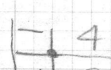
WALKING RIDGE WHILE WARD & ROBERTS SILTING CKS

A8103 $S_1 = 75°/62°N$

-grey green shale interbedded with quit - same as A8102 - this unit does not appear very extensive.

Δ1 POST # ~~1~~ 2 SF 1, 2
POST # 1 SF 3, 4



middle of ridge

HY NOTES - JWM

0119489

JM8101 - silt + fine gravel from small trib - into main creek good sediment - low velocity - (running) would dry up in summer.

A8102 - sample of quit? typical of much of this part of ridge very silica rich feldspar grains weathers to a tan colour

A8102 - grey green shale - it appears as if this unit interbeds with the quit unit.

A8104 - quit Blade Fiord Ls.

* A8 Δ2 small OC ? at 105/35SW graphitic BS.

— ∠105 intersects bedding at 10145

JM8105 - boulder pile of boulders with Rule
* - no OC. quit? - well bedded - 3 alternating light + dark bands. dominant lith - qtz, feldspar + small amount biotite? locally rusty Stained - pyrite? Flecks. - CLD, 630W

JM8106 - Sample of silica injected ? LOCATION ON GRID
* CDM graphitic shales - very localized outcrop - weathered rock with good graphitic shales. this sample

NOT PLOTTED

has some azurite blue staining on the scattered surface

JM8109- Qtz - Feldspar porp.

WED. JUNE 10 IN CAMP CK. BELOW

Sound mission

JM8107 - BAG Sample of JDM Black shale - Fine pelitic partings - Very recessive weathering resist to silicified o.c.

Qtzite

JM8108 - DIORITE DYKE Sample - assoc. with siliceous zone of Black-grey phyllites. This sample downstream from where JM8107 taken - resistant weathering, should be able to determine from air photo regions of intrusive.

JM8109 - ??

8109 - qfp
8111 - wispy shale

JM8110 - DIORITE W RHYODACTIC INT. FLOAT MINOR AM STRINGERS.

THUR JUNE 11 - N. RIDGE (OF CAMP)
POOR CONTROL -

- Fresh ribbon line (1980)? claim? line on raise north of camp
strike is roughly ~ 90-95° - 010
topo 5-1 running line - 1 just ribbon = two
men channeling

JM8112 - grey slaty phyllite wispy shale
So Strike 7°/63° W, compositionally layered - bedding - on fresh broken pieces - slaty fabric - not phyllitic non-micaceous - dark grey - silicified.? numerous samples all within 1-2M of each other 8112A - actually from outcrop - others from locally (very) derived float

PLOTTED JWM

PLOTTED JWM

JM8113 - mudstone - ~~porcelly stabbed~~ ~~clasts~~ ~~mm~~ - So ? - Float well laminated - hornfelsed. Sample missing

JM8114 - excellent ex. of late stage silicification - process here was not complete so that original composition is still discernable.

210/7° N Shale

JNB115 - Silica veining in
Shales - PbS, Tetrahedrite?
- minor sulfides

100 325 50

JM8114 - PLOTTED JWM S_0 225°/10° NW with shal. NW

JM8115 - 3 samples of silica graphitic shales / veined shales - highly oxidized - appear similar to units below 1424 g.s.

Silic injected

Sulfides present - galena, sphal? in small silica veins and along fracture planes.

- thin zones of veining could account for much of the graphitic expansion if it is widespread.

just up slope from above o.c. of diorite material + g.s. diorite

g.s.ic

JM8116 - diorite g.s.ilic. JM8117 MISSING

JM8117 ? g.s. rich diorite similar

JM8118 ? to 8116, outcrops very close together? 2 m

8115 - 40 m n of ∠0 at 1380E

- JM8115
- 8116
- 17, 18

Δ3 ∠0

PLOTTED JWM

Δ3 slate - blue-grey - not silic. with S_0 210°/7° SW

PLOTTED JWM JM8119 - S_0 = 355°/43° W

- Finely laminated grey phyllite.

Other o.c. in some area S_0 = 360°/70° W

NO 20

NOT PLOTTED JM8121 / JM8122 - good sample of QFP slate with comp. layering - float only.

Sample missing

FRK JUNE 12

MEETING ON TOP OF RIDGE

D. MARTINSON / RAY out on Mon - CP. Flight at 6:30.

- Grocery back haul.

WALKING LO 15W → EAST

FRI JUNE 12

- talked to Patti, Heather & Dave last night on VHF - poor reception - maybe battery is going?
- Greg wants to use both helicopters for now - but we sure as hell can use a machine up here.

NOT PLOTTED JM8123 - Sample of mafic intrusive - metabasalt Found only as float

NOT PLOTTED JWM. JM8124 - Samples from mineralized O.C. for rock geochem = JM8115

✓ JM8125 - two samples 25A & 25B

25A - graphitic shale distinctly different than phyllites along LO between ~~1850~~ 1480 N & 1550 N outburn in unit stained - pyrite? present as fine flecks on surface.

PLOTTED Trend of fold affecting So? 3°/185° (dip/plunge)
- So not as distinct here
- O.C. located on LO at 480 N

PROB QTZITES 25B may represent - localized hot fluids in the graphitic shales.

25A - good distinctive graphitic horizons

PLOTTED ✓ △ 8104 - So 174 strk/69° E steel grey graphitic phyllite as above

△ 8105 - qtz - Feldspar - ? porp. distinctive black, octahedral hand 7 8 porp. mineral; feldspar appear to be altered; - some variant as is present in talus slope behind

PLOTTED ✓ comp. Making up 5% of mg monzonitic in composition
- not truely outcrop - just large pile boulders - mostly semi rounded.
- between 420+390 - this same boulder pile crosses over line O

4

JUNE 12

HOEK, SIMPSON } sitting. ducks

LEJA, BARIL } L155 30 → 15W

ROBERTS, KULICH, WARD ← L155 TO LAKE FROM 30W. silt upper part of creek.

CLAIM TAGGING
MET LINE CUTTERS ON TOP OF RIDGE.

QFP extends at least to 360W on LO - extent of mapping on LO from 15W.

JM8126R small OC (boulder?)
PLOTTED JWM
well laminated graphitic shale - Siliceous bands - very distinctive non-calc. siliceous throughout carbonaceous, but not graphitic
So = 30°/10°NW
prob a boulder.

mi small depression at 750W.

PLOTTED - LOCATION UNCERTAIN.
intrusive QFP on steep slope above Doug's tent.

- d/o Ward from Gregg - on use of helicopter.
- QFP on base line east of 8125 is just boulder glaciers.

15 15
4 75
6.0 22.5

JM8126B - just down from
LO on 15W (30m) - rusty rubbly
pile - difficult & det. mineralogy
- samples for rock geochem.

JUNE 13

LOOKING AT OUTCROPS SOUTH OF LINECUTTERS CAMP.

BARIL } L 3000 to 7SN
MOEK }

LEJA } L 205 Finish
SIMPSON }

ROBERTS } L 20, L 25
WARD }

~~A~~8106 - cherty uDM black shale in creek bed
So = 18°/54 NW.
locally qtz veined much of upper portion of ck bed is lined with uDM boulders.

POST # 2 Hy 25, 26
POST # 1 Hy 27, 28

1355, 1494 W

PLOTTED JWM — JM8127 o.c. located NW cor claim ORTE. post as above - qtz divide - cut by qtz veins - no indication of general trend of qtz veins

PLOTTED JWM — JM8128 6905, 1522 W - two boulders of black shale breccia - very angular fragments of argillite shale boulders note laminations - probably local and close to source.

PLOTTED JWM — JM8129 - Samples (2) of uDM graphitic shale - samples taken 1m away from silicated uDM fragmental. diagtreme breccia - if this has a strike it would be ± 285° S. 6 mey Shale

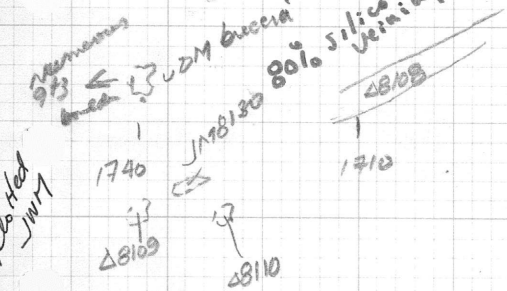
8129 - two samples with S_0 marked S_0 = 300°/25° W
note silica veining in from g+g vein - not necessarily on S_0
plotted JWM
O.C (2m sq) at 7205, 1556W
- evidence of QFP just 3m from g+g breccia - not O.C but boulders - pushup bedrock.

NOT PLOTTED
plotted JWM
8107 - just south of Lim antithesis camp
black shale Siliceous quartzite 25°/18 NW.

plotted JWM
△8108 S_0 = 13°/36°NW
1000 S, 1680W
ridges running at 020°
numerous kink bands on faces of O.C 343 plunge at 20°

Plotted JWM
△8109 S_0 = 325°/38° W
NOTE CHANGE in S_0

Plotted JWM
△8110 330/32 = S_0 on shale



plotted JWM
JM98130 - laminated breccia and orientation on breccia: 360°/26 NW°

TL 15W is running at 338°
MARTINSON was told 342°
But there is a 3° diff in
declination & is wrong

OK JWM NOT PLOTTED

✓ ΔB108 Further along 020 ridge - knife fold 330°/30° in black ringy shales. Siliceous breccia lens in ni plane of So

So = 20°/20° NW

NOT PLOTTED JWM ΔB109 OC ridge up ~~ridge~~ ridge comp ank - graphitic shales 185°/75°W.

grey - shales

PLOTTED JWM JMB131 - Sample of gt-bearing dacite intrusive.

JUNE 14, 1981

CHS - Horizon machine into camp by 9:00 AM. Put Ward out - set Linear lines out as well - set DP JWM, HB + CS out by 10:00 AM on East side.

✓ JMB132 - Sample of ~~andesite~~ clastic dyke material - note abundant gt porphyroblasts - distinctive foliation in hand spec - sometimes difficult to see in OC - 325°/25°E - this may be the same as the last phyllites suggesting ~~this~~ concordant contacts ~~side~~ weathers to a very distinctive reddish-black

JMB133 - Composite ~~andesite~~ clastic dyke

JM8134 - from o.c. good exposure - o.c. is down slope - at first

34 - Fine grained clastic sample of ~~andesite~~ clastic seq. - these andesitic outcrops extend to at least 1350E on LO, ~~2~~ 1/3 way down slope

JM8135 - grey green shales NOT clastic LO, overlying ~~andesite~~ - contact + S_0 = 200°/5°NW outcrop located. 50mN, 1280E

Δ8112 S_1 = 280 dip vert. possibly S_1 + S_0 at acute angle here - light + dark shales

relse gorge rings weathering or alteration effect on light + dark shales.

~~at 1200E, orientation of LO = 66°~~

June 15 coming upstream - boulders in creek bed dominantly carbonaceous to graphitic black shales - suggests EXIT / uDM contact ~~is~~ ~~of~~ crosses through slope east of creek.

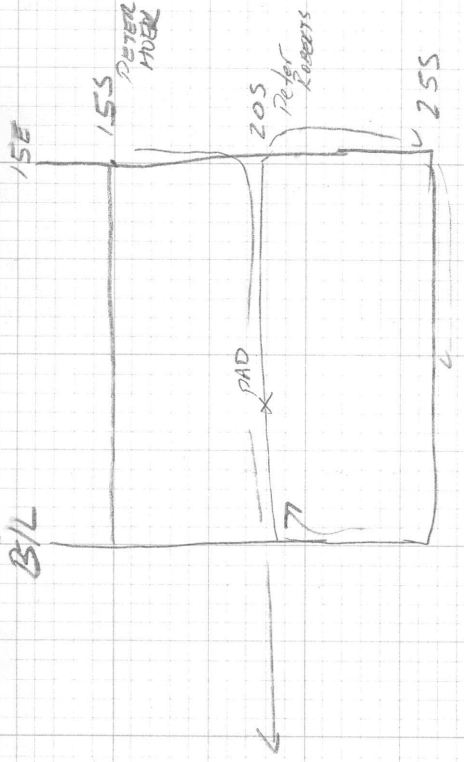
PAD ON 20S

JUNE 15

{DOUG, CATHY, Hélène, WARD
{ONTO TILL

{Peter HOEK, PETER ROBERTS - SOIL
{SAMPLING ON HY

{PETER KULICH - TAGGING
{CLAIM POSTS ON 6S



JM8136
✓ L20S, 810E

- Small OC, located here at pad, actually boulders but enough rock to suggest O.C.
- q+f - feldspar qwit.

✓ JM8137 - 1470S, 555E, - sample of what appears to be good diorite? but is this part of the qwit unit? - massive OC & no foliation observed

✓ JM8138 - more Between 15S & 20S samples of the Diorite - GRIT porphyritic unit ✓

✓ JM8139 - as above but ~~a~~ abundant small well striated py cubes.
- very small O.C.

600E, 2589S

SOIL ✓ Sample L20, 180E is in valley bottom 9m east of creek.

- Coming upstream - boulders mainly of graphitic shale affinity - suggests UDM/Hg contact east of valley bottom.

- Slope up to bare like would suggest (From small pieces of + nature of soil profile) that UDM is underfoot.

JM8140 - samples (3) of diorite & felsic qwit at L20, 1020E steep cliff OC

JUNE 16

JWM, HOEK, ROBERTS - LIFT OUT IN A M
HOEK 20S, 45W TO 30W
ROBERTS FINISH TAGGING CLAIM POSTS ON SOUTH END of PROP.

PERKINS, SIMPSON, BARIL, & NARD ON TILL

LEJA & KULICH CATCHING UP ON THINGS IN CAMP

JM8141 - TWO SAMPLES FROM O.C IN CREEK EAST OF PROP.
- DOMINANTLY CARBONACEOUS PHYLLITE WITH 41B / APPEARING AS INTERBEDS?

crossed over TL15E at 630S
- small unmarked sample downside-slope from 630S - volcanic bearing in comp within a sequence of quartz to grey to sometimes blackish phyllites - basalt contains abundant qtz. carbonate & carbonates

JM8142 - up side slope from 630S ± 250m, qtz - Feldspar grit unit? much the same formations seen yesterday south of 10S.

JM8143 - like that seen up slope with Dongh - So: 255°/25°N
- cross over L10S at 1140E
- not much in the way of O.C once the other side of the ridge is reached.
- small O.C. downslope from (1140E) fine grained clastic quartz shale / phyllite
- ~~[illegible]~~

- 198144 - boulder in valley ck. bottom - but good example of the clastic nature of much of this unit on the east side of the property.

✓ 198145, 46. samples of grit unit exposed in excellent OC.

dominantly - med to fg grit - shaley variant, thin polylithic conglom appears to relatively thin lenses part of OC, pyrite (some) are interbedded between normal grit (for this) up to .5m in thickness with a shallow? So is flat lying dip to the to 240° ∠ 5°

- tot thickness of OC - ≈ 60 m.
- crossing over L155 at 720m.
- Leaving L155 at 570E -

no OC 720E to 570E.

- on base line at 1,1000 S

GRIT UNIT outcrops Between 570E (L155) + BL at 1100S

L105 small OC.

- on line 105, at 210W small OC. graphitic shale - not siliceous - like that observed on L0 last folded marid 3 days ago.
- at 270W ; small OC graphitic shale - more siliceous - qtz veining - fine. marital. - not very well developed So - obliterated.
- 370W chalky black graphitic shale

So = 35°/13°SE

good graphite bearing unit Shales.

L10S
at 660N small boulder pile = o.c (JM8147) - chert -
- at crk - indications from boulders suggest lith = chert black shales - not at clarity + lacking in graphite ~ 8147

- left L10S at 1800 W.
- cross over TL 15W at 1620 S - NO O.C up from creek crossing

L10S - o

1600W - clarity, silica vein graphitic shale small o.c's
S_o = 350°/13°W

OC at 1650 that have been mapped prev - not as qty veined - very good graphitic shale (minor clarity elements)

Left at 1670 o.c. 1080S, 1670W, - graphitic siliceous (clarity) shale - not silica veined
S_o = 135°/25°W
10 mtt S_o = 120°/31°W

- crossing 15S at 1770W - very little o.c seen ~~both~~ between 10S+15S

JM8148 - intrusive? small o.c. abundant qty veining - located at top of midst with pad.

JM8149 spotted tonFels on top of ridge - close to 48

S_0 = 355°/90°

- Small o.c chert siliceous shale - not graphitic - on top of ridge?

- lower down on ridge - silc. + qtz veined BS.

- Crossing TL 30W at 1560S

JM8150 - on L15S at 3150W

- some grey - dark shales & phyllites just down from top of ridge end - not good. o.c. similar to what is on creek S of camp.

JM8151 - alt light + dark banded phyllite - down slope

bedding? 150°/50°E

phyllite cleavage: 8°/26°E

bedding? : 335°/vert

JM8152 Small OC L15S, 3570W

LINE THROUGH CAMP RUNNING AT 69°

- missing samples 8107, 8120, 8122

WED - JUNE 17

PETER ROBERTS - TAGGING CLAIMS SF.

PERKINS, SIMPSON, BARIL, KULICH, WARD, + HOEK TO TILL

LEWA STILL WORKING IN CAMP BECAUSE OF STRIKED FIGURE.

- JWM PLOTTING IN CAMP.
- JM8153, JM8154 - GRIT + DUST FROM RIDGE NE OF CLAIMS
- - - ? ?

THUR JUNE 18

- PERKINS UP TO SEE LINECUTTERS IN AM.

- TRYING TO GET MY SHIT TOGETHER FOR DOUG - OUT TO WATSON LAKE BY 2:00 PM. - LEFT WATSON LAKE BY 5:00 ARRIVE FARO BY 9:30 - FAST TRIP ONE NEAR MISS JUST SOUTH OF ROSS RIVER CUTTOFF.

FRI JUNE 19

- INTO GRUM CAMP - LATE (AFTER LUNCH) HM + Hen - OUT ON HIKE - FRIEND ALONG. HOME AT 9:30 PM.
- Talking with DSJ re Tenas A+B etc.

M8113 - clastic - but only locally.

cat rocker

M8132 - weathers to rusty-brown - dark grey on fresh surface - mod to fine grained - qtz (Feldspar ?) qtzite. immature, carbonaceous well Foliated, bluish looking qtz frag ?

M8133B as above, coarser grained, clouded qtz, well Foliated, more immature poorly sorted - increase in feldspar content

M8133A - Coarser grained again - poorly sorted, very immature - resembles qtzite seen in grit packas N.E. of claims, poor laminations - weathers to a rust colour clasts ≥ 1-3 mm, "boudinaged" micas - but not carbonaceous detrital.

M8134 - Fine grained - lighter in colour ≈ greenish, - semi-mature Sandstone - - qtz (Feldspar ?) hornblende ? poorly laminated chloritic ? - possibly of volcanic affinity ~~in~~ pronounced. "equigranular"

M8135 - brown weathering, dark grey shale - mudstone possibly locally hornfelsed - interbedded with clastic qtzites.

M8136 - two samples.

(1) - one is more foliated than the other; dark brown weathering, micaceous? med - fine grained, mature qtzite - feldspar sandstone qtz > 7 shaly like partings

(2) dk brown to red weathering c.g. clastic qtzite bluish - poorly sorted clasts in grey qtz Finer grained sandstone matrix of dark grey to blackish on fresh surface poorly foliated.

M8137 - similar to M8136 - Finer grained - blue qtz matrix in a lighter col. some mature - better sorting more rounded - rounded. - poorly laminated, qtz veined.

M8138 - As unit M8137

M8139 - similar to above

two units but contains numerous, py cubes ~~+3m~~ .5mm in sandstone matrix bluish qtz in fine grained black clastic matrix

M8137 float - as above described units

M8140 - as above units locally finer grained.

M8141 - - clastic in origin but fine grained - grey to black.

MB141B - Shale - grey dark brown shale micaceous partings = phyllitic

MB142 - clasties clasts - Foliated - Feldspar - Foliation black - dk grey - qtz - Feldspars Flattened - qtz clasts Flattened in well rounded plane of

MB143 - grey (greenish) shale - mudstone - detrital material present. Fine grained.

MB144 - clastic, qtz veined.

MB145 - grey shale (mudstone)

MB146 - pebble chert well pebbles - excellent conglomerate Foliated some mostly qtz, minor Feldspars, biotite (diagonal)

MB147 chert - well foliated otherwise blue - grey chert - minor by along foliation planes

MB148 - arkosic? well sorted - no fabric. very mature clean sandstone - med. grained well rounded clasts, qtz veined - no sense of strike + dip in O.C.

MB149 - Siliceous shale? - grey on fresh surface, brown weathering - distinctive 1 - 5 mm rounded clasts of ? in plane of foliation - unit is not carbonaceous - NOT HORNFELSED. Load clasts? - almost looks like pollen spores or something organic. spotted shale.

M8150 - well sorted clouded qtz Sandstone (qtzite) qtz veined med grained -
Similar to M8148

M8151 Silightly siliceous qtzy (shale) (phyllite) weathers to a distinctly mottled pattern in outcrop - really phyllitic in nature micaceous partings grey - light in weathered outcrop.

M8152 - ex nature - well sorted Sandstone (arkosic?) Fine grained.

SAT JUNE 20

GETTING READY FOR ROSS RIVER - FRUSTRATING DAY TRYING TO FIND SOME QUIET MINUTES. JONI & KIDS UP FOR LUNCH.

SUN JUNE 21

WORKING LIKE MAD DOGS AROUND CAMP ROSS RIVER BY ARRIVE 11.00 A.M. WITH LES & ALBERT. PETER 2 & WARD ARRIVE BY 9.30

MON JUNE 22

GETTING READY FOR A TENAS.

TUES JUNE 23

GOT PETER KULICH, PETER ROBERTS + JAMES WARD OFF EARLY DSJ + JGS IN BY 9:30 Left 10:30. ONTO TENAS GROUND BY 1:30

- JM8155 - metabasite SD/3F WITH SOME PO + Marc, tepia very rusty outcrop just off of line? - unlocated

Cross lines running ≈ 31°

Soil sample flag reads 1200? → 1300N, 1300E? 1500E?

Soil sample flag reads 1200N, 1500E — 1300E?

1100N, 1500E

646N 1500E

400N 1500E

WED. JUNE 24

HOLE (75-2) L570E, 154N

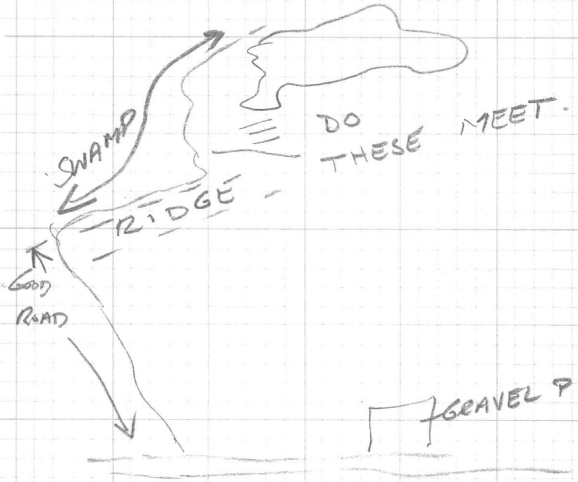
- Good south end. Comp location - just SOUTH OF lake. - NOT plotted yet.
- Line 590E, 118N - biotite g+3 granodiorite - small boulder - but smacks very strongly that this is outcrop.
- in between lines appear to be out.

THUR

~~WED~~ JUNE 25

560E, 114N - car on road.
gravel pit.

ROAD UP TO TEE LAKE.



Base line running ~~at~~ 295°

640E, 625E 610E
595E, 580E, 565E
550E. 535E

35
5
175'

L640E

130

FRI JUNE 26

- L57S E N of BASE LINE IS CUT -30' offset From 140N at 574' (139+70N)

according Sawyer Report Sept 5/75 base line runs at 294°

SAT JUNE 27

L540E, 550 560E into gravel pit

L540E

126N TO 129+65N - SWAMP + Moose meadow - NOT GOOD GEOCHEMICAL RESULTS?

129+65N - 130+40N O.C hummock in middle of swamp (175' long)

plotted JWM

J98156 - From OC at 130N) 540E samples of fresh metabasalt - mod - coarse grained - variably - cyanitic - calcareous - massive - NO foln minor foln' possibly suggestive of close prox to contact with phyllites

plotted JWM

TO 134N - swamp & moose meadow OC was island in swamp.

AT 137+90 N - def break in slope - this may represent

23°

180
90
23
203°
90
113

limit of ~~and~~ or visible ~~on~~ outcrop. effect of proto-Rouge River glacial effects - should be

B/L GOES TO 528E, NO OUTCROP ALONG B/L 540E TO 528E

L530E

154+80N - 159N - swamp, moose meadow + buckbrush.

Small outcrop exposed at base of break-in slope

S_2 = 113°/23° SW

f.g.-m. grained noncalcareous, foliated metabasite. Sample JM8157 - plotted in field

170+20N

END OF LINE 530E @ 170N

L540E

S_2 = 35°/50°E

metabasite, with minor exposures of phyllite. generally well developed S_2 - other massive S_2 lacking. Samples JM8158 - one of which exhibits good laminations = S_0 other is coarse massive variant. plotted in field

167N, 541E - JM8158

also - evidence of ~~fine~~ mm phyllite zones - mm float at base of slope.

164N 88°/57°E S_2 not plotted in field

metabasite on ridge top

- these ridges require careful mapping when time permits

- DDH at 154N approx. plotted in field

- road upto 156 at 157 N

L560E

NO outcrop From base line to road - Actually there is hardly any outcrop between the baseline and the road - just a bench of gravel + till ridges.

425E
12 90N
160N

435E
98N
160N

445E
112N
182N

460E
121N
188N

475E
195N

490E
194

505E
197

520E
194

535E
193N

550N
193N

565N
193N

580E
198

595E
176W

625E
170N

JUNE 29 - BACK IN My CAMP.

- 39.6 hours to date on 206 - Horizon machine including estimated hours for today.

- Everybody set to go out on traverse but weather collapsed and camp day - numerous items to do in camp however.

ANMAC - AREA A CAMP

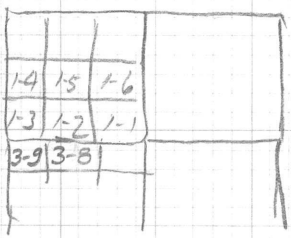
PETER KULICH, PETER ROBERTS, + JAMES WARD
CAMP PUT OUT SUN JUNE 28
LOCATION AT 131°33' E, 62°02' N

Weather Day - in camp catching up on rocks.

JUNE 30

- JWM trying to be a go-go
- mapping north of camp - North day 1 line 0 - most outcrop should occur between 15N + 30N

Photos for following area.



- MB159 - sample of siliceous black shales - JDM not truely outcrop - but boulders are from in situ.

PLOTTED JWM

Outcrop 10' away S, : 105°/63°N

: carbonaceous, non calcareous shale-phyllite.

NOTE I AM CHANGING Flotation From 50 to 51 for meas.

△8115 - Post #1
GS # 53+54

✓ M8160 - several boulders in this area of a fine-med grained tourmaline ? greenish gray tinged qtz porp. ? is distinctly finer grained than the other intrusives observed on the property to date. this dyke is prop not very thick owing to the close proximity of silica veined vDM shales locally downslope.

△8116 - L 15N, 2730W crosses creek.

✓ M8161 - again sample of "green" qtz eye porp - sample from boulder rubble pile in valley bottom - outcrop exposed at base of slope 10 m N of 2730 W, 15N.

✓ M8162 - float only - but should be able to identify black, dull retro. mineral in sample.

✓ △8117 - S1: 49°/83° S - this may not be outcrop - abundant float high on hillside of silica veined vDM black shales - this is exactly the same character and rock type as that on ridge south of Lineweavers camp.

△ 8118 MISPLOTTED TO BE CORRECTED 2020N, 3580W

POST #2 GS40+39

POST #1 GS41+42

- also along same unit - numerous small exp of black shale cut by late stage silica veining as on ridge below Martinson's Comm. - not terribly graphitic but def. carbonaceous

PAD LOCATED ON L20N 1530 at 2040N (slope corrected)

Walking Line 15W TO 2500N Left L15N at 2200N - NO O.C. - switching back to look up with 2000N & over to 30W.

MISPLOTTED TO BE CORRECTED M8163 - L20N 1950N small unit exposed

S_1 = 127°/30°

g/g veining: 45°/vert.

Sample is typical of BS from this whole area but locally can be strongly altered due to abundant silica veining & proximity to intrusive - also expresses & to a more phyllitic unit present in some general area as well.

MISPLOTTED M8164 From same locality as above - A example of phyl. unit within this sequence.

MB164, AB119

NOT YET PLOTTED — others not located.

2040 N, 2070W

- small outcrop of black shales with trace of Silica injected shales - small isolated outcrop.

OK 2610W, ∠2000N - in draw - should be able to locate on photo.

M

July 1 - happy something day!
windy & warm.

TRAVERSE - NOT YET PLOTTED

BEHIND CAMP. Δ8119 clarty, silica veined black shales. S_1 = 168°/70°E 20 m downstream from 5N 2760W

M8164B close (float to Δ8119) abundant qtz-tourmaline pegs. cluster east of Δ8119 & up to 5N 2760W

with shale. M8165 - silicified shale - proximal to dyke. 150 m up slope from 5N, 2760W

wispy. M8166 - clarty grey shale top of ridge above camp - this is similar to clarty appearing shale D. recently in small boulder pile on 10S? east of Mait. camp.

S_1 = 138°/75°E

M8167 - small ridge over from pad back of camp - Block shale cut by strong - intense brecciation following intense quartz veining. Process related to intrusive activity.

M8168 - on the nth example of the intensity of the diatreme (explosive) nature of the brecciation process. Sample located just east of white pad in.
- actually there is little evidence of intrusive along ridge top
- only in talus some ob you see good exposures

M8169 - Further along ridge to the west - intensity of silicification + brecciation decrease. (wispy shale DP)

crossing over 5N, 2940W

D8120 - S_1 : 170/76°E
Silicified block shales
100 m up slope 410N 2820W
1/5

LAST M8169, L8121

July 2

PETER HOEK - FINISH SAMPLING 1250N

CATHY SIMPSON - FINISH LINE 750

HÉLÈNE BARIL - START 1750 FROM ISE.

JOE LEJA - SETTING OUT BASE STATIONS.

- Sovi + Jennifer + Roslyn off AOK.
- Fuel cache at money point arranged

SUN/MOON

BL 120N - B/L 0-1-2° E of N

Line located 200 m west of martinsons comp.

△8121 - Post #1

MOON 20 & MOON 19

Post #2

MOON 15.

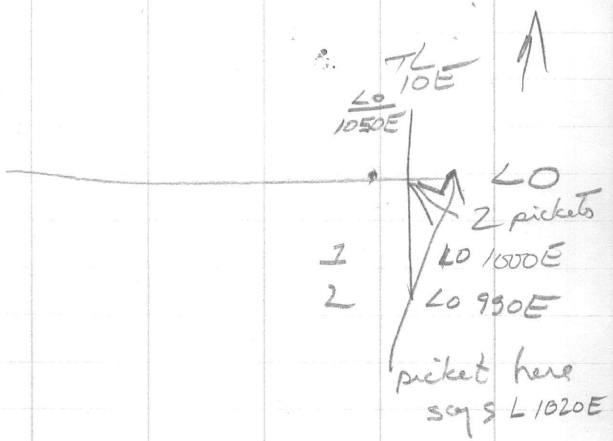
L0, 40M south of comp.

270E.

Bearing = 88°

TL 10E/30S JUST OFF

L0 1000E or 999E ?



△8122

L20N, 750W

△8123 L20S, 180W

△8124 B/L 930S, 185 M downslope

from ridge top.

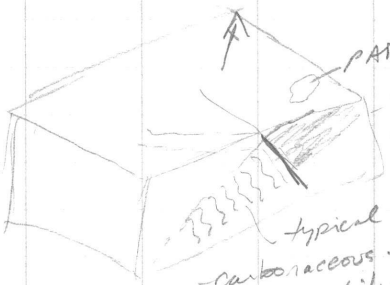
M8170, Δ8125

July 3- Cloudy + cold.
Helene + Cathy sampling
∠250S.
Joe- map survey.
Hack- screwed up knee -
mi camp walking on sample
etc.
mapping most of Hy.
∠20N at 2922 W on TL 30W
at- 2085N
PAD ± 225m from end of
2000N - top of hill.
M8170 - "Cherty cap rocking, well
lithified brown weathering grey
shale - mudstone. float only from
pad as above.
M8171 - oc. located west of pad
at break in slope grey
weathering cherty ?DM shales
- locally silica veined and
disrupted - exposures very
difficult to obtain structural
data from.
massive chert with wispy texture in part
DP ?

✓ Δ8125. S_1: 350°/86°E

dk. grey weathering, green. lith. mudstone - as in 8170

- soft rell compacted.



possible qtzite in general vicinity as float observed.

WALKING DOWN SLOPE TO GULLY - NO OUTCROP.

Δ8126 small outcrop in trees
2015N, 2520W

- good uDM (black graphitic) phyllitic shale - locally silica veined - this is the typical uDM shale sequence - not sheared around with ie. not proximal to any intrusive

- try to take sample - but unit extremely friable - small chips - not representative of unit.

JM8172 - Silicified - chert JDM BS.

S_1 = 340/42°W
Silica veining = 35°/vert
Silica veining = 50°/vert.
Kink fold F_2? = 320°/27 plunge.
S_1 = 327°/45°W
silica veining 75°/vert.

not plotted. JM8173 1500N, 2100N
- possible float of gabbro similar to that observed on Mt. Buddy

HOEK LAKE
JM8174 - S_1 = 105/34°N
PLOTTED. JM8175 tan weathering JDM black shales / phyllites
S_0 = 165°/15°N
S_1 = 100°/80°N

Δ8127 - ton weathering - 1.0M
Black shales + intercalated
clastic sequences / 1-2m thick
S_1 = 175/35°E

M8176 - sample of interbedded
gtzites within 1.0M - will
have accent that $S_1 = S_0$ because
lithology contacts. - upper part
of this o.c. is dom. by
M8176 - ≥ 30m.

PLOTTED JNM.

JULY 4 COOL, CLOUDY + WINDY
M8177, Δ8127 - CLOUDS BREAKING

CATHY + HÉLÈNE FINISHING
OFF 250s FROM YESTERDAYS
WORK.
JOE CONT. MAG SURVEY.
P HOEK - FUCKING AROUND CAMP.
- JNM PAD AT 20N → 30N 30W
BACK TO PAD.
- meet at road nick.

several small oc of graphitic uDM black shales - variably silica veined - on edge of siliceous uDM ? 1520N, 2400N

TL 25N starts at 2500N on TL 15N

O.C. at 1500N, 2505N -
chunky uDM black shales.
S_1 = 325°/45°W
- possibly boulders but suspect rather strongly this is outcropping

Line 25N intersects TL 15N at 2523N - 1572N marked on picket.

small series of outcrops 15N 2580
S_1 = 350°/58°W
- 40% of exposure flooded by silica reinjection dykes
uDM "chunky" black shales carbonaceous to graphitic -
S_1 = 335°/35°W
20-40% silica flooded, locally silicified breccia = explosive breccia

T02610N.

S_1 = 357°/87°W. - OC 15W, 2640N

✓ Between 2610, 2640 outcrop is noticeably more silica veined ± 80% + silica brecciated = explosive breccia ✓

outcrop at 2642N, 1503W, with excellent fold hook preserved.

F_2: 320°/20° plunge.

F_1 = 345°/16° plunge

115

F_1 prob. precedes F_2 based on limited exposure.

- outcrop is chalky 30% veined w DM shales.

- 10 m upslope from above -

S_1 350°/35°, locally silvery-grey weathering variably chalky (10% silica veined (phyllitic / shale graphitic.

- foliation ∠25N at 1680W, 2500N, 2040W - 60% silica flooded black shales.

Outcrop extends to 2070W.

- going downstream from 2070W.

— ~DM gtzites on top of middle knob - very isolated outcrops

— M8177.

✓ — M8178 - ~DM grey-green phyllites, carbonaceous, - tan-grey blackish weathering, poor outcrop - rubble on side hill.

- similar to EW units S of limestone comp, similar to grey-green shales seen yesterday around 30N, 20N.

— S_1: 38/85° NW at ~25N, 2070W

— 2030W, 2470N

✓ S_1: 35°/38° NW - chunky, very siliceous → gtzite. 40-50% silica by volume. ~DM black shale sequence

✓ F_{1a2} 300°/58° plunge in plane of S_1

M8179

- Outcrop on way back to road
315°/38°W - Cherty (siliceous) black shale.

WALKING NORTH ALONG TL 15W

M 8180, ∠ 8128

JULY 5 SUNNY + WARM!

- small outcrop at 1490W, 2430N

✓ S_1 = 135°/88°W - chty LDM black shale - no silica vicinity, graphitic

— small o.c. at 1490N, 2450W

✓ S_1 = 155°/65°W

as above

— S_1 = 165°/57°W 30% silica ✓ veined graphitic chty black shales - small o.c. on line 25N picket indicates 1560W - but just off TL 15W

— S_1 125°/32°W graphitic - LDM black chty shale locally in outcrop 20-40% silica veined, very minor explosive breccia associated with silica veining, outcrop located at 2665N, 1492W

- crossing over ∠ 30N at 1600W after leaving TL 15W at 2700N - NO outcrop -

Soil sample at 15W, 3360N is probably totally organic — as are others in this valley.
- Sample at 3420N looks more like a silt sample

- Walk TL 15W TO 40N + no outcrop.
- Walk L 40N TO 1080W no outcrop.
- Crossing line 35N at 1020W OK
- 2nd traverse from 20N/15W pad
Brush 100m down from pad along ridge + cont. heading east. small outcrop in trees of siliceous (chert?) good black shale - not silica veined - typical
✓ VDM? SM8180
S_1 = 350/Vert.
2m away float indicates abundant silica veinery.
SM8181 at Δ 8128 - @ Fp intrusive

abundant boulders in draw represents outcrop.

✓ △8127 - float of black shale with abundant silica injection dykes

✓ △8129 - float along here indicates QFP

- crossing over L20N at 780W

✓△8130 S_1 = 170°/70°W

~50% silica remobilized 80% black locally very graphitic, in places well foliated & locally brecciated black shales

- probable contact here although not directly observed - suggested by boulder & outcrop pattern. There is a def coarsening & abundance of brecciated material as the contact is approached. Vis - M8182 contact is assumed to // S_1 into slope - but poor outcrop control.

✓M8183- grano x loc tourmaline bearing QFP, just around skew to east - evidence of JDM shales - contact running down ridge.

- crossing L25N at 690W

△8131 - Float here sig. Still in QFP dyke.

- moving over L30N at 960W.

✓△8132 JDM 20% veins black shales carb. - not graphitic 200°/45°W

- START TRAVERSE AT TL ISE, 2280N ON RIDGE

✓M8184 - grey to rusty tan weathering grey to black (carb.) shales - no clarity horizons.
- significantly different than JDM shales seen elsewhere - except that at HOEK Lake.

S_1 = 0/vert.

M8185 - med. grained rust brown weathering grey uDM qtzite. - phyllites seen in float o.c. of this area are equiv to those observed within the clastic sequence on < 0 ∓ 2200E

✓ M8186 A - well lith. uDM chert pebble conglomerate - is this tymeric uDM? found only as float.

✓ △8133 B - uDM clastic as in M8185 + silvery-grey weathering semi-friable siliceous as chips along ridge top.

coming < 2200 ∓ 3860E

✓ M8186 B S_1 : 100/26° N - possible slaufed o.c. at BL, 2160 N - creek

✓ opposite pad oc? uDM clasty = S_1 65°/55° N

July 6/81 M8187
Δ8134

CATHY + HÉLÈNE - Sampling lines on south grid
- bE - mag survey.
PETER HOEK - Fucking around comp - in to see quackie about ore/lg
traverse starts L0/540E
- crossing BL at 120N 100.C. between. L0 at 120W & BL/120N
- crossing L250N at 180E
- crossing L5N at 240E
- crossing L750N at 420E
- back on L5N at 30E?
small talus of QFp on L5N 125-110E. M8187 - this is the last sample to be collected - these kind of talus slopes should be readily identifiable on stereo airphotos.
- Walked along contours from. 120N L5N TO BL at 360N

- nothing but QFP boulders all the way (covered by moss)
- no outcrop along BL
From 120 N to 1080N ND boulders between 1000N & 1080N would suggest JDM cherty, silicified siltstone.
- crossing over L10N, 90E -
✓ cherty 20% silica veined carbonaceous to graphitic black shales - small outcrops - no in situ O.C.
✓ M8188 - good sample of cherty JDM graphitic shales.
"Shaly veins" - probable outcrop but possible large boulder. should run sample for lithogeochem.
S = Flat approx at ~~L10N~~ 980N, 115E.

- two large samples of good JDM cherty shale which should make some nice slabbed sections M8189 at L10N, 330E - slide area no O.C. - first outcrop.

grab bag of samples from this area - Sphal gal. - area heavily prospected flags all over. (M1819)

QFP talus occurs at L100N, between 360+390E.

- coming down dry gulch start of which is at 10N 330E. - crossing L1250N at 1480E in dry gulch. (line prob OFF) nothing but v.d.r. boulders in creek bed (no in samples

- crossing over L1SN at 480E (Line 1250 is off flag)
- crossing L 1750N, 540E?

July 7

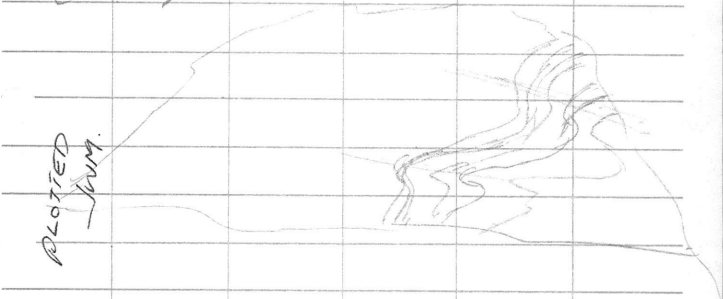
- -6 MESH SIZE SIEVE - IS IT AT GRUM OR ?

- moving 871 + Flying Ana A + B, 2 units to Rose River to check groceries + Martinson etc.

July 8/81 M3190

CATHY + HELENE + PETER on SUN/MOON.

△8139 (sample) - CREEK NORTH OF My CLAIMS.



PLOTTED 1cm.

- Outcrop has "generally" very recessive weathering graphitic laminations up to 1-3m in thickness with non graphitic

HY AREA SCHEMATIC LITHOSTRATIGRAPHIC CORE

generally non Carbonaceous grey - ~~green~~ phyllites - slates weathering ?

interbedded cream (thin bedded ?) gritstone

sequence of ~~dom~~ DOM graphitic to carbonaceous shales locally chunky (dominated on top)

interbedded grey - green phyllites

- finer grained "black" clastics
- coarse, chunky, pebble conglomerate

GRIT

METRIC LEVEL

NEVILLE CROSBY INC.

horizons as well - much of outcrop appears non-graphitic - silvery-grey weathering shales

axis of major Folds = 185°/10° plunge

△8135 - sample of CO_2 phyllites.

Sample is from more resistive weathering horizons within overall graphitic shale sequence.

M8191, 08136

JULY 9/81

- CATHY, HÉLÈNE & PETER ON SUN/MOON.

- JOE - MAG ON HY

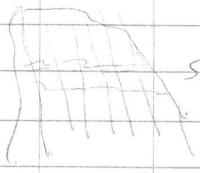
- HOEK LAKE

M8191 - Sample grey-green brownish green weathering phyllite - clastic component - detrital character micaceous - $S_1 = 140°/80°W$

$S_0 = 230°/20°S$ approx

- Sample shows ex. relationship

PLOTTED JWM



M8192 - does the R have graphitic horizons within the sequence?

PLOTTED

ON Northside of property NOW -

- Crossing <5N, 360E - NO O.C.

- Leaving SN at 480E.

- crossing 750N, 450E

- 800N, 420E outcrop of 20% silica veined JDM black (clarty) shale. $S_1 = 240/45°N$ S_0?

PLOTTED JWM

- crossing L10N at 360E.

PLOTTED JWM

Qtp 60m NW of outcrop at 800N, 420E - thence Qtp down to L10N.

- Crossing L1250N at 250E.

- crossing L15N at 90E

✓ From L10N at 360E to 90E on L15N - isolated small outcrops and chips in soil indicate JDM graphitic, variably siliceous shales present along slope.

PLOTTED JWM

POST # 2

GS # 31

GS # 32

PLOTTED JWM

POST #1 GS 33

#1 GS 34

at 1490N, 110W

- at line 15N, 160W - subcrop talus indicates a QFp dyke crosscutting line of stratigraphy.

PLOTTED JWM

- Leaving line 15N at 300W heading downstore towards pad

PLOTTED JWM

cursing ∠ 1750 at 70W abundant black shale material in soils

NE KNOB.

△8136 - green weathering green thin phyllitic shales.

S_1 = 246/45°N

PLOTTED JWM

△8137 - as above

S_0 = 345/60°W

S_1 270°/20°N

M8194 - S_0 = 143/50° W

topo ? upright

PLOTTED JWM

S_1 = 170°/25° E

DPH 27 - Flag too as well.

M8195 - gritty Black clastics?

M8196 "

PLOTTED JWM

- phyllites interbedded which are the same as those observed on LO 1200E.
- interbedded within thin gritty-clastic unit.

July 13 - KULICH, ROBERTS, LEJA + JWM - AREA B

CATHY + HÉLÈNE - SUN/MOON

+ WARD - TILL

DOUG - HY.

JULY 14 - JWM - IN CAMP

CATH, HÉLÈNE, WARD - SUN/MOON

DOUG + LEJA - TILL

JULY 15

- KULICH, ROBERTS, LEJA + WARD - FINISH HEAVY MINERAL SAMPLING AREA B.
- CATHY, Hélène + Perkins SUN/MOON.
- JWM - morning Hy.

✓ M8197 - $S_0 : S_1 = 195°/53°E$.

- Semi-de in well sorted m.g. ss. Iron weathering well laminated (Hg_{ss})
- thin green-grey shale phyllite interlaminated

PLOTTED JWM

PLOTTED JWF

M8198 - e.g. Hg qtzite non-calc.

Δ8138 - green-grey weathering green shale/phyllite. Hgp - note S_1 = 115°/62°N ~90° to that on other side of Lillooet SS.

PLOTTED IN MAP

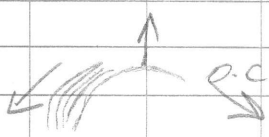
Δ8139 - S_1 = 115°/58°N green grey shales as at 8138

PLOTTED IN MAP

Δ8140 - brown weathering green phyllitic shale Hgp
S_1 = 95°/76°N.
F_2 = 110°/5° plunge -

PLOTTED IN MAP

LOOKING INTO HILL



Δ8141 - as in Δ8140 - brown weathering green-grey - brown shales - phyllites Hgp

PLOTTED IN MAP

S_1 = 165°/11°E.
top of outcrop?

PLOTTED 1MM

Δ8142- S_1 115°/Vert.
grey-green brown slates/
phyllites Hgp.

PLOTTED 1MM

Δ8143- brown weathering -
tan brown slates - phyllites
Hgp

PLOTTED 1MM

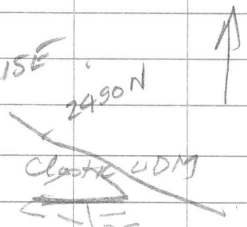
Δ8144- = M8199 - JDM
black slate - black to
brown weathering black
slate - usual weathering
pattern - small angular slabs
chips - poor exposure -
slab tinkle ring
S_1 = 115°/51°W

- crossing TLISE at 2490N.

PLOTTED 1MM

Δ8145 - JDM Black (siliceous
slates) as in M8199 - in
contact with clastic
sequence. = 25°/vert = $S_0 = S_1$
Clastic sequence 5m as
exposed to the east.

Δ8145



Δ8146 - S = 20°/70°SW

qtz veining = 100°/25°SE

This qtz veining may be a remobilization of silica during metamorphism - unlike the qtz. veining which dominates much of the UDM or the Hy. coarse clastic material. phyllite observed (shale) at Δ8145 is unmetamorphosed.

PLOTTED JWM

Δ8147 - crossing limit 25N at 1380E.

PLOTTED JWM

Δ8148 - 115°/30°N

green phyllite - shale of Hy.

PLOTTED JWM

Walking along TL 1SE.

L 2600N intersects TL 1SE at 1966E at ± 1960N.

PLOTTED JWM

Evidence of UDM block shale chips at 1920N.

PLOTTED JWM

POST #1 — 6S #5 = 1490E, 1840N; 6S #6 = 1490E, 1840N

POST #2 — 6S #4 = 1490E, 1840N; 6S #3 = 1490E, 1840N

- Chert pebble cong. at 1SE, 1880N boulders

- L 1S N at 1496 intersects TL 1SE at 1414N

PLOTTED JWM

- QFP float at TL 1SE + 1170N (road here also)

- Leaving Base Line at 1170N

- crossing L 1ON at 1230E

- crossing L 72ON at 1260E

PLOTTED JWM

- small QFP graphitic shale at 900N, 1670E

- Small o.c. in focus rt

~~105~~ 10E, 180N

NOT PLOTTED IN MM

UDM blue print

- TL/5W, 300N - "chert" .DM black shale boulder pile slightly hornfelsed - no silicia veining.

- 1518W, 570N as above.

NOT PLOTTED JWM

- leaving TL/5W at 800N

JULY 16 - M81100, Δ8149

SIMPSON, BARIL, WARD - SOIL SAMPLING ON SUN/MOON, LEJA - CLAIM MAKING

ROBERTS, KULICH - MAG SURVEY ON HY.

- PERKINS - FUCKING AROUND WATSON LAKE TILL 2:00 P.M.

- JNM IN CAMP MORNING TO BEAR PASS OK. IN PM HORIZON MACHINE OFF TO FORT LIARD FOR FORESTRY IN IN MORNING.

BEAR PASS CK. M81100

FIRST STOP - ~~ni~~ Hg - Sample of pods, Solved 55 ~~ni~~ phyllitic sand & calcareous horizons.

2nd Stop - Rabbit kettle Fm. (Wavy bedded)

3rd Stop - just beneath Rabbit kettle - ~~ni~~ Cambrian phyllites & Shale some calcareous horizons - thinly bedded. M81101

July 17/80 M81101, Δ8149.

Fine day - Al off to Fort Liard AT 6:30 AM. JWM Lift up to OLD BALDY - hovering over various tors. DAY OFF in Camp for Everybody. (except of course JWM)

PLOTTED JWM

- 15mN, 380W - small isolated O.C. of grey to black weathering carbonaceous schist of UDM several (minor) qtz. veins in place.

this qtz site extends to at least 1780m W based on subcrop and float on north side of Mt. Baldy and to at least 120N, 75W where "hornfelsed" shale appears sample M81102 is from the qtz site in this area. well sorted immature, does not appear to be gradational across section - assumed to fall more than the qtz sites.

(true gtzites) within the UDM were thin bedded and discontinuous but it appears by the maturity and local thickening of the SS that it is more widespread + thicker than originally thought

- M8/103 - siliceous shale, calc.
PLOTTED IWM - 175m W, TLISW /20N
S_1 : 25°/25°N

- M8/104 - is this part of the SS sequence? - possibly SS + shale PLOTTED IWM in this area on relatively flat lying - float only clastic sequence similar to that on ISE40
S_1 = 345°/55°W

- M8/49 - excellent exposure of Black - chalky shales - UDM PLOTTED IWM
S_1 = 210/15° NW.
locally silica veined but overall minor (see photo)
- if topo are up + to the NW then sequence is below gtzite on top of Mt. Bardy.

rusty brown weathering - grey to black carbonaceous, cherty shales.

- outcrop is located @ 220S, 1580W, crossing line 250S at 1590W

Δ8150 S: 165°/85°E NOT PLOTTED IN/M
changing dip from outcrop on uphill top.

- crossing back on line 750S at 1950W

- crossing over L5S at 2130W.

- Crossing line 250S, 2160W

- just downslope from 250S (20m) small o.c. & friend graphitic shale. PLOTTED IN/M

- Cond TL 80W, 370S in creek.

- walking along TL30W from camk.

plotted in UTM
300N & TL30W - indurated QFp boulders

- crossing over L5N, 297.0W

July 18- IN CAMP COMPILING
Peter 2 claim mag, Basil Simpson, Wendy Leja on Sun/Moon

July 20/81 Hot & Sunny.

DSU & JGS ~~in~~ stayed

Hill 1.30. Parking & JWM Heli.

mapping - Peter 2 mag. Wendy Simpson & Basil Sun/Moon.

DP8159 1:50,000 SCALE.

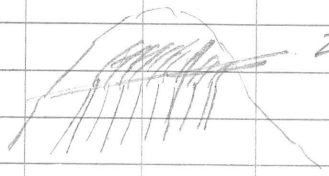
- M81105 - this is typical JDM carbonaceous shale blocky weathering, dark-light brown to rust weathering, grey to black carbonaceous shale - well foliated

S_1 = 110/70°N

hardness of 3-4, not siliceous ~~on~~ when exposed. no bedding

observed $S_1 \perp S_0$?, steeply dipping.
minor reverse gouge wings.
in outcrop S_1 bends to
S

looking into hillside



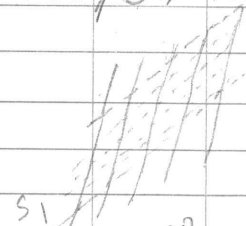
— this shale is the same as that observed in main ck north of camp. — possibly the best developed shale with the LWDM — "PUNCHY SHALE"

PLOTTED 1:50,000

S_1 Further up valley — 115°/40N
— often weathers to mud like fragments.

S_0 = 120/80° NE

S_1 108/57° NE - 65°



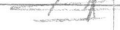
poor shale -

- MB 8106 = lupin ls

→ see DP 8155 for NOTES

PLOTTED on 1:50,000

MB1107 - predominantly carbonaceous shales with MB 8107 - limy phyllites. brown weathering interbedded S_0 - beds poorly defined S_1 - cleavage by prevan



outcrop above — M81106

S_1 = 100°/25° to W

LOM Carbonaceous shale - not clarty - some minor gtzite bands - discontinuous - similar to shales seen earlier. bedding S_0 = 140° = Vert. - although not seen clearly - unit push belongs to one of shale units - M81107, M81108

PLOTTED 1:50,000

/ tiny phyllites (/s) interbedded.

DP8117

180/175° / 45°E = S_0

STOP AT PAD IN CK

Plotted on 1:50,000.

S_1 = 345°/45° NE

"paper shale" as in first stop today — M81105

M81109 + M81110

M81109 - lapis limestone? intercalated with calcareous? qtzite - this is the same qtzite seen around to the south with David Doug. - poor outcrop - rubble piles M81110 = calc-qtzite.

△8150 - green + maroon shales of Hg unit as small talus pile ⇒ above qtzites. are Hg,

PLOTTED 1:50,000

M81111A This sample is a carbonaceous, calcareous qtzite with a clastic texture - unlike anything observed in the OM - prob belongs in Hg.?

M81111B - BOFP

8112, 8151

July 20/

M8112 PLOTTED

JWM

Boulders of "spotted" shale grey-shale - directly? overlying qtzite on Baldy? - topo unknown here but if topo ran facing NW then this is normal section

LOST

E →

← W

GREY SHALE - INK SPOTTED SHALE - VAR. CALCAREOUS

CLASSIC POST QTZITE SHALES

CARBONACEOUS TO GRAPHITIC & QTZITES. RIBBON CHERT?

"WISPY"

MASS GRAPHITIC CHERT ?

— crossing line 250N, 1620W walking down + around skirt tracing qtzite

— crossing TL 15W at 300N

· △ 8151 – GREY TO BLACK SHALE = GREY SHALE OVERLYING QZTITE ON Baldy – does not weather some as underlying black variably silkeous shales.

PLOTTED JWM

$S_1 = 10°/58°$ (W?)

$S_1 = 10°/10° = S_0$?

S_1 has steepened coming off Baldy (300N, 143OW)

PLOTTED JWM

△ 8152

400 N, 1400W – grey shale – variably calc – fizzes when powdered

$S_1 = 10°/80°$ to W

– suspect $S_1 = S_0$ bedding with composition. Note change in S_1 attitude – locally dip is shallower.

$S_1 = 0°/45°$ W

$S_1 = 15°/25°$ W

W E

- thin grey shale is characteristically "wispy" - slightly silty in localized bands variably, although common siliceous component

there is prob. a nose of a tight canopy down in dir of S_1 - no sense of plunge, massive (blocky) weathering.

(FLISH)

- At 470 m - intersecting dyke OFP - no outcrop - subcrop boulders - approx 10-20 m in true width.

PLOTTED JWM

- small break in shale running at 40° may represent strike of dyke - abundant grey shale in proximity to dyke suggests it is fairly thin

plotted JWM

4852A Boulders non. o.c. of grey variably calcareous shale at 1560N, 570N

- crossing ora line 750N, 1680N

- crossing line 10N at 2070N

- Grey variably calcareous shale at 10N 2040W

PLOTTED JWM

S_1 = 160/34° = . this may or may not be S_0 - def. calc.

PLOTTED JWM

- abundant int. float 2200 - 2250W on 10N

1:50,000

July 20 — M81113, Δ8153 - Hy NE

Δ8153

S_1 = 125/12° N -

this may = S_0 - no bedding observed in out cutcrop - unit is basal shale & paper shale with carbonaceous horizons which ⇒ $S_1 = S_0$ tops unknown, appears to be non-calc.

Small Fold in S_0 = 45°/13° plunge.

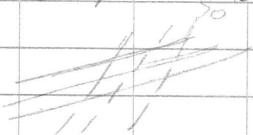
- this would suggest an anticline to the NE

PLOTTED IN 1:50,000

- 15m downstream

S_1 = 185°/24° E

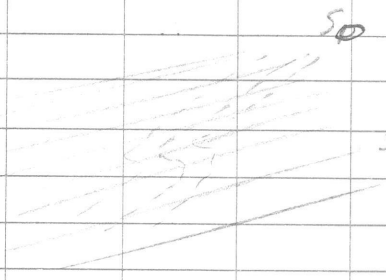
S_0 = 160°/30° E



- well seen in weathered surface.

F_1 = 135/16° plunge

in Face



- this may be clearage transposed.

where shale is dom carbon. tends to clean clay S_0 thus giving different weathering characteristics.

△ 8154. $S_1 = S_0$ 125°/37°

- JDM carb shale - phyllite
- Prob fold with ax. plane & plunge 320°/5°
- same attitudes & unit well exposed but unit may be well within gut unit and close to Green River Thrust.

PLOTTED UNIT 1:50,000

- qtzites that interbed with phyllitic member are well sorted black weathering pink to white, locally qtz veined thickness ≥ 30m
- change in att. across presumed loc. of Green Riv. Thrust.

Δ8155 - 145°/26°E - in Hgp = green-brown phyllites. below Hgq?

Δ8156 114/39°NE = S_1
114 48 SW = S_0
greenish-grey weathering phyllites of presumed Hgp = Jilson's Cp unit - def. not UDM.

July 22/81

M81113, △8157

Warm + sunny.

- traverse starts off Baddy

△8157 - top of pad on ridge top runs south of comp. - small QFP dike ± 10-15m wide - proximal to <DM cherty, silica veined graphitic shale slate - does not appear to be massive. resistant, black to dark brown rust weathering

$S_1 = S_0$? = 345°/45°

plotted IWM

△8158 - carb qtzite on top of ridge - qtzite is either thick bed or dip is flat here.

△8159 - small subcrop of ribbon (not particularly cherty) graphitic shale

plotted

brown to black weathering minor silica veining - unit which directly overlies qtzite (assuming tops are up) & not overturned

$S_1 = S_0$? - 145°/05° NE altitude here is suspect as outcrop may be large displaced boulder.

M81113 - small outcrop in trees as in ⊿8159 - locally spotted shale - see sample

plotted JWM

$S_1 = S_0 = 60°/20°N$

prob $S_1 = S_0$ from compositional layering; outcrop is carbonaceous - not graphitic minor silica veining.

M81114 - brown "chert" appearing unit - not seen before but presumed to be thin unit ~1-5m within ribbon chert shale (carb)

PLOTTED JWM

Sample has small "socks" which are calcareous

PLOTTED JWN

$S_1 = S_0 = 55°/12°$ NW locally at outcrop ribbon shale observed.

- M81115 - "spotted" shale - samples are full of spots - they are no doubt some sort of relict fossil? often completely weathered and occur in parting surfaces also occur as dominantly ovoid shaped in plan.

PLOTTED JWN

- M81116, M81117 - Samples from A81149 - from horizons with ribbon chert unit siliceous in nature with "spotted" appearance. horizon is prob fairly thin and pos.

PLOTTED JWN

discontinuous. - may be indicative of thin interval of the VDM ribbon shale - not observed lower down in section - $S_1 = S_0$

490N/1710W - Small boulder pile of dark-grey brown on fresh surface = dark horizons within uppermost shale unit directly below Baldy Quartzite - numerous Qfp boulders along slope between 5N & 40 ± 1710W

PLOTTED IN

750N/1560W - crossing line (1)

750N/1540W - crossing line (2)

plotted Small outcrop in trees. Spotted siliceous shaly as in samples M81116H17

S_1 = 105/35° NE

L ION
1390W - crossing line.

L 1250N
2150W - crossing line

M81118 $S_0 = 355/20°W$
possible outcrop is sloughed on steep side slope - unit massive chert "shale" well silicified - ± qtz veined
PLOTTED JWM
probable proximity to a VTP alike samples are of qtz veining with minor galena ± sphal. - def vein type mineralization - not localized - veining at random orientations - shitty outcrop. located ≈ 1300N 2150W
$S_0 = 0/35°W$
locally thin random silica veining but overall unit is massive chert.

two samples (MB119)
on massive chert but
on weathered surface show
when chert is bedded
≈ 2-3cm thick when
observed and usually cons.
less in true thickness -
beds often discontinuous &
locally boudins.

L15N
1590N crossing line - above
outcrop is ≈ 225m
up slope from where
L15N crosses ck at 1610W
- massive cherty shale
Float at break in slope.
outcrop just upslope 10m
$S_1 = 50°/42°W$ generally
massive chert shale - locally
ribbon banded graphitic
shale.

PLOTTED
JWM

45

north side of creek

△8159 massive cherty "shales"

PLOTTED JWM S_1 = 45°/45°W

Prob $S_1 = S_0$

south side of creek

DOWNSTREAM 200 m from △8159 possible OC

PLOTTED JWM of ribbon shale S_1: 345°/vert.

DOWNSTREAM 50 m from above - massive

PLOTTED JWM to ribbon bedded cherty "shales" S_0 = 325°/vert

S_1 = 0°/66°E

△8160 outcrop below comp

PLOTTED JWM on north side of ck - mapped before - ribbon chert pebble S_1 = 105°/57°N

boulder? - NO good outcrop just upstream ~10m

START OF NEW TRAVERSE OFF OF RIDGE ON LO AT 1200E.

1981120 sample of med. grey clastic sequence.

L250S
108E - dossing line coming down slope. small o.c. of m.g. grey to dark clastic gtzites.

PLOTTED IN MAP

L250S
1010E - crossing over 2nd L250S

L55
1260E - crossing over line 55

L105
1350E S=120/37° NE = S_1 ?
- clastic sequence of UDM - excellent exposure on line - several narrow guts 10m in depth running at 05° - good exposure - shales interbedded with clastic sequence.
- large exposure just downslope

PLOTTED IN MAP

S_0 (slightly downslope) = 115°/35° NE.
shale horizon line appears to be in excess

of 10-15m wi one bed
shale an ortzn grit clastic
& paper thin well bedded
tops up based on
graded bedding wi qtzites
outcrop extends downstrm
to 1380E.

1480E
1005 shale outcrop v DM
appearing black carbonaceous
shale - looks like paper
shale of other day - wi
creek valley bottom.
~~Bs~~ =5, ~~I~~ : 13°/90° NW

PLOTTED
JWM.

Missing samples

M8107 - ~~M8108~~ (5 + 6 ?)

M-8122

~~8109~~, 10, 11

19

M81121, △8161

July 24 - Kulich, Leja Band & Simpson dirtbagging on Hwy. Roberts & Ward - may.

Dropped off on meadow on ridge south of linecutters camp.

△8161 $S_1 = S_0? = 325/40°W$

small scruffy outcrops on small treeless knobs - graphitic silica veined siliceous shale.

= those with south of linecutters camp. what do get when a siliceous graphitic shale (ribbon chert if you like) is intruded by abundant silica injection dykes? → rocks which predominate the area the amount of silica present may tend to cloud the problem and we are just looking at typical CDM graphitic lithologies which have had a wholesale process of silica mining.

PLOTTED JWM

△8161 - located 1940W, 2100S

△8162 $S_1 = S_0$? 158°/16° NE

small outcrop of graphitic shale very siliceous non calcareous silvery-grey weathering weathers to thin sheets (like paper shale) but not possible minor chert horizons - outcrop is not dissected by silica veining.

PLOTTED MM

Several small outcrops north of L205 at 820W of silvery-grey weathering graphitic shales (this is the ~~same~~ same unit which is dom silica veined.

(3) MB1121 samples.

walking along L205 to 1800W - back into strongly silica veined black siliceous shales -

- these Silica veined intervals are either ① related to the Qfp dyke swarms or ② unrelated and occur as sheet dykes/veins suspect the former - should examine in detail better outcrop in more accessible area - 20N, lineations comp. - several small isolated exposures.

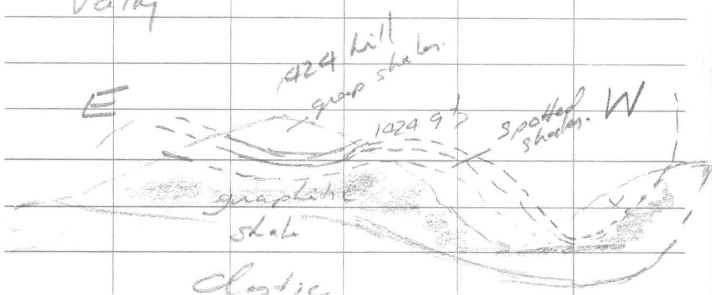
L20S 1800W - leaving line and walking N.E.

BL 1800S - crossing base line

17505 1380W - crossing line.

L20S 1110W 1500 - S_0 = 115/15°W ← NOT PLOTTED black graphitic slate as in silvery grey slate but more massive weathering possibly just flat ter slates on ridge top

Valley



clastic
seq.
with paper shales

Whole structure may have a northerly plunge - but this is not certain. - should then see good section shales → ? clastic grits → paper shales.

are more phyllitic and more siliceous because of the dominance of silica veining.

- Here shales (sample SM81122) appear well bedded & may not matter to a silvery grey. - NOTE the outcrop where the SO measurements taken may be sloughed

Here back shales extend up creek in talus form to about 1750S definite O.C. just around corner downstream.

PROFILE 20S δ = 05°/25°W.

50 paces D.S. - west side - small O.C.

75m. SB162B of lithologies like that near 1424 hill. qtzites with wispy shale (non calc.) and spotted shales + looks like we have to get 1424 lith. down into this

PLOTTED SB162B

150 paces

DOWNSTREAM - graphitic shale with a phyllitic sheen F_1

△81620

Fold axis (abundant parasitic folds in o.c.)

F_1: 205/30° plunge

M81124 FOR GEOCHEM - doesn't have the silty feel that shales upstream have.

- just around corner is a quartz vein 1-2m wide cutting shales at 25°/80° SE - thin ± the probable cause for the local structure - shales are not necessarily phyllitic overall silty as upstream.

overall S_0 = 80°/265 in this region.

PLOTTED

- just downstream from above excellent exposure of graphitic shale. S_0 = 60°/315

PLOTTED

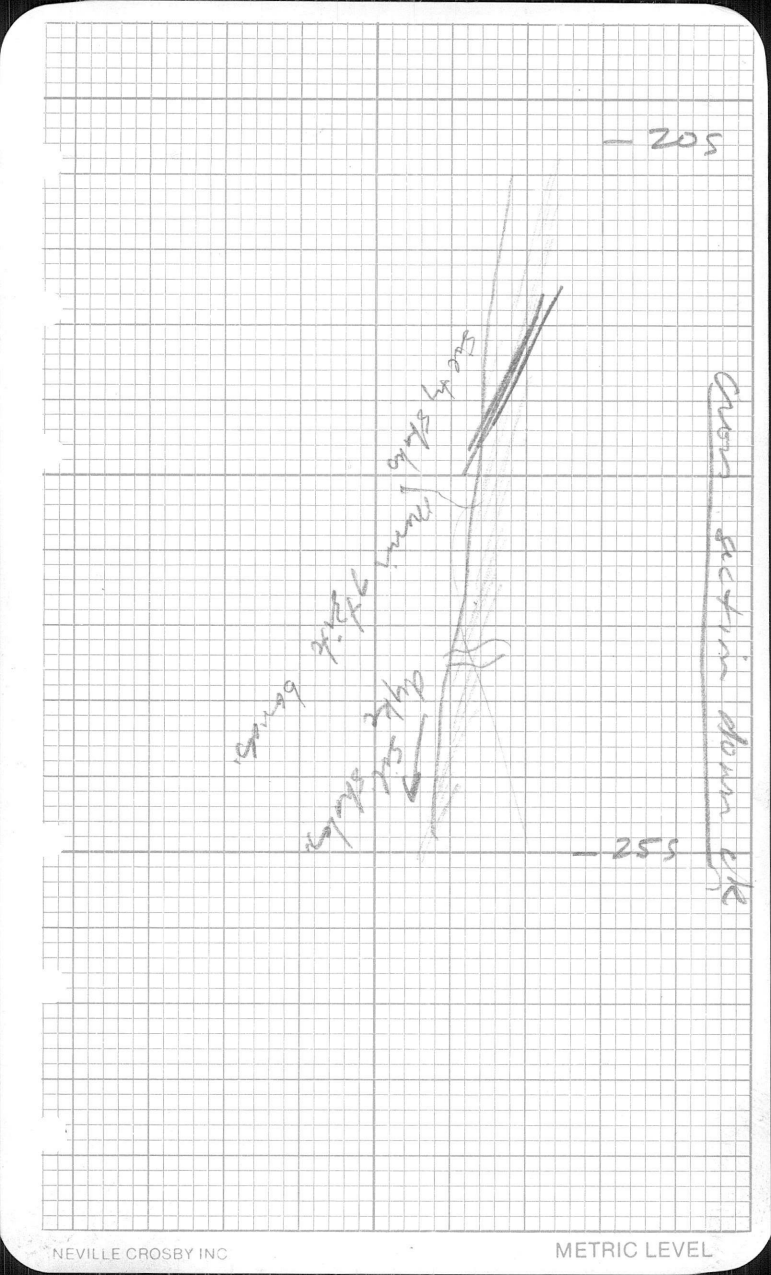
- graphitic shale which may becoming more clastic in composition - many of the laminations contain abundant evidence of weathered out pyrite laminations are 1-5cm - the graphitic shale upstream was much thicker ≥ 75m just downstream good graphitic silty shales.

PLOTTED

$S_0 = 100°/30°S$

DB162D

30m downstream - we have 6m "dyke" of silica dom. black shale region which is a dead region For silica flooded shales everywhere else - we def. conformity relationships


-205
-255

dyke is trending 35° with a steep S. dip.

PLOTTED JWM

Excellent out crop around corner - S_0 = 80°/18° S

10m cliffs - upsection from where silica dyke occurs shales are silicified but not as intensely as in dyke itself

L255/1900N - at base of cliff.

Δ8162E (goes straight up as the arrow indicates)

PLOTTED JWM

S_0 is steepening? - prob local folding

NUMEROUS O.C. BETWEEN 255 - 305.

L305/600N - S_0 = 30°/19° SE

Δ8162F

STILL OUTCROP & STILL WITH Silic. Shale

PLOTTED JWM

- 20 paces down from L305 another "Silica" dyke crosscuts shale at 30°/80° S sample S18/123

dyke here is ≈ 1-3m - but appears to pinch and swell shales do not appear as strongly silica veined as in other instances another dyke going through at 000/50°W - 1m+ oc below ⊥805

somewhere? 81626 S_0 = 140/27°E in PLOTTED JWM Paper shales - as in creek on east side

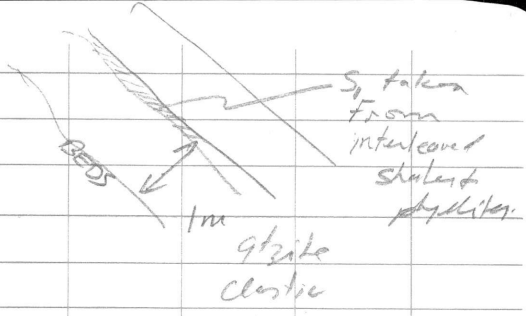
81638 WOW - up into paper shales thence - clastic sequence then thin in strat column that I have walked clastic today

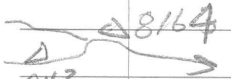
paper shale

graphitic shale

S_0 = 175/50°~~W~~E

S_1 = 120°/30°~~W~~E





△8164 - Dark shale just below - ~~E~~ junction $S_1 = S_0$? ~~<~~ 210/25 ~~W~~

PLOTTED IN M. BL/3600S goes right over at base (inside) of △8163

△8165, M81125

JULY 25/81

in town in A.M.

BARIL, SIMPSON, WARD + KULICH

SOIL SAMPLING Hy. ROBERTS +

LEJA MAG.

△8165 silty Fg. ss. S_0 = 145°/23°

-ton to light brown weathg

silty SS slab - not like

any UDM seen on Hy.

non-calc. ton-orange

weathering

PLOTTED JWM

1:50,000

5-7cm bands of more ss rich

horizons, with interbedded

ss-mica rich (phyllite) horizons

5-10cm in width

calc-Fg. brown to ton

weathg ss in lake shore

& float.

△8166, M81125

JULY 26/81

ROBERTS & LEJA ON HY MAG, SIMPSON BARIL & WARD SOIL SAMPLING HY KULICH STREAM SED HY.

DOUG & JWM COMPILING.

△8166, M81125

July 27/81

S_1 = 240°/35° NE.

ser graphitic phyllite.

outcrops in cc Below Comp

△8166 A Samples From SS.

layers - within phyllites dark grey to black fg. qtzite only vis. clasts are .5mm qtz. (dark) rounded groundmass fine grained - aphanitic composition? 80+% of unit < 4cm/m thin cm scale laminations interbedded with qtzites - pinch & swell over short intervals.

B & Shales qtzite often B contain Feldspar clasts. 1 - ½ mm euhedral light grey fragments ~ 20% of shales thickness Variable. % of fragments variably elongate - note not

not comparable to clastic sequence - thin 1-10cm in thickness

C light-grey-tan weathering, silty, occasional sand-sized fragments thickness .5m thick., laminated (blocky) weathering ± 5-10cm fragments.

- variably carbonaceous shale/phyllite preferentially qtz veined rusty weathering, white-grey weathering where qtz veined predominant. qtz veining small network veining up to 10mm-1m thick at random orientations. locally graphitic - weathers to extended coarse frag. 1cm+ larger

D

Below 10N - 185/45°SW

$S_1 = S_0$? - paper skale

like appearance - S_1 strike

some bat dip unknown.

- upstream when above descriptions taken from.

S_0 : 54/50 SE.

- outcrop 100m upstream.

? 200m upstream from

L10N S_0 = 185°/55°W

- Sample of grit = sandstone horizon.

△8167, M81125

July 28/81

△8167 - this is typical 80-100% veined silicified graphitic shales - as observed over most of property. outcrop is locally 100% silica veined with breccia frag. of graphitic shale the question is - is this Doreys ribbon or massive chert unit? To put it in a category would have to go for massive - but feel this is due to wholesale process of silic.
L12505, 420W

CHECK LINE 10S
770W, 1070W, 1300W
L10N (780W, 660W)

L10S 720N - nothing unusual - graphitic shale detritus in hole - silvery-grey weathering graphitic shale - sample in B horizon.

L10S 780N - as above - took dup. sample from side 1m S and rock chips from both holes for geochem. - bedrock is poor, not too far and would benefit from trenching to explain anomaly.

L10S 840N - Sample in lower A? difficult to separate A+B because of colour imparted by graphitic shales (black) - Sample taken 1m S for a check. No rock chips in holes - but suspect mantle strongly that graphitic silvery-grey weathering shales do underlie here.

L1000W 1020S — sample here on L1000W

L1000S 1020W - good sample in B horizon - have taken one dup. soil and some rock chips for geochem. chips are graphitic variably silica veined shales. Sample site is 15m upslope downstream from dk.

L10S 1080W - original sample here may have contained material from A horizon as it is fairly thick here 2 - 4m duplicate sample taken 1m to north of original sample (dirt & rock geochem) no mineralization seen in graphitic chips

L10S
1140W - sample (original) may be in zone A horizon - making results suspect? duplicate sample taken 1 pr north for soil and AA geochem - graphitic shale chips for AA geochem.

L10S
1200W - original sample looks good - in B horizon. abundant soil chips of graphitic shales duplicate sample (soil) for check.

L10S
1320W - dup sample in black soil - deeper in original hole - graphitic chips in hole

Silvery Grey.

8168 - ① rock shot of S.G. unit on strike with ribbon shale?

② - numerous pits & trench.

O.C at L10S, 1680W

L5N 540W - trace of QFP boulders about L5N to 540W.

3 samples
L10N 780W, 720W + 660W all duplicate in some lots as there was reason to check original assay. Poor soil - prob sampling in upper B & Lower A strongly, poorly drained rock chip geochem from 720W as well.

BL 1740N QFP talus across line between 1680 + 1740 plotted extend to L1N for at least 100m.

in contact with Sil-grey
weathering graphitic clay shales

→ W

1424 ft/sec
Sil-grey
Shales

in dk. valley - between 1555+ 1750
graphitic shale - massive
not silic. $S_0 = 80°/30°S$

△817/ 3 samples of graphitic
shale ① - from
upstream side of dyke
② From dyke & ③ from
downstream side of dyke
picture of dyke

MS81100 - silt sample just
below big outcrop on
/in 305 - small amt
stained area with
small amt of perc.
water.

CATALOGUING ROCKS

M8159 – shaly phyllite phyllitic partings minor limonite staining on fractured surfaces mn-carbonaceous? minor silica veining

M8160-62 Qfp

M8163 typical cherty UDM black shale/slate not noticeably silica bleached but qtz. present

M8164A Grey (greenish) phyllite non-calcareous typical of those phyllites (Mt. Nye looking) in the upper part (middle?) of UDM around Hy.

M8165 - grey-green shale - probable hornfels - proximal to dykes (clasty appearing)

M8166 - clasty-grey shale similar to "clasty" appearing shale present in small boulder pile on 105 east of Mont. camp.

M8165 = M8166

M8167, 68 - examples of intense explosive brecciation + silicia veining.

M8169 - intensity of silicia veining + brecciation decreasing. - represents proximity to intrusive dykes. siliceous (qtz) shale ⇒ qtzite - possibly a fine grained eq. of the clastic sequence.

M8170 "siliceous" appearing shale - not terribly siliceous - more of shale affinity.

M8171 - good example of of chert bearing UDM - moderately (10%) silica veined.

M8172 - again excellent sample of black, chert bearing UDM sequence.

M8173 - Fine grained interbedded grey-black qtzite

M8174 - as m73, more a phyllitic component.

M8175 - as m74 - more a qtzite than phyllite or shale.

M8178 - 3 samples of UDM "black" shale one of which is relatively clean.

M8179 - cherty silica vein w DM shales.

M8180 - wDM black shale sequence - siliceous - fine grained grey chert clastic (very fine grained) texture - minor compositionally banding - appearance of stretched clasts, carbonaceous but not graphitic typical texture + colour of clastic sequence observed to the east.

M8181 - QFP dk tan to brown weathering light tan to white.

M8182 - Sample of extreme silica injection + fracture mineralization of wDM black shales.

M8183 - tourmaline bearing QFP - similar to that around camp.

M98184 - in hand specimen this appears to be like some of the carbonaceous slates & phyllites observed well within the UDM sequence on the Hy, see sample from LO ≈ 900W?

M98185 - m- to F-grained clastic black shale - like that observed on east side of N-S running ridge on LO - carbonaceous - black, massive bluish(?) white grs clasts. - this would indicate that M98184 is part of the phyllitic sequence within the clastic package.

M98186 - float only chert pebble conglomerate of UDM black clastic sequence. Light fragmental components but dark chert pebbles present. Compare to M98146 - similar in comp.

M98186B - Siliceous shale of JDM = very fine grained qtzite of the clastic sequence massive but shaley appearing in outcrop.

M98187 - grey weathering, white qtz - Feldspar porp.

M98188 - dark-black - (Fine grained qtzite) black shale sequence. - possibly much of JDM in this region of Hy consists of a sequence of fine to med. grained? qtzites - does not appear "chert"

M98189 - Bag of samples from sloughed area in contact with QFP dyke to the east - hornfelsed samples - note absence of silica veining in samples - none observed in float in exposure.

M8190 - two samples of good shale sequence in UDM - carbonaceous but not graphitic. well excellent compositional layering samples would make very good stabbed sections (Zinc ZAP?)

M8191 } samples from brief
M8192 } traverse around Hook Lake

M8193 - NO sample

M8194 - grey well foliated shale with (phyllite) with good bedding preserved on weathered surface - UDM looking

M8195 - } samples of grit
96 } clastics within UDM sequence - similar to much of outcrop on SE of property. med-fine grained - Feldspar flecks + qtz.

M8195 – one sample of phyllitic slates within gritty QDM (clastic) sequence similar to phyllites observed within clastic seq. on N-S range 20-1200E.

M8132 m-g. to f-g well laminated "clastic" quartzite dark grey to black.

8133A c-g. clastic - Feldspar grains dominant qtz grains rounded to subrounded

33B as above more matrix me grained

M8134 - poorly laminated sample of above. grey-green.

M8135 dark phyllite inter-bedded with clastic sequence.

M8136 c-g. clastic lith proportion of white qtz rounded to angular lithogeneous

M8137 c.g. clastic sequence. silica veined. bluish grey rounded to angular qtz fragments in black to grey matrix

M8138 As above.

M8139 - as above m.g. possible detrital mica

M8140 ① m.g. clastic sequence. rounded to ovoid qtz & Feldspar grains.

② mature qtzite.

M8141 clastic sequence with sample of interbedded phyllitic shale

M8142 c.g. Feldspar qtz clastic

M8143 Vari sil. grey to black shales interbedded within clastic sequence.

M8144 m.g. - c.g. clastic sequence.

M8145 - Shale interbedded in clastic.

M8146 - qtz-chert pebble cong.

M8147 - chert / light grey shale semiten unit overlying 1424 qtzite.

M8148 - m.g. - f.g. well sorted qtzite - Silica veined = 1429

M8149 - spotted shale which overlies qtzite 1429

M8150 - m.g. - c.g qtzite of 1424 affinity.

M8151 - phyllitic shale non-calcareous striped shale - distinctly diff. may overlay grey Van Calc. Shale

M8152 - F.g very well sorted slightly laminated light brown to tan qtzite

M8153 - m.g. - c.g. qtzite
silica veined sometimes
1429 qtzite but green
in overall color - unlike
1429 in this respect.

M8154 - green shale - Hgs
M81100 - Bear Pass
M81101 - Bear Pass

M8196 interbedded papery shales in clastic seq.

M8197 - H_{gss} - well laminated well sorted F.g. non-calc.

M8198 - Vari calc, c.g H_{gss} immature.

M8199 - Silt paper shale unit non-calc - good sample because it usually weathers to thin shards.

M81100 } Grit + Rubbish
M81101 }

M81102 - sample of 1424 gdzite

M81103 - Grey shale, Vari calc.

M81104 - N.S.

M81105 - PAPER SHALE

M81106 (See DP8155) For notes.
- calcareous phyllite within
Paper Shale Sequence.

M81107 Carbonaceous horizon within
paper shale sequence. looks
more like graphitic shale sequence

M81108- Cal phyllite within
unit 81107 prob equiv to 81106
brown weathering - outcrop totally
Fucked - possibly close to Green
River thrust.

M81109 } Samples of calcareous
M81110 } glzite which are
prob typical of Hg - some
as calc glzites observed
on DSH traverse,

M81111A - Calc clastic glzite = UDM.

M81111B - Sample of basic QFP dyke

M81112 - Float of grey
wispy shale

M81113 spotted shale / grey shale van. calc

M81114 - "

M81115 - spotted shale - det. what spots are in this unit

M81116 - spotted shale

~~M81117~~ - one sample is of sandstone matrix/silt + one is of spotted silt shale

81117 spotted shale

M81118 - samples of massive / silicious chert unit with PbS as vein mineralization.

M81119 - massive chert unit

M81120 - light grey sample of clastic sequence

~~M81112b~~

M81121 - silvery grey graphitic shales

M81122 - graphitic shales

M81123 - sample from with "slice" clasts

DJ ROCKS.

△8169, 1981125

July 29/81

Kulich + Baird - clean-up
limestone comps Roberts
Lajoie Island packing for Bear
Ass. Wood + Simpson
shoothing.

△8169 - L105/1710- outcrop. Lime
mS silvery-grey weathering
graphitic shale - leading
south this is the first
cc. that is not marginal
altered by silica veining
other than some effect
(see photos)
S_0 = 325°/30°W = S_1?

△8170 1429
S.S. qzite on L105
S_0 = 310°/10°W
qzite 2 5-6cm in true
thickness when exposed