

R. V. KIRKHAM
R. V. KIRKHAM

HOLE 28 - Granodiorite section and below

Logged by R. Blair

FROM	TO	DESCRIPTION
1250	1318	<p><u>PORCELLANEOUS ROCK</u> - White to black porcellaneous rock with scattered phenocrysts. Some sections without phenos have faint flow(?) lines, 45-60° to CA. However, because most of run has scattered phenocrysts of feldspar (1-4 mm) this rock is probably not rhyolite. Apparently much magnetite-biotite introduction.</p> <p>(1264-1266) F.g. <u>GRANODIORITE</u> dike, not the aplitic phase.</p> <p>(1273-1277) <u>FELDSPAR PORPHYRY</u> - See also Allen's description.</p> <p>(1300-1306) do ; contact @ 45° to CA</p>
1318	1591	<p><u>GRANODIORITE</u></p> <p><u>Textural Phases</u></p> <p>2 (1318-1360) F.g. buff to grey-green aplite with 1! to 2! zones of fine- to medium-grained granodiorite inclusions(?)</p> <p>6 (1360-1503) F.g. to m.g. black to green biotite-chlorite rich granodiorite.</p> <p>(1370-1372) Dikes of aplite</p> <p>(1381-1385) do</p> <p>(1394-1396) do</p> <p>(1402-1408) do</p> <p>(1416-1419) do</p> <p>(1438-1440) do</p> <p>(1487-1488) <u>FELDSPAR PORPHYRY</u> - See Allen's description. 40° to CA.</p> <p>(1504-1519) do do 20° to CA.</p> <p>2 (1520-1526) Green strongly sericitized aplite.</p> <p>— (1526-1535) <u>FELDSPAR PORPHYRY</u> - Same as above.</p> <p>6 (1535-1564) Light to dark green, f.g. to m.g. inequigranular granitic granodiorite as 1360-1503. Also some biotite-rich sections.</p> <p>5 Several 2-3" dikes of porphyritic phase, phase 5, in this run.</p> <p>5 (1554-1558) Phase 5 porphyry cutting granod., apparently at 10-20° to CA.</p> <p>5 (1564-1591) Porphyry phase; buff, with poorly developed phenos. Rock has inclusion of above granodiorite and moderately strong clots of hematite-garnet-biotite-chlorite alteration.</p>
1591	1650	<p><u>PORCELLANEOUS ROCK</u> - White to black aphanitic rock with rare feldspar and quartz phenos (1-3 mm). Appears to be porcellaneous rock. No visible flow banding. However, much brecciation: 1605-1607, 1620-1621, 1623-1625, with the zone from 1600-1640 weakly brecciated in general. Breccia zones listed are pronounced but rest of of same general character - porcellaneous frags. in black, biotite-magnetite-chlorite matrix.</p>

HOLE 28 - Granodiorite section and below

FROM	TO	DESCRIPTION
1650	1660	<u>LAPILLI TUFF</u> - Dark grey to brown-black probably lapilli tuff, apparent secondary biotite.
1660	1702	<u>LAMPROPHYRE</u> - Black, v.f.g to f.g. with characteristic altered zones of slate grey to grey-brown near contacts. (According to Allen, this is <u>not</u> a lamprophyre dike)
1702	1746	<u>VOLCANIC ROCK - FLOW?</u> - Green to black rock that looks in general like porcellaneous rock except that borders vary between aphanitic and v.f.g. Also many dark sections with peculiar dark sea-green chlorite or epidote. Probably a massive flow rock.
1746	1758	<u>FELDSPAR PORPHYRY</u> - See Allen's log.
1758	1791	<u>LAMPROPHYRE</u> - Black, with strongly brecciated contact containing epidote, 1788-1791
1791	1820	<u>PORCELLANEOUS(?) ROCK</u> - Green to grey aphanitic rock with moderate number 1-3 mm feldspar phenos. Probably porcellaneous rock
1820	1930	<u>TUFF(?)</u> - Black to dark brown (biotite?) to grey aphanitic rock with scattered feldspar phenos or fragments. Rock does not have glassy appearance of typical porcellaneous rock; may be v.f.g. tuff. (1894-1900) Possibly porcellaneous section, grey to light grey
1930	2150	<u>TUFF</u> - Black, aphanitic to v.f.g. rock with zones of apparent v.f.g. fragments and zones of feldspar phenos or fragment-rich areas. Its possible that the v.f.g. equigranular fragment-rich areas are sections of feldspar microlite-rich rock.
2150	2270	<u>PORCELLANEOUS(?) ROCK</u> - Grey to black aphanitic glassy to non-glassy rock with a few to a moderate number of feldspar phenocrysts. Prob. porcell. rock.
2270	2328	<u>LAPILLI TUFF</u> - Black to dark grey with some sections rich in feldspar fragments or crystals (i.e. possibly minor flows): 2308-2309, 2321, 2325. Possibly also fragments of porcellaneous rock in the lapilli tuff.
2328	2571	<u>LAPILLI TUFF & POSSIBLE FLOW ROCK</u> - Most of rock is rich in feldspar phenocrysts which do not look fragmental. (2400-2420) Section with c.g. feldspar phenocrysts which appear to have lineation 40° to CA; not clear if there is also a foliation.
2571	2783	<u>VOLCANIC FLOW(?)</u> - Black to dark purple, aphanitic, phenocryst-bearing tuff or flow. Considering the euhedral nature of the phenocrysts, their lineation and possible foliation I think it is a flow. In general, lineation 40-60° to CA. (2620-2640) Dark purple to gray-purple zones with vague to occasionally pronounced primary banding. Bands are composed of light material which is a little less aphanitic than the darker material. Banding: 2628 - 40° to CA 2622 - 10 2734 - 50 2738 - 45 2742 - 10

FROM TO

DESCRIPTION

VOLCANIC FLOW (Continued)

Dikes of pink porphyritic granite, same rock as at bottom of hole only they are somewhat finer-grained:

- (2510) 6", 20° to CA
- (2718) 1", 55°
- (2755) 1", 65°
- (2761) 6", 25°

(2730-2783) Zone of black to purple volcanics which looks as though it may have had significant mafic loss and feldspar introduction, possibly from the granite porphyry below it.

2783 2851
END

PORPHYRITIC GRANITE - Pink porphyritic granite with 3/4" white feldspar phenos which are often very conspicuous. Phenos less conspicuous beyond 2820 because most are pink. Contact with volcanics is 30°, and 1" inclusion volcanics @ 2786-2787 has contact @ 15° to CA. Biotite is also conspicuous, and fresh.

See also Allen's description of this rock.

(2850) Inclusion of v.f.g. granite, which looks very much like similar inclusions found on surface on north wall in feldspar porphyry dikes.