

Ca sulphate est. low?

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FISH LAKE Q 74-4 (see KEN's notebook for other data)

Rock Type	Fs/Altn	(%) Pyrite	Copper Sulphides	Epidote	Chlorite	Hydro Bio.	Flakey Sericite	Comments
Metavolcanic	gray (2)	Fr 1% Minor Dis.			Fr < 1% pt after mafic abn	NIL	60c fringes 972 - v. minor	rock olive grn overall
Metavolc?	cm → yellowish (2) loc 3 in shears	Fr v. less dissem 1/2%	v. minor cpy w. diss. py	local gyp sum	minor after mafics			Mafic variably alt. to sm/carbonate or chl. Sulph. after mafic locally.
Metavolc?	dull greenish wh. 1-2	fr, less in mafics	v. minor if any		Fr, after mafics w. py	possibly minor fr		Fault 145-148
Metavolc?	loc. wh (1-2) yell. gray (2) near shears. pale. grn-wh (1-2)	same 2% same 1 1/2%	NIL minor (.01)		" micro hydro bi. on fr - chl fr 10'			fewer chloritic fr fs anhedral, mafic on blabs, gone to chl on coarse xls to chl + py chl. fr decreasing
loc. ppytic	mainly dull greenish-wh (1-1) loc yell (2)	" 1%	v. minor		mainly after mafics, less fr			loc mafic → chl py loc dissem but not in mafics
f-mg meta-volc, loc ppytic	3/4 is yell alt. loc 2 loc 3	sim. but fewer 3/4%	minor	mafic phanos → py ± cpy	Chl + py			altm changes to 310
metavolc?	often greenish fm yell (1-2) to drab olgrn (2)	" 1%	more with ol, chl, py (.02)		more fr in grn altm zone, after mafics	occasional fracture w. cpy: py		pockets with py, in grt-epy- py vuggy veins loc repl. plug in veins w. grt, sulphate
metavolc - grn. finely ppytic?	mostly dull gray	" 1%	mainly on fr w. grt, py		on fr w. sulphates, after mafics	same on fr		mafic int, anh, 25% v. xilld volc rock box stands in ppytic meta-volc than there is QFP
Variable	grad on grn (1-2) green to yell-wh (2) to pale pink	dissem + massive veins in ppy 3/4%			very little, fr kaolinized			
QFP	mainly shade 0-31 local yell wh (2)	dissem + veins 1/2%	on fr + in veins .02			MSL steps		white grungy on slips + with grt-sulphides
QFP matrix of fg	phanos yell (1-2) matrix mostly gray sim. but loc emerald grn (3)	dissem + veins 1/2%	cpy w py .015 cpy w py .01			MSL steps		on fr w. py. and in pockets (after mafic) st. lower grade
QFP into 490 Grn ppytic meta-volc starts	yell (1-2) phanos var. matrix	dissem + fr 1/2%	cpy v. minor		after mafics + matrix = in grn ppy on fr	ser. chl. gyp fr		Grn ppytic rock has 2% dis pyrite
Crowded PPy	Fine fld. ppy	var. ol. grn (2) brash and yellow (2)	mainly fr 3/4%	minor cpy	on fr grn altm zone			Fairly thick late carbonate veinlets
"	" (greenish)	gray (1-2) loc yell (2)	dis + fr 1%	minor cpy w. fr on fr	matrix perv chl. chl. py fr			minor pale grn fs altm on fr
"	" (uncolored)	grn (1-2) to yell grn (1-1) to yell (2-3)	" " 3/4%	very minor cpy	loc altm + fr			perhaps loc-ally (see sample) crowded ppy text. remains
602-670 Missing	Crowded PPy	much yell-ah (1-2) altm toward 675 is a rusty zone then grn-wh (1-2)	py → ocht on in yell-wh zone, on fr. 1/4%	minor cpy with pyrite on fr				Kaolinitic altm zones
	Crowded ppy	red (1-2) to 601 then predom. greenish wh (1-2)	dissem + on fr + in veins 1/2%	fairly common w. grt, py .02	some, on fr possibly	Altn zone = cpy-py adv to fr. SERICITE →		some, with cpy-py - MSL - chl - BIOTITE gypsum veining - some seems to be indigen w. sulphate
	loc zone not ppytic (altm?)	gray (1-2) to greenish wh (1-2)	dis + fr + veins 1%	some with grt carb veins, not much	repl. matrix of rocks, chl-py fr	minor on chl-py fr		minor as holes grt-py-carbonate veinlets Honey sphal + gyp + whatever at 767 does not look like it belongs in this box.

Dull ol. grn - chloritic?

Fr - fracture controlled
Dis - disseminated

Metavolcanic CR is too lthm with 25% anhedral completely
chl. mafic and f-mg anhedral plug - no grt seen
where diam altm occurs, rock looks ppytic
Euhedral fs xls look zoned.

- Samples 81, 122, 130, 142, 155, 200, 227, 258, 268, 285, 323, 370, 380, 390, 446, 460, 470, 496, 576, 523, 577, 625, 716, 765, 767, 800

767 veins - qtz - honey sphalerite -
- specularite
specularite with pyrite, talc
cut by gypsum (orange)

800 pyrite veinlet opened up &
infiltrated w. younger gypsum.
white plg. phase (35%) in green
(1-2 mm Ø)
silicified matrix.

577 looks vaguely pyritic but
depends on strike - could be
sl pyritic fg intrusions or very
crowded ppv

523 like 577 but bleached cream.

625 crowded ppv, plg 50% H₂O
avg - cream alt. 50%
- matrix gray -

716 pervasively silicified
dk grayish veined - qtz - py cut
by gypsum.

765 fg mottled-looking, chl + maf
metavolc - gypsum

(81) Gray holocrine pyritic magnetite -
by ch. mafic rock - metacalc?
look pyritic on some faces

(122) Dark bleached pyritic fine
ppp - phenos 40% of matrix
(1/2 - 2 1/2 mm)

130 Bleached cream py-gr veins
often in carbonate dissem py.

(142) Pyritic phenos plaq 40% ~ 2 1/2 mm
in matrix

(155) Dark pyrite - looks so because
of phenos white, overall ^{dk} gray-green

(200) more gray green, not so obviously
pyritic but overall similar

(227) Dk green variably pyritic

258 Bleached cream but texturally
like 227.

(268) - some plaq phenos to 5mm, matrix
gtzase most plaq ~ 2mm.
- med. Gray-green color
- diss. pyrite

(288) Bleached veined seritized (flakey)
in pockets + along fr.
prob. like 268

(323) Protr. with over grained, gray,
chloritized mafic
chl - py fr late carbonate fr

(370) aphanitic, pinkish matrix, plaq
phenos to 5mm, ~ 30% plaq phenos
mafic -> chl, dissem py.

380 Bleached, seritized, diss cpy, py
original rock type unclear

Thin Section

390 Plaq phenos kaolinized
easy to see on broken face ~ 3
to 5mm; vft matrix

(446) Qtz phenos ~ 5mm size - ser
plaq " " ~ 2
of gray matrix

460 like 446 but 7% mafic -> ser

470 Chalky white (kaolinized)
qtz - plaq ppy; matrix pel

(496) Concentrated finer plaq to 4mm
25%; gtz ~ 4mm est. 1-2%
diss + w qtz in veinlets
ser along fr?

(516) Crowded plaq ppy phenos
matrix vft, gray (~50%)