### DIAMOND DRILL CORE LOG-SUMMARY SHEET

# Project:HalfmoonDate:July 17, 1998Logged by:Robert CalhounDrilling Co:Colbert Drilling

Claim Number: 1190197

SURVEYS: Acid Test

#### DDH: HM98-19

### TIMMINS COORDINATES

**GRID COORDINATES** 

Setup:	<u>Depth</u>	<u>Azimuth</u>	<u>Dip</u>	Northing:	10150N
	0.0	206°	- <u>50°</u>	Easting	5400E
·	<u>100.0m</u> 200.0m		<u>-49°</u> -49°	Elevation: 0.0 meters TD: 201.0 meters	

DRILLING DATES Started: July 17, 1998 Finished: July 19, 1998



COLLAR LOCATION: L10150N/5400E

42A12SE2014 2.20379 ROBB

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DDH: HM98-19

Project: Halfmoon Date: July 17 to 19 1998 Logged By: Robert Calhoun

### GEOLOGIC SUMMARY

FROM	TO	DESCRIPTION	<u> </u>	NTERVA		SIC	JNIFICAN	T ASSAY	SAY AVERAGES		
(m)	(m)		From (m)	То (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppb	
0	16.0	Overburden									
16.0	41.7	Mafic Volcanic									
41.7	44.0	Mafic Volcanic									
44.0	50.6	Mafic Volcanic (altered Felsic?)	44.0								
50.6	51.4	Massive Sulfides		52.3	8.3	3820	71200	2350	18.94	477	
51.4	52.3	Semi Massive Sulfides									
52.3	58.2	Felsic Volcanic									
58.2	69.5	Mafic Volcanic/Intrusive					1				
69.5	78.9	Felsic Volcanic									
78.9	103.0	Mafic Volcanic/Intrusive					]				
103.0	107.2	Felsic to Intermediate Volcanic									
107.2	140.6	Mafic Volcanic/Intrusive									
140.6	181.3	Mafic Intrusive									
181.3	191.9	Felsic Volcanics									
191.9	201.0	Mafic Intrusive									
201.0		End of Hole						1			
			1	I	1						
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Property: <u>Halfmoon</u>	Hole Number: PAL-HM98-19
Location: <u>10150N/5400E</u>	Final Depth: 201.0 meters
Azimuth: 206 G.S	Dates Drilled: July 17-19 1998
Dip: <u>-50°</u>	Dates Logged: <u>July 18-20 1998</u>

Claim Number: <u>1190197</u>

Logged By: <u>Robert Calhoun</u>

Drilled By: Colbert Drilling

Signature:

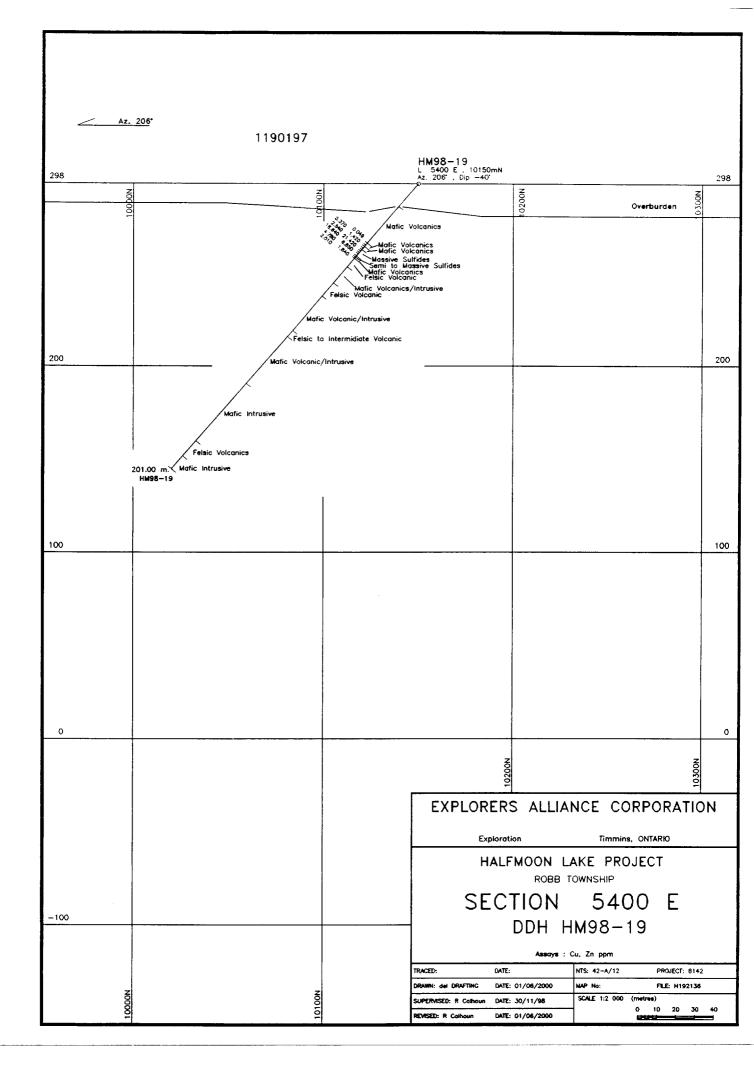
							Assay	S			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn _ppm	Pb ppm	Ag g/ton	Au ppb
0	16.0	Overburden									
16.0	41.7	Mafic Volcanic -fine grained, dark green, soft, locally sericitic, chloritic foliated weakly to moderately at 46° to core axis. The unit is locally amygduloidal. Possible pillows marked by chlorite selvages?									
41.7	44.0	Mafic Volcanic -unit is similar to above but there is an increase in dark green to blackish chlorite. There are bands of massive pyrite up to 2 cm ~5% of the unit possible. Minor sphalerite.	24963 24964	41.7 43.0	43.0 44.0	1.3 1.0	152 50	490 3700	41 788	1.1 1.1	62 58
44.0	46.2	Mafic Volcanic (maybe altered felsic) -as above but more altered than previous with dark green to blackish chlorite, sericite carbonate pale green. There are layers of semi-massive pyrite and sphalerite up to 15cm. These layers are thinly laminated at 49° to core axis. The sphalerite is 1-2%, very locally. The layering is parallel to foliations. Limonite towards end of section.	24965 24966	44.0 45.2	45.2 46.2	1.2 1.0	2790 2670	14200 25400	2410 270	7.8 10.9	194 117
46.2	50.6	Massive Sulfides -fine grained, thinly laminated pyrite, sphalerite and local chalcopyrite. Sphalerite is up to 15% locally to 48.9. Pyrite becomes coarse grained at 48.5-48.9 and fine to									

							Assa	iys			
From	То	Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
		medium grained to 50.6 46.2-48.9	#			(meter)	ppm	ppm	ppm	g/ton	ppb
		-pyrite fine to locally medium grained hosting 15% sphalerite. Locally 47.2-47.4 1% chalcopyrite. 48.9-50.6	24967 24968	46.2 47.2	47.2 48.2	1.0 1.0	9940 7960	214200 166400	4600 6750	50.1 38.5	741.0 785.0
		-medium to locally coarse pyrite with 1-3% sphalerite as fine laminae.	24969 24970	48.2 49.2	49.2 50.6	1.0 1.4	3260 1550	68500 <b>47800</b>	201 1650	19.4 14.1	648 706
50.6	51.4	Semi Massive to Massive Sulfides -Pyrite 70-95% as medium grained laminated interbedded with chloritic and sericitic carbonate layers. Minor sphalerite.	24971	50.6	51.4	0.8	1210	18400	2850	6.0	384
51.4	52.3	Mafic Volcanic -as unit above massive sulfide but with 20-25% medium grained pyrite nil to trace sphalerite. Chlorite bands dark green to blackish.	24972	51.4	52.3	0.9	1540	20100	231	4.9	158
52.3	58.2	Felsic Volcanic -fine to medium grained, medium grey to grey green well foliated felsic pyroclastic with elongated blebs of chlorite on foliation. Unit is locally siliceous sericitic and weakly chloritic. Nil to trace pyrite.									
58.2	69.5	Mafic Volcanic/Intrusive -medium grained, medium green to light apple green in epidotized sections. Epidote fracture controlled at 60°, 30° and locally pervasive over 5-10cm. Calcite as small discontinuous veinlets white <2mm in width. Minor pyrite as small cubes. Small white flecks possible leucoxene. Unit has fine grained upper contact are to 59.5. Lower contact at 35° to core axis.									
69.5	78.9	Felsic Volcanic -fine to medium grained, dark grey to medium grey down section, chloritic to sericitic pyroclastic. Unit is fine grained siliceous to 70.7, become less siliceous, more foliated at 55° to core axis, granular with fragments of the same composition and elongated clots of chlorite. Nil to trace sulfides.									

	<del></del>		·				Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn	Pb	Ag	Au
		Lower contact 49° to core axis.				(inclei)	ppin	ppm	ppm	g/ton	ppb
78.9	103.0	Mafic Volcanic/Intrusive -fine grained to medium grained, medium green to apple green in epidotized sections, unit as above. Whitish green flecks <1mm in size abundant. Upper contact to 79.3 is fine grained, has 4mm wide pyrite vein (79.1) and remainder of unit has occasional large (up to 0.8cm) pyrite cubes. Unit becomes finer at 97.8 more massive in appearance local quartz veins with clots of dark green chlorite. The unit has fracture controlled epidote and <10cm pervasive epidote, occurring randomly and infrequently. End of unit fine grained and white flecks are absent.									
103.0	107.2	Felsic to Intermediate Volcanic -fine grained, medium grey to grey green becoming increasingly green to dark green down section. The unit is soft alternating with siliceous layers are bands, at the cm scale. Upper part of unit is weakly sericitic while the lower part is moderately chloritic. Upper contact 63° to core axis, lower contact at 54°. Unit has calcite in matrix and as small <5mm veinlets.									
107.2	140.6	Mafic Volcanic/Intrusive -fine to medium grained, medium green to apple green in epidote rich section. Unit is as above with white flecks, fracture controlled epidote, less pervasive section. The unit is fine grained near upper contact to 108.5 and at 114.0-114.8 above a small felsic unit and below the felsic from 115.8-116.2. There are local finer section intervals which have no associated unit contact as at 124.8-126.3. 114.6-115.8									
		Felsic Volcanic-fine grained, medium to dark grey green, chloritic as foliation related clots, elongated. Unit is weakly to moderately siliceous over 1-2cm as in felsic above. Upper contact 43° to core axis, lower									

	T						Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
		contact at 40° to core axis. 125.4-129.4 -finer grained light to medium green with 5-10% white quartz veins, chlorite knots. 140.1-140.6 -fine grained pale green weakly foliated contact zone.						PP'''		grun	
140.6	181.3	Mafic Intrusive -Unit begins with a fine grained, dark green chloritic contact area to 141.4 with 5% white quartz and 1-2% pyrite as a concentration of large clusters of fine grains at 141.3. Section is broken, minor crushing. -fine to medium grained, medium grey to grey green weakly chloritic generally. Unit is amygduloidal with amygdules to 4mm; 2mm average. These contain feldspar with chlorite centers occasionally, sphalerite frequently and lesser chalcopyrite. The unit has abundant healed fracture, spider fractures with calcite ± sericite fillings, dominant directions are 30 and 55° to core axis. Locally there are pale green up to 15cm bands of increased alteration or possible large fragments? Which can have minor associated chalcopyrite as at 159.5m. Chalcopyrite also occurs in a quartz vein at 163.3m. 177.1-181.3 Mixed Zone of mafic interbedded/interfingered with felsic as below.									
181.3	191.9	Felsic Volcanics -fine grained, medium grey, possibly <b>sphaterite</b> rhyolite, siliceous with patchy light grey to beige sericite/calcite alteration. Sphenroles are grey to dark grey. Unit is massive in nature, no foliation.									
191.9	201.0	Mafic Intrusive -fine grained contact zone to 194.0, medium grained light to medium grey green to medium green. Unit is similar to above but has no amygdules, weak epidote locally. Contact area has abundant calcite at 193.5 to 193.9 and remainder of unit has numerous quartz and									

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rom	То	Description	Sample #	From	То	Length (motor)	Cu	Zn	Pb	Ag	Au
		quartz calcite veins to 5cm. Contact area also has abundant chlorite knots.				(meter)	ppm	ppm	ppm	g/ton	ppt
	201.0	End Of Hole									
	•	Acid Tests									
		100m -49° 200m -49°									
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### DIAMOND DRILL CORE LOG-SUMMARY SHEET

Project: Halfmoon DDH: HM98-21 Date: July 23, 1998 Robert Calhoun Logged by: Drilling Co: Colbert Drilling Claim Number: 1190197 COLLAR LOCATION: 10200N/5400E SURVEYS: Acid Test **TIMMINS COORDINATES** <u>Depth</u> **Azimuth** Dip Northing:

10200N 5400E Elevation: 0.0

**DRILLING DATES** Started: July 23, 1998 Finished: July 24, 1998

TD: 153.0 meters

Easting

42A12SE2014 2.20379 ROBB 020

**GRID COORDINATES** 

Setup: 0.0 <u>206°</u> <u>153.0m</u>

<u>-50°</u> -45°

#### DIAMOND DRILL SUMMARY LOG

Project: Halfmoon Date: July 23 to 24 1998 Logged By: Robert Calhoun

DDH: HM98-21

### GEOLOGIC SUMMARY

FROM	TO	DESCRIPTION	]	NTERVAL		SIGNIFICANT ASSAY AVERAGES						
(m)	(m)		From (m)	To (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppb		
0.0	18.2	Overburden			<u> </u>		F F	PP	<u>8'</u>			
18.2	25.5	Mafic Volcanic										
25.5	28.3	Mafic Intrusive										
28.3	32.9	Felsic Volcanic		:								
32.9	36.2	Mafic Volcanic										
36.2	53.2	Mafic Intrusive										
53.2	88.5	Mafic Volcanic										
88.2	105.0	Mafic Volcanic				-						
105.0	110.3	Felsic Volcanic										
110.3	117.2	Felsic Volcanic	112.0	112.5	0.5	7900	8320	138	5.1	55		
117.2	121.5	Mafic Volcanic										
121.5	149.9	Mafic Intrusive										
149.9	153.0	Felsic Volcanic										
153.0												

COMMENTS

Property: <u>Halfmoon</u>	Hole Number: <u>PAL-HM98-21</u>	Claim Number: <u>1190197</u>
Location: <u>10200N/5400E</u>	Final Depth: <u>153.0 meters</u>	Logged By: <u>Robert Calhoun</u>
Azimuth: <u>206°</u>	Dates Drilled: July 23-24 1998	Drilled By: Colbert Drilling
Dip: <u>-50°</u>	Dates Logged: July 24-26 1998	Signature:

							Assay	S			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
0	18.2	Overburden									
18.2	25.5	Mafic Volcanic -fine grained, medium grey green to dark green chloritic, epidote as nodules and locally pervasive over 3-5cm. Unit is chloritic overall but 3-5cm patches are very chloritic. Pyrite is as medium to coarse clusters locally associated with epidote, fine laminae or small discontinuous veinlets. Unit is crushed/broken over 0.3-0.6m									
25.5	28.3	Mafic Intrusive -medium grained, dark green matrix to epidote green near epidote fractures and 5-10cm pervasive epidote. White flecks make up 10-20% of the unit possible flattened veiscles.									
28.3	32.9	Felsic Volcanic -fine to medium grained, grey green weakly siliceous with elongated chlorite on foliation. Unit is granular in nature. Nil to trace pyrite as fine laminae in small quartz vein at 30.2 and very minor disseminations. Quartz veining is minor three veins <2cm in width.									
32.9	36.2	Mafic Volcanic -fine grained, dark green chloritic as above but no epidote. Chlorite is abundant and minor sericite. Pyrite trace to									

<b>F</b>	<b>T</b> -						Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
		<1% as clusters and disseminated cubes. Unit is broken to locally crushed.								gron	
36.2	53.2	Mafic Intrusive -medium to fine grained, dark green to locally pale apple green overcast with epidote as at 48.5. Unit has abundant white flecks possible vesicles and leucoxene. White flecks are <1mm in size and make up ~20% of the unit. Upper contact is at 51° to core axis, lower defined by quartz vein 53° to core axis. 41.3-43.2 -fine grained mafic volcanic as above chloritic upper contact 47° to core axis. Fault gouge at 41.4 to 41.5. Unit broken to 42.0m. 51.5-53.2 -unit becomes finer grained, pale green epidote more abundant fracture associated and pervasive in matrix.									
53.2	88.5	Mafic Volcanic -fine grained, dark green to lighter green locally (noted below). Chloritic in matrix and as abundant chlorite patches. Upper contact is a quartz vein 15cm long with chlorite, unit is pale to medium green to 54.7m with epidote patches and minor pyrite near quartz vein. 60.3-62.0 -pyrite rich section with 3-8% pyrite as fine dissemination in chloritic matrix to 61.1m and as clusters, disseminations and discontinuous laminae to veinlet to 62.0m. This section is weakly sericitic. One coarse veinlet occurs at 61.9-61.93 (90% pyrite) No sphalerite or chalcopyrite was noted. 63.8-66.0 -pyrite zone-5-10% pyrite as disseminated cubes, small veinlets, fine laminae and knots. The pyrite is darker coloured in this section. Host rocks are variable dark green chloritic to pale green to nearly laminated in nature. As above, no base metal sulfides were noted. Section has calcite veinlets, minor, and small quartz veins.									

From	To	Description		T	<u></u>		Assa				
TION		Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
		69.5-73.0 -pale to medium green, fine grained sericitic/chloritic mafic, soft, 1-2% quartz veinlets <0.5cm. Pyrite 5-10% as fine laminae narrow veinlets of cubes/clusters and disseminations. As on previous sections above no base metal sulfides were noted. Host rock is well altered. 74.2-74.3 -10cm quartz vein, white, 80° to core axis with 4% chalcopyrite and 5-8% pyrite, minor sphalerite. 85.9-87.3 -15-20% white quartz vein. 87.3-88.2	#			(meter)	ppm	ppm	ppm	g/ton	ppb
88.2	105.0	-fractured/broken core (fault?) Mafic Volcanic -fine grained, dark green to medium green grey, chloritic, locally sericitic. Unit may be pillowed with chlorite defining pillows as well as amygdules which appear to be concentrated towards pillow rims. Amygdules are carbonate filled, locally silica filled and minor chlorite fillings. Alteration patches appear as fragments but composition appears to be a host. Unit is well altered and as above has a soapy (ultramafic) feel.									
105.0	110.3	Felsic Volcanic ? -fine grained, light grey green matrix hosting fragments or lapilli of rhyolitic composition light grey yellow to beige in colour. These are up to 1cm by 2cm. Matrix is sericitic to locally chloritic. The unit also contains elongated nodules calcite to calcite/sericite fillings. This unit may be mafic but alteration suggests felsic.									
110.3	117.2	Felsic Volcanic -fine grained, upper section of unit is dark green chloritic and sericitic with bands of massive to semi- massive sulfides. The lower section from 114.8-117.2 is grey to grey yellow sericitized laminated, foliated felsic with disseminated pyrite. 110.3-112.0									

From	То	Description	Assays									
TIOIT			Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb	
		<ul> <li>-dark green to medium green chloritic sericitic, weakly laminated felsic volcanics. 112.0-112.1</li> <li>-massive sulfides-finely grained to medium grained pyrite with 3-5% sphalerite and 1-2% chalcopyrite.</li> </ul>								gron	ppb	
		112.1-113.3 -sericitized chloritized felsics foliated, laminated at 54° to core axis.	24973 24974	112.0 112.5	112.5 113.3	0.5 0.8	7900 40	8320 576	138 1	5.1 0.1	55 7	
		113.3-114.8 -section begins with a 5cm band of massive pyrite with minor <b>sphalerite</b> and has three 3-5cm bands of massive pyrite to the end. 114.8-116.8 -sericitized foliated felsic minor pyrite disseminations.	24975	113.3	114.7	1.4	745	1410	113	3.2	17	
		Section has 15cm quartz, white, at the upper contact, 10cm white quartz at 115.6 and a vein sub parallel to core axis at 115.8, 1cm wide.										
117.2	121.5	Mafic Volcanic -fine grained, medium to dark green, weakly foliated, laminated, minor sericite. The unit contains minor leucoxene bearing sections <2cm in width, may be a pillowed mafic. Pyrite 1-2% as disseminations and fine laminae.										
121.5	149.9	Mafic Intrusive -medium grained, medium green to apple green with epidote as fracture fillings and locally (2-5cm) pervasive. Internal contacts are fine grained dark to medium green grey 65° to core axis. Unit contains abundant white flecks <1mm in size and minor white to grey glassy quartz veins, infrequent.										
149.9	153.0	Felsic Volcanic -fine grained, medium grey, weakly to moderately foliated with sericite. The upper contact is at 60° to core axis. The contact to 150.0m is medium grey, hard siliceous very fine grained, possibly (baked?)										
	153.0	End of Hole Acid Test 153.0m -45°										

### DIAMOND DRILL CORE LOG-SUMMARY SHEET

Project:Halfmoon LakeDate:May 19-21, 1999Logged by:Robert CalhounDrilling Co:Colbert Drilling

Claim Number: 1190197

SURVEYS: None

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### DDH: PAL-HM98-21-Ext

#### **TIMMINS COORDINATES**

#### **<u>GRID COORDINATES</u>**

COLLAR LOCATION: L10200N/5400E

	Depth	<u>Azimuth</u>	Dip
Setup:	<u>0.0</u>	<u>206°</u>	<u>-50°</u>

Northing:
Easting
Elevation: 0.0 meters
TD: 210.0meters

10200N 5400E

DRILLING DATES Started: May 19, 1999 Finished: May 21, 1999



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### DIAMOND DRILL SUMMARY LOG

Project: Halfmoon Lake Date: May 19,1999 Logged By: R. Calhoun

DDH: PAL-HM98-21-Ext

# GEOLOGIC SUMMARY

FROM	ТО	DESCRIPTION	I	NTERVA	<u>L</u>	SIC	GNIFICAN	T ASSAY	AVERAC	GES
(m)	(m)		From (m)	To (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppb
153.0	165.4	Felsic Volcanic-Tuff		·			<u>PP</u>		5/:	<u>PP0_</u>
165.4	169.8	Rhyolite								
169.8	172.9	Mafic Volcanic								
172.9	185.7	Felsic Volcanic-Rhyolite-Tuff								
185.7	192.5	Mafic Intrusive to volcanic								
192.5	210.0	Mafic Volcanic(?)								
210.0		End of Hole								

COMMENTS

Property: <u>Halfmoon</u>	Hole Number: PAL-HM98-21-ext	Claim Number: <u>1190197</u>
Location: <u>L10200N/5400E</u>	Final Depth: 210 meters	Logged By: <u>Robert Calhoun</u>
Azimuth: 206°	Dates Drilled: <u>May 19-21, 1999</u>	Drilled By: Colbert Drilling
Dip: <u>-45°</u>	Dates Logged: <u>May 20-21, 1999</u>	Signature:

E							Assay	S			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au
153.0	165.4	Felsic Volcanic-Tuff -fine to medium grained, medium grey to medium grey green down section due to increase in chlorite content to local patches. Sericite also is on laminations at 54° to core axis. Possibly fragmental in upper 6-8 meters. Unit is siliceous in last meter with 40cm mafic unit at 164.6- 165.0m, fine grained medium green.									
165.4	169.8	Rhyolite -fine grained, light to medium grey siliceous "layered" with highly sericitic sections 5-10cm in length. Minor grey to dark grey quartz veins. Contact with following unit is 57° to core axis.									
169.8	172.9	Mafic Volcanic -fine grained, medium green, soft chloritic volcanic. Numerous calcite veinlets locally associated with epidote. Minor quartz veinlets.									
172.9	185.7	Felsic Volcanic-Rhyolite-Tuff -fine grained, medium grey siliceous layers with sericite layers increasing in abundance down hole. Locally the sericite layers totally replace the felsic to be nearly pure sericite i.e. 180.4 to 182.5m. Rock in this section is yellow green. The lower part of unit appears more tuffaceous in nature with a granular appearance. Chlorite is more									

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### Hole # PAL-HM98-21-ext

<b>F</b>	-				·		Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag a/ton	Au
		prevalent in last 2 meters. Contact with following unit is at 56° to core axis.								gron	ppt
185.7	192.5	Mafic Intrusive to Volcanic -fine to medium grained, dark green to medium green to green grey. Unit has abundant white flecks. Calcite fracture filling increases down section at various angles dominated by 60° angle, calcite occurs weakly in the matrix. Veinlets are <5mm wide occasionally discontinuous. Sulfides are nil to trace may be few grains of sphalerite <1mm in size.									
192.5	210.0	Mafic Volcanic ? -(this unit may be finer grained equivalent of above) -fine grained to medium grained, medium to dark green with patches of light to medium green, possibly weakly sericitic. Unit is weakly siliceous may be an intermediate volcanic. Unit is chloritic and becomes spotted 204.0-210.0m with dark green chlorite spots to 5mm in size. Amygdules of feldspar occur randomly below 198.0 meters over sections up to 1m, 2-3mm maximum in size. 194.2-194.6-mineralized section with 20cm white quartz vein. Section has 1% sphalerite, 1% chalcopyrite, <1% galena with 10-15% pyrite.	1853	194.2	194.6	0.4	1050	2310	1430	2.8	12
	210.0	End Of Hole									

Property: <u>Halfmoon</u>	Hole Number: PAL-HM98-21ext2	Claim Number: <u>1190197</u>
Location: <u>L5400E/10200N</u>	Final Depth: 243.0 meters	Logged By: <u>Robert Calhoun</u>
Azimuth: <u>206°</u>	Dates Drilled: November 17-19, 1999	Drilled By: Colbert Drilling
Dip: <u>-50°</u>	Dates Logged: <u>November 18-19,1999</u>	Signature:

						Assay	S			
То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
225.8	Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.									
243.0	Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts to 3mm sub-rounded. These phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. Minor zone of healed breccia at 235.1m.									
243.0	End Of Hole		-							
	243.0	<ul> <li>225.8 Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.</li> <li>243.0 Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts to 3mm sub-rounded. These phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. Minor zone of healed breccia at 235.1m.</li> </ul>	<ul> <li>225.8 Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.</li> <li>243.0 Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts to 3mm sub-rounded. These phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. 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Minor zone of healed breccia at 235.1m.</li> </ul>	To       Description       Sample #       From       To       Length (meter)       Cu ppm         225.8       Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.       Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts to 3mm sub-rounded. These phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. Minor zone of healed breccia at 235.1m.       Intermediate local to 20cm	<ul> <li>225.8 Mafic Intrusive</li></ul>	To       Description       Sample #       From       To       Length (meter)       Cu ppm       Zn ppm       Pb ppm         225.8       Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.       Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. Minor zone of healed breccia at 235.1m.       Intermediate lateration solution around fractures.	To       Description       Sample #       From       To       Length (meter)       Cu ppm       Zn ppm       Pb ppm       Ag g/ton         225.8       Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.       Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts to 3mm sub-rounded. These phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. Minor zone of healed breccia at 235.1m.       Intermediate 1000000000000000000000000000000000000



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### DIAMOND DRILL CORE LOG-SUMMARY SHEET

DDH: PAL-HM98-21ext2

Project:HalfmoonDate:November 17-19, 1999Logged by:Robert CalhounDrilling Co:Colbert Drilling

Claim Number: 1190197

SURVEYS:

.

COLLAR LOCATION: L5400E/10200N

TIMMINS COORDINATES

GRID COORDINATES

	<u>Depth</u>
Setup:	<u>0.0</u>

<u>Azimuth</u> <u>Dip</u> <u>206°</u> <u>-50°</u> Northing: Easting Elevation: 0.0 meters TD: 243.0 meters 10200N 5400E

DRILLING DATES Started: November 17, 1999 Finished: November 19, 1999

### DIAMOND DRILL SUMMARY LOG

Project: Halfmoon Date: November 17-19, 1999 Logged By: R. F. Calhoun

DDH: PAL-HM98-21ext2

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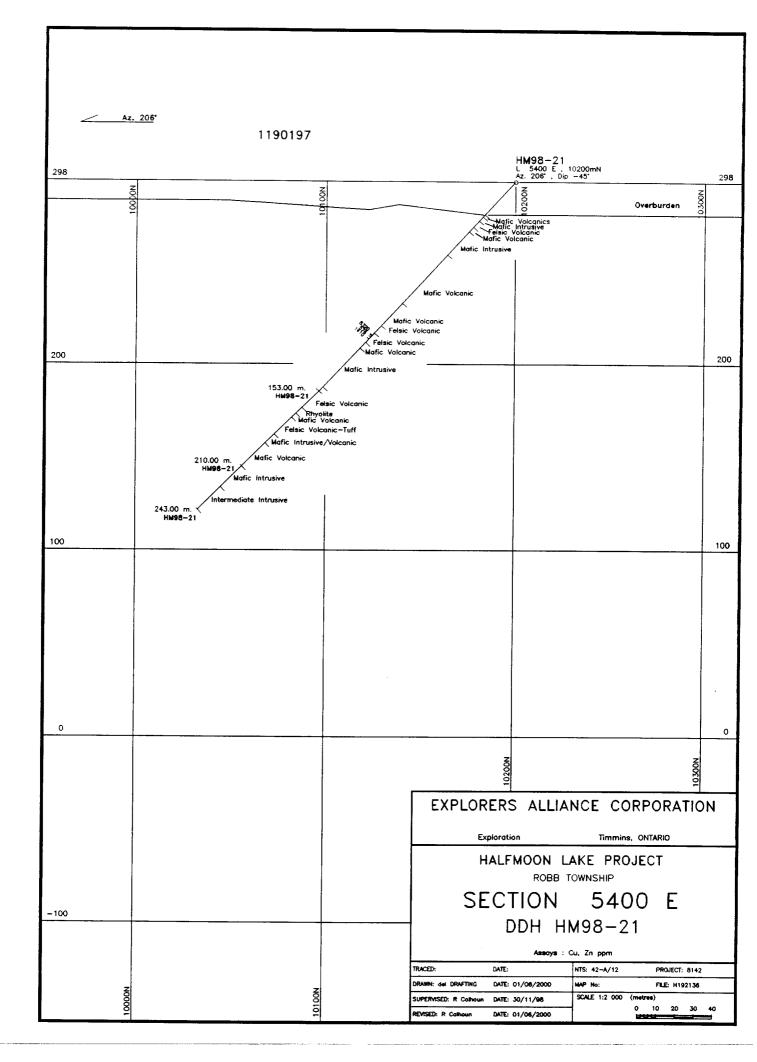
### GEOLOGIC SUMMARY

FROM	TO	DESCRIPTION	I	NTERVAI		SIC	GNIFICAN	IT ASSAY	AVERAC	GES
(m)	(m)		From (m)	To (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppb
210.0 225.8	225.8 243.0 243.0	Mafic Intrusive Intermediate Intrusive End of Hole								

COMMENTS

Property: <u>Halfmoon</u>	Hole Number: PAL-HM98-21ext2	Claim Number: <u>1190197</u>
Location: <u>L5400E/10200N</u>	Final Depth: 243.0 meters	Logged By: <u>Robert Calhoun</u>
Azimuth: <u>206°</u>	Dates Drilled: November 17-19, 1999	Drilled By: Colbert Drilling
Dip: <u>-50°</u>	Dates Logged: November 18-19,1999	Signature

							Assay	5			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
210.0	225.8	Mafic Intrusive -medium to fine grained, medium grey green to locally pale (bleached) green grey. The upper section of unit has coarse chlorite spots and minor feldspar phenocrysts, local alteration to beige around some veins. The remainder of unit has only random phenocrysts, is locally chloritized dark green, minor quartz veining. Unit is magnetic, weakly to moderately.					<u>.</u>				
225.8	243.0	Intermediate Intrusive -fine grained, light to medium green grey, matrix hosting feldspar phenocrysts to 3mm sub-rounded. These phenocrysts appear to be in preferential "layers". There are local 10-20cm sections which are chloritized dark green. This unit may be a thick flow?. Epidote occurs in quartz and/or carbonate veining. There are minor chloritic patches which may be selvages but are probably chloritization around fractures. Minor zone of healed breccia at 235.1m.									
	243.0	End Of Hole									



### DIAMOND DRILL CORE LOG-SUMMARY SHEET

Project:HalfmoonDate:July 25, 1998; October 23, 1998Logged by:Robert CalhounDrilling Co:Colbert Drilling

Claim Number: 1190194

.

SURVEYS: Acid Test

DDH HM98-22

COLLAR LOCATION: 10280N/5320E

GRID COORDINATES

10280N

5320E

	Depth	Azimuth	ļ
Setup:	<u>0.0</u>	<u>216°</u>	- <u>70</u> .3
	<u>100.0m</u>		- <u>6</u> 8°
	<u>200.0m</u>		- <u>68</u> °
	<u>300.0m</u>		- <u>67</u> °
	<u>400.0m</u>		- <u>6</u> 4°

Dip

Northing: Easting Elevation: 298 TD: 330.0 meters extended to 480m

TIMMINS COORDINATES

DRILLING DATES Started: July 25, 1998, October 23, 1998 Finished July 28, 1998; October 29, 1998



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Project: Halfmoon Date: July 25 to 28 1998 Logged By. Robert Calhoun

DDH HM98-22

GEOLOGIC SUMMARY

<b>FROM</b> TO DESCRIPTION INTERVAL SIGNIFICANT ASSAY AVERAGE	FROM	TO	DESCRIPTION	INTERVAL	SIGNIFICANT ASSAY AVERAGES

(m)	(m)		From	То	Width	Cu	Zn	Pb	Ag	Au
			(m)	(m)	(m)	ppm	ppm	ppm	<u>g/t</u>	ppb
0.0	12.2	Overburden							···· ·· · · ·	n
12.2	20.9	Mafic Volcanic	1							
20.9	55.0	Mafic Intrusive								
55.0	78.0	Mafic Volcanic				}				
78.0	96.7	Mafic Intrusive								
96.7	109.5	Felsic Volcanic								
109.5	124 1	Mafic Intrusive								
124.1	135.5	Felsic Volcanic								
135.5	138.8	Felsic Volcanic								
138.8	139.9	Felsic Volcanic				1				
139.9	141.5	Felsic Volcanic								
141.5	147 0	Felsic Volcanic								
147.0	159.0	Felsic Volcanic								
159.0	166 5	Felsic Volcanic								
166.5	192.5	Matic Volcanic								
192.5	243.7	Mafic Volcanic								
243.7	265.3	Felsic Volcanic								
265.3	287.5	Mafic Intrusive								
287.5	314.3	Mafic Volcanic								
314.3	330.0	Mafic Intrusive								
330.0	348.6	Mafic Intrusive								
348.6	364.0	Matic Volcanic								
364.0	378.0	Mafic Volcanic								ľ
378.0	394.9	Matic Volcanic								ļ
394.9	398.4	Mafic Fragmental-Breccia								
398.4	412.7	Mafic Volcanic							İ	

DIAMOND DRILL SUMMARY LOG

Project: Halfmoon Date: July 25 to 28 1998 Logged By: Robert Calhoun

GEOLOGIC SUMMARY

FROM	TO	DESCRIPTION	INTERVAL	SIGNIFICANT ASSAY AVERAGES
	• •			

(m)	(m)		From (m)	To (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppb
412.7 414.7 428.9	414.7 428.9 480.0 480.0	Mafic Fragmental-Breccia Felsic Volcanic Mafic Volcanic End of Hole								

COMMENTS

Extension to hole HM98-22 started at 330.0 meters and finished at 480.0 meters

.

DDH HM98-22

Property: Halfmoon

Location: <u>10280N/5320E</u>

Azimuth: 216°

Dip: <u>-70°</u>

Hole Number: PAL-HM98-22

Final Depth: <u>330.0 meters</u>

Dates Drilled: July 25-28 1998

Dates Logged: July 26-29 1998

Claim Number: <u>1190194</u>

Logged By: Robert Calhoun

Drilled By: Colbert Drilling

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							Assay	S			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
0	12.2	Overburden									
12.2	20.9	Mafic Volcanic -fine grained, medium grey green sericitized, chloritic. Unit is broken, fractured with fractures sub-parallel to core axis, as the foliation, 23°. Unit is locally amygduloidal. Lower contact 23° to core axis.									
20.9	55.0	Mafic Intrusive -medium grained, medium green, green grey to apple green in epidote sections. The unit is epidotized along fractures and locally pervasive over 5cm around fractures. Unit contains white flecks locally abundant. Zenoliths of mafic volcanic are infrequent and generally <5cm wide. Quartz veining is 5% of unit between 33 and 45m with one vein semi-continuous from 41.1-42.2. Veins are white, barren. Unit becomes finer grained from 51.8-55.0m. Lower contact 15° to core axis.									
55.0	78.0	Mafic Volcanic -fine to medium grained, medium green to green grey, massive, leucoxene bearing may be a finer grained equivalent of the above and following unit. Foliations are weak 24° and locally 38° to core axis. Pyrite is infrequent cubes to 0.4cm. Quartz veining is minor. Lower contact gradational fine grained lighter green.									

							Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
78.0	96.7	Mafic Intrusive -medium grained, dark green to apple green with epidote. Upper contact area from 78.0-79.6 is fine grained gradational as noted above. Remainder of unit is medium grained with epidotized fracture fillings and minor pervasive epidote. Fractures are 55°, 30° and sub parallel to core axis. Unit has white flecks <1mm in size, locally abundant. Zenoliths of finer grained possible mafic volcanic noted at 83.3m; with main unit finer grained below it. Quartz veining is minor. One quartz vein at 87.0m 10cm has associated tourmaline.									
96.7	109.5	Felsic Volcanic -fine grained, mottled dark green and greyish giving a laminated appearance over 1-2m. Unit has dark green to blackish chlorite in the upper portion of unit and increased sericite below 104.5. Foliation 33° to core axis. Fragments of similar composition may be present in "laminated" sections. Lower contact 30° to core axis.									
109.5	124.1	Mafic Intrusive -medium grained, medium dark green relatively massive with weak foliation. Unit is similar to 55.0- 78.0m. Quartz veining is <5% as up to 10cm veins (1), white 60° to core axis. Veining is more abundant from 120.0-124.1m. Calcite veining is as small veinlets <0.3mm at 65° and 30° to core axis. Pyrite as infrequent clusters to 0.5cm and minor disseminations.									
124.1	135.5	Felsic Volcanic -fine grained, medium grey green to dark green chlorite. Unit is well foliated at 26° to core axis. Sericite is abundant while chlorite is more restricted to patches or clots, irregularly shaped. Quartz veining is minor.									
135.5	138.8	Felsic Volcanic -as above but chlorite is dominant making unit dark									

							Assa	ys			
From	То	Description	Sample	From	То	Length	Ċu	Zn	Pb	Ag	Au
			#	ļ		(meter)	ppm	ppm	ppm	g/ton	ppb
		green soft. Quartz veining is again minor.									
138.8	139.9	Felsic Volcanic -as above, chloritic. Pyrite fine grained disseminations and fine laminae 10-15%.	24976	138.8	139.9	1.1	32	58	1	0.1	9
139.9	141.5	Felsic Volcanic -sericitized and chloritized with pyrite 25-40% as clusters, disseminations and semi-massive layers. No base metal sulfides noted.									
141.5	147.0	Felsic Volcanic -sericitized, local chlorite with minor pyrite. Foliations 26° to core axis.	24977 24978	139.9 140.7	140.7 141.8	0.8 1.1	55 60	20 37	3 2	0.1 0.3	26 31
147.0	159.0	Felsic Volcanic -as above but with pyrite 10-20% as veinlets, fine laminae, clusters to 1cm in length and disseminations fine to 0.3mm cubes. Foliations 26° to core axis. Possible flow layering at 154.0 and 158.0m.	24979 24980 24981	149.0 150.0 153.5	150.0 151.5 154.9	1.0 1.5 1.4	359 131 242	64 50 62	9 16 8	0.6 0.6 0.3	22 31 2
159.0	166.5	Felsic Volcanic -fine grained, medium green to dark green, sericitized chloritized as above with minor to 3% pyrite very locally. Foliations 27° to core axis.									
166.5	192.5	Mafic Volcanic -fine grained, medium to dark green, chloritic. Unit is well foliated at 28° to core axis, while possible laminations are at 34° to core axis. Distribution and altitude of dark green to black chlorite gives impression that the unit is pillowed.									
192.5	243.7	Mafic Volcanic -fine grained, medium green chloritic with calcite filled fractures. The unit is variable texturally from massive to amygduloidal. The amygdules are large locally to 0.5cm, epidotized or carbonate filled. Possible lapilli size rounded to sub-rounded fragments occur randomly. Epidote is pervasive over 20-60cm as at									

							Assa	ys			
From	То	Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
			#			(meter)	ppm	ppm	ppm	g/ton	ppb
		219.2-219.8m. Pyrite is minor as disseminations and	_								
		local concentrations. Quartz veining is minor as white									
		veins <3cm wide with calcite. As with above unit the									
		chlorite distribution suggests the unit is pillowed.							1		
		Sections of more abundant fragments may be broken				1 1					
		pillows in selvage areas as at 234.9m. 237.0-243.7									
		-mafic is more massive slightly harder than previous,									
		leucoxene bearing.									
		Fault Zone-236.0-237.3				1					
			1	1							
243.7	265.3	Felsic Volcanic									
		-fine to medium grained, medium grey to grey green,						1			
		spherulitic, chloritic. Unit is moderately to weakly									
		foliated at 33° to core axis. Quartz veining is 5% as		]							
		small veinlets <2cm (1cm average) white at 35 and 70°									
		to core axis.									
		Unit becomes increasingly sericitic below 257.0m. Sulfides mineralization is nil.							}		
1			ļ								
265.3	287.5	Mafic Intrusive						r			
		-medium grained, medium to dark green chloritic, to				1		ł			
		locally apple green where epidotized in fractures.									
		Epidote is a minor component. Unit contains abundant						1			
		white flecks to <2mm in size.									
		fine grained, possible chilled contact area gradational			1						
		lower contact.									
		267.3-269.6		1	1					ł	
	1	-Pyrite in randomly oriented bands, contorted to 1cm			1					1	
		wide as fine grains to small cubes <2mm in size. Minor			}					1	
		disseminated chalcopyrite.		1							
		270.1			1	1					
		-3mm wide veinlet of chalcopyrite at 40° to core axis.									
		270.1-272.3			]						
		-minor bands of pyrite as above. 272.3-272.4									
	1	-Quartz vein, white with minor carbonate and 1%			l	1			1		
		chalcopyrite at upper contact as irregular blebs.									
		Lower contact-white quartz vein 287.1-287.5m.									

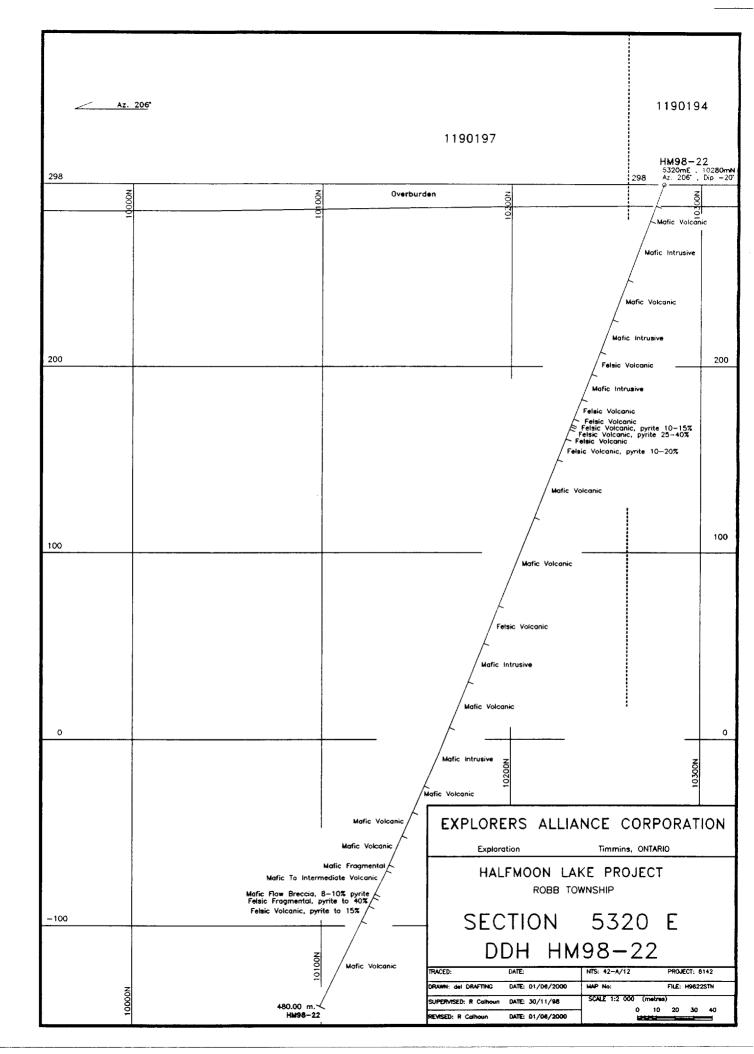
							Assa	ys			
From	То	Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
287.5	314.3	Mafic Volcanic -fine grained, dark green chloritic to medium green chloritic/sericitic. Moderately foliated at 28° to core axis. Upper section of unit has 5% white quartz veins to 5cm to 300.5m. Lower contact is at 38° to core axis.	#			(meter)	ppm	ppm	ppm_	g/ton	ppb
314.3	330.0	Mafic Intrusive -medium grained, dark green to apple green in epidotized sections. Generally epidote is on fractures but is weakly pervasive in matrix over 1-2m. Unit is more epidotized than above intrusive. Quartz/calcite veinlets <1cm occur through the section <4%. Minor grains of sphalerite at 321.3m associated with small quartz vein.									
330.0	348.6	Mafic Intrusive -fine to medium grained, medium green to apple green with epidote. Epidote occurs as fracture fillings and locally pervasive over 5-10cm. Unit becomes increasing fractured with calcite and/or quartz fillings. Fractures are randomly oriented, abundant 40° but can occur at 60°, 20°, 80° to core axis. 347.8-348.6 -fine grained, green grey, possible chilled margin									
348.6	364.0	Mafic Volcanic -fine grained, medium to dark green, chloritic. Chlorite occurs in matrix and as clots. Unit is medium hard and is less fractured than above. Pyrite is minor and chalcopyrite noted as a cluster of grains at 350.2 associated with a quartz/calcite vein. 348.6-353.0 -possible flow breccia with pale green to grey fragments in a chloritic ground mass, fragments can reach 4cm in length. 353.0-364.0 -dark green to medium green with cluster of pyrite in veinlet at 360.2 (1cm wide)									
364.0	378.0	Mafic Volcanic (possibly highly altered Felsics?) -unit is similar to above but chlorite is very dark green									

							Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
		to black, locally unit appears to be mainly chlorite. The unit is locally amygduloidal with amygdules filled with chlorite, carbonate and possible small quartz filled amygdules. Pyrite content increases in this section as randomly distributed clusters to local concentrations as noted below. 364.2-364.3 -10cm-5-10% pyrite associated with carbonate. Above to contact minor. 364.3-369.0 -amygduloidal section. Chlorite, carbonate amygdules to 0.5cm. 369.0-373.6 -probable flow breccia with pale green variably altered fragments with pyrite as clusters locally appearing like fragments, elongated blebs on foliation and pyrite rims fragments locally. Pyrite can also occur as fine disseminations. Pyrite-5-8%, locally 3-5% overall. Foliation 35° 373.6-375.8 -pyrite generally absent, quartz veinlet to 3cm-<5% of unit. 375.8-378.0 -possible fragmental-sericitic or flow breccia with pale green to grey green fragments locally siliceous. This section contains pyrite as fine veinlets, clusters, disseminations to 10%+ especially to 377.3. The pyrite veinlets are occasionally conductive over 3-5cm. 377.3-378.0 -chalcopyrite as fine disseminations 0.5-1%. Unit ends with a quartz vein 10cm in length									
378.0	394.9	Mafic Volcanic -fine grained, medium to dark green with local clots of blackish chlorite probable local flow structures, amygduloidal sections at 385.4-386.0. Pyrite is generally nil except for 381.9-582.3 where pyrite is 5% as clusters cubes and dissemination between two small quartz veins 2cm in width.									
394.9	398.4	Mafic Fragmental-Breccia									

							Assa	lys			
From	То	Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
		-fine grained, dark green to blackish matrix, chloritic with fragments to 3cm elongated on foliation, pale green, sericitic, weakly to moderately siliceous. Fragments decrease in size down section. Chalcopyrite occurs locally as fine disseminations as at 397.1-397.2 <0.5%. Chalcopyrite contains small pinkish grains which appear like leucoxene but may be small feldspars. 398.0-398.15-(15cm) -chalcopyrite as stringers, disseminations to 3%. Unit ends at quartz vein 2cm wide.	#			(meter)	<u>ppm</u>	ppm	ppm	g/ton	ррь
398.4	412.7	Mafic Volcanic-Intermediate Volcanic -fine grained, medium to locally dark green, chloritic and weakly sericitic. Unit character is different then above in that it becomes more massive in appearance with occasional clots of dark green to black chlorite. Where chlorite exists there are abundant pinkish white grains as noted above. There are 0.5-1.0m sections which have no chlorite clots. 409.3-410.0 -area of chloritic clots with <1% disseminated chalcopyrite. Lower contact 35° to core axis.									
412.7	414.7	Mafic Volcanic-Basal Breccia -fine grained, medium to dark green with blackish matrix hosting pale green sericitic/chloritic weakly to moderately siliceous fragments to 2cm in width. Pyrite in this section is 8-10% with local concentrations to 15%+ upper contact area has abundant carbonate amygdules. Pyrite occurs as semi-massive to massive conductive veinlets, parallel to foliation and as disseminations. Quartz and carbonate veinlet occur towards the top of the sequence									
414.7	420.0	Felsic Volcanic-Fragmental -fine grained, medium grey to green chloritic and sericitic matrix hosting abundant silicified felsic fragments to 1cm and frequent siliceous fragments to									

							Assa	ys			
From	То	Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
			#		ļ	(meter)	ppm	ppm	ppm	g/ton	ppb
		3cm plus, oriented along foliation at 30° to core axis. Fragmental appearance decreases away from contact in increasing pyrite concentrations. 414.3-415.4 -abundant fragments 1-3% pyrite as disseminations and discontinuous laminae									
		415.4-418.5 -10-15% pyrite as fine disseminations, veinlets of small	1515	415.8	447.0						
		grains conductive over 5cm and fracture related veins.	1515	415.8	417.0	1.2 1.5	98 78	93 127	3	0.1	nil
		418.5-419.1	1517	418.5	419.1	0.6	110	63	2 5	0.1	nil 10
		-pyrite 25-40% as semi massive to massive, masses to veins supporting fragments and fracture related massive veinlets. This section is conductive over the length even across fracture in core so sulfides are continuous over 60 cm.								0.2	
		419.1-419.9 -10-15% pyrite as veinlets, fractured controlled and	1518	419.1	419.9	0.8	109	106	1	0.2	5
		disseminations. Section is not conductive. 419.9-428.9	1519	423.8	425.3	1.5	87	115	3	0.1	nil
		-felsics are less fragmental in character and appear to become flow banded. Fragments are still siliceous, grey to grey beige, they are much less frequent and may be autobrecciated with the reappearance of chlorite clots. Sulfides continue to be as disseminations through the unit but concentrations appear to be preferentially associated with the chlorite sections but are not restricted to these areas as evidenced from 426.0-427.0 meters. Overall pyrite content is 5-10% with sections to 15% over 10-20cm. The section mentioned above 426.0-427.0 has 15% plus pyrite as laminae, disseminations and clusters.									
428.9	480.0	Mafic Volcanic -fine grained, medium to dark green to blackish locally essentially chlorite highly altered, possibly fragmented. Unit is not as soft as would be anticipated, locally vesicular to amygduloidal. Contact with upper unit 34° to core axis, minor quartz and/or calcite veinlets. Locally there are light to medium green, siliceous fragments. Minor chalcopyrite, pyrite minor. 428.9-437.3									

							Assa	ys			
From	То	Description	Sample	From	То	Length	Cu	Zn	Pb	Ag	Au
			#			(meter)	ppm	ppm	ppm	g/ton	ppt
		-chlorite rich in clots and pervasive in matrix. Minor									
		chalcopyrite as at 435.9m. Possible pillows.									
		437.3-445.5									
		-fine to medium grained, medium green to green grey, massive in appearance less chlorite and more									
ĺ		abundant sericite, moderate. Unit has more quartz									ļ
		veining with one vein 30cm at 441.1-441.4m. Minor				1			1		I
ſ		chalcopyrite again at 439.4 as disseminations and				1					
		discontinuous laminae.				Į į					
ĺ		445.5-458.3									
		-chlorite clots and pervasive chloritization reappears.									
		This section contains "layers" amygduloidal or vesicular									
		filled with quartz and/or carbonate. These are									
		generally <3mm in size, weakly elongated in rhythmic									
		layers possible pillows??. Chlorite also occurs in			1						1
		0.4cm rounded "augens". These vesicules or amygdules locally coalesce to form masses. Variable									
1		alteration in the unit gives the impression of pale green									
		sericitic fragments, this is best shown at 454.0-456.0.									
		Fault zone occurs at 455.4, 30cm of crushed and								j	1
		broken rock.				1					
		458.3-477.9									
		-pervasive chloritization and locally becomes almost				1 1		1			
1		entirely chlorite, local one meter sections harder with				}					
		less chlorite as at 472.2-473.3. Chalcopyrite as									
		veinlets occurs at 462.2, 467.9m. 477.9-480.0									
		-weak silicification and variable alteration to pale green									
		colour, amygdules white carbonate filled <1mm and									
		0.3cm amygdules feldspar filled.				] ]					
						[					
1	480.0	End Of Hole									
Í											
		Acid Test									
		100									
		100m -68°									
[		200m -68°									
		300m -67°	]								
		400m -64°									



#### DIAMOND DRILL CORE LOG-SUMMARY SHEET

Halfmoon Project: July 28, 1998 Date: Robert Calhoun Logged by: Drilling Co: Colbert Drilling

Claim Number: 1190197

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SURVEYS: Acid Test

DDH. HM98-23

TIMMINS COORDINATES

GRID COORDINATES

10085N

5350E

	Depth	<u>Azimuth</u>	Dip	Northing
Setup:	<u>0.0</u>	26° grid north	<u>-50°</u>	Easting
	<u>99m</u>		- <b>47</b> °	Elevation

Elevation: 0.0 TD: 99 meters

**DRILLING DATES** Started: July 28, 1998 Finished: July 29, 1998



COLLAR LOCATION: 10085N/5350E

42A12SE2014

060

Project: Halfmoon Date: July 28 to 29 1998 Logged By: Robert Calhoun

#### GEOLOGIC SUMMARY

ROM	TO	DESCRIPTION	[ 	NTERVAL		SIGNIFICANT ASSAY AVERAGES						
(m)	(m)		From (m)	То (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppt		
0.0	13.8	Overburden		·····			••	· · · · · · · · · · · · · · · · · · ·				
13.8	34.0	Felsic Volcanic-Fragmental										
34.0	57.3	Felsic Volcanic-Fragmental										
57.3	74.3	Felsic Volcanic-Fragmental										
74.3	76.4	Chlorite Zone	74.3	75.4	1.1	280.0	4070.0	7	0.3	5.0		
			75.4	76.4	1.0	1080.0	7080.0	97.0	26	17.0		
16.4	79.1	Felsic Fragmental	78.0	79.1	1.1	321	7240	368	1.5	50		
79.1	99.0	Mafic Volcanic										
99.0		End of Hole										
									Ì			
						ł						

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COMMENTS	

#### DDH: MH98-23

Property: <u>Halfmoon</u>	Hole Number: PAL-HM98-23	Claim Number: <u>1190197</u>
Location: <u>5350E/10085N</u>	Final Depth: 99.0 meters	Logged By: Robert Calhoun
Azimuth: <u>26° (G.N)</u>	Dates Drilled: July 28-29 1998	Drilled By: Colbert Drilling
Dip: <u>-50°</u>	Dates Logged: <u>July 29-30 1998</u>	Signature:

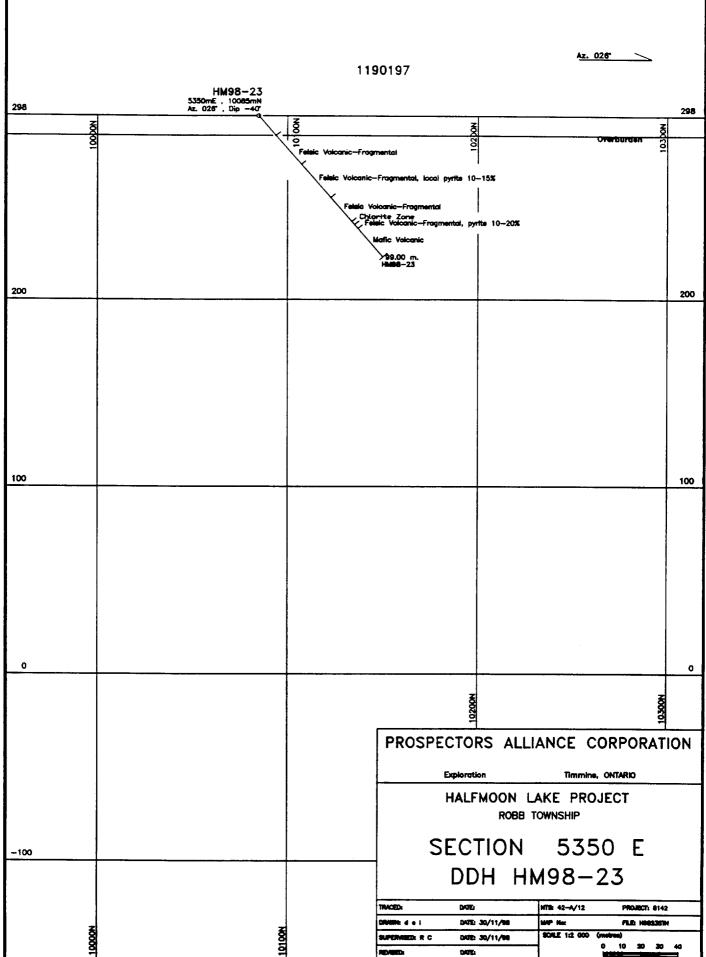
	_						Assays	5			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
0	13.8	Overburden									
13.8	34.0	Felsic Volcanic-Fragmental -fine grained, medium grey to grey green sericitic matrix hosting fragments of rhyolite to chert, whitish to medium grey. The fragments in this section are up to 1cm in size sub-rounded to elongated. Towards end of section rare fragments to 2cm.									
34.0	57.3	Felsic Volcanic-Fragmental -fine to medium grained, medium to dark grey, grey green chloritic to sericitic matrix hosting increased fragments of rhyolite to chert, and lesser fragments of mafic volcanic. Fragments are up to 2cm, locally may contain minor <b>sphalerite</b> . Pyrite is as disseminations 1-3% overall with clusters occurring randomly. 50.6-57.3 -unit is increasingly sericitic, becomes light green grey, fragments are stretched to sub-rounded. Some fragments are nimmed with fine to medium grained pyrite.									
57.3	74.3	Felsic Volcanic-Fragmental -fine to medium grained, medium to dark grey green matrix hosting light grey to whitish siliceous (cherty) fragments to 1cm, dark green chloritic fragments to 1.5cm, less abundant. Unit is variable in coarseness of fragments and	24982 24983 24984 24985	57.3 58.3 59.8 70.5	58.3 59.8 70.5 71.5	1.0 1.5 1.1 1.0	317 721 124 48	531 164 137 74	4 2 11 8	0.3 1.1 0.1 0.2	15 3 nii 19

#### Hole # PAL-HM98-23

							Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
		abundance, upper 3m is fine grained with minor fragments to coarse fragmental as above unit to 73.0m and finer grained to 74.3m. Pyrite is variable from 1% disseminated to semi- massive bands 10-15% of unit over 1-1.5m. Also pyrite occurs as clusters locally appearing as possible fragments as at 70.5-71.0m. When scratched pyrite bands have brown streak locally probable sphalerite, chalcopyrite is minor. Foliation 60° to core axis.	24986 24987	71.5 73.0	73.0 74.3	1.5 1.3	37 38	100 63	5	0.1 0.1	15 nil
74.3	76.4	Chlorite Zone -this section is essentially chlorite with possible fragments of rhyolite, quartz/carbonate veining. Pyrite as infrequent laminae <0.5cm wide and disseminations. Chalcopyrite associated with one pyrite laminae at 75.2m.	24988 24989	74.3 75.4	75.4 76.4	1.1 1.0	280.0 1080.0	4070.0 7080.0	7.0 97.0	0.3 2.6	5.0 17.0
76.4	79.1	Felsic Fragmental -fine to medium grained, medium green to grey matrix hosting less abundant fragments than above-fragments are light grey sub-rounded rhyolitic and dark green chloritic mafic fragments to <1cm, elongated, and abundant. Chlorite occurs on slips or foliations. Unit contains pyrite as disseminations, semi-massive bands and massive veinlets to 1cm. Pyrite contains minor chalcopyrite and probable fine sphalerite (slight brown streak when scratched). Layering is 60° to core									
		axis. 76.4-78.0 -5-10% pyrite 78.0-79.1 -20-25% <b>pyrite</b> and related sulfides.	2 <b>4</b> 990 24991	76.4 78.0	78.0 79.1	1.6 1.1	310 321	1270 7240	9 368	0.7 1.5	22 50
79.1	99.0	Mafic Volcanic -fine grained, light to medium green, sericitic, local chlorite possible pillow selvages. Unit is foliated, minor crushing and local micro-faults, gouge over 1-2cm as at 84.7, 93.4m. Foliation at 44° to core axis. Pyrite occurs as semi-massive bands in the first half	24992	79.1	80.1	1.0	167	420	20	06	9

#### Hole # PAL-HM98-23

			Assays										
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb		
		meter and as disseminations to 81.5m. Small quartz vein at 81.4-81.5m contains disseminated galena, chalcopyrite and possible light coloured sphalerite. Quartz as semi-circular	<u> </u>			(meter)	ppni	ppin		gron			
	99.0	End Of Hole											
		Acid Tests						ļ					
		99 m -47°											
				1									
	1												
					ĺ						ĺ		
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#### DIAMOND DRILL CORE LOG-SUMMARY SHEET

# Project:HALFMOONDate:September 18-19 1998Logged by:Robert CalhounDrilling Co:Colbert Drilling

Claim Number:

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SURVEYS: Acid Test

DDH: HM98-25

#### TIMMINS COORDINATES

**GRID COORDINATES** 

	<u>Depth</u>	Azimuth	Dip	Northing	10150N
Setup:	<u>0.0</u>	grid south	<u>-50°</u>	Easting	5600E
	<u>102m</u>		<u>-45°</u>	Elevation: 0.0	
				TD: 135 meters	

DRILLING DATES Started: September 18 1998 Finished: September 19 1998



COLLAR LOCATION: L5600E/10150N

42A12SE2014 2.20379

070

ROBB

Project: Halfmoon Date: September 18-19 1998 Logged By: Robert Calhoun

GEOLOGIC SUMMARY

TO	DESCRIPTION	<u>IN</u>	ITERVA	L	SIGNIFICANT ASSAY AVERAGES						
(m)		From (m)	To (m)	Width (m)	Cu ppm	Zn ppm	Pb ppm	Ag g/t	Au ppb		
29.2	Overburden				• • •			<u> </u>			
70.3	Mafic to Intermediate Volcanic										
<b>88</b> .0	Intermediate to Felsic Volcanic										
95.4	Felsic Volcanic										
101.4	Felsic Volcanic-Lapilli Tuff to Fragmental										
120.5	Felsic Volcanic										
128.9	Mafic Volcanic										
135.0											
	End of Hole										
							ļ				
	(m) 29.2 70.3 88.0 95.4 101.4 120.5 128.9	(m)29.2Overburden70.3Mafic to Intermediate Volcanic88.0Intermediate to Felsic Volcanic95.4Felsic Volcanic101.4Felsic Volcanic-Lapilli Tuff to Fragmental120.5Felsic Volcanic128.9Mafic Volcanic135.0Felsic Volcanic	(m)From (m)29.2Overburden70.3Mafic to Intermediate Volcanic88.0Intermediate to Felsic Volcanic95.4Felsic Volcanic101.4Felsic Volcanic-Lapilli Tuff to Fragmental120.5Felsic Volcanic128.9Mafic Volcanic135.0Felsic Volcanic	(m)From (m)To (m)29.2Overburden70.3Mafic to Intermediate Volcanic88.0Intermediate to Felsic Volcanic95.4Felsic Volcanic101.4Felsic Volcanic120.5Felsic Volcanic128.9Mafic Volcanic135.0Felsic Volcanic	(m)From (m)To (m)Width (m)29.2Overburden (m)(m)(m)(m)70.3Mafic to Intermediate Volcanic 88.0Intermediate to Felsic Volcanic 95.4Felsic Volcanic Felsic VolcanicIntermediate to Felsic Volcanic 101.4Intermediate to Felsic Volcanic Felsic Volcanic 128.9Intermediate to Fragmental Mafic Volcanic128.9Mafic Volcanic Felsic VolcanicIntermediate Helsic VolcanicIntermediate Helsic Volcanic135.0Felsic VolcanicIntermediateIntermediate Helsic VolcanicIntermediate Helsic Volcanic	(m)From (m)To (m)Width (m)Cu ppm29.2Overburden (m)(m)(m)ppm70.3Mafic to Intermediate Volcanic 101.4Intermediate to Felsic Volcanic Felsic Volcanic 101.4Intermediate to Felsic Volcanic Felsic Volcanic 128.9Intermediate to Fragmental IntermediateIntermediate to Fragmental Intermediate128.9Mafic Volcanic Felsic VolcanicIntermediate IntermediateIntermediate Intermediate135.0Felsic VolcanicIntermediateIntermediate IntermediateIntermediate Intermediate135.0Felsic VolcanicIntermediateIntermediate IntermediateIntermediate Intermediate135.0Felsic VolcanicIntermediateIntermediate IntermediateIntermediate Intermediate	(m)From (m)To (m)Width (m)Cu ppmZn ppm29.2Overburden70.3Mafic to Intermediate Volcanic88.0Intermediate to Felsic Volcanic95.4Felsic Volcanic95.4Felsic Volcanic101.4Felsic Volcanic120.5Felsic Volcanic128.9Mafic Volcanic135.0Felsic Volcanic	(m)From (m)To (m)Width (m)Cu ppmZn ppmPb ppm29.2Overburden70.3Mafic to Intermediate Volcanic70.3Mafic to Intermediate Volcanic88.0Intermediate to Felsic Volcanic95.4Felsic Volcanic95.4Felsic Volcanic101.4Felsic Volcanic120.5Felsic Volcanic128.9Mafic Volcanic135.0Felsic Volcanic	(m)From (m)To (m)Width (m)Cu ppmZn ppmPb ppmAg g/t29.2Overburden70.3Mafic to Intermediate Volcanic88.0Intermediate to Felsic Volcanic95.4Felsic Volcanic95.4Felsic Volcanic101.4Felsic Volcanic120.5Felsic Volcanic128.9Mafic Volcanic135.0Felsic Volcanic		

COMMENTS	

Property: <u>Halfmoon</u>	Hole Number: <u>HM98-25</u>	Claim Number: <u>1190167/1190197</u>
Location: <u>L5600E/10150N</u>	Final Depth: <u>135.0 meters</u>	Logged By: Robert Calhoun
Azimuth: Grid South	Dates Drilled: Sept. 18-19/98	Drilled By: Colbert Diamond Drilling
Dip: <u>-50°</u>	Dates Logged: <u>Sept. 19-20/98</u>	Signature:

							Assa	ys			
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
0	29.2	Overburden -clay, sand boulders in bottom 5.0m.									
29.2	70.3	Mafic to Intermediate Volcanic -fine grained to locally medium grained, colour is variable but generally grey green to green, light to medium with 1- 2m sections of medium grey. Unit varies from weakly foliated massive in upper section to 48.0m and moderate to strongly foliated to end of section. 29.2-48.0 -massive weakly foliated, medium green grey, minor pyrite, generally chloritic. 48.0-70.3 -moderately to strongly foliated to laminated. This appears to be alteration related with stronger chloritic sections and sericitic sections increasing down hole. This unit or units also contains amygduloidal zones over 1-2m as at 60.0-62.0. There are also zones of carbonate/sericite clots or nodules especially in the lower 4.0 meters. These are upper to 1cm in size and locally coalesce. Quartz veining is minor and carbonate-calcite is also minor. Foliation/Lamination is at 52° at start of section (50.5) increasing to 58° at 61.0 meters.									

#### Hole # <u>HM98-25</u>

انماده ويبيد	Assays										
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
70.3	88.0	Intermediate to Felsic Volcanic -fine to medium grained, grey green to grey with pale green sections of sericite alteration. Unlike the section above this section has a grainy appearance (sandy) and is more tuffaceous in nature. Alteration is predominately sericite pale yellow green which occurs in zones or "beds" as at 70.3-76.2m. The sericite is generally foliation related but can be pervasive. Silicification is a minor component restricted to small zones as at 72.4-72.8. Foliation angles are variable, 63° to core axis in upper section (71.5m) to 48° to core axis (85m). A second foliation kinks the stronger foliation. Sulfide mineralization is minor consisting of pyrite disseminations.									
88.0	95.4	Felsic Volcanic -fine to medium grained similar to above but green grey in colour with increased sericite, foliated to laminated. This section begins and ends with a quartz vein. 88.0-88.5 -A 3cm quartz vein begins the section followed by	1503	88.0	89.0	1.0	176	287	34	0.2	2
		weakly to moderately graphitic fine grained sediment? or tuff. The section ends with a quartz vein 4cm. This zone contains pyrite on laminae and clusters in lower									
		quartz vein. 88.5-89.9 -Laminated felsic volcanic with fine pyrite laminae, clusters with minor sphalerite. The end of the section 89.7-89.9m semi-massive pyrite. The pyrite is of two varieties. There is a very fine dark massive variety and a coarse cluster type of light colour. The lighter pyrite can form veinlets in the dark pyrite. The sphalerite occurs as grains and discontinuous fine laminae <1mm in width.	1504	89.0	90.0	1.0	1080	213	133	0.6	5
		89.9-95.4 -weak to moderately foliated with 1% pyrite as foliation laminae and fine clusters. Pyrrhotite appears in this section accompanied by chalcopyrite and occasional grains to clusters of grained sphalerite. Total sulfide in this section is 1% but over 1-2m can be 3%.	1514	94.0	95.4	1.4	102	239	1	0.1	5

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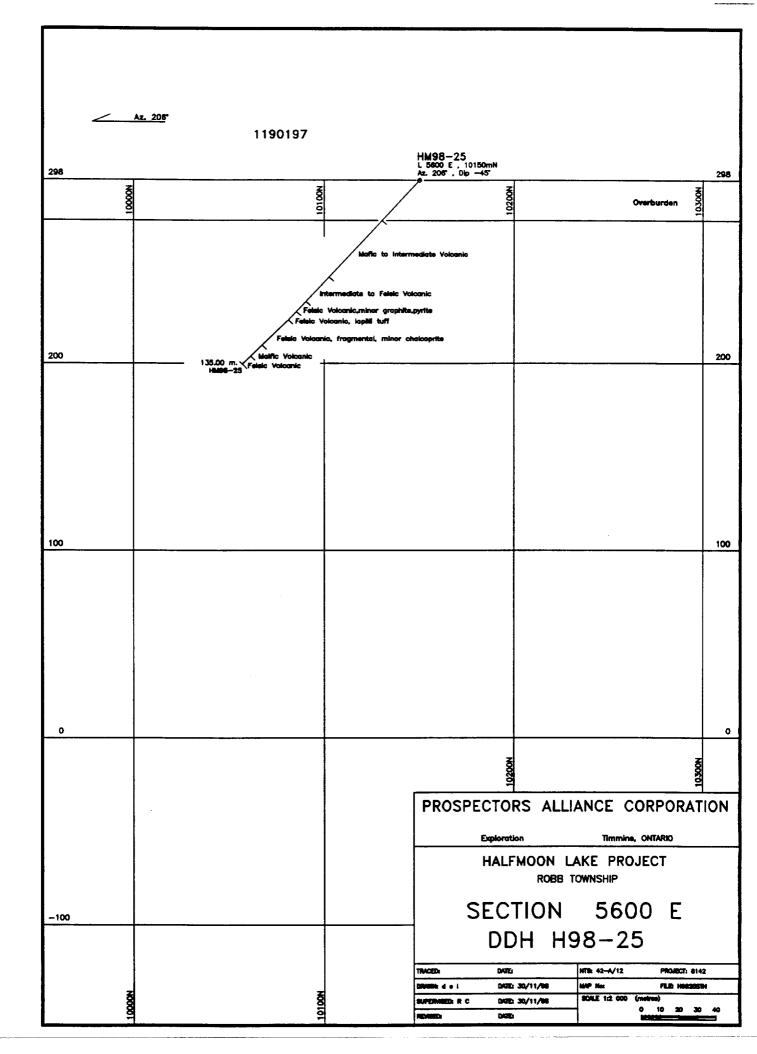
#### Hole # <u>HM98-25</u>

			Assays								
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
95.4	101.4	Felsic Volcanic -lapilli tuff to fragmental (primary)-fine to medium grained, light grey to grey green, sericitic matrix hosting generally fine grained light grey, siliceous fragments or lapilli stretched on foliation. This contact between this and the upper unit is a 20cm white quartz vein parallel to foliation at 57° to core axis. Pyrrhotite is the dominant sulfide in this section as clusters of grains, less than 0.5%. Possible yellow sphalerite very fine grains at 98.0m. (May be a carbonate/sericite combination).									
101.4	120.5	Felsic Volcanic -fine grained, medium grey to light grey, weakly sericitic tuff. This unit is generally featureless with calcite veinlets to knots forming most features. The unit may contain spherules at 106.5m. Pyrite and pyrrhotite are randomly distributed through the section. Pyrrhotite can reach sufficient abundance to make the unit magnetic as at 106.0-106.7m. Chalcopyrite is minor but is associated with the pyrrhotite.	1505 1506	105.5 106.6	106.6 108.0	1.1 1.4	227 313	146 191	2	0.1 0.2	nil nil
		108.0-109.2 -Pyrrhotite and chalcopyrite. Chalcopyrite occurs as laminae to clusters at 108.05-108.15m to 1% chalcopyrite and as foliation laminae at 109.2m. The upper chalcopyrite is within a cherty/siliceous section. The laminae at 109.2m is with pyrite. 109.2-111.1	1507	108.0	109.3	1.3	1160	288	16	0.4	nil
		-Siliceous with light grey fine grained sections to 30cm. Unit contains minor pyrite, as grains and fine disseminations. Base unit is dark grey. Pyrite content increases 110.8-111.1m to 5-8% as clusters. 111.1-120.5	1508 1509	10 <del>9</del> .3 110.3	110.3 111.3	1.0 1.0	58 32	54 33	22	0.1 0.1	ni) nil
		-felsic volcanic medium grey to greenish with sericite. Unit is generally sphaleritic, locally contains chlorite alteration. Sulfide content is low with minor pyrite fine disseminated chalcopyrite and minor grains of	1510 1511 1512	111.3 112.3 113.3	112.3 113.3 114.4	1.0 1.0 1.1	86 7 326	49 34 47	1 5 2	0.1 0.1 0.2	nil nil nil

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### Hole # <u>HM98-25</u>

Assays											
From	То	Description	Sample #	From	То	Length (meter)	Cu ppm	Zn ppm	Pb ppm	Ag g/ton	Au ppb
		increases 110.8-111.1m to 5-8% as clusters. 111.1-120.5 sphalerite. Siliceous fragment 10cm by 2cm at 114.4 contains 8-10% pyrite clusters. Occurrences of chalcopyrite are 111.9-112.1m-very fine disseminations-113.8-113.9-1% chalcopyrite in siliceous felsic (cherty), smear of chalcopyrite on fractures at 120.0m.	1513	119.3	120.3	1.0	888	60	1	0 2	2
120.5	128.9	Mafic Volcanic -medium grained, medium to dark green, locally coarse granular appearance with some free quartz. Unit is massive relatively featureless with very minor sulfides. Quartz veining is minor. 122.0 -minor small discontinuous chalcopyrite laminae to veinlet 1-2m in width. Unit becomes fine grained at 127.9-128.9m.									
128.9	135.0	Felsic Volcanic -fine to medium grained, medium to locally dark grey, weakly to moderately siliceous. Unit is possibly fragmental and contains light grey lapilli which are siliceous hard to moderately hard matrix. Quartz veining is minor as less than 1cm width veins. Unit does not contain any sulfides. Contact with the mafics is 42° to core axis.									
	135.0	End Of Hole									
		Acid Test									
		102 meters -45°									



Ontario Ministry of Northern C and Mines	Declaration of A Performed on M	ssessment Work ining Land	Transaction Number (office use) $00000 \cdot 00272$
0		35(2) and 66(3), R.S.O. 1990	Assessment Files Research Imaging
42A12SE2014 2.20379 ROBB Instructions: - For work performe - Please type or prin	900 d on Crown Lands before record	ork and correspond with the minir and Mines, 3rd Floor, 933 Ramsey	Act. Under section 8 of the Mining Act, the final holder. Questions about this collect Lake Road, Sudbury, Ontario, P3E 6B5. 40. $03729$
1. Recorded holder(s) (Attach	a list if necessary)	Client Numb	
Name Explorers All	inne	Telephone h	<u>3065</u>
Address 168 ALCONG	UIN BLUD EAST	- (705) 7 Fax Number	167-3511
TIMMINS	ONTARIO PYI	ULAS (105)- Client Numb	151-3121
Name			
Address		Telephone N	
		Fax Number	
	neck (✓) and report on only ONE	E of the following groups for cal: drilling stripping,	or this declaration.
Geotechnical: prospecting, assays and work under section		ning and associated assay	
Work Type		Commedia	Office Use
	1	Commodil Total \$ Va	
	1	Work Clai	med
Dates Work From 13 07 Reformed Day Month	90 To 25 OS Year Day Month	99 NTS Refer	
Performed Day Month 1 Global Positioning System Data (if available)	Township/Area Robb -	Mining Div	
	M or G-Plan Number 6 3962	Resident ( District	Geologist
- complete - provide a - include tw	oper notice to surface lights hor and attach a Statement of Costs map showing contiguous mining o copies of your technical report	i form 0212; lands that are linked for a	assigning work;
3. Person or companies who	prepared the technical report	(Attach a list if necessary	) Number
Name Con al Careloras		205	267-3511
Address 11 0 1/1	BLUD EAST	Fax Number 70 S	201-3121
Name Timmens, C	DN? PUNIA9	1 eleptione	Number
Address		Fax Numbe	r
		Telephone	Number
Name		Fax Numbe	fr
(Print Name) this Declaration of Assessment V completion and, to the best of my	Vork having caused the work to ly knowledge, the annexed report	be performed or witnessed	Date
Signature of Recorded Holder or Age		Telephone Number	Jule 3, 2000 · Fax Number
Agent's Address 168 Alu	marke Ease Timei-s	205 26 <b>8</b> -35/1	705267-3121
0241 (03/97)	JUN 5 2000		JUN 07 (1) JUN 07 (1)

JUN	5	2000	

JUN 5 2000 IS.40 PORCUPINE MINING DIVISION

Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the m 5. land where work was performed, at the time work was performed. A map showing the contiguous link must accompany W0040 00272 form.

work v minin colum	g Claim Number. Or if was done on other eligible g land, show in this in the location number ated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of w to be distributed at a future date
eg	TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg	1234567	12	0	\$24,000	0	0
eg	1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1	11 90197	1	54756.		10 000	44756
2	1190194	,	2874		2800	74
3	1228581	16		6400		
4	1228582	16		6400.		
5						
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12						
13						
14						
15						
	Column Totais		57630	12800	12800	45 830

, do hereby certify that the above work credits are eligible un 1. \_ Lion DI Bontomme AgenT

(Print Full Name) subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim.

where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date June 3,2000 '
---	--------------------

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

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

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

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

For Office Use C Received Stamp	, ing	Deemed Approved Date	Date Notification Sent
		Date Approved	Total Value of Credit Approved
		Approved for Recording by Mining	Recorder (Signature)
41 (03/97)			
•	JUN 5 2000 IS.40 PORCUE MENTING DIVISION	~.~0079	JUN 0 7 2000 JUN 0 7 2000 JUN 0 7 2000 FOSCIENCE ASSESSMENT OFFICE



Ministry of Northern Developinent and Mines

#### Statement of Costs for Assessment Credit

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under rensonal information collected on this form is obtained under the authority of subsection b(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 685.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilo- metres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cos
46M 98-19	201 m.	34.	6834
4601 9821	210 m.	34	7140
4604 98-22	480 m.	34.	16320
1461 . 98-23	99 m.	34	3366.
1+6M 98 - 25	135m.	34	4590.
Geologist	20 DAMS	300/084	6000.
ASSAUS	48 SAMPLES.	30	1470.
Printed Costs (e.g. suppl	ies, mobilization and demobilization).		
	6m-19 CASiNG		1083.
	6an 21 (Asince		1194.
	6m-22 (Asing		874.
	16M-23 CAS. 46.		954.
	4Gm 25 CASinG.		1755.
	FLOATING		580.
	Dumas Fron / 10/0 98-22		1400
Kemove	Plots + Sections		300.
	od and Lodging Costs		
			53860
NEGENVIER		65 T	
JUN 5 2000	Total Value O	f Assessment Work	57630
N 15.40			

1 Work filed within two years of performance is claimed at 100% of the 2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the VHILL AT Assussment Work. If this utuation upplies to your claims, and the calculation below:

Jului 5 minural marries х 0.50 • TOTAL VALUE OF ASSESSMENT WORK

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

Minister may a g	9 2 9 3 7 9
Certification verifying costs: 1. Lion Bolome bet, do hereby certify, that	t the amounts shown are as accurate as mus
1, (please print full name)	tir Destant work on the lands indicated o
the accompanying Declaration of Work form as (recorded rolder, august, o	state of the sy sociation with signing authority)
to make this certification.	GEOSCIENCE ASSESSMENT OFFICE Dame Dame Dame Dame Dame Dame Dame Dame

Ministry of Northern Development and Mines Ministère du Développement du Nord et des Mines

July 11, 2000

Lionel Bonhomme EXPLORERS ALLIANCE CORPORATION 168 ALGONQUIN BLVD. EAST TIMMINS, ONTARIO P4N-1A9



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

Telephone: (888) 415-9845 Fax: (877) 670-1555

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

Dear Sir or Madam:

#### Submission Number: 2.20379

 Subject: Transaction Number(s):
 W0060.00272
 Approval

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

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

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

If you have any questions regarding this correspondence, please contact JIM MCAULEY by e-mail at james.mcauley@ndm.gov.on.ca or by telephone at (705) 670-5880.

Yours sincerely,

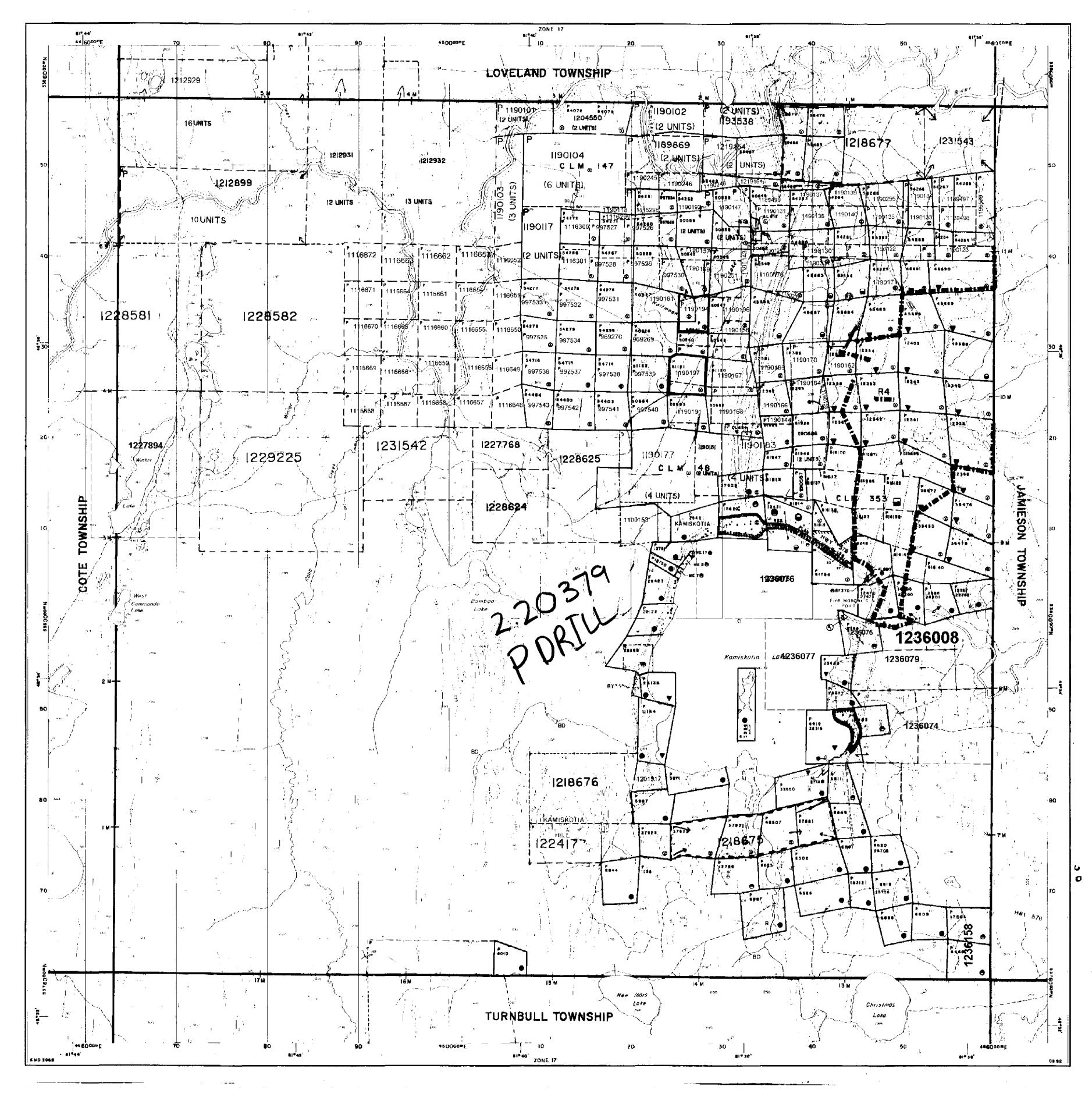
tonen B. Beneteriu

ORIGINAL SIGNED BY Steve B. Beneteau Acting Supervisor, Geoscience Assessment Office Mining Lands Section

Correspondence ID: 15054 Copy for: Assessment Library

### Work Report Assessment Results

Date Correspondence Sent: July 11, 2000			Assessor: JIM M	CAULEY	
Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date	
W0060.00272	1190197	ROBB	Approval	July 11, 2000	
Section: 16 Drilling PDRILI	L				
Correspondence	e to:			er(s) and/or Agent(s):	
Resident Geologis South Porcupine,			Lionel Bonhomr EXPLORERS A TIMMINS, ONT	LLIANCE CORPORATION	
Assessment Files Sudbury, ON	s Library		FALCONBRIDG TORONTO, ON		
			JOHN KEVIN TIMMINS, Onta		





42A12SE2014 2.20379 ROBB

200



Ministry of Northern Development Resources and Mines

INDEX TO LAND DISPOSITION M.N.R. ADMINISTRATIVE DISTRICT PLAN TIMMINS G-3968 MINING DIVISION PORCUPINE TOWNSHIP LAND TITLES/REGISTRY DIVISION ROBB COCHRANE Scale 1:20 000 Contour interval 10 Metres MRO - Mining Rights Only SYMBOLS 🚯 WN R RESERV Boundar shcreline Lot/Concess Parcel, surveyed LIN8U/V6W Right-of-way, read

trail, bu <b>sh</b>			
Shereline (original)			
Transmission line .		R2	
Nooded area			
		R3	
		R4	MINING AND SURFAC
<b>DISPOSITION OF CROWN LA</b>	NDS		UNDER SECTION 35 URDER NO, W.P. 679
Palent			
Surface & Mixing Rights	. 🔶		
Surface Rights Only	н. <b>Ө</b>		
Mining Rights Only	•		
	•		
Surface & Mining Rights	🖬		
Surface Flights Only			
Mining Rights Only	•		
Licence of Occupation	▼		
Order in Council	. 00		
Cancelled .	Ф		
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ACTIVATED AUGUST 13, 1992 BY D.C. CHECKED BY G.W.

Reservation

Sand & Grave)

Cliff, Pr. P

Control point (hor looded land

Mine head frame

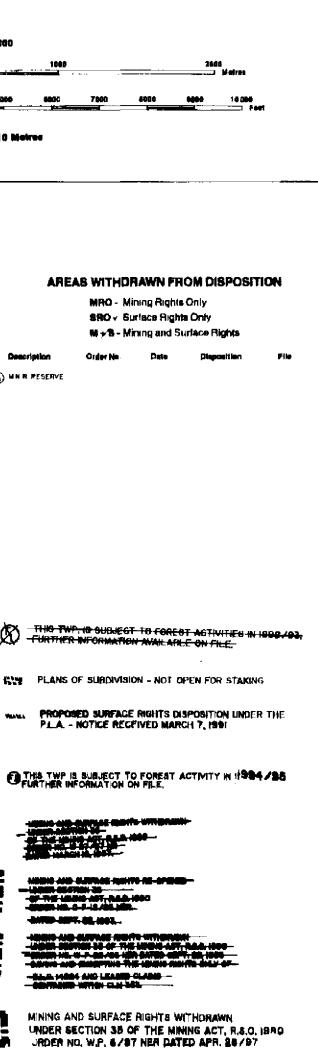
Pipeline (above ground) Railway; single track

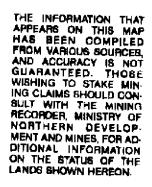
double track

abandonad

Read, highway, county, township

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources





The disposition of land, location of lot fabric and parcel boundaries on this index was complied for administrative purposes only

