006722

traverse on BUOB KNOB Aug 1/78

Δ~~B~~ Δ401 S/c of red grey to black carbonaceous slates and phyllites, abundant Qz veining, locally Rusty weath. Much evidence of defm — minor folds, lineations locally well-dev. cleg.

Δ402 O/c highly sheared pale grey green, v slightly calcareous sl pyritic, buff to red rusty brn weath f. grained lapilli tuff.

plana fabric (Bedding?) 043/34 SE good

lineation (wrinkles on S, surfaces) @ 062/16 good

Δ403 black carbonaceous ^siliceous slates w/ phyllitic partings locally sl rusty weath

Bedding @ 120/06 NE good

S, pervasive cleg @ 092/82 S good

S1/bedding intersect lineation @ 091, exc

Δ404 thinly bedded siliceous, non-calcareous, sl rusty weath black slates

Bedding (overall) @ 172/66 W good

S1 (ax pl of minor fold) @ 102/17 SW good

F1 (axes of mesoscopic fold, λ = 3m, Z varg, exc) @ 159/05 (fair)

Δ405 thick bedded to massive, med grey-brown weath, med to dk grey siliceous dolomite, locally w/ abundant QZ veining

Bedding @ 057/15SE ex.

Δ406 massive med brn weath DOLM w/ abundant QZ veining

Δ407 massive sucrosic white fine to med grained BA, locally w/ irregular stringers of CA and traces of PY. No SL or GA noted.

Δ408 (just below - N of - Δ7) thickly interbedded massive sucrosic BA as in Δ7 (Δ8b) and f grained thinly bedded white to cream limestone (sample Δ8a)

Bedding @ 130/40SW ex

Δ409 (EK) thinly bedded, blocky weath, sl. calcareous, med grey brn weath, med dk grey QZ SSTN, X bedding well dev in float samples

Note PBZM-39 is @ T/L OS 15W

Note T/L OS is @ 124-125°

Δ410 rusty orange weath, massive blocky weath, pale grey green to cream, sl to mod pyritic lapilli tuff.
Bedding not recog.

Δ411 Rusty weath variably pyritic sl. chloritized pale greenish grey lapilli tuff

Bedding @ 171/55 W poor
S1 @ 146/11 SW fair-good.

Δ412 as above, locally v. pyritic
Planar fabric @ 091/46 S (ex)
probably bedding - similar to other beddings nearby

Δ413 as above
Bedding @ 090/70S ex - defined by pyritic laminae

Δ414 as above
Bedding not visible
S1 (cleavage w/ almost mineral orientation) @ 039/25 SE ex

Δ415 as above
S1 @ 074/44 SE ex.

Δ416 as above
S1 @ 034/36 SE ex

Aug 2/79 — Transition Ridge N 5 E of BNOB

Weather: CAUM -- Hazy (smoke)

△418 black sil. slates w/ phyllitic partings
Bedding @ 112/32 SW (ex)
S_1 @ 125/59 NE (ex) (still dom. on B alog)
F_1 recumb folds (λ = 15 cm, 2 wvg) @ 115/00
// S_1/bedding intersect (gd)

△419 as above
Bedding @ 063/33 NW (ex)
S @ 091/30 N (good)
SIX bedding (// wrinkles in bedding surfaces)
@ 198/35 (ex)

△420 thin to med bedded rusty calcareous dk grey, rarely grey brn blocky wacke w/ Qz SSTW, locally w/ abundant Qz/CA veining, locally w/ narrow millibeds of highly veined pink marble
DOLM
Bedding @ 111/19 NE (ex)
X-bedding shows tops are up (fair-good)
Picture taken — ≅ X-bedding alog strike 200°
< of foreset beds @ 053/40 NW good

△421 large slumped blocks of bioturbated (worm burrows) black limestone
Unit overlies Qz SSTW, underlies pink brn rusty DOLM

GSW 79-176 BA

d/c mostly weakly variably pyritic felsic lapilli tuff (unit 17-a) w/ massive bedded BA (GSW 79-176) in float nearby
Bedding attitudes (as plotted on map) define a large S-fold (facing S) w/ $\lambda \cong 15$ m
BA unit is bounded on both sides by th. felsic tuff & is $\cong 10$ m

- note small fold axis defined in BA sample

Note — L24 is on a bearing of 125°

L28 crosses old geochem picket line @ 17W
old line bears 002½°

Δ422 thinly bedded sl. rusty weath. black slates w/ phyllite partings

Bedding @ 136/42 SW ex
Si @ 132/44 NE ex
Si x bedding @ 135/01 ex

Δ423 fault contact between black siliceous slate w/ phyllite partings & much QZ veining (to NE) and massive red hem-stained weath. DOLM w/ much QZ CA veining
Fault not exposed (inferred between O/C ~ 10m apart)
" trends ~ 140°
Bedding in black slate @ 018/18 E ex
" " massive DOLM @ 079/77 N ex

Δ424 thin to med. interbedded fine-grained sucrosic DOLM w/ much QZ CA veining (buff weath) and fine-grained buff weath non-siliceous QZ SSTN

Bedding @ 072/27 NW ex
Joints Sets @ 170/90 & 158/50 SW ex (both @
Pervasive possibly to well dev. cleavage @ 030/72 NE ex (Si)

Δ425 Black slates, fault bounded against massive DOLM to the SW. Si pyritic, chloritized, spty green flow (sill?) along the fault trace (samples)

Δ426 thin to med. bedded purplish-grey weath. DOLM w/ inferred QZ-CA veining
Bedding @ 129/41 SW ex

Δ427 thin bedded black slates w/ phyllitic partings

Bedding @ 009/12 E ex
Si @ 138/49 NE ex
Si x bedding @ 065/28 ex

Traverse terminated Thierprough Aug. 3/78

Δ428 black siliceous slates w/ phyllitic partings w/ various interbeds of highly siliceous buff (w/ whitish spots) highly sheared lapilli tuff
Bedding @ 142/55 SW ex
Si @ 125/85 NE ex
Si x bedding @ 302/11 ex

Δ429 as above, no tuffs.
Bedding @ 108/19 NE (ex)
Si @ 104/37 (?) (good)
Si x bedding @ 282/05 fair

Δ439 (cEb) — Sl calcareous med brn lapilli tuff overlying sl. to highly pyritic, v. rusty weath felsic lapilli tuff (in S/C only)

Bedding @ 148/49 SW ex.
S₁ @ 110/07 SW Fair to good

Aug 4

Δ440 — O/c v. siliceous rusty weath black shales

Bedding @ 080/23N ex
wrinkle on bedding surface @ 095/07 ex
S₁ not seen

Δ441 — rusty weath sl. pyritic felsic tuffs

Bedding @ 040/84 NW good
S₁ @ 052/63 NW good

Δ412 — massive Barite, locally pyritic & v. rusty weath
Bedding @ 032/65 NW ex
prominent jointing (1/5 cm) @ 008/90 good

Δ413 — massive med to coarse grained dk gray brown extrusive (or flow). Blocky, buff to med gray weath

Δ414 — L72S 4W
Large sub angular to subrounded boulders (to 3 m diameter) of serpentine w/ abundant MG and veins of PY. Rx are med green, rusty weath
Boulders distr. from L72S 4W to L68 ~11 W

Traverse on Ridge ⇔ Seagull ⇔ Aug 19/78
& McConnell R. (Matt Gull, JDJ)

Weather: CAVU

△855 massive blocky weath, locally sl pyrite, coarse grained syenite

△856 highly sheared f-grained Qz-Ms schist/phyllite. Locally sl pyrite & rusty weath. planar fabric well dev. (5) @ 130/78 SW lineation (mineral stretch) @ 210/68 ex crenulation banding, not weath. Co
Locally w/ clear Qz "eyes" to 1cm dia
Probably sheared felsic tuff

△857 coarse grained agglomerate clasts of cs. pyr syenite to 15 cm dia in a pale brown matrix, rather blocky, massive weath.

△858 massive med grained cream white syenite. May be felsic phase of intrusive, or sill, or dyke.

△859 thin bedded v. f grained med gray brn tuffs or tuffaceous chert. Tr Sk, Bedding not meas.

△860 massive med to coarse grained syenite as in △858. Probably blanketed/sill/dyke

△851 massive highly veined buff to grey weath DOLM & massive carbonaceous fine grained quartzite

Apparently overlies HDMs
Bedding not meas.

△852 fine grained, med gray brn X cutting dyke, ~ 3 in wide
NO — is fine grained Qz-Kspar cstn w/ Calcite cement
Grains are well rounded

△853 thinly bedded, locally rusty weath

Bedding @ 135/30 NE ex
Boudinage axis @ 123/81 NE ex

854 fine to v fine grey thin bedded cherts

Bedding @ 160/18 E ex

△861 thinbedded f-grained pale grey tuffs and tuffaceous cherts, sl rusty weath

Bedding @ 032/14SE ex.

lineation on bedding surfaces @ 129/00 ex

△862 as above highly cleaved

compn banding @ 085/25S ex
clvg @ 147/11SE ex

△863 as above, w/ minor felsic tuff interbeds

Bedding @ 098/62S ex
lineation (Bedding X S.) @ 122/00 ex
S, notes.

△864 interbedded pale grey sl pyritic tuff and black shales (m S/C) overlain by massive to thickbedded fine-grained med grey brn tuff.

Bedding @ 156/42NE (poor-fair)
lineation @ 060/41 (ex)

△865 massive blocky weath, coarse-grained
a&b syenite Vague compn banding defined by relative conc of micas
About 30 m wide (# ridge) zone of coarse grained syenite w/ abundant mafics, to lamprophyric xenoliths to 0.3m. [illegible]

△866 thinly bedded cream to tan to pale grey cherts and tuffaceous cherts

Bedding @ 088/43N ex

△867 as above, w/ interbeds of med brn, noncalcareous tuffs (or f-grained flow) and minor siltstone

Bedding @ 110/42NE ex
clvg @ 095/47N ex

△868 black to dk brown highly cleaved slates w/ minor interbedded med brn tuffs.

clvg @ 130/29NE ex
bedding notes.

Outcrops North of Aug 19 traverse Aug 20

Weather: high broken overcast, light wind, cold

Δ869 highly deformed, locally sl. rusty weath black slate & phyllite.

small bedding (platy/phyllitic partings) @ 073/095 ex

clvg @ 114/30NE ex
wrinkle lin. ∥ bedding XS. @ 096/00 ex

Δ 870 med grey-green weath sl. calcareous, highly sheared lapilli tuff.
Underlies slate @ Δ869
Bedding @ 116/41 NE ex
clvg @ 150/26 NE good

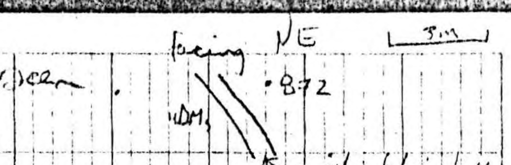
Δ871 Rusty weath black slate & phyllite

Bedding @ 132/64 SW (ex)
clvg @ 122/27NE (ex)
wrinkle ∥ Bedding XS. @ 132/00 (ex)

Δ873 thin bed of v. pyritic v. rusty weath felsic tuff, overlain by dk green, med grey green mafic vole (as in 872), underlain by black slate. massive sulphide BA in sub rounded boulder on black slate float nearby
Bedding @ 112/33 NE good

Δ872 massive med grained med to dk grey green sl pyritic volcanic (flow or sill)

No pillows seen.



Δ874 thinly bedded, well cleaved med brn to med grey green, non-calcareous tuff
Bedding @ 108/10 NE good
clvg @ 119/45 NE ex

Δ875 vein SL & GA w/ much HZ coating med brn lapilli tuffs which locally also have HZ coating
Occurs at top of uDMs unit
(old Kane Hill trench)

Δ876 sl rusty black siliceous slates

Bedding @ 057/60 SE ex
clvg @ 084/30 S ex

Δ877 thinly bedded siliceous phyllites
Look like Kechika, but is siliceous & non calcareous

Bedding @ 120/90 ex

cren clvg @ 118/39 NE ex

Lithon axis (& mag) @ 118/05

Δ878 v. rusty weath highly pyrrhotitic pale to med gray green siliceous tuff or chert.
Blocky weath.
- no bedding visible.

Δ879 SDg. massive cream to buff fine grained non calcareous QZIT (?)

Δ880 as in 878 - apparently unmodified above underlying SDg.
Locally med grey green - prob chloritized siliceous tuff.

Δ881 fine grained trachyte (syenite)
- prob same intrusive body as 878 & 880

hopper topping
near Grayling Lake. Aug 25/78

Δ882 massive sl pyritic non calc, med [illegible] brown andesite or lapilli tuff

Δ883 carbonaceous, variably calcareous (mod. to highly) phyllite (QZ-MS schist)
compn banding overall @ 165/68W fair
cren clvg well dev @ 042/35 NW ex
lithons @ xes @ 325/26
(s verg)

Δ884 pale green interbanded f. grained limestone and calcareous QZ-CL-MS schist
overall compn banding @ 138/82 NE ex
cren clvg @ 090/23N fair
lithon & minor fold axes @ 324/31 ex

Δ885 thin to med bedded cream coloured pale grey weath f grained LSTN
Bedding @ 100/26 SW ex

Δ886 as above w/ interbands of pale grey green highly calcareous QZ-CL-MS schist
Bedding @ 121/68 SW ex
minor fold (λ = 1m, S verg)
@ 117/02 ex
cren clvg. poorly dev in schist @ 108/25 NE
good

△887 buff weath, med grey to fn dolomitic QZ IT

Bedding @ 068/30NW ex

△888 uEOsl bing phyllites, buff - med grey wall locally sl carbonaceous

Overall compn banding @ 124/62NE good

dug @ 082/05N ex

Lthons & minor foldaxes @ 288/02 ex

(Z vary)

Aug 14th

Mountain E of EROS (across valley)

Grass stained cold

1003 med to thick bedded pale tan to pinkish brn f grained sandy dol ls w/ narrow interbeds of fine to med grained black gtz sltst

Bedding @ 136/50 SW ex

1004 tan to red grey weath, med to pale brn and grey brn v. calcareous phyllitic siltstone and limy phyllite Has interbed ~ 10m thick of a purplish brn weath, med to dk grey phyllite - not noticeably carbonaceous

So 115° (comp bedding) @ 020/24 SE ex

much deformed by later warping

1005 red grey to orange tan weath red grey brn limy phyllites

comp layering) S. @ 133/52 NE ex

intruded by non foliated K-spar porphyry (hbl monzonite) dyke @ unknown orient

1006 contact between limy phyllites w/ large (to 1m thick) gtz lenses on the E and flaggy weath med grey to red brn. thin-bedded calcareous siltstones. In phyllites So 115° @ 119/45 NE ex

The flaggy calc. siltstones have pyrite porph blasts to 2mm dia one in narrow bands w/ [illegible] @ 153/47 SW ex So @ 110/62 N ex

much buff gtz in the flaggy siltstones

1007 black siliceous phyllites w/ narrow inter bands (0 to several cm) of f. gr. med grey siltstone. Also a layer of felsic, pale to med brn weath lapilli tuff

$S_0 // S_1$ @ 103/27 N ox

uDM + Mut - as in EROS drill core

ANISE claims : Aug 16th/80

low overcast

1008 sl. to moderately rusty weath, sl. to mod calcareous carbonaceous phyllite & f grained schist

compn banding // S_1 @ 020/10 NW ox

1009 black phyllite as above w/ narrow (< 30 cm) inter bands of sl. rusty weath mod. calcareous biotitic, med brn meta tuff(?)

compn layering // S_1 @ 015/43 NW ox

L_2 cren. wrinkle lineation @ 253/42

1010 non calc, rusty weath., carb phyllites as above w/ narrow (< 1 → 8 cm thick) inter bands of sl. calc. siltstones that are sl. paler grey than the bulk of the rock.
Much calcareous drift on the OK

compn layering // S_1 @ 060/19 NW ox

- a well dev. cren. lineation (L_2?) dev. on S_1 surfaces @ 272/19 ox

1011 thinly inter layered calcareous dk. rusty weath carbonaceous black phyllite and fine grained siltstone and dk gray and white striped med grained marble.

Si // compn layering @ 152/77 W (ex)
@ bottom of o/c

and @ 013/20 NW (ex)
@ upstream side of o/c

1012 black med grained micaceous marble w/ disseminated pyrite blebs to 2 mm diameter.

compn layering // Si @ 037/30 NW ex

- unit has a mottled texture (patches of pale gray carbonate to 0.5 cm dia in black groundmass)
- Pyrite concentrated in white to pale gray marble bands
- locally boxwork after pyrite is present — euhedral cubes to 1 cm diameter.

1013 non calcareous black phyllite. Contains both narrow lenses (< 3 mm thick) of pyrite and pyrite cubes to 1 cm dia.

So not visible
Si @ 079/35 NW ex

1014 thinly banded massive weath. med grained dk gray and white striped marbles, locally silicified.

Si // compn banding @ 019/25 NW ex

1015 thinly inter banded pale tanned green calcareous chloritic metavolcanic and cream, rusty weath med grained marble. Rare interbeds of rusty weath non calc black phyllite
Si // compn layering @ 033/40 NW

1016 interbedded (scale of < 1 m) med green highly calcareous chloritic phyllite, brn weath highly calc. metavolc and highly calc carbonaceous black phyllite

Si // compn layering @ 005/30 NW ex

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1017 thinly bedded cream and dark grey rusty weath mod. grained marble w/ black phyllite partings and highly calcareous pyritic black phyllite

S1 // compn layering @ 076/23 NW (ex)

1018 pyritic highly calcareous ±ms phyllite (rusty weath) w/ abundant qtz veining interbedded w/ marbles as above

S1 // compn layering @ 090/37 N good

1019 dk rusty weath non calc, carbonaceous siliceous phyllite

So // compn layering @ 025/ (ex)

1020 dk rusty weath non to mod. calcareous black phyllite w/ abundant qtz ± carbonate stringers

S1 ——> @ 012/19 NW ex

1021 bluff fmd. rusty weath dk micaceous felsic metavolcanic or v. siliceous qtzite

S1 poorly dev @ 031/13 SE (ex)

So not visible

1022 dk calcareous rusty weath black phyllite. Poorly defined siltstone layers

S1 // compn layering (faint color banding) @ 049/27 NW (ex)

appears to strict. overlie the qtzite

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ANIKE claim. Aug 17th

Low level clay, occasional sun, occasional rain

1023 Basalt fine toned grained massive weath pink and green mottled syenite

vaguely foliated (flow texture) @ 093/64S ok

1024 Large rotated blocks to 3 m dia (S/C) of chloritized pyritic fine to med grained syenite Med brn weath dk greenish grey fresh. Non-magnetic

1025 Large rotated blocks (to 5 m dia) of as above, w/ diffuse zones of finer grained basaltic(?) syenite - v. dk grey brn fresh

- prob metasomatized syenite. % it occurs within 10 cm of as grained unaltered syenite

1026 massive as gr. of pyrite, med pinkish brn syenite

1027 Ferricrete cementing large sub-rounded boulders to 2 m dia of dk green massive chloritic metavolcanic, massive rusty-weath chloritic as gr. magnetic; and med grained pyritic syenite.

- are these the cause of spot magnetic highs? - probably

1028 as grained locally rusty weath pyritic pink to creamy brown syenite Massive. Pyrite occurs as cubes to 1 mm diameter both disseminated and as fracture fillings. No other sulphides present

1029 v. rusty weath v. pyritic as grained syenite. Pyrite fills fractures in the rock. Fractures are randomly oriented, has appearance of a "shatter-zone" Only Pyrite is present, no other sulphide

1030 rubble pile of large (to 2 m dia) subangular boulders of sp altered metavolcanic (intermediate to basaltic comp), locally sp concentrations of magnetite and/or pyrite (see sample)
U. rusty red to med green weath

1031 magnetiferous and pyritic metavolcanic as above; in part appears to show relict igneous texture — may in part be a v. highly chloritized felsic intrusive — possibly (but not likely) Mus. sygnite

1032 thin bedded pale grey brn to dk grey siliceous phyllite (meta argillite?) in angular S/C. Nil Pyrite, rare carbonaceous

1033 massive to well foliated, med green to brn weath magnetiferous chloritic metavolcanic. Dark green on fresh surfaces.

foliation (S_1) @ 084/74 N ax

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Between Seagull Lake & Headwaters of McDonald R. Aug 19th /80

1051 massive med grey brn to pinkish brn weath dolomite
Bedding nd visible

1052 med to thick bedded med grey brn sandy dolomite and dolomitic fine-grained quartz sandstone
Bedding (S_0) @ 055/37 E (ex)
$\leq$ (?) locally vertical @ 050/48 SE (ex)

1053 thick bedded dolomitic qtz arenite with sandy dolm
Bedding @ 052/39 SE (ex)

1054 sheared phyllitic qtzite. Dk grey. May be in part a quartzose siltstone. Maybe basal Askin or possibly Pool River — Askin thrust sheet sliding on passable Pool River — layer?
S/c only.
also in S/C is a foliated pale to med grey green pyritic metavolc — Pyrite cubes 1 to 2 cm dia — probably Mt

1055 thin bedded f grained pale grey weath dolomite qtz schist and non dolom black qtzite. Bedding on a scale of centimetres — has ribbon banded appearance

Bedding @ 080/50S ex

- Askn

1056 sheared pale green to pale rusty brn weath felsic lapilli tuff.
- all rotated blocks

1057 poorly foliated sl rusty weath med grey brn lapilli tuffs and minor pale green volcanic Xea

foliation @ 081/78S ex

1058 blocky weath non foliated med brn weath meta lapilli tuff.

very dense rock - almost looks like an intrusive, but shows good clastic texture

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1059 med grey brn lapilli tuffs, locally sl rusty weath

S_1 @ 078/78S ex

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Ridge E of Anse   Aug 22/80

low hanging clag, occasional heavy rain showers.

~~Hoboe~~ Snowing !! after 11 AM !!

Note connecting cut line from Anse to Bid (Line 112) bears 072° along S edge of Bid grid

1060 massive med to dk grey weath variably chloritized f.g. to med cs gr syenite

1061 massive cs grained syenite as above

Note lines from NW corner of Bid grid as follows

B/L 40W 965 is corner
also base line 104 picketed

B/L @ 162° crosslines @ 072°

1062 cs. grained med grey-green hbl-bearing biotite syenite
Massive, ~~tool~~ blocky weath

1063 med rusty brn weath either highly altered syenite or feldspat felsic lapilli tuff (probably the latter)

Sk only. If tuff, it is forming a very small "patch" on the surface of the syenite body

1064 fine grained rusty brn weath qtzite or felsic tuff. Play'd in part hornfelsed (is within 10 m of syenite contact) Abundant qtz - carbonate veining, locally w/ cs grained pyrite or galena.

Bedding (defined by faint banding on the weath'd and preferred ledge surfaces) @ 089/26 S ex

1065 bleached med to dk grey lapilli tuff. matrix is gl. carbonaceous. Rare black slag-like clasts are present.

Foliation (S) @ 050/40 SE ex

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1066 poorly to moderately foliated, pale to med grey green weath, med to dark grey green meta-ss or meta volcaniclastic. May be a highly chloritized version of Mvt
All in shmpl blocks

Very abundant qtz ± ferroan carbonate veins + veinlets well present in talus.

1067 talus and S/C of rusty weath qtz-carb vein material as above, plus silicified and/or recrystallized block phyllite, fine grained sideritic ± pyritic rocks, peat plus dark to med green meta-volc as above appears to be a skarn assemblage near the syenite body

1068 S/C pale to medium grey phyllitic siltstone or fine grained tuff

in nearby R/O SI @ 126/43 [illegible]

1069 foliated/sheared medium weath lapilli ± crystal tuff or possibly sheared syenite — probably tuff.

SI @ 088/46S ex.

1070 med grained pyrite syenite pale grey to med grey-brn weath. Massive and foliated. Pyrite occurs as irregular blebs and as cubes to 2 mm in diameter

1071 stripped pale to dark grey calcareous siltstone [illegible] pale grey siltstone [illegible] and white weathering thinly laminated siltstone. In S/C only.

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ridge east of Arse. Aug 25/80

Note B/L 0+0 W 43+50 S is flagged — located @ 4430'

1072 sl. sheared cs. grained pink syenite (f grained hematite) Rare qtz grains to 2mm All rotated blocks, many with slickensided edges

1073 O/C of sheared syenite. Degree of shearing varies considerably and irregularly across the O/C. Some parts are cs grained, relatively unsheared equigranular syenite with ~ 5% chloritized mafics other parts are strongly sheared fine grained (recrystallized) masses with local development of meta muscovite on the shear surfaces. The finer grained rocks tend to be slightly greenish throughout

2 samples

Foliation (approx) @ 090/52 N good

1074 massive equigranular syenite w/ trace euhedral pyrite and no qtz. content of chloritized mafics is increased — to ~20%, giving rock a mottled green/pink appearance. Mafics appear to have been hbl and were interstitial to cs. grained Kspar

Note △1074 is on a bearing of 062° from BL 0 W, 43+50 S ~100-150 yds away

1075 equigranular med. to cs. grained syenite as above w/ ~10% mafics.

Much Mat tuffs and tuffaceous cherts (?) coming down in float from above

1076 Thinly laminated (bedded) cream to pale green to med grey v. siliceous phyllites and phyllitic qtzites (meta tuffs and interbedded tuffaceous and cherts) Strongly foliated (poorly dev. lithons locally visible). A later crenulation wrinkle (L_2?) is present on the phyllitic surfaces @ a high angle to the S_0/S_2(?) direction. S/C only

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1077 tuffaceous phyllitic qtzites meta tuffs and sheared phyllites as above in S/C. Carbonaceous phyllites becoming increasingly abundant

1078 contact between phyllites and Mvt tuffs as above w/ fine grained chloritized syenite. Also large subangular blocks of highly chloritized mafic (?) or intermediate (?) volcanics occur as rubble. Locally highly pyritic v. rusty weath zones within the f. grained syenite near the contact. Actual contact covered by rubble

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W of Seagull Lake (on road)

1079 med to thick bedded buff to pale grey massive dolomite and dolomitic sandstone

Bedding @ 052/31 SE ex

appears to directly (conformably) overlie limey phyllites

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1080 limey phyllites & phyllitic silty med grey limestones (thin bedded) with med to dark grey volcaniclastics as highly sheared volcanic interbands

all in slumped blocks

1081 limey phyllites directly overlying uDM black phyllites in LCP's △ 1241

So/S1 @ 063/10 NW good.

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DUKSBAK WATERPROOF

Ridge E of Anise — Aug 26th
CAVA - abd
no wind

1082 pale to dark grey, sl. rusty weath phyllite and phyllitic siltstones

So (bedding) @ 000/29 W ex
S1 (F1) @ 145/38 SW ex
↖ penetrative foln, no lithons visible
F1 fold intersect (F1) @ 208/32 ex

1083 as above but more thinly laminated — cream to dark grey. Some beds sl. brown and granular in appearance — probably tuffaceous

So @ 075/47 NW ex

S1 not dev.

1084 massive sl. granitic, sl. rusty weath, equigranular as previous syenite — ~ 10-15% mafics. Less irregular mafic border zones — much chlorite, much epidote — hydrothermal alt'n of syenite? Pale green-frost. Rusty brown weath

1085 contact between is grained felsic syenite (<5% mafics, sl. rusty weath) and thinly bedded (bedded) metasediments as in 1083.

Contact is a steep fault, marked @ 003/76E (ex) w/ steep slickenside @ 035/65 (ex) — can't work out sense of slip

Bedding in seds @ 155/29 SW ex

Beds of chert pebble and cobble conglomerate to 1m thick (pale grey to black chert frags, subangular to rounded in dk grey matrix are interbedded w/ the metased

1086 massive, locally sheared chert pebble cgln. Clasts to 4 cm diameter, sub-rounded, pale grey to grey green frags in pale grey green lithic matrix

Occurs just above upper contact of syenite on E side of fault

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1087 cs grained felsic (< 5% mafics) syenite in contact to east (in S/C) w/ highly carbonaceous phyllite

1088 pale green sheared f. grained syenite or felsic metatuff in S/C

1089 massive pale green fine to med. grained syenite ∴ Pervasive green color (epidote?) in addition to <5% dk green chloritized mafics.

1090 red to dk grey banded siliceous phyllite and phyllitic pale grey siltstones

- all rotated blocks

1091 as above. bedding @ 078/56 NW ex

S1 not visible

1092 Askin thick bedded massive pink dolom and thin bedded dolomite qtz sandstones.
bedding @ 142/27 SW ex

Appears to be in the stays fault contact to E w/ uDM v. carbonaceous shales.

fault trends 160° ± 10°

1093 badly mangled slab sitting structurally
3 samples below the Askin @ △ 1092 dipping v. gently to the NE. Consists of f. grained metabasite w/ very vague pillow structures; biotite recrystallized ultramafics w/asbestos; fine grained diabase, and v. rusty weath qtz-carbonate rock. This unit structurally overlies uDM black phyllite. The meta basic pod is approx 100-150 ft. thick.

1094 v. thinly laminated crossbedded sl to moderately calcareous medium to dk grey siltstones w/ phyllitic partings. Musk calc. druse on weathered surfaces. X bedding shows tops are up (see sample)

Bedding @ 126/05 good.

prob uDM, not Askin

1095 S/C sl rusty weath non-calc black phyllites.

uDM

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1096 rs grained pale to med grey marbly
up/ schistose (muscovitic) partings

V strongly deformed by F_2 – cont gel
sense of original bedding
S_2 crenulation cleavage well dev'd @ horizontal
Lithon axes @ 105/00 ex
(convergence of lithons & F_2 minor
folds)

Askin

1097 mid dk grey banded rusty weath siliceous
phyllite V. blocky weath

Much deformed by F_2

S_2 @ 125/17 NE good

L_2 (F_2 axes / lithons) @ 121/00 fair

1098 phyllitic pale grey to buff weath f. grained
marbles and highly calcareous phyllite
locally looks somewhat like 1095,
but on the whole the unit is more
typical of Askin

Pervasive S_2 @ 082/46N ex
L_2 (lithons) @ 085/00 ex
Nearby O/C of sl phyllitic marbles – S_0
@ 102/56S ex

1099 phyllitic f. gr. grey marble – Askin
assoc w/ pink weath massive
dolm (in S/C)

Pervasive S_2 @ 112/41N ex
L_2 crenul^n wrinkle
@ 087/00 good

go to 1300's

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August 13, 80 LCD

ANISE GRID

1128. 155 ft N of L48

Pale green musc-chlorite phyllite with elongate brown weathering spots - presumably pyrite. Former tuff.

Further along 250 ft massive greenschist Unfoliated

H/l as subcrop

1129. 50 ft N of L40

Subcrop to roadcut outcrop

Noncalcareous dark grey phyllite with thin light grey siltstone to quartzite bands

Minor massive totally altered either dyke or flow. Granular texture. Now green & white spotted.

S_1 ftn 160/90

S2 cren clvge 005/10E

Next outcrop to N is coarse volcan. clastic Carbonaceous lapilli tuff - coarse pyroclastic volcanic black shale.

Lower contact with Kechika appears to be conformable. No major problems with tracing it and no major looking breaks.

By ANISE CLAIMS

1134. Small subcrop trenching on N side of road.

Dark grey to black, noncalcareous phyllite Flt surface S_1 weathers to a light silvery sheen. Looks like reasonable UDM Phyllite contains minor thin pyritic siltstone bands.

1135 Continuous subcrop along side of roadcut UDM noncalcareous dark grey to black phyllite Contains thin pyritic siltstone bands Only rarely see any light green metavolcanics

S_1 ftn 105/30S

S2 cren. clvge 83/70S

lin F.A. on S2 crinkle 268/15

1136. Roadside debris & possible subcrop now consists of ASKIN Buff weathering dolomitic sandstone

1137 Small slope subcrop in stream gut. Silvery weathering UDM black phyllite.

AUGUST 16, 1980

ANISE CHAINS – walk stream

1138 Small stream outcrop. located at B/L 30 21 S

S1 flow 165/35W

S2 crenulation 105/50S, 90/60N

Lin L2 – F.A. on microfolds 270/30

Medium grey-green schist Minor qtz eyes & qtz veining. Weathers to a light silvery green sheen. Muscovite-chlorite. Contains qtz-brown weathering ferroan calcite veins and stringers.

Contains large coarse-grained pyritic nodules – up to 8 inches long.

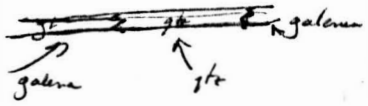
Metavolcanic of UDM. Looks volcaniclastic in appearance but cannot see individual clasts or fragments. Very schistose for massive volcanic. Grey color may indicate some carbon input (i.e. detrital).

Pyritic nodules roughly elongate subparallel S1

Strong S2 crenulations present

1139 N of L24 by 100 feet - outcrop extends to 150 N of L24. Located between 32W and 33W Small knob in stream valley All same rock type - May be very large boulder?

Fine-grained, massive, sandy dolomite Dark to medium grey when fresh and weathers to a light tan. Abundant qtz veins - milky white quartz. Also have veins with galena + minor pyrite Galena both on margins of qtz veins & extending into (& through ?) quartz veins Galena veins are thin - often subparallel - appear to be structurally controlled In one spot seen galena laterally from qtz to galena



Galena veins crosscut earlier qtz veins

1140. S1 foln ≈ So 125/50S
S2 crenulation cleavage 140/30 NE
S3 crenulation cleavage 40/70SE

Dark grey, noncalcareous phyllite with thin bands of very pyritic, slightly muscovitic qtzite. Qtzite weathers to a pale silvery-green-white sheen.

Looks to be MORB phyllite with thin metavolcanic bands within it

So ≈ S1 Strong crenulations associated with later folding of S1

Phyllite also contains thin bands of pyritic siltstone which weathers to limonite brown

1141. Massive, foliated & sheared syenite intrusive. Probable dyke. At this location also got float of large boulder of pyrite - marcasite (?) No foln measurement taken

1142. Several small outcrops on sides of hills & by stream. Essentially - to me - all look like intensely weathered & sheared intrusives.

Massive weathering light-colored-whit to pale cream. Variably foliated with foliation tending to be along zones. See more micaceous appearance & less massive appearance in these zones.

Variably pyritic. In places appears to have very large pyrite nodules. (up to 6" long)

Filtn is only poorly developed. In all cases it appears to be very steep.

filtn 140/65S, 139/73SW

One thin band does seem to be dominantly gtk. well developed slickensides 242/72

1142A Southern half of last (southern) outcrop becomes very muscovite-rich & foliated. Forms a muscovite phyllite/schist. Contains cross/cutting fuscous calcite veins

sl Filtn 95/75S

Intrusive? or flow?

1143. Medium to dark grey phyllite. Weathers to a light silvery sheen. Does not look like 1142 material. Would call this metavolcanic. Contains cross-cutting brown weathering calcite veins

1144. Dark grey fine-grained equigranular mafic diabase. Plag + mafics. Massive - no readily visible filtn. Contains disseminated pyrite

located 545 feet N of LINE 56 West of Line 23W

Aug 17, '80 LCP

Anise Claims

1145 Massive medium- to coarse-grained, equigranular syenite intrusive. Not excessively sheared or mangled like other outcrops further north.

1146. Subcrop on hillslope at stream level. Massive, unfoliated intrusive. Mainly grey feldspar with evenly disseminated limonite-coloured blotches — these were either pyrite or heavily weathered mafics. Shearing not noted. Same as the last few stations (lithology)

1147 Hillslope outcrop 50 ft west of baseline between L 54 and L 55 — closer to L 54.

Similar to previous stops. Massive, poorly foliated to unfoliated intrusive. Noncalcareous except along weathered fractures. Medium-grained. Mafics totally weathered. Grey to pinkish feldspars.

1148. 200 feet West of B/L – L 51. Outcrop on both sides of stream.

Same intrusive syenite rock type. Massive to only poorly foliated. Minor muscovite present. Consists dominantly of light grey to white feldspar (??). Minor mafics which weather to limonite brown.

Dominant joint surface 135/80S

1149. 250 feet south of L 56 on 32 W. Series of ridge outcrops in west side of stream valley.

Same intrusive syenite. Med to med-fine grained. Much more rusty-weathering on exposed surfaces — almost universally covered by brownish limonite patina. Contains coarse grained pyritic nodules. Strong jointing 125/65S.

Outcrop 75 feet long toward S

1150 Same intrusive syenite type. Coarse-grained. Dominantly leucocratic minerals.

1151. Poorly exposed subcrop of same intrusive syenite. Coarse-grained

1152. Small hillside subcrop of intrusive syenite. Medium grained. Grey matrix with limonite weathered spots.

1153. Medium grey strongly foliated intrusive? Looks similar to previous stops only much less weathered. Contains minor grts — some has subtle blue tint. Dark minerals elongate along foliation. Appears to have 2 foliation directions

ftln 45/70 S

125/60 S * S1

Miarolitic cavities are filled with grts

Medium grained equigranular

1153 cont.

After seeing some float on stream, I consider this a clastic rock. Contains black chert grains — streaked out in a light grey matrix. Minor amts of blue grts also included.

S1 is orientation of plane in which black chert grains are flattened.

1154. Banded phyllite. Color banded in shades of medium & dark grey. Individual bands are ½" to 2" thick. Mtl noncalcareous. No siltstones noted

So lying 5/35W

S1 ftln 115/30S 130/30S

Lin So on S1 230/35

1155. Small hillside step. Dark grey to black carbonaceous siltstone. Slightly calcareous. Pyritic — weathered surface has overall limonite brown color.

S1 ftln 80/10S

1155 cont.

Galena-carbonate fills fractures in siltstone. Coarse-grained galena. Some large fractures contain randomly oriented foliated phyllite angular fragments.

1156 Massive to thick bedded, dark grey, fine-grained dolomite. Abundant qtz and carbonate veining

ASKIN ?!

Not extremely rusty-weathering so the fractures are not mineralized.

Fracture — possible S_0 90/305

1157. S_1 fltn 70/30N

Non-calcareous grey phyllite to siltstone. Color banded. Rocks very similar to # 1154 Interbanded with another lithology which is either

① lapilli tuff
② sheared syenite

Minerals or clasts are extremely elongate in S_1 Dominantly light grey to pink with minor dark grey. Also contains minor blue mafic-bearing qtz grains. On walking around o/c — parts look intrusive and parts look extrusive. Dark grey reminds me of clasts at # 1153

Medium-grained

Abundant milky white qtz veining —

1158 Large fine-grained greenschist — appears to be boulder/float. Dominantly chlorite with some amphibole(?) Color is bright pale green

1159. S_1 fltn 10/30W

Pale silvery green, non calcareous siltstone Contains minor dark grey carbonaceous partings Presumed metavolcanic.? Fine-grained. Weathered surfaces (fractures?) are limonite orange-brown colored.

1154 S, 145/45NE

Pale silvery green musc > chlorite phyllite. Noncalcareous.

Just below this have massive pyrite-magnetite.

Aug 19, '80 LCP

McConnell River Chopper Hopping

1178 Medium dark grey ribbon-banded limestone. Weathers to a light grey color. Each layer ~ 1-2 inches thick layers separated by thin more pelitic bands - also dark colored. * 155/65W ~

So lying ≈ S1 flts 160/80W

Not like Vangorda - looks more like Road River from Quartz Lake area

Abundant carbonate veins - white

1179. So bedding 50/255

Thinly banded platy strike to ribbon-banded strike. Light grey to dark grey black Interlayered with dolomitic sandstone layers up to 1 ft thick Also some very thin flaggy material

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1180 S1 flts 135/40S

Non-calcareous very thinly banded light grey-green schist looks to be slightly higher grade than previously encountered Locally very pyritic

locally can see a few very stretched, elongate fragments Would say MVT volcaniclastic

S2 crenulations cleavage 110/55N

Also massive, fine-grained pink metavolcanic Has thin elongate chlorite + white qtz ? - feldspar? amygdules or phenocrysts

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1181 Deep maroon, fine-grained, equigranular metavolcanic Massive - no readily apparent flts Pyrite with disseminated splotches of limonite Abundant qtz veining

1182 MVT

Pale green to brown phyllite. Pyritic with abundant limonite spots. All rubble/subcrop - no outcrop noted. Looks like coarse tuffs Dark colored fragments present in phyllite. Flattened on S1

1183 So bedding. 105/15S

Thick bedded to flaggy dolomitic sandstone Contains brown coral fossils Minor disseminated pyrite

Flaggy material is medium dark grey limestone with abundant siliceous partings It weathers to a very dark brown

1184 UDM black phyllite with thin rusty-weathering siltstone layers

Sg /tn 65/30S

S2 cren cluge 95/45W

Numerous siltstones - about 1-2 inch spacing

F2 fold have W vergence.

Graded bedding & flame structure in siltstone indicates TOPS DOWN

1185 Massive dark green equigranular metamorphosed volcanic Feldspr + mafics

Feldspar form coarse, randomly oriented microlites. Not a diabasic texture.

Minor disseminated pyrite

Ridge where dropped off summit of pale green massive metavolcanic MVT

No internal structure noted

= fault break

1186 Ferro-crete limonite cemented clasts of different rock types Deep orange-brown color Occurs just above gossan No outcrop

1187 Rubble – no o/c

Noncalcareous dark gray siltstone. Contains thin, rusty-weathering pyritic bands. Weathers to a light gray color. Just a little too coarse grained to be a phyllite.

Looks like feasible UOM

Platy weathering

No

1188 S_1 f/the 140/05 S

Black, noncalcareous phyllite. Minor disseminated pyrite. Thin rusty siltstone bands in float

UOM phyllite

1189 S_1 f/the 90/40S

Pale silvery gray-green phyllite

Muse > chlorite. Thin grey bands mark S_0 bedding. So dips south at a steeper angle than S_1

Lunch break

Aug 20 KCP

Traverse just South of McConnell River – east of Seagull Lake

1190 S_1 f/the } forgot my
S_2 crenulation } compass !!
Boo hiss !!

MVT

Rusty orange-brown weathering lapilli tuff interlayered with massive pale green chloritic phyllite. Tuff consists of flattened white fragments in a pyritic fine grained matrix.

Strong crenulation cleavage runs ~E-W and is near vertical. Tuff dips gently ~20° to the N say about 120/30 NE

Massive pale green is dull green. Equigranular. S_1 present but not a schistose rock. Contains large pyritic nodules. Weathers to smooth massive 'cliffs' looks more like a possible dike. Contacts are not visible. Have lapilli tuff below it on ridge to NE

1191. Came down ridge through section of lapilli tuff + grey phyllite + massive fine-grained dull green phyllite (dike material). Again looks like equigranular pyritic altered dyke. Green phyllite form most of outcrop on ridge as come down

Minor chlorite mottling with green phyllite. Minor dark grey interbanded chert

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1192 Equigranular medium-grained mafic-plagioclase dyke.

Early part of walk from last spot dominantly black chert locally brecciated. Minor grey chert, massive flow, lapilli tuff All brown-weathering last half of walk consists of black phyllite chips interlayered with brown-weathering metavolcanics.

No good outcrop - all rubble.

1193 Black phyllite chips in float up to this point. Small outcrops of black phyllite here Phyllite locally pyritic Noncalcareous Thin siltstone bands present.

UDMs

S_1 dips gently toward the South about 20°

$S_1 \approx 60/205$

S_2 crenulation cleavage trends ≈ 80° and dips steeply N ~ 65°

Encountered 2 thin intervals of massive pale green flat-type sometimes porphyritic

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1194. Silvery-weathering light grey phyllite. Color banded with light and dark grey - light grey predominates. Contains thin bands of pale brown weathering siltstone.

All of these lithologies are noncalcareous. Looks similar to Vangorda but -

① very phyllite rich

② noncalcareous

Pale green tint to the light grey phyllite

Strong S2 crenulation cleavage
$S_1 \approx S_0$ approx horizontal here.
S2 dips steeply to N.
S_1 may have very gentle dip to S
$S_2 \approx 90/55$ N

Aug 21, '80 LCP

1195 Banding - comp. f/t_n 160/75 E in dark green differentiated feldspar / chlorite layers. Former igneous diabasic texture.

S_1 f/t_n variable - black phyllite con. clvge 65/60 NW

Lowermost otcp/roadcrop dark green chloritic phyllite. Abundant brown weathering calcite veins. Occasionally contains clasts or sheared igneous texture. Interbanded with fine grained light green chloritic phyllite — probably mafic meta tuffs.

As go uphill up road - get more igneous textures.

Then into interval of MVT light silvery felsic tuff interbanded with dark green — and then into black phyllite.

Dark green a slightly coarser grained than MVT. Obviously more basic composition

than usually encountered in UOM - MVT

1196. S_1 f/t_n 120/7 S

Black to dark grey phyllite UOMs

Small roadcrop

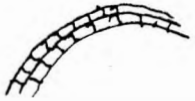
1197 S_1 f/t_n 145/30 NE

UOMs black (dk grey) phyllite

Aug 22, '80 LCP

Traverse on mtn tops around east side of ANISE CLAIMS Scattered low clague with high level clouds

1198 S_3 Minor fold — Can see a crenulation clage wrap around this fold. looking NW



FA 318/20
AP 105/65 N

S_1 fltn 75/22 N

ASKIN GROUP —

fissile, platy weathering dolo slightly dolomitic sandstone with thin dark grey phyllite partings. Partings about 2-3 mm spacing. As go higher in section get thicker, more massive dolomitic sandstone

Dike of pale green, equigranular Mut type with scattered large pyrite cubes.

lyring generally dips up to the E
S vergence to S3

1199. Same fissile dolomitic sandstone as at last station. Dark grey phyllitic partings. Abundant S3 folding noted on way to this location.

S2 crenn clage 75/20 N

More massive ASKIN seems higher up the cliff

S1 fltn 70/30 N
S3 crenn. clage 130/40 NE
85/65 N

1200 S_0 lyring 118/30 N
S_1 fltn 103/20 N

Massive, thick bedded dolomitic qtzite with thin phyllitic interbands.

Underlain by the platy fissile ASKIN like at the last 2 stops.

Contact between these 2 rock types occurs at 5000'

Minor amts of crinoids in upper unit

Down gully at 4900'.
Contact between platy ASKIN (above) and Black phyllite (UDMs).
Platy ASKIN at this location is on hinge zone of S1 fold. Lying at a very high angle to S1 fltn
So lying 178/86W
S1 fltn 20/20W
Eastern vergence to S1 fold
F.A. orientation 0/13

S1 bl phyllite 175/25E

Outcrop between down gully to 4720'
4800' → 4900' Noncalcareous
Black phyllite with minor thin MVT bands.
MVT not well foliated - more massive in aspect
Lower part of interval includes dark grey to black ribbon-banded ~~chert~~ chert.
4800' → 4720'
Massive dark brown weathering syenite. Blocky outcrop without a well developed foliation
Contains large pyritic nodules which weather orange
Upper part of the interval may well be regular MVT

Presently I'm being snowed on!

1201 Massive blocky to smoothly rounded large outcrop
Dark green equigranular intrusive that a poorly developed fltn. Extremely chloritic Contains disseminated pyrite - cubes & some streaky aggregates
Chloritic mafic - platy intrusive — hence a syenite.

Note - Bedding on ASKIN at top of hill to North dips moderately to the East — ~30-40°

1202 Coarse-grained sheared & poorly foliated intrusive. Dominantly pale feldspar with minor chlorite blotches. Just to east across small gully rocks consist of MVT Very pyritic metavolcanics interbanded with light colored cherts.
S1 fltn 133/52NE

1203 MvL.

① Pink chert with thin dark grey bands.

② Coarse to fine volcaniclastic tuffs — thin outcrop has fragments up to 3-4 cm in diameter.

③ Very pyritic volcanics or volcaniclastics — weathers to strong orange brown - difficult to tell original rock type.

④ Massive pink volcanics with the pale green phenocryst aggregates — like the material noted on Mt Misery.

S_1 fltn ≈ S_0 lying 30/255E

1204. S_1 fltn 95/30N

MvV.

Rusty weathering fine-grained metavolcanics interbanded with minor black phyllite

Abundant evidence of late plane folding — axial plane cren cluge 105/70N

F.A 100/07

Rock types include pale pink, micaceous metachert (??) Pyritic spots abundant on weathered surface looks very similar to the smashed syenites located on Boise claims

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1205. S_1 ^ S_0 60/40S

S_3? cren cluge 85/65S

MvV.

Dominantly pale to dark grey siliceous to tuffaceous chert. Minor brown weathering metavolcanics. Chert thinly bedded. Can see isolated S_1 folds - no sense of vergence. Some bands are slightly more pyritic.

Chert forms unit that caps the ridge.

1206 S_3 cren. cluge 105/80N

S_1 fltn 70/35S

Syenite

Outer part dominant feldspar - coarse grained equigranular texture. Overall

color is dull pink.

Inner part (i.e. #1206) consists of dark green hbl-plag. interlayered with brownish weathering layers. All units show S_1 & S_3 ftk.

Brownish weathering looks like very flattened lapilli tuff — may be extremely sheared syenite. Contacts between 2 types are not totally sharp. Also see pale green to pink chert & tuffaceous chert.

Could interpret as syenite with screens of chert & metavolcanics at margins.

1207 Fault zone right through this location. Dark green hbl(?)-plag syenite to the west. Contact to east with greatly broken & brecciated pale brown to brown rock. Either a feldspar-rich syenite or a coarse grained volcanic/clastic of MVT. Does contain minor amounts of massive fine-grained pale green MVT volcanics.

Brown rock contains qtz grains — indicating probable sedimentary detrital origin.

The dark green plag-mafic syenite also involved in the fault zone.

1208. $S_0 \approx S_1$ 70/155

S_3? Crenulage 135/5W S_2 ??

Black phyllite + massive MVT + foliated pale silvery green MVT. Massive MVT has pyrite cubes up to 1 inch across. So contacts for these units are parallel S_1 ftn.

These MVT units are overlain by a massive fine-grained dark green chloritic phyllite. Unit is very well foliated. Can trace this continuously back to Unit at Station #1206. Suggest that highly foliated green phyllite is border phase of a very unhappy & deformed syenite.

#1209 Same contact as with previous stations. Light green MVt lying underneath fine-grained, very dark green massive, metavolcanic. Generally metavolcanic shows no internal structure Locally have a bit of chlorite mottling One sample as magnetite stringers within it.

This contact continues as outcrops down the ridge toward the South

S_1 ftw 90/40S ≈ So

1210. MVt unit.

Interlayered pale green metavolcanic tuffs and light to dark grey phyllites. Presently on a phyllitic section which is color-banded in greys and browns. More dark grey phyllite as go lower in elevation.

$S_1 \approx S_0$ 85/24S

Good part of section consists of light & dark chert. Can see isolated F1 fold hinges

Open warp undulation close S_3
100/78N
Has south vergence

Open close 135/42NE possible S2?
West vergence to minor fold - open warping

1211 S_1 ftw 25/45E

Northern margin of massive weathering large block outcrop

Overall appears to be a felsic, coarse-grained feldspar >> mafics sheared intrusive. Also have some small screens of metasediments. Mafics → chlorite Weathered surface is white to pale pink

Note - this unit differs from the one higher up on the hill (#1206)

Unit here weathers with a very knobbly, rough, holey appearance. Get layers which are mainly feldspar separated by thin chlorite bands

1212 Syenite?

Massive knobby weathering, fine-grained - dominantly chloritic schist. Locally contains abundant feldspar. Fltn present but not readily visible.

To me it seems like a hard rock to classify as intrusive.

See screens of metasediments. - dominantly metachert although locally phyllite as well.

1213. Good syenite at 5300' on way down.

Now have Mvt. Dominantly thinly banded cherts. Colors are greys & pinks & pale greens.

S_1 fltn ≈ S_0 120/25 NE

Minor softer brown weathering volcanics

Just downslope at 5140' — back into crumbly ugly feldspar-rich syenite.

Massive weathering - overall pink color

1214 S_1 fltn 120/60S

Strongly foliated feldspar-mafics syenite. Mafics all altered to chlorite. Contains nodules & veins of calcite - these weather out leaving a swiss cheese appearance.

Came down through fine grained green to grey massive rock. Could be altered & mixed up syenite. In places I could convince myself of an equigranular texture - in other places it looked more like a fine grained metachert

August 24, 1980

Chopper hop W side of Seagull Valley

UOM

1215 Medium to light grey banded non-calcareous gabbro. Graded bedding based on grain size. Also non-dolomitic.

Also have abundant grey phyllite chips in soil.

All is rubble outcrop on road No measurements

ASW

1216 Si /bn 55/10NW

Thinly bedded, platy siltstone to fine sandstone Abundant grey phyllitic partings. General weathering to rough platy surface which is orange-brown (pyrite)

Noncalcareous even when powdered

1217 Si /bn 002/15W

hiney phyllite – very finely interbanded brown weathering carbonate & grey phyllite.

Also two bands of green chloritic phyllite

Calcareous

Cren. cleav 120/80N

Dyke of dark green to brown equigranular syenite? mafics + hbl.

1218 Askin dolomite – light tan weathering Abundant fractures filled with gtz. Massive – no readily visible So bedding

Sand content ranges – wacke to dolomitic sandstone

1219. Rubble subcrop at top of hill Dark grey to black, noncalcareous phyllite looks like good UOM

Possible Si /bn 110/30S

Thin rusty siltstone bands present

1220. Pale tan weathering, thin bedded ASKW dolomitic qtzite.
So bedding 160/45E
Also some very thick bedded ASKW — therefore both fissile & more massive variants

1221. Dominant S2 fltn 150/10S
Limy phyllite with green chloritic phyllite. Strong S2 fltn.

1222. S1 fltn 10/25E
Limy phyllite. Silvery grey weathering phyllite with thin carbonate bands. Phyllite locally noncalcareous.
Contains massive, fine-grained dark brown dyke. Not the usual metabasite types. Could well be later NOM type dykes

1223. Thick bedded massive ASKW Qtzite. Grey when fresh - weathers to brown tan. Noncalcareous even when powdered.
So bedding 160/20W

Continue with ground traverse on East side of ADISE — in syenite valley

1224. Coarse-grained plag-mafic syenite. Equigranular. Uphill at 5800 feet elevation first encounter fine-grained, medium grey, slightly calcareous metavolcanic. It is massive & break with conchoidal fracture — possible dyke. Syenite has small screens of MVT.
As go downhill in syenite mafics start to gradually disappear. Left with fine-grained white-weathering rock. Broken & brecciated. Mafics possibly altered to chlorite. Fltn much stronger at bottom of valley
S1? fltn 55/50S

1225 Massive fine-grained, brown weathering syenite (?) No readily visible mineralogy. Has sharp angular corners when broken. Fresh surface is greenish gray. Brown color results from weathering pyrite

1226 Silvery brown weathering noncalcareous metasediment, fine-grained. In places looks like I can see fragments. Interbanded with darker "green" — chlorite with K-feldspar lyers & augen. May be a coarse tuff or a porphyritic intrusive, or metavolcanic with large phenocrysts — augen are oval.

S, f ltn 78/505

1227 MVT thinly banded silvery phyllite & brown lyers. — banded on a scale of 1-4 mm. Strongly foliated

S, f ltn 83/505

1228 Possible subcrop. Massive, aphanitic, brown-weathering. Scratches with hammer. Either fine grained intrusive or massive MVT

1229 Medium to medium-fine grained equigranular intrusive. Plag + mafics. Looks brecciated & broken. Color is dark brown. Locally looks similar to syenite at station # 1224 — generally looks like a darker intrusive

1230 MVT on east end of outcrop. Syenite only at far W end where stream takes a jog. MVT is coarse lapilli tuffs — silvery weathering with large clasts.

Syenite is dark equigranular plag-mafics. More foliated towards margins.

S, = 100/305

1231 At 5300' on hillside
Dark green to brown plag + mafics equigranular syenite No readily visible S_1 fltn like last stop

August 25th, 80 ICP
Ground traverse on East side of ANISE
Snow in high country

1232 Medium-fine grained syenite
Pyritic with brown-weathering spots. Dominantly feldspar (K-feldspar?) with minor interstitial mafics — now chlorite.
Can see a poor fltn. $S_1 \approx 85/57N$
Looks very similar to syenite in ANISE valley

1233 Medium-grained intrusive. More mafics than last stop — overall rock has a green cast.
Equigranular Feldspar + mafics with minor pyrite. Smooth, massive weathering
Mafics interstitial to feldspar
Irregular calcite veins & stringers
Minor screens of MVF
Looks ~~for~~ similar to intrusive at #1224

1234 Altimeter says 4900'

Contact between syenite (east) and MVT (west)
Syenite more uniformly green — strongly sheared-foliated. Can see relict feldspar in matrix of chloritic laminae. In places becomes difficult to recognize that parent was equigranular intrusive rock

S1? flttn 58/305

S? (3) cren clvge 86/80 N

Have augen rock in chlorite matrix. Looks in this case like matrix has a relict equigranular intrusive texture. It can have large pyrite cubes

MVT shows extremely strong — widely spaced crenulation clvge.

orient 75/25 N

Between clvge planes are 2-4 inches. Also more closely spaced crenulations within that

Lowermost outcrop at 4850' (altimeter)

Qtz-brown carbonate veins in MVT

1235 Cren clvge 90/63 N

S1 fltn 92/325

MVT ??

Difficult outcrop. Crudely layered between silvery green & brownish weathering phyllite. Green from chlorite layers. Brown color results from weathering pyrite.

On east end looks like finely well layered MVT. On west end can see more of a granular texture so that it looks more like a sheared pyrite feldspar intrusive. Greenish bands cover larger surface area on west side

Slightly further downstream. Looks like MVT clastic fluff to lapilli tuff. Contains apple to dark green, fine-grained fluff (chloritic phyllite) bands.

Downstream at 4700'. Large boulders (?) of massive, medium green volcanic. Look very similar to material on hill at Stop # 1209 Occurs with MVT

1236. 4700'

Mvt outcrop

S_1 flttn 90/30 S

Silvery interbanded with brown phyllite. Contains minor units of medium green volcanic or volcaniclastic. Texturally almost identical to green at ≈1206. Only minor out exposed. Does not appear to be massive like further up the hill.

Strong crenulation cleavage present in this area.

1237 Mvt Silvery green & brown interculated phyllite - Metavolcanics

S_1 flttn 145/15 SW

S_3 cren. cleav 100/50 N

S vergence to crenulation cleavage

Minor bright green chlorite (?) spots in the Mvt phyllite

Carb stec flattened fragments

1238 S_1 flttn 120/35 S

Mvt phyllite (west) contact syenite intrusive (east)

Syenite med. to fine grained, massive weathering. Composed largely of feldspar - chlorite content varies which causes rock to have different shades of grey to green. Chlorite forms wispy lamellae around feldspar grains - defines the S_1 fltn.

The feldspar augens in feldspar + chlorite matrix occurs at the contact between the two rock types.

Just uphill at 5100' Syenite is in contact with coarse grained ultramafic - looks like a harzburgite. Dull green - knobbly weathering. See small stringers of the finer grained syenite in the ultramafic. Outcrop not extensive enough to take it anywhere.

1239 MVT? Phyllite - silvery green matrix with dispersed pink augen. Augen are reasonably small - up to 1/4" or so. Phyllite shows excellent S_1 fabric

S_1 fabric 60/255

Augen weather pink-brown with numerous small holes (weathered out pyrite?) Size & number makes it look like volcaniclastic in this case

Scattered black phyllite float as continue down ridge

4400' abundant sericite intrusive float

Continuing on West side of ANISE CLAIM Road geology

1240 UDM gray to dark gray lithic wacke Medium to coarse grained. Includes abundant light off-white felsic, fine-grained clasts. Some gets coarse enough to be almost a conglomerate

S_0 bedding 65/505

Also some dark gray phyllite

1241 Series of roadcuts of UDM. Black shales & lithic wackes interbedded with the lithic & chert pebble conglomerate. Rounded gray & black chert pebbles. Also abundant light felsic lithic fragments and shale rip-up clasts within dark gray phyllite and within the lithic wacke. Some lithic clasts look angular rather than rounded. Rare pyritic nodules weather with brown spot

1242 Roadcrop. UDM dark gray phyllite with rusty weathering siltstone layers. Also some coarse lithic wackes

S_0 bedding 60/90

Graded bedding in siltstone indicates tops to to the East

S_1 foln 90/555

1243 Uphill at 5000'

Limy phyllite. Silvery phyllite interbanded on small scale with calcareous siltstone. Reacts well with acid

S_1 fltn 150/14SW

S_3 crenulage 126/80N

lin cluge on S_1 313/00

Small dyke in limy phyllite. Aphanitic – sometimes with brownish phenocrysts. Fresh surface is grey with slight green cast. Weathered surface grades to brown. Is calcareous – fizzes feebly readily with acid. Contains small disseminated pyrite cubes

↓

looks like it could be Mt Lyell feeder

Contains the S_1 fltn.

1244 Med. green strongly foliated metavolcanic. Contains coarse biotite

S_1 fltn 115/46N

Strongly chloritic. Contains rounded grey felsites or phenocrysts which are slightly calcareous. Fits for Vanguard

1245 Dark grey phyllite. – UDM

Noncalcareous

S_1 fltn 65/10NW

Contains thin, rusty-weathering siltstone bands

Aug 26, '80 LCP

Ridge just S of McConnell River

1246 S_1 ftln 105/25S

Noncalcareous, thinly banded medium grey phyllite. Thin siltstone bands which weather to a rusty tan because of enclosed pyrite. Compositional banding on the order of 1/4 inch to 1/2 inch. Noncalcareous even when powdered.

Does not look like the Vangorda I know. Looks similar to # 1216 uPMs

So subparallel S_1

Just downhill - go into very soft white weathering talcose rock. Large biotite flakes present in white matrix. Contains large pyritic nodules like MVT.

Then into rusty, angular massive meta chert or gtzite. Very dark rusty red-brown weathering. Then into typical ASKIN lithologies.

Rusty weathering may be ASKN - or may be WCM metachert.

1247. S_0 bedding 82/355

ASKIN of different colors from white to cream to rusty brown. Thick & thin bedded. Marble & gtzite. In this location have grey marble with thin micaceous partings. Partings are not common.

1248 ASKIN dolomitic gtzite.

Very rusty orange weathering. Extensively fractured & broken. So bedding not readily visible. Looks extensively recrystallized so can't readily see individual sand grains.

Just above a few hundred feet have outcrop of the grey phyllite

1249. Northern contact of med. grey silvery phyllite of # 1194. Contact is fault - sharp and near vertical looking as it crosses topography to the southwest.

Units as go North

① Coarse to fine-grained dark green (meta) intrusive. Extremely punky — weathers to a very punky orange-brown soil. Originally locally very coarse biotitic. Now chlorite + serpentinite

② White talc-bearing serpentinite Contains rounded + angular clasts of the green schist. These often appear to have a reaction halo

③ Thin interval of very fine grained soft, micaceous Fresh color is yellow to tan

④ Rusty-weathering ASKIN Dolomite.

Essentially have serpentinite in fault zone between ASKIN & the grey phyllite. Looks like fault zone may not be so steep. Appears to be almost subparallel So in ASKIN

Fragments of fine-grained greenstone in serpentinite tend to be aligned along So — but also randomly oriented Coarse grained biotite & Pyrite rims these fragments.

ASKN So 107/55S — right at contact with serpentinite. — looks to be upturned compared to regional strike & dip.

Just below here somewhere in cliff have large isoclinal fold visible from chopper — this will greatly thicken this section of ASKIN!

Serpentinite contains large pyrite nodules

S_0/S_1 grey phyllite 112/38S

1250. Fine-grained med to dark grey ASKIN limestone.

$S_0 \approx S_1 = 85/55$

1251 ASKIN Fm So 100/25S

Start section as proceeded up hill from last spot to here

(rounded pebbles) fossil ls — light grey with rip up clasts worm burrows thin bedded

15' thin dolomitic pleite

fossiliferous grey ls crinoids

Just to east. Askin shale to get some very thin black dolomitic/calcareous siltstone/shale partings. Also brown calcareous gritstone. Makes for a darker looking - more ribbon-banded rock. Still interminded with crinoidal-bearing limestone

Late N verging fold - open
AP 100/505 FA 285/05

1252 So 140/305
Askin Group

Dominantly pinkish tan weathering grey dolomitic grit. Contains 2 sets of dolomite veins. Locally fossiliferous with crinoids and worm burrows.

Lesser units of dark grey to black locally fossiliferous limestone. Some Contains large black phyllite carbonaceous component.

Here have a thin band of very rusty weathering pale grey to dark grey/brown/black noncalcareous siltstone. Only ~ 5' thick. Can trace it along cliff face to west

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1253. Descended entirely in Askin Gp

Dominantly brownish-tan-pink weathering dolomitic sandstone with thin grey limestone beds & poorly fissile. Often contains abundant fossils - horn corals, brachiopods, crinoids.

Near this point got a few grey weathering lens. Also rusty weathering grey to pale grey phyllite. Phyllite & noncalcareous

This spot marks general transition from grey or dk brown to pale tan or yellowish.

So bedding 155/15 SW

Paronslope unit is cream slightly dolomitic sandstone. Massive to thinly bedded

6160' - grey grit Thin vertical breccia zones trend 345°

1254. S_0 10/30 W

Lowermost unit of ASKIN is thinly bedded, brown-weathering sandstone. Fresh surface is grey. Contains very thin laminae which are slightly darker in color.

General color change that observed in ASKIN

up ↓

dark grey
pale tan
grey to dark brown

1255. S_0 160/35 W

Black shale chips on slope to this point. Varied rock types here

① Pale green foliated metavolcanic
Slightly calcareous. Large to small disseminated pyrite cubes. Equigranular

② Minor dark green metavolcanic
No apparent mineralogy

③ Black phyllite. Very siliceous — looks chalky. Slightly calcareous.

④ Slightly calcareous, dark grey, finely laminated siltstone. Weathers to a buff grey-tan. Excellent thin laminations. Some primary sedimentary structures. These occur in thicknesses up to 5'

NOTE: NOT LIMY PHYLLITE

Either UOM (Mut type) or UOMs with Mut dykes

on Lowermost ASKIN — at least three are rock types at this point

1256 $S_1 \hat{=} S_0$ 30/15 NW

Interbanded calcareous phyllite + brown-weathering carbonate

Definite limy phyllite - Vanguard

1257. $S_1 \times S_0$ 70/35N

altitude 5560'

First outcrops of lining phyllite. Mainly carbonate with some thin phyllitic bands. Carbonate both as grey bands & brown-tan weathering calcareous siltstones / silty limestones

T_s west – have dark grey phyllite with dark green equigranular metavolcanics. Metavolcanics have white feldspar phenocrysts. Volcanic + dark phyllite flk. in hillside above the lining phyllite outcrop

1258 Typical lining phyllite

Minor float of med to pale green well foliated metavolcanics. Contains large pyritic nodules

$S_1 \times S_0$ 95/25N

1259. S_1 flk 70/20N

Pale green chloritic phyllite. Abundant brown dolomite crystals – either amygdules or phenocrysts?

Possible Vangorda metavolcanic?

1260 Cliff of lining phyllite – Typical calcareous, thinly banded Vangorda

Abundant calcite veins with qtz

Rocks fairly intensely folded by later deformations

Crenulations edge 75/30N

S_1 is nearly vertical as microlithons

S_2 lineations 320/20

1261 Silvery, calcareous Vangorda type lining phyllite. Interlayered with pale green metavolcanic. Metavolcanic slightly calcareous. Contains large pyrite cubes – very similar to metavolcanics at ± 1255

S2 crenul. edge very strong 65/35N

S vergence to S2 minor folds

FA of crenulations 280/20

S_1 just slightly S 175/40W

1262. Contact of lowermost Askin with underlying unit.

Platy Askin just above this unit

Thinly interbanded black to dk gray orthaquite and gray dolomitic sandstone.

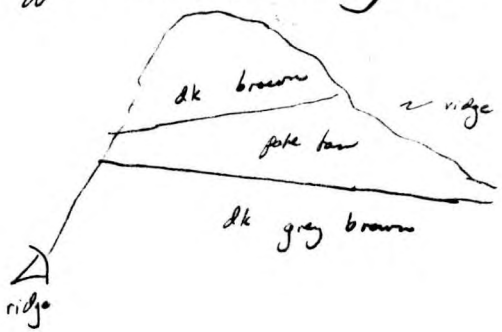
Numerous fractures filled by qtz.

Layer thickness from 1/4 inch up to 4 inches

Layers are discontinuous with very elongate boudins.

S$_1$ lying 20/25W

As look W onto cliff Buff-pale Askin appears to thin dramatically to the S



1263. Underlying unit is

Dark grey to black phyllite to very finely laminated siltstone. Similar to Station # 1255. All are slightly calcareous. Weathers to a pale tan or grey color

S$_0$ lying 140/15SW

Minor units of pale green metavolcanic Slightly calcareous Contains elongate white grains. Either fragments or former plag. phenocrysts. Has very large (up to 1 inch) pyrite cubes within it.

Lower part has abundant dk gray phyllite chips

1264 S2 extn. cluge

has S vergence

AP 45/10 NW FA 300/05

Strong S2 in this region

Typical Vangorda silvery phyllite

Also some dolomitic siltstone — again finely laminated.

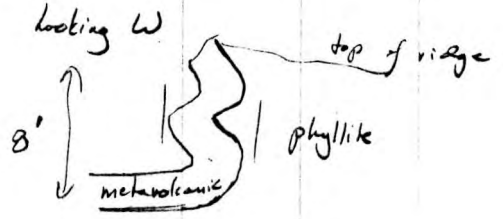
Interlayered with pale green metavolcanics. Metavolcanics are slightly calcareous locally. Have granular phyllite with large disseminated pyrite cubes, Very phyllitic, pale green — finely banded chloritic phyllite — probably meta tuffs. Also some volcaniclastics with very flattened, elongate fragments.

Volcanics dominantly near upper contact with the calcareous, finely laminated siltstones

1265 Vangorda calcareous silvery grey phyllite. Interbedded with pale green chloritic phyllite — metavolcanic. Large pyrite cubes in metavolcanic

Extremely strong S2 deformation here. Forms dominant fabric. Bedding ∥ vertical at this point

S2 FA 280/15 AP 25/20W



S_1/S_0 (approx) 130/40S

1266 Limy phyllite unit

Have come along calcareous silvery phyllite + interbanded metavolcanics Here have pale brown weathering calcareous light green phyllites Probably have a tuff component

Abundant S2 deformation. General effect is to roll sections to N – S1 gently dipping but overall lithologies dip S at much steeper rate.

S2 is the dominant fabric. S2 is arched over a rough N-S axis. Very gentle, open arching.

S2 AP 55/25 NW FA 270/10

1267. Top of hill UOMs with some green metavolcanic.

Abundant dark grey to black phyllite with thin orange weathering siltstone beds.

Contact with EO marked by zone of abundant breccia and slickensides – no good outcrop – may be a new piece of ASKIN. Limy phyllite dips to east for a very short interval.

Suggest that this is not a thrust plate – UOM does not really sit below the limy phyllite. Rather it is a steep fault with east side down – juxta posing limy phyllite to west against UOM to east.

UOM metavolcanic is dull olive green. Abundant white phenocrysts locally – other layers are massive. Contain disseminated pyrite because of rusty-weathering spots. Does not look like good MVT.

Part of dark phyllite section has Gunsteel type silvery gray weathering.

So lying 100/35 S

So ≈ S1 165/30 W *

S2 crenulage 60/30 NW

1268 UOMs with just very minor unit of MVT metavolcanic. Gunsteel silvery weathering surfaces.

ASKIN contact is immediately to the North. Beds generally dipping S so contact goes downhill barely to left. Descends fairly rapidly into no outcrop in cirque.

So lying 165/40 W ASKIN

S1 (UOM) 70/10 S

Uppermost ASKIN is tan to brown weathering dolomitic gtzite.

lowermost UDM is dk olive green, very rusty phyllite / siltstone then into Gunsteel dark grey phyllite with minor pale green metavolcanics. Metavolcanics have angular white clast (or phenocrysts)

S_1 160/40W (UDM)

S_2 crenulage 65/60 NW

L_2 S_2 on S_1 262/35

1269. Thick bedded light tan weathering dolomitic gtzite.

So lying 155/30 SW

1270. So lying 165/25W

Dark grey poorly fissile limestone. Locally abundant fossils – corals + crinoids. Climbed dominantly through tan-weathering dolomitic sandstones with minor grey limestone.

Have small porphyritic dyke at this location. White feldspar phenocrysts in a grey green matrix. Foliated. Slightly calcareous

Aug 27, '80 LCP

Traverse along ridge – N side of McConnell River

Sunny, bright with no clouds in AM

snow heavy on N slopes

1271 Mvt.

Fine-grained, massive green to dk green metavolcanics. Weathers with chalky looking angularity. Heavily fractured. No readily visible lyring or mineralogy. Slightly calcareous – especially along fractures

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1272 Mvt.

Dominantly lapilli tuffs since last stop. Pale pink to tan weathering. light colour matrix. Abundant rounded pyritic fragments – these weather to a distinctive rust orange.

S_1? flat 105/75S

1273. Syenite. Dominantly K-feldspar with minor interstitial pyrite + mafics (chlorite?). Massive rubble + outcrop. Looks unfoliated. Small screens of lapilli tuff present. Trace of blueish gtz in syenite

1274 Syenite.

Possible fault zone. Syenite more extensively fractured. - More massive weathering on both sides of this outcrop. Tends to be slightly finer grained here - possible that may be partly a slightly later dyke. Keep in mind if need a place for a fault to go through.

1275. Dominantly very coarse grained syenite. Interstitial mafics - hbl + pyrite. Feldspars are euhedral to subhedral.

Small areas of feldspar porphyry. Pinkish white K-feldspar in a dark green matrix. Cannot readily tell contact relations - but looks like may have small dyke within syenite.

Slightly further east - good exposure - dark porphyry is dyke in syenite

1276 Massive syenite. Finer grained with fewer mafics than last station. Dark green fine-grained dykes common in traverse from last station.

1277. Came through thick interval of dk green, fine-grained dyke. Fresh surface grey-green / slightly calcareous. Now into aphanitic white syenite?

Mainly white with scattered, disseminated brown-weathering pyrite. No readily visible clastic texture - looks massive. Pyrite distribution uneven.

Contains dk green, aphanitic dykes

1278 Mt.

Light grey metachert with thin dark grey bands. Syenite occurs in the draw (contact at 6600' on N side) Not pyritic.

Suggest that last stop also was in metachert - found float + in place lens of darker grey metachert interbanded with the white pyrite-spotted material.

So banding 135/60 NE

Slightly further N 110/45 N

1277 - Similar material occurs as a cross cutting dyke in the metacherts

1279 Metacherts of grey & cream & pale green up to thin gossan.

Here get dark grey to black phyllites. Contain thin off-white siltstone (?) bands. Rusty weathering

Interlayered with abundant pyrite-spotted, white syenite sills. In detail these cross cut lyring slightly

S_0 lyring 170/15 E

Syenite contains very large pyritic nodules locally. Extensively fractured by steep fractures

Cren. cluge 130/73 NE

1280 UOM black phyllite with thin siltstone bands

Last interval all felsenmeer on top of ridge.

Skimming along interval of black phyllite + pyrite sills. Consequently rocks show alternating zones of black phyllite and rusty orange weathering sill chips. Because of slope downhill movement these form linear streaks down the slope.

S_1 foln 110/40 S

S_2 cren. cluge 105/60 N

Lin cren on S_1 275/02

1281 S_0 112/10 N

S_1 foln 80/155

F_1 structures closed to the N

UOMs with minor thin MVT layers.

Dark grey phyllite/siltstone with thin regularly spaced light siltstone layers. About every ½" - 1".

Phyllite contains scattered slightly larger grains. Whole rock very siliceous - breaks with sharp regular corners - appears hornfelsed.

MVT layers are very rusty weathering. Thin green pyritic volcanics. Can't tell readily if volcaniclastic or not

Just to east phyllite assumes a greenish tint in medium grey

1282 Gray & pale olive green phyllite. All with regular thin bands of light colored siltstone. Can see cross bedding in siltstones. Phyllites have scattered larger grains. Must be a slight volcanic component to make it green — or else it has a much smaller carbon component.

So lyring 20/15 E
S1 fltn 40/25 SE

Blocky Mt - grey - float/scree on slope to east until get to grassy area on pass. No outcrop noted. (Not a thick interval either)

1283. So bedding 145/15 NE
S1 fltn 35°/35 E

UOM5 Siliceous grey & pale olive green banded phyllites. Contains thin siltstone bands. Pyritic nodules elongate in So weather with distinctive yellow & orange colors

1284. UOM5
Grey & green thinly banded phyllite with siltstone and sandstone lyers
So bedding 150/10 NE
S1 fltn 005/20 E

1285. So lyring 175/15 E UOM5
S1 fltn 85/40 S
S2 crenulation 130/60 NE
Dark grey siltstone/phyllite with light sandstone lyers

1286 Equigranular, fine-grained, medium green, noncalcareous dyke. Forms ridge top and thin pass area. Otherwise in UOM black phyllites. Just to west - top of ridge going up slope is capped by rusty-orange weathering white syenite dyke.
Green looks massive - no fltn taken

1287. So bedding 15/20 E
S1 fltn 80/15 S
S2 crenulation 125/70 NE
Dark grey to black phyllite with thin lighter grey siltstone bands. Large pyritic nodules weather to rusty orange & yellow

Aug 29, 80 KCP

Traverse on thrust fault ridge – south side of McConnell

1288 Last station on ridge to W (#1290) to here dominantly poorly fissile grey to dark grey limestone. Here have interbanded some limestone with massive pale pink-tan weathering dolomite. Limestone fossiliferous with corals and brachiopods. In one outcrop have rounded clasts of dolomitic chert in the grey limestone. Dolomite are thick to thin bedded.

Dyke of pale dull green fine grained volcanic. Large pyrite cubes. Looks very much like volcanic dykes in UOM pit just N of McConnell River

So 140/25 SE

Ls & dolomite contain thin shaly partings which weather black, maroon, grey

Possible fault zone in draw just east of this location

1289. Poorly fissile, grey, fossiliferous marble interlayered with thick to thin bedded brown to tan weathering grey dolomite. Limestone locally becomes very phyllitic.

So lying 100/30S

Ridge top to N is light grey orthoquartzite.

1290 Definite fault zone within ASKIN GAP Came along ridge in interlayered chert (grey on the) and tan weathering dolomite. As came down steep slope was in grey poorly fissile limestone.

Here extensively brecciated & broken dolomitic chert Weathers to a distinctive pyritic orange color

Extensive well-polished slickensides in dolomite.

Orientation slickensides 170/75E

lineation on slickensides 00 to 10N on the fault/slickenside plane

So south of disturbance 25/10E

1296 Closely spaced fracture 10/85E
So lining — horizontal
S, fltn — 105/25S

Askin (south) contact black phyllite (north)
Askin is pale cream white slightly dolomitic sandstone. Not thinly banded. Not typical Askin basal unit.

Noncalcareous, black phyllite. Poorly fissile. Contains sill of orange-brown weathering metavolcanic. Fine-grained.

Sequence does not look like RR on the mtn to west. Does not look like Uorm here. Looks very similar to RR underlying Askin on Mt. Misery. Contains pyritic nodules. S, appears to have a general-boudinage appearance.

Metavolcanic does not continue in hillslope to the south.

Black phyllite contains finely laminated, rusty weathering siltstone. laminations are very regular — no cross bedding. Siltstone noncalcareous

lining phyllite
S, fltn 150/40SE ??
So comp lining 135/70S

As go N- in 100 ft of the Askin encounter brown-weathering dark grey carbonate interbanded on small scale with black phyllite. Very fissile.

Almost look like a version of Vangorda?

1292 Elevation 5700' Outcrop here definitely lying underneath Askin on hill top. Vangorda lining phyllite with pale green metavolcanics.

Therefore the black phyllite unit must be very thin in this area.

Rocks have extremely strong crenulation cloge.

S/So 75/355
Cren. cloge 70/50N
lin cren on S = 70/000

Metavolcanic either volcaniclastic or has flattened white phenocrysts

Straight uphill at 5800' Lowermost ASKIN is dark laminated grit. Weathers to a dull brown grey. Laminations most extremely well formed. Laminoids nice of # 1216.

Therefore black phyllite here is slightly less than 100 feet thick (~80 feet)

So lying 155/02W

Sandstone is dolomitic

1293. Vangorda limy phyllite (south) contact ASKIN Group (North)

ASKIN is medium grey, poorly (but thinly) laminated grit. (sandstone) It is dolomitic. Contains ~~light~~ dark grey micaceous laminae.

Looks just like ASKIN sandstone above the last stop (# 1292).

So lying 70/20N

limy phyllite to south very carbonate-rich. Also phyllite part very blackish - carbonaceous - don't get silvery colors.

Would suggest that here a small fold here so that basal ASKIN just catches the top of the hill I.E. it looks like a conformable sequence

On ridge top going S- have approx. 125 - 140' of material that could be considered Road River dark phyllite with orange-weathering black and slightly calcareous siltstone.

ASKIN outcrops for 200 feet to N along hill top ridge.

then into limy phyllite float.

At 360' outcrop of black phyllite with the rusty orange-weathering meta volcanics. Looks like Road River.

Volcanics dominate the outcrop. Very orange-weathering from pyrite. Both disseminated pyrite and large pyrite cubes. Some of pieces porphyritic with subequal white and pale green phenocrysts. Then unit looks very similar to MVT

Volcanics look very similar to dyke rock in ASKIN noted earlier this AM

1294. Approx. contact between Road River and Vangorda (Wath) limy phyllite as travel ridge top to N.

All limy phyllite carbonate float to N downslope. Have dug out exposed ~~slope~~ subcrop of black, slightly calcareous phyllite. Road River in this section contains a substantial amount of porphyritic metavolcanics. Weathers to bright orange. Both white and green (pale chlorite) euhedral phenocrysts.

1295. S cren. cleavage 80/55N

Vangorda limy phyllite.

Extremely intense crenulation cleavage

Minor pale green ~~rock~~ metavolcanics interbanded with it

Ridge just E of ANISE

1296. Dull pink syenite. Mainly K-feldspar — almost no mafics, pyritic. Contains pale green, fine-grained, massive, disseminated pyrite dykes. Locally extensive fracturing with carbonate — qtz veining.

1297. Would you believe syenite. This part similar to # 1296. Went through interval with very coarse grain size with more abundant mafics.

Rock locally extensively fractured and chloritic. In places got red-brown weathering with clays on fracture surfaces.

Abundant green-brown weathering, fine-grained dykes.

Very, very tiny unit of Mot lapilli tuff right at top of mtn. Underlain immediately by Syenite.

1298 Elevation 6400'

Contact between syenite (west) and metasediments (east) Metasediments are pale green & pink cherts — except can be readily scratched with hammer Tuffaceous cherts Can see a poorly shown color striping. Here they are extensively fractured.

Contact very steep — appears to run straight down the gully.

So don bedding 145/55NE

1299. Mvt chloritic phyllites at 6300'
Some look volcaniclastic. Dark green dykes
Extensive brown-weathering carbonate in fractures.
S_1 flat 120/80 SW

Hwy 26th contd

1300 R rusty weath non-calc carbonaceous phyllites and phyllitic siltstones

S_2 well dev crenulation @ 123/21 NE
F_2 kink axes & minor Z-folds @ 118/00 ex

UDM

1301 med grained, dk green, sl. chloritized, sl pyritic, sl calcareous, locally sl foliated UM, basaltic igneous rock. Occurs as float boulders only in talus slopes of Askin boulders. Either occurring as dykes w/in the Askin or (possibly) as boulders from metabasalts (see below Askin (unlikely)

1302 med to dk grey bedded calcareous phyllites

bedding (Sedding = S_0) @ 042/09SE ex

second foliation @ 052/32 SE good
(maybe S_1 → no conf. ass. w/ it)

1303 Massive buff weath dolomite w/ abundant narrow qtz veins.
SDA

Aug 25th

Short traverse on ridge W of 1st Awsiv DDH — Sunny Broken bed mixed clay

1304 tan weath red grey fine grained dolomite. Massive, w/ abundant qtz veining

Note on line 112 S, hit Askin o/c @ 44 W

More Askin from Line 112 S 39 W to 41 W

1305 dk spotted blocks of massive dolo. and dolom sandstone

1306 o/c of red grey brn weath highly deformed pale to dk grey phyllite w/ v. carbonaceous phyllitic partings — similar to that seen @ base of Askin thrust slots NE of Sedgwill Lk.

pervasive S_2 (?) @ 065/32 NW (poorly dev. cren.) (good)

Note ⊿ 1306 is 100' N of L112 37 W

dk green

1307 sheared ^ metabasalts — dk green, locally w/ dolom or carbonate stringers present in beds to 0.3 m wide. All in sl. rotated block. Locally sl. pyrite, locally has med grained plag. phenocrysts

1308 strongly sheared pale grey brn to dk grey siltstone & sl carbonaceous qtzites as in Δ 1306

foliation @ 065/17 NW ex (S?)

- thin qtzites underlie Δ 1307

immediately below the qtzites (appear to be in S/C — rotated blocks) is more highly calc, sl. pyritic metabasalt

1309 on line 112 S @ 35 W

Ground

large O/C of massive to med bedded locally moderately carbonaceous f. grained quartzites.

Bedding @ 010/17 NW good

Ridge E of Arrest — Aug 29th (cont'd)
near big magnetometer

1310 non calcareous, brn to silvery grey weath, dk grey carbonaceous phyllite and coarse siltstone

Strongly deformed by F_2

S_2 crenulation cleavage @ 135/31 NE ex

L_2 (lithons and mineral flakes w/ Z warp) @ 135/00 ex

Overall S/s, arenitic (@ 140/10 SW face)

- interbedded with pale to dk grey qtzites w/ carbonaceous phyllitic partings

1311 pale grey weath f. grained quartzite w/ streaky bands of dk grey qtzite All in sl. rotated blocks. This unit is identical to that at the base of the 45km thrust panel NE of Seagull Lake Access w/ pale green sl calc. metavolc w/ rs. pyrite cubes.

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1312 thinly laminated, non-calcareous med grey to rusty brn weath dark grey siltstone

- all in rubble cover

1313 thinly laminated pale to dk grey siltstones as above, w/ narrow (< 2 cm) felsic tuff inter-bands
Pale siltstone bands show X bedding
S_0 @ 166/35 NE ex
S_2 (prob - although no cren^n dev) @ horizontal (good)

This sequence is v. similar to parts of the EROS drill core

- silty (pale grey) bands are sl. rusty weath.
- rock also locally contains some limonite "spots" or "knobs" - after small pyrite nodules?

1314 dk grey banded siltstones as above in S/C. Also local concentrations of angular cs grained syenite boulders - probably from dykes and/or sills.

Chopper hopping headwaters of McConnell

Aug 30th

1315 massive cs. gr. sl. pyritic syenite - ridge is capped by massive rusty tan weath

1316 v. rusty weath hornfelsed (probably) black phyllites interlayered w/ v. pyritic felsic tuffs.

S_0 @ 039/03 SE

1317 pale to med grey, locally rusty weath chert, pyritic chert and tuffaceous chert. Thinly laminated

S_0 @ 170/23 E ex

- locally is v. pale bleached grey weath - w/ narrow felsic tuff bands to 1 cm

1318 rusty weath pyritic felsic tuff and lapilli tuff

S_1 @ 103/38 S ex.

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1319 pale grey, silvery to orangy tan weath limy phyllites and phyllitic siltstones

So @ 118/38/N
S1 @ 118/28 N ex
L2 (crenu wrinkle) @ 097/00 good

1320 pale tan to orange tan weath tan to pale grey ~~chert~~ f grained qtzite (meta tuffaceous chert). Badly broken — approx. a shatter Xia - w/ carbonate stringers
Thinly bedded prior to shattering
overall bedding @ 068/035E good

Looks like Mt.

~100 m to E of
is dk grey limy phyllite

So//S1 @ 062/13NW

steep fault contact between these two

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1321 highly shattered rusty Mut tuffs w/ carb phyllite partings

1322 massive trachyte??

steep fault surfaces @ 040/90 w/ horizontal slickensides

1323 (bottom of O/C in gut)

sheared pale grey-green qtzite and shattered thinly bedded pale to med grey qtz - vfg f grained probably Askin

1324 strongly jointed ~~an~~ nonfoliated intrusive (check comps) w/ narrow screens of cs grained marble and dk grey qtzite or hornfelsed carbonaceous phyllite

1325 pale to lt green siliceous highly ~~pyrit~~ magnetiferous locally highly pyritic metavolcanic — probs related to the UMF suite but not sure

1326 thinly bedded v. calcareous f grained qtzites, carb phyllites and grey weath med grey marble
— PCcb Road River

So // S1 @ 045/17 SE ex

1327 massive white weath cream colored calcareous qtzite

Askin

gas break

1328 chloritic highly calcareous meta volc (possibly UMF comps) in contact to ? w/ f gr. tan weath syenite

1329 pale silvery grey to tan weath med grey limy phyllite w/ rare narrow sl. calc. med grey qtzite inter bands

S2 @ 110/17 N ex
So/S1 highly mangled.

1330 massive to thick bedded pale grey to orange tan weath dolomite f gr quartzites, and dolomites

Askin!

Bedding @ 148/64 NE ex

1331 interbedded dk grey v. to sl. calcareous phyllite and highly calcareous pale to med green metavolcanic w/ ferroan carb rhombs
— probably uCOsiv

well foliated (S?) @ 110/68 Se

1332 med grey to rusty orange weath limy phyllite and highly calcareous phyllitic siltstone

S2 crenᶜ clvg well dev @ 175/22 NE ex

So ? S1 highly mangled by F2

1333 interbedded limy phyllite and calcareous pale grey to grey green qtzite

limy phyllite transition to OSiv?

No time for structure

1334 v. sheared MVt lapilli tuffs -
sl. rusty weath (spotted)

- no time for structures

1335 thinly banded Askin qtzites
Non-to sl. calcareous, non-dolomitic
Pale grey weath
Bedding @ 120/85 NE ex

1336 massive sl. pyritic pale grey to grey-green weath med. grained syenite, Blocky weath. Some recrystallized muscovite present along grain boundaries, but no pervasive foliation.

1337 dk grey brown, flaggy weath qtzites
w/ ~~mica~~ irregular micaceous partings

Bedding @ 155/22 SW good

1338 flaggy med grey qtzites.
Non-calcareous

no time for measurements

1339 rusty tan to thinbanded "med grey weath - phyllitic marbles and v. calc. phyllitic siltstones, interbanded w/ pale green pyritic metavolcanics

no structures - no time!!

1340 non-descript, non calc, non-dolom, non pyritic non-rusty weath, carbonaceous dk grey brn phyllite

Bedding @ 075/56 NW ex

uDMs ?? (maybe)

1341 Askin massive dolomitic qtzsstn overlain by thinly foliated locally sl. rusty weath black phyllite → uDMs

phyllites are thinly laminated pale and dk grey - pale bands rusty weath
S_0/S_1 in phyllites @ 082/17 S ex

1342 phyllitic silbery grey to rusty tan weath phyllitic thinbanded marbles

limy phyllite variant

overall S_0/S_1 @ 152/09 NE ex
S_2 @ 096/43 N ex
2 verg on minor F_2 folds L_2 @ 098/10 W

1362 fine grained porphyritic agmtc
Similar to 1356

Appears to be a large clyte.

1363 grad brownish weath lapilli tuff

1364 lapilli tuff as above interbedded with pelt grn fine grained tuffs.
Sample

Ridge W of Sargent Lake Sept 1/62

1365 fine phyllite in SE, Rotated blocks
Phyllite is med to dk grey w/ abundant ferroan carbonate knots.

1366 massive Astim dslm gtzite
over, lain w/ O/C bay cs grained black chert pebble cglm w/ pale to dk grey & rounded chert frags

uDM cglm strongly foliated @ 096/36 5E

1367 fine to med. grained dk grey chert granule grit
well foliated @ 053/62 SE ex
Bedding not visible

Overcast

Sept 2/80

1368 sheared fine to cs grained syenite w/ 2-15% mafics - more mafics in cs grained

foliation @ 018/18E ex (S₁)

1369 massive cs grained syenite w/ ~2% mafics (chlorite)

1370 massive cs. gr. med grey syenite w/ ~15% mafics

1371 thinly to bedded rusty black phyllite & black phyllitic qtzites uDM

So/S₁ @ 025/34 NW ex

underlain by massive f gr. sl. rusty lt grey qtzite

→ could be SDAcn uDM prob. D

1372 thinly bedded sl dolomitic pale tan weath f gr. qtzite

Bedding @ 142/19 SW ex

1373 mafic dyke (non foliated) cutting sheared syenite

1374 massive cs. grained syenite w/ minor free qtz eyes (?)

intrudes massive pink weathered flaggy dk grey weath to dolomite and dolomitic qtz sstn w/ bedding @ 10/28S ex

1375 med to thick bedded dolomitic sandstone. Fine grained pinkish tan weath, med to dk grey fresh. Abundant qtz-carb veining Bedding @ 164/18W ex

1376 thin banded sl rusty tan to pale green weath tuffs and tuff. cherts

So/S₁ @ 018/13 NW ex

fold axes @ 288/14 ex

ex Rdig. (possibly crenulation) @ 115/56 S ex

→ Z verg minor folds

1377 massive white to pale green sl. dolomitic qtz ssh

1378 as above, sl. banded

1379 as above

1380 thin fg pale banded cream to sl. rusty fg weath felsic tuffs

Bedding @ 131/26 SW ex

intruded by basaltic pyritic red grey sill ~1 m thick

1381 med to dk grey v. siliceous phyllite, interbanded w/ felsic tuffs.

1382 cream to pale green pinkish fine to med grained marble massive in o/c

1383 highly calcareous pale green to sl. rusty fg weath qtzite (?)

1384 pale to med grey and grey brn thin banded siliceous phyllites

1385 dk grey to black siliceous phyllites

overall So/S1 @ 115/56S good

v. strongly deformed clay @ 005/10E good

~~sandstone marble zones~~ no fine !!

1386 thinly striped black and white qtzite

f. grained

1387 v. fine grained siliceous hornfels. Spotted green.

1388 massive. cg grained syenite

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Flag Road W of Seagull Lk

Sept A 3/80

1389 fine-grained sl pyritic volcanic Mod grey-green fresh, w/ orange carbonate? grain, giving a spotted appearance Massive non foliated, blocky weath. Presumably late stage (post defm) dyke

1390 thin to thick bedded fn to pale grey weath sl. dolomitic qtz ss/ms. Fine grained

Bedding @ 010/20 W ex

1391 massive to thick bedded cream to pinkish grey fine grained intermediate qtzite

Bedding @ 075/35 NW ex
O/C is sl. jointed - large boulders to 5 m diameter sl. slumped
Appears to be just east of a steep fault (or fold) that drops the qtzite against limy phyllites to west

1392 thick to thin bedded massive weath sl. dolomitic qtzite fn to pale grey weath, pale to med grey on fresh surfaces
Bedding @ 013/12 W ex

overlies (apparently conformably — contact is rubble covered) fn to med grey weath limy phyllites and v. calcareous phyllite med grey colour limy phyllite is med grey to rusty grey weath, highly calcareous, thinly bedded
bedding (So/s1) @ 075/15 NW ex

well dev mini folds w/ cremulation cleavage locally well dev @ 131/91 NE
Sveg or mini folds
fold axes @ 312/08

1393 limy phyllite in float must be just below contact w/ overlying Askin

1394 massive QC sl fn to buff weath Dolom w/ qtz veinlets
SDA

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1395 sl rusty weath sl foliated calcareous thinly banded dk grey to black phyllite Abundant qtz lenses // S_0/S_1
S_0/S_1 @ 012/09 W ex

WDM

1400. Syenite ??

If need a fault - this would be a good location Massive, fine-grained pyritic syenite Intensely sheared. locally developed greenish micas (serpentinite ?)

S_1 foln 85/205

Crenulation Cluge - 90/vertical

Have been on syenite since last station (@ 1398).

Dark green dyke or wall across gut shows extensive boudinage - general offset to South

1401. Highly sheared, pinkish weathering syenite. Dominantly feldspar (no mafics) with abundant disseminated pyrite. locally shearing gives S_1 foln surface the appearance of volcaniclastics with chile weathering feldspars flattened in a pyritic brown weathering matrix.

At this location sheared syenite intruded by dark green mafics - feldspar byke. Medium to coarse-grained. Feldspars pink when fresh. Weathers to very rusty orange

because of disseminated pyrite.
Massive — no apparent deformation —
might make a good age dating sample

1402 Just passed over large dk green, coarse-grained intrusive - like at last station.
This unit forms the massive dark grey blocky rocks in the area.
Now in either Mvt or sheared syenite
Right now it looks more like Mvt or Mt —
pale cream tuffaceous chert.
S_1 flts 120/35 SW

1403 Same pale green Mt unit Color-Banded with darker grey layers. Soft enough to be scratched with hammer.
S_0 layering 20/20E
S_1 flts 85/06 S
Contains minor amts of the dark green dykes — then have foliated

---

1404. Color banded grey and greenish grey phyllite. Abundant poorly foliated green fine to coarse-grained dykes.
This is UOMs —
Extremely strong crenulation cleavage in this area.
S_3 cren. cleavage 115/60 N
S_ϕ cleavage 75/35 S

August 31, 1980

North of McConnell River

1405 Dark grey to black hornfelsed UOM phyllite. Contains green (pale grey) slightly calcareous, pyritic lenses. Also has very dark grey to black limestone. Weathers overall to a very rusty brown. (May be KK)

So lyring 30/10E

Just down slope to E at 6060' - have extremely regularly laminated + banded white/green calc-silicate assemblage. Quite calcareous. Green layers weather to brown. Suggest this is a contact metamorphosed lime phyllite - hornfelsed.

So lyring 125/15SW

So ASKIN 145/48 SW

Only very south tip of peak/knob is ASKIN. Separated from underlying material (black phyllite) by orange weathering zone of ultramafic. Coarse biotite, white & green serpentinite.

ASKIN extremely brecciated & broken. But problematic in that appear to have sedimentary sequence underlying the ASKIN

1406 So ASKIN 160/45 NE, 175/30E

At 5800' elevation -

basal poorly to well laminated grey ASKIN strike. In places develops a calc-silicate appearance with lime phyllite type green & white banding / definitely ASKIN. Would now suggest that perhaps #1405 really was no ASKIN with minor interleaving of other rock types

Underlain by ultramafic. Both fine-grained greenstone and coarse grained biotitic material. Basal ASKIN looks disturbed & broken. Greenstone forms veins in ASKIN with large ASKIN blocks underlain by & surrounded by coarse ultramafic

At 5700' have underlying rocks. Very rusty dk brown weathering hornfelsed black phyllite. Unit uncertain. Contains what may be tuffaceous chert bands (UOM?)

Thickness ultramafic ~ 100' thick

1407. 5500' directly on line with stream valley. Have come along base of cliff. Homogeneous rock type. Looks to be equigranular, fine-grained, black sycanite. Minor units of large pyrite cubes — this would explain the highly hornfelsed phyllite. Texture & weight are right for ultramafic — check with magnet at camp.

1408 On this level basal contact of ASKIN occurs at approx. 5700'
In coming up through lower unit there was no major change to ultramafic from other units. Leads me to think that entire exposed lower package may be part of the ultramafic package. Only get the coarse ultramafic right near the overlying ASKIN contact. Appears to be a bit of interleaving of the unit types.
So lying 55/105E
(Check — contact may jump up right at this spot) — No False alarm!
Very bottom ASKIN has a pale pale greenish tint

1409 Basal ASKIN Poorly laminated gtsite. Above have rusty weathering gtsite of ASKIN. Have ultramafic assemblages off to east at just about this level

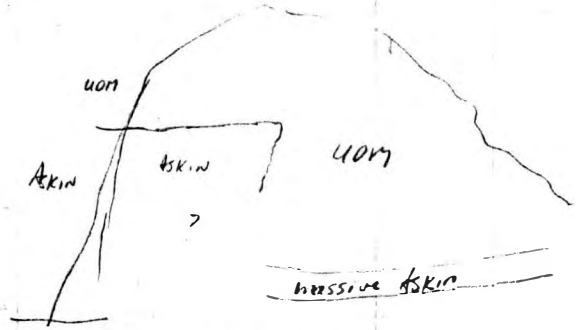
1410. ASKIN contact UOM at ~6100'
End of good white massive ASKIN at 5900'
Proceed upward through brown-weathering calcareous dolomitic gtsites — thin bedded with black phyllitic layers.
Basal UOM is calcareous dark black gtsite to limestone. Contains thin rusty weathering pyritic bands — large pyrite cubes. Not a sharp break with ASKIN — looks more transitional
ASKIN contained serpentinite about halfway up to massive top.
So lying 40/155
Go uphill into dark grey & black phyllites

1411. UOM's black phyllite with thin siltstone bands

So lying 90/10 N
(may be slumped)

1412. Looking at NE face of cirque facing N just W of this pass

ASKIN is either faulted out or folded out because it does not continue all the way across



Massive ASKIN below this region does not look faulted out over the entire interval to the west

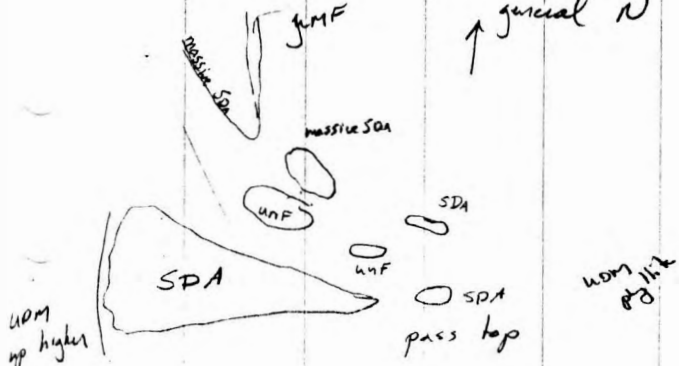
If it is a fault it looks like in this instance it must be a NE trending one to get massive ASKIN to look continuous across the where the pass/draw is. — that way to the one spot the ASKIN is not continuous.

So UOM 125/40NE
Cl flt UOM 30/15 E

Also must put step fault through this draw because juxtapose UOM(E) against ASKIN (W)

ASKIN exposed in center of draw right next to UOM (east) is a dolomitic sandstone breccia. Subangular clasts of different sizes — randomly oriented — so lying goes in different directions

Plan (map) view of outcrop distribution
in pass



looks like there a greenstone
section sandwiched between 2 ASKIN
sections

Also have greenstone uMF below
the lowermost ASKIN

Greenstone thinly banded - strong
dips steep to E

AM marker indicates 6680' feet
elevation for UOM contact on west side

1413. hard high (elevation 6500')
tracing of contact between ASKIN (lower)
& UOM (higher) Just starting
to turn corner on ridge. Next
ASKIN step is much lower.

1414. Abundant subcrop - just slightly
displaced outcrop of UOM grey &
greenish siliceous phyllite

So lying almost horizontal
ASKIN has not made it this far to the
west at this elevation

UOM grey phyllite step downslope
at 6300'

So lying 135/20NE
UOM grey phyllite downslope at 6200'

1415. So lying 140/20SW
thinly banded slightly calcareous gritstone
Thin bands are pale grey weather (—
not in relief

Contact wraps down the hill from station # 1413

Uppermost Akiak outcrop occurs at 6300' right in gully marking change in slope.

Ridge W of Seagull Lake

1416. Brown-weathering grey dolomitic sandstone. Abundantly broken with strong fractures and a lot of white quartz filling fractures.

Strong fractures 165/80E

Massive — no bedding measurements possible

1417 Strong fracture 25/75E

Massive Akiak dolomite at 5100'

Limy phyllite just uphill at 5140'.

S, (thin ground) 55/305

Limy phyllite is strongly crenulated

1423 Grey calcareous phyllite. Weathers with a reddish brown color to surface.
Strong crenulation cleavage
. looks most like Vangorda of rock types I've seen.
~~Cren. cleavage almost horizontal~~

1424. S_1 flat 110/70S
S_2 crenulage 115/25S
Massive green metavolcanic + pale green tuffaceous metachert — similar to Stops 1419 — 1420

1425 Dark pink to maroon, fine-grained volcanic? with splotchy dark green patches & films. Calcite in fractures. No readily visible structure. On scree slope

Ridge W of Seagull Lakes

1426. Straight uphill from # 1391 at 5620' elevation
Foliated dull green to dark green metavolcanic (?) Can see porphyritic phenocrysts of former pyroxene up to 2mm across
S_1 flat 25/40E
S_1 surface shows dark chloritic mottling
Fits best with Vangorda metabasites

Slightly calcareous
Contains minor biotite
Contains minor thin discontinuous greenish chert bands. These are up to 1" thick.
Metabasic more finely xtalline around chert bands

1427 ATKIN GP

Major of roadcut consists of noncalcareous sandstone with abundant silvery grey phyllitic partings. Phyllitic partings are anastomosing - minor boudinage of qtzite sandy layers. Each band ≈ 1-2 mm thick.

Overall appearance is very much like an outcrop of dark weathering limy phyllite.

Outcrop also contains thin bands of dolomitic sandstone. These contain minor, poppy thin grey phyllitic partings.

$S_1 \approx S_0$ 135/15S

Weak crenulation cleavage 160/35E

Lin clevage on S_1 145/15

Later strong warps which deform earlier structures

AP 110/45N FA 115/000

South vergence

Sept 7, 1980 LCP

Hop on East side of ANISE VALLEY

1428 S_1 flat 20/15W

Noncalcareous, slightly carbonaceous biotitic phyllite. Qtz-rich interbands

Not limy phyllite type

Interbanded biotitic phyllite (pyrolish) and green calc-silicate. Also Qtz a metamorphosed limy phyllite - again. Not a noncalcareous

Weathers to rusty orange because of included pyrite

Also coarse-grained qtzite or sgranite - pale grey - very orange weathering - probable sgranite.

1429 Dark grey, noncalcareous phyllite Pyritic with brown-weathering spots

UOM

S_1 flat 100/05N

Qtz sweats present

1430 ASKIN

Grey thick bedded dolomite. Contains minor disseminated pyrite

So lying (?) 115/10S

1431. S1 fltn 40/15SE

Silvery grey, slightly carbonaceous, noncalcareous phyllite. Not typical UOM, not typical Vanguard

Contains opaque white quartz sweats

1432 S1 fltn 90/20S = So

Creamy limestone/marble with thin micaceous partings. Has phyllitic appearance with skin of silvery micas on surfaces and S1 recrystallized calcite. Disseminated pyrite gives it a yellowish color.

Cut by dark green dyke - light has chilled margins - slightly porphyritic in core with mafic phenocrysts

Overlain by tan-weathering massive ASKIN dolomite

1438 Massive tan weathering ASKIN dolomite. No readily visible lying. Rock extensively fractured

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1439 S1 fltn 50/10S

Phyllitic limestone to very calcareous phyllite. Fresh is grey color. Weathered is tan with abundant silvery phyllite partings. Large pyrite cubes.

Fltn marked by thin micaceous partings in more calcareous sections.

1440 S1 fltn 005/20W

Very similar to last day. Fissile grey limestone with thin phyllite partings. Easily weathers grey to grey tan. Looks like lying phyllite

Sept 9, 80 LCP

1441. Grey medium grained limestone with phyllitic partings. Phyllite is silvery grey. Pyrite cubes disseminated. Phyllite component varies from little to up to 30% or so — quite micaceous.

1442 Small stream outcrop. Hornfelsed black noncalcareous phyllite. Weathers with angular corners. Looks like fairly decent HOM

1443 Grey dolomite. Weathers to dk grey to brown with reddish hint. Abundant worm burrows weather on relief

ASKIN