

## Diamond Drill Record

LOCATION: LP-0-3+95W			HOLE NO86-AOR PL1	Page 1 of 10
AZIMUTH: 040°	DIPS - collar 60°	CONTRACTOR: ARCTIC DIAMOND DRILLING	PROPERTY: ARBOR - PLINC	
ELEVATION:	- 442 ft 63°	LOGGED BY: S. TOMLINSON	CLAIM NO. PLINC 21	
LENGTH: 456 FEET	- m °	DATE: SEPTEMBER 18, 1986	SECTION NO.	
CORE SIZE: n Q	- m °		STARTED: SEPTEMBER 15, 1986	
PURPOSE: TO TEST AN INDUCED POLARIZATION ANOMALY			COMPLETED: SEPTEMBER 17, 1986 23:15	

Section		ROCK DESCRIPTION	Interval		ALTERATION. MINERALIZATION etc.	VEINLETS		
from ft	to ft		from ft	to ft		Thickness mm	Angle to core	minerals in decreasing abundance
0	17	Casing - no core.						
17	77	Quartz muscovite schist. Muscovite is fine grained, forms lamellae to 2 mm. Chlorite is fine grained and forms lamellae similar to muscovite, only less common. Minor mariposite as thin bands parallel schistosity. Quartz is fine to medium grained, forms mostly lamellae or small pods to 2 mm, some bands to 10 cm wide. Also, a few small (less than 3 mm) blue quartz eyes, but they account for less than 1% of core. Calcite is disseminated throughout. Percentages are: Muscovite = 50% Quartz = 35% Chlorite = 5% Others (carbonates, pyrite) = 5% Quartz bands = 5% Schistosity to C.A.: 85°, very planar and well defined.	17	65	Pervasive rustiness, 3% boxwork structure throughout. Iron oxidation is most prevalent along fractures. Section is moderately fractured; largest piece is 10 cm long. Also, some small sections have been sheared into clay. Quartz bands are vuggy, have boxwork structures. Pyrite is concentrated up to 5%; also occurs as a few stringers. Fresh rock, but still moderately fractured; largest section is 10 cm, some very narrow slight shear zones. For whole section: Crosscutting calcite stringers, calcite rich areas within quartz pods to 10% of pods. Pyrite occurs mostly as disseminated cubes to 3 mm, 1% of core.			
			17	30				
			62	65				
			65	77				
			17	77				

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from mft	to mft		from mft	to mft		Thickness mm	Angle to core	minerals in decreasing abundance
		Core Recovery: 17 - 19 = 100% 19 - 22 = 8"/3' 22 - 28 = 3/6 28 - 31 = 100% 31 - 35 = 3/4 35 - 36 = 100% 36 - 38.5 = 1.5/2.5 38.5 - 52 = 7/13.5 52 - 58 = 4.5/6 58 - 68 = 8.5/10 68 - 77 = 7/9						
77	87.5	Chloritic quartz muscovite schist. Quartz and muscovite are fine grained, no longer form distinct lamellae. Chlorite makes up 5% of core. Quartz rich areas and muscovite/chlorite rich areas form bands to 3 cm wide. Quartz bands = 30% of section. Minor calcite is disseminated throughout, but may be concentrated in quartz bands. Schistosity to C.A.: 73°, very weak, discontinuous. Core Recovery = 100%	77.5	79	For whole section: Core is very competent and hard. Very minor (less than 1%) small pyrite cubes disseminated throughout core, but may be concentrated along quartz band boundaries and within quartz. Pyrrhotite is more common than pyrite, but still less than 1%. Total sulfides around quartz = 1%. 50% quartz bands, sulfides are concentrated. Minor iron oxide staining and small manganese spots along fracture surfaces.			
87.5	100	Quartzite quartz muscovite schist. Muscovite is fine grained, forms lamellae and bands up to 2 cm wide. Mariposite lamellae and bands to 1 cm wide. Quartz forms bands up to 10 cm wide, where			Very minor (less than 1%) pyrite as disseminations. Pyrrhotite makes up 1% of core, occurs as disseminated globules elongated parallel to schistosity, and as stringers also parallel schistosity.			

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from xxft	to xxft		from xxft	to xxft		Thickness mm	Angle to core	minerals in decreasing abundance
		<p>it may be coarse grained and occasionally translucent. Blue quartz eyes at top of section. Quartz is also pervasive.</p> <p>Some coarse grained calcite within quartz bands up to 5% of quartz.</p> <p>Percentages:            Quartz = 30%            Quartz bands = 40%            Muscovite = 25%            Mariposite = less than 1%            Other = 5%</p> <p>Schistosity to C.A.: 78°, but in sections may be extremely convoluted. Schistosity best developed in upper part of section. Core Recovery = 100%</p>						
100	124	<p>Quartz eye schist. Matrix is made up of lamellae of muscovite to 2 mm wide, well banded. Some chlorite is interlayered with muscovite. Quartz is as blue eyes, up to 5 mm wide and 10 mm long, elongated parallel schistosity. Also, quartz bands to 5 cm. Calcite and minor rhodochrosite within bands. Minor mariposite as lamellae.</p> <p>Percentages:            Muscovite = 45%            Chlorite = 5%            Quartz eyes = 35%</p>	102	103	<p>Sulfides are disseminated throughout core, though account for less than 1% of section. Pyrrhotite is most common, and some pyrite. Sulfides, mostly pyrite, may concentrate to 1% in country rock adjacent to quartz bands, mostly as short stringers parallel schistosity.</p>			
			105	107.5	<p>Crosscutting coarse grained rhodochrosite/calcite vein, up to 2 cm wide, at 14° to C.A. (nearly parallel), irregular. Quartz vein, massive, slightly vuggy with rusty carbonate infillings and irregular</p>			

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from Xft	to Xft		from Xft	to Xft		Thickness mm	Angle to core	minerals in decreasing abundance
		<p>Quartz bands = 5% Others = 10%</p> <p>Schistosity to C.A.: 86°, very planar and well defined.</p> <p>Core Recovery:</p> <p>100 - 107 = 100% 107 - 115 = 7/8 115 - 188.5 = 2.5/3.5 118.5 - 124 = 4.5/5.5</p>	111	113.5	<p>crosscutting rusty carbonate fractures. Minor, very small, botryoidal sulfides(?) form in open space in fracture cavities. Minor (less than 1%) sulfides, with pyrrhotite being the most common, followed by galena with crystals to 1 cm, and chalcopryrite.</p> <p>Crosscutting (6° to C.A.) 2 cm wide irregular quartz vein. 15% of vein is carbonate, mostly calcite. Calcite forms coarse grained fragments up to 1 cm, some of which are weathering out, leaving vugs. Vugs and irregular crosscutting fractures have a rusty staining. Fractures may also have botryoidal sulfides(?).</p>			
124	126	<p>Breccia Zone.</p> <p>A well layered quartz muscovite schist has been fractured and rehealed with quartz/carbonate cement. Fragments are from 3 cm to less than 1 mm. Infilling cement is vuggy, with cavities to 1 cm with a quartz druse lining. Carbonates are calcite and rhodochrosite. Recovery = 100%</p>			<p>Infillings are rusty. Iron oxide and possibly manganese oxide (black) coatings along fractures. Sulfides, mostly pyrrhotite, occur as very fine grained disseminations, less than 1% of core.</p>			

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from ft	to ft		from ft	to ft		Thickness mm	Angle to core	minerals in decreasing abundance
126	134	Quartz muscovite schist. Muscovite forms irregular lamellae to 5 mm. Minor mariposite lamellae. Quartz forms bands and pods to 2 cm wide. Minor calcite within quartz bands. Schistosity to C.A.: 73°, but very discontinuous (pod-like rather than banded) and very convoluted. Core Recovery = 100%			Pyrrhotite occurs as disseminations, very fine grained, 1% of core. Pyrite occurs as small disseminations and globules up to 5 mm. Fractures generally parallel schistosity. Iron oxidation along fracture surfaces.			
134	155	Phlogopitic quartz muscovite schist. Muscovite forms medium sized crystals in well layered lamellae. Minor mariposite lamellae. Quartz forms bands to 4 cm wide. Minor carbonate in quartz bands. Percentages: Quartz = 45% Muscovite = 35% Phlogopite = 15% Carbonates & Others = 5% Schistosity to C.A.: 69°, generally very planar and well defined, but some sections are very convoluted. Core Recovery: 134 - 155 = 100%			Pyrite and pyrrhotite occur as very fine grained disseminations; account for less than 1% of core.			



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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from ft	to ft		from ft	to ft		Thickness mm	Angle to core	minerals in decreasing abundance
155	189	<p>Quartz chlorite schist. Chlorite is black, fine to medium grained, and forms distinct lamellae to 2 mm. Some muscovite is interlayered with chlorite. Mariposite forms bands to 1 cm wide parallel schistosity. Quartz forms lamellae, bands, and pods between chlorite, and also convoluted bands discordant to schistosity. Quartz also rarely forms blue eyes.</p> <p>Percentages:            Quartz = 45%            Chlorite = 50%            Mariposite &amp; Others = 5%</p> <p>Schistosity to C.A.: 76°, mostly very planar and well defined.</p> <p>Recovery:            155 - 159 = 3.5/4            159 - 162 = 2.5/3            162 - 172 = 100%            172 - 182 = 9/10            182 - 189 = 100%</p>			<p>A few calcite crosscutting stringers, irregular, pinch and swell up to 5 mm thick. Pyrite and pyrrhotite form very fine grained disseminations less than 1% of core. Pyrrhotite rarely forms to 3mm.</p>			
189	205	<p>Quartz muscovite schist. Well layered quartz/muscovite lamellae, with minor chlorite. Quartz bands up to 3 cm wide. Quartz also forms blue eyes (rarely). Schistosity to C.A.: 75°, planar, well defined. Recovery: 100%</p>	202	203	<p>Minor fine grained pyrrhotite disseminated throughout section. At top of section, pyrite globules to 5 mm may concentrate up to 20% over a 2 cm quartz rich zone. Moderately fractured zone. Longest section of core is 5 cm, slightly sheared as some crumbly and clayey core.</p>			

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from 英尺	to 英尺		from 英尺	to 英尺		Thickness mm	Angle to core	minerals in decreasing abundance
205	328	<p>Quartz chlorite schist. Well layered quartz/chlorite lamellae, with some muscovite. Muscovite may occasionally be as common as chlorite. Also, upper and lower contacts are gradational. Minor mariposite bands. For last 20 feet of section, phlogopite accounts for 10% of core; occurs as small (to 2 mm) crystals disseminated and as lamellae. Quartz may also form elongate pods. A few blue quartz eyes. Rhodochrosite occurs as blebs within quartz bands. Schistosity to C.A.: 65°, well defined and planar.</p> <p>Recovery:</p> <p>205 - 217.5 = 100% 217.5 - 222 = 6.5/10 227 - 271 = 100% 271 - 275 = 3.5/4 275 - 325 = 100%</p>	222	226	<p>Carbonate rich; minor fine grained pyrrhotite and minor galena as small (3 mm) crystals.</p> <p>Pyrite is disseminated throughout as fine grained crystals occasionally up to 3 mm; accounts for less than 1% of core. Pyrrhotite occurs as stringers parallel schistosity, plus a few disseminations, for 1% of core overall. Minor chalcopryrite as disseminations in quartz bands. Slight shear, core is moderately fractured into sections less than 5 cm, crumbly, poor core recovery (25%).</p> <p>Pyrite as disseminations and globules alligned parallel schistosity in a loose stringer zone for 10% of section. Slight shear, core is fractured into pieces less than 1c long, crumbly.</p> <p>Slight shear, core is fractured into pieces less than 1 cm long, crumbly.</p>			
			247	247.5				
			260.5	261				
			274	274.5				

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from Xft	to Xft		from Xft	to Xft		Thickness mm	Angle to core	minerals in decreasing abundance
328	338.5	<p>Quartz muscovite schist. Muscovite plus some chlorite form weak bands. Phlogopite forms small crystals and occurs as disseminations, globules, and as short lamellae Quartz forms irregular bands and pods. Quartz may have vugs up to 1 cm with a quartz druse lining. Minor rhodochrosite occurs within quartz bands. Percentages: Quartz = 50% Muscovite = 35% Phlogopite = 10% Others = 5% Schistosity to C.A.: 64°, but may be very weak and extremely convoluted. Recovery = 100%</p>	328	328.5	<p>Pyrite occurs as disseminated cubes and globules to 5 mm for 1% of core. Pyrrhotite occurs as globules and stringers parallel schistosity for less than 1% of core. Minor chalcopyrite as globules to 1 mm. Slight shear zone, highly fractured, core is ground up into a fine clay.</p>			
338.5	422.5	<p>Quartz chlorite schist. Chlorite plus some muscovite forms bands and lamellae; fine to medium grained. Minor phlogopite, often as fine grained isolated crystals. Quartz forms bands and pods up to 6 cm wide. May be translucent in larger pods. Minor rhodochrosite in larger pods. Percentages: Quartz = 50% Chlorite = 33% Muscovite = 10%</p>			<p>Fine grained pyrrhotite disseminated throughout core, 1% of core. Pyrite cubes to 3 mm disseminated throughout, less than 1% of core. Minor iron oxidation along fractures.</p>			



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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from xft	to xft		from xft	to xft		Thickness mm	Angle to core	minerals in decreasing abundance
422.5	442.5	<p>Phlogopite = 2% Others = 5% Schistosity to C.A.: 83°, planar and well defined through most of core, though very convoluted in some sections. Recovery = 100%</p> <p>Quartzitic Quartz muscovite schist. Lamellae of muscovite between thick bands of quartz. A few blue quartz eyes. Percentages: Quartz = 80% Muscovite = 10% Chlorite = 5% Others = 5% Schistosity to C.A.: 66°, planar but weak due to large quartz percentage. Recovery = 100%</p>	432	432.5	<p>Disseminated pyrite as cubes up to 3 mm, 1% of core. Also, a few pyrite stringers parallel schistosity up to 4 mm wide. Occur sporadically in swarms, but less than 1% of core. Core is increasingly fractured towards the bottom of the section, until last 2 feet are broken into sections smaller than 5 cm. Rusty staining along fractures.</p> <p>Crosscutting quartz vein at 16° to C.A., has caused (or formed along) offset, slight brecciation of country rock. Pyrite globules up to 5 mm; concentrated to 5% of core in this section.</p>			
442.5	446.5	<p>Breccia Zone. Upper contact is at 25° to C.A.</p>			<p>Fracture filling is iron stained. Pyrite occurs as disseminated cubes up to 2 mm and as elongate globules within the fractures.</p>			

## Diamond Drill Record

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Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION etc.	VEINLETS		
from mft	to mft		from mft	to mft		Thickness mm	Angle to core	minerals in decreasing abundance
446.5	456	Quartzitic quartz muscovite schist has been brecciated into fragments up to 3 cm and rehealed with a iron stained fracture system plus minor calcite. Some blue quartz eyes. Recovery = 100%	445.5	446	Quartz vein, contact is at 35° to C.A. Quartz is coarse grained. Calcite stringers crosscutting vein, and a few calcite pods to 1 cm have partially weathered out as vugs.			
		Quartzitic quartz muscovite/chlorite schist. Muscovite and chlorite, but concentrations and relative percentages change. Quartz forms bands inbetween muscovite/chlorite lamellae. Also forms pods up to 10 cm, and a few blue eyes. At top of section, percentages are typically: Quartz = 40% Chlorite = 40% Muscovite = 13% Calcite = 2% Others = 5% At bottom of section, percentages are typically: Quartz = 50% Muscovite = 30% Chlorite = 15% Others = 5% Schistosity to C.A.: 68°, poorly developed and convoluted in upper part of section (chlorite rich); well developed and planar lower down. Recovery = 100%	447		Disseminated pyrite cubes up to 2 mm account for 1% of core. Occasional pyrite stringers. In chlorite rich zones, pyrite concentrates up to 5% in globules and disseminations, and up to 1% chalcopryite as disseminated globules. Slight shear zone, 10 cm, core is very ground up. Two 1 cm wide quartz veins 1 cm apart, parallel at 50° to C.A. (subparallel schistosity), with 10% pyrite in veins and adjacent country rock.			
			445.5					

## Assay Data Sheet

86 AOR PL #1

HOLE NO		PL #1	Page 1 of 5	
<del>As x ppm</del> Rock	Sample Number			
qms	37272F	rusty		
qms	37273	rusty		
qms	37274	rusty		
qms	37275	rusty		
qms	37276	rusty		
qms	37277	rusty		
qms	37278	rusty		
qms	37279	rusty		
qms	37280			
qms	37281			
chl qms	37282			
chl qms	37283			
qms	37284			
qms	37285			
qms	37286			
q eye s	37287			
q eye s	37288			
quartz	37289	vein		
q eye s	37290			
quartz	37291	vein		
q eye s	37292			
q eye s	37293			
q eye s	37294			
q eye s	37295			

## Assay Data Sheet

											HOLE NO	PL #1	Page 2 of 5	
From xx ft	To xx ft	Length xx ft	Ag ppm	Au ppb	Au oz FA	Cu %	Cu ppm	Fe%	Zn ppm	Pb ppm	Assay Rock	Sample Number		
124	126	2									box	37296F		
126	130	4									qms	37297		
130	134	4									qms	37298		
134	139	5									qms	37299	with phlogo	
139	144	5									qms	37300	with phlogo	
144	149	5									qms	37301	with phlogo	
149	155	6									qms	37302	with phlogo	
155	160	5									q chl s	37303		
160	165	5									q chl s	37304		
165	170	5									q chl s	37305		
170	175	5									q chl s	37306		
175	180	5									q chl s	37307		
180	185	5									q chl s	37308		
185	190	4									q chl s	37309		
189	192	3									qms	37310		
192	195	3									qms	37311		
195	198	3									qms	37312		
198	200	2									qms	37313		
200	202	2									qms	37314		
202	203	1									qms	37315	minor galena	
203	205	2									qms	37316		
205	210	5									q chl s	37317		
210	215	5									q chl s	37318		
215	220										q chl s	37319		

## Assay Data Sheet

											HOLE NO	PL #1	Page 3 of 5	
From m ft	To m ft	Length m ft	Ag ppm	Au ppb	Au oz FA	Cu %	Cu ppm	Fe%	Zn ppm	Pb ppm	Rock	Sample Number		
220	229	9									q chl s	37320F		
229	234	5									q chl s	37321		
234	239	5									q chl s	37322		
239	244	5									q chl s	37323		
244	249	5									q chl s	37324		
249	254	5									q chl s	37325		
254	259	5									q chl s	37326		
259	264	5									q chl s	37327		
264	269	5									q chl s	37328		
269	274	5									q chl s	37329		
274	279	5									q chl s	37330		
279	284	5									q chl s	37331		
284	289	5									q chl s	37332		
289	294	5									q chl s	37333		
294	300	6									q chl s	37334		
300	305	5									q chl s	37335		
305	310	5									q chl s	37336		
310	315	5									q chl s	37337		
315	320	5									q chl s	37338		
320	324	4									q chl s	37339		
324	328	4									q chl s	37340		
328	333	5									qms	37341		
333	338.5	5.5									qms	37342		
338.5	343	4.5									q chl s	37343		



Assay Data Sheet

											HOLE NO	PL #1	Page 4	of 5
From m ft	To m ft	Length m ft	Ag ppm	Au ppb	Au oz FA	Cu %	Cu ppm	Fe%	Zn ppm	Pb ppm	ANALYSIS Rock	Sample Number		
343	348	5									q chl s	37344F		
348	353	5									q chl s	37345		
353	358	5									q chl s	37346		
358	363	5									q chl s	37347		
363	368	5									q chl s	37348		
368	373	5									q chl s	37349		
373	378	5									q chl s	37350		
378	383	5									q chl s	37351		
383	388	5									q chl s	37352		
388	393	5									q chl s	37353		
393	398	5									q chl s	37354		
398	403	5									q chl s	37355		
403	408	5									q chl s	37356		
408	413	5									q chl s	37357		
413	418	5									q chl s	37358		
418	422.5	4.5									q chl s	37359		
422.5	425	2.5									qms	37360	Qtzitic	
425	428	3									qms	37361	Qtzitic	
428	431	3									qms	37362	Qtzitic	
431	434	3									qms	37363	Qtzitic	
434	437	3									qms	37364	Qtzitic	
437	440	3									qms	37365	Qtzitic	
440	442.5	2.5									qms	37366	Qtzitic	
442.5	444.5	2									brx	37367		

## Assay Data Sheet

											HOLE NO	PL #1	Page 5 of 5	
From m ft	To m ft	Length m ft	Ag ppm	Au ppb	Au oz FA	Cu %	Cu ppm	Fe%	Zn ppm	Pb ppm	Rock	Sample Number		
444.5	446.5	2									brx	37368F		
446.5	448.5	2									qms	37369	Qtzite	
448.5	450.5	2									qms	37370	Qtzite	
450.5	453.5	3									qms	37371	Qtzite	
453.5	456	2.5									qms	37372	Qtzite	