

LATITUDE 4+00 S
 DEPARTURE 1+50 E
 ELEVATION 210 metres
 DIP AT COLLAR -55°
 BEARING 311°
 FINAL DEPTH 398 metres

TOTAL DRIFT 12 metres
 REMARKS CORE SIZE NQ

Vinland Resources Limited
DIAMOND DRILL CORE LOG

Tests Depth	Dip	Magnetic Bearing	Correcting Bearing
23 metres	-55°	337°	314°
100 metres	-55°	339°	316°
200 metres	-56°	339°	316°
300 metres	-56°	339°	316°
395 metres	-56°	336°	313°

Project No. _____ Hole No. BJ-01-13
 Property Buchans Junction
 NTS 12A/16 Grid Name Area 2
 Date Started June 7, 2001 Date Completed June 13, 2001
 Contractor Logan Drilling Limited
 Logged By R. M. Graves

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DEPTH & LITHOLOGY	DESCRIPTION	REMARKS
0 – 12m	<u>Overburden</u>	
12 – 14.7m	<u>Mudstone</u> - colour varies from light grey to dark grey, massive, non-bedding, non-magnetic; non-calcareous - sedimentary contact at 12.4 metres; 45° TCA - sedimentary contact at 13.0 metres; 30° TCA - lower contact orthogonal to core axis - felsic material in lower portion of mudstone, possible flame structure indicating younging up the hole	
14.7 – 20.1m	<u>Felsic Volcanic</u> - pink to light grey in colour, massive, non-magnetic, felsic ash tuff or rhyolite - hosts thin fractures with chlorite coatings, trace pyrite in unit - lower contact sharp at 50° TCA	
20.1 – 22.0m	<u>Felsic Crystal Lithic Lapilli Tuff</u> - light grey in colour, massive, non-magnetic - hosts <5% angular felsic fragments varying from .5 – 5cm in diameter - matrix is felsic and aphanitic - chlorite on fractures - a few gossanous fractures - lower contact is gradational into unit beneath	
22.0 – 26.0m	<u>Felsic Ash Tuff</u> - light green in colour, weakly sericitic, generally massive and fine grained although pyroclastic detritus seen locally as at 23.3 and 24.8 - thin (2-3cm) mafic dykes at 24.9 and 25.2 metres; orientation is 20° TCA	
26.0 – 40.5m	<u>Felsic Crystal Lithic Lapilli Tuff</u> - pink-greenish buff, massive; hosts 10% lapilli (.5-3cm) sized angular – sub-angular felsic fragments in a felsic matrix, minor sedimentary fragments - sericitic on fractures - matrix is fine grained to aphanitic - at 34.4 metres the unit is reddish in colour and hosts <5% hematite veinlets - to this depth unit doesn't have a fabric - hosts 2-3% feldspar and quartz crystals	
40.5 – 44.6m	<u>Basalt</u>	

	- maroon in colour, non-magnetic, calcareous matrix, calcite amygdules - location of major fault zone, core completely broken from 41.5 to 44.6m, 20cm of fault gouge at 44.0 metres; fragments of unit below incorporated into fault	
44.6 – 124.4m	<u>Rhyolite</u> - bright orange, aphanitic, massive, quartz phyric crystals (crystals <.5cm and comprise 1-2% of unit), non-magnetic, very siliceous; 1cm thick breccia zones with chlorite matrix frequent, minor sericite, hematite occasionally seen on fractures; <1% chlorite shards - jasper breccia over 30cm at 71m and over 10cm at 83.8m - 20cm of siliceous breccia at 123 metres - lower contact sharp at 50° TCA	
124.4 – 197.8	<u>Mafic Volcanic / Sill?</u> - Dark green, fine grained equigranular, weakly magnetic to non-magnetic, carbonitized matrix; upper contact appears to be chilled over 20cm (intrusive contact?), massive – no internal fabric, hosts 10% anastomosing quartz-calcite veinlets - Plagioclases weakly sericitized - Mafic dyke from 126.8 – 129.2, strongly magnetic - Significant hematite veining, particularly at 132.5 – 137.0 and 144.5 – 147.0 - 10cm of hematite breccia at 137.9 metres - extensively veined by calcite at 140.3 – 140.7 metres - calcite – hematite breccia at 143.0 – 143.4 metres - locally unit approaches medium grain equigranular texture as at 147 – 152, 153.5 – 157 and 166.5 – 172.7m - massive calcite breccia zone at 148.2 – 149.6 - moderate over-riding sericite alteration - 5-10cm thick zone of sericite – feldspar veining from 159.5 – 161.0 - zone of extensive flooding by feldspar – quartz sericite veining from 162 – 175, overall orientation of veins are 70° TCA, 10cm of fault gouge at 165.0m, another zone of fault gouge at 165.3 – 165.6, hematite veining at 168.5m; fuchsitic looking sericite at 174.5 metres - medium grained equigranular texture from 176.2 – 187 metres, rock is plagiophyric, plagioclase crystals are light green and 1-4mm in diameter - unit is vari-textured from 189 – 197.8, grain size changes from fine – coarse grained - lower 60 cm of unit appears to be chilled (intrusive contact)	
197.8 – 247.2	<u>Rhyolite</u> - same rhyolite as at 44.6 – 124.4 metres - reddish orange in colour, massive, feldspar (lesser quartz) phyric, very siliceous, aphanitic matrix, hosts 2-3% anhedral feldspar crystals <1mm in diameter - feldspar (?) veining over 30cm at 204.7 metres - broken core from 205 – 207m - mafic dyke from 202.6 – 203.4 and 203.7 – 208.8m - chlorite common on fractures - broken core and possible fault gouge at 227m - lower contact sharp at 60° TCA	
247.2 – 251.1	<u>Rhyolite</u> - colour varies from grey on the margins to pinkish orange internally, very siliceous aphanitic, non-magnetic,	

	flow banding at 50-60° TCA; some sort of internal contact at 248.6 metres - lower contact sharp at 60° TCA	
251.1 – 254.0	<u>Felsic Crystal Lithic Tuff</u> - greenish grey in colour, massive, siliceous, no obvious bedding, >95% fine – coarse ash material, <5% lithic fragments 1-10mm in length	
254.0 – 255.5m	<u>Felsic Volcanic</u> - fine grained equigranular, massive siliceous, fine ash tuff or rhyolite; fabric at 60° TCA that may be bedding or flow banding - grades into unit below over 20cm - contact area is banded with fabric at 65° TCA	
255.5 – 256.9m	<u>Rhyolite</u> - black, massive, siliceous, unbanded, minor graphite, overall colour probably due to graphite - graphite on fracture at 256.5 is weakly conductive - lower contact sharp at 70° TCA	
256.9 – 259.3	<u>Rhyolite</u> - pinkish buff in colour, numerous fractures coated with chlorite, minor graphite on fractures, very siliceous, trace fine – coarse pyrite, flow banding at 70° TCA	
259.3 – 273.4m	<u>Felsic Volcanic (Crystal Tuff?)</u> - colour varies from grey – green – buff, lacks internal fabric, hosts 3-5% anhedral feldspar crystals 1-3mm in diameter in an ash matrix, variably sericitic, sericite has a bluish tinge from 266.5 – 267.5 metres - hosts 5% of a fine (<5mm) mineral from 269.3 – 271.5 metres - minor siliceous dyking at 269 and 270.6 metres - unit is sheared over lower 4.5 metres due to faulting at 272.4 and 273.3 metres, 5cm of fault gouge at 273.3 metres, faulted areas host quartz-calcite-chlorite veining	
273.4 – 275.5m	<u>Mafic Dyke</u> - dark green, fine grained equigranular, magnetic, hosts 2-3% amygdule looking calcite crystals rimmed by black mineral - upper and lower contacts are chilled however lower contact is also faulted with 1cm of fault gouge present - lower contact at 70° TCA	
275.5 – 283.7m	<u>Black Mudstone</u> - black fine grained sediment, minor graphite on fractures, upper 30 cm of unit is rhyolitic with coarse pyrite at 275.8 metres, locally the sediment is silicified, sediment varies from massive to thinly bedded at 65° TCA - sediment is brecciated and flooded with calcite over 10cm at 277.7 metres - sediment is pyritized and sericitized at 278.3 metres - bed of coarser light green coloured sandy sediment occur at 278.8 – 279.1 and 281.1 – 281.7 metres - coarse pyrite at 282.5 and 283.1 metres - lower contact sharp at 50° TCA	
283.7 – 284.1m	<u>Felsic Rock</u> - sericitized, brecciated felsic, in part is rhyolitic flow, lower 10cm may be felsic ash tuff	
284.1 – 284.8	<u>Felsic Poly lithic Breccia</u> - greyish coloured rock hosting angular fragments varying from 1cm – 10cm in diameter, fragments are sericitic and silicic, silicified sediments and chloritic fragments	

	- lower contact at 60° TCA	
284.8 – 288.1m	<u>Rhyolite</u> - grey-pink, massive, very siliceous, minor chlorite on fractures, sericitic alteration bordering fractures, lower contact at 45° TCA	
288.1 – 288.9m	<u>Felsic Polyolithic Breccia</u> - greyish pink in colour, virtually clast supported, predominantly angular feldspar phyric felsic volcanic with clasts varying from .5-5cm in diameter; a single mafic clast hosting pyrite at 288.9 metres; unit appears to grade sharply into rock beneath - containing fragments of unit beneath indicating younging up hole	
288.9 – 291.1m	<u>Rhyolite</u> - pinkish orange in colour, massive, extensively fractured, fractures filled with chlorite - hosts 3cm thick siliceous breccia vein at 289.2 metres and a 10cm thick siliceous breccia vein at 289.8 metres - hosts mafic and felsic accidental fragments near base - lower contact at 30° TCA	
291.1 – 297.7m	<u>Mafic Intermediate Agglomerate / Pillow Breccia</u> - colour varies from green to orange, unusual looking rock; hosts large fragments 5-20cm in length that are separated by a dark blackish green chlorite that hosts trace – 2% pyrite; fragments hosts 5% a bright orange anhedral mineral 2-3 mm in length - extensive ductile shearing from 293.3 – 295.0, fabric at 10° TCA, shear zone flooded with silica, calcite and chlorite - lower contact sharp at 45° TCA	
297.7 – 298.4m	<u>Mafic Dyke</u> - dark green, weakly magnetic, carbonitized matrix, upper and lower contacts chilled over 10cm	
298.4 – 300.5m	<u>Mafic / Intermediate Volcanic</u> - same as at 291.1 – 297.7; strongly silicified and brecciated from 299.4 – 299.6m	
300.5 – 316.8m	<u>Mafic Volcanic</u> - dark green grey, fine grained equigranular, carbonitized matrix, weakly magnetic, plagiophyric locally - silicified, sericitized and veined (quartz-calcite, minor hematite with chlorite) at 302.0 – 302.7, 305.7 – 306.2, 308.0 – 309.0, 312.5 – 314.0m - plagioclases (?) frequently take on an orange colour - unit is a mafic volcanic extensively flooded by quartz-calcite, hematite, silica breccia and chlorite veining - unit stops abruptly at a 25cm thick silica breccia zone	
316.8 – 337.0m	<u>Mafic Crystal Tuff</u> - dark green, massive, no fabric, magnetic, carbonitized matrix, matrix is 95% fine-coarse ash material and hosts 5% anhedral plagioclase crystals 1-3mm in diameter, a few of the plag crystals are orange in colour - quartz-calcite veining common, minor hematite veining except at 330.5 – 332m where it comprises 5% of unit - minor epidote veining - quartz-calcite vein 50cm thick at 327.4 – 327.9 - calcite vein 40cm thick at 332.5 – 332.9 - this unit is probably an unaltered variant of rock above	

	- lower contact at 45° TCA	
337.0 – 398.0m EOH	<u>Felsic Poly lithic Breccia / Tuff</u> - pink, massive, no fabric, non-magnetic, quartz and feldspar phyric - fine to coarse ash felsic matrix hosting 10-30% angular felsic, sericitic and chloritic fragments, felsic fragments are buff to pink in colour and aphanitic, sericite is bright green in colour and the chlorite is black; fragments vary in size from .5cm – 5cm - sericite and chlorite fragments particularly common from 349 – 356 metres, the predominance of sericite fragments end at 359 metres - unit becoming strongly hematized at 353.5 – 360 metres - at about 355 – 361m unit is losing its strong pyroclastic appearance and hosts fewer fragments (<5%) - unit hosts 10% angular chloritic fragments from 368 – 383 metres, size varies from 1cm – 5cm at 370 – 387.5 metres - the rock loses its lithic pyroclastic appearance of above from 370-387.5 metres, unit has a fine grained matrix with <5% clasts; essentially a crystal tuff - pinkish crystal lithic tuff from 387.5 – 398.0 metres - extensive chlorite veining from 385.5 – 388 metres - chlorite shards from 393 - 398	