

**APPENDIX 6b**

**NCT003 – Lithology Logs**

(See Digital File EL20\_2003\_200505\_10\_Appendix6b.pdf)



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

PROJECT: <u>QUEENSTOWN - MT DARWIN</u>
PROSPECT: <u>NASTY NOB</u>
DATE:
LOGGED BY:

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	55																	
42	100	40											+						
	100	50																	
44	100	75										+							
	100	40																	
46	100	75											+						
	100	50																	
48	100	35										+							R <
	100	15																	
50	100	15											+						
	100	15																	
52	100	33																	
	100	57										+							
54	100	69																	
	100	75											+						
56	100	96																	
	100	39																	
58	100	49																	
	100	89																	
60	100	22																	
	100	0																	
62	100	66																	
	100	56																	
64	100	43																	
	100	60																	
66	100	53																	
	100	84																	
68	100	78											+						
	100	82										+							
70	100	16																	
	100	43																	
72	100	51																	
	100	67																	
74	95	73																	
	100	64																	
76	100	31																	
	100	66																	
78	100	81																	
	100	81																	
80	100	44																	

From 41 to 48 m rock is more purple in colour, then becomes lighter orange colour and more fractured.

56.9m  
Pink to dk green, massive, poorly sorted, crystal rich, rhyolitic autoclastic breccia

Pink siliceous feldspar phyric rhyolite fragments, sub-rounded to angular to >10cm and abundant pink feldspar crystals in dark green chloritic matrix (~20%). Weak to locally moderate irregular quartz-carbonate veining to 3cm, low to moderate angles to CA. No sulphides observed.

66.55 - 60.0m - slickensided fault // CA. Sharp contact - Fault? 80° CA  
Pink to green brown feldspar phyric coherent rhyolite. As for 0-56.9m  
68.85 chloritic chilled? contact 30° CA.

Grey green, massive, moderately to strongly foliated, weakly chlorite-sericite-carbonate altered, lapilli volcanoclastic.

Strong fabric at 40° CA masks abundant inequant angular to sub-rounded aphyric fragments to 50cm of uncertain composition. Local pink feldspar +/- quartz phyric rhyolite lava clasts to 5cm. Weak quartz-carbonate veining few. Pyrite trace as fine grained subhedral to euhedral diagen.

78.15 Sharp conformable? contact 35° CA  
78.4 Grey brown massive volcanoclastic siltstone  
Sharp conformable contact 40° CA

59.4  
5° F  
60.6

S1  
40°  
Cl-se-cb

R <

R O

R <

V L LP

V L Z

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>NASTY NOB</u>
DATE: <u>1-12-04</u>
LOGGED BY: <u>S.R.</u>

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG							
				%	STRUCT	ALT	mm	mm	mm	mm				mm						
			PREFIX	.1	.3	1	3	5			0.06	0.5	2	8	32	64				
122	100	86																	Grey green, massive, weakly foliated, weakly chlorite-sericite altered, ash volcaniclastic. Coarse grained lithic sandstone, overall coarsening to base of unit. May be fine to unit below? Foliation 45° ch	L7
	95	67																		
	100	100																		
124	100	89																		121.5m sharp contact 55° CA - Fault??
	85	67																		
126	100	100																		
	100	98																		
128	95	75																		
	100	100																		
130	100	100																		
	100	82																		
132	100	82																		
	100	95																		
134	100	97																		
	100	95																		
136	100	83																		
	100	98																		
138	96	96																		
	100	100																		
140	100	100																		
	100	100																		
142	100	90																		
	100	90																		
144	100	100																		
	100	90																		
146	100	91																		
	100	82																		
148	100	90																		
	100	100																		
150	100	100																		
	100	46																		
152	100	68																		
	100	50																		
154	100	96																		
	100	100																		
156	100	74																		
	100	100																		
158	100	100																		
	100	100																		
160	100	85																		

REMARKS

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

PROJECT: QUEENSTOWN - MT. DARWIN
PROSPECT: NASTY NOB
DATE: 1-12-04
LOGGED BY: S.R.

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG		
				PREFIX	%					STRUCT	ALT	mm							
					.1	.3	1	3	5			0.06	0.5	2	8			32	64
100	97																		
162	100	100																	
	100	100																	
164	100	100																	
	100	76																	
166	100	69																	
	100	100																	
168	100	100																	
	100	100																	
170	100	100																	
	100	86																	
172	100	100																	
	100	78																	
174	100	32																	
	100	100																	
176	100	90																	
	100	100																	
178	100	100																	
	100	79																	
180	100	76																	
	100	66																	
182	100	44																	
	100	94																	
184	100	36																	
	100	70																	
186	100	56																	
	100	100																	
188	100	94																	
	100	77																	
190	100	100																	
	100	100																	
192	100	100																	
	100	100																	
194	100	100																	
	100	92																	
196	100	100																	
	100	92																	
198	100	100																	
	100	92																	
200	100	100																	

REMARKS

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

PROJECT: QUEENSTOWN - MT DARWIN
PROSPECT: NASTY NOB
DATE: 3-12-04
LOGGED BY: SR

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
				PREFIX	%					STRUCT	ALT	mm						
					.1	.3	1	3	5			0.06	0.15	2	8			32
100	100																	
202	100	100																
	100	80																
204	100	94																
	100	100																
206	100	100																
	100	100																
208	100	100																
	100	100																
210	85	65							qz-cb-cl veins 210.1									
	100	100																
212	100	92																
	100	65							F 50°CA 214.0									
214	100	100																
	100	100																
216	100	92																
	100	79																
218	100	90																
	100	91																
220	100	100																
	100	68																
222	100	96																
	100	80																
224	100	100																
	100	100																
226	100	79																
	100	100																
228	100	82																
	100	80																
230	100	100																
	100	96																
232	100	38																
	100	68																
234	100	71																
	100	100																
236	100	100																
	100	100																
238	100	96																
	100	100																
240	100	81																

HQ 209.0 CASE OFF  
NQ  
210.1-214.0 Strong qz-cb-cl veining to 5cm  
at 50° CA.  
212.8m - 1cm puggy fault 40° CA.

219.3-220.1 Strong qz-cb-cl veining to 1cm  
at 45° CA.

226.6 GRADATIONAL CONTACT  
Mottled pinkorange to gray green to  
green black, massive, locally very weakly  
foliated, moderately silica (w/ k feldspat?)  
or sericite-chlorite-silica or chlorite  
altered feldspat +/- quartz phytic  
rhyolite and rhyolitic autoclastic  
breccia

Some composition as above, but now  
have some true volcaniclastic material.  
Some coherent zones may be large  
blocks? Interpreted as autobreccia  
derived from coherent body in unit  
above.

Weak irregular carbonate-quartz  
veins to 2cm at varying angles to CA.

REMARKS

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

PROJECT: QUEENSTOWN - MT DARWIN  
 PROSPECT: NASTY NOB  
 DATE: 4-12-04  
 LOGGED BY: SK

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
					%					STRUCT	ALT				
					.1	.3	1	3	5						
100	91														
242	100	100								5+10mg 9/2-66 45° CA	242.1 242.6		Very rare fine grained disseminated pyrite		
100	58														
244	100	100													R <
100	100														
246	100	80													
100	100														
248	100	100													
100	80														
250	95	43													
95	0														
252	100	24													R 0
100	70														
254	100	95													R 0
100	100														
256	100	100													
100	74														
258	100	69													
100	64														
260	100	77													
100	100														
262	100	91													
100	100														
264	100	45													
100	77														
266	100	87													
100	100														
268	100	100													
100	100														
270	100	100													
100	100														
272	100	49													
100	72														
274	100	44													
100	50														
276	100	71													
100	100														
278	100	94													
100	100														
280	100	95													
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>NASY N03</u>
DATE: <u>7-12-2004</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	0.5	2	8	32	64		
282	100	90															mottled pink brown, grey green, black mainly rhyolitic polymict volcanoclastic bx. Probable main flow unit with poorly - moderately well developed fining-up cycles. Abundant pink K-feldspar x'tals, dark chloritic pseudochasts. Matrix rich in chloritic polymict sand, lapilli, ash detritus pervasive quartz alt, patchy sericite in part overprinting chlorite.	VC 0
284	100	95							Si									
286	100	100							weak sericite									
288	100	85															gradational top fining-up cycle	
290	100	99																
292	100	100																
294	100	100															weakly developed foliation more prominent in finer grained rocks.	
296	100	95																VC 0
298	100	100																
300	100	87																
302	100	85																
304	100	100																
306	100	82							Qtz/Chl 45°C								305.55-305.75 coarse selvage growth Qtz, Chlor, cream Carb. 307.4-308.5 1/2 inch calcite veins 40-50°C rhyolite rich base to f-up cycle	
308	100	93							Qtz/Chl 40°C vein								307.6 vein at top contact 40°C mottled chloritic coarse microclastic rhyolite bx - common coarse xtal Qtz, Chlor Carb veins 40°C 309.5 gradational basal contact.	VC 0
310	100	74																VS 2
312	100	88																VS 2
314	100	92															313.4 abrupt contact heavily veined fractured pink, grey brown ophiolitic rhyolite (? lava flow on dyke) 314.2 abrupt contact	VC 0
316	100	100																VS 2
318	100	77							Ser/Chlor								massive green grey well sorted f-ned volcanoclastic s.s.t., weakly developed foliation, patchy sericite overprinting regional chloritisation. lithic clasts more common in coarse fractions of cycle.	
220	100	90																

REMARKS

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

PROJECT: <u>QUEENSTOWNAL- MT DARWIN</u>
PROSPECT: <u>NASTY NOB</u>
DATE: <u>8-12-2004</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				
				1	3	1	3	5			mm 0.06 0.5 2 8 32 64			
322	100	77												
	100	90												
	100	90												
324	100	80												
	100	84												
326	100	57												
	100	58												
328	100	70												
	100	80												
330	100	85												
	100	83												
332	100	100												
	100	72												
334	100	100												
	100	100												
336	95	66												
	100	42												
338	100	70												
	100	97												
340	100	100												
	100	94												
342	100	100												
	100	100												
344	100	97												
	100	100												
346	100	95												
	100	80												
348	100	100												
	100	100												
350	100	85												
	100	70												
352	100	39												
	100	91												
354	100	75												
	100	90												
356	100	88												
	100	80												
358	95	90												
	100	100												
360	100	100												

REMARKS

Zone of disseminated pyrite, occasional blebs py. more frequent below 320m.

328.5 diffuse soft sed. deformed contact  
- volat. fractured aphanitic rhyolite rhyolite  
330.1 diffuse contact rhyolite  
330.6 - primary bedding, soft sed deformation structures

334.6 - 335 coherent rhyolite layers, tuff lenses

Interbedded of coarse polymict volcaniclastic  
sed. fine ash rich siltst. volcanic tuff  
in graded cycles with coarse rhyolite  
rich basal pebble beds.

346.3 - 346.55 Heavily carb veined rhyolite / with  
tuff bands, conformable with sediments 40° Cr.

352.5

weakly developed foliation

359.1 - Erosional contact at top rhyolite, base filling-up  
volcaniclastics partly rhyolite derived.

VS 2

VS 2

R M

R O

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

<b>PROJECT:</b> <u>Owensoval - Mt Darwin</u>
<b>PROSPECT:</b> <u>NASTY NOB</u>
<b>DATE:</b> <u>9-12-2001</u>
<b>LOGGED BY:</b> <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			0.08	0.5	2	8	32	64				
260	100	100																			
261	100	100																			
262	100	100																			
263	100	100																			
264	100	100																			
265	100	100																			
266	100	100																			
267	100	93																			
268	100	100																			
269	100	91																			
270	100	84																			
271	100	82																			
272	100	100																			
273	100	100																			
274	100	100																			
275	100	100																			
276	100	85																			
277	100	88																			
278	100	97																			
279	100	100																			
280	100	86																			
281	100	100																			
282	100	78																			
283	100	100																			
284	100	95																			
285	100	90																			
286	100	100																			
287	100	95																			
288	100	95																			
289	100	100																			
290	100	92																			
291	100	100																			
292	100	87																			
293	100	95																			
294	100	90																			
295	100	92																			
296	100	95																			
297	100	100																			
298	100	95																			
299	100	95																			

REMARKS



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

<b>PROJECT:</b> QUEENSTOWN - MT DARWIN
<b>PROSPECT:</b> NASTY NO'S
<b>DATE:</b> 12-12-04
<b>LOGGED BY:</b> SR

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG
					%	.1	.3	1	3	5	STRUCT			
442	100	41										440.7 Light grey, weakly bedded?, very fine grained volcaniclastic mudstone - 50° CA.	VE	2
444	5	0										441.8 <b>FAULT ZONE</b> Fuggy, sandy, broken casing fault. Very poor core recovery, Unknown orientation	D	
448	50	0										447.8 Grey green, weakly sericite-chlorite-carbonate altered feldspar and quartz porphyritic rhyolite?		
450	80	20										Locally appears very similar to volcaniclastic sandstone downhole but interpreted as coherent due to common coarse phenocrysts and often extremely fine matrix. Rare vfg dissem. py.	1/2	<
452	100	100										454.7 Very irregular sharp contact Grey green, locally bedded, weakly se-cl-cb altered volcaniclastic siltstone/sandstone and minor grey chert. Bedding disrupted and at low to moderate angles to chert	VE	S
454	100	96										457.4 Grey green massive feldspar phyric dacite or rhyolite	R	M
456	100	66										458.9 Grey green to cream, massive, weakly sericite-carbonate +/- chlorite +/- silica altered, crystal lithic volcaniclastic siltstone / sandstone		
458	100	86										Massive, very uniform textured interval. Alteration / colour varies gradually over several metres. Weak to moderate white carbonate veining to tan at moderate angle to CA. Very weak cleavage about 45° CA.	VS	L
460	100	100										469.6-476.2 Strong white carbonate veining generally around 45° CA.	VE	S
462	100	90										Trace fine grained disseminated pyrite		
464	100	72												
466	100	63												
468	100	88												
470	100	70												
472	100	50												
474	100	78												
476	100	23												
478	100	65												
480	100	72												
482	100	95												
484	100	73												
486	100	86												
488	100	88												
490	100	100												
492	100	74												
494	100	90												
496	100	75												
498	100	80												
499												498.4 Fault? 60° CA. Grey to pink brown, massive, moderately sericite-carbonate +/- chlorite altered, rhyolitic lapilli volcaniclastic. -pumiceous?	VE	LP

REMARKS

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

<b>PROJECT:</b> QUEENSTOWN - MT DARWIN
<b>PROSPECT:</b> NASTY NOB
<b>DATE:</b> 12-12-04
<b>LOGGED BY:</b> SL

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
				%					STRUCT	ALT				
				1	3	1	3	5			mm 0.06 0.5 2 8 32 64			
100	83									do		Pyrite - trace to 3% as f.g. assemblations Sphalerite - trace to 5% as f.g. patches - pale to white Galena - trace to 3% as f.g. disseminations	id!	NOLP rown
482	100	33								se-cl		Pink to grey green, weakly sericite +/- chlorite altered rhyolite interfingering with disrupted volcaniclastic sandstone. To 482.3	R	M
484	100	95										seems coherent than mixture of rhyolite and sandstone? Trace dissemin. Py, Ca	sp.	
486	100	64										Grey green, massive, weakly sericite-chlorite-carbonate altered volcaniclastic siltstone / sandstone. Similar to 458.9-478.4m but crystal component less obvious, weak carbonate veining to 1cm. Trace f.g. disseminated pyrite. Very weak cleavage 50° CA.		
488	100	74								se-cl - cb		441.8 Sharp 50° CA	VE	SL
490	100	70										Grey to cream, massive, moderately carbonate-sericite-chlorite altered lapilli volcaniclastic		
492	100	100								cb-se		Altered weakly base metal mineralised interval where alteration obscures primary composition and texture. Pyrite trace to 1% as f.g. dissemin. Sphalerite trace to 3% as f.g. dissemin. and patches. Galena trace to 0.1% as f.g. disseminations. Carbonate is cream coloured and does not react readily with acid.	VE	PU
494	100	100								cl		Pink to grey, massive, weak to moderately carbonate-chlorite-silica altered, feldspar phytic rhyolite and rhyolitic breccia.		
496	100	100										Appears to be coherent pink feldspar phytic rhyolite which is variably autobrecciated. Contains abundant irregular wispy patches and lenses to several cm of green-black chlorite-sericite after glassy material or incorporated primary flow structure.		
498	100	100										Overprinting the siliceous-chloritic rhyolite is cream carbonate pseudomorphing feldspar phenocrysts and as irregular patches.		
500	100	17										504.1-504.7 Strong qtz-ds-cl-illite +/- weak base metal veins to 10 cm 50° CA		
502	100	90										511.8-512.0m 20cm qtz-ds-illite-sphalerite-galena vein 40° CA.		
504	100	78										Pyrite - trace as fine grained disseminations Sphalerite & galena - trace associated together as fine grained disseminations and patches.	VE	PU
506	100	94										Weak qtz-ds +/- sphalerite & galena veins to 3cm at moderate angle to CA.		
508	100	69										Carbonate is light grey and reacts readily with acid.		
510	100	27												
512	100	35												
514	100	71												
516	100	100												
518	100	100												
520	100	95												

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>NASTY NOB</u>
DATE: <u>13-12-04</u>
LOGGED BY: <u>SR</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
				1	3	1	3	5	STRUCT	ALT				
100	97													
522	100	91												
100	100													
524	80	31												
100	100													
526	100	70												
100	100													
528	100	85							cb					
100	90								se					
530	100	95												
100	56													
532	90	18												
95	63													
534	100	20							F2	533.8				
90	0								?ca	535.4				
536	80	0												
90	28													
538	100	86												
100	83													
540	100	37												
100	46													
542	100	80							F2	540.1				
100	63													
544	100	95												
100	85								cb					
546	100	91							se					
100	100													
548	100	97												
100	93													
550	100	80												
100	100													
552	100	91												
100	100													
554	100	100												
100	100													
556	100	100												
100	100													
558	100	79												
100	100													
560	100	91												

REMARKS

524.0 gradational contact  
 Light grey to pink, massive, moderately carbonate sericite altered pumiceous? rhyolitic lapilli volcaniclastic?  
 Abundant wispy green sericitic flame? and grey carbonate altered lapilli in grey carbonate altered matrix of uncertain character. Clast size <4cm. Carbonate is light grey and reacts with acid.  
 Rare fine grained disseminated pyrite, sphalerite and galena.  
 No qb-cb veining.  
 Weak fabric / cleavage defined by preferred orientation of sericite clots (flame?) at 40° CA.  
 535.2 faulted contact  
 Grey green to cream, massive to locally bedded, weakly sericite-chlorite +/- carbonate altered, volcaniclastic sandstone/siltstone.  
 Dominantly a massive crystal-litic sandstone but grades to cream bedded siltstone at base. Weak irregular carbonate veining. No sulphides observed sharp 55° CA.  
 540.1  
 Cream to grey pink, massive, moderately carbonate-sericite altered, pumiceous? rhyolitic lapilli volcaniclastic?  
 Patchy carbonate alteration obscures primary texture but wispy sericite patches and lenses may be fibrous in a lapilli volcaniclastic; although breccia sized coherent fragments cannot be ruled out.  
 Carbonate to 541m is light grey acid reactive but below 541m is dominantly cream coloured and does not react with acid.  
 Galena - trace to locally 2% as fine grained disseminations and patches.  
 Sphalerite - trace to locally 1% as for and often associated with galena.  
 Pyrite - trace fine grained disseminated and associated with Sp and Ga.  
 Weak cleavage and foliation 50° CA.  
 556.65 sharp 35° CA.  
 Cream to pink grey, massive, moderately carbonate-sericite altered rhyolite, rhyolite breccia and pumiceous lapilli volcaniclastic?

557.15  
 558.2  
 pumice  
 cement

VC PU  
 VC S  
 VC PU

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

<b>PROJECT:</b> QUEENSTOWN - MT DARWIN
<b>PROSPECT:</b> NASTY NOB
<b>DATE:</b> 14-12-04
<b>LOGGED BY:</b> SR

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
					%	1	3	5	STRUCT	ALT					
	100	100													
562	100	100													
	100	92													
574	100	100													
	100	91													
566	100	100													
	100	82													
568	100	91													
	100	100													
570	100	95													
	100	100													
572	100	100													
	100	92													
574	100	92													
	100	76													
576	100	89													
	100	77													
578	100	90													
	100	92													
580	100	100													
	100	70													
582	95	94													
	95	79													
584	100	94													
	100	100													
586	100	94													
	100	84													
588	100	82													
	100	76													
590	100	96													
	100	80													
592	100	94													
	100	100													
594	100	94													
	100	95													
596	100	85													
	100	100													
598	100	100													
	100	28													
600	90	59													

REMARKS

Similar alteration and textural features to related unit above but remnant primary textures suggest a coarser fragmental (larger sericitic "flame" like patches and bigger pink "coherent" patches) and possibly some true coherent rhyolite. Abundant cream carbonate again does not react with HCl.

Pyrite and galena trace as fine grained disseminations. Phosphate rare fine grained disseminations. Weak irregular carbonate veining to loc. Local weak compositional banding and parallel cleavage 50° CA.

574-45 Sharp 50° CA  
Light grey to pink, massive carbonate + sericitic rock. Appears to be intensely carbonate altered zone with minor remnant sericitic material. Carbonate is fine grained and reacts strongly with HCl. Very rare f.g. dissem. P.P. Gradational 576.6

grey green, cream slightly mottled, carbonate sericite altered rhyolitic volcaniclastic rock similar to interval 540.1 - 556.6s. but less sulphide. more pervasive carbonate destruction of primary texture. The rock is on basis of varying levels of peroxide, lithic lapilli in part, combined with varying levels of alteration overprint. Trace to trace sulphide, common limonite.

591.3 weakly developed cleavage (non-limonite zone) CA 40° B 75

Bands of limonite in undulose shear fabric grading to patches of dendritic growth overprinting carbonate (limonite is a late phase)  
596.7 - Gradational contact

VC PU  
IC PU





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

PROJECT: <u>QUEENSTOWN - MT DARWIN</u>
PROSPECT: <u>NARBY NCIS</u>
DATE: <u>14-1-2005</u>
LOGGED BY: <u>KIM</u>

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
				PREFIX	%					STRUCT	ALT	mm						
					.1	.3	1	3	5			0.06	0.5	2	8			32
682	110	87																
	100	98																
	100	92																
682	100	100								Speckled Ser								
	100	100																
686	100	100								pink carb								
	100	100								spalling								
688	100	91																
	100	100								white carb								
690	100	70								veinlets								
	100	30																
692	100	88																
	100	53																
694	100	100								white microp								
	100	100																
696	100	80																
	100	86																
698	100	70																
	100	48																
700	100	98																
	100	100																
702	100	95								702.9 ✓								
	100	100																
704	100	100								chl +								
	100	97								705 ✓								
706	100	100								705.2 ✓								
	100	92								706.0 ✓								
708	92	90								707.2 ✓								
	100	93																
710	100	100																
	100	100																
712	100	100																
	100	98																
714	100	100																
	100	98																
716	100	83																
	100	100																
718	100	95								718.2 ✓								
	100	100								718.8 ✓								
720	96	84																

REMARKS

Weakly developed grading in firing-up cycles in  
pumice > lithic lapilli sandstone a/a.  
Foliation defined by chloritic flattened  
pumice

700-5 Increasing rhyolitic lithics, feldspar streaks,  
spherulites with carb alt; decreasing pumice  
in lapilli volcanoclastics in weakly graded  
cycles

702.9 5cm quartz carb. chlor vein CA 50°  
705.0-705.3 Vein a/a with irregular stepped contacts.

702.9-708.5 zone of intensive veining with  
increase chlorite, pyrite in wall rock and vein margins

Bands of pink sst with high rhyolite lithic  
chlorite content

foliation defined by sericite, chlorite.

Coarse quartz > carb = chlor vein CA 15°

VS T

VS T

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

PROJECT:	<u>Wentworth - Mt Dandenong</u>
PROSPECT:	<u>NASY NOB</u>
DATE:	<u>14-1-2005</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	0.5	2	8	32	64			
722	100	80															721.3		
	100	92																	
	100	96																	
724	100	100																	
	100	93																	
726	100	100																	
	100	97																	
728	100	68																	
	100	93																	
730	100	70																	
	100	80																	
732	100	77																	
	100	68																	
734	100	93																	
	100	85																	
736	100	84																	
	100	85																	
738	100	66																	
	100	98																	
740	100	60																	
	100	0																	
742	100	42																	
	100	0																	
744	100	58																	
	100	56																	
746	100	49																	
	100	55																	
748	100	90																	
	100	58																	
750	100	94																	
	100	96																	
752	100	83																	
	100	73																	
754	95	22																	
	100	17																	
756	100	93																	
	100	67																	
758	100	56																	
	100	89																	
760	100	100																	

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>NASTY NOB</u>
DATE: <u>18-1-05</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				
				.1	.3	1	3	5			mm			
											0.06			
											0.5			
											2			
											8			
											32			
											64			
100	100													
762	100	93												
764	100	100												
766	100	100												
768	100	95												
770	100	90												
772	100	72												
774	100	81												
776	95	45												
778	100	62												
780	100	96												
782	100	89												
784	100	90												
786	100	77												
788	100	77												
790	100	84												
792	100	78												
794	100	60												
796	100	86												
798	100	100												
800	100	75												

Unit comprises >85% sugary quartz - sericite to locally brown sericite matrix containing up to 15% dk. green chloritic-carbonate elongate sub-parallel to foliation, usually wispy pumice flame? Rare flame? >60mm.

Minor concern texture may be domainal se-qz alteration on early cl-cb alteration!! Needs thin section.

775.7 - 775.9 py 3-5% f.g. and patches assoc. with carbonate veining, very irregular veining uncertain age to CA.

Weak white carbonate ± qtz veins to 5cm at moderate to steep angle to CA.

Only rare f.g. disseminated pyrite throughout interval.

Moderate foliation consistently at 60-70°CA

Rig capacity reached EOH 800.2m

REMARKS

VS PV