

DRILL HOLE LOG

COORDINATES 1 + 75S - 4 + 50E
ELEVATION 5695'
DIP -90°
AZIMUTH -

HOLE No. 79B-5
PAGE 1 OF 7

CORE SIZE BQ
HOLE STARTED 04/09/79
HOLE COMPLETED 18/09/79
LOGGED BY M.P. Phillips

FOOTAGE	DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm Sn
0				
10				
20	First core			
30	Pbmcs BIOTITE MARBLE AND SCHIST: biotite dolomitic marble; medium-dark grey, somewhat gneissic banding depending upon biotite imparts crude banding; slightly siliceous rarely as narrow <0.5' bands; in places vague 'bleached' appearance becoming paler in colour; biotite not as common and appears to be partly altered to talc. Pale anaemic pink usually partly replaced throughout by biotite-disseminated and often moderate - above average distributed in narrow bands. Weak disseminated pyrite. Fair-moderate fracturing with limonite. Light grey <1 mm dolomite? brucite pseudomorphs.	(3)	T	I
40				
50	Highly fractured. Garnet content drops.	(1)	T	I
60	40° foliation 65° foliation Aplite- light coloured, fine grained weak biotite strongly chloritized; fair quartz veining.			

DRILL HOLE LOG

HOLE No. 79B-5
PAGE 2 OF 7

COORDINATES
ELEVATION
DIP
AZIMUTH

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

DEPTH	DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm Sn
60 70	<p>Pbmcs*</p> <p>BIOTITE MARBLE AND SCHIST continued</p> <p>Core loss may be due to narrow quartz veins.</p>	(5)	T	1
80	<p>Siliceous partings, wisps and narrow bands up to 5 mm become more common.</p>			
90	<p>0.3' 70-80° contacts - fine-medium grained chloritized biotite quartz monzonite parallels foliation</p> <p>Note: pale grey moderately soft dolomite? brucite phenocrysts next to intrusive contact.</p> <p>60-70° contacts parallel foliation; chloritized biotite quartz monzonite. Up to 8 mm stubby lenses and porphyroblasts of quartz and grey white mineral - dolomite.</p> <p>Occasional 'quartz' porphyroblast.</p>	(1)	T	1
100	<p>Black green, massive rock higher specific gravity than marble; suggests fine acicular major mineral - tremolite? possible serpentinite or talc.</p>	(2)	T	1
110	<p>Marble loses alternating dark and lighter colour gneissic banding due to decreasing biotite; light grey green colour. Biotite changes from dark brown to green colour - phlogopite? or decreasing iron in biotite?</p>			
120	<p>GREY AND GREEN INTERBANDED SCHIST AND GNEISS: white pale green pyroxene mottled calcic marble with 10-15% pale garnet > vesuvianite porphyroblasts and in streaks - wollastonite? A few narrow bands of normal biotite marble.</p> <p>Pggi*</p> <p>0.1' vein calcite with pale green-white pyroxene crystals.</p> <p>118.0-118.7' - strongly silicified marble with indistinct streaks of garnet.</p>	(5)	10	2
		0.03	5	

DRILL HOLE LOG

HOLE No. 798-5
PAGE 3 OF 7

COORDINATES
ELEVATION
DIP
AZIMUTH

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE	DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm Sn
120	118.7-120.0' - medium green soft limy pyroxene skarn; moderate-above average carbonate. Pggi* GREY AND GREEN INTERBANDED SCHIST AND GNEISS continued: light to medium green-massive-weak banded moderately soft; darker bands altered marble strongly calcic - looks like first stage skarn. Alternating soft, pale-medium green (pyroxene) and weak calcite and hard siliceous; pseudogarnet - black - slightly magnetic in places highly calcic; siliceous areas - blebby silica. 0.2' 20° very fine-aphanitic with phenocrysts of kspar?-quartz.			
130	Still siliceous altered garnet alternating light and dark green, overall lighter colour and mainly bands of soft highly calcic marble. Kqm* QUARTZ MONZONITE: porphyritic phenocrysts to 30 mm, strong fracturing with weak carbonate and fair clay (supergene) weak to fair chloritization of biotite.	(4)	T	1
140	Contact ground Pggi* GREY AND GREEN INTERBANDED SCHIST AND GNEISS: soft, mottled green banded fair silicification near contact. Banded hard moderately soft massive dark green pyroxene bearing. Interbanded light green hard pyroxene bands and soft dark grey green marble. Both types up to 5 mm garnet partly usually completely altered to black mineral. A few <0.1' limy and non-limy garnet> vesuvianite quartz bands - porphyroblasts up to 5 mm no wollastonite.	(1)	T	1
150	Contact ground Psk* DARK GREEN MASSIVE SKARN: massive faintly banded, hard medium dark green weakly calcic. Minor pyrite/pyrrhotite strong limonite on fractures. Weak pale pink garnet up to 15 mm in top half.	(126)	T	1
		0.03	35	
160	Pggi* GREY AND GREEN INTERBANDED SCHIST AND GNEISS: mainly pale light green pyroxene with characteristic almost totally altered garnet; siliceous calc-silicate gneiss with lense patches and narrow bands of altered biotite dolomite marble occasionally calcic. strongly calcic, very soft.	(2)	T	1
	Psk* DARK GREEN MASSIVE SKARN: massive faintly banded, hard medium dark green weakly calcic. Minor pyrite/pyrrhotite strong limonite on fractures. Weak pale pink garnet up to 15 mm in top half.	0.08	100	
170	Contact ground Kqm* QUARTZ MONZONITE: fine grained weak quartz veining. Contact broken High pervasive, weak fine blebby calcite. Contact ground Fine grained biotite quartz monzonite, moderate chloritization. Contact ground Biotite quartz monzonite-core highly broken; feldspars to clay and strong calcite Contact ground Fine grained up to 0.2' banded skarn. Biotite fair; weak chloritization.	0.10	295	
	Pcss* BANDED SKARN AND CALC-SILICATE SCHIST: pale green hard light green pyroxene gneiss with darker, softer usually calcareous bands and patches which impart banded appearance, completely altered garnets soft black, slightly magnetic, occasionally darker <0.5' slightly soft medium green bands common after 175' pink garnets> vesuvianite up to 20 mm diameter. Minor pyrite>pyrrhotite in massive soft dark calcareous may be calc-carbonate.	(13)	T	1
	Contact ground - 0.2' biotite quartz monzonite.	0.05	75	
	Dark green soft highly calcareous.	(200)	T	2

DRILL HOLE LOG

HOLE No. 79B-5
PAGE 4 OF 7

COORDINATES
ELEVATION
DIP
AZIMUTH

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE		DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm Sn
180	•	Psk* DARK GREEN MASSIVE SKARN: medium-dark green, slightly soft dark green pyroxene skarn with fair blebby white quartz and occasional narrow limy parting and band, strong garnet > vesuvianite in top 1' (20%) elsewhere weak pyrite/pyrrhotite.	0.26	105	
	•	Pcss* Banded skarn consisting of interbanded dark green hard, siliceous dark green pyroxene and light and dark green soft moderately-highly calcareous skarn; weak garnet > vesuvianite porphyroblasts; Weak pyrite/pyrrhotite. White band, whiter green mottled banded pale skarn, wollastonite and minor calcite with vesuvianite > garnet 5-25 mm up to 15%.			
190	•	Pggi* Banded slightly soft (altered biotite dolomite marble-silicified) and pale green hard highly silicified pale green pyroxene skarn, altered garnet to black mineral fairly common, parting and bands 0.1-0.5' of wollastonite minor carbonate with vesuvianite > garnets up to 40% common. GREY AND GREEN INTERBANDED SCHIST AND GNEISS: silicified biotite dolomite marble with bands highly silicified and to 20% pale green pyroxene.	(2)	T	1
	•	Pcss* BANDED SKARN AND CALC-SILICATE GNEISS: narrow white bands partings become common-wollastonite, pale skarn and minor calcite with pink garnet and brown vesuvianite common.			
200	•	Pggi* GREY AND GREEN INTERBANDED SCHIST: mottled, pale khaki green and dark green, often white and dark green banded, soft rarely siliceous, strongly calcareous; fair talc? In places pale green soft calcareous light-dark green pyroxene with weak garnet vesuvianite. In places 0.1' bands siliceous yet still calcareous talc-carbonate - alteration of biotite dolomite marble?			
210	•		(10)	T	4
220	•	Contact ground Kqm* QUARTZ MONZONITE: soft, highly weathered/alterned extreme chloritization; carbonate moderate-above average. In places strong quartz segregations up to 0.3'.	(5)	T	1
	•	Contact ground Pggi* GREY AND GREEN INTERBANDED SCHIST: interbanded pale green siliceous, pale green pyroxene (20%) bands and darker coloured slightly soft siliceous altered biotite dolomite marble; altered garnets to 5 mm common, occasional irregular <0.05' white bands with vesuvianite > garnet; rare soft dirty dark green highly limy band.			
230	•	Aplite - highly altered fine grained biotite highly chloritized; soft fair-moderate carbonate. Pyroxene bands become softer, not as siliceous and calcareous bands more common, altered garnets not common to 249'.	(2)	T	1
240	•				

DRILL HOLE LOG

HOLE No79B-5
PAGE 5 OF 7

COORDINATES
ELEVATION
DIP
AZIMUTH

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE	DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm Sn
240	Pggi* GREY AND GREEN INTERBANDED SCHIST AND GNEISS continued			
250	<p>Patches of moderately hard dark green pyroxene skarn in banded skarn; minor or weak garnet-vesuvianite.</p> <p>Contact ground</p> <p>Kap* WHITE APLITE: white fine grained with occasional patches of medium grained, mafic free, abundant fine hairlike quartz veinlets with minor pyrite. Fractures 4/ft with weak clay and carbonate.</p> <p>Blebbly quartz feldspar phenocrysts to 10 mm common.</p>	0.05	30	
260	<p>Contact ground</p> <p>Pggi* GREY AND GREEN INTERBANDED SCHIST: pale green hard highly siliceous pale green pyroxene (20-40%) with darker coloured darker green slightly soft-moderately hard siliceous biotite dolomite marble with fine patches with a mixture of quartz-altered? biotite and moderate green pyroxene. Irregular narrow 40.1' white bands with vesuvianite > garnet porphyroblasts up to 15 mm diameter rare altered garnets.</p> <p>Massive becoming weakly banded towards bottom; medium-dark green pyroxene; vesuvianite = garnet = 10 mm; minor pyrrhotite crack filling.</p>	(10)	T	1
270	<p>Parting to bands up to 2' of interbanded wisps, lenses and bands of white bands - alternating wollastonite and pale green siliceous hard light green skarn 10-15% vesuvianite > garnet porphyroblasts to 15 mm.</p> <p>0.4' massive medium green, siliceous vesuvianite > garnet = 15%.</p> <p>PCSS*</p> <p>Lenses and patches of biotite dolomite marble impart a gneissic banding to rock; as skarnification increases silicification replacing dolomite, biotite still present and silicification has up to 10% pale green pyroxenes. When skarnification increases only wisps and eyes of biotite present and wollastonite, vesuvianite and garnet present.</p>	(20)	T	1
280	<p>Pggi* GREY AND GREEN INTERBANDED SCHIST: mainly biotite dolomite marble with a few white bands; good example of marble starting to silicify with blebby quartz; rare minor light coloured pyroxene.</p> <p>Contact ground.</p> <p>Kqm* QUARTZ MONZONITE: fine biotite 10-15%; feldspar phenocrysts not as common as typical monzonite and small size average 10 mm. Fractures 2-4/ft 10-45% and with weak clay carbonate and minor limonite.</p> <p>Fresh weak to strong chloritization of biotite especially along cracks and fractures.</p>	0.05	90	
290	<p>Rock has many rusty coloured alteration bands with feldspars; reddish colour and slightly soft and biotite to chlorite and when intense to mica. Fractures 2-4/ft average at 45°.</p>	(2)	T	1
300		(4)	T	1

DRILL HOLE LOG

HOLE No. 79B-5
PAGE 6 OF 7

COORDINATES
ELEVATION
DIP
AZIMUTH

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE	DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm Sn
300	<p>Kqm* 0.5' strong clear white quartz veining.</p> <p>Biotite quartz monzonite continued: generally finer grained feldspars - yellow slightly soft to pink soft to pale green (montmorillonite) biotite to white or pale green mica (chlorite) quartz veinlets up to 10 mm common 1/6"-1ft.</p>			
310	<p>Pbmcs* Altered strong becoming weaker calcareous toward bottom</p> <p>Dark strongly foliated, strong pervasive and laminae silicification.</p> <p>Kqm* QUARTZ MONZONITE: porphyritic phenocrysts to 40 mm; feldspars altered to slightly soft pale yellow to pale anaemic pink, biotite to mica.</p>	(5)	T	1
320	<p>20° shear</p> <p>Finer grained biotite quartz monzonite; less biotite than normal 1-3% becoming highly siliceous toward bottom contact.</p> <p>Normal biotite (10-15%) now porphyritic, fine-medium grained, increasing chloritization towards bottom contact.</p> <p>Fine grained look sheared and crackled pink colour - chlorite release iron; moderately hard to soft white fresh to pale yellow slightly soft feldspar; 323.0-326.0' ex - altered?</p> <p>Transition</p> <p>Hard-slightly soft yellow and white feldspars; look somewhat like feldspar porphyry-may be silica flooding.</p> <p>In a siliceous matrix; matrix free.</p> <p>Yellow colour, soft white-pale yellow feldspar; minor aplite?</p> <p>Biotite to chlorite and mica; medium grained.</p> <p>0.2' sheared marble - transition.</p> <p>Fine grained biotite quartz monzonite.</p>	(25)	T	1
330	<p>Highly altered Porphyritic.</p> <p>Fine grained, dark grey, abundant fine grained biotite imparts darker colour. In places greenish colour due to weak alteration of feldspars clay-calcite on fractures.</p>	(5)	T	1
340	<p>Porphyritic quartz monzonite: medium grained + 5% biotite; strong fractures with calcite.</p> <p>Contact lost</p>			
350	<p>Pbmcs* BIOTITE MARBLE AND SCHIST: medium mottled green, foliated soft, weak-fair pervasive and weak crack and blebby silicification; strong to weakly calcareous; biotite weak-completely altered to soft green micaceous mineral; calcite on cracks.</p> <p>Generally strongly calcareous.</p>	(20)	T	1
	<p>Psk* DARK GREEN MASSIVE SKARN: massive-weak banded, fine grained, hard medium-dark green-highly pervasive silicification (50%) strong trace molybdenite.</p>	0.09	110	
	<p>Dark green banded and massive.</p>	0.09	180	
	<p>Pggi* GREY AND GREEN INTERBANDED SCHIST: banded light green 2-4 mm pyroxene fresh pyrite porphyroblasts; dark mottled, green, slight-strongly calcareous occasional narrow siliceous band; minor fracture pyrrhotite, strong pyrrhotite fracture at 357.8'.</p>	0.03	15	
	<p>Kqm* QUARTZ MONZONITE:</p>	0.16	200	

DRILL HOLE LOG

HOLE No. 79B-5
PAGE 7 OF 7

COORDINATES
ELEVATION
DIP
AZIMUTH

CORE SIZE
HOLE STARTED
HOLE COMPLETED
LOGGED BY

FOOTAGE	DESCRIPTION	WO ₃ % (ppm)	ppb Au	ppm S _n
360	<p>Fair silicification, strong chloritization imparts dark green colour to rock in places feldspar-sauseritized. Kqm* <u>QUARTZ MONZONITE</u> continued</p> <p>White, medium grained quartz feldspar - perthitic?</p>	(90)	T	1
	<p>Pggi* <u>GREY AND GREEN INTERBANDED SCHIST AND GNEISS:</u> weak-fair calcareous banded pale to medium green hard siliceous with minor marble bands; fair crack pyrrhotite at top contact.</p>	0.03	5	
	<p>0.1' coarse biotite in quartz blob.</p>	0.03	T	
	<p>Contact 70°</p>	0.16	35	
	<p>White fine grained with minor chlorite-quartz monzonite.</p>	0.02	5	
	<p>Irregular 30-70° contact</p>			
370	<p>Narrow bands tending to massive dark green skarn and garnet.</p>	0.04	10	
	<p>Soft, strong calcareous, gradually becoming siliceous toward bottom contact.</p>			
	<p>Contact - 80° parallels foliation. Kap* Aplite grading in porphyritic biotite quartz monzonite towards bottom, feldspars altered to hard yellow fair chloritization.</p>			
	<p>Contact 45° parallels foliation.</p>			
	<p>30° and 45° contacts parallel foliation - 0.6' - Quartz monzonite- white-light grey weak trace biotite strongly chloritized.</p>	(10)	T	1
	<p>Kqm* <u>QUARTZ MONZONITE:</u></p>			
	<p>70° parallels foliation</p>			
	<p>Porphyritic biotite quartz monzonite</p>			
380	<p>70° parallels foliation Moderate chloritization feldspars- pink moderately soft, phenocrysts hard white.</p>			
	<p>Rock becomes yellowish colour weathering. Pbmcs* <u>BIOTITE MARBLE AND SCHIST:</u> biotite looks chloritized, soft dark grey strongly foliated, rare narrow banded skarn zone. After 383.0' yellow orange-weathering along fractures and rock strong hairlike healed cracks.</p>			
	<p>Strong 0-45° fractures.</p>			
	<p>Moderate-strongly calcareous.</p>			
390		(9)	T	1
	<p>0.1' biotite high fine grained medium grained porphyritic-dark grey quartz monzonite.</p>			
400	<p>End of Hole- abandoned cave.</p>			
410				
420				