013315

DDH Q 73-10 : QUINTANA ... FISH LAKE

July 20/76

	Rock	Fs Altn	Pyrite %	CuSulphides	Epidote	Chlorite	Second. Biotite	Flakey Sericite	Comments
	68								
Rust to ≈ 80'	vfg light colored - dyke?	gray (qtz ± ser) or orangy	on fr, veins dis. 0.2	cpy - veins w. py, qtz, dis. 0.3	—	—	—	mixed flakey ser (perv) & carbonate(?) altn	overall gray to rusty orange aspect
	133								
1 Box Missing	predom vfg gray to yell. loc ppy fc zones	"	fr, veins, diss .25	fr, veins, diss .25	—	—	—	loc perv halos on qtz-py veins	gray aspect to 186 then yellowish orange some great x cutting veins
	204								
	vfg dyke? gives way to bi hfls at 262	yellowish predom	veins + dis. .2	veins + dis. .2	—	—	loc pods w. py in "dyke"	perhaps in some vein halos	qtz - cpy - py - late S_2 vein
	263								
1 Box Missing	Hornfels vfg dk to loc lt gray	Bi + chl perv.	fr, veins some dis. .1	dis + veins w. qtz - mag - chl .25	—	veins & pervasive fractures	dis, pervasive strong	perhaps loc around veins	predom dk gray aspect + fr x vein dec. ^ magnetite
	334								
	Hornfels	"	" .2	quite a bit of dis, fr t vein .3	—	in fr w qtz - cpy bc perv	"	—	largely mottled - bi clots matrix ol. grn
	389								
	Hfls cut by ppy dyke	"	" .15	" .25	Grades lowered by dyke	"	"	local patches (look dk grn) in hfls	393 - 403 grn dyke chl mafic ser plag ppy Phenos 20%
	443								
	Ppytic dykes 463 - 479, 490 - 502	" Dykes grnish (1-2)	" .1	" Dyke - fr + diss cpy .3	—	" Dyke mafic → chl	"	possibly loc as vein halos	Dyke contact low & to core
	499								
	Dykes 505-9 grn vfg to Hnfls	"	" .1	" .25	—	"	variable strong to nil	—	Country rock pale grn vfg, meas we Dyke has loc qtz eyes
	555								
	Dyke 558-577 Grn to Biotitized Hfls	"	" .75	" .2	—	loc. perv on fr	"	— ? —	Early on the dyke is bleached but qtz eyes are present
	612								

Samples 100, 110, 125, 155, 134, 150, 202, 205, 230, 232, 276, 290, 325, 330, 399, 415, 440 451, 464, 478, 494, 510, 540, 544, 556, 574, 595, 608

Bi Hfls has fine dissem. cpy usually

DDH Q73-10: QUINTANA ... FISH LAKE

	Rock	Fs Altn	% Pyrite	Cu sulphides	Epidote	Chlorite	Second. Bio.	Flakey Sericite	Comments
	612								
	742								
Qtz Eyes	Qtz Mafic Plag ppy 761	Phenos → grn ser altn matrix ~ fresh	fr, veins some dis .25	some bn cpy in fr, veins, some dis .2	–	mafics → chl	–	minor pockets in vein altn halos	Kaol. altn along fr
	Rock var. grn to biotitized Hfls 857	Not Applicable	Fr + veins w. qtz, cpy 0.2	Dis loc but mostly vein + fr 0.25	–	local	loc. perv	adj. to veins perhaps – locally	857-843 wh-yell "dyke" Bio altn loc destroyed by rexlln + fs growth
Qtz Eyes	Qtz-Plag ppy 911	Phenos wh → yellowish to gray grn	fr + veins 0.1	fr + veins 0.1	–	after mafics locally	–	–	–
	931								
	Bio Hfls 1004	N.A.	fr + veins + dis 0.1	fr + veins + dis 0.35	–	local fr + perv	perv strong	local pockets in pink altn zone	Rock is loc altered to pink color Bio. loc bleached grn adj. to veins + fr.
	1022								
	1078	Bio Hfls → tan vfg rock at ~1084 Est Grade ~ 0.3							
	1097								
	1151								
	vfg tan rock 1170	N.A.	fr + veins .1	fr + veins 0.2	–	–	–	local patches.	The CR is tan, vfg, loc. colored grn adj to fr
phenos indistinct – possibly chill zone on Qtz Plag ppy	leucocratic plag. ppy 1224 1243	phenos yell-wh (2) matrix yell-gray grn	loc fr + veins disemin. 0.15	loc fr + veins 0.1	– + contact gradual ?	–	–	possibly adj to veins loc.	The early part of the box is sim. but w qtz eyes – rest is minzed + veined
Leucocratic Qtz Eyes	Qtz Fs ppy 1323	phenos yell → tan (2) matrix tan	fr + veins 0.1	fr + veins 0.15	–	–	–	loc adj to qtz-py-cpy - MoS_2 veins	
	1357								
	vfg yell-tan rock 1429		veins, fr, diss 0.15	veins 0.05	–	–	–	–	Sim. to 1250 area

samples 748, 760, 840, 842, 850, 912, 926, 928, 1010, 1019, 1020, 1084, 1091, 1158, 1228, 1241, 1340, 1428

(Qtz-> 1157 168)

6) Magnetite - chl fractures cut by carbonate fr + veins (stockwork) strong magnetic response
Bio Hfls

? Mottled green + gray chlorite - sericitic (?) zones. Chl-cpy fr carbonate fr.

Dissem py - cpy + qtz-chl - py - cpy veins w. bleach halos.
Bio Hfls - w. chloritic patches.

carbonate (loc x1s) - py vein

CR - mottled w. dk green py - ser - chl patches (± hematite) like 290

? 3 ext (?) Plag ppy phenos to 2mm in (15%) gry-green grdmass cut by yellowish carbonate veins. DYKE.

Similar to 380 but chlorite zones larger.
Lots of dissem sulphides: py + cpy
Carb - py veins

Q73-10

134 Part in tan alt vfg, part in yell to tan - altered ppytic w. plag phenos to 4mm.

150 cpy fr younger than qtz vein
white vfg rock

202 Tan altn, almost vfg subaplitic - looking
Some vein relnships visible
CR is much like 134

205 Qtz veins with pyrite - cpy - bn core cut by white → rusty carbonate vein
CR as before w. dissem pyrite pockets + diss. specs of hematite.

230 like 205

232 Mottled pink to yellow chilled dyke contact zone.
carbonate veins weak cpy + pyrite bn? fr fractures

Q73-10

100
Rel fg completely altered to tan color, zones of py - ser - qtz
Rusty wtrg

110 fg gray rock seems to be speckled with crystals but in reality they are zones of pyrite - ser ± cpy.

125 Qtz vein offset of - cpy veins cut by wh. carbonate w. pyrite halos cut by rusty carbonate fr.
Rock is fg, tan altered

133 White carbonate vein offsets qtz
(edges diffuse) Py - some cpy ... 2 mm) offsets or cuts qtz - cpy (edges sharp)
CR: fg, tan, dissem pyrite
Great vein relnships shown

73-10

Dk gray green plag (30%, ±5mm) ppy Dyke Gypsum veins

yellow ochre to pinkish alter of ig c.R altered h.flo

73-10

493 Contact mafic plag ppy like 574 qtz-py (1:1) w. ser-qtz halo has gypp veinlet in same fr

CR is dykes/Hflo contact

DYKE is mafic (chl) plag ppy CR is gray-grn vfg ← diss. sulphides

510 vein of qtz-py-cpy has gypp vein in same fr - gypp is younger.

mottled lt green, pale gray-grn CR

520 Mottled bio hfls and gray pyritic (cpy also?) areas. The lt colored areas are areas where bio hfls has been destroyed.

544 Diss sulphide throughout - mottled rock w. alternating chloritic and grayish-white zones (some sericite podo) altered Hflo

73-10

440 Gypsum, carbonate - py - cpy vein TWO SECTIONS

In same fr but gypsum younger I think. Lots of Disseminated py, some cpy adj to the vein the ck Hflo is bleached out & the biotite destroyed

451 qtz-chl-cpy-py w. gypp along same fr but younger. Mafic vein has dk grn chloritic halo.

CR gray green vfg

464 Gypsum veins CR inclusions altered to carbonate veins

493 but one DYKE - plag phenos to 7mm long 3-5 (45%) qtz phenos seen (2mm)

matrix shot through with chl. mafic + sulphides. Gypsum cuts carbonate.

478 Partly bio hfls - partly hfls destroyed & charged to gray grn fg rock.

Veinlets mag - cpy - qtz

local chloritic zones with diss py

Tan altered qtz (5mm 1%) plag 30% to 10 mm ϕ

a) porphyry

mafics → sericite (5%)

veins qtz - mag - cpy (some bn ?)

DYKE cut by gypsum

926, 928 all parts of one dyke

Hornfels fairly strong magnetic

reaction gypsum veins

dissem. pyrite + ir pyrite

196m Altered Hfls - fairly massive

- mag - py - cpy veins cut by

qtz-cpy veins

[illegible] Qtz (massive pyrite)

cuts qtz - py - cpy. Younger carbonate

(rusty). altered hornfels.

73-10

840 Bleached tan fg rock -

altered hornfels

mag (broken) - qtz veins cut by younger carbonate veinlets

dissem. hematite

842a Mottled dk brn + gray white

altered hornfels.

Fairly wide qtz - cpy veins (½")

850 Hfls w. diss. dk gray areas with

sulphides in + adj to them. Cut

by gypsum vein.

926 Plag phenos pale emerald green (sericitized)

no qtz veins

(FP) vfg matrix Some MoS_2 (?) DYKE

qtz - sphalerite - py - cpy veins

(blackjack)

912 quartz (2%) mafic (chl) 5% plag 40%

(FP) porphyry DYKE to 5mm ϕ

558 Qtz eyes (~5%) (2 to 3mm) plag (sericitized?) phenos

(bleached, cut by QFP) tan, vfg matrix (phenos 2-4 mm) guess about 30%

qtz - cpy veins carbonate veins

DYKE

(hits w 1291 group)

595 Qtz - chl - py - cpy vein

med gray - green fg rock

qtz veinlets Gypsum (young)

608 Mottled blo hfls + lesser gray zones

cut by qtz + gyp veins

Fair bit of magnetite

748 qtz (~2%)

Mafic (7%) (blo → chl) plag to 5mm 5%

(like 912)

porphyry DYKE cut by qtz-py-

cpy veins which are cut by gypsum

(gyp. locally parallel)

760 pockets red + partly hematite magnetite

carbonate veinlets gypsum

qtz (2%) plag (30%) porphyry matrix vfg

DYKE to 4mm ol grn alth; 4-5 mm ϕ common by

1349 altered to yell-tan qtz (2mm) plag (4mm)
(QFP)
ppy. DYKE - only one qtz pheno seen.
cut by qtz - py - cpy - Mn Sx vein
with silicified halo (flooding of qtz)
some sericite

1221 vfg tan, closely fractured
altered Hfls

1084 Hfls - gray alt'n along fractures
cut by qtz - cpy - py and qtz - chl -
cpy - py veins.

1091 yell-tan altered vfg rock.
Qtz - hem - cpy veins cut + offset vfg
barren qtz veins.
altered Hfls

1158 Grayish to pinky tan vfg altered
Hfls
Qtz - cpy - mag-K offset by fr w. qtz cpy veg

1228 (FP) Plag phenos all - defined because
of alt'n (~ 4mm Ø, 50%) vfg tan grd-
mass. Bleached, sericitized DYKE
some lapilli

1241 (QFP) qtz eyes (4-5mm, 1%) plag phenos
(35%, 3-7mm) matrix vfg brownish-tan
Veins - qtz - cpy - py cut by carbonate
(open space filling). DYKE