

JERVOIS MINING NL - DRILLHOLE LOG

DRILLHOLE: NC13					Logged by: J.G.Purvis			Date: 24.11.99	Depth: 71.5m	Size: NTW
					Co-ords: 5 406621N / 425061E, (4605N / 5600E Grid)			RL: 665m (est)	Dip: - 60	Azimuth: 033 AMG
DRILL ADVANCE					LITHOLOGY					
From	To	Interval	Recovered	Lost	From	To	DESCRIPTION	ALTERATION	STRUCTURE	MINERALIZATION
0	1.3	1.3	0	1.3	0	1.3	SOIL & SCREE. No core.			
1.3	1.7	0.4	0.3	0.1						
1.7	2	0.3	0.3	0	1.3	11.4	OXIDIZED ALTERED QUARTZOSE	Remanent patches up t	Fractured & broken, with	Limonite on fractures, esp 3-7.5m
2	2.6	0.6	0.6	0			SANDSTONE. Pale grey & brown. Fine to	20cm wide of strong	fractures usually high	where there are boxwks, limonite
2.6	3.2	0.6	0.55	0.05			coarse grained qtz-mica sst with occasional	biotite alt above 8m.	angle in opp sense to So	veinlets (+-qtz), & limonitic clay
3.2	3.6	0.4	0.3	0.1			sst frags to 10mm. Commonly with mottled	Minor chloritic bands.	or // LCA. Layering	seams to 15cm wide.
3.6	4.2	0.6	0.6	0			or streaky appearance due to alteration.	Basal 2m silicified.	evident but So ill-defined,	Remanent strongly biotitized
4.2	4.8	0.6	0.6	0				Moderately oxidized.	25-35/LCA. Broken	patches contain several % py-po
4.8	5.7	0.9	0.9	0					basal contact (core loss).	(eg: at 2.7m, 5.7m & 6.1m).
5.7	6.7	1	0.9	0.1						
6.7	8.2	1.5	1.5	0	11.4	13	FAULT IN QUARTZ-EPIDOTE SKARN.	Strong epidotization,	Fault cataclasite.	1-2% dissem pyrite, ranging
8.2	9.3	1.1	1.1	0			Khaki-green epidote-rich clay and rubble, with	local silicification.	Both contacts broken.	from trace to 5% in grey pug
9.3	10.2	0.9	0.9	0			frags & thin bands of qtz, commonly pyritic.			band at 12.25-12.4m. Most pyrite
10.2	11.7	1.5	1.2	0.3						assoc with qtz. Trace wolfram(?)
11.7	12.4	0.7	0.7	0						
12.4	12.8	0.4	0.4	0	13	24.75	BIOTITIZED QUARTZ SANDSTONE.	Patchy strong biotite-	Upper 1.5m leached &	13-18.4m: 1-2% py>po, dissem
12.8	13.2	0.4	0.4	0			Brownish-grey. Hard. Massive medium	silica overprinted by	broken, otherwise largely	18.4-20m: 2-3% py>po, dissem
13.2	13.9	0.7	0.7	0			grained qtz sst with mottled appearance due to	silica-chlorite(?).	unbroken.	20-22.9m: 2% py>po.
13.9	14.5	0.6	0.6	0			alteration. Small calc-silicate patches, esp	Small patches of garnet	No bedding evident -	22.9-24.75m: 3-4% py>po,
14.5	15.1	0.6	0.6	0			towards base.	below 19m. 10cm band	indistinct lineation 30/LCA	dissem & clots.
15.1	16.2	1.1	1.1	0				of serpentine-carbonate	Series of qtz gash veins	
16.2	17.7	1.5	1.5	0				at 22.5m.	20/LCA 17.5-17.8m.	
17.7	19.2	1.5	1.5	0						
19.2	20.7	1.5	1.5	0	24.75	27.3	SKARN. Pale green, hard, massive. Hard.	Very strong epidote(?)-	No banding. Both	1% very patchy py>>po, apart
20.7	22.2	1.5	1.5	0			Finely sandy textured rock composed of qtz &	silica alt. High angle	contacts irreg.	from 5% py at 25.25-25.4m,
22.2	23.7	1.5	1.5	0			green mineral (epidote?). Detrital qtz grains	veinlets of chlorite.		dissem & veinlets.
23.7	25.2	1.5	1.5	0			in places.			
25.2	26.3	1.1	1.1	0						
26.3	27.9	1.6	1.6	0	27.3	32.3	SILICIFIED QUARTZ SANDSTONE.	Strong qtz-sericite-py	Unbroken & massive.	27.3-28.5m: 1-2% po-py, dissem
27.9	29.5	1.6	1.6	0			Pale grey, very hard. Fine to coarse grained	alt, with minor patchy	Weak lineation in places	& veinlet, with sp in larger clots.
29.5	31.1	1.6	1.6	0			(grainsize increasing with depth). Rare frags	biotite. 29.3-29.75m:	0-30/LCA picked out by	29.3-29.8m: 5% py in qtz vein.

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DRILL ADVANCE					LITHOLOGY								
From	To	Interval	Recovered	Lost	From	To	DESCRIPTION	ALTERATION	STRUCTURE	MINERALIZATION			
31.1	32.6	1.5	1.5	0			of fine qtz sst to 10mm.	irreg qtz-py-garnet vein	sericite threads (incipient	31.1-31.5m: 2% po-py, dissem.			
32.6	34.2	1.6	1.6	0				Minor veinlets qtz+-	cleavage?). Basal contact	31.85-32.3m: 5% coarse dissem			
34.2	35.7	1.5	1.5	0				garnet elsewhere.	35-45/LCA, diffuse.	py. Elsewhere, minor sulphs.			
35.7	37.2	1.5	1.5	0									
37.2	38.7	1.5	1.5	0	32.3	35.75	SKARN. Dark green, mottled, variable texture	Intensely altered:	Weak banding 35-65/LCA	32.3-33.1m: 3% py (5% at top 2%			
38.7	40.2	1.5	1.5	0			Hard. Composed mainly of pyroxene(?) with	pyroxene(?) -garnet-	Abrupt basal contact	at base, dissem & veinlets).			
40.2	41.7	1.5	1.5	0			lesser qtz, garnet, chlorite, biotite, sulphides &	silica with minor chlorite	approx 50/LCA.	33.1-33.65m: band 40/LCA with			
41.7	43.2	1.5	1.5	0			magnetite. Common detrital qtz grains 1-3mm.	epidote & biotite.		5-10% fi gr mag>py>po.			
43.2	44.5	1.3	1.3	0			Best sulphs & mag assoc with pyroxene-garnet			33.65-34.25m: minor py-mag.			
44.5	46.1	1.6	1.6	0			bands.			34.25-34.55m: band 65/LCA of			
46.1	47.3	1.2	1.2	0						10-20% po>>mag-py, trace cp			
47.3	48.9	1.6	1.6	0						34.55-35.25m: minor py & mag.			
48.9	50.5	1.6	1.6	0						35.25-35.75m: diffuse band 65/			
50.5	52.1	1.6	1.6	0						LCA, 5-7% po>mag-py, rare cp.			
52.1	53.7	1.6	1.6	0									
53.7	55.2	1.5	1.5	0	35.75	47.4	BIOTITE HORNFELS. Dark brown, hard to	Intense biotite-silica-	Mineral lineation after	Generally minor to 1% dissem			
55.2	56.7	1.5	1.5	0			very hard biotite-qtz rock after thermally altered	garnet alteration.	bedding and metamorphi	mag & py, rare sp or cassiterite.			
56.7	58.2	1.5	1.5	0			medium grained qtzose sst. Much fi gr garnet,	Small patches of over-	banding, both evident.	Below 43.5m occasional zones			
58.2	59.7	1.5	1.5	0			some in "wrigglic" laminae (eg: 41m).	printing ferromag alt.	So: 45/LCA @ 36.1m;	2% mag>py. 36.95m: 10cm			
59.7	61.2	1.5	1.5	0			Detrital qtz to 2mm. Minor finely bedded silty	36.3-36.55m: irreg qtz	43/LCA @ 43.5m.	band of semi-massive mag>>py			
61.2	62.7	1.5	1.5	0			intervals. Largely unbroken.	veining. Elsewhere	Garnet banding 25/LCA	in ferromag, 55/LCA. 46.4m:			
62.7	64.2	1.5	1.5	0				veining very minor.	at 42.3m.	30mm ferromag-garnet-mag			
64.2	65.7	1.5	1.5	0					Basal contact abrupt 45/	band 35/LCA (opp sense to So).			
65.7	67.2	1.5	1.5	0					LCA (metamorph banding	40.8m: 3mm py-cassiterite vein.			
67.2	68.7	1.5	1.5	0					in opp sense to So).	45m: 20mm qtz-py vein 35/LCA.			
68.7	70.2	1.5	1.5	0									
70.2	71.5	1.3	1.3	0	47.4	51.8	CALC-SILICATE.	Intensely altered.	Unbroken.	No sulphides or mag to 50.4m.			
							Dark green to pale grey, fi-coarse gr, variable	Pink rhodocrosite at	Weak banding 55/LCA.	50.4-51.7m: 2% dissem py,			
							rock with patchy & weakly-banded texture.	48.9m.	Abrupt basal contact 55/	minor mag, trace cassiterite or sp			
							Composed largely of various ferromags (dark		LCA.	10cm band semi-massive mag			
							bladed actinolite, light green olivine & probable			at base.			

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DRILL ADVANCE					LITHOLOGY								
From	To	Interval	Recovered	Lost	From	To	DESCRIPTION	ALTERATION	STRUCTURE	MINERALIZATION			
							pyroxene), qtz, & white & yellow cb. Some biotite, garnet & epidote in silic zones, esp below 50.5m Coarse gr actinolite-cb band 50-50.5m.						
					51.8	58.35	PYRRHOTITE SKARN. Pale green & bronze. Hard massive very coarse gr ferromag-qtz-po rock. Ferromag in partly-radiating bladed xyls to 12mm (actinolite? - paler green than in unit above). Qtz in xylline patches. Minor garnet. Sulphides less in central zone where ferromags decrease & qtz-biotite-magnetite is common. Overall, unit is moderately to strongly magnetic.	Intensely altered.	Unbroken. Weakly banded 40-60/LCA (av 45/LCA). Abrupt basal contact 40/LCA.	Po dissem in coarse clots & small massive patches. 51.8-53.2m: 20-25% po, minor cp. Cassiterite(?) in qtz patches (eg: in 10cm qtz band at 53.1m). 53.2-54.2m: 5% po>>py, minor cp, trace cassiterite(?) 54.2-54.9m: 2% po-py. 54.9-56.6m: 5-7% po>py-mag, trace cassit(?). Mag 5-10% in fi gr qtz-bio bands below 55.7m. 56.6-58.3m: semi-massive po, 1% cp & minor py.			
					58.35	71.5	BIOTITE-QUARTZ-CHLORITE(?) HORNFELS. Brownish-grey. Very hard. Massive med gr rock composed of qtz & biotite, with lesser pale green ferromags (mostly chlorite?). Trace garnet. Original rock was a fi-med gr qtz sst - some detrital qtz visible. Common xylline qtz in vein-like bands & patches to 10cm, gen with chlor & py. More veining than before, (all high angle), incl veinlets of greisenous qtz-fluorite-muscovite or chlorite-py.	Very strongly altered, with blotchy texture due to overprinting alteration phases. Qtz-biotite alt precedes qtz-chlor. Bleaching along hair-line fractures & greisen veinlets.	Largely unbroken. Weakly cleaved in places (20/LCA at 61m, 40/LCA at 65.5m).	Usually minor py>>po, strongest in qtz-chlor veins/bands/patches. Po only with biotite. Best sulphs: 59.8-59.95m: qtz-py-chlor vein 61.5-62.7m: 2-3% py>po, incl 25mm qtz-py>aspy vein at 62.5m 66.1-71.5m: 1-2% py>>po, incl 10cm qtz-py vein at 68.5m.			
Camera survey @ 20m:													
Dip: -59.7 Azimuth: 036 AMG					END OF HOLE								

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