

**APPENDIX 6c**

**NCT004 – Lithology Logs**

(See Digital File EL20\_2003\_200505\_11\_Appendix6c.pdf)







Survey Depth	Azimuth	Dip	Hole Co-ordinates
			Easting AMG
			Northing AMG
			Elevation (m)
			Azimuth Mag
			Dip

SHEET 4 OF 19

PROJECT:	QUEENSTOWN - MT DARWIN
PROSPECT:	MOUNTAIN MAID
DATE:	26-1-2005
LOGGED BY:	KM

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
					%	.1	.3	1	3	5	STRUCT				ALT
122	100	75													
124	100	85											Minor interbeds of green sericite > chlorite alt. laminated. Cleaved ash tuff, 1-10cm thick, at 121.9, 122.05, 130.3, 131.2 m		
126	100	100											Continuation of massive rhyolite unit afa. Pink-brown, in situ green-grey-pink, characterised by granular texture due to perlitic, spherulitic devitification cracks and sugary-nodular textures. This texture appears to make rock softer, easier drilling than the equivalent aphanitic massive rhyolite.		
128	100	95											Weak sericite > chlorite alt. often aligned in wavy foliation around perlite grain boundaries. Consistent white carbonate alt in fracture, veinlet fill and as disseminated spots, small patches.		
130	100	100											Low pyrite content, mainly as disseminated euhedral studs, small aggregates.		
132	100	95											139.4 - 140.5 Crystal ash tuff unit composed of rhyolite fragments, ash. Irregular interfingered top and bottom contacts with lava.		
134	100	90													
136	100	95													
138	100	85													
140	100	95													
142	100	100													
144	100	85													
146	100	100													
148	100	100													
150	100	95											150.2 - 150.2-154.8, 157.5-168.2 zones of intense quartz. Ksp, carbonate & perim chlorite sericite pyromorphic (veining) dykes. Common xenoliths rhyolite wall rock. Grading from a jagged rhyolite breccia with ~50% vein material at the top of the zone, down to veins with rhyolite wall rock inclusions. Patchy coarse euhedral pyrite, wispy aggregates of fine pyrite but overall no clear increase in background sulphide content compared to host rock.		
152	100	100													
154	100	95													
156	100	100													
158	100	100													
160	100	70													

REMARKS

154-154.7  
157.5-164

Survey Depth	Azimuth	Dip	Hole Co-ordinates
			Easting_AMG
			Northing_AMG
			Elevation (m)
			Azimuth_Mag
			Dip

<b>PROJECT:</b> <u>ORISKANY - MT BARWILL</u>
<b>PROSPECT:</b> <u>MOUNTAIN MAID</u>
<b>DATE:</b> <u>27-1-2005</u>
<b>LOGGED BY:</b> <u>KM</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG
				%					STRUCT	ALT	mm						
				.1	.3	1	3	5			0.06	0.5	2	8	32		
100	100																
162	100	100							CA 60-80								Where individual veins occur they are mainly oriented at CA 60-80°, suggesting flat dips.
164	100	70															
166	100	100															
168	100	88															
170	100	85															
172	100	100															
174	100	80															
176	100	95															
178	100	90															
180	100	80															
182	100	95															
184	100	100															
186	100	80															
188	100	95															
190	100	90															
192	100	85															
194	100	100															
196	100	100															
198	100	80															
200	100	80															

REMARKS

entirely rhyolite derived.

R L  
R O  
R <  
R/O



Survey Depth	Azimuth	Dip	Hole Co-ordinates
			Easting_AMG
			Northing_AMG
			Elevation (m)
			Azimuth_Mag
			Dip

PROJECT: <u>QUEENSTOWN - MT DARWIN</u>
PROSPECT: <u>MOUNTAIN MAID</u>
DATE: <u>1-2-2005</u>
LOGGED BY: <u>KM</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
				PREFIX	%					STRUCT				ALT
					1	3	1	3	5					
242	100	100												
243	100	100												
244	100	80												
245	100	85												
246	100	80												
247	100	95												
248	100	90												
249	100	70												
250	100	80												
251	100	75												
252	100	85												
253	100	40												
254	100	30												
255	100	35												
256	100	80												
257	100	90												
258	100	100												
259	100	85												
260	100	100												
261	100	85												
262	100	90												
263	100	95												
264	100	100												
265	100	90												
266	100	100												
267	100	100												
268	100	95												
269	100	95												
270	100	95												
271	100	100												
272	100	100												
273	100	100												
274	100	95												
275	100	100												
276	100	100												
277	100	95												
278	100	60												
279	100	45												
280	100	100												

REMARKS

Continuation of rhyolite autochthonic breccia  
 all 243-248 small seams carbonate pyrite  
 + chalcopyrite

sericite, chlorite alt increasing downhole in  
 this unit.

252-7 Sharp contact  
 Green laminated cleavage ash, microcrystal tuft  
 with interbedded orange brown rhyolite spherulite,  
 crystal sandstone - fine grained breccia.  
 255-6 Gradational contact at base.

Massive uniform green-green, pink-green,  
 mottled, flecked fine granular rhyolite with  
 consistent granular perlitic texture. Moderate  
 to intense sericite, carbonate alt. Coarse  
 feldspar phenocrysts altered to pink  
 carbonate or dark green chlorite.

very low sulphide content but sericite,  
 chlorite alt increasing down hole

Intermittent bands of high and low levels of  
 carbonate alt within the unit. Carbonate  
 may be mainly or entirely related to later  
 deformation but sericite appears pre-cleavage.

Survey Depth	Azimuth	Dip	Hole Co-ordinates
			Easting_AMG
			Northing_AMG
			Elevation (m)
			Azimuth_Mag
			Dip

PROJECT:	<u>EXPLORATION - MT DARWIN</u>
PROSPECT:	<u>MOONMOUNTAIN MAID</u>
DATE:	<u>2-2-2005</u>
LOGGED BY:	<u>KM</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG		
					%					STRUCT	ALT	mm								
					.1	.3	1	3	5			0.06	0.15	2	8	32	64			
282	100	85																		Continuation of thick rhyolite unit.
284	100	100																		Green-pink, grey-green, feldspar phytic-feldspar porphyritic, cleaved to locally schistose rhyolite, mainly with granular perlitic poikilitic devitification textures which have made the rock soft to drill and enhanced sericite-chlorite cleavage development.
286	100	100																		Rock is moderately - heavily sericite altered, chlorite increasing down hole and carbonate (mainly calcite) appears constant and texturally later than the phyllosilicates.
288	100	85																		Very low background levels of fine and occasionally coarse euhedral pyrite. Increased pyrite (with calcite ± chlorite) on some cleavage parallel core breaks.
290	100	100																		Rhyolite with highest sericite alt shows weak schistosity.
292	100	95																		
294	100	100																		
296	100	95																		
298	100	80																		
300	100	75																		
302	100	95																		
304	100	85																		
306	100	50																		
308	100	100																		
310	90	30																		
312	90	20																		
314	90	55																		
316	90	80																		
318	100	100																		
320	100	90																		
322	100	90																		
324	100	100																		
326	100	90																		
328	100	90																		
330	100	95																		
332	100	100																		

REMARKS



Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	
			Northing_AMG	
			Elevation (m)	
			Azimuth_Mag	
			Dip	

PROJECT: <u>GREENSTOWN - MT DARWIN</u>
PROSPECT: <u>MOUNTAIN MAID</u>
DATE: <u>4-2-2005</u>
LOGGED BY: <u>K.M.</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG		
				PREFIX	%					STRUCT	ALT	mm							
					1	3	1	3	5			0.06	0.05	2	8			32	64
260	100	95																	
262	100	100																	
264	100	100																	
266	100	100																	
268	100	95																	
270	100	100																	
272	100	100																	
274	100	100																	
276	100	100																	
278	100	100																	
280	100	100																	
282	100	100																	
284	100	100																	
286	100	100																	
288	100	100																	
290	100	100																	
292	100	100																	
294	100	100																	
296	100	100																	
298	100	100																	
300	100	100																	
302	100	100																	
304	100	100																	
306	100	100																	
308	100	100																	
310	100	100																	
312	100	100																	
314	100	100																	
316	100	100																	
318	100	100																	
320	100	100																	
322	100	100																	
324	100	100																	
326	100	100																	
328	100	100																	
330	100	100																	
332	100	100																	
334	100	100																	
336	100	100																	
338	100	100																	
340	100	100																	
342	100	100																	
344	100	100																	
346	100	100																	
348	100	100																	
350	100	100																	
352	100	100																	
354	100	100																	
356	100	100																	
358	100	100																	
360	100	100																	
362	100	100																	
364	100	100																	
366	100	100																	
368	100	100																	
370	100	100																	
372	100	100																	
374	100	100																	
376	100	100																	
378	100	100																	
380	100	100																	
382	100	100																	
384	100	100																	
386	100	100																	
388	100	100																	
390	100	100																	
392	100	100																	
394	100	100																	
396	100	100																	
398	100	100																	
400	100	100																	

REMARKS

AS  
KS

Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	
			Northing_AMG	
			Elevation (m)	
			Azimuth_Mag	
			Dip	

PROJECT: <u>QUEENSTOWN - MT DARWIN</u>
PROSPECT: <u>MOUNTAIN MAND</u>
DATE: <u>4-2-2005</u>
LOGGED BY: <u>SR</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
					%					STRUCT	ALT	mm							
					1	3	1	3	5			0.06	0.5	2	8	32			64
100	100																		
110	100																		
120	100																		
130	100																		
140	100																		
150	100																		
160	100																		
170	100																		
180	100																		
190	100																		
200	100																		
210	100																		
220	100																		
230	100																		
240	100																		
250	100																		
260	100																		
270	100																		
280	100																		
290	100																		
300	100																		
310	100																		
320	100																		
330	100																		
340	100																		
350	100																		
360	100																		
370	100																		
380	100																		
390	100																		
400	100																		
410	100																		
420	100																		
430	100																		
440	100																		
450	100																		
460	100																		
470	100																		
480	100																		
490	100																		
500	100																		

Pervasive  
secl cb

9/26  
5cm  
100CA

Grey green "volcaniclastic sandstone" continues. However, contains local areas where chloritic feldspar phytic "fragments" sit in a greyer more silica-sericite matrix that is suggestive of domalial alteration / devitrification of an originally coherent feldspar phytic dacite. Needs a thin section!

Cleavage +/- weak compositional banding generally around 20°CA.

Devonian qtz-cb. veining very rare

R 0

REMARKS



Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	
			Northing_AMG	
			Elevation (m)	
			Azimuth_Mag	
			Dip	

PROJECT: QUEENSTOWN - MT DARWIN
PROSPECT: MOUNTAIN MAID
DATE: 8-2-2005
LOGGED BY: SR

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
				PREFIX	%					STRUCT	ALT	mm						
					1	3	1	3	5			0.06	0.05	2	8			32
	100	100																
482	100	100																locally appears peperitic. Rare pink siliceous coherent fragments to 2cm.
	100	100																Weak white calcite veining to 1cm at all angles to CA.
484	100	90																
	100	87																
486	100	100																
	100	100																
488	100	100																
	100	100																
490	100	90																
	100	100																
492	100	92																
	100	81																
494	100	100																
	100	100																
496	100	94																
	100	90																
498	100	100																
	100	100																
500	100	100																
	100	100																
502	100	100																
	100	100																
504	100	100																
	100	100																
506	100	100																
	100	86																
508	100	100																
	100	100																
510	100	100																
	100	100																
512	100	100																
	100	100																
514	100	100																
	100	100																
516	100	100																
	100	87																
518	100	100																
	100	69																
520	100	100																

Unit includes bands up to 0.5m of green-brown generally feldspar phyric coherent dacite? (locally with jigsaw fit fragmental edges). These may be intrusive tongues or large coherent blocks.

Pyrite rare (locally 5%) as fine to coarse grained disseminations.

518.8-519.3 - Pyrite 5% coarse grained diam.

519.3 RELATIVELY SHARP Grey green, massive, weakly foliated,

REMARKS









Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	
			Northing_AMG	
			Elevation (m)	
			Azimuth_Mag	
			Dip	

PROJECT:	<u>QUEENSTOWN - MT DARWIN</u>
PROSPECT:	<u>MOUNTAIN MAID</u>
DATE:	<u>18-2-2005</u>
LOGGED BY:	<u>RM</u>

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG		
				PREFIX	%	1	3	5	STRUCT	ALT	mm	0.06	0.15	2	8			32	64
682	100	100							quartz carb								Continuation of sequence above		
	100	100							Si								Grey-green dacitic-rhyolitic devitrified- cata-brecciated lava, grading to minor resedimented lapilli-sandstone breccia.		
684	100	95							CA 30°										
	100	80							Chlor										
	100	95							Silica										
686	100	90							Carb										
	100	100																	
688	100	100							quartz carb										
	100	100							CA 40°										
690	100	100																	
	100	100																	
692	100	100																	
	100	95																	
694	100	100							quartz carb										
	100	90							CA 30-40°										
696	100	70																	
	100	100																	
698	100	100																	
	100	100																	
700	100	90							quartz carb										
	100	80							CA 40°										
702	100	100							Silica										
	100	100							CA 30°										
704	100	100																	
	100	100																	
706	100	100																	
	100	100																	
708	100	100																	
	100	100																	
710	100	90							patchy silica										
	100	100							silica										
712	100	100																	
	100	100																	
714	100	100							chlor carb										
	100	100																	
716	100	100																	
	100	95							Si										
	100	95							CA 40°										
718	100	95																	
	100	100																	
720	100	100																	

REMARKS

Survey Depth	Azimuth	Dip	Hole Co-ordinates
			Easting_AMG
			Northing_AMG
			Elevation (m)
			Azimuth_Mag
			Dip

PROJECT:	QUEENSTOWN - MT DARWIN
PROSPECT:	MOUNTAIN MAN
DATE:	22-2-2005
LOGGED BY:	KM

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES				PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG
				%				STRUCT	ALT			
PREFIX				.1	.3	1	3	5				
	100	90										
722	100	100							Chlor sericite carb			VC LP
	100	100										
724	100	100							hematite carb			
	100	100										
726	100	100										
	100	100										
728	100	90							patchy silica ? albite sericite		727.3 gradual top, bottom contacts to more coherent, devitrified, granular rhyolite with minor brecciation, pervasive hematite alt, minor chlorite-sericite, increased pyrite	R <
	100	100										
730	100	100										
	100	100										
732	100	100									731.5	
	100	100										
734	100	100							S <sub>1</sub> CA35		From 707.3 to 801 dotted grey-green, minor grey-pink, weakly charred, dacitic-rhyolitic lava breccia with abundant feldspar >> quartz phenocrysts, restricted range of lava, alteration lithic fragments, including minor re-cooked silica/? albite/sericite alt clasts, Jasper clasts, hematitic rhyolite clasts. The rock grades in and out of more coherent, less fragmented lava, with perlite, pinkish snowflake textures.	DC O
	100	100										
736	100	100										
	100	100										
738	100	100										
	100	95										
740	100	90										
	100	85										
742	100	90										
	100	100										
744	100	90										
	100	100										
746	100	100							S <sub>1</sub> CO30		Outside the minor pink hematitic alt facies the rock has weak-moderate patchy, foliated chlorite/sericite alt, patchy pervasive (total replacement in some patches) aphanitic grey silica/? albite with specks, wispy sericite, but no increase in visible sulphide. Common white albite - constant from top to bottom of hole.	
	100	95										
748	100	100										
	100	100										
750	100											
REMARKS												