

June
26

- Alt. rdg 733' at Bonanza Lk at 7.50 AM, so 143' low.
- " " 763' at 1st ls. % on old rd.
- " " 1160' where lv. rain pants at rd forks, & take rt fork going N along hillside.
- " " 1340' where lv. this branch to go up creek #5.
- " " 1390' at 9.30 AM at foot of ls. % in ck: dense med. gray, almost waxy, mod. eff.
- " " 1510' at top of ls. % at edge of timber, 9.50 AM.
- " " 1735' at 10.30 AM at foot of falls, where blk ls. is overlain by alt sill or tuff bed, which ctns heavy diss. py, & pass specks of apy & cpy, sp. 40. Hans says this goes thru to No. 4 ck. Sp. 41 fr top of falls. Abt 20' higher, in rapids above falls, this rock is overlain by more ls. Both cts are offset by nr vert faults, cts dipping genly upstrm with \nearrow . Then ls grows t/b & lies 025° $05W$. No more than 10' of ls, then
- " " 1800' at 11.05 AM at base of 2d sill, which ctns sparse fine specks of cpy. - sp. 42 of rock. This passes up to dykes cutting t/b blk ls. or calc. arg. dipping abt 15° upstrm. & ctns large rayed fossils. Sp. 43 of basal ct. of 3rd sill, which weathers in bldr-like forms.
- " " 1955' at 12.15 PM as start lunch in ck bed above 3rd falls.
- " " 1945' " 12.40 " " fin "
- " " 2265' " 1.30 " at top of % on yet another thick sill, at sev thin ones. This is on trib. fr SW, maybe 80' above jc.
- " " 2335' where climb out of gully.
- " " 775' back at Bonanza Lk at 3.05 PM, so 100' low

Stop at quarry off the old Beaver Cove rd down twd Nimpkish valley & take a bag of sps of altn. in Nimpkish intrusion; moly also fr here. This is just bf. (E) brj over N-flowing Steele Ch.

Alt. rdg 40' back in Lunkhse 4.40 PM, so elev. abt. 130'

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PROPERTY FILE

June

27 Elev of Nymphish camp given 175'. Alt. rdg. +30' at 8 AM.

Alt. rdg 235' at RR.

" " 640' - stop 1 - Bnz. volcs., sp. 45.

" " 920' - " 2 - " " " . K photos 15 & 16. of Pinder Ck & mtns. to N. K photo 17 of drag along fault in dipping beds of Bnz. in small quarry; beds lie $280^{\circ} 30' S$. Chop off by zone of shearing & dyking, 50' which rock is much frac'd & veined, & ρ less conspicuous, tho still present.

" " 915' - stop 3 - SE of zone of ρ .

Note 1

Road climbs with ρ

" " 1280' at 9.15 AM - stop 4. Small quarry yielded chunks grading as much as 1% Cu. K photo 18 of Karmutsen Rge & Nymphish Lk.

Stop 5 " " (1890') : quarry showing good ρ , $340^{\circ} 13' W$, in predom. dense, pale creamy grn volc with dk. grn & gray beds; sp. 46 of " " " . Ep seams & patches, & small knots of S. Tenorite seams rept'd, but could only find oily surfs resembling gilsonite.

Stop 6 " " 1790' : small quarry almost directly over stop 5; massive, lyt to mod. grn volc, intruded by dykes of qd trending toward stop 5.

Pt. 7 " " 1950' : on siliceous beds lying $355^{\circ} 20' W$ on nose of rj betw Kinnon & Nymphish valleys. Appar. overlies chert, sp. 47.

Pt. 8 : quarry exp. faintly bedded volc SE of abt 300' of qd. volc is faced with skarn vlt's & shot thru with py. ρ better defined at S end, $330^{\circ} 35' SW$

Stop 9 : small quarry exp. well-bedded arg, sp. 48, above sheared & veined arg, sp. 49.

" 10 : small quarry exp. dense volc, which ctns burrows at top, sp. 50.

" 11 " " 2540' : quarry, 1.15 PM: Prob. Bnz volc., $325^{\circ} 55' W$, tho in part sed-looking, sp. 51, & very sly calc. Just down rd a 2d quarry is in lyt grn volc dg. small dk frags, as in part of Island Copper. Intersecting s.z. simulate an a/c. Prob a fault thru N part of this gr. More of the problematical gray rock on either side of a ck fall'g a hefty S.Z.

" 12 " " 2720' : rd cut of lapilli tuff with purple patches, but mostly lyt grn or celadon.

" 13 " " 2875' : end of rd at heavy ep altn. of prob. volc. rock, grading to skarn, 2.30 PM. Overlooks ck where high Cu s. lts abtd.

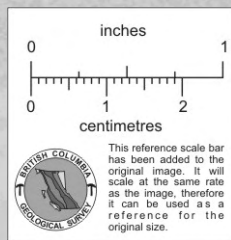
Stop 14 Alt. rdg. 2275' : quarry in blk arg., $330^{\circ}60$ NE! Below Kinman forks.
3 PM.

Stop 5 K-19 of arg. exp. in ck below rusty vales.

Stop 2 K-20 of Hans Knapp on %.

Alt. rdg. 130' in bunkhse at 3.35 PM. - rise of 100' since 8 AM.

K-21 of bunkhouse No. 30.



June 28 '70

Preliminary comments on Hans Knapp prospects

Hans had prospected vein, shear zone, & shera depos., & at one time held the alpha dr. of the Dimpkish Copper group, but he became convinced that the big companies would only look at large low-grade depos. typified by Highland Valley & Island Copper. He \therefore prospected the Bonanga volc. area E of Dimpkish geochemically, taking both stream sed. & soil samples. He had them analyzed by A-A by Great Laboratories for Cu & Zn, using both hot & cold acid extraction. The metal ratios were not constant, but the higher metal values were generally correlative, with generally $Zn > Cu$. He concluded that the threshold for Cu was abt 55 ppm. He obtained his highest values in the principal creek betw Kinman & Woodenge & along creeks flowing ^E into the N part of Bonanga Sh.

The area S of Kinman Ch was not encouraging. Reported occurrences of cpy in the Bng. were no longer exposed, & the Bng. rocks were in gen'l too well-bedded & fl'g to lie near a volc. centre. Outcrop at the end of the upper logging rd on the S slope, looking down into the anomalous ch, was an epilitic shera etc. py but no cpy.

Hans numbered the creeks flowing into Bonanga Sh 1-6, fr S to N. No. 4 yielded the highest stream-sediment values, but Hans selected no. 5 as easiest to traverse. It is the most westerly stream of consequence flowing directly into Bonanga Lake. It exposes a nearly-ctuous sec'n of gently W-dipping Quaternary & Puroon Bay beds, interrupted by thick & thin ^{1/2} g sills & coarse'g dykes. The sills (& \therefore beds) are displaced a few ft. or more or less \pm faults. These intrus. appear substantiably different fr. the K-like intrus. in the Quaternary, & could be offshoots of Bng volcanism. They con. consid. py & occas. specks of cpy, & could be indicators of Cu mgz inward & higher on the mtn.

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