

896437

**nw**  
wade

**FIELD BOOK**  
CAT. NO. S.E. 515/8674

~~1982~~ 1983  
NOTES - 1

WJM  
Highland Valley

norman wade company limited



CONTENTS

(cont'd)

Names Highmont G Sanford  
(Merle Lator)

Lornex 83-25

New Denver p. 83 -42  
p. 83 -56

Reese

LT Samp

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83-18	Checking Hwy %cs and distances <sup>STOP 4</sup>	July 18/83
83-20	Lornex Deposit <sup>1 hole 211 and</sup> <del>Atlet</del>	July 19/83
83-23	" " <sup>P.V.</sup> - Core	July 19/83
	Holes 194, 197, 205, 203, 200	July 20/83
83-36	Road %c checks - Hwy <sup>STOP 2</sup>	July 20/83
83-37	" " " " <sup>STOP 3</sup>	" 21/83
83-39	Highmont East Pit	" 21/83
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83-48	" " " " 81-11	July 25
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83-53	AYLWIN 82-24 west zone	July 25

83-55 " 81-9 Main zone " (New Denver - people met, p 83-55) follow

Sun

Sun

Sun

Sunny

Sun  
Cloud

Sun/  
cloud/  
Rain

Cloud/  
Rain

1983

WJ McMILLAN  
BC Ministry En. Minest

 NW  
wade

 CONTENTS  
(Start)

Pet Res.

PAGE NO.	JOB LOCATION	DATE
83-1 to 11	Trip to Hedley/Greenwood/ Reeves/Kimberley/Rion- del with Terry R Smyth	June 83
83-1	Hedley	
83-2	Greenwood/Sy/vestok	
83-4	Reeves	
83-5	Purcell Supergroup - overview	
83-8	Auldridge etc tour	
83-10	Skookumschuk area traverse	
83-11	Sill section, stops enroute to Victoria (Kettle R)	
83-12	83-12 Visit to Ray - Spuzzum area	
83-14	Travel to Kamloops 83-14 Highway 100 Pit	15 July
	←	
	PRINTED IN CANADA ON 100% WATER PROOF PAPER 'Mark in the Mist'	

JOB .....

Mike Casselman

DATE .....

HEDLEY AREA

PAGE .....

83-1

June 14/83

Good Hope -

see Trigg or Gerry for notes

photos enroute -

General scene from Hedley (2)

Granodiorite + scene

Looking west (2)

Good Hope Showing

lower pt - Contact Marble/skarn (2)

upper pt - " " " (1)

Nickel Plate Mine - Mascot Mines

Frank Holland - Mgr

Bill Wilkenson - Asst

Bull Log - in Sunnyside horizon  
(1/2 or all) PHOTO

\* Thesis - see Stanford 1951

ore near structures, folds,  
pits

Central - structural

all host rx are skarn

Local massive garnet beds

are zones trend NW

PARTY CHIEF .....

WEATHER .....

wade

JOB .....

DATE ..... PAGE .....

Jim Fyles (Ned Read) Ken Daughtry / George Stewart

Volc Bx - mudflow or pyroclastic

lst (lenses) stem winder

ch Bx

Lst - some stn

m-UTR  
Brooklyn sst slt stn / st Some Norian skarn + ore

ch bx 2000' Sharpstone cgl

Paleozoic - Knob Hill

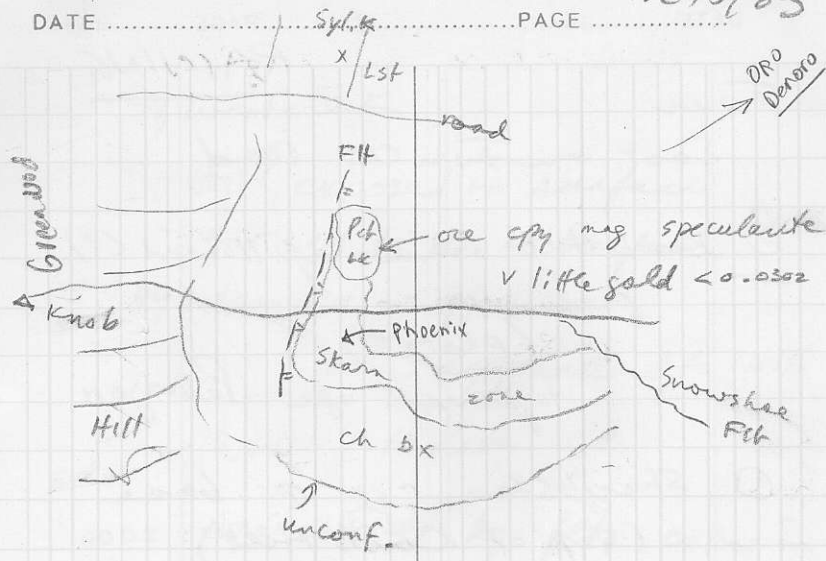
Syncline plane NNE

cut by Twt intrusions



PARTY CHIEF .....

WEATHER .....



Oro Donora - granitic mass nearby  
 - garnet skarn  
 mag (cpy coarse calcite)

Emma - rest bed  
 - mag less cpy

Cyclops - green sphal / cpy

Syl. K pyrite, + pyrroho  
 gold, minor cpy  
 silver  
 no As Sb Hg

no transition  
 zone - skarn -> arg.  
 CR

fine calc. hornfels, bedded  
 grains of fs  
 bio ep. plag gt ~

RAINING

Tower

East on Turn of road

- ① Knob Hill Farm - pillowed (?)  
greenstones  
(photo 10)  
Hojamean age - Paleozoic
- ② Sharpstae cgl @ base  
(top of Knob Hill) 2000'  
photo  
polymictic  
thick,  
massive
- ③ Chert - or is it  
acid rock?
- ④ Bedded sst, sharpstae <sup>some</sup> lapides  
cgl, cherty rock - transition  
2 photos  
to skarn  
Skarn + bx apparently intertongue
- Jim's job - regional framework

Sylvester K

- 800' exposed on surface
- cut off to N at surface  
by diorite intrusion  
others dip shallowly to North
- 10 DDH's to date
- zone cut off by flts - extension  
not yet found
- ≈ 300 000 tons geological reserves



## Reeves MacDonald

In nose is isoclinal syncline  
plunging  $\sim 40^\circ$  SE

Mineralization - pyrite in  
'beds' and veins + cementing  
bx.

sphal. in layers + in cg white  
dol pods

Fyles - dol alter pre-ore

Pyrite 'beds' tightly folded  
but apparently were also tightly  
folded earlier.

Host - Reeves 1st (Baldshot)

several photos -

stope (2)

folds (2) or 3

bx (2)

Dick Brown

monashee Complex - argues domes  
are structural windows

Rx on top Selkirk allochthon

Tullahoma - Lardner GP



Overview

Shuswap complex - east boundary is a fault

Basement 2.1 by

cover rx - unconf on basement

Ruddock Ck Pb Zn Pyrrho

Cottonbelt Pb Zn Magnetite

Jordan River Pb Zn

also Mo in neph sy.

Big Hedge - s. edge of Thor Odin

Goldstream in seelike allocthon

Cu Zn - Beashi type

southward → Kootenay ~~arc~~ arc

Duncan

Bluebell

↓  
Reeves AB Jackpot

Jersey

Parcell anticline ~~unconf~~ gentle N plunge

see Parcell Supergroup

Helikian

unconf. Windermere

Hadrynian

Windermere

DATE <sup>Toby</sup> ..... PAGE

Mt Nelson

Phillips ~~Rossville~~ ~~Redbells~~  
 Gateway  
 Nickel Creek  
 VanCred (Siyeh)  
 Kitchenar  
 Creston

clastic carbonates  
 alk basalts  
 clastics  
 carbonate  
 clastics

Dutch Cr

x above Rossville - no exposure on East



melford  
○○○○ carbonaceous

unconf Windermere  
shallow marine rx

750 my East Kootenay orogenic

alluvial

upper Lam. - black arg  
 middle 2-3000 m coarse wackes, argillites SHEED NORTHWD Turbid. arg  
 Lower rusty siltstone arg (pyroba)

lam dk arg.  
 Turbidite  
 algal mats shales  
 Alldredge

herdeau

Renevco Badshot  
 Renevco <sup>truncated</sup> Hamill  
 Badshot Truman gradual  
 Coq

Purcell Supergroup

Ft Steele - mainly fluvial

unconf?

Basement 1.5 BY? could be older

West

East of French

PARTY CHIEF .....

WEATHER .....



# Purcell anticlineorium

most stracts N-S

major fets

St Mary

Magic - young tear pet

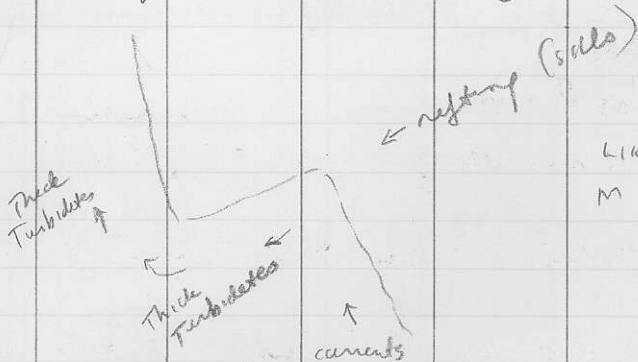
Purcell to South - uncon +

Dev on top

Reconstruction - isopachs suggests

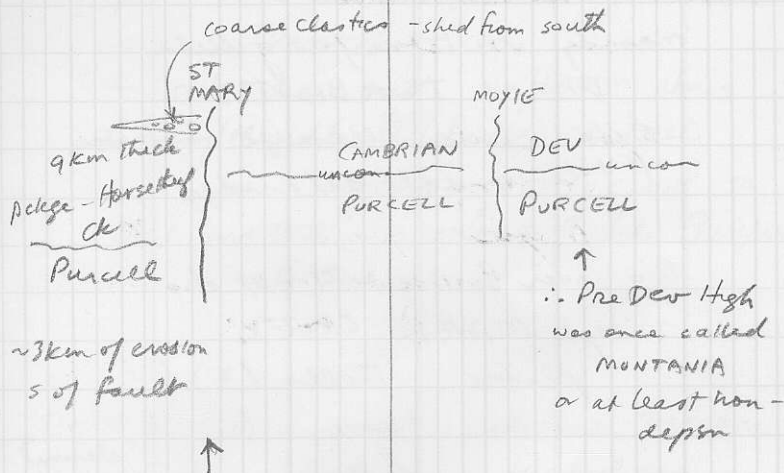
major jog in basement

rifted contin. margin?



LIKE  
M





↑  
Windermere growth jet

GOAT RIVER OROGENY (East Kootenay Orogeny)  
Mainly block faulting

LATE PURCELL

Turbidites go right over/fluxial rx  
underlying

Nichel ch - reactivation of rifting?

Reconstruction - all Purcell Supergp allochthonous

PARTY CHIEF .....

WEATHER .....

ancient margin ~ Kootenay Arc



STOP 1 Lower ~~glide~~ <sup>alldredge</sup> -  
 mainly siltstone / argillite  
 DISTAL TURBIDITES

S. 11s lower Alldredge → lower  
 (1.4 BY) middle alldredge

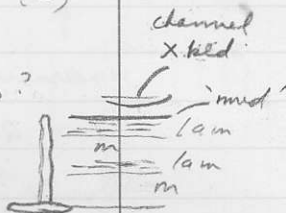
Bio over Sullivan 1.4 BY also

stop 1 MARK CREEK

photos Falls (2) ✓ ✓

Rode (2)

Bouma series?



Stop 2 Mud Alldredge Turbidites

Lumberton  
 Turnoff

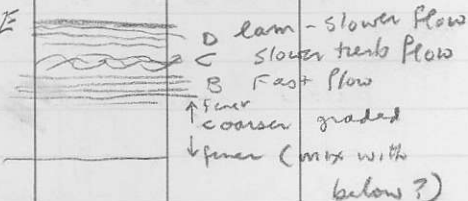
flames plate casts load casts

not well graded

Relatively proximal / A cycle dominant!

pelagic mud E

A



stop 3 Sill ~ 2 km from Lumberton  
Turnoff

sills die out ~ 1500 m above  
Lower/Middle Alldridge contact

SILLS INTRUDED VERY CLOSE TO  
SEA WATER INTERFACE? like GUAYMAS  
BASIN

STOP 4 Laminated siltstone marker  
unit - between turbidites

Individ. laminae traced  
~ 200 miles & have several <sup>(13)</sup> of  
these 'markers' & can distinguish  
& trace them (a sequence of  
laminae are different)

photo  
models

- algal blooms

- convective overturns & like  
Black Sea

Dark layers are carbon-rich



stop 5 St Eugene Mine  
 CR med-aldudge @ stop  
 but cuts up to Creston  
 Vein ~~1000~~<sup>3500</sup> m strike  
 + 1400 m down dip  
 ore Pb Ag Zn some Cu  
 in Qtz vein

stop 6 Green to purple argillite -  
 Creston siltite conglts, mud cracks,  
 Funn mud chip bx  
 photo new roll mud cracks

## Tidal Flat

STOP 7 Molar tooth structure in silty  
 carbonates - common in Kitchener  
 Scours mud cracks  
 a few sponatolite mounds (rare)  
 (several photos)

## Peavine

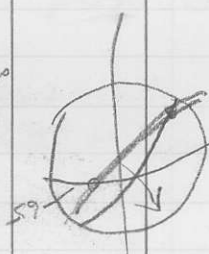
STOP 8 Devonian l cgl on Van Creek  
 funn at edge of Mayre Flt  
 @ the N rim of 'Montana'  
 lots of Kitchener ✓

PARTY CHIEF Van Creek clasts

WEATHER Platy &amp; clasts, Purple &amp; green

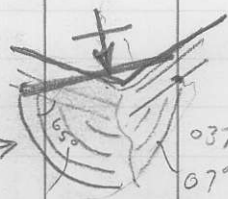


clear  
020/53  
1 to beds



020/30E  
005/12°

Face 081/685



from  
horiz

037/84E  
07° from  
horiz



PARTY CHIEF .....

WEATHER .....

Upper Gateway to Green Salt Mine

STOP 1 Rossville  
Green argillite - siltstone - finely bedded 021 / 755E  
Beds  $\frac{1}{16}$  -  $\frac{1}{8}$ "

next place beds 178 / 65E  
↓  
Phillips - Red, micaceous arenite / siltstone

STOP 2 Nicol Creek lavas - photos of flow top with amygd flow some clasts of chilled rind & overlying flow with pipe vesicles.


STOP 3 after lunch beds 021 / 03NW  
pice 35 ridge Van Creek

↓  
52 Lin'n 006/10  
laminated chapped up dolomitic argillite  
↓  
KITCHENER

220 Rock looks like that @ start of traverse new

PARTY CHIEF Beds 165 / 63W

WEATHER clear 174 / 41E

→ STOP 4 Stromatolitic dolomite / siltstone  Lower wade GATEWAY

JOB .....

DATE ..... PAGE .....

zone 11  
3 566 00 E  
54 3 4 700 N  
NTS 82 E/2



PARTY CHIEF .....

WEATHER .....

Photos - Tragg on cliff  
- veined + sheeted zone at  
base of sill - dewatering  
conduits?

DID  
NOT  
MARK OUT

Battery on left side gone  
all photos missed

### EN ROUTE TO VICTORIA

Kettle River Valley.

49230.3 Outcrop of carbonate -

gts - fuchsinite - local chromite

ALTERED ULTRAMAFIC - Peridotites?

3 samples taken

ASSAY FOR GOLD

49231.7 Edelweiss Inn

232 Sheared greenstone  
chloritized

233.2 Hwy on Rock Ck

RAINING

Started by travelling northward  
through Ladner Gs argillites cut by  
cg fs ppy + Qtz eye felsic dykes -  
adjac to dykes CR pyritic  
clear steep  
tops upright  
dykes follow clear + beds

to Qtz monzonite intrusive -  
pyritic, metamorphosed CR adjacent  
or with pyritic  
visited / Qtz vein + possibly  $MoS_2$ .

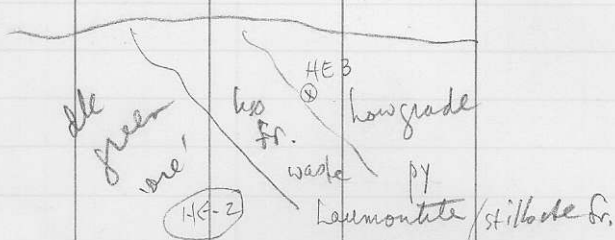
GRANITIC ROCK PYRITIC, LOCALLY HAS  
NARROW QTZ STOCKWORKS ~~to be checked~~  
to be checked for gold.

Then visited MONUMENT VEIN -  
Qtz with minor arsenic, etc.

near monument, which is in  
Ladner, the Hozomeen Fault  
cuts off Ladner (not much defun).  
across the fllt is sheared ribbon  
chert + greenstone (spilitic)

1 color photo

B/w 3 photos





# HIGHMONT

15 July 83

83-19

5310 Bench NW Corner

'waste' just N of broad band  
of overfly

MoS<sub>2</sub> - mainly in veins (sheared)

Dip ~ 300/60 <sup>?</sup> ~~fracture~~

Qtz - cpy - MoS<sub>2</sub> veins

Bn - cpy fractures

MoS<sub>2</sub> (sheared) fractures

CR altn - v. weak

adj to fract - altn - pink, some  
second. bio? (HE-1 samples)

- 50' NW - HE-2 Laumontite  
on fractures

- dk green altn with Qtz - MoS<sub>2</sub>

just N is Laumontite zone -  
fractures ~ 070/65-? <sup>fracture</sup>

near the shovel - fractures

have cpy + py, Qtz cpy veins  
with pyrite (HE-2)

Qtz cpy bn ~~at~~ 60/240 <sup>Dip</sup> <sup>fracture</sup>

near Qtz cpy Bn Tour? vein  
(HE-3)

PARTY CHIEF .....

WEATHER ..... out to waste zone below oxidized  
zone (HE-4)



Drill Core info for L. Tsang  
on Sheba ground near  
Gnawed lake

IDE 2 10

AM 32 Fr

check TROJAN info

Moving SW again

- Low grade - local pyrite -  
 altn V Wk → sericitic (green)  
 to pinkish brown (ser + carb?)

(HE-5)

'Fresh' looking stc with laminae  
 mainly fractures with altn  
 halos

(HE-6)

Shatter zone dk green altn (HE-7)

zone of ul fresh rock (HE-8)

Dk green zone - strong ser altn (HE-9)  
 cpq + py fractures

vein mat'l (HE-10)

Gerry on Holiday - 2 wks

\* GET COPIES OF BLAST HOLE

ASSAY DATA - 5310 Level. ✓

Just E of SWFet

Steena west of FIT with Gnaused Mtn Pgy

South side East Pit

Tour / zeolite / <sup>many</sup> ~~many~~ minted

Fractures 135° / 85 NE

some X Fr 075 / 75 SE

sericite altm + kaol altm

Qtz veins flaky sericite

zeolite late

Tour. with mentgr?

(HE-11)

## WEST PIT

- Near water-fill - samples of  
mineralized + poorly oriented rocks.

(HW-1)

Note Joints flattened, look 'folded'  
in east end of west pit (photo  
taken during tour)

SEND KEVIN my VALLEY Cu  
PAPER

	meas	Indec +	
		Inferred	
Geological Reserves	)		Jersey + East
<del>40MT</del>	<del>0.38</del>		Jersey
37MT	0.42		
Iona/Harvestes	'NIL'		



1260 Bench.

Photos Low & flt offsets Qtz -  
epz - mosz vein  
sample

a series of samples from  
further south show a dyke  
(in pit wall) and various  
stages of alteration (pit floor,  
blasted material).

- oxide overlain by hardpan, overlain  
by sand + gravel

Reserves (published) - see Tour Notes  
Prodn to date



Distances BATHOLITH

S Seas shaft 8777.65  
 S Seas/Kran road ju ~ 792X  
 783.0 Kran camp  
 784.55 ~~HV~~ <sup>Fork</sup> ~~Workings~~ <sup>Man</sup> turnoff  
 then old Transvaal Adel  
 " turn left to HV Workings  
 789.1 Main RD  
 790 Bose Lk turnoff } 0-9  
 794.4 Hwy

Valley + Bm Turnoff 802.5  
 Underpass 802.8  
 Lx turnoff 806.3  
 Hmt " 806.8  
 " " 807.1  
 o/c 817.4

24.9

East edge  
 Batholith

B xtd dc with lighter 'Guechon'  
 gd' invading and enclosing  
 more mafic gd -

Xenolithes wispy to sharp  
 Local hornblende clots  
 Blw photo



Qtz - Ksp - tour - opy  
 locally stamper





JOB .....

DATE \*Note \* 3? several color photos PAGE .....

83-18

c/c ~ 3 tubes west of Sojan Lake (photo)

Xenocr- core dk red fg edge partly assimilated, lighter - hb on fractures

- some mafic clusters are in more leuco patches - next to

West edge - red mafic Guichon cut by Hb Plag Ppy dyke (sample)

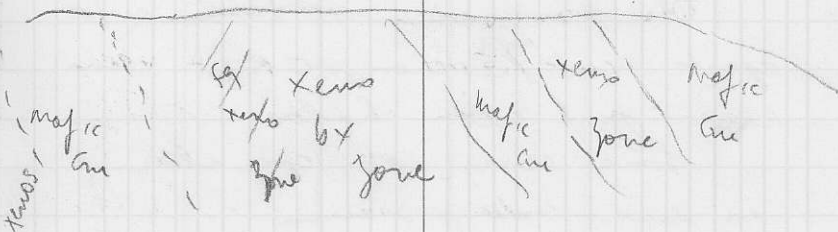
chl / ep fr

East contact ~ 075 / steep

East end - fewer xenocr - some largely assimilated ck mafic Guichon

frags more rounded

West East



PARTY CHIEF .....

WEATHER .....



817.8 o/c

Tour fr w minor cgy (mal)  
 Pt2 - ch veinlets w pink altn  
 halos (bleaching really) +  
 mafic → chl [also cut dykes]  
 ch is rel mafic gneiss sd

Xenocrysts of hb + xenos  
 (partly resorbed) with hb xenos -

most of the west side of the  
 o/c is ppq dyke hb(chl) plag  
 ppq (with local dissem. cpy)  
 - local gneiss xenos (round)

818.15 o/c

Pt2 four veins to 1cm ~ 1m  
 apart cut <sup>mafic</sup> Gneiss CR - veins  
 have pink altn halos

Some carry cpy, cpy also  
 as diss-looking grains

patches + blebs of Kspar altn  
 + Kspar + gtz stringers

PARTY CHIEF .....

WEATHER .....

818.15 cont'd

## Chlor fractures

There are probably D<sub>2</sub> dykes but they are difficult to distinguish - even when what appears to be a thin (2cm) chilled rind is present

In one place where a contact is well exposed there is little evidence of chilling + the contact is uneven on an cm scale.

Eastward there are differentiated zones of K<sub>2</sub>Sp<sub>2</sub>-rich 'veins' CI + text vary + zones are patchy

Locally rock would be called 'hybrid' or transitional to border phase.

Hole	<sup>211</sup> <del>218</del>	Lx FIT	~ 873'
------	----------------------------------	--------	--------

X Send Nelson a copy of my sections for LORNEX

Remember - send  $\frac{1}{2}$  of each sample + description back to me

Box 5-9 Put fresh 'tombstone'  
Bsda - argillie alter on  
joint faces

DDH 211 Collared in Bsdm drilled  
eastward @  $\approx -59^\circ$

Box 29 Bsdm w local pink 2" granophyre dykes

Box 30 486-420 Bsdm bio bks fs altn

wk, pale yellow color local moderate  
yell-white - in mod zones bio  $\rightarrow$  chl  
some epid. alt

sericite slips present

Kspar (~~is~~ original) unaltered

Box 33 ~ 452 rel wky altered Bsdm

local granophyre

34 granophyre - more altered

35 altn (2) arg loc sericite

mofcs  $\rightarrow$  chl or ser

sheared Bsdm

36/7 Some Bio 'fresh' in ser zones

$\rightarrow$  512'  $\rightarrow$  ser in argillite zones (cream

fs altn). Fs still rel. hard.

Hematitic + sericite shears

Qtz phenos  
'crackled'

- ~910  
 Box 66 CR Skeena now - Ps altn  
 orangy tan (2) cut by qtz - cpy - bn -  
 mass veins with flakey sercite  
 halos - mungun dissemin in altn  
 zone also  
 Bio <sup>rocket</sup> in 1 ser. halo → sercite  
 912 - Barren Qtz cuts flakey ser-  
 cpy - bn zone  
 Qtz - cpy vein has subtle  
 gtz - ser altn halo
- Box 67 911 - 936 Altn argillic 3 (local 2)  
 Qtz - cpy - some bn w flakey halos  
 Skeena
- 68 local ser Fracts cmy bn + cpy  
 Qtz - bn veins have narrow  
 flakey ser halos  
 altn 2 after 950
- 967 fine gtz vein stockwork -  
 looks like gtz bn cuts barren gtz  
 - spotty bn in patches  
 Qtz - cpy vein has diffuse  
 Contacts with enclosing gtz ser cpy  
 bn halo

Box 69 2980 Similar to <sup>Box</sup> ~~77~~ 68

Grade looks pretty good 0.4%

The dessem + fr cont'd black spotty  
mineral is mainly bn + cpy - ser +  
chl(?)

Box 73 1030 - 1047 local shear zones  
barren Qtz with blech halo cuts Qtz - cpy  
with sericite halo

Box 75 Qtz, no halo cuts Qtz - cpy  
w. flakey ser halo

NOW SCANNING INDIVIDUAL SAMPLES

1074 Chl mafic now altm, 1-2, greenish  
poorly mineralized

1081 similar Steena

1092 cut by Qtz - cpy vein - flakey ser  
envelope has cpy + bn

1103 altm (2) mixed arg + chloritic(?)

1114 pale green red soft feldspar  
altm (2-3) sheared

1128 mod arg poorly mineralized

- 1132 Qtz cpy vein over halo  
fract cnt'd cpy or bn with the  
green ser (?) <sup>similar</sup> + patchy mat
- 1145 Barren Qtz vein, v narrow bleech halo  
looks like <sup>rocks</sup> chloritized  
Fs pale gm (1-2)
- 1153 mafic → chl black patchy fr + spots  
Barren Qtz vein in pink zone that  
does not look like Kspar
- 1165 Sugary Qtz vein in a silicified  
zone - borders diffuse
- 1173 Qtz veins with splotches of patchy  
bn + pink altn halos in  
green <sup>to pink</sup> fs altn zone (2)
- 1186 Fs altn ~~green~~ <sup>cream</sup> → pink - (2)  
I don't think it is Kspar
- 1201 Qtz cpy over 1 cut by barren  
Qtz cut by barren Qtz  
<sup>pinkest envelope</sup>



1221 Barren Qtz vein looks crackled  
Patchy chlorite (?) altn + fr

1232 Skeena fs actr grn-white (1-2)  
magics → chl

1232-1258 sensitized shear? Two  
samples

1258 sheared Qtz-moss vein

1266 Pervasive (2) flakey ser altn  
Dyke contact??

1275 Pink + green altn magics →  
ser. Patchy blebs of bn

1288 mainly pink altn (2) with bn  
blebs + Qtz veins with white  
ser. halos

Qtz Eyes No magics  
Possibly a Dyke 1266  
TO

1295 Cut by Qtz veins with pockets  
of flakey ser + pink halos  
back has blebs of diss. <sup>bio?</sup> + hematite

PARTY CHIEF/304

WEATHER .....

1310 like 1304 Qtz Eyes - Dyke

## PIT 'MAPPING'

Bench 4472 or 4512

shovel ~ ~~24500~~<sup>83500</sup> N 102<sup>150</sup> E

Head south

- Spoil Pile 50' south of shovel - rock looks almost fresh but veins ~ 0.5% with Qtz - cpy veins some cpy - mos<sub>2</sub> - Qtz veins argillic alt<sub>n</sub> on fractures.

(several samples)

Bio 'fresh' H<sub>2</sub>O → chl (samples)

- 3 flags - ~~150'~~<sup>150'</sup> S of shovel - Qtz cpy flakey ser veins ; some epid. alt<sub>n</sub>

(150) 3

- 225 Some pink alt<sub>n</sub> (xsp<sub>er</sub>?)

Qtz cpy vein ser halo

zeolite ??

(225) 3

- 300 Ep alt<sub>n</sub> Qtz cpy mos<sub>2</sub>

bonanza veins

Wk alt<sub>n</sub>

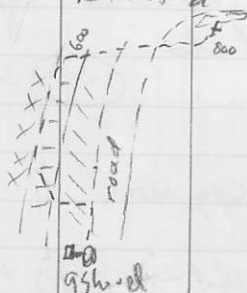
(300) 4

375 Laumontite on some joints  
 Rock green on bench face  
 Rock has chl fr och hem fr  
 Blastopile on bench (375) 3  
 (375 B)

450 Mainly SK - zeolite fr  
 Qtz cpy veins  
 Looks like propylitic zone  
 one sample of mineralized Qtz Eye  
 ppv (450) 5

525 Mainly qtz matrix - possibly  
 some secondary biotite (525) 2  
 along to 600 then  
 over

600 Blasted rock pile



~800 4472 bench across haul  
road

skarna with qtz - bn - cpy -  
MoS<sub>2</sub> veins some pink altn

850 green altn (ser) 1 fs (2)  
possible second bio or fractures

(800)

860 Pink altn second bio  
phyllitic veins

(860)

950 Vuggy barren qtz vein no halo  
apparently ser altn of fs (2)  
and second bio → ± chl after  
metics

(950)<sup>3</sup>

Branching barren qtz veins  
mainly SK, some qtz ppy (cut  
by MoS<sub>2</sub>)

1050 phyllitic veins + phyllitic veins  
with pink halos  
cpy + bn mineralization

second bio?

vuggy qtz cpy MoS<sub>2</sub>

(1050)

PARTY CHIEF .....

WEATHER .....

ser. halos

1050 Barren Qtz + black halo  
cuts <sup>bn</sup> ser. fr.

1150 Sk - loc chl mafic  
possibly second. bio  
barren gtz veins  
chl - ser - bn fr + veins  
cut by gtz veins with pockets  
of cpy + bn + no alt. holes

1150

PICKED UP - PART WAY  
ALONG WALL -

Names

Nelson	Holowachuk
Colin Munday	Shaun Daly
Mike McGr	Doug Gued
manager of Merington	Phil Kemp Jones
chief Mike Eugene's	Ken Murose

Students Guy Lebel

Examining selected samples of core  
(one every 5') from the recent  
diamond drilling.

HOLE 194 SECTION 11N

Pale yellow, rel soft, aphanitic,  
pyritic 36.7 shattered, sheared  
42.4 disintegrating in  
52.6 box

dissem + streaks of FeO, pyrite

dissem. (1%)

↓  
218.4 sheared rock continues  
226.2

dk oxide specs + lenses disappear if  
core rotated - oxidized Fe-rich carbonate?

232.6 Qtz eyes shattered rock  
to yellow (2) bio → sericite  
dissem sl oxidized cpy

245.3 Intense emerald to tan ls per. alt.  
Baren gtz stumps, no holes

254.2 Skeena biotite may be secondary?  
cut by fine gtz stockwork  
(baren) + some gtz ser on stumps

PARTY CHIEF age reln unclear

WEATHER ls - yellow - pink white (1-2)

262-1 Rock yellow-white (2) cut by  
gtz veins that seem to cut ~~ser~~  
flakey ser zones - local pink altn  
patches - possibly Kspar

mafic  $\rightarrow$  chl or second biotite

(sample for xray + T.S.) 262-1

Next sample is gouge @ 45° to core

278-1 Strong gm ser altn of  $f_2$   
vein is gtz - cpy - mos<sub>2</sub>? with  
flakey sericite

286-5 Sk + aplitic cut by  
flakey ser-gtz with dissem bn-  
cpy that is apparently cut  
by gtz<sup>bn</sup>-cpy veins & related  
but veins sl. younger

(3 color photos) show gtz in ser zones &  
bn<sup>cpy</sup> ser-gtz steeper in ser  
zone that is cut off by gtz but  
gtz cut by the bn<sup>cpy</sup> gtz (ser. disappears)  
steeper

\* the aplitic may be a  
Kspar altn halo



- 293.3 Qtz veins with Kesper halos  
17 (photo)  
CR has Qtz eyes - possibly duplex
- 305.6 greenish ser altn of fs (2-3)  
Qtz eyes
- 314.3 Qtz eyes - phyllic veins have  
local pink (Kesper?) altn halos
- 327.9 Barren Qtz cuts bn-cpy phyllic  
zone 18 (photo)
- 335.4 Qtz veins, <sup>are</sup> more or less central to  
phyllic zones or away from them -  
two stages; pink altn halos  
on Qtz 19 (photo)
- 345.7 Green ser altn (1-2) Qtz eyes  
cut by fg granophyre, cut  
by Qtz veins w bleasch halos  
20 (photo) cut of roll  
in the picture the Qtz looks like  
it is central but it actually  
cuts the granophyre

- 353.9 pinkish altn (2)  
 368.2 yell + grn altn (2)  
 Qtz eyes still

Box 2 of picked samples -  
 Qtz eyes to ~500 then skewer  
 then altn red. strong  
 Aplite stringers  
 ~434 → ~457  
 ~506 → ~515

Ksper altn 595

Fs altn pinkish to greenish 375.4  
 not sure if Ksper

384.7 - 428.7 Fs altn mainly  
 green sericitic (2)

472.4 at least 2 sets of Qtz  
 veins mafic → chl possibly  
 after second. bio -  
 no helos sample 472.4

487 Qtz - cpy veins - <sup>kspar</sup> prot<sup>1</sup> alt<sup>n</sup> - not  
 pure if directly related to veins

536.8 mafic → chl partly - possibly after  
 secondary bio CK Skeena

563 Similar (sample) 563

595 Patchy kspar alt<sup>n</sup> (photo 1-color) ✓

601 Qtz veins ser. alt (2-3)

618 chl mafico fs → ser (1→2)

623 fs ser 2-3

634 Ser alt<sup>n</sup> 2-3 + gtz veins

647 dark rock gtz veined - patchy  
 second bio + cpy cut by barren  
 gtz vein (photo) (sample) 647 ✓

Fairly thick white gtz veins -  
 barren, no halos to 4cm  
~~at~~ ~ 2' apart  
 patchy kspar alt<sup>n</sup> to 730  
 - some is granophyre  
 Qtz cuts chl vein (after second  
 bio?) @ 725



757 Qtz zone has blebs of cpy +  
some pyrite

782 Emerald gm ser altn

Box 3 791-1133

Mainly Skeena - gtz eyes

@ 860.5 aphte @ 1128

791 Barren Qtz cuts bleached  
zones + ser-cpy fractures

819 Fs altn grn-wh 1-2  
mufic → chl - possibly  
that after h6 was  
second bio before  
Barren Qtz veins to 1 cm  
avg 6" - 1" apart

sample  
835

local patchy kopa altn

934 → EOT

sample 1018

Box 1

Skeena Ad

mafics → chl

fs → grn - white 1-2

gtz - cpy<sup>bn</sup> fr

barren gtz

gtz - cpy - Mos<sub>2</sub> - bn veins with  
central flakey sericite +  
flakey sericite halos (47)

Hb may be → second bio.

sample 33

~ 180

~~280~~ onward gypsum veinlets

221 Blob of second bio

256 Qtz - cpy vein w ser halo

cuts gtz - cpy - bn vein with  
Mos<sub>2</sub> on bleached, pentest halo

282 Qtz cpy bn Mos<sub>2</sub> w narrow  
or no phyllic halo cut by gtz - cpy  
with stronger phyllic halo which  
is followed by a gypsum vein  
(photo 2)

looks opposite  
on photo

295 Qtz - bn steeper w Kspar halo  
cut by Qtz - bn vein with  
lesser kspar halo  
(Photos) (sample) ✓

381 Shattered-looking Qtz - py - Mosz  
vein

507 - 614 Mainly grn - white fs altn  
(1-2) local ser (2-3) local  
yellow (2-3)

516 Most mafic → second 610

527 Qtz bx with large cpy blebs  
(clasts) - ser zones carry cpy only  
second 610 continues to 614  
gypsum continues

623 - 725 altn more variable

grn wh - pink - yellow

some phyllite steeper with  
Kspar halos

Some Qtz cpy veins with  
flakey ser halos have black  
zones outside

Qtz - cpy vein cut + affect

605. Qtz-cpy vein has mosz veins, flakey  
seriate halos + green ser. altn  
of feldspar outside that.

725 (small sample) bn-bio(?) fr +  
qtz - cpy vein with kspn altn rims

735-945 Fs altn yell - grn - pink  
mafic mostly → chl

veins gtz - cpy  $1\frac{1}{2}$  cm cuts

gtz - ser - cpy zones

Gypsum continues

reg 'barren' gtz veins ~ 2' apart

shattered gtz - mosz vein 854

some of the pink altn does not  
look like kspn, some does

967 - <sup>1384</sup>~~1485~~ Gypsum continues

Fs altn mostly gm - wh (1-2)

local cream (2)

mafic → chl

Qtz - cpy - py vein 1066

Qtz - cpy - flakey ser halo 1036

976-1384 local Kspar altn - 1229

1255

Gypsum steel orange

1229 cpy - bn - grn ven has

Kspar hole → yellow

1365 Stingers of biotite - borate

1384 chl - cpy fr

1405 - 1474 EDH

similar mixed altn colors

grn - pink - yellow (1-2)

patches + stingers of second.

bio now partly chloritized

- EDH -



25-238 mostly weakly white to  
grn wh. altn of fs, mafics fr to  
chloritized (197 sample)

to 435 altn stronger, greenish (2)  
local water zones mafic  $\rightarrow$  chl

475 Epidote <sup>alt^n</sup> adj. to chl fr. Gpy (or  
w it py) on chl fractures CR still  
Skeena.

508-942 Essentially tombstone Skeena  
alt^n white - grn wh (1) - local  
sericitic zones (1-2)

Mafic mostly fresh to chl=1:1  
py + cpy on chl fr but fr ~  
1' apart  $\vee$  poorly mineralized

985-1453 Sericitic / chloritic alt^n  
(1-2) to ~1150, rel fresh to  
1400 then ser/chl + yell (argillite)  
(2) to 1455-

Veinings + mineralized fr more  
abundant after 1150 - approx  
1-3" apart

1174 mafic fresh or → second. biotite

(sample)

rock cut by <sup>flaky</sup> sericitic zones

stungers w cpy + pyrite

1383 mafic → chl + cp + cpy

1434 local dk of gm altn (like  
Chataway) - (sample)

1467-1937 Fs altn (2) pink/yellow)

green to 1700 then wk to

1937 (with local moderate)

then are now gtz - cpy veins

w flakey ser halos, chl  
fractures with cpy + py - a few

have pink <sup>epid.</sup> altn halos (sample 1825)

Grade should avg ~ .25 Cu

1944-2406 altn more intense +

pervasive now - most is  
sericitic 1-2 (local 2-3)

Gypsum @ 1900 but it may  
have started earlier

mafic  $\rightarrow$  chl or loc ser.

chl fractures w cpy

cpy w sericate slips

Patches of serord. biotite

sample 1086

local Qtz - cpy veins w pink altn halo

2417 - 2477 50H

prob. not kspar

mod to intense pink to green altn

menzyl fractures as before

42 - 712

altn moderate to intense -  
 mostly white to yellowish -  
 Qtz - ser - MoS<sub>2</sub> vein

Fractures have patches of black altn  
 with cpy (sericite? biotite?) sample  
 or barite tourmaline?

chl - ser fr with barite

561 patchy second. bio altn

sample

some gypsum on fr (not sure  
 where it starts)

727 - 1400 Gypsum on fr.

overall mod altn of Skeena

- gtz eyes @ 1270 [1180 ~ 1295]

fracture, veinlet + spotty black

altn with chalcocyanite

Qtz veins with cpy + minor  
 internal sericite, cut (?) pink  
 (ksp?) altn zones (931) sample

2 photos 4+5

chl? bio? barite fracture

✓✓

Qtz Eye ppy has bio(?) - cpy x cpy - Mose -  
 - Seriate fractures  
 Leucocratic

1409 - 1680 EOH altm moderate to  
 intense yellow argillic to pink  
 potassic

Gypsum fractures to EOH

Bio(?) cpy fractures

Qtz vein cuts gtz-ser-ppy zone  
 in general pink (not Kspar?) altm

(sample) 1485

alt SK to 1661 then I see gtz  
 eyes - possibly dyke, possibly  
 dytic skena

— EOH —

~~Top 550 feet not checked~~

557 - 1074

Skenna mafic → chl or fresh  
altn green - white 1-2 or serrated

or green (2)

mineralized tracts as in 1083  
- 1550

few gtz veins

mafic → ser in more intense

argillic altn zones

2/1040 <sup>1074</sup> ~~1050~~

~~55~~ 16 - 547

16-124 pink + epid

altn zone mainly  
then weakly altered

Skenna with local  
ser altn of fs + local  
intense arg altn (pale  
yellow)

sample 120

PARTY CHIEF .....

WEATHER .....

pink + epid.

1083 - 1550

alt. variably mod sericitic (gm)  
to wk argillic (gm wh)

pink alt. (2) locally

Rock Skeema

Gypsum ~~grain~~ veins - orange

Qtz veins

chl cpy fr

mafic → chl ~~or feldspar or sericitized~~

Qtz cpy mod veins w ser.

halos (narrow)

some second. bio? (258 Sample)

1566 - 2025

T3 altn avg 2 local 1 grn-white  
to pink (after 1900)

veins  $\phi$  - ~~chl~~ - bn - cpy

$\phi$  - Bio(?) - cpy (sample 1696)

chl - bn +  $\phi$ tz chl bn fr

Gypsum

barren gtz no halos

Rock Skeena

patches of second bio? with  
pale pink 'porcellaneous' altn





2035 - 2466 mod to intense argillite  
 to sericitic alter of fs  
 gypsum cuts  
 gtz ser cpy zones

2077 - 2086 general flooding of  
 kspar alter 2086 sample  
 "bio" - cpy - bn fr

2220 - FOH may be dyke - leuco

PARTY CHIEF .....

WEATHER .....

gtz eyes - cut by gtz veins  
 + ser cpy bn fr

JOB Road of Check

DATE July 20/83 PAGE

STOP 2 (43.7 km)

9018.7 HV Highway

East end of ofc Bm lid with xenos  
in steeply dipping zones - angular  
relatively mafic not much  
assimilation

also clots of Qtz Ksp or hornblende  
(remelting?)

cut by fr w bleach halos  
pink + grn

scattered hb xenocrysts to 1 cm  
borders -> biotite?

aplite stringers  
patches of 'chataway'

20' from end - unweven contact  
with Chataway gd

suggestion of timing of Bm  
& contact

Chataway w chl - ep fr  
until ~~the~~ break in ofc

ep fr w pink halos (sample)  
w. laumontite on fractures

PARTY CHIEF

WEATHER

East end, large ore chataway  
 gives way in 15' to rock of  
 intermediate character - continues  
 to west end of ore

Round mafic xenos -  
 slight border reaction zone

zones + patches are chataway  
 between looks mostly like Bm

medpt of ore large light colored

realite - alt'd jnt faces begin -  
 rock mostly chataway -  
 xenoliths / xeno crystals  
 some mod. well ~~devel.~~  
 reaction rim

Board of B/W + color photos

xenos

color ✓ '6x4d' texture Chat + Dken

color ✓ hammer for scale in 'mottled'

Chat - Bm zone

PARTY CHIEF .....

WEATHER

color ✓ Xenos - rounded, 10 cm, 1-2 cm hb (30%)

xls in gtz decr matrix

NW  
 Wade

(Photo)

9019.1 Small rusty o/c below, good  
 ↓ example of Chataway above  
 19.2 low o/c - gray - moderately  
 good Chataway gd.

19.4 o/c up bank above rd.

21.2 - 21.35 Skeena o/c

21.5 Pipeline X imp o/c on pipeline  
 view shots - color (4) VVV

24.1 Bm Turnoff

————— END —————

Bm Turnoff 0  
 pipeline sk o/c 2.6  
 sk o/c 2.75 - 2.9  
 ? Ch above road 4.7  
 Ch 4.9 - 5.0  
 (SNP) Ch/Bm o/c 5.4

24.1  
 21.5  
 ———  
 2.6

24.1  
 19.4  
 ———  
 4.7  
 24.1  
 18.7  
 ———  
 5.4



21.3 West side of Hwy

5 keen a gd - often rusty w/try

cut by chl - ep Pr with pinkish  
bleach halos.

occasional hb xenocrysts

F<sub>3</sub> + mafics almost fresh

nearly Bm

(sample 21.3W)

The northern 'west etc' is also  
nearly Bm Gd (Blw photo)

East side of Hwy N-end  
Fractures rusty, chl + epchl Pr,  
rock 'Fresh' away from fractures  
(halos) scattered Hb Xenos (?)

to 2 cm  $\phi$

one face w 2 sets of mineralized  
fractures (photo) Bm

calcrete veining along Pr  
with rusty halos

Midway thru etc - fractures  
2-6 cm spacing

one 3cm vided mostly

(46)  
 mafic concn defines banding  
 that strikes NE + is nearly  
 vertical

035

(2 photos) <sup>BW</sup>

sample

Flow banding?

just to S are gneiss  
 dykes ~ 2cm wide  
 NE/SS NW

end of 1<sup>st</sup> East 9C

could all be from  
 several photos

12.3E - 2 near culvert -

small 9C

cut by 9C 020/75SE

that is cut by 9C gneiss  
 040/steep

wispy layers of mafic concns  
 ~ 030/~60 NW

1-5 cm wide zones  
 (photo)

could still be from 9C

<sup>o/c 12E-3</sup>  
~~stn 12E-3~~ on Ternex tailings pipeline

Pervasively rusty in for several  
 cm from joints - chloritic  
 ultra of mafics - more obvious  
 Skeeva gd sample 12.3E3  
 2 samples

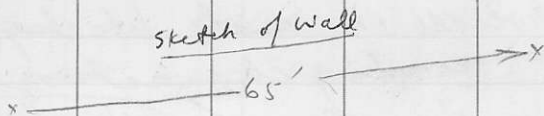
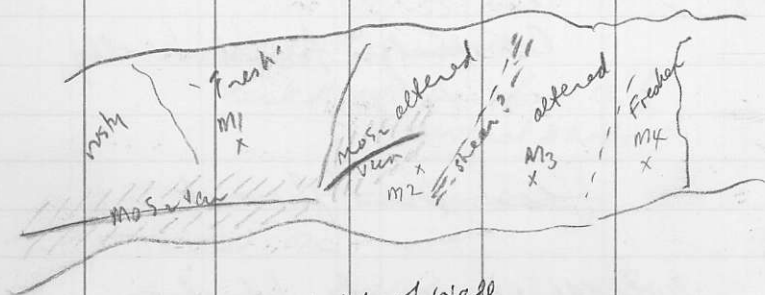
Ca menziesite found locally  
 (on fr)

Head for Highmount

Overall m-scale blocky  
 jointing characterizes  
 the etc

photo new reel  
 of film (1/2)

Info on Borinite Ridge  
 Jericho, Gaza, Yubet (Stellabo)  
 (pre-1960)





Qtz - cpy - mosz - sheared 060/55 NW

above it is green altered rock -  
to east above it is gray 'unaltered'  
rock sample (M-1E)

Qtz - py fr w pink (aspar?)  
halos

Laumontite fr

Calcite fr w. hematite

aplite stringers

Edge of less alt zone  $\approx$  015/60 NW

3 photos

next section Qtz cpy mosz  
pink halos  
vein mod. altn (MZE) 2  
olive grn sericitic, mafic  $\rightarrow$  ser.

Chloritic altn

Qtz cpy mosz vein - flat lying

pyritic fracture (MSE) 2

No Cu  
mod in/2u pink altn

pink altn Afr 110 / 070 / 090 / 040-050  
min.  
Bn/cpy

carbonate fr

all steep  
105/50 W Bn

Qtz - mosz vein above

50' more Rock gray looks rel  
 fresh pink alter qtz cpy bn  
 ↳ pink halos + epidote  
 Bn fr  
 carbonate fr (M5E)

100' more continues rel gray with  
 local steps of steep dipping  
 greenish alter  
 fr with cpy-py + blade mineral  
 (tour? bio?)  
 qtz-cpy-py w kspars? halos  
 cpy-py fr  
 bn? actin? fr  
 mafic 'fresh'  
 fs lightly altered (M6E) 2

75' more altered zone 10' wide  
 dk green fr ol gm to fs alter  
 cpy + pyritic fr (M7E)

75' more still looks 'fresh'  
 but more altered & looking zones  
 & they are white to green

Qtz - cpy - py - bn cut + offset by fr  
with pink altu halo

Fresh w. mineral fr (M8E)

Four - bn veins with pink altu  
halos.

@ ~ 75' rock becomes less sheared, more  
massive for ~ 75' then coales

sheared + altered

3 photos @ 125'

@ 125' sample of 'fresh' (M9E) arg  
(M9+15E) on joints  
pink altu + chl mica along  
joint faces dipping into pit

sp - cpy - chl/fr w pink altu  
py - chl fr

m9+20 H6 Qtz MoS<sub>2</sub> vein - sheared  
065/65 SE  
(make shears)

65' more @ M10 orient ~ 085/60 N  
MoS<sub>2</sub> vein

has green altu halo (M10)  
altered zone

③ 40 fresh again  
 200' onward fresh - local 'shears'

~~\_\_\_\_\_~~ ← mark gog - moss veins?  
 (M11E)

Fresh to end of pit then  
 green altn @ end  
 2 (M11E) coal fr  
 chl - cpy - kn fr  
 pink altn → fresh

~100' (M12E) HG - see fs altn (2)

Brq 003 from 11 (M13E) HG -

m14 is best shovel Brq 065 to M13  
 041 to M11

(M14E) LG

(M15E) 125' on color change  
 to greenish

makes no sense problem with local attraction  
 - possibly declination was out by 10° - then  
 10 latrons work

(M16E) ~150' HG green color  
 contact ~160 / steep  
 photo

(M17E) LG Moss - Ep

(M18E) HG

- END -

corrected  
 041 → 031  
 065 → 055  
 003 → 353

Russ Chow Ian

Base geol map 272A

Brian Martin  
Carnes (sr. Geol.)

Qtz latite Ppy - some bio.

'Alaskite'

silicified

Rockland Adit - ~~not in~~ <sup>not</sup> ~~in~~ <sup>in</sup> ~~bx~~ <sup>in</sup>

mentzld zone

Rockland cg

— Willa Adit - centre of zone -

Nearby  
showing

L.H. - gold

- Johnny Anderson - Andorex

Gold - Arseno

shears/veins

Bp - matrix in bx -

Bx actinolite

Tour - late stage Qtz veins

Late stage w carb. - earthy hem.

Py (mg) cpv  
pyrrho

Qtz ppy w MoS<sub>2</sub>

Bio eyes <sup>148</sup> ~~140~~ ~~150~~

Qtz latite 157 m

sericite ~ 20 ma?

Lead to why  
Mo/W/F  
Geochem  
anomaly - Rhs

Kevin Heather <sup>MSC</sup> ~~MS~~ @ Queens -  
 should be done in April 84

10000?

7100 m

24 holes to 1982

500 x 400 m

1983

1500 m planned

( $\approx 115$ /metre)

Comments on samples

Fr chl-act-epidote - py  
 and ppy / sitstne

Qtr lattice <sup>ite</sup> ppy <sup>MS<sub>2</sub></sup> gtz / stockwork  
 (QLP)

cut by chl-act-ep Fr

Feldspar ppy (FP) pyrite - centre  
 of reef dipke

Frgs - box loc box

Biogenic Bxtr Fs Ppy frags only

pyrite

patchily bleached out ady to  
 pyrite zones 80-1 289 m

section  
 2900 N

6 Bx Samples

RING DYKE QLP

QLP

of Qtz Fs ppy

82-24 - 303.6 Biotite alter / cut by  
veins of chl-ep with white  
plag alter halos

multilithic bx - chl-ep alter +  
bleaching

Garnet - interst. (in menhyd zones) - repl. frags

- veins w wollastonite (?) sulphide  
or ep + plag

XRAY  
81-70 - 58.7

Brown biotite in menhyd zone  
menhyd fr + dess

Laminated mag / cpy / py - dk color  
zone in QLP  
zone with anhydrite (?) + mag + cpy  
edge epidote / plag?

83-27 - 258  
XRAY

Crackled QLP w py cpy four



Road 0/c

Near the Willa Adit

ALMOST IMPOSSIBLE TO MAP BX FRAG SIZE, etc

- py - mag veins in dte green meta -  
Too Rusty  
vold(?) (erdeite?)

epid. halos

ALW 1

not the Willa

Willa Adit ALW 2

Bx with py - cpy - mag - ep veins +  
ep altm - too rusty to see much -

near waterfall

QLP - rusty wtrg Diss Py Diss  
bio - primary??

AYL 3

Breccia AYL 4

Old Adit AYL 5 Bio actm garnet

Bx AYL 6 chlorite? gm bio?

Cu - stained zone

black flakey bro AYL 7





CORE  
SECTION ACROSS DEPOSIT

ALT'N RELNSHIPS + AGES

ALT'N VS ORE

DISTN OF ORE MINERALS

DISTN OF BX VS NON-BX

a relationship of bx to adjacent  
rocks - did py cause bx? -

PAY CLOSE ATTN TO ORE INTERCEPTS

units volc inter in Nelson @ Monz

- 1 meta volc - amp pyry  
- siltstone  
- bio schist / bio hfls  
- silic. hfls

2 White fs pyry

3 Feldspar pyry

4 Qtz - Late Ppy (QLP)  
 4a Early 4b Alaskite

5 Hb fs ppy

6 Heterogen. Bx

7 Nelson & Mon;  
 7a Aplites + Pegmatites

8 Tert. Lamprophyre

Holes to check

east side of bx) 81-17 ✓ Aug ppy - look for altn  
 (esp. ~ 250m) 226-224 metasols  
 81-18 ✓ vdc → Biot. intrusion bx (118m)

west side of bx) 40-6 volc → QLP  
 (not available)  
 C-1 volc → QLP → volc →  
 (not available) QLP → FP → Bx 112.9m

Sect 10050N : 81  
~~10500N~~ : ~~81~~-11 ; 81-9 main zone

10150N : 81-12

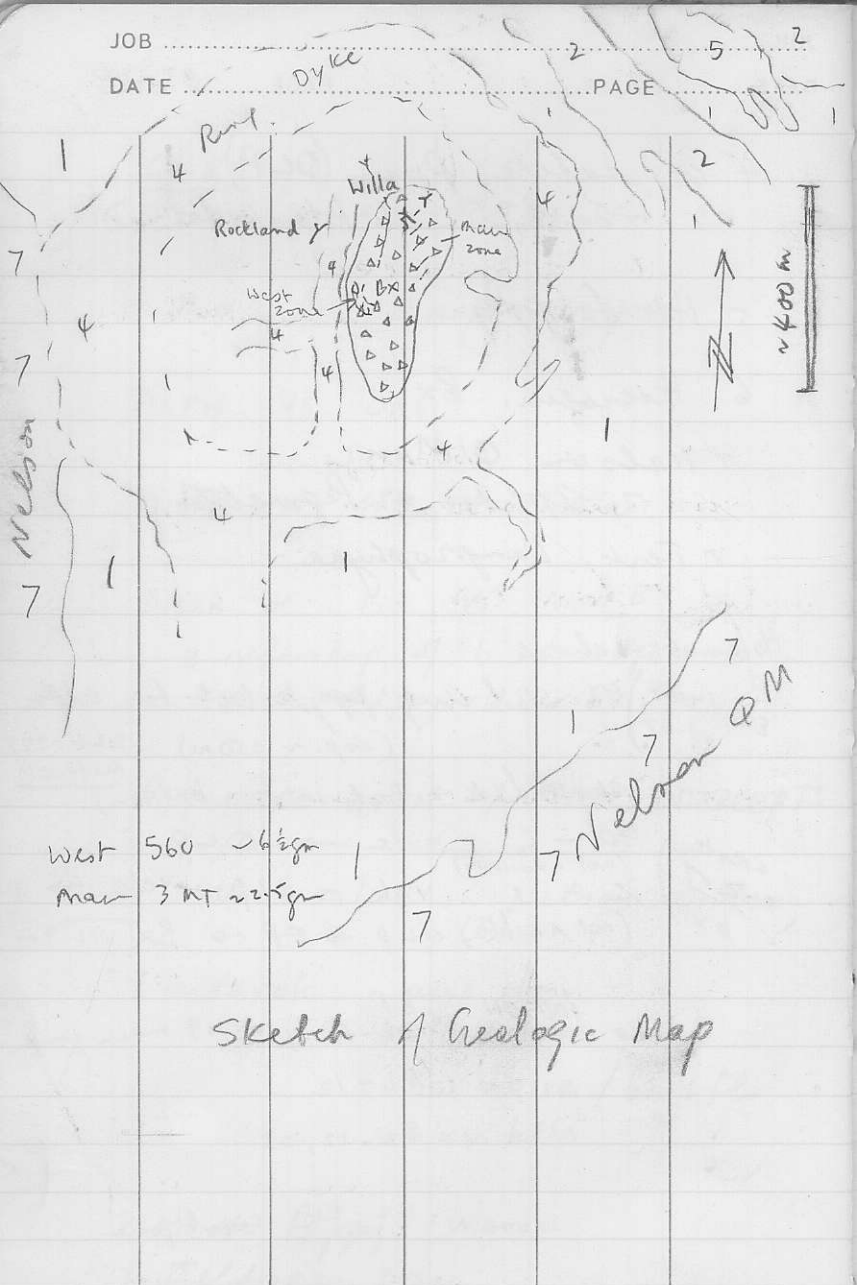
10200N : 82-22, 23

10000N : 82-24 west zone

PARTY CHIEF 80-7 Bx → volc CR

WEATHER .....





West 560 ~ 6' ign  
 Main 3 MT ~ 2' ign

Sketch of Geologic Map



CK

~~Box~~ 148m mottled altn of volcanic rock -  
pyrite dissemin + in fractures  
with epidote + plaq(?) - chloritic  
halos; bleach zones on fr. (plaq?)  
fr. 1-2 cm spacing

163 Aug ppy - bleached gray - aug →  
pale gray-green color, heavy diss. py  
& fr py (w epidote) and fr cutled  
hydro biotite (?) PY ~ 5%

191 Replacement adv to fr by mag  
with more central pyrite - CR bleach  
pale olive green - aug ppy

196 chl-ep-plaq (wh) fr; bio-py - some  
ep. fr. apparently cut chl-ep-py fr  
CR aug ppy sample

215 Bleached; ~~wh~~ ppy - cp, amber altn -  
garnet? mag - py pockets sample

226 chl aefic bleaching diss. py  
alt volc

230 Gray altn ~~g~~ - py - mag veins  
assoc epidote  
? biotite

- 248 quite magnetic,  
py mag? qtz veins  
diss py sample
- 260 py-ep blebs, py veins  
bleached vlc  
late gypsum calcite chl(?) fr
- 279 Sugary rusty white alt  
bio py mag blebs & veins  
bleached vlc diss py sample
- 296 Sugary white to reddish alt + vein  
mineral (anhydrite ??, plaq? gtz?)  
bleached vlc
- 330 olive gray-green pyrite fr & diss-  
biotite with py, late chl fr.  
sample
- 
- 81-17-33 biotite hornfelsed arg ppy  
W py-ep - bleach plaq zones  
sample

81-17-26 Strong biotite alteration

(sample)

-42 Gray altn, py veins, magnetite  
veins  
white plag altn-58 Gray volc, some augite  
looks fresh, py-mag fr (sample)-88 Gray alt volc py-pyrroho  
veins, ep-py-plag altn fr  
(sample)-110 Gray chl alt aug py  
py fr (sample)see last page for deeper  
data

10 Bio altered adc rock - dissemin py -  
bio + py-epidote (plag)

29 Similar alt aug ppy - hematite  
map on fractures sample

47 Similar but more bleached

63 fairly pervasive pale <sup>pinkish</sup> grayish (fs?)  
alt - py-chl fr sample

80 ep-py fr, plag-chl alt (2-3)  
sample

95 overall gray fs? alt  
mapes not easy to see

110 Fairly prominent py fr  
gray-white matrix alt  
dissemin. py

~ 115 Rock type change to fs ppy  
gray-white sample 118

130 fs ppy gray green dissemin py  
fs alt amber mineral (garnet?)



Local intense bio altu zones

mainly fs ppy with amber second. bio  
 x local bio-rich zones - local bx  
 texture

epchl py mag fr cut bio altu

sample 134

" 139

Basically bio altu in incipient  
 intrusive bx or crackled  
 fs ppy - autobx -



Cu / Au ~ 6/1  
Au 1 ppm ~ \$15.00

32 ppm ~ 102 ~ 500 Cdn  
∴ 1 ppm ~ \$15.00 Cdn



## Synopsis

QLP → ~75 Aug Ppy -100 QLP → 122

Aug Ppy - 140 QLP - 155 Bx - 185

QLP - 217 Bx → 340 then Bio Bx - 355

then QLP

~230-240 mineralized zone 10.8 m. of  
.46% Cu; 2.3 gm Au; 4.6 gm Ag

core

Fine Qtz lathete ppy - altm - fs →  
White (1-2) py - ep - fs clots, leuco-  
cratic Sample 20.7

Qtz - Mos<sub>2</sub> vein with ser<sup>fs</sup> / altm halo (vfg)  
- cuts biotite altm ?? Sample 50.6

Overall, rock has fine Qtz stockwork  
with local Mos<sub>2</sub>

cut by chl x bio-py fr<sup>tour?</sup>

Sample 52.5

~76.5 QLP (or Bx FP) gives way to  
Qtz veined rock rx cut by FP  
stringers.

~101 → QLP that be<sup>comes</sup> mg + crowded  
Qtz 2% with py - bio? clots +  
fractures + ep - chl - py fr

Samples 5106  
107

PARTY CHIEF

WEATHER

107

Anhydrite py mag epidote

then gypsum fracture  
Qtz py veins

120 area QLP with Qtz - MoS<sub>2</sub> veins  
 + ep-py - anhydrite veins  
 gypsum fr (white + purple) sample 122

~126 Biotite 'Lenses' cut by Qtz - Fs  
 + gypsum veins + py fr (minor  
 ep) - no alt holes on the  
 veins + fractures  
 carb-och hem veins locally

137 Fs Ppy cut by chl - py - mag (hem)  
 (crowded) fractures sample

155 Darker colored, possibly metavolc  
 possibly start of bx sample

163-164 Dk gray amyg. leucophyre  
 local perv epid alt - takes  
 K-stain!

Gypsum fr

garnet anhydrite ep py veins  
sample

Rock fractured but not  
 OBVIOUSLY breccia

JOB .....

Send Russ

Fish Lake Paper

83-49

DATE

Aylwin 81-11

Copper Paper

PAGE

(600000000)

164-170 stain shows 20% patchy kasper alteration

Rock mostly olive green, fractured local bx texture.

170-175 kasper patchily replaces plaq (12%)

Rock now multiletic - porphyry, aphanitic and bio hfls clasts - still not obvious

clast size uncertain - 1 to several cm? sub $\frac{1}{2}$ 's if small. Rock has chl-map.

py <sup>zones</sup> ~~fractures~~ (altn adjacent to fractures)

175-192.5 @ 189 rock type apparently changes to dk gray grn volc

Breccia - clasts - leucocratic vfg 'alaskite' to 25cm  $\phi$  rounded, fine biotitic? matrix dk grn volc rock clast mostly < 1cm subangular gray highly pyritic volc to 2cm subrounded matrix gray - chl - ep - plaq - py + similar altn 7 frags

PARTY CHIEF .....

WEATHER .....

Matrix + clasts cut by chl-py  
Gypsum fr fr


 NW  
wade

matrix loc v heavy epid altn dess  
py, pyrroho

Bio (partly → chl) altn runs in  
some felsic frags (dess py/pyrroho  
in felsic frags also)

speculate that early bio altn now  
washed out by ep + chl + plag - some  
bio left in <sup>some</sup> clefts but they also  
have ep-chl-plag altn

(sample 178) shows a variety of  
rock types + remnant bio altn

'Alaskite' clast 3cm long sub 4'r  
Plag Ppy (some second bio?) has  
plag altn rim 5mm wide (color photo)

(sample 181) Bx

185 ~~Q~~ QLP frags with bio altn matrix

189.7 - 194 pyritic dk green volc

local bx  
texture

pockets of second bio  
veins py-ep-altn (As(?)  
quartz(?)  
anhydrite(?))  
gypsum fr (sample 191)

py-ep-chl with plag holes occur  
as blebs + stringers replacing bio  
altn



In places, fract with bio alt cut  
FP and create a breccia texture

u (photo)

(new roll of film) - crowded QLP frags  
minimal holes, clots of bio-py and  
bro. rich clasts with strong ep-py -  
white plap holes

new roll (photos 1+2)

Both cut by gypsum veins

Qtz - No Sr - py vein cuts bx  
frags - ppy + vslc and matrix

(photos 3, 4, 5)

further away 6

194. ~~8~~ onward crowded m-cg QLP  
local strong bio alt

gyp vein + fr

local bx zones look intrusive

qtz py nosr fr cut frags + matrix

(sample) 194

198-204 Crowded QLP incipient bxon

Kspar alt adf to some fractures

all py ep fr

general patchy bio alt of matrix

204-209 Mainly QLP local bxt'd zones  
 + biofite altn. to make 'bx'  
 (sample 209)

QLP → Bx - local pockets of 1mm  
 second. bio w. fs(?) (sample 226)

221 - 244 QLP with chl-py fr with  
 bleach halos  
 strong Bio altn zones w bleached plag-ep-  
 py zones  
 @ 227 there is py + cpy assoc with  
 younger pale gray anhydrite(?) zones  
 (sample 227)

Menzld zone ~ 230

py-ep - anhy (gypsum) - epidote

Spec shows hairline Kspar-uch  
 cracks + Kspar patchy after  
 plag.

several 1 cm wide veins of xline  
anhydrite - purplish tone -

CR QLP or bio act volc rock

about 240-248 there is a zone of pale  
red brown phlogopite altm associated  
with the mineral zone

Samples of mineral + altm

(240) ore with biotite altm

(242) phlogopite altm

(243) soft possibly pervasive  
carbonate

240-260 Bx with mostly ppy clasts

(260)

260-279 most clasts ppy or vfg felsic

rock - matrix → chl + ep + plag

- some clasts have plag rims +

phlogopite altered cores.

(276)

(276)

279-296 less obviously bx - more volc

(biotite alt) clasts

plag altm on bio clast rims

clasts mostly 1-10 cm?



296 - 312.7 more obviously bx  
 now - mostly ppy, some biotitic  
 zones(?) clasts(?) (312)

318 - 330 Bx loc strong ep altn  
 clasts mostly intrusive  
 $\frac{1}{2}$  - 5 cm

330 - 347 locally biotitic, more often  
 bleached + epid. altered  
 mostly QLP after 340 (336)

~ 350 Biotitic Bx (350)

QLP

- Ore Zones -

West Zone 83-26

83-27

west zone rel. H.H. 82-24

82-24

not on sections yet meta  
QLP-105, Bx+Volk → 155-200  
Bx-290, FP+BioBx → <sup>50m</sup> 200  
Bx → 140 FP → 215  
Bx → 370 EOT  
menlyn 28.5 m  
222-250  
BioBx → 35 (NO Au H.T)

Main Zone 81-15

metax → 70 Bx → 215  
61.5m menlyn  
zone 40-70 F  
100-125

81-9

81-12

menlyn ~ 65-80 (24m)

QLP → 30, siltstone → 65

menlyn - avg ppy → 87

then → Bx to 90 Bx → 180

siltstone → EOT (200)

80-3 1 Fsp py 145 Bx → 170

81-19 NO ORE - above

ore - rock Avg Ppy

metavolc - 85 then  
Bio Bx - 185 then

mixed to 220  
(Volk, BioBx, QLP)



menlyn 200 - 244

Grade - one short HQ section  
caused avg Au to be 5.8 gm  
over 44 metres width - cut  
grade to remove nugget effect  
probably about 3 gm.

any scapolite?

Quick Review + Examine west zone 'ore'  
metasole ~ 175

checked back to 145 'ish'

Gypsum veins

prob. a<sup>u</sup>g. py - bio alt then  
bleached (py - ep - fs)

Bits of QLF locally give the  
rock a breccia texture.

Qtz - py - och hem ~~veins~~ + blebs -  
(after map) are they clasts - bx?

Mineralized zone

200 - 205.1 Mineral consists of py -

pyrho - ep py veins + replacements  
in silicified-looking vfg rock 201.5  
zones run 20% sulphide

Bleaching is bio destructive

Py - epidote zones in bleached  
rock are lower grade

Quite a bit of the py with the  
ore is x/line! 201

205 - 210 Bx + fs py - fs py easiest to  
see where altm makes fs white

ore zone - most FP then QLP  
with some volc (?) zones -  
subtle but apparently bx

mineral mainly fr cutled  
but locally replaces adj. CR  
- pyrite very well crystallized,  
locally cg.

(206) Bio alt FP - lots of pyrite

(216) QLP cut by Anhydrite + py-chl-ep

(220) Spectacular cpy-py in bleached  
rock - prob QLP

(229) Anhy in biot alt rock

MINERAL GEN. CPY-PY-PYRRHOTITE  
anhyd., heavy sulphides to ~ 240

244 → 264 (and onward)

subtle breccia

JOB .....

DATE ..... PAGE 83-54

PARTY CHIEF .....

WEATHER .....



JOB .....

DDH81-9

DATE

81-9 Aylwin Ck

PAGE .....

## MAIN ZONE MINLZN

metavolc → 20

Bx → 215

40-70

100-125

) minlzn

Aug Ppy → 225 EOH

35-40

Bio altered Rock cut by

4 QLP country

xllne

ep - py -

fs (?) veins

(39)

(40)

CR is a bx - obvious in places  
subtle in others

near 50 veins are vug filling -

py - garnet - ep - actinolite (53)

Black mafic zones may be hb (41)

55-70 CR bx - mainly QLP

Traps

Garnet encloses clasts

(62)

some black (hb?) clasts

70-85 Garnet zone ends - tight

matrix bx begins (77)

Rock types easily recognized  
aug ppy, QLP,

PARTY CHIEF .....

WEATHER .....

104 much more biotitic + vuggy again  
 still some tight zones

105 - ~~12~~<sup>13</sup> no garnet not very vuggy  
 does not look well mineralized

py - cpq - mag veinlets

rock sl. vuggy - check for  
 anhydrite (113.7)

gypsum ~130

130 - 147 Bx progressively less bleached  
 and darker down hole (146)

147 - 165 mixed light + dk biot.  
 all rx + QLP

HOLE NOT CHECKED

— BELOW THIS POINT —

END OF

WORK ON AYLWIN

CREEK DEPOSIT



## PEOPLE MET - New Denver

Hotel owner - Frank Po

- BP crew Russ ~~Chen~~ Wong

Helper - Ian

Sr Geologist - Brian Martin (knows  
Ron Smyth)- Drillers C.M. Drilling  
Norm Foreman  
Ed —- Webb Cumming  
wife Marion ??- G. Salazar  
- formerly w. Cities Service  
- working on a property (vein)  
near Sandon.  
- doing EM + drilling- Possible contacts at Silvana (Dickens  
son) - mgr. — Bruce Pried  
Geologist — Steve Phillips\* APPROACH TO TAKE - REVIEW 1011'S  
TO SEE WHO IS ACTIVE BEFORE

PARTY CHIEF

WEATHER

GOING TO AN AREA \*

JOB .....

DATE ..... PAGE 03-56

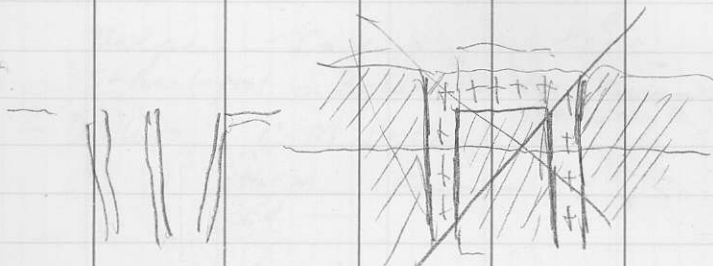
PARTY CHIEF .....

WEATHER .....

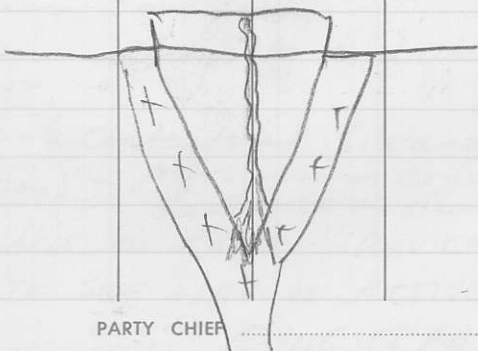


JOB .....

DATE ..... PAGE .....



OR



PARTY CHIEF .....

WEATHER .....

JOB .....

DATE .....

PAGE .....

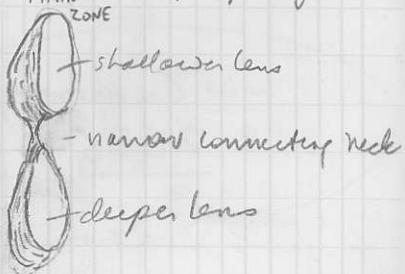
AYLWIN

Access - S of Silverton  
to Red Mtn Rd near Aylwin Ck  
turn left for 3/4 km  
then rt up steep road  
to property ~ 2 km

50 fur ~ 5 MT



~ 3 yrs probn  
indicated  
so far, ref  
H<sub>2</sub>



PLAN

ORE in main bx

\* MODEL IN BP office in VANCOUVER

ore in bx + cracked rock  
ore bodies lenticular

Lithogeochem - kecks in  
As, Co, Ni, Al above  
ore zones

\*\*\* original stamp based on PHS Mo/F/W kick  
in Aylwin creek to  
Gold in cpy + probably  
silver too - one exception  
seen -

almost or NO arsenopyrite

PARTY CHIEF .....

WEATHER .....

cpy py - pyrrho  
magnetite  
(main ore veins)

