	.006 (.014 : 103.3'-103.7')
4087	.006
4088	.004
4089	.005

Hole: A-8

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<u>Sample</u>	<u>Reading (Background already subtracted)</u>	
4090	.005	
4091	.003	
4092	<.001	
4093	.003	(.008 : 114.3'-114.7')
4094	<.001	
4095	<.001	
4096	.001	
4097	.005	(.012 : 124.7'-125.0')
4098	.001	
4099	<.001	
4100	<.001	
4501	.002	
4502	<.001	
4503	.002	
4504	<.001	
4505	<.001	
4506	<.001	
4507	<.001	
4508	<.001	
4509	.002	(.006 : 152.3'-152.5')
4510	<.001	
4511	.001	
4512	.004	
4513	<.001	
4514	.004	
4515	.001	



66.1'-91.5' - con't

quartz; boulders up to 6"; localized alteration to Talc
(also along fractures)91.5'-93.8' Greywacke, dense, green chlorite stain93.8'-98.1' Polymictic Conglomerate98.1'-116.6' Greywacke, dense, dark116.6'-136.1' Quartz-Pebble Conglomerate; blue-grey quartzitic matrix;
up to 50% quartzite pebbles in places; vein-quartz pebbles
usually larger; abundant biotite in matrix136.1'-148.1' Quartzite, blue-grey, coarse, pyritic, scattered quartz
pebbles, argillaceous148.1'-149.8' Greywacke, dark, banded149.8'-182.0' quartzite-Pebble Conglomerate; 20-50% vein-quartz pebbles;
minor argillaceous sections; matrix very dark blue-green,
chloritic, highly pyritic; matrix cut by wide irregular
black bands of biotite and mafic minerals182.0'-215.3' Polymictic Conglomerate; boulders up to 8"; vein-quartz,
greywacke, schist, quartzite pebbles; matrix basically
light brown (argillaceous, sericitic) cut by abundant
black irregular stringers of biotite and mafic minerals;
highly pyritic; pyrite also found in pods of euhedral to
subhedral crystals215.3'-241.5' quartzite, light grey, fine to medium-grained, scattered
pebbles241.5'-249.5' Argillite, light grey, dense, fractured, siliceous249.5'-260.9' Greywacke, grey, dense, uniform260.9'-262.8' quartzite, grey, coarse262.8'-264.3' Greywacke, grey, dense, uniform264.3'-267.5' Quartzite, fine to medium-grained, light grey, some
micro-crystalline sections

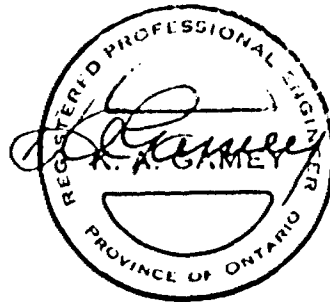
End of hole

Core Angles:5.5' - 32°, 20.5' - 30°, 46.0' - 30°, 52.0' - 40°,
223.0' - 22°, 261.0' - 22°

Sampled mineralized zone extends from 96.4' to 168.0'

The following are new readings obtained for samples from Hole A-9

<u>Sample</u>	<u>Reading (.007 Background has been subtracted)</u>
4516	.001
4517	.004
4518	.003
4519	.003
4520	.010 (.023 Mr/Hr between 104.4'-104.8')
4521	.004
4522	.005
4523	.005 (.009 Mr/Hr between 108.6'-108.9')
4524	.005
4525	.005 (.011 Mr/Hr between 111.5'-111.3')
4526	.003
4527	.006
4528	.003
4529	.002
4530	.001
4531	.001
4532	.001
4533	.001
4534	.001
4535	.003
4536	.004
4537	.003
4538	.001
4539	.011
4540	.003
4541	.002
4542	.005
4543	.007
4544	.015
4545	.001
4546	.007
4547	.002
4548	.003 (.008 Mr/Hr between 162.3'-163.0')
4549	.006
4550	.010
4551	.002 (.005 Mr/Hr between 165.0'-165.7') (.001 Mr/Hr between 165.7'-168.0')



DIAMOND DRILL LOG

Claim: 127801 Location: Assembly Option, Roberts Township, Ontario

Hole: A-10 Angle: -50° Direction: S

Depth: 314' Grid: A Co-ordinates: 2 + 20N
8 + 00E

Started: November 12, 1966 Finished: November 14, 1966

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

- 0'-2.0' Casing
- 0'-6.2' Gravel
- 6.2'-10.1' Quartzite-Pebble Conglomerate; pebbles of varying shapes and size, mostly blue-grey fine-grained quartzite; some pebbles shard-like; biotite-sericite matrix, often up to 2/3 pyrite; pyrite also abundant in some pebbles; gossan along fractures, probably connected to surface
- 10.1'-11.3' Argillite, dense, greenish, fractured, siliceous, vaguely banded
- 11.3'-12.6' Quartzite-Pebble Conglomerate, blue-grey
- 12.6'-15.2' Argillite, dense, greenish, fractured, banded, siliceous
- 15.2'-15.9' Quartzite, blue-grey, coarse-grained, feldspathic
- 15.9'-20.3' Argillite, dense, greenish, fractured, banded, siliceous
- 20.3'-30.3' Quartzite-Pebble Conglomerate; pebbles small and angular; white-quartzite pebbles common
- 30.3'-35.6' Greywacke; dense, banded, dark, fractures
- 35.6'-38.8' Quartzite-Pebble Conglomerate, blue-grey
- 38.8'-43.1' Greywacke, dense, uniform
- 43.1'-81.6' Polymictic Conglomerate, dark green; chlorite-biotite matrix, often contorted; cobbles up to 8"; pebbles and cobbles also chloritized; pyrite abundant; pebbles composed of quartz, quartzite (white, blue-green, often banded), schist, greywacke, and highly altered volcanics; in sections of few pebbles, chlorite and biotite crystals are aligned, giving a foliated or sheared appearance.

Hole: A-10

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- 81.6'-83.7' Argillite, dense, dark green (chloritic), banded, fractured
- 83.7'-86.3' Quartz-Pebble Conglomerate; matrix quartzitic with sericite; minor pyrite
- 86.3'-89.5' Greywacke, dense, dark
- 89.5'-95.9' Argillite, dense, light grey, fractured
- 95.9'-147.1' Quartz-Pebble Conglomerate; quartzitic, sericitic, light-coloured matrix with small amounts of chlorite and/or biotite; quartzite pebbles predominate near lower contact, but <10% throughout; pyrite common, more abundant near lower contact; 5" Argillite band at 136.1'
- 147.1'-149.0' Quartzite, dense, light grey, fine-grained
- 149.0'-150.0' Lost Core
- 150.0'-156.4' Greywacke, dense, dark, uniform
- 156.4'-160.1' Quartzite, light grey, coarse to fine-grained
- 160.1'-162.2' Quartz-Pebble Conglomerate; matrix light-coloured with sericite, very quartzitic; minor pyrite
- 162.2'-171.8' Greywacke, dark, uniform
- 171.8'-172.0' Quartzite, grey, medium to coarse-grained, feldspathic
- 172.0'-174.0' Greywacke, graded, dark, exhibits cross-bedding
- 174.0'-175.5' Quartzite, grey, fine-grained
- 175.5'-195.9' Quartzite, medium to coarse-grained, grey
- 195.9'-203.7' Quartz-Pebble Conglomerate; matrix contains sericite, biotite, some pyrite
- 203.7'-219.2' Greywacke, contorted
- 219.2'-221.7' Quartzite, grey, coarse-grained, feldspathic
- 221.7'-225.5' Greywacke, light-grey, fractured
- 225.5'-236.0' Quartzite, grey, fine to medium-grained
- 236.0'-237.5' Lost Core
- 237.5'-246.6' Quartzite, grey, fine to medium-grained

Hole: A-10

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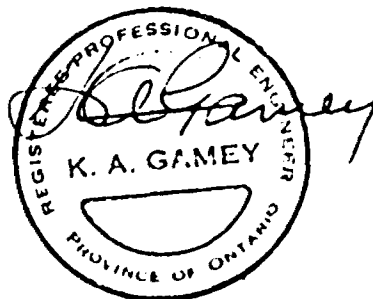
246.6'-249.2' Quartzite, grey, coarse-grained, feldspathic
249.2'-255.2' Greywacke, dark, uniform
255.2'-263.1' Quartzite, grey, medium to coarse-grained, feldspathic
263.1'-266.7' Argillite, dense, greenish, fractured
266.7'-271.4' Quartzite, grey, coarse, feldspathic
271.4'-271.8' Argillite, dense, greenish, fractured
271.8'-306.1' Quartzite, grey, medium to coarse-grained, banded, feld-
spathic
306.1'-314.0' Argillite, dense, greenish, fractured, vaguely banded
End of hole

Core Angles:

19.2' - 30°
33.3' - 20°
83.0' - 35°
156.0' - 30°
180.5' - 40°
217.0' - 20°
229.0' - 35°
275.0' - 40°
293.0' - 45°
298.0' - 40°
308.6' - 50°
313.8' - 60°

Core angles are irregular toward
the end of the hole, but appear
to be significantly larger than
those found throughout

The sampled mineralized zone extends from
95.8' to 139.2'



DIAMOND DRILL LOG

Claim: 127801 Location: Assembly Option, Roberts Township, Ontario

Hole: A-11 Angle: -50° Direction: S

Depth: 344' Grid: A Co-ordinates: 3 + 50N
8 + 72E

Started: November 16, 1966 Finished: November 18, 1966

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

0'-6.0' Casing: sand

6.0'-23.9' Quartzite, grey, coarse, feldspathic; argillaceous in places

23.9'-25.0' Lost Core

25.0'-26.0' Quartzite, grey, coarse, feldspathic; lower contact gradational

26.0'-29.6' Quartz-Pebble Conglomerate; sericite, pyrite in matrix

29.6'-30.8' Quartzite, grey, very coarse, feldspathic

30.8'-39.8' Quartz-Pebble Conglomerate; sericite, pyrite in matrix; larger than normal proportion of lithic pebbles, notably greywacke and felsic volcanics; contorted

39.8'-41.9' Quartzite, grey, coarse-grained, feldspathic

41.9'-57.0' Argillite, dense, greenish, highly fractured, siliceous

57.0'-76.1' Argillite, dense, light grey, moderately fractured; "pebbled" appearance - possibly due to second-cycle deposition (i.e. redeposition of Argillite pebbles)

76.1'-77.2' Quartzite, grey, coarse, feldspathic

77.2'-82.4' Argillite, dense, greenish, highly fractured, siliceous

82.4'-93.1' Quartz-Pebble Conglomerate; pyrite, sericite in matrix; high proportion of lithic pebbles

93.1'-94.3' Quartzite, grey, very coarse, feldspathic

94.3'-95.1' Argillite, dense, greenish, highly fractured and "pebbled", siliceous

Hole: A-11

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- 95.1'-99.1' Oligomictic Conglomerate; quartzitic matrix, little sericite; pebbles of quartz, volcanics, hematite-stained quartz, greywacke, unidentified lithic pebbles - well rounded, small (1-2 cm); pyrite, pyrrhotite abundant in matrix and in pebbles; quartz pebbles predominate
- 99.1'-100.3' Quartzite, grey, coarse, feldspathic
- 100.3'-109.9' Argillite, dense, greenish, highly fractured and "pebbled"
- 109.9'-115.8' Argillite, dense, light grey
- 115.8'-118.0' Quartzite, grey, coarse, feldspathic
- 118.0'-126.2' Quartz-Pebble Conglomerate; pyrite, sericite in matrix
- 126.2'-134.0' Quartzite, grey, feldspathic; fine to medium-grained; banded
- 134.0'-154.5' Quartzite, grey, coarse, feldspathic, irregular dark bands
- 154.5'-167.2' Quartzite, grey; predominantly fine-grained; argillaceous
- 167.2'-169.4' Argillite; banded, greenish, siliceous
- 169.4'-184.0' Quartzite; fine to coarse-grained; abundant hematite stain in upper 2'; banded
- 184.0'-186.7' Argillite, dense, greenish, highly fractured, siliceous
- 186.7'-196.0' Quartzite; fine to coarse-grained, banded; hematite in coarse sections
- 196.0'-199.4' Quartz-Pebble Conglomerate; pyrite, sericite in matrix
- 199.4'-211.0' Quartzite, medium-grained, grey, feldspathic
- 211.0'-225.8' Quartzite, grey; fine to coarse-grained, banded; scattered pebbles
- 225.8'-228.8' Quartz-Pebble Conglomerate; pyrite, sericite in matrix; hematite stain; cobbles at lower contact
- 228.8'-229.9' Argillite, dense, greenish, fractured
- 229.9'-244.2' Quartzite, very coarse, grey, feldspathic; feldspathic injection at 230.5'

Hole: A-11

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244.2'-252.6' Quartzite, medium-grained, grey, feldspathic

252.6'-261.0' Quartz-Pebble to Cobble Conglomerate; pyrite, sericite in matrix; greywacke, lithic fragments; some quartz pebbles hematite-stained

261.0'-264.6' Quartzite, grey, medium-grained, feldspathic

264.6'-270.8' Argillite, dense, greenish, fractured, siliceous

270.8'-272.2' Quartzite, grey coarse, feldspathic

272.2'-277.2' Argillite, dense, greenish, contorted, siliceous

277.2'-283.5' Quartzite, grey, fine-grained, argillaceous

283.5'-285.7' Argillite, dense, greenish, fractured

285.7'-287.2' Quartz-Pebble Conglomerate, quartzitic matrix

287.2'-292.8' Quartzite, grey, coarse, feldspathic

292.8'-294.5' Quartz-Pebble Conglomerate; pyrite, sericite in matrix

294.5'-297.0' Argillite, dense, greenish, fractured, siliceous

297.0'-336.9' Quartzite, grey; fine to medium-grained; scattered pebbles; highly fractured 326.3-328.2'; some argillaceous interbands

336.9'-343.2' Argillite, dense, greenish, fractured

343.2'-344.0' Quartzite, grey, medium-grained, feldspathic

End of hole

Core Angles:

39.2' - 25°	167.5' - 35°
46.2' - 30°	195.0' - 50°
50.5' - 45°	201.3' - 40°
73.0' - 25°	265.0' - 40°
82.0' - 40°	267.0' - 40°
115.8' - 40°	282.0' - 40°
126.4' - 30°	317.0' - 45°
149.5' - 35°	330.6' - 55°
159.0' - 40°	336.0' - 55°

No mineralized zone encountered



- 97.5'-102.3' Quartzite, grey, feldspathic, highly fractured
- 102.3'-105.5' Quartz-Pebble Conglomerate, feldspathic and lithic pebbles recognizable up to 10%; pyritic, sericitic matrix; trace radioactivity
- 105.5'-117.0' Quartzite, brown to grey, Arkosic interbands, medium-grained
- 117.0'-140.0' Quartzite, grey to brown, feldspathic, pyritic; very coarse, approaching a quartz-pebble conglomerate; granite pebbles at 133.4'
- 140.0'-150.7' Quartz-Pebble Conglomerate, pebbles 2-4 cm, sub-angular to sub-rounded; pyrite abundant in sericitic matrix, and as coating in pebbles; minor lithic fragments (<10%) becoming more abundant towards lower contact; Argillite band at 141.9'; trace radioactivity
- 150.7'-152.8' Quartzite, dense, grey, slightly feldspathic
- 152.8'-156.1' Quartzite, grey, coarse-grained; pyritic along fractures; 1" quartz vein @ 179.8 (core angle 70°); Argillite band at 175.2'
- 156.1'-167.8' Argillite, dense, greenish; finely and irregularly fractured; pyrite coating in fractures; occasional quartzitic interbands
- 167.8'-169.2' Quartzite, grey
- 169.2'-172.8' Quartz-Pebble Conglomerate, pyritic, sericitic matrix, radioactive
- 172.8'-179.9' Quartzite, grey, coarse-grained, slightly feldspathic; feldspar occurs in large cleavage fragments; it is a sodic plagioclase, probably Albite
- 179.9'-181.7' Quartzite; light grey, fine-grained
- 181.7'-183.6' Quartzite, grey, medium-grained, argillaceous, finely fractured
- 183.6'-201.6' Argillite, dense, banded, siliceous, finely fractured; abundant pyrite in blebs between 192.6'-194.6'; quartz vein at 191.1'; trace radioactivity
- 201.6'-213.6' Quartz-Pebble Conglomerate, pyritic; interbands of coarse, feldspathic quartzite; matrix is feldspathic, sericitic; 4" Argillite band at 211.2'

Hole: A-12

- 3 -

213.6'-216.3' Argillite, dense, fractured, banded

216.3'-224.0' Quartz-Pebble Conglomerate, some cobble-sized fragments;
trace radioactivity; Argillite at 218.4'

End of hole

Core Angles:

12.3' - 50°
23.3' - 40°
28.8' - 50°
48.6' - 40°
70.0' - 50°
75.3' - 50°
110.8' - 45°
149.5' - 60°
181.1' - 50°
184.5' - 55°
215.5' - 55°

Some radioactivity throughout, notably in quartz-pebble conglomerates, but no high-grade zones



- 151.6'-168.3' Argillite, dense, finely fractured, greenish; quartz vein at 154.6', approximately perpendicular to axis; abundant pods of pyrite between 165.2'-167.5'
- 168.3'-169.8' Quartzite, coarse, grey, feldspathic
- 169.8'-173.0' Quartz-Pebble Conglomerate; pyritic, sericitic matrix; occasional Argillite laminations
- 173.0'-178.6' Quartzite, grey, coarse, feldspathic
- 178.6'-183.6' Argillite, dense, finely fractured, siliceous
- 183.6'-189.3' Quartzite, grey, coarse-grained, scattered pebbles
- 189.3'-203.5' Argillite, dense, finely fractured, siliceous
- 203.5'-208.0' Quartz-Pebble Conglomerate; pyritic, sericitic matrix; feldspathic
- 208.0'-210.7' Argillite, contorted, siliceous
- 210.7'-214.6' Quartz-Pebble Conglomerate; pyritic, sericitic matrix
- 214.6'-248.9' Quartzite, grey to brown, coarse, feldspathic; quartz veins at 218.9', 237.5' (core angle 20°); thin bands of Argillite 221.0'-222.5'; occasionally banded
- 248.9'-255.0' Argillite, dense, greenish, vaguely banded, pyritic
- 255.0'-309.1' Quartzite, grey to brown, medium to coarse-grained, feldspathic, pyritic; highly fractured 262.0'-267.5'; fine-grained with Argillite interbands between 283.7'-291.0'
- 309.1'-324.9' Argillite, dense, siliceous, slump structure, some pyritic fractures
- 324.9'-328.5' Quartzite, grey, feldspathic, coarse
- 328.5'-348.0' Quartzite, medium to coarse-grained, light grey, dark bands, feldspathic; minor Argillite interbands

End of hole

Core Angles:

17.0' - 50°	156.0' - 55°	279.0' - 45°
26.6' - 70°	180.7' - 75°	284.0' - 65°
40.2' - 80°	217.1' - 60°	7.0' - 30°
81.6' - 65°	233.7' - 65°	
132.0' - 60°	242.2' - 70°	

Traces of radioactivity throughout, but no high-grade zones



Hole: A-14

- 2 -

- 85.2'-85.6' Greywacke, dense, dark
 - 85.6'-87.1' Quartzite; coarse, grey, feldspathic, scattered pebbles
 - 87.1'-87.6' Greywacke, dense, dark
 - 87.6'-92.7' Quartzite, grey, coarse, feldspathic, banded
 - 92.7'-99.9' Argillite, dense, banded, siliceous
 - 99.9'-112.3' Quartzite, dark grey; scattered pebbles, coarse, feldspathic; greywacke fragments at 110.0'
 - 112.3'-128.1' Argillite, dense, greenish, fractured
 - 128.1'-133.5' Quartzite, blue-grey; very coarse; abundant biotite and mafic minerals; some pyrite; scattered blue-grey quartzite pebbles
 - 133.5'-160.0' Argillite, dense, intraformational breccia
 - 160.0'-171.1' Quartzite, grey, coarse, feldspathic, scattered pebbles
 - 171.1'-195.8' Argillite, siliceous; intraformational breccia and associated slump structure well-developed; well-bedded where not brecciated; highly fractured in lower 10'
 - 195.8'-201.5' Quartzite, fine-grained, grey
 - 201.5'-213.9' Quartzite, coarse, light to dark grey; feldspathic; brecciated core between 201.5'-205.0'
 - 213.9'-227.0' Quartzite, predominantly medium-grained, grey
 - 227.0'-233.4' Quartzite, coarse, light to dark grey, feldspathic
 - 233.4'-236.5' Quartz-Pebble Conglomerate; pyrite, sericite matrix
 - 236.5'-257.0' Quartzite, grey, medium-grained, scattered pebbles
- End of hole

Core Angles:

- | | |
|-------------|------------------|
| 7.0' - 30° | 96.0' - 30° |
| 9.0' - 35° | 119.0' - 40° |
| 10.5' - 35° | 120.5' - 30° |
| 16.5' - 40° | 133.5' - 20° |
| 30.5' - 32° | 138.2' - 35° |
| 46.0' - 45° | 151.0' - 30° |
| 48.5' - 35° | 160.6' - 35° |
| 54.5' - 40° | 170.7' - 20° |
| 72.0' - 35° | 171.5' - 25° |
| 90.5' - 30° | 237.0' - 30° (?) |

(Trace radioactivity is found throughout, with scattered sections up to 2X normal background - as measured in core box)



DIAMOND DRILL LOG

Claim: 127801 Location: Assembly Option, Roberts Township, Ontario

Hole: A-15 Angle: -50° (30° - 47°, 284° - 45°) Direction: N

Depth: 299' Grid: A Co-ordinates: 0 + 75S
6 + 88E

Started: December 6, 1966 Finished: December 9, 1966

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

0'-26.0' Casing

0'-21.0' Sand, boulders

21.0'-24.1' Quartzite, light grey, fine-grained

24.1'-26.0' Lost Core

26.0'-115.9' Quartzite; light grey to white to pink; fine-grained to microcrystalline; very dense; translucent; thin veinlets of argillaceous material

115.9'-116.5' Biotite Amphrophyre (?), highly altered, calcareous, fragments of quartzite wall-rock

116.5'-168.7' Quartzite, light grey to white to pink; translucent, very dense; prominent pink section 155.0'-166.4'; argillaceous bands (mainly biotite, chlorite, carbonate) form 70% of rock from 166.4' to 168.7'

168.7'-177.1' Greywacke; very dark; sheared, chloritized in places; scattered quartzite pebbles

177.1'-180.4' Quartzite, dark; fine to medium-grained; scattered quartzite pebbles at upper contact

180.4'-184.4' Quartzite, light grey

184.4'-190.4' Argillite, dense, vaguely banded, greenish, siliceous

190.4'-190.8' Quartz-Pebble Conglomerate, fine-grained quartzitic matrix; pyrite, sericite

190.8'-202.8' Quartzite; light grey, coarse to a blue-grey, medium-grained, feldspathic quartzite

- 202.8' - 222.0' Quartzite, blue-grey; shattered, sheared, and deformed with incipient to well-developed alteration to chlorite, biotite, sericite; scattered rounded pebbles; minor argillaceous sections; irregularly foliated
 - 222.0' - 237.4' Quartzite-Pebble Conglomerate; blue-grey quartzite pebbles; up to 50% vein-quartz pebbles; matrix blue-grey quartzite, sericite, biotite; pyrite fairly abundant
 - 237.4' - 244.4' Quartzite; highly sheared and deformed; altered to chlorite, biotite, sericite; contains highly deformed bands of grey-wacke
 - 244.4' - 257.7' Quartz-Pebble Conglomerate, blue-grey quartzite matrix with sericite, pyrite; minor deformation and alteration
 - 257.7' - 250.1' Quartzite, coarse, grey, feldspathic
 - 250.1' - 252.4' Quartzite-Pebble Conglomerate, up to 50% vein-quartz pebbles
 - 252.4' - 269.4' Quartzite, coarse, grey, feldspathic; deformed and altered
 - 269.4' - 273.9' Quartzite, light grey, coarse, feldspathic
 - 273.9' - 277.2' Quartzite, fine to medium-grained, dark, feldspathic
 - 277.2' - 283.4' Quartzite, pinkish; light grey to pink; medium to coarse-grained; cut by irregular pink carbonate-filled fractures
 - 283.4' - 287.2' Quartzite, medium-grained, grey, feldspathic
 - 287.2' - 290.1' Greywacke, greenish
 - 290.1' - 298.5' Quartzite, light grey, medium-grained, banded
- End of hole

Core Angles:

189.8' - 60"	}	Lack of core-angle readings is due to generally massive or deformed nature of lithology
283.0' - 30"		
295.0' - 40"		

Sampled mineralized zone extends from 222.0' to 252.4', Some trace radioactivity extends outside this zone, but nowhere does it reach a net value of over .001 Mr/lt.



Hole: A-16

- 2 -

280.2'-289.8' Quartzite, coarse, blue-grey, feldspathic, banded

289.8'-290.9' Argillite, dense, greenish, small blebs of Carbonate alteration

290.9'-325.0' Quartzite, coarse, blue-grey to fine-grained, argillaceous; feldspathic; scattered sand-sized quartz grains

End of hole

Core Angles:

156.0' - 55°	}	Lack of core-angle determinations is due to generally massive or contorted nature of lithology
218.8'-250.0' $\frac{1}{2}$ 40°-60°		
284.0' - 45°		
299.0' - 45°		
300.0'-325.0' $\frac{1}{2}$ 50°		

Although the potential zone of mineralization was intersected between 255.8' and 276.2', no high values were obtained. The core was sampled between 245.8' and 276.2'

DIAMOND DRILL LOG

127800 - 318'

Claim: 135303-77 Location: Assembly Option, Roberts Township, Ontario

hole: A-17 Angle: 50° (58°-30.0', 46°-360.0') Direction: N

Depth: 395' Grid: A Co-ordinates: 2 + 67S
3 + 00E

Started: December 14, 1966 Finished: January 8, 1967

Drilled by: Midwest Diamond Drilling, Ltd. Logged by: W. Maresch

0'-22.0'	<u>Casing</u>
0'-16.0'	<u>Boulders</u>
16.0'-68.0'	<u>quartzite</u> ; white to pink to dark grey; generally fine-grained; dense, translucent; occasionally brecciated with associated argillaceous section; numerous argillaceous stringers
68.0'-76.0'	<u>Lost Core</u>
76.0'-191.3'	<u>Quartzite</u> , as above; generally darker below 100.0'; very dark and shattered with irregular stringers of chlorite near lower contact
191.3'-197.3'	<u>Argillite</u> , very dark, sheared and foliated, intraterritorial breccia, siliceous, abundant pyrite; highly chloritized and locally contorted
197.3'-205.6'	<u>quartzite</u> , grey, fine-grained; shattered, interstices filled by green chloritic, argillaceous material; highly deformed and contorted; numerous voids formed by leaching of pyrite
205.6'-207.3'	<u>quartzite</u> , medium-grained, argillaceous, minor chlorite, deformed
207.3'-257.7'	<u>quartzite</u> , grey, fine to coarse-grained, feldspathic, minor chlorite
257.7'-266.1'	<u>Greywacke</u> , banded, greenish to grey, locally deformed
266.1'-315.9'	<u>quartzite</u> , fine to coarse-grained, grey, feldspathic

Hole: A-17

- 2 -

315.9'-316.8' Greywacke, green

316.8'-320.0' Quartzite, medium-grained, grey, argillaceous, feldspathic

320.0'-354.8' Quartzite, medium to coarse-grained, grey, feldspathic; occasional Argillite interbands

354.8'-378.9' Greywacke, grey, dense

378.9'-394.5' Quartzite, coarse, grey, feldspathic

End of hole

Core Angles:

192.5' - 45°	291.0' - 40°
196.0' - 50°	316.0' - 35°
214.0' - 45°	320.0' - 30°
218.7' - 50°	329.0' - 50°
252.7' - 35°	341.5' - 25°
263.0' - 30°	357.5' - 30°
275.5' - 30°	374.0' - 30°

A comparatively strong mineralized zone was encountered between 191.5' and 205.6'. This zone does not appear to have been intersected in any previous hole. The expected zone can not be found.



Hole: A-18

- 2 -

93.0'-136.0' - con't

pebbles at lower contact

136.0'-172.1' Quartzite, grey, fine to medium-grained, feldspathic; argillaceous; some coarse, dense sections; scattered pebbles

172.1'-178.3' Greywacke, dark grey

178.3'-225.9' Quartzite, grey, fine to coarse-grained, feldspathic; vaguely banded, scattered pebbles, occasional argillaceous sections

225.9'-240.5' Greywacke, dark grey

240.5'-351.8' Quartzite, grey, medium to very coarse-grained, feldspathic; scattered pebbles; occasional Argillite interbands

351.8'-353.8' Greywacke

353.8'-375.0' Quartzite, grey, coarse, feldspathic; scattered pebbles

End of hole

Core Angles:

6.0' - 25°	77.5' - 55°
33.5' - 35°	92.5' - 45°
48.5' - 45°	182.0' - 45°
57.0' - 55°	234.5' - 60°
72.5' - 70°	336.0' - 55°

135328-110

DIAMOND DRILL LOG

Claim: 135328-~~390~~¹¹⁰ Location: Assembly Option, Roberts Township, Ontario

Hole: A-19 Angle: -50° Direction: SW(225T)

Depth: 490' Grid: B Co-ordinates: 1 + 25W
8 + 00N

Started: January 27, 1967 Finished: January 30, 1967

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

- 0'-6.0' Casing: sand, boulders
- 6.0'-53.5' Quartzite, grey, medium to coarse-grained; scattered pebbles - quartz, feldspar - some hematite-stained; locally grading to Quartz-Pebble Conglomerate; abundant pyrite, trace chalcopyrite and pyrrhotite
- 53.5'-56.2' Argillite, siliceous, grey
- 56.2'-83.7' Quartzite, grey, medium to coarse-grained, feldspathic; scattered pebbles; slightly chloritic; abundant pyrite, trace chalcopyrite, pyrrhotite
60.3'-63.5' pyrrhotite + chalcopyrite ½-1%
76.6'-78.4' pyrrhotite + chalcopyrite ½-1%
- 83.7'-100.0' Greywacke, grey, locally deformed
- 100.0'-113.3' Quartzite, grey, coarse-grained, feldspathic; chloritic; scattered pebbles; abundant pyrite
- 113.3'-115.0' Argillite, siliceous
- 115.0'-124.0' Quartzite, grey, coarse-grained, feldspathic; scattered quartz pebbles - hematite-stained; chloritic; abundant pyrite
- 124.0'-217.7' Greywacke and Quartzite; irregularly interbanded dark grey Greywacke and grey, coarse, feldspathic Quartzite; scattered pebbles in quartzite; minor pyrite and chlorite; trace chalcopyrite and pyrrhotite in quartzite, 1-2% sulphides on bedding planes of Greywacke
190.8'-192.1' pyrrhotite and chalcopyrite 1%
195.7'-198.4' pyrrhotite and chalcopyrite and galena
3-5%

- 217.7'-235.4' Argillite, siliceous, grey, dense; fractures and scattered bedding planes coated with sulphides
- 235.4'-240.4' Quartzite, grey, coarse-grained, feldspathic
- 240.4'-255.6' Greywacke, dark grey, locally deformed; fractures coated with sulphides
- 255.6'-261.7' Quartzite, grey, coarse-grained, feldspathic
- 261.7'-279.9' Greywacke, breccia in upper 6'; dark grey; fractures coated by pyrite, minor galena
- 279.9'-297.9' Quartzite, grey, medium to very coarse-grained; scattered pebbles, locally grading Quartz-Pebble Conglomerate; abundant pyrite, trace chalcopyrite, pyrrhotite
 281.0'-282.8' pyrrhotite + chalcopyrite 3-5%
 284.4'-289.1' pyrrhotite + chalcopyrite 1-2%
- 297.9'-301.0' Argillite, siliceous, dark grey; fractures coated with sulphides
- 301.0'-307.3' Quartzite, grey, coarse-grained, feldspathic; chloritic; scattered pebbles; abundant pyrite, trace chalcopyrite, pyrrhotite
- 307.3'-314.0' Greywacke, banded dark, locally deformed; fractures and bedding planes irregularly coated with sulphides
- 314.0'-317.5' Quartzite, blue-grey, coarse-grained, argillaceous, chloritic; scattered pebbles, locally grading to Quartz-Pebble Conglomerate
- 317.5'-329.4' Greywacke, light-dark grey, locally bedded; 10-20% pyrrhotite and chalcopyrite coating some fractures and bedding planes
- 329.4'-334.3' Quartzite-Pebble Conglomerate, argillaceous, chloritic matrix; trace chalcopyrite, pyrrhotite
- 334.3'-353.9' Greywacke, dark, bedded near lower contact; up to 20% chalcopyrite and pyrrhotite coating irregular fractures and some bedding planes
- 353.9'-357.1' Quartzite, blue-grey, coarse-grained, argillaceous, chloritic; trace chalcopyrite, pyrrhotite
- 357.1'-373.0' Greywacke, locally well-bedded; up to 25% chalcopyrite, pyrrhotite in scattered fractures and bedding planes

Hole: A-19

- 3 -

373.0'-387.1' Quartzite-Pebble Conglomerate, dark, grading to impure quartzite near lower contact
373.0'-378.0' pyrrhotite + chalcopyrite 1-3%
378.0'-387.1' pyrrhotite + chalcopyrite 3-5%

387.1'-489.3' Quartzite-Pebble Conglomerate; quartzite, schist, and greywacke pebbles in blue-grey fragmented quartzite; highly chloritic, argillaceous, light to dark green matrix; sections of light green banded, micaceous Greywacke; cobbles up to 8"; generally less chloritic below 425'; abundant white mica; at least 1-2% combined pyrrhotite, chalcopyrite throughout; pyrite abundant
387.1'-392.1' pyrrhotite + chalcopyrite 3-5%
413.7'-414.3' pyrrhotite + chalcopyrite + sphalerite 5-10%
414.7'-432.0' pyrrhotite + chalcopyrite 2-3%
432.0'-437.0' pyrrhotite + chalcopyrite + sphalerite 5-10%
437.0'-442.0' pyrrhotite + chalcopyrite 5%
447.0'-450.0' pyrrhotite + chalcopyrite + sphalerite 5%
458.8'-460.9' pyrrhotite + chalcopyrite 3-5%

End of hole

Core Angles:

47.0' - 65°	279.0' - 60°
90.0' - 65°	301.0' - 70°
114.0' - 65°	313.0' - 70°
129.0' - 70°	322.5' - 65°
175.5' - 70°	350.0' - 65°
218.5' - 60°	372.0' - 70°
232.0' - 60°	395.0' - 65°
254.0' - 70°	

Some Uranium values across numerous short intervals in concentration at pebbles in the quartzite are indicated, but no distinct high-grade zone is recognizable. No radioactivity was encountered below 285.0'.

Traces of chalcopyrite and pyrrhotite are found throughout with irregular concentrations as coatings in fractures and bedding planes in Greywacke, and as irregular streaks and disseminations in Quartzites and Conglomerates. Values of 5-10% combined chalcopyrite and pyrrhotite are found across approximately 12' true width between 400' and 450' in Quartzite-Pebble Conglomerate. Minor galena and iron-rich sphalerite are also present.



DIAMOND DRILL LOG

Claim: 135306 - 392' Location: Assembly Option, Roberts Township, Ontario

Hole: A-20 Angle: 50° (43° - 475') Direction: W (225 T)

Depth: 498' Grid: B Co-ordinates: 3 + 50W
11 + 90N

Started: February 1st, 1967 Finished: February 5th, 1967

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

0'-10.0'	<u>Casing</u>
0'-8.0'	<u>Sand</u>
8.0'-55.1'	<u>Quartzite</u> , grey, coarse to very coarse-grained, feldspathic; scattered quartzitic and feldspathic pebbles - grading to <u>Pebble-Conglomerate</u> locally; detrital black tourmaline and brown cyrtolite or zircon crystals associated with pebbles; trace chalcopyrite, pyrrhotite
55.1'-58.1'	<u>Argillite</u> , siliceous, grey, rusty pyritic fractures
58.1'-91.3'	<u>Quartzite</u> , grey, medium to coarse-grained, feldspathic; scattered pebbles; 1/4-2% pyrrhotite; pyritic fractures
91.3'-108.6'	<u>Greywacke</u> , dark
108.6'-121.6'	<u>Quartzite</u> , grey, medium to coarse-grained, feldspathic; slightly chloritic; scattered pebbles; trace chalcopyrite, pyrrhotite
121.6'-123.6'	<u>Greywacke</u> , locally deformed
123.6'-132.8'	<u>Quartzite</u> , grey, very coarse-grained, feldspathic; scattered pebbles; trace chalcopyrite, pyrrhotite
132.8'-143.7'	<u>Greywacke</u>
143.7'-156.3'	<u>Quartzite</u> , grey, coarse-grained, feldspathic; scattered pebbles; trace chalcopyrite, pyrrhotite
156.3'-228.6'	<u>Quartzite and Greywacke</u> ; irregularly interbanded grey medium to coarse-grained <u>Quartzite</u> and dark grey <u>Greywacke</u> ; scattered pebbles; minor chalcopyrite and pyrrhotite disseminated in <u>Quartzite</u> and in bedding planes and fractures in <u>Greywacke</u> ; locally chloritic

- 228.6'-244.6' Greywacke, dark, locally bedded, minor sulphides in fractures
- 244.6'-249.2' Quartzite, grey, coarse-grained, feldspathic; minor chalcopyrite, pyrrhotite
- 249.2'-263.8' Greywacke, dark, locally well-bedded; pyrrhotite and chalcopyrite in scattered bedding planes and fractures
- 263.8'-271.6' Quartzite, light to dark grey, coarse-grained, feldspathic; scattered pebbles, locally argillaceous
- 271.6'-283.9' Greywacke, dark, locally well-bedded; chalcopyrite, pyrrhotite in fractures and bedding planes
- 283.9'-304.9' Quartzite, light grey, coarse-grained, feldspathic; locally argillaceous, chloritic; pyrrhotite, chalcopyrite
- 304.9'-311.0' Greywacke, dark, sulphides in fractures, bedding planes
- 311.0'-313.0' Quartzite, blue-grey, very coarse, shattered; chloritic, micaceous matrix; argillaceous; minor sulphides
- 313.0'-320.3' Greywacke, dark, banded, minor sulphides
- 320.3'-321.7' Quartzite, blue-grey, very coarse, shattered; chloritic, micaceous matrix; argillaceous; minor sulphides
- 321.7'-336.0' Greywacke, dark, locally bedded; minor sulphides
- 336.0'-342.2' Quartzite, blue-grey, very coarse, shattered; chloritic, micaceous matrix; argillaceous; traces galena
- 342.2'-348.2' Greywacke, grey; well-bedded and brecciated at lower contact; minor sulphides
- 348.2'-350.6' Quartzite, blue-grey, very coarse, shattered; chloritic, micaceous matrix; argillaceous
- 350.6'-363.5' Greywacke, grey, locally well-bedded; minor sulphides
- 363.5'-491.6' Quartzite-Pebble Conglomerate; pebbles of quartz, quartzite, schist, greywacke, and other lithic fragments in shattered blue-grey quartzite; highly altered - matrix chloritic, micaceous (biotite, white mica); grading locally to chloritic Greywacke; chalcopyrite, pyrrhotite, sphalerite, galena locally abundant, 1-2% throughout

Hole: A-20

- 3 -

363.5'-491.6' - con't

423.0'-426.1' pyrrhotite, chalcopyrite 5-10%
453.8'-454.3' chalcopyrite 5%
471.9'-472.5' chalcopyrite 20%, galena 5%
475.2'-475.8' sphalerite 15%, chalcopyrite 5%, galena 5%
479.8'-480.2' chalcopyrite 5%
484.7'-485.5' chalcopyrite 5%

491.6'-498.0' Shattered Quartzite, blue-grey, micaceous quartzite fragments in a greenish-yellow to colourless ground mass of secondary minerals (white mica, fine-grained chlorite, talc, and others)

End of hole

Core Angles:

49.0' - 55°	228.5' - 65°
57.0' - 75°	276.0' - 90°
93.0' - 60°	282.0' - 70°
122.0' - 60°	292.0' - 70°
131.0' - 55°	312.0' - 70°
156.0' - 65°	325.0' - 55°
172.0' - 65°	327.0' - 65°
199.0' - 65°	348.0' - 65°
211.0' - 55°	351.0' - 65°
218.0' - 65°	382.0' - 65°

No significant radioactive zones were encountered. Traces of chalcopyrite and pyrrhotite are found throughout and in concentrations associated with galena and sphalerite in short widely scattered intervals in Quartzite-Pebble Conglomerate

DIAMOND DRILL LOG

Claim: 135306-55' Location: Assembly Option, Roberts Township, Ontario

Hole: A-21 Angle: 50° (47°-200', 46°-400') Direction: W (225T)

Depth: 470' Grid: B Co-ordinates: 7 + 20W
16 + 00N

Started: February 7, 1967 Finished: February 12, 1967

Drilled by: Midwest Diamond Drilling Ltd. Logged by: W. Maresch

-
- 0'-6.0' Casing: sand, boulders
- 6.0'-25.3' Quartzite, grey, coarse to very coarse-grained, feldspathic; scattered quartzitic and feldspathic pebbles; rusty fractures; trace chalcopyrite, pyrrhotite
- 25.3'-30.0' Quartzite, grey, medium-grained, feldspathic; argillaceous; trace sulphides
- 30.0'-44.7' Greywacke, grey, dark
- 44.7'-57.6' Quartzite, light grey, coarse-grained, feldspathic; biotite abundant; minor tourmaline; scattered pebbles; trace sulphides
- 57.6'-166.8' Quartzite and Greywacke; irregularly interbanded, grey, medium to coarse-grained Quartzite and dark grey fractured Greywacke; scattered pebbles grading to Quartz-Pebble Conglomerate in Quartzite; minor sulphides
- 166.8'-169.4' Greywacke, dark grey, brecciated; minor sulphides
- 169.4'-175.4' Quartzite, grey, coarse-grained, feldspathic; minor sulphides
- 175.4'-183.0' Greywacke, dark, trace galena
- 183.0'-194.8' Quartzite, grey, coarse-grained to fine-grained at lower contact; scattered pebbles, minor sulphides
- 194.8'-207.2' Greywacke, dark, dense
- 207.2'-216.4' Quartzite, grey, fine to coarse-grained; scattered pebbles grading to Quartz-Pebble Conglomerate

- 216.4'-218.2' Greywacke, light grey, minor sulphides
- 218.2'-224.0' Quartzite, light grey, coarse-grained, feldspathic; scattered pebbles grading to Quartz-Pebble Conglomerate, minor sulphides associated with pebbles
- 224.0'-228.1' Greywacke, light grey, locally bedded, trace galena
- 228.1'-234.5' Quartzite, blue-grey, very coarse-grained, shattered; chloritic, micaceous matrix; argillaceous; minor sulphides
- 234.5'-240.5' Greywacke, grey, bedded, locally deformed; pyrrhotite, chalcopyrite in bedding planes and fractures
- 240.5'-243.2' Quartzite, blue-grey, very coarse-grained, shattered; chloritic, micaceous matrix; argillaceous, minor sulphides
- 243.2'-251.7' Greywacke, blue-grey, dense, scattered pebbles
- 251.7'-258.0' Quartzite, blue-grey, very coarse-grained shattered; grading to coarse grey Greywacke at lower contact
- 258.0'-272.4' Greywacke, chloritic, brecciated
- 272.4'-275.1' Quartzite, blue-grey, coarse-grained, shattered; minor sulphides
- 275.1'-287.5' Greywacke, grey, locally bedded
- 287.5'-410.0' Quartzite-Pebble Conglomerate; pebbles of mainly quartzite, schist, greywacke and quartz in blue-grey fragmented quartzite; argillaceous; highly altered, with signs of leaching, near upper contact, and locally throughout; secondary minerals are mica (biotite, white mica), secondary amphibole (uralite?), chlorite, talc, and others; cobbles up to 8"; grades locally to chloritic Greywacke; 1-2% chalcopyrite and pyrrhotite throughout with traces of galena and iron-rich sphalerite.
288.1'-290.0' Lost Core
374.4'-375.5' Lost Core
- 410.0'-445.0' Quartzite, mottled light grey, medium to coarse-grained, feldspathic; abundant biotite
- 445.0'-454.7' Quartzite, light grey, arkosic, very coarse-grained, vuggy, cut by talcose fractures and quartz stringers, minor pyrite and chalcopyrite associated with vugs
- 454.7'-470.0' Lost Core

Hole: A-21

- 3 -

End of hole

Core Angles:

16.0' - 65°	193.0' - 70°
66.0' - 75°	225.0' - 75°
87.0' - 75°	228.0' - 65°
124.0' - 70°	272.0' - 70°
145.0' - 65°	281.0' - 75°
162.0' - 70°	

No significant radioactive zones were encountered.

Traces of chalcopyrite, pyrrhotite, galena, and iron-rich sphalerite are present, averaging 1-2% in Quartzite-Pebble Conglomerate, but no sulphide concentrations are found.

Hole: A-22

- 2 -

- 270.6'-282.8' Greywacke, dark, dark blue quartzitic sections; minor pyrite as coating in fractures
- 282.8'-289.1' Quartzite, grey, coarse, feldspathic, scattered pebbles minor sulphides
- 289.1'-306.2' Greywacke, dark, uniform; locally brecciated; minor calcareous alteration; lower contact irregular and altered
- 306.2'-318.8' Quartzite, grey, coarse, feldspathic; scattered pyrite associated with scattered pebbles; trace pyrrhotite, chalcopyrite; argillaceous, chloritic
- 318.8'-322.5' Quartzite, blue-grey, coarse, argillaceous, chloritic; scattered pebbles; shattered
- 322.5'-367.2' Greywacke, grey to buff, well-bedded, locally brecciated; short, scattered, irregular sections of blue-grey, shattered, chloritic Quartzite; minor sulphides
- 367.2'-471.0' Quartzite-Pebble Conglomerate; pebbles of mainly quartzite, quartz, schist, highly altered volcanics and greywacke in a matrix of grey to blue-grey fragmented quartzite; grading to Quartz-Cobble Conglomerate toward bottom of hole; matrix slightly chloritic, highly micaceous (biotite, white mica); general alteration to secondary amphiboles, talc, carbonates, etc. common, especially toward end of hole; siliceous injection, alteration, and leaching widespread in last 20'; up to 5% pyrite and pyrrhotite throughout, traces of chalcopyrite common, traces of sphalerite and galena present

462.7'-463.3' chalcopyrite 1-2%

Lost Core:

397.0'-397.8'
399.0'-399.5'
402.5'-403.1'
403.8'-404.4'
454.1'-455.0'
465.7'-466.6'
469.2'-469.6'

End of hole

Hole: A-22

- 3 -

Core Angles:

18.0' - 80°	209.0' - 70°
53.0' - 75°	242.0' - 70°
85.0' - 70°	256.0' - 75°
103.0' - 80°	274.0' - 80°
142.0' - 75°	304.0' - 90°
168.0' - 75°	325.0' - 70°
198.0' - 75°	348.0' - 60°

Only trace radioactivity was encountered. No economic sulphides of significant proportions were found.



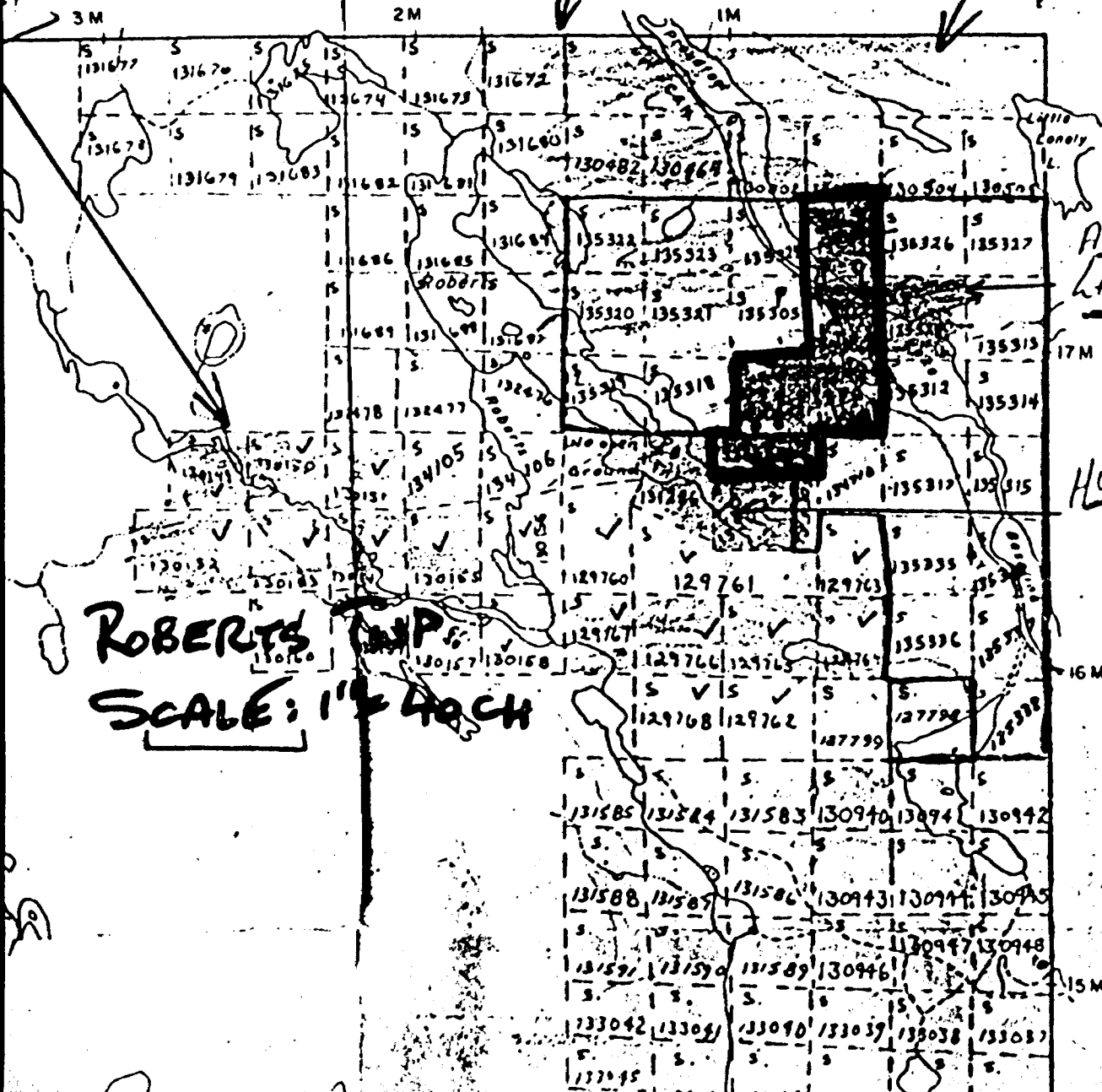
41114NE9650 ROBERTS 0011 ROBERTS

900

nt Twp. M. 655

Elmridge *Mina Ltd*
(1954)

Dyvic *Mina Ltd*
(1954)



ROBERTS TWP.
SCALE: 1" = 40 CH

Assembly Mina Ltd (1967)

Humphreys M (1967)

mon Twp. M. 737

FOR ADDITIONAL

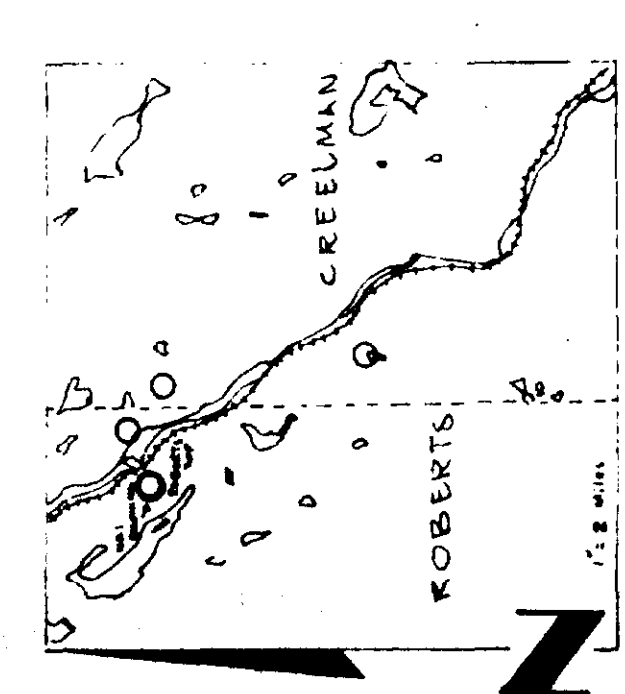
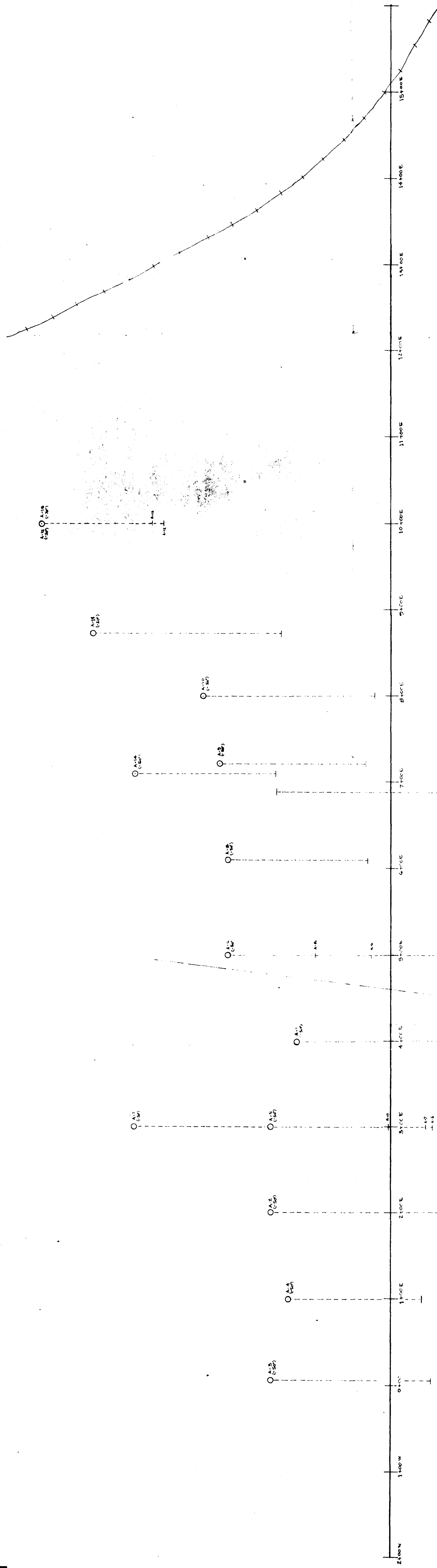
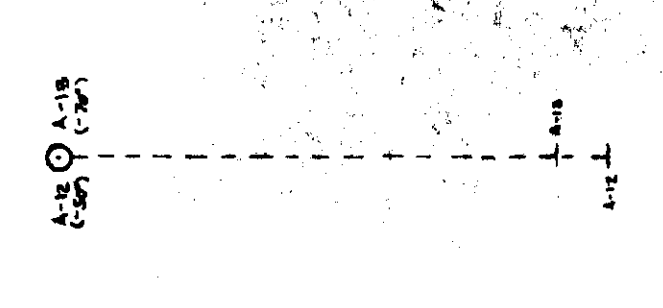
INFORMATION

SEE MAPS:

ROBERTS-0011

1

2



H 1082
 14
 1967

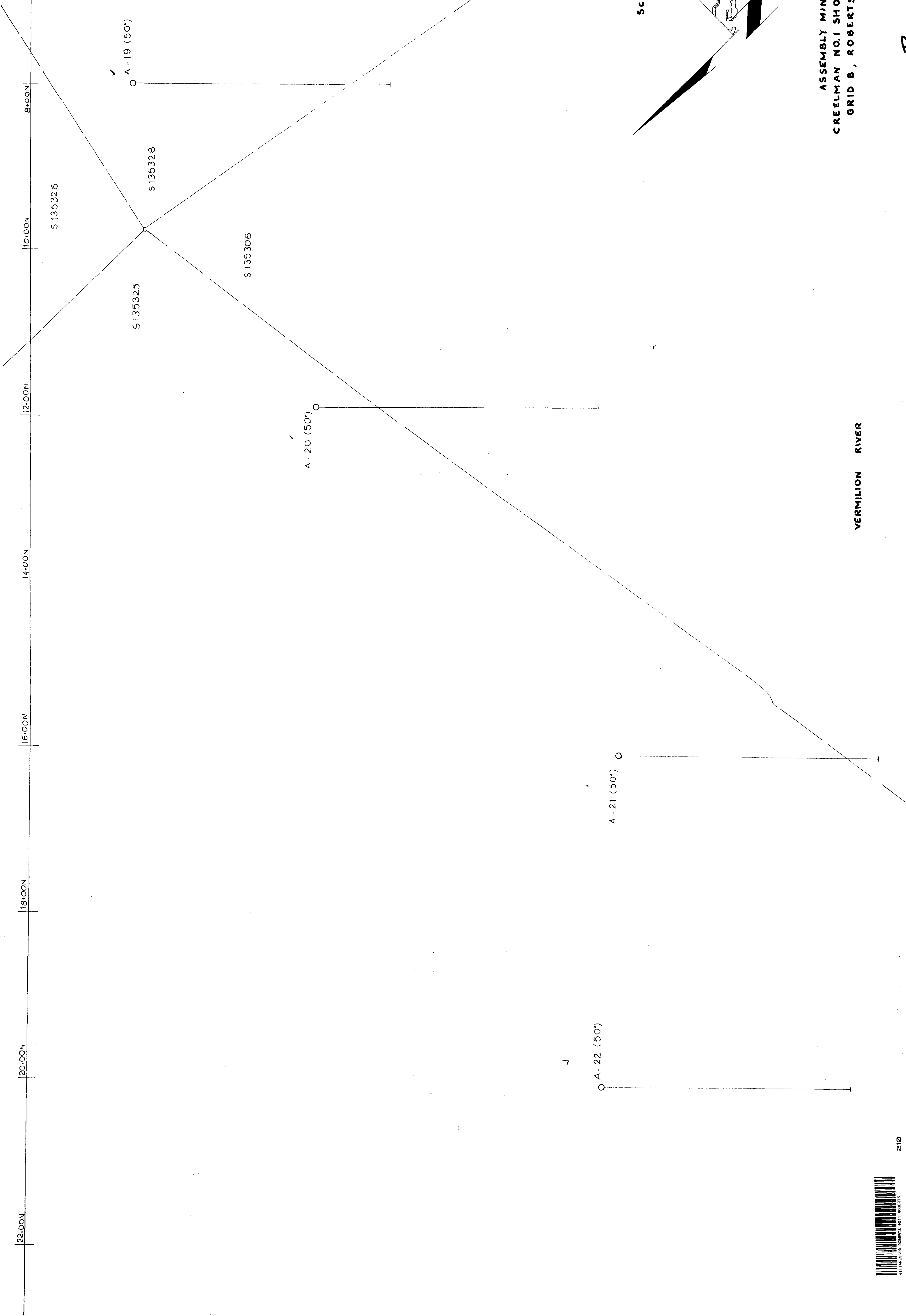
APRIL 1967 DATE	HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LIMITED TORONTO OFFICE	DIAMOND DRILL PLAN ROBERTS No.1 GRID ASSEMBLY OPTION SUDBURY AREA, ONTARIO	SCALE: 1" = 50'
PREPARED BY G.W.J.			
CHECKED & APPROVED BY			

ROBERTS-DART

135303

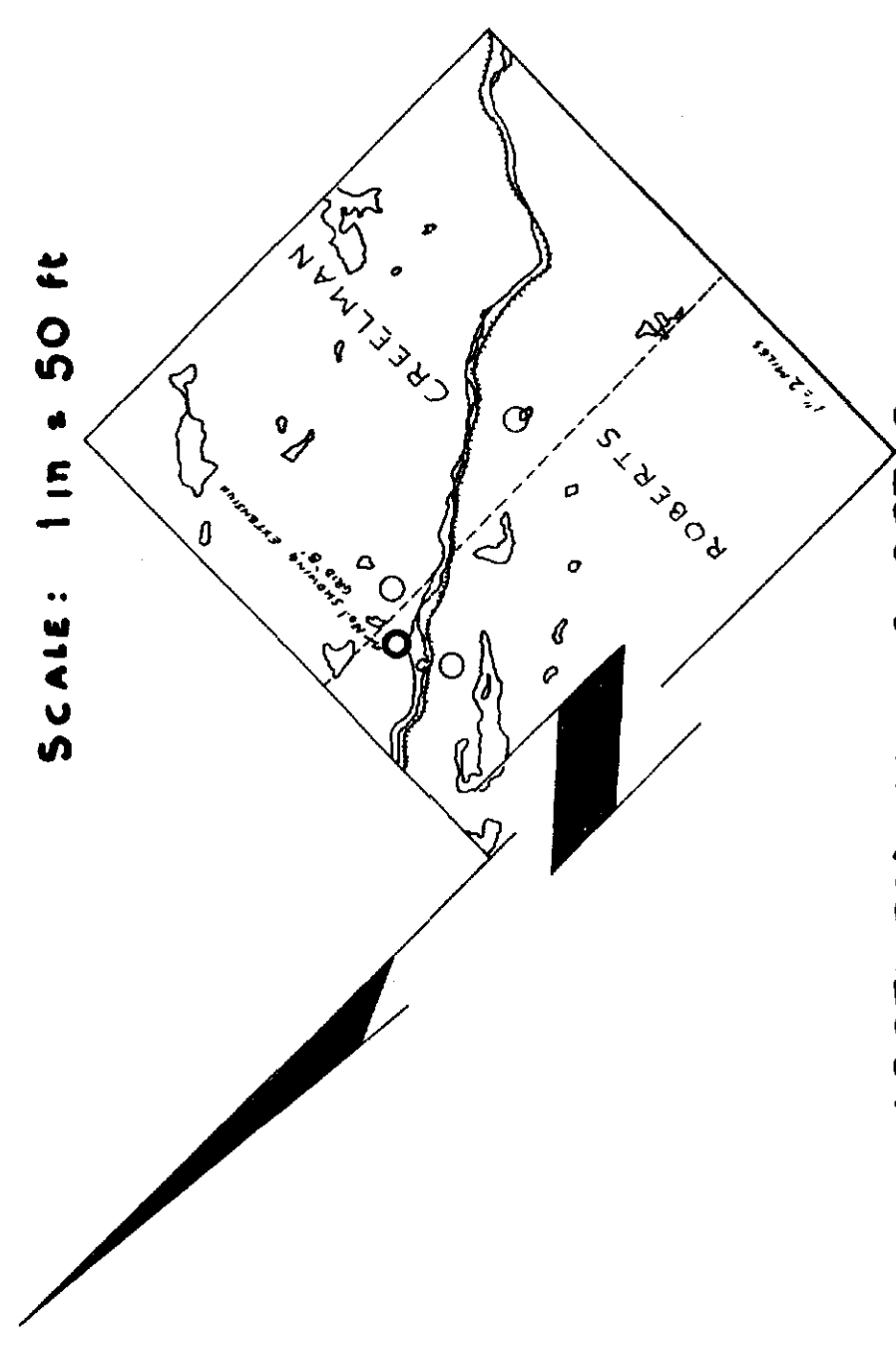


22.00N | 20.00N | 18.00N | 16.00N | 14.00N | 12.00N | 10.00N | 8.00N | 6.00N | BASE LINE



VERMILION RIVER

SCALE: 1 in = 50 ft



ASSEMBLY MINES OPTION
 CREELMAN NO.1 SHOWING EXTENSION
 GRID B, ROBERTS TWP, ONT.

ROBERTS-0011-#2

