

LATITUDE 0 + 00
DEPARTURE 2 + 98 E
ELEVATION 160 metres
DIP AT COLLAR -45°
BEARING 133°
FINAL DEPTH 336.3 metres
TOTAL DRIFT 10.4m CORE SIZE NQ
REMARKS Pyritic alteration zone from 222.5-244.6 metres

Vinland Resources Limited
DIAMOND DRILL CORE LOG

Sheet No. 1 of 5

Project No. _____ Hole No. BJ-00-08
Property Buchans Junction
NTS 12A/16 Grid Name _____
Date Started Apr 17, 2000 Date Completed Apr 22, 2000
Contractor Logan Drilling Limited
Logged By R. M. Graves

Tests Depth	Dip	Magnetic Bearing	Correcting Bearing
100m	-44°		140°
246m	-43°		147°
336m	-42°		151°

DEPTH & LITHOLOGY	DESCRIPTION	REMARKS
0 – 10.4m	<u>Overburden</u>	
10.4 – 34.0m	<u>Felsic Volcanic</u> - fine grained equigranular, massive, generally non-magnetic, colour varies from pinkish to greenish, the pink areas tend to be weakly hematitic and the greenish zones are weakly sericitic as at 28.5 – 29.0 metres; non-plagiophyric, non-quartz phyric - unit hosts 1-2% of a mafic mineral locally that may be chlorite, mafic mineral defines weak fabric at 45° – 50° TCA; hosts < 5% quartz-calcite veinlets at various core angles - mud seam at 18.1m at 45° TCA, 1cm thick - ductile shear zone at 27.4m at 45° TCA, 10cm thick - ductile/brittle shear zone at 28.3m is 45° TCA, 10cm thick	
34.0 – 61.3m	<u>Feldspar-Phyric Felsic Volcanic</u> - fine grained equigranular, massive, generally non-magnetic, colour varies from generally pink to greenish, unit hosts 1-3% anhedral feldspars (phenocrysts 1-3mm in diameter) - weak fabric locally in unit defined by chlorite, fabric at 45° TCA - mafic dyke from 37.0 – 39.0m; aphanitic, grey, magnetic, upper and lower contacts bleached to light green - trace pyrite at 53.5m and 58.1m - trace pyrite in sericite-chlorite veining from 53.7 – 54.9m - minor sericitic veining from 55.0 – 56.0 metres - calcite veining from 57.8 – 58.0m - core quite broken from 60.0 – 61.5m, 2cm thick zone of fault gouge at 60.5m at 45° TCA and 2cm thick fault gouge zone at 61.3m at 20° TCA - unit is terminated by a fault at 20° TCA	
61.3 – 62.3m	<u>Quartz-Feldspar Crystal Tuff</u> - medium grained, non-magnetic, colour varies from pink to greenish grey, approximately 2-3% quartz and plagioclase crystals, 2-3% chlorite shards, lower contact at 20° TCA	
62.3 – 71.1m	<u>Feldspar-Phyric Felsic Volcanic</u> - pink, fine grained, 1-2% feldspar phenocrysts that are 1-2mm in diameter, non-magnetic, massive,	

	similar to unit at 34.0 – 61.3 metres; approximately 2-3% quartz-calcite veinlets at numerous orientations	
71.1 – 76.0m	<u>Crystal Lithic Felsic Tuff</u> - medium to coarse grained, greenish pink in colour, 3-5% quartz and feldspar crystals; 5% sericitic and chloritic fragments, matrix is fine grained felsic material, might be sufficiently coarse to be called a fine grained lapilli tuff, non-magnetic - 1cm wide silica veins at 20° TCA and 71.5m and 72.4m - minor calcite veining - fabric is 45° TCA - 1cm wide fault gouge at 73.3m, 45° TCA	
76.0 – 80.2m	<u>Crystal Ash Felsic Tuff</u> - fine grained, 1% feldspar crystals, non-magnetic, massive, minor chlorite veining, reddish chert fragments at 80.0m, lower contact at 45° TCA	
80.2 – 81.3m	<u>Rhyolite ?</u> - aphanitic, pink, massive, non-magnetic, irregular fracture pattern, chlorite in fractures - upper contact comprises 20cm of silica cemented breccia, fragments are of the rhyolitic unit ⇒ may be a basal flow breccia indicating younging down the hole? - upper contact is at 45° TCA and demarcated by 2cm of greyish siliceous material	
81.3 – 86.5m	<u>Felsic Ash Tuff</u> - very fine grained, light pink to buff in colour, non-magnetic, massive, minor quartz veining - 1cm thick, siliceous vein at 83.5 metres, similar vein at 85.0 metres - lower contact sharp at 45° TCA; contact at 86.5m	
86.5 – 127.0m	<u>Mafic Volcanic</u> - dark green, massive, fine grained, equigranular, no fabric, weakly magnetic, generally non-amygdular, minor calcite in matrix, hosts ^ 5% quartz-calcite veinlets - 2cm thick calcite cemented breccia vein at 87.8 metres - aphanitic greyish black mafic dyke from 89.2m – 90.1m, strongly magnetic - epidote veinlets at 95.0 – 95.5, 100.5 – 101.5, 105 – 106.0m - calcite amygdules ? at 99.0 – 99.5m - 10cm thick zone of intense epidotization at 101.5 metres and 102.8 metres - 10cm thick zone at calcite-hematite veining at 103.5 metres and 104.4 metres, veining at 45° TCA - 20cm thick zone of calcite-hematite veining at 109.2 – 109.4 metres, also appears to be a zone of ductile shearing - slickensides on joint face at 114.6m - silica amygdules at 113.5, 117.3, 118.5 metres - purplish coloured silica vein at 126.2 – 126.5m paralleling core axis - this unit may be divisible into separate mafic units; there are textural variations however unable to see contacts	
127.0 – 139.0m	<u>Plagiophyric Mafic (Intermediate?) Volcanic</u> - fine grained, equigranular, non-magnetic, medium greenish colour, generally plagiophyric, plagioclase crystals 1mm in diameter, 5% quartz-calcite veinlets - epidotized plagioclase crystals at 128 – 128.3 and 129.5 – 129.8m	

	- shear zone at 137 metres, slickenslides on broken core - unable to locate definitive contact with unit below	
139.0 – 146.9m	<u>Mafic (Intermediate?) Volcanic</u> - fine grained, equigranular, massive non-magnetic, no discernible fabric, minor epidote and quartz-calcite veining, minor sericitic alteration in unit - ductile shearing with chlorite-calcite veining at 140.0m and 145.0m - sharp contact at bottom with unit below	
146.9 – 152.5m	<u>Plagiophyric Mafic Volcanic</u> - dark green, fine grained equigranular, massive, non-magnetic, no discernible fabric, 3-5% anhedral euhedral plagioclase crystals, minor quartz-calcite and hematite veining	
152.5 – 158.1m	<u>Felsic Dyke</u> - buff to pink in colour, aphanitic, very siliceous, hosts irregular fracture pattern - brittle fault zones at 156.1 and 156.5 metres	
158.1 – 162.2m	<u>Plagiophyric Mafic Dyke?</u> - fine grained equigranular, hosts 10-20% epidote green plagioclase crystals, non-magnetic, calcite rich in matrix, 2-3% calcite amygdules in upper metre of unit, massive, minor quartz-calcite and epidote veining - upper and lower contacts baked, bleached and fine grained	
162.2 – 163.0m	<u>Felsic Dyke</u> - pink-buff, aphanitic, very siliceous, fabric at 70° TCA, upper contact is brecciated over 10cm	
163.0 – 169.8m	<u>Mafic Ash Tuff</u> - dark green, fine grained, non-magnetic, calcite rich in matrix - altered to an orange-brown colour from 163.1 – 164.6 metres (iron carbonate alteration?), minute light brown crystals (<1mm) in this alteration that may be leucoxene - hematized siliceous veining from 165.0 – 165.3 metres - light brown crystals (<1mm) from 166.3 – 188.8 metres - lower contact grades rapidly into unit below - 5-10% quartz-calcite veining	
169.8 – 177.3m	<u>Alteration Zone</u> - buff to pinkish in colour from 169.8 – 173.5, the alteration appears to be dominated by iron-carbonate with hematite veinlets - green mica (2-3%) occurs from 169.8 – 170.6 metres - strong ductile deformation from 174.5 – 175.5, fabric at 30° TCA - the protolith from 175 – 177.3 appears to be a mafic agglomerate - 5 – 10% quartz-calcite veining	
177.3 – 187.5m	<u>Mafic Volcanic (Ash Tuff?)</u> - fine grained equigranular, massive, calcite-rich matrix, non magnetic - iron carbonate alteration zone from 179.8 – 180.2 metres - trace pyrite at 181m and 185 metres - pumice zones hosting jasper from 185 metres to 185.5 metres - lower 40cm of unit is a high strain zone	

187.5 – 199.5m	<u>Mafic Volcanic</u> - dark green, fine grained equigranular, non-magnetic, hosts 2-3% leucoxene crystals (< 1cm), 5-10% calcite veinlets, minor epidote and hematite veining	
199.5 – 222.5m	<u>Alteration Zone</u> - zone of intense quartz-carbonate veining and ductile shearing, fabric at 045 - 060° TCA, flooded by thick pinkish coloured siliceous zones, chlorite veining common; all of which is brecciated or contorted locally, protolith appears to be amygdular and is in part basalt; non-pyritic, overall the zone has a very bleached appearance with some sericitic alteration, green mica (fuchsite looking) alteration from 210.5 metres – 213.0 metres; hosts jasper locally (i.e. 213m) - lower contact grades rapidly in alteration zone below	
222.5 – 244.6m	<u>Pyritic Alteration Zone (Boxes 55-58)</u> - highly deformed pyrite alteration zone, strongly banded, over all colour of unit is striped blackish-green - alteration comprises sericite, silica, chlorite and trace – 3% pyrite - fabric tends to be defined by chlorite and pyrite with banding varying from 0 - 90° TCA although dominated by orthogonal banding - the protolith appears to be a fine grained felsic volcanic - pyrite is evenly distributed throughout alteration, however non-pyritic zones occur at 226.3 – 230 metres and 237.3 – 239.2 metres - unit is non-conductive, however weak conductivity (20,000 ohms) was noted on semi-massive pyrite bands at 233.5 and 242.5 metres - soft brownish amorphous mineral from 235.4 – 235.5 metres - minor graphite at 235.6 metres - lower contact of pyritic zone ends sharply at 244.6 metres	
244.6 – 266.0m	<u>Silicified Felsic Volcanic – Sericite Alteration Zone (Boxes 59-64)</u> - unit comprises an alteration zone of greyish silicified felsic volcanic and light green sericite exhibiting ductile deformation to produce a banded silica-sericite rock - fabric in the unit is defined by sericite bands .5 – 2cm thick at 45 - 90° TCA - pyrite not observed - zones hosting soft brownish amorphous mineral at 247 – 247.5, 250.5 – 251, 255.5 – 256.5, 258.5 – 259.5 and 259.7 – 260.0 - soft brownish mineral may be a form of sericite - fault zone at 250.7 metres - graphitic bands <.5cm from 250 – 254.5, conductivity not detected - sericite is mustard yellow in colour from 262 – 265.5 metres - stopped unit at a jasperoidal rock	
266.0 – 272.7m	<u>Ductile Shear Zone</u> - strongly banded ductile shear zone, fabric at 55° TCA - lithologies within shear zone are jasper, mafic and the unit below - 5 – 10% quartz-calcite veinlets that are pre-deformation - 45cm of fault gouge from 271.4 – 271.85 metres	

272.7 – 277.3m	<u>Quartz Phyric Felsic</u> - orange; 10% of 1-5mm quartz crystals, massive, very siliceous, non-magnetic, fault at 275.5; grades rapidly over 10cm into unit beneath	
277.3 – 285.2m	<u>Brecciated Rhyolite</u> - multi-coloured brecciated and altered rhyolite, colour varies from orange-brown-yellow-red; possible brecciated and silicified variant of unit above, jasperoidal locally, very siliceous and massive	
285.2 – 323.5m	<u>Rhyolite?</u> - reddish pink, massive, fine grained, very siliceous, non-magnetic, 2-3% anhedral quartz crystals, sericitic and brecciated only very locally - jasper at 295.3 metres - trace pyrite at 299.5 metres - hematite on fractures locally - chlorite fracture fillings common - broken core at 301 and 310 metres, fault? - minor <1% quartz-calcite veinlets	
323.5 – 336.3m EOH	<u>Quartz Phyric Felsic</u> - same unit as at 272.7 – 277.2 metres - orange, composed of 10-15% 1-5mm quartz eyes, massive, very siliceous, non-magnetic - irregular and intermixed contact over 30cm with unit above - non-pyritic and un-altered - 5% chlorite on fractures and within matrix	