PILOT QUAD. May 25 2011

PLT-841 N 37° 01.209 Little River Gneiss

W 80° 19.599 Bethelehem Road

Feb 15 2013

PLT-775 OC in road pavement and side ditch greenish mylonite gnr, qtz + feld p-clasts chl + epi + mtl N 70E 60 SE cl 2030 b

PLT-476 Coarse metachamokite orthopyroxene gneiss blocks along creek at cl. 2225

PLT-473 Feb 14 2013 N 70E 28 SE

ledges of mgw in creek, photos of blood damage and debris N 37° 02.612

W 80° 22.140

Pilot 714 BR 2190 overlapped by 4'
photos at N 37 02 340 W 80 22 060
N 50 E [illegible] lt gry-white Qtz-feld.-musc-
chl sch/gn w/ mylonitic fabric

PLT-474 Qtz mylonite at base of
[illegible] (Photo) massive to sheared
granulite gneiss (Y Pg) above 2'
quartz mylonite PHOTO N 37° 02.510'
W 80° 22.110

PLT-715

Oct 22 '09 PLT 232 - dk gray + Grn wrath
argillite dol. N 37° 07 . 275 W 80° 15 . 032
N 60 E 05 NW

11/30/99 — PLT 921

S70W 70 SE gray chlorite (graph) p
obviously low grade meta

PLT821 N40E 50 SE thin laminated
-pinstriped mica schist (gritty)
tuffaceous? then thk ledges of
semischist / metagraywacke,
all Chlorite zone rocks

PLT 822 N80E 40 SE qtz rte and
light tan qtz schist (mt Athos
or Alligator back

PLT 823 N 60E 40 SE sandy Phyllite
— unical — some pebbly
qtzite Float.

PLT 824 N40E 50 SE pebbly phyll
or Sheared conglomerate

PLT 825 N70E 40 SE foliation
in coarse gritty semischist
with 5mm blue qtz granules
— Oriented spl.

PLT 826 N70E 60 SE saprolite of gr
coarse mylonite gneiss / schist

PLT 581 N70E 50 SE suprolite o
tan to gray coarse mylonite
gneiss schist. (tlr)

2 N70E 40 SE, N40E ~80SE pavement
of gray protomylonitic granitoid
with blue gray phyllonitic layers
83 N70E 45 SE shear bandel
gen gneiss - cg b+w lovingston
e ledge in stream and (Little Ri)
t
571 massive ledges ~20' high
f coarse augen gneiss
lo ny Brush Ck = Lovingston
LT941 N70E 70SE coarse granulite
granitoid gneiss - possible green
hornblende, leucocratic mtx
LT942 N70E 60SE massive ledges
of paper cleaved bio phyllonite
or schist w Feld p-clasts
up to 1/2" pebbles or phenacrysts
943 white siliceous cg layers
e schist N 68E 80NW
nterlayer in gritty phyllite
951 purple + gray phyllite
ips on ridge in holes
dug
93 N78E 50NE crenulated chlorite
ple and gray weathered) phyllite
anicoc)

Sept 7 Pilot 2012

PLT 372 Rome dol / red arg

N 70E 50 SE @ Fishers View

Thrust N 37°05.390'

W 80° 17.037'

beds vert

lots of gash veins

in dol NE SW

tension

Sept 12, 2012
IRO N 20E 16 SE
dk gray wacke sm much
algal mtl wavy beds
spls

2:30 PM Meeting
w/ T. B. and L.

1) Wells existing farm wells
2) New Construction Wells
3) Country Club Wells

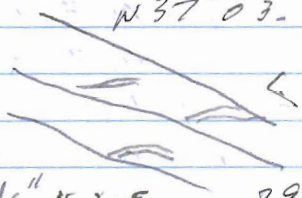
BP 2012 10052 4400'
1116 Lusters Gate
Jon Fulcher
9836 Grove Court
Chester Field VA

BP-2012-10034 V1
1717 Lusters Gate
Victoria Turman
Building Site 1741 Lusters
2918 sq ft Gate

11 [redacted] ctd [redacted]

PLT-441 greenish gry
weath meta graywacke
N 30E 30 SE ; mylonitic
cleavage

PLT 442 green fine
grained med bedded
MGW photo of veins
~ top NW
N 37° 03.798'
W 80° 22.363'



1' beds" N 30E 29 SE
veins N 80E 36° NW

PLT 443 spl of qtz
arenite ledge ~100' above
(photos) N 37° 03.762
W 80° 22.332

beds N 34E 30 SE
Dec 4 2012
RNR-811 spl from
yard, white, fine grained
qtzite in rome
N 37° 01.937' W 80° 27.353'

RNR-812 red argillite
blks at edge of Field
many round SS blders + cob
Outcrop ~~of~~ grey dolomite
in cut at N 37° 02.050
N 82E 28 SE W 80° 27.473
RNR-731 N80E 40 SE
argillite red to yellowish
brown, thin to thick bed
very little cleavage N 37 02.157
W 80 27.743
RNR 732 N74E 34 SE red (dusky
to red-brown argillite, thk
to massive beds w/very little
cleavage at N 37° 02.285 W 80 27.760
Outcrops in road embankment
Spring at road crossing
N 37 02.307 W 80 27.790
sinks within 50 m
RNR-813 N 60 E 40 NW
N 37 02 445 N 80 27.437
grn to brn weathered argillite
w/slaty cleavage
RNR-571 ledges of deep red
brn argillite, tan arg dol

Feb 6 '13 contd
spl of dk gry and white
augen mylonite gneiss
from Sta RNR 941
PLT 841 redux 2/6/13
Spl of blk and white augen
mylonite gneiss 2 spls 1 in Road Cut
1 in in stream (
N 37 01 .235 W 80° 19.537

PLT 842
N 72 E 60 SE mylonitic sch/gneiss
grnish to silvery gray
muscovite sch/gn tightly
crenulate w feld porphyroclasts
up to 30 mm wide but 10mm
thick N 37° 01.167
W 80 19.263
Sparkling mylonite sch/gn
exposed in new cut
for 100 yds local phyllite
may be lying in fold
PLT-843 N 37 01.132
W 80° 19.262 exposesure of
black and white coarse augen
gneiss (Little River) Photo
sheared but much darker Mtx
and large white feld.

PLT 844 20' ledge of med grained biotite granitoid very little Foliation — N 37 01.192 W 80 19.305
Looks like crossnore —
ledge trends N 40 E dips 64 SE
block weathered massive structure
cl 2490D subtle my Fol
cov

PLT 845 ledge of coarse Flaser to augen my/gn black and white Fol E-W 66S
N37 01 252 W80 19 397

Feb 14 2013
PLT 471 ledges of MGW gray-grn qtz chl musc gneiss/schist N 60 E 20SE
Cw N 37 02 762
W 80 21 892
Flood overtopped road to NE
PLT 472 Brush Creek Bridge #6262
ledges of MGW N 52 E 20SE
overtopped by Flood
N37° 02.710 W 80 21.977

Feb 7 2013 cold cloudy
RNR-911 ledge of
green and white to gray
gneiss outcrop in road
typical epidote/amphibole
layered Pilot Gn N 50E 50SE

Feb 14 2013 contd
PLT 473 N 70E 28 SE
ledges of MgW in
creek photos of
flood damage + debris
up + down stream as
N 37° 02.612 W 80° 22.140
PLT 718, BR 2190 overlapped
by 4' photos at
N 37 02 340 W 80 22 077
OC down stream
N 37 02 332 W 22 060
N00E 30SE lt gry-white
qtz feld musc chl sch/gn
w/mylonitic fabric
PLT 474 qtz mylonite
at base of chilhowee
(Photo) massive to sheared
greenish gray granulite gn (1 pg)

above 2' qtz mylonite
Photo N 22 E 44 SE
N 37° 02.510' W 80° 22.117

PLT 715 30' cliff in
augen mylonite gneiss
greenish gray coarse
matrix with 30 mm diam
pink feldspar augen
~50-60 mm long
Pilot Gn in lineation
N80E 30 SE MF lineation
S10E 30 SE photo
N 37 02.312 W 80° 22.047
PLT-716 phyllonite, white mica
schist and leucogranitoid
gneiss exposed in cut
at top of grade curve
PLT 717 thick/large massive
lgt gray muscovite fell
gn w/ blue qtz granules
at N 37 01 990' W 80° 22.137
photo pink to white
feld porphyroclasts up
to 40 mm S 60 E 24 SE lin
Fol N 70 E 30 SE

Pilot Feb 14 2013

PLT-718

Sap exposure, highly sheared
mylonite N 58 W 30 SE
lineation S40E 30SE
Muscovite or white mica
predom. in mtx - weathering
or hydrothermal alt.

Feb 6 '13 contd

Floyd Lot w/ well + septic

540 268 - 5328

Feb 7 2013

PLT-721 ledge of sheared leucogranitoid w/ blt qtz veins Spl N 70E 20SE. Deep cuts above look like mylonitic lovingston bio gneiss

cuts towards Pilot more mica schist high myl gn

PLT 742 N 60E 60SE blk and white augen myl gn inter layered with coarse granitic gneiss w/ granoblastic texture, strong myl fabric

PLT 743 N 60E 50 SE fine gr grn mica chl schist in bank

PLT 744 E-W 40° S coarse augen biotite gneiss outcrops beneath bridge end on road - good

Y Lr Sp Lineation S42E 22 SE

PLT-711 redux photos of
PLT-712 Flood debris, bridge DT

N 37 02 057 W 80 22.388

outcrop of coarse granitic gneiss; more leucocratic than Y/r. Massive ledges sandwiched in augen mylonite seq.

N 18 E 50 SE and for

PLT 713 N 56 E 30 SE myl

Fine grained chl/act schist layer in gneiss along road cut (photo)

SPL @ N 37 02 063
W 80 22 288

in

PLT 389 el 2006

10' qtz SS N40 E 40SE

N 37 05 113 80° 15 997 (GE)

sheared, thn-med beds

PLT 389A el 1910 N 50 E 50SE

dk gy graph phyll slat, cl

N 37 05 152 80 16 063

E ends N 70E 30 SE

PLT 624 el 1760 b

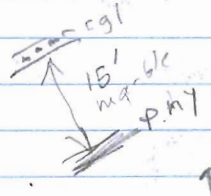
N 37 05 073 N40 E 40 SE

W 80 16 150 contact

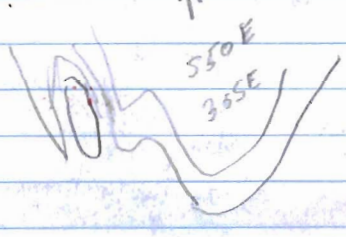
black graph slate

brn sndy sap w/

marble above



steep folds in phyllite below



PLT 3 8 1p

el 1730 maroon silt sn
Garang weathered dol.
N 50 W 50 SW

10/1/13 Altimons w/ Prince

Pilot

PLT 3811 N 30 W 60 NE S.Z 26 mile

phyllite w/ C+S strec

on strm bank @ 15606

N 37 05 345 W 80° 15.832

N 80E 80 SE grn + tan

phyllite in strm

bk dol N 37 05 330

W 80 15 637

PLT 3812 N 37 05.305

W 80 15 872

Carbonate / acidic herb ct.

trail crossing crk

PLT 383 N 37 05.207

redux W 80 18.885

black graph phyllite,

massive layered, red brn

weath (fe rich) N 60E

26 SE in Creek bed exp.

el 1624 (GE)

PLT 384 redux qtz pbl cgl

w/ my foliation cl

16406

N 37 05 190 W80 15 881.

PLT 385 el 16556
N 37 05 102
W 80 15 870
Chl Mica sh / quartzite
contact, qtzite
boudined w/ qtz veins
in extension

PLT 386 el 17106
N 37 05 057 N 50 W 20 SW
W 80 13 870
20' qtz my/. qtz ss
grains 2mm top

PLT 387 Marble el 14006
N 37° 05. 038 W 80 943
pronounced bench w/ pink
marble float, cgl float

PLT 388 N 50 E 20 NW
~6' qtzite ledge above
marble at el 1
N 37 05 082 W 80 980

Nov 4 2013 Pilot Quad

New House @ 380 Craigs Mtn Rd

Joseph Conrad

PLT 142 N 70 E 60 NW dusky red argillite, thk bedded gray dolomite ledges in old road bed below NT slaty cleavage dips NW as well

N 37 06 .850 W 80° 22.467

PLT 143 N70E 20 SE thin bedded lt grey to yellow, brn weath argillite in old road bed above pond @ N 37° 06.938, N 80° 22.467

PLT 144 fine sand, lt gry white soil in terrace below dolomite soil and flt

N 37° 07.000 W 80 22.372'

PLT 145 N 80W 20 SW lt gry yellow brn argillaceous dol or argillite ^ cleavage dips N 75W 60 SW

bed plane cleava N 70W 19 SW

PLT-116
N 80W 20 SW ledge
of brecciated dol gray
w calcite cement in
fractures (photo) of
two prospect pits
20 x 10 oriented with
Joints N 60E 40 NW
GPS N 20W Vert
N 37 07 .017 W 80 22.257

PLT 117 ledge of gray algal
lam dol N 70E 60 NW
N 37 06 .978 W 80 22 188
on SE stream bank

PLT 118 brecciated lite bluish
gray algal laminated limestone
with gray calcite tension
Veins N 50 E 70 SE
"crackle breccia" N 37° 06 988
Photo > W 80 22 063

< N 37 06 998
Spring below W 80 22 092
Is bcy

PLT 119 N 70 E 50 SE
thk bedded lt gry
weathered limestone bed
on side of road at
N 37 07 065 W 80 22 035

PLT 1110 N 30E 50 SE massive
gray ls ~~dol~~ ledge on NE
stream bank N 37° 07.052
PLT 1111 W 80° 21.903
Yellow ocherous saprolite (Cr)
in stream bank below
6' of silt and gray silty
clay with qtz pebbles
~ N 60 E 20 SE air

PLT 1112 tan to gray brecciated
dol OC in woods
N 37 06.935 W 80 21.852
Fract clear, micro joints
N 30 W 60 NE

PLT 1113 N 70 E 10 SE
thk gy ls ledge on ridge
N 37° 06.930 W 80° 4.602

PLT- 1114 N 20E 75SE
gy ls + dol thin bedded
to massive N 37 06 853
Eel? W 80 21 832

PLT- 1115 Green argillite bank
N 37°06 732 W 80 21 802
PLT - 1116 Thick beds of
gray ls in blocks
in front of barn and
house @ 772
N 37 06 770 W 80 21 892
PLT - 1117 shale chips in
road side / front yard @
N 37 06 697 W 80 20 387

Nov 5

world care committee

Bird → Spotlite group

Habitat Group

Earth Care Committee

earth care congregation

put in mission statement

worship

Education

Outreach

Building and Grounds

↑

Green Congregation model

make a priority –

examples of -

lawn care →

next 3rd Sunday of the Month

request for action!

What we want

Draft of reasons why

What it would mean

Lead Understanding

Nurture the Fragile Relation
Nurture Appreciate between

Fragile relationships removing
humanity and

Pilot Quad Nov 6 13

PLT-222 N60E 80NW

N 37 06 705 W 80°18.508

Rome Formation Shales and dol

IS in Creek

PLT-223 on Elliots Cr

Miller Brick T. new house

across N60E 40 SE

dol N 37 06 772 W80 18 088

PLT-181 N40E 80 NW

contact of black and white

crystalline dol. breccia bed

and thin bedded green argillite

N 37 05 727 W 80 21.653

Spl of brecciated dol

with yellow crystalline

fracture fill

PLT-182 N62E 50SE lt gry

bluish gray micro xline dol

in Fold hinge in Creek

@ N 37 05 765

W 80 21 523 Fold curve

shown in red arg that

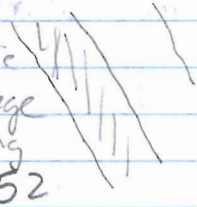
wraps in bank to SE

Photo

NOVG 2013

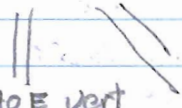
PLT-151 N 50E 60SE

red argillite cleavage bedding



and green w slaty (steeper than

PLT-152



anticlinal hinge crossing ck

N40E vert gray argillite

N 50E 40SE gray microcrystalline dol. in creek bed

PLT-153 N 30 20SE

massive dol / red arg.

N37° 06.098' W80° 20.977'

PLT-161 N 40E 20NW rd

and grn argillite on road bed and in ck

at N 37° 06,080 W 80°.20.760'

new cabin on nose

PLT-162 cam orange weath

dolomite, th - tk bedded

N 50E 60 NW

N 37 06 183 W 80 20 440

PLT 1 62 N 60E 55 NW
brn weath arg and
argillitic dol beds
at Ford
N 37 06 090 W 80 20 287

PLT 241
N 60 W 54 NE massive
to laminated dol ledges
form 70' cliff talus slopes
PLT 242 N 37 06 392 W 80 19 442
N 60E 70 NW thin bedded
red brn rome argillite

PLT 243 PHOTO
Fold hinge delin
by lam dol beds
Hinge plunges
a p clear

N 30 E 50 SE
N 37 06 702 W 80 18 867
PILOT PLT 222 N46 E 80 NW
red and green slaty
argillite Mud cracks
and laminated dol RSO
Phto

PLT 223 gray dol, arg
ledges crossing creek
N 36E 80SE
Road Blocked by fence
N 37° 06 723 W 80 18 748
Nov 8 2013
PLT 1118 N
N20E 32 SE Red and brn
slaty argillite in cuts
above SR at N 37 06.748 W 80° 21.627
PLT-127 N50E 80 NW orange
weath argillitic dol and
dusky red to green slaty
argillite N 37° 06.913 W 80° 21.215'
PLT-128 gray algal lam dol 3' thk
N 37 07 047 W 80 20 928
N 20 W 20 NE

PLT 129 N40E 70 NW beds ap
red + grn slaty argillite
w cleavage ST)
Parasitic ant plunges
10° 550 W ap N20E 60 SE
N 37 06 947 W 80° 20.943'

PLT 133 N 37° 06.927'
W 80° 20.467'
Photo of 50' carbonate
beneath red argillite
Photo of red and gra
argillite w slaty cleavage
N 34E 50NW bedding
clearage
N30E 70SE

slickensided fault plane
N 60 E 60SE photo
other veins cut
slicks N34E 20NW
contain calcite and sulfide
photo of vugs

PLT 134 N 60E 36SE
massive (lam) dolomite
ledges in anticlinal
core N 37 06 927
W 80 20 932
PLT 135 dk gray mottled algal do'
NS 20 W thk bedding
clear. N40E 80SE
N 37 06.735 W 80° 20 40

Nov 8 2013

PLT - 136

N37 06 102 W80 20 103
N10E 34SE gray dol
ledge in deep ravine

PLT-211 Cem 70E 70SE dol ledge
@ N37 06 713 W 80 19 813
massive dol ledges in roadcut
N 60E 40 NW

New Cem.
N 37 06 657 W 8019 705

PLT - 244 N50E 20-40NW
lt gray weath massive
micritic dol, some laminated
PLT 245 slaty dol and arg
N 20E 30 NW

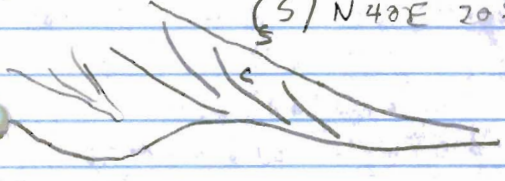
PLT-271 Mary Ann Capps
N 37 05 500 W 80 19 562
house built on terrace deposit
20' above flood plain

PLT-272 ~ 100yd above power line
N37 05 428 W 80° 19 533

ledge of Fg metagraywacke
med gry - brn N 82 W 46 SW
slaty cleavage or mylonitic Folia

PLT - 273 N37 05.350 W 80° 19.502
greenish-gray-chl-quartz muscovite
phyllite w strong slaty
cleavage N50E 20SE
crops show bedding
planes cut by cleavage

PLT-274
Photo of C+S structure
in mylonite zone above
Blue Ridge / Fishersview Mtn
overthrust @ N37°05.392'
(C) N48E 50SE W 80°19.520'
(S) N48E 20SE



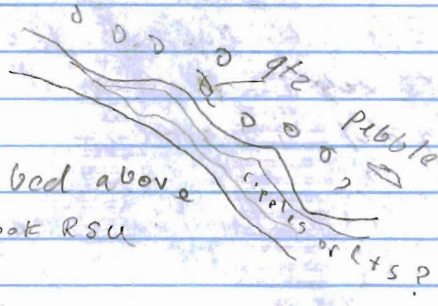
PLT 275 switch back in
greenish gray phyllite
N 37 05.490 W 80 19.496

PLT-276 green phyllite
w/ bedding traces on
cleavage N 20 E 76 NW
Cleavage N 40 E 30 SE

PLT-277 N46E 30SE
schistocity in fine, sandy
chl sericite qtz phyllite
light grayish to brn
weated no major contact
with dark, green phyllonic rx
below probably weathering

PLT-278 N60E 5SE mgl
foliation in porphyroclastic
semischist w/ qtz + lithic
porpyroclasts weathers
bumpy more obvious
qtz than below
N 37 05 453 W 86 19 370

PLT-279 N30E 30 SE
undulose bedding? in
coarse conglomeratic qtz SS
Photo N 37 05 402 W 8019.300



PLT-2710 chips of grn argillite, orange weathed dolomite beneat power line = Er

PLT-2711 contact sh/arg flt and Qal near old barn site at N 37 05 692 W 80 19 603

PLT-2712
N-S 20W 20' section of brn med-the bed arg do' and argillite
N 37 05 613 W 80 19 657

PLT 2713 N 37 05 763 W 80 19 662
N 40 E 60 SE at bridge

PLT 245 N37° 05.952 W 80 19 120
N60E 70SE Red arg
gray dol in stream

11/12/13 Pilot, cold
windy, partly cloudy
PLT-461
N 37 03 363 W80° 20 705
10' high ledge N34E 20SE
Spl medgrained gray qtz
rich + lithic (chrt blk
dk gray frags)

PLT 462 spring box
37 03 645 W 80 20.730

PLT 463 N50E 30SE
Pale gray green qtz sericite
phyllite in drive way
cut N 37 04 .139
W 80 20 407
PLT-431 N 37 04 327
W 80 20 247
lt tan-gray qtz ser phy
N45E 70 SE

PLT 433 N 40E 38SE

N 37 04 487 W 80 20 567

light brown, tan and redish purple weathed highly fissile phyllite/slaty argl.

PLT 432 N 37°04.400' W 80°20.350

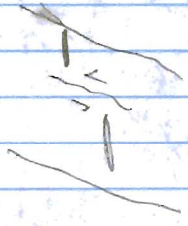
light orange pink - tan weathed phyllite or slaty argillite outcrops in road 1-2' qtz ss interbeds N 38 E 38 SE

PLT 434 N20E 30SE

ferruginous SS w/tension veins (Photo)

N37 04.373

W 80 20 315



PLT 511 N60E 70 SE

mylonite fol. in qtz schist

PLT
or mylonite, compsed
of gray to greenish gray
qtz porphyroclasts in
sand size range
N 37° 04.770' W 80 19.933

PLT-435 N37°04.820 W 20.170
N30E 40SE slaty cleav.
dk greenish gray to purple
weathered slate and
slaty argillite with
some fine bedding
lamina visible across
the cleavage planes

PLT 436
N24E 52 1' qtz sc
bed in purple weath
phyllite
@ N 37° 04.857
W 80 20.303
PLT-437 N40E 30SE
slaty cleav in
pink soap N 37 04 782
W 80 20 345

11/12/13

PLT-438 N 52E 30SE
cataclasized lithic
cgl ~ 2-3' thick
in road bed

40W 10SW
PLT-439 S12E 20SE
gentle
Z fold in pink-purple
phyllite sap, green
slate chips. in reg.
ap N80E 40SE

276 228 8882 26 acre fn
Old Sourwood Rd
Blue Sign
Mtn Sky Prop
w/sinkhole

BBG-388A mobile home park redevelop
spl 8' massive Gray Dol
exposed in 6' deep driveway
cut
N37° 12.828 W80°23.647
N 8E 18SE on thin shaly
interbeds
stiff slty cly cht sap above

11/13/2013 PLT-513
Craig Mtn
N60E 20SE paper thin
slaty chips in chlt
musc phyllite saprolite
white qtz ss blocks
to S of here along 4 wheel
trail el 2610b - 2540 ad.
ss ledge in road ~ 1-2'
orange weathered qtz
mica
PLT 514 2' ss ledge
N55E 28SE in roap
weath pink to range
slicks on beds plunge
S20E 24 with crenul
lineation up to N

PLT-515 clearing w/ 5 trailers
el 2460 b. ss + qtz pbl
cgl float, ledge N40E 34° SE
green ss + cgl
PLT-516 N40E 20SE grn
and purple phyl slaty arg
in saddle N60E 5SE Folia Flat
at edge of map = syn?

PLT-2710 SS bldrs, pebbly cgl
along old road bed at 2466

PLT-2711 N E 40 SE
green-purple weathered
chlt phyllite
outcrop in road bank
compass malfunction
el 2400 folds plunge S 260

PLT 2712 N70E 20SE compass
returning to normal in
curve, large pavement
of pale orange to purple and
green slaty argillite with strong
slaty cleavage, some fine
grained thin sandbeds 2400b
2350 b 2' SS in road then bagger zn

PLT 2713 N60E 60SE green
to pale orange pink phyllite
sap in pavement OC
some laminated (penstriped)
SS layers look RSU

PLT-2714 N70E 18 SE el 2780
thinly cleaved pale gray gm
to tan slaty arg w/some
dk chl beds

w/upper soil surface
mantled with light
slty sand top soil
and ss/ flat pebble
chert cgl sandstone
w/mtx dissolved

PLT 2715 Mylonitic (cts) phyllonite
N 70E 2055 el 2120
SE-W 40 S.

PLT 2716 vuggy dol-
breccia ~ mass 3' thk el 2100b
on road side Fisherview FZ
Spl N 80 N 10 SW

11/14/13 Pilot
PLT-444
N34E 40 SE 50'
qtzite ledge at N
N37 08 376 W 80 22 337
Photo of upside
down x-bedding scour
channel.
PLT 445 new house on hill
N37 03 645 W 80 22 157

N 7 14 / 13

PLT-446 debris fan qtzite
N 37 03 418 W 80 22 222

447 N37 03 340
W80 22 202
Red, silver, gry and
tan phyllite
N 70 SE

PLT-4310 N 70 E 40 SE
schisosity in chlt sericite
phyllonite or slaty gray
pale greenish gray to
pink weathed N37 04 772
W 80 20 782
Powerline ROW PLT 421
Thin qtz ss - med cg
E-W 40 S

PLT-422 2' ss ledge in
powerline ROW N40N 24NE

Fracture N 10 E 50NW
N 37 04 675 W 80 20 950

Sphe N66E 20NE

PLT-423 N76W 20SW pavement
ledge med coarse qtz ss
weath white
N 37 04 645 W 80 20 977

PLT-424 qtz pbl cgl bldrs
in Fan at head of
drain

PLT-425 - FTS over flight
blocks or ledges of coarse
cgl ss/white fracs
N 37 04 718 W 80 21 352
Buck sort to west
PLT-N 37° 04 813 W 80 21 512
426 qtz arenitic ledge
quartzite flt bldrs on
ridgeline N66E 36 SE

PLT-411 N70E 809E thin ss ledge
in phyllite sap
stretch pcb S30E 12
lineate on clear
face E-W 15 S

PLT-427 trail crosses
pebbly qtzite ledge
coarse white to pink ss mtx
N 37° 04 783 W 80 21 360

11/14/13 Pilot

PLT-428 Ledge of
white med-cg qtz
ss w/cgl pebbles layers
at N 37 04.798 W 80 21.255
N 70E 40 SE bedding

PLT-429 qtz pbl cgl
pavement of bldrs
on knob N37° 04 W80° 21

PLT-4210 Flat area above
powerline paved w/ Flat
blocks of qtz pbl ss

PLT-291 coarse ss bldrs
in road bank el 2700 b
N 70E 50 SE (cleavage)
N 70E 12 SE bedding?
N 37 05.283 W 80° 17.945

PLT-292 steep slope
mantled w/ any qtzite
blks N 37 05 405 W 80 17 832

PLT-293 bench Mark on
thick, broken qtzite ledge

N37° 05 422 W 80 17700

N50W 20SW

11-15-13

PLT-451 N60E 50SE

foliated qtz - Feld

semischist N37° 03 665 W80 21178

~ 30', 2 ledges

PLT 452 N 80E 20SE

white qtzite/semischist

strong mg foliation

N37 04 000 W 80 20968

PLT 431 ledge of

gray green sil argillite

w/ slaty cleav

N 37 04 260 W 8021 050

N 40E 30 SW

PLT 4312 N75 W 30SE

greenish gray mgw/slate

N75E 30° SE N37 04 382

W80 21 170

McNeil Ruty 1/04 acres

Mart Price

90.7 mile at Pilot

David Singer
Contaminant sequestration
in mesoporous materials
and secondary mineral
coatings
The importance of confined
pore spaces

uranium on chlorite
in Hanford waste

arsenic 3 + 5 3 sticks less
Uranium $4O_4$ - not soluble

Arsenic absorbed on goethite
nano particulate goethite
Mn in goethites

compare w/ Mn clay bunks
on marble sap

VDGMR Feb 7 2014

Larry Band
Critical Zone Processes
at the watershed scale

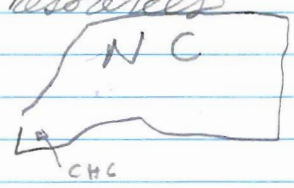
Hydrochem and groundwater
mediated evolution
of forest canopy patterns

Groundwater dependent ecosystem
water moves through sat or
unsat zone —

Patterns can show flow
in Critical zone
critical zone . org

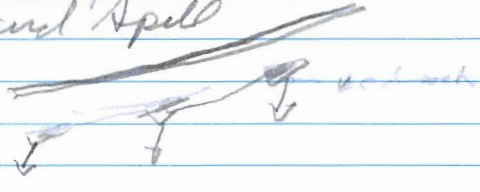
Canopy Top to saturated
Pores in rocks "bottom
of groundwater 10^3 - 10^6
saprolite ~ 100 000 years
water transporting nitrogen
affects growth patterns
in forest canopy
S. facing (smaller balance
due to evaporation
can have bypass

Use to find fresh water resources



Cowelay
Falls Falls

Fall and Spill



Dec 4 '13

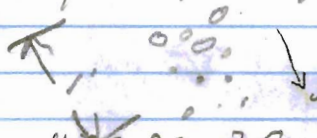
RNR 694

N 70E 20 SE Feldspathic qtzite saprolite yellowis orange to pink, thk bedded w/ strong clear

N 37° 03 313 W 22 515

Visited W/ LO says seen of group 46

PLT 445 20 ledge white qtz pbl cgl inverted geoded bedding



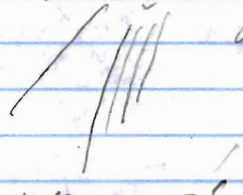
N 70E 40SE

N 37 03 357 W 80 22 407

2nd ledge at

N 37 03 368 W 80 22 408

N 70E 50 SE cross bds white pbly qtzite



PLT-446 15' thk bedded

N 37° 03 .355 W 80° 22.569

qtzite ledge N 70E 30

N 37° 03 .388 W 80° 22.423

RNR-662 ridge capping ledge highly sheared coarse quartz arenite N 70E 40 SE

RNR 662 cont'd bed Form
on slope low dip bed clear
N 60E 18 SE

RSU
RNR-663 highly sheared
pebbly qtz arenite ledge
forms crest of ridge
Foliation N 70E 60SE
cleavage crosses
medium qtzite } symmetry
bed w/folds
symmetry
plunge S 74E 15SE
1214/13
RNR-664 ~ 20' ledge, rock
piles of sheared qtz arenite
N 37° 03.315 W 80° 22 T02
Cleavage E-W 80S
Another ledge ~ 200' SE
at N 37° 03.285 W 80° 22.732

RLT-453 white-gray qtz
mylonite ledge much qtz
veining N 20 W 30SW
steep fracture N 60E vertical
2 ledges 50-75' apart
top ledge N 37° 04.040
W. 80° 21.020

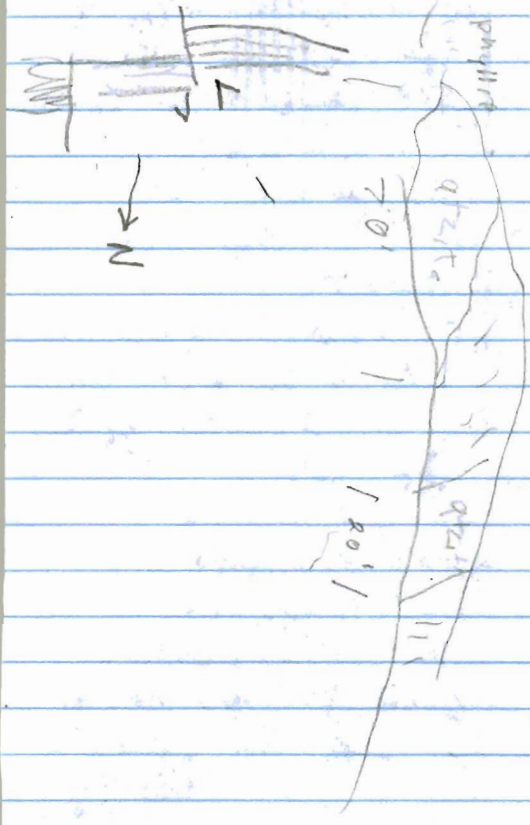
PLT-454 N 37° 04 .030
W 80° 21.037
big ledge massive
bedded ≈3' qtz arenite
w/ strong cleavage
bed N24E 12 SE
cleavage N70W 40 SW

PLT 455 blocks of coarse
qtz arenite / mylonitic
fabric on small knob
Where ledge crosses ridge
N37 04 095 W 80 21.213

PLT4213 argillite and weathed
felspathic sand and
cgl saprolite in wind
blow down roots no
big ledge at top some
6" qtzite flt cobbles
GPS - N 37° 04.187 W 80° 21.457
Coarse SS ledge w/ qtz
veins N 70 E 30 SE
just over edge to E
bedding transposed into
foliation - 6' ledge
PLT 4214 another ledge
of impure cgl qtzite float

Farms bench at el 2840

PLT 421 S gray mica phyllite
N46E 30SE
N 37° 04 37.0 W80 21.212
Cross joints in stream bed
N40W 80 SW show flex



Dec 6 2013 Fishersview Mtn

PLT-373 el 2490 b an carve 5' thick brown weathed quartzite ledge - brecciated in dk gray to black graphitic phyllite N68E 20SE

strongly jointed N26W 72SW

PLT 374 el 2510 b prepared spring at head of hollow coarse arcosic to metagraywacke sandstone Float phyllite OC on slope

PLT 375 el 2480 N50E 25SE

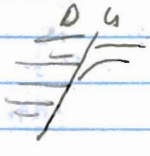
ledge of greenish gray metagraywacke on N side of hollow much dk hematitic SS Flt

laminar bedded coarse SS w/ black slate chips strung out along bedding plane foliation - looks like tubidite facies

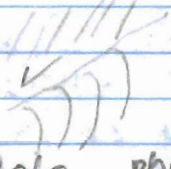
PLT-376 n 80 E 60 SE
green laminated chlorite
phyllite, looks volcaniclastic
el 3310 b

PLT-294 n 60 E 30 SE
green schist w/pyrite ledge
in road cut at el 2320 b

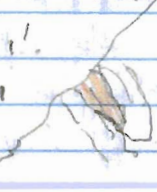
PLT-377 30' cliff thin bd-d
or flaggy green schist to
fine meta ss N 54 E 22 SE
strong cross jointing N20W
dipping 70 NE apparent
down to NE D U offset



PLT-378 30' cliff in
phyllite N20W 60SW HW
hinge in FW
S40E 5° SE



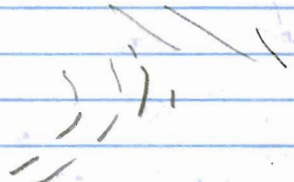
Green Volc phyllite Section
PLT-379 50' cliff i.
sandy beds in green
phyllite section



volc
N80E 40 SE

axial plane cleavage ||
main foliation el 2280
trail comes down to
gate highly fractured
pebbly ferruginous
beds w/ iron stain
(pink on vein qtz

PLT-3710 el 2340 6 on
road ~30' above stm
cut in weathered phyllite
w/ ss interbeds. Tight fold
hinge plunges N69E 5° NE
AP = N24E 30SE

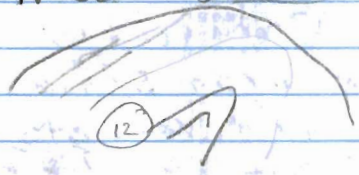


PLT-3711 N76E 60SE
6' bk fe cemented
qtz ss el 2220

PLT-6111 50' dl, ff 20' green
phyllite then 20' massive ss
bedding dips 10 S 15 E

PLT-612

tight Fold in gray
coarse quartz SS Forms
Nose of ridge at el
2120 ft
bedding N70E
30 SE RSU



PLT-626 massive dk grn
SS ledge in creek
waterline EW 30 S
2nd ledge crosses 100' to S

PLT-3712 el 2480
blocks of qtzite scattered
along road side berth

PLT-6713 15' white qtzite
on dark gray slate
el 2450 N10F 34 SE

PLT-6714 purple-silvery
gry chl sericite phyllite
el 2500 in road bed

PLT-6715
N80W 15 SW 6' SS qtz arenite

highly fractured and veined
w/ white qtz at el. 2700b

Dec 11 '2013 Pilot
PLT-478 N40E 20SE
thin bedded meta ss + slt
in slaty argillite behind
church steep frac N50E 70SE
slt is greenish gray-chlorite
sericite slate
PLT 479 25 ledges
coarse pink to white + grn
qtzite N37° 03.127
W80 21.737
spl of qtzite N20E 20SE

PLT 456 cole Farm road
2' ledge white to
brn weathered mica
qtz schist or metagraywacke
w/ 1 isa gang N80E 60SE S1
N70E 30SE beds in stm
431b
N37 03 415 W80 20.318
N34E 60SE coarse augen
mylonite gneiss greenish
gray - pink feld augen, bio

and epidote replacing
Mafic in interfaces

PLT 463 N 60 E 30 SE lt grn
to brn weathered mica phyl
ledge, green wash / flt
towards road
N 37 03 505 W 80 20.6 17
Talked with lady vet

PLT - 517 N 37 04 832
W 80 19 473
highly sheared greenish gray
to ribbon weathed mica phyllite
and semi schist / qtz mylonite
C+S structure
between bedding and clear

ll laminated
qtz ss beds boudinage
bed N 70 E 30 SE
clear N 60 E 68 SE
PLT - 518 Purple to silvery
weathered (Mt Athos) phyllite.
greenish gray chl - sericite pyllite
N 60 E 55 SE

PLT-519 two 6'
qtz rte ledges, pebbly
gray to reddish brn
el 2300b N37 04 695 W80°19 460'
thick bedded in tev layered
with graphite phyllite
N60E 50 SE ferugginous SS prog
PLT-5110 N16E 34SE
dk gry blk chl ser
phyllite (graph?) laminated gmy + tan argillite
el 2200b N37 04 595 W 80 19. 520'
road turns at 2140

PLT-5111 the big Cahoona!
N 80E 50 SE N 80E 40 NW hinge
20' qtzite ledge white-
gray high fract. veins
el 2200 N37°04.690 W80°19.380'
Small folds
overturned
beneath phyll
PLT-5112 N82W 50 SE bed N68E 70SE cl
clearage steeper
than bedding tho
in layered sect
N37 04 647 W80 19 433

PLT - 5113 pos. nematic
prospect, lots of heaped
soil fe qtzite (spl) Float
N 37 04 687 W80 19 : 442
1
PLT - 5114 pebbly qtzite ledge
on ridge N 37° 04 733 W 80 19 5.97
Raxens tanking
beds? n 78 E 40 SE

PLT - 5115 carse white
qtz ss Float along
ridge line et N37 04 . 330
W80 19 . 443

Dec 12 2013
PLT - 4710 qtz veins
Float Then some
green chl sh / mgw
Float on Stream
bank

PLT 4711
N 40 E 10 SE 51
in chl-musc. qtz pbl
my schist.

PLT 4711 Dec 12 2013

N 37 02 827 W 80 22 025

S dips 10-15 ⊡ SE

C dips 05 SE

PLT -531 home of Chips Electric

552-6876 Chip Grosclose 4691 greenshist melased

N 64E 40SE stream bank

exposure below house at

N 37° 04.605 W 80 17.716

PLT - N 70E 30 SE N80W 20 NE chl

532 - qtz ss shistose fabric

PLT N75W 30SW 2' qtz ss bed

5-33 well preserved bedding

PLT 534 SS beds in branch

below house N 70E 15SE

thk bedded

PLT 535 2 big ss/qtzite

ledges cross creek

N 70E 60SE ~10' apiece

out crop wid to 100'

PLT 536 chl phy in stream

crossing gentle bedding, strong

cleavage N 54 W 15 NE

N 76E 00 SE

PLT-537 pit in side slope
20 x 10 x 8 fe ss?
6' ss in stream N80E
34SE

PLT-295 N37°05.102 W80 18.007 entrance
road to Idylwood Fm
N70E 10SE lt gry
sericite phyllite bed
metagraywacke + graphite
phyllite float

PLT-296 N80W 35SW
6' qtz ss gray, to lt gry
ledge on side slope, blocks
in creek

PLT-297 N50E 40SE
lam qtz mica phyl
some graphite layers
PLT-298 thick qtzite ledge
Maple Rock Farms
381-825A
PLT-481 N30E 32SE
N37°03.222 W86 21.467
coarse gray quartz arenite

Dec 13 2013 J. Chase 540 320 7482

PLT-612 gated farm
PLT-613 coarse granu tou
blrs at trailer site
Bottom Creek Suite
greenish gray p b. laste
protomylonitic
N 37 04 740 W 80 16 900

PLT-614 E-W 30 4' white
qtz vein oc on road
bank N 37 04 308 80° 17.162

PLT-615 N 60 E 68 SE
thin bedded cg qtz
ss and phyllite
N 37 04 443 W 80 16 675

Long and Foster 214 Vor/ Lone
land w house + barn

PLT-651 N 37 03 637 W 80 16.110
medium gy to white
leucogranitoid, minor
bio + gt? qtz and felt
rded on exsolution

12-13-13

PLT-661 leucogranitoid
w/mylonitic foliation
N65E 40°SE N37°03.523 N80°15.238
Neoproterozoic (cross nore?
rhyolite

PLT-662 talked w/ local
after examining pave crop
of ligh gry w/ leucogran
mylonite saprolite in
road N64E 60SE

PLt-663 Mtn View Church
for Sale GR Smith 540 392 6280
N37° 04 090 W 80° 15.215' PLT664
N70E 80SE joint N20W 30SW Fract
blocky jointed med-cg leuco
granulite saprolite in road cut

CHK-181 lick ridge Road
N75E 20SE mylonitic Ybp.
foliation in greenish gray
Fine to very coarse grained
augen mylonite Pump on road
side at N37 05 257 W 80 B.820

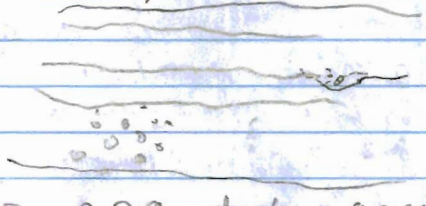
CHK - 182 N80W 30SW
highly sheared leuco and
melanocratic granulite Ypg
possibly pyroxene dk green
to black crystals between
qtz and feldspar augen
chlorite - muscovite phyllite
seams N 37° 05.377 W 80 13.825

CHK - 183 ~2000 b N54E 30SE
my fol but more blocky
massive jointed granulite
than mylonitic section
above N37 05 450 W80 13.832

CK - 184 E-W 30 S augen
myl sap ~50' above
green qtzite ledge in CK
N 37 05 047 W 80 12 052
el 1700 b

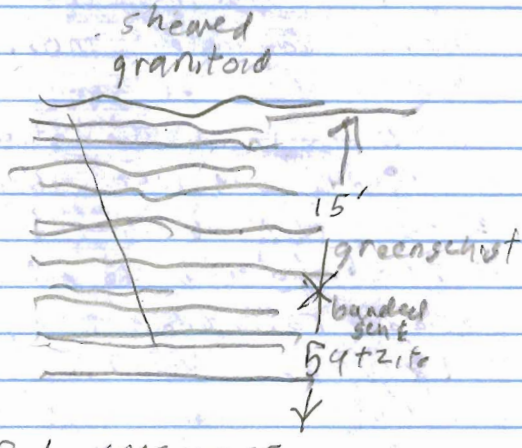
CHK - 185 1680 b last myl
Myl is leucratic, and
deeply weathered.
N 84E 36 SE some argillite
dol ledge below Floyd Sign @1640

Dec 16' 13
Altimons Falls Trail
el 1700 cold clouds
90' sch/ph, gr capped
by 20' qtzite comes
down to cross ck
N 37° W 80°
PLT - 627
N 15E 20 SE, (Dec 17)
Marble OCS just above CK
PLT - 627 N37 05 017 W80 15 932
PLT - 628 pool area 18106
N 37° 04 495 W80 15,983
green meta ss + chl phyllite
N 66E 60SE mgl fol
med. dk gray meta ss wacke
with graded beds small
scours



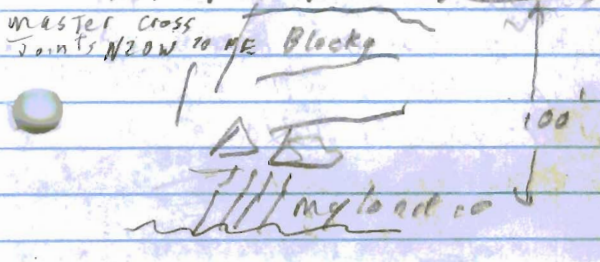
PLT - 628 dark green
Chl schist w/ sheared
qtz veins - 20' layer
above SS + phyllite
N 37° 04.942 W 80 15 920

el 1850 b



Myl fol N60E 48SE
cross shear N10E 60SE

PLT - 624 redex just below Fals
mylonitic Foliation in
granitoid exposed in
stream bed. Gran becomes
more massive and blocky
50 above N50E 60SE
N37 04 090 W 80 15.967



PLT-631 N44E 50SE shear
or myl fol in
coarse leucogranitoid gneiss white
quartz feldspar granofels
W 2 mylonit foliations
N37° 04 908 W80° 15 .863
el 23006 (N70W to 2644 Peak
el 24306 (S70W to field)
Steeper Foliation
Layering N30E 20SE
(post grenville exsterior?

PLT-632 qtz
Flt el 2440T (B 2600)
Correction @ N37 04 923
W80 15 687

PLT-391 gray to dk gry
sericite graphite butter
schist N70E 40SE
el 2360 b N 37° 05 053
W 80° 15 635
PLT-392 circular depression
N 37 05 158 W 80 15 523
landslide or sink?

12-16-13

PLT-393 cell tower
on repeter on knob
N37° 05.277' W 80° 15.598

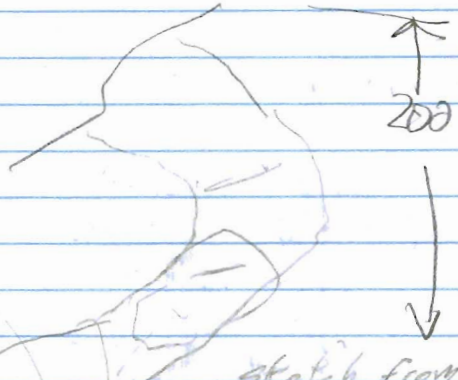
PLT 394 N50E 20 SE 6' qtzite
greenish gray el 19506
N 37 05.268 W 80 15.715

PLT 395 N 30E 40 SE fractured
gry and white qtzite
ledges ~ 50 thick total
el 18306 N 37°05.270 W 80°15.773

PLT-3814 15' cgl qtzite ledge
N40E 20 SE bearing
on ledge el 17006
N 37 05 253 W 80°15.615

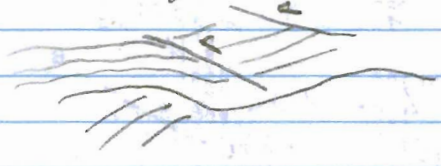
Dec 17 2013
Photos of OT contact
w/ greenschist and
breccia / cgl along
Fries Fault PLT 628

PLT 386 marble spl reduce
N 37 05 025 W 80 15910



sketch from
Marble Loc N 37 & cross
stream to NE

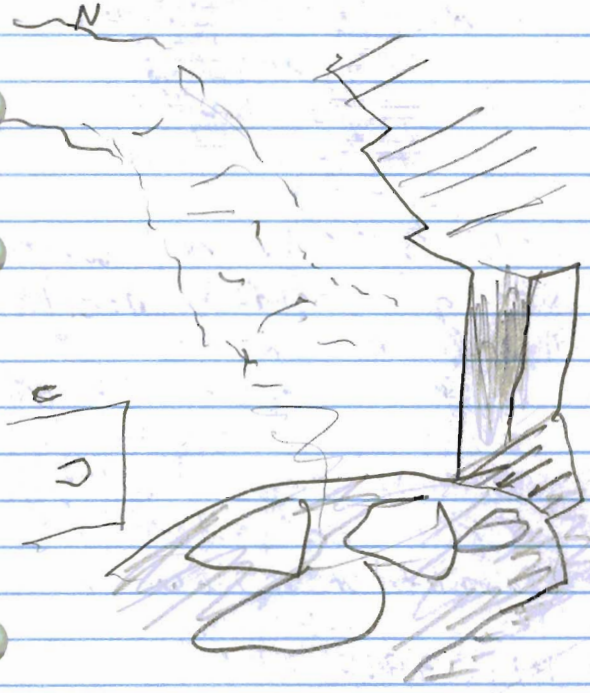
Boudinage at base of



qtzite bed. Horse blocks
with stria across base
step SE

bed N 55 W 10 SW stria plunging
S30W 18 SW

Photo at



Dec 20 Camp Altimons
PLT 397 el 1900T
N37°05.503 W80°15.027
blocks of granite in
debris flow around cabin 6

PLT 398 el 1700 6 spring
N37 05 473 W15015 photo

PLT 399 green chl
argite in stream,
highly def. Myl fol
N70E 40SE photos
at el 17206
N 37 05 462W 80 15 022
rome dol + arg ?

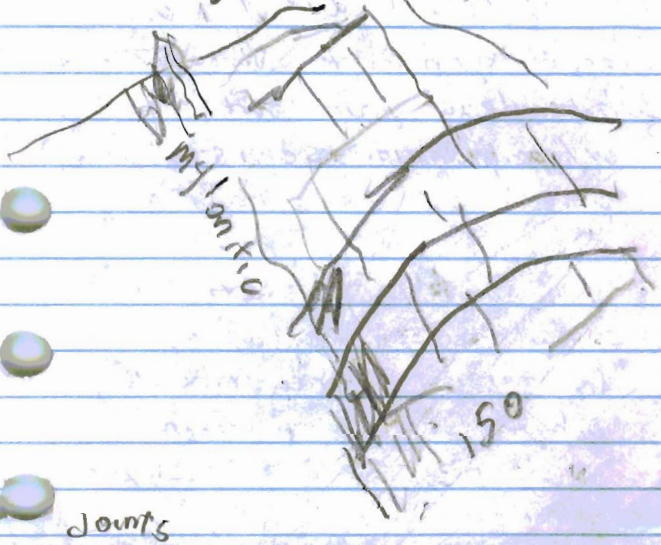
PLT 399 A 4' white
to gray metass / qtzite
bed in stm bed as
N 37 05 468 W 80 15 023
el 17 50 6 photo
S 60E 15 hinge
N 70E 52 bed
ap N60W 50 SW

PLT 3910 fract.
qtz pebbly qtzite
el 1850 6
N37 05 427 W 80 15 003
N70W 40SW lolge above
N70W 40SW ~ 20' qtzite

PLT 3911 1980 6
N 80W 20SW mf Schist at top

of 200' phyllitic section
exposed on NE canyon
wall N 37 05 375
W 80 14 982

PLT 3912 massive (50')
granitoid at el 19906
N 37° 05 363 N 60E
W 80 14 963 40 SE
mylonitic at base
gives way to massive
blocky jointed ocs



Joints
N 85 E 60 NW

PLT- CHK- 141
Photo 1 of Crockett
Springs Methodist Church
from other camp ground
showing Fries on Skyline
1/9/14

PLT-4711 Ledge of cg
green/orange untxitic
granofels N 37 02 718
Type Pilot W 80 21 890
mylonitic foliation
N55E 20 SE

PLT 474 redux N 37 02 . 512
coarse grn-pink W 80 22 - 113
white leucogranitoid gn.
w/ mylonite schist bands
pilot gneiss confirmed

PLT 482 large slab of
coase augen mylonite
dk grnish gray mtx
white Feld p-clasts
N 37 08 082 W 80 21 268
confirms Terrys Call on
Mylonite gneiss

PLT - 483
N 37 02 670 W 121 237
new well in chl muse graph
phyllite (Zwr

PLT-484 tan to light gry
phyllonite exposed in road
side bank at N 37 02.042
N 80 E 50 SE W 80 21 180
green schist comp. chl
and serp? w/ C+S
structure - mafic tuff?
or shear basement.
look for mag anomaly

PLT - 485 N 37 02 610
coarse granite W 80 21 157
gn saprolite wht - lt grey
qtz + large feldspar + mica

PLT - 722 mylonite gneiss
overlain by fine grained grey
mica schist / gneiss N 40 E dip
N 37 02 250 W 80 21 110

PLT - 723 mylonitic qtz vein
20' thk vein N 70 E 60 SE
lineation S 40 E 39 SE

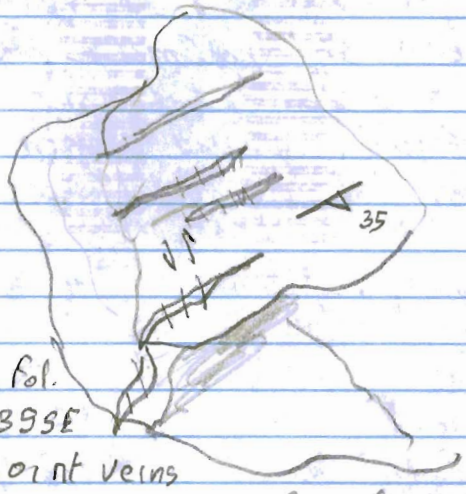
PLT - 731 very coarse augen
mylonite gneiss (spl)
N 37 02 528 W 80 20 238
N 40 E 60 SE spl corse
ledge on nose
PLT - 732 myl gneiss
w/ porphyroclasts large
slabs against brdge
abutment

PLT 491 ledge of gray to
silver grey mylonite schist
qtz + musc + bio + feldspar
N 90 E 30 SE at N 37° 02.505
W 80° 20.192

PLT-492 N 40 E 35 SE
corse grained light
grey bio augen leuco
granitoid gn N 37 02.565
W 80 20 060

PLT - 572 gray qtz feld
mica gneiss, strongly foliate
many dark blue qtz p-clasts
some orange - pink recrystal
feldspar strong brittle
fracture overprint - cross veins

PLT - 572
of white qtz, shear



old myl fol.
N 60 E 39 SE
cross joint veins
N 50 E 80 NW Roadway
Shear cleavage offsets veins
N 44 W vert
Frac N 50 W 60 NE
N 37 02 743
W 80 19 897
PLT - 573 qtz veins in
saprolite, sheared mafic
rock w/ brassy sulfide SPL
Fsh Float in road bed (Gold Rush)
N 37 03 120 W 80 19 743

PLT 825 Wills Ridge Qtz. vein ledge
along road @ N 37 02 892
Spl of blue qtz-bearing grit W 80 18 813

Jan 13 20014
Pilot quad PLT A64
MAE 40SE mylonite fol.
in coarse augen
mylonite gneiss Kfd
p-clasts up to 1" at
N 370 03 .638 W 80 20.377
Photo of coarse pink-
orange feldspar bearing
augen gneiss on hilltop
should belong to Bottom
Creek Charn series
not a granulite, but
there are granulite blders
on pile

PLT 465 photo of spring
below house at
N 37 03 460 W 80 20.415
white to gray coarse
leucogranulite or
granitoid blders in
the spring depression

PLT 466 photo of blc
of white vcg augen

mylonite bldrs in valley
K feldspar pclasts up
to 3" - sheared
Bottom Ck ?
N 37 03 340 W 80 382

PLT-493
N 37 03 252 W 80 20.213
coarse augen my / bldrs
leuco granitoid - Y bc series

PLT-584 (check GE
N 37 08.190 W 80 18.742
massive ledge exposed
at edge of flood plain
very dk gray augen mylonite
feldspar p-clasts
show brittle and ductile
def - orange pink to white
N 50 E 50 SE
stretch pclast S 70 E 20 SE

PLT-591 ledge of gray-
brown weathered mylonite
gneiss, silver muscovite
and fine biotite, qtz ribbons

1/13/14
PLT-591
N 37 03 .130 strong myl
W 80 18 .097 foliation
N 60E 40 SE lin S70E 30 SE
spring (wet weather above ledge)

vein qtz at PLT 592
N 37 02 .912 W 80 17.988

PLT 593 coarse granitoid
N 70E 60 SE mylonitic
foliation in white qtz
feldspar mylonite gneiss
to phyllonite exposed saprock
in road cut N37 02 555 W 80° 17.533
on Kingery Hill

PLT-677 N 80E 70 SE
saprolite of chlorite
schist in road bank
at N37 02 740 W 80 17.177

PLT-672
leucogranitoid layer
N 67E 60SE gently
crenulate layering N 37° 02 703
in weathered white rock W 80 17.235

Jan 13 '14 37.04 2717 80.290367

Sample 6/4/14 N37 02 563

PLT-6 73 W80 17 422

Leucogranitoid alaskite

sill N80E 60 SE

PLT-911 N37 02 177

W80 17 262

PLT-922 N 66E 45 SE

leucogranitoid ledge

at turn 2 Lg

PLT-923 large spring from

head of hollow along

fault line -

PLT-924 N37 02 175 W80 16 357

N66 E 50 SE mylonitic foliation

in mica schist

pit in schist w flowing

spring -

PLT-681 N37° 02.513 W80° 16.342 photo

quarry in granulit

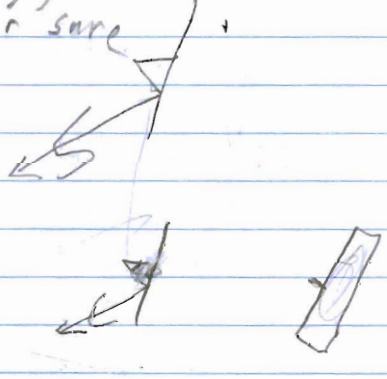
(N30W 22 NW) gneiss greenish grey

w/ amphibole/pyroxene clumps or

descrepted layers along old

granulitic layering

PLT594
Jan 27 2014
N 72E 40 SE
abandoned quarry
in lt gry to pink and
gray mylonite gneiss
w/ silvery mica schist
layers and more mass
grgn layers Yma?
orZ gr N37 03.190 W 80°18.168
Quarry is 150' by 50'
w/ 40 HW to SW
N37°03.068 W 80 17.872
PLT 595 N 60E 50 SE
10 high sap crop
Mylonite sch/gn
w/ Fraser feff
silvery gry phllonite
Yma for sure



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PLT-674 N 70E 50 SE gray to brn bnded myl Flase gn sap in road cut at N37 03 123 W80 °17.132 Yma Photos

PLT-641 N 30 W 80 NE Prominent Joint Fract outcrops in stream bank N 30 W 40 SW layering in greenish gray med-cy granulite gneiss (Ygo) or Nellys Ford photo. N 37 03.535 W80 17 038 green sap rock in road cut

PLT-642 med gr granulite oc in road bank N 37 03 657 W80 °17.025 N80W 70 SW mylonitic fol. photo of dkl grn granulite fabric

PLT-652 new well in grn granitoid, N 37 03 603 W 80 16.512

Y: PLT-691 greenish gry to dk grn gran. N 76W 10 SW in stream loco granulit N 37 02 593 W 80 15.600 at mail box

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Jan 31 2014

PILOT QUAD PLT - 751

N 60 E 40 SE

b+w bio agen gn strong

myl foliation lineation down

dip S70E 20 SE thumbsize

p-clasts, qtz float on roadside @

N37 01.252 W 80 21 263

also coarse leucogran bldr

PLT-752 N 37 01 295 W 80 21.032

Saprolite, soil and float

of leucogranitoid / mylonite

w white and pink feldspar

p clasts 2 - 7 mm rotated

in foliation, Gray green

to brn w/ mica gn/ schist layers

Possible reworked terrace

deposits w/ old cobbles

weathering out of top

soil some deep red brn

With blue qtz pebbles / p clasts

bio schist N 40 E 64 SE

PLT-761 large rib of bio augen

gneiss w/ silvery mica folia

N 37 01 368 W 80 20 767

N64E 50 SE ↓ lr line S70E 18

qtz pc ~ 3"

feld augen 2" ± Mine?

PLT-734 1 N 60 E 45 SE foli in

qtz augen mylonite / cgl sch

lin N 37 01 732 W 80 20 [illegible]

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PLT-713 N40E 36SE
mica phyllonite, gray
saprolite in road bank
at N 37 02.212 W 80 26 508
Yma

PLT-715 ridge top N65E 40SE
in Wills Ridge F_m coarse metaarcose
N 37° 03.840 W 80° 20.138
some rounded some ∡ feldspar SPL

PL 716 N60E 50SE
contact of dk gry
graphitic slate w gray
massive bedded metarcose
(PHOTO @ N37 01.787
YMA ◯ - W80 20.312

PLT-762 brn mica schist
N60E 40 SE
Sap in bank leucogran
qtzite layers
N 37 00 957 W 80 20 663

Photo
YMA N 37 00 W 80 20.512

PLT-763 N65E 40 SE
photo of augengneiss ledge

Feb 3

PLT 764

greenish brown mica schist sap, coarse mica fish mylonite N 60E 40 SE Yma?

PLT 765 blocks of dk grn to brownish epi musc act-trem qtz granofels in brown mica rich soil Calc silicate or mafic

N 37°01.047 NW 80°20.463'

PLT 766 N 50E 30 SE closely cleaved granitoid gn w/ myl Foliation light gray to white qtz Kspar bio gn Photo

PLT-767 n 75E 28 SE hig lg sheared leucogranitoid qtz musc bio Kspar proto mylonite in bank pink to pale orangish white closely cleaved

PLT-768 n80E 25 SE coarse bio W myl gn w/ pink granitoid horse blk stringy out along lineation S 80E 20 SE Mullions structure Fleser gn out Yma

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Feb 3 769
PLT 7610
N 20 E [illegible]
augen [illegible] sap
w/ shistose [illegible] zones
leuco granitoid w/ pink
lenses

PLT 7610 [illegible] of
lt brn to orange
weathered meta cgl (≤2 wn)
size graded to top
N 60 E [illegible] SE S1
S2

subtle
shows up in
cleavage
N 80 E 60 SE

beds 2-5'
fines upward
to m cash
then bldr
bd ~10' above
base 2' +/-

Grades up into
mica [illegible]
w/ chl [illegible]
[illegible]

Feb 3

PLT-7611

dark gray grn mica phyllite
chl. possible graphite
in road bank photo
N74E 50 SE

PLT-7612 N 54E 40 SE

paper thn phyllite cleavage
very dky silvary gray
marks fingers :: graphite
in mid fm

Feb 4

PLT 7613 Myl augen/flaser bn
qtz biotite kspar p key
flatted p-clast lineate
N38E 36 SE Lin S30E 34 SE
SPL SPL

PLT 7614 N 40W 40SW
Fracture to E of ⅓

PLT-8.46 coase augen myl
ledge N60E 20SE S35E 15 lin
Little River

PLT-7615 N 76E 38 SE
Black Fine bio phyllonite
interlayered wl mg

PLT-7616 N74E 42 SE
blk bio sch/phyllonite in biogn

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PLT 7617

N 645 lin E W SE

76 E 40 55

dark grn myl gn

SEARS Parts

$5.99 28" boys axe

handle Item 071051020000

Model 471051020000

2 1/2 lb

1-800-549-4505

Feb 5 N 37 00 665 W 80 20 048

PLT-791 saprolite of gray

mlonite gneiss thin laminate

mylonitic Fabric w/ dk

green chlorite phyllite

lover ~ 1.5' thick (mafic

dike of greenschist)

1' qtz vein // Fol

100' to NW is massive gray

granitoid gn w/phllonitic zones

very dk gray 1/2 - 1" porphyrinoids

PHOTO 791A

Feldspar plag + pyrx or amphibo
weathered granulite?
PLT 871 massive mylonite gn
b. mus. feld, qtz in 20' c/r
N 60E 30SE Photo
PLT 792 N65E 40 Brn bio
sch/gn saprolite in cut
probably within little Riger gn

PLT 793 N70E 30SE
N 37 00 333 W 80 20 253
Fmg bio gneiss qtz feld
mtf w/ pc up to 5mm in
salt and pepper mt, mylonitic
fabric and Fol.

36° 59.358 W 80 19 063
FLD= brown weathed mica gn N60W 50SW
graphite rich sap with some
221 fine qtz SS layers
- Asha MgW or marble sap

PLT-891 37 00 007 W 80 18.617
road side OC brown weathed mica
gn + schist pebbly qtzite Flt
N 80E 20NW

36 52 753 80° 17 076 FLD-311
graphite mica sh / pebbly mgw

N80W 50SW Foliation in Creek
bed OC

36 59 842 W 80 17 .172 brown FLD 312
red weath mgw / mica gn / schist / qtzite
N60E 50SE foliation 1 Ashe

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PLT-971 N37 00.103 W80 17.363

N70E 60SE leathery brn gry mica sch
qtzite and mica qn Gap and Float
Ashe

PLT-972 N37 00.488 W80 17.532

Ylw brn weathered bio schist Gap
in road bank N50E 50SE
Flattened protomylonitic semischist
many 2-8 mm granules strung
out on foliation end 215/14

52 miles B 2300

Feb 6 2014 PLT-827

N 70E 44SE S 70 E 30 rock ledges above road lt gry to orange pink qtz-feldspa-mica gneiss; Flaser to augen texture Yma or biotite gneiss unit

PLT-828 ledges of mica poor schist or phyllonitic leuco granitoid w/ C+S structure mylonitic foliation N 74E 40SE fracture cleavage N80E 54SE light tan to orange pink qtz + Kspar ~ 75 wo

PLT-829 btw bio augen gneiss 20 m round feldspar augen in granoblastic elongate mtx lineation S 60E 30 foliation N55E

PLT-951 cut exposes sheared leuco granitoid N S 70E fm myl fol N20E 10 NW

PLT-952 roadside quarry in mylonitic augen gneiss N70E 50SE S 70E 20 SE lin

photos

PLT-953 very coarse augen in Little river biotite augen gneiss

PLT-954 CLIFF in Little River bio-augen gneiss Avr N35E 20SE 30' high

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Feb 6 2014

PLT 947 myl augen gn
gray - brn weathered
sap large winged pcs, schistose
biotite matrix N75E 50SE

S70W 20SW

N70E 76SE

PLT 882 silvery mylonite sch
(photo) muscovite chlt qtz
PLT884 3 mylonite gn in field

N 80E 60SE

883 N60E 70NW

JOE STEWART EST

PLT 885 qtz vein 3' wide

OC in road bed N74E 70SE

PLT 886 N60E 74SE 100'
section of brown micaceous
gneissic saprolite
mylonitic foliation, Feldspar
porphyroclasts scarce an
concentrated in lagers

PLT 855, corner of tract
dark gray med gr stp bio
granulite ledge holds up ridge
N70E 80SE

PLT 856 road ends in deep hollow
N OC, no spring!

NEOPROTEROZOIC LAVAS TUFFS
AND TUFFS IN THE
WESTERN BLUE RIDGE
SEQUENCE OF SW VA
AN UPDATE - AN UPDATE

NEOPROTEROZOIC

Pass Word 237080
202888

www.geos.vt.edu/people/bhenika/
Jan 7 '2014
U MD. Reccomendation
TO: AH CH C5 JJC7
password Y83YD
William

I have known the Applicant
for more than 1 year.
We have worked together
on Field research and
collection trips in
the Western Piedmont
and Blue Ridge of VA.

CENTRAL ATLANTIC
MAGMATIC PROVINCE

ID 237210
PW 457097

LISA WHILEN REC.
ID: XBQXU7X4PE
T9FG7

PLT - 857 Feb 6 2014
EW 805 bio gn / sch / gran
sap in road way

PLT - 8210N 80E 30SE fine
grained S+P biotite gneiss
strong mylonitic foliation
down dip lineation feld
p clasts max 5 mm
S 18E 26 SE cliff to SE
Thursday Feb 6 mileage 49 miles
mazda

Feb 10 2014
PLT - 692 biotite gneiss brown
to dk greenish gray
sap crop along road at
el 2420 N 37 02.597 W80 15.632
thick layering N 60E 24SE
cleavage N 30 E 40 SE

PLT - 693 N 37 03 068 W 80 15.293
pale yellow orange qtz rich soil
float of pearly gray phyllite
and mylonite with
flattended feld p-clasts
YMC like unit N 40E 30SE
PLT - 694 coarse leuco granitoid
granular saprolite in cuts
some mylonit chips
N 37 03 220 W 80 15 130

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N37 03 .557 W 80 14 .913

EK-441 N70W 60SW
ledges of coarse
leucogranitoid w/
mylonitic foliation
el 2550 b Zgd ?

CHK -442 N60W 70NE
massive to "straight
layered leuco - meso
granulite gneiss el 2450
N37° 03.637' W 80° 14.820'

PLT- 682 house sitting on
yellow orange qtz rich
subsoil

PLT 683 bank in yellow
orange clay subsoil N3703
looks like eroded td
N 37 03 090 W 80 16 007

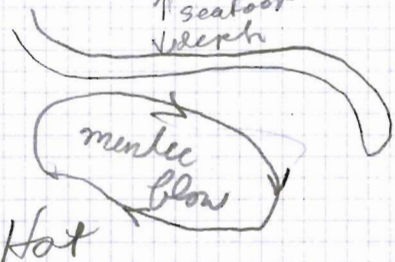
PLT684 N70E 60SE button
schist w/ mica and
qtz and feld fish up to 1/2"

- Frederick Hall - no Mineral
Claudia Adams
Mantle Flow Drives
the Subsidence
of ocean plates

$\sqrt{\text{age}}$ = dept of sub

does not work for
old crust

"Seafloor Flattening
Lithosphere should be
studied along mantle
convection flow lines



Hot
no flattening along flow
lines depth = $\sqrt{\text{distance}}$
from ridge

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Subsidence $\lfloor w \infty \sqrt{\text{dist}}$

If convection
stationary

$u = x/t$ constant

Pacific major rearrangement 50 ma ago

Flattening due to misleading direction along which subsidence has been studied

Indian Ocean
age lagectories = flow lines

Asthenosphere

low seismic velocity
low viscosity
lubricates base of lithosphere

Constrains flow of Plates

Slab pull — Couette flow
(shear induced

Basal drag Possible
(pressure induced

Alternative
Bob Harrison Cattle

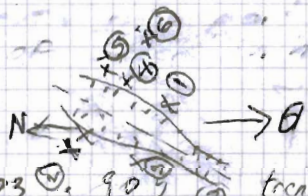
Monday 24 Feb Cold Windy
clear
2208 High Rock Hill Road

Daniel McGuire
2353 Huffville Road
Brush Creek Gold Mine and Farms

PLT 551 621 Watson Ln
Blacksburg Va 24060

N 72E 60 SE sericite qtz
phyllonite in light brn
to reddish orange
qtz rich soil (sap
vein qtz blocks in field
N 37° 03 .908
W 80° 18 .493

Pits in woods PLT 552
N 37 03 .905 ① photo
W 80 18 .543
small qtz cobble sized ¾ clasts
[illegible]
photos of [illegible] holes



N 37 03 .905 ③ trench N 20 E
W 80 18 .588 6' deep 30' wide
75' long

N 37 03 .902 ② N 37 03 .906
W 80 18 558 W 80 18 .550
individual pits 12-15' circ 6' deep

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Feb 24

N 37° 03 910
W 80° 18 543 (4)

N 37° 03. 912 (5)
W 80° 18 . 543

N 37° 03. 912 (6) large bldr size qtz
W 80° 18 . 527

qtz is sheared, fractured
iron stained photo

RNR - 996 bt W augen
mylonite oc in bank
S 69E 35 lin N 70E 60 SE,
extremely flattened pcs
reduced grain size blo
augen ~ Flasor 9"

PLT - 771 ~ 30E 35 SE
my foliation lin S 70E 30
coarse bio augen gneiss
fel & spar and qtz
P-clasts N37 00 337
W80 22 465
N 17E 35 SE / spaced Frac

Feb 24

PLT-772 coarse augen gn
OC on road bank N 37 00 357
W 80 22 246
Foliation
N 60 W 58 SW
lineation S 10 W 56

PLT-773 N 70 E 40 SE
G+W - gray bio
gneiss ledge in stream
N 37° 00.533' W 80° 21.952'

PLT 774 N 60E 40 SE dk
greenish gray bio chl
myl sch/gn N 37° 00 507
Y gb green my? W 80° 21 880

PLT 781 leuco granulite
qtz Feldspar yellow scath
sphene gt? layering N 10W 60 NE
my fol in musc phyll 20 ac
N 80 E 60 SE N 37° 00 375 W 80° 21.443'
Y gb? leuco gran layer
N 37 00.473 W 80 21 352

PLT 782 new cut in leuco
granitoid w/ my folia cutting
massive granulitic fabric
N 60 E 40 SE 2 Y gr ? or
Y granulite white qtz and Kfeld gran
in stream load

PLT 783 N 40 E 40 SE Myl

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Foliation in leucomy gn
N 37 00 608 W 80 21 237
Unit includes block of corse
granitoid w/ discontinous
greish biotite musc shchem

PLT 784 N 37 00 765 W 80 20 967

N 40 E 40 SE photo
of brn myl gn

PLT-7619
N 46 E 38 SE Myl
gneiss cliffs
N 37 00 898 W 80 20 782

PLT - 945 b+w mica gneiss
/schist sap w/ sparkling
muscovite parting N 70 E
70 SE N 37 01 250
W 80 17 .250

N37 04.445 W80 17512

PLT — 538 large rounded gray granitoid bldrs or OCs in field

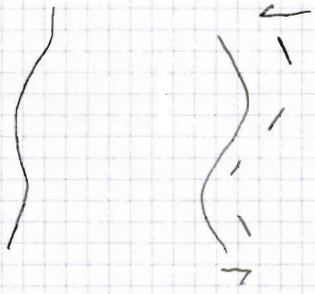
PLT — 539 gray granitoid bldrs behind house N37 04 410 W 17.640

PLT - 5310 N 40 E 30 SE Myl phyl. dug out in road cut at N 37 04 277 W 80 18.010

clay rich yellow orange soil with coarse mica fish schist float

PLT - 5311 coarse gray granitoid gneiss OCs on nose est acr strike N 45 E dip 50 SE est.

PLT - 5 21 coarse gran gn OC behind barn



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June 10, 2014. 49th annid.

PLT-448 Blue Ridge /

Fishersview Thrust Zone

Red and green arg/slate w/

dol + qtzite layers in

Foot wall From powerline

to Bank behind carports

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ORDER No. 033-1

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2/27/14 keo265@vt.edu

Kyle $\frac{21.87}{2}$ = 10.937

RADFORD $\frac{27.78}{2}$ =

100 K
Newport &

2/28/14 Cool Clear Calm

PLT-775 Biotite gneiss
Quarry 100 x 1000 x 50' deep
back hi wall N 37 00 305
W 80 22 325

PLT-775 N 50 E 60 SE
back highwall Photo or
dk gray - Grnish gray straight
layered granulite gneiss
contact with Little River
in Mid quarry
N 37 37 00 283
W 80 22 320 spl

PLT-776 N 90 W 60 SW
Fine - Mg bio granofels in cut
along road at N 37 00 347
W 80 22 290

PLT 777 N 60 E to SE
coarse mylaugen gneiss inter
layered with finer gray sparkling
mylonite gneiss W/ Little River
N 37 00 360 W 80 22 437

PLT-778 N 60 E 40 SE
light gray weathered mylonite

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gneiss w/qtz + feld 2/28/14
porphyroclasts 5-10 mm
across and 100 m long
in etenstional lineation
on closely spaced myonite
folia plunging S45E at 39°
N 37° 00 117 W 80° 22 450
PLT-7790 olive to dark
grn biogneiss float
across drainage ~ Ygb
at N 37° 00 105
W 80 22 437
PLT-7710 across main drain
ledges of dk gry-bk
sparkling biotite gn w/
mylonite (schistosity) N45E 42SE
N 37° 00 077 W 80° 22 . 410
Ygb

PLT-7711 leucogneiss
qtz kspar muscovite
red tspar qtz? resorted
round qtz in granulitic
fabric, myl folation
N45E 28SE N 36 99 977
W 80 22 337

PLT - 467 large block of coarse qtzite cgl in drain, another fan deposit at N 37° 03 808
W 80° 20 115

PLT - 468 10' wide ledge coarse qtzite cgl N70W 66SW
OT, transposed bedding
ledge trend N30E 40 SE
clearing good field stop
in dry weather can
drive back here to
fence line

PLT 543 N40E 20 SE shear qtz mica sh / qtzite in
stream bed

PLT 542 N 37° 03 877
W 80 19 952

coarse leucogranite w/ myl foliation
OC N40 E 60 SE
photo

PLT 541 N37 03 833
light gray W 80 19 920
coarse granofels or granitoid
hypidiomorphic gran
close spaced joints
N40E 82 SE, N10W vert
N40W 45 SW N10W 20 NE
top

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PLT - N 70 E 60 SE

dark redbrn soil, mica schist sap in trench silo area = bgn

PLT-973 OC in road bank brn weathered coarse mica gneiss w fine sandy mtx some feldspar p-clasts n 40E 60SE

N 37 00 357

W 80 16 978

PLT-974 photo of qtz vein

N 37 00 472 ledge trend

W 80 16 .800 N 54E

PLT-981 OC of graphitic slate in road bank

C N 37 00 742 W 80 16 . 575

qtz and qtzite gravel lno in brown sandy top soil

N 70 E 38 SE slaty cleavage

315/14
PLT 952 graphitic slate
in road embankment @
N37° 00.7
N 60E 645E sparkling
mica schist, qtz mica
gneiss sap and Float

N 37 0 005 W 80 16 367
CHK 776 redux lt gray to
brown mica saprolite,
meta arcose - gw w .5 to 5mm
qtz and feld pebbles + sand
spindled out along schistosity
bedding Visible N 80E 755E
N 37° 00 150 W 80 14 .943
Flint Mill House + 40a
540 745 2005
Mileage at home 74.8

March 10' 2014
PLT - 591 redux quarry contains
grenish gry to brown weath
mylonite gneiss w/
5mm blue qtz porphro
clasts biotite muscovite
and weathed feldspar
in elongate spindle shaped
porphroclasts up to 20 - 30mm
end of sheared Little River To SW

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Zach Talk @ VTGSRS

4/6/13

EPA 50 ppb

bitter taste, staining

10 times above secondary standard - health

1/3 well samples

NURE

Good Job

Josh Valentino

Roche mine =

Whale back

TCM berylium 10

~10,000 years

Creation Care Meeting

actions –

Message: Job 38 & 39

Connect committees to see what they are doing?

How to pledge and educate?

Wilma Odell
grow up some

Charlie Odell
promote a connection
evol

Patty Giles –
simple things we can do
whole congregation

Mary Jordan Moore
Think about what we are doing

Contact other churches
Decide up what we
know of various
committees -

Name for our selves
- Creation Care Team -
North side - gardens

Christ Episcopal Dave Ropes
Memorial Amy Beckman

Lutheran
Methodist

YMCA -

Methodithist -

Church office
various ministries

Stewardship -
Men of Church -

Green Congregation - Lutheran
Earth Care Congregation

Building and Grounds (Dioala)
Men of Church

Ed Spencer Stewardship
investing in Companies
that support Ecojustice
Or support new environment
programs
Philip Newell —
Ecology at the heart of
faith

Workshop
Ed
BEC
Public Ministry ⟷
Next Meeting +
5:15 week day
April 3rd - 5:15

March 10 2014

PLT - 953 EW vert mylonite
foliation in qtz - feldspar
mica gneiss saprolite,
mica schist layers
@ N 37 01 580 W80 15.866'
Yma unit

PLT - 954 B&W bio mica
gneiss qtz + feld p clast
Fabric N 80 E 60 SE

S 60 E 45 plunging lineatio
C+S or crenulation

N 37 01 505 W 80 15.825

OC in stream at culvert and
on hill side to SW

PLT - 962 b+w bio gran
gneiss OC in cut behind
storage units at N 37° 01.492'
W 80° 15.682

N 70 E 60 SE
Yma mica shist layers
new ledge exposed along road below
S 40 E 55 SE lineation, R&J
coarse Flaser gneiss self storage
w comp banding N 60 E 55 SE

2-28-14 Floyd Quad

FLD 111 = PLT-7711

FLD 112 blocks and ledges of medium grained leuco granitoid w/ pinkish to clear K feldsar minor musc. and enclaves of green pyrobole w/ redish gt? N36 59 960

N SE 40 SE my fol W80 22 225

closely spaced joints N SE 70 NW

FLD-113 ledge and float

Med-fg bio granitoid w/ ultra mylonitic veins, strong mylonic cleavage N50E 50 SE

Bassett like N 36 59 848

W80 22,255

FLD-114 N50E 26 NW f. Mg

b + w (more b) layered gneiss, N 36° 59 358

W 80 21.922

ledge drilled and blasted along road side

FLD-115 Biotite gn ledge N36 59.297

N60E 30 SE W80 21.772

med grained mylonitic fabric with some poly mineralic porphyroclasts flattened along very planar mylonitic schistosity could be cast (y ma)

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FLD-151 el 2530 6
N36 59 178 W 80° 21.353
N 64 E 54 SE coarse btw
my augen gneiss / musc
schist unit (YMa)
on Red Valley Thrust

FLD - 122 Mica schist
outcrop N 05 E 55 SE
N 36 39 317 W 21 597

FLD 121 musc phyllonite
with quartz veins
N 60 E 34 SE my fol.
w/qtz vein @ N 37 59 415
W 80 21 1.7

FLD - 131 ledge of mod gr.
granitoid gneiss qtz Kspar bio, leuco
N 36 59 833 W 80 20 415
N 40 E 40 SE SPL Photo

March 5 ash Wed.
PLT - 466 blocks - cobbles
coarse qtzite cgl at
N 37 03.765 Photo
W 80 20 210

March 10 2014

YMa PLT-963 Coarse flaser and mylonite gneiss ledges along roadway N 37 01.522
W 80 15.488

mylonite schistosity N 60E 60SE

Yma PLT 964 ledges of coarse flaser and bioaugen gneiss on steep slopes 100' above road at N37 01488 W80°15 470

PLT 966 N 80E 70SE

sheared granitoid gn btw flaser texture assymetric p clasts up to 10 mm

N37 01 453 W 80 15 277

Farmer says interleaved w/slate!

Lunch at Double Springs School Chk-779

N 37 00.977 Chk 7710
W 80 14.970

PL 945 P

N 66E 30SE greeish gray to gray slate and mica shist ledge in roadcut

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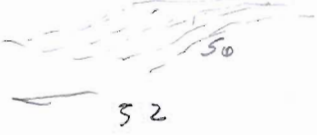
PLT 968 N 64E 60SE coarse
qtz mica schist / semi schist
w/ relict clastic text
N 37 01 168 W 80 15.077

C x S mylonite



PLT-969 N70E 52SE
mylonized leucogranite
white - lt gray qtz
muscovite kspar

OCS From Fault 1
NW 200 meters
N 37 01 228 W 15 088

Thompson RE&A
540 745 8011

Joe Blackwell

PLT 9610 N70E 70SE qtz
mylonite ledge above stream
N37 01.188 W80 15.032
Photos Mullions plunge S10E 68SE
PLT 9611 N70E 70SE green
qy chl sericite slate in stream
bed at N37 01 125
W80 15 047
good field stop for
EZWr
PLT 561 N80E 50SE
shistosity in dk grn-bn
biogn/sch w red clay
soil in new logging
development road
N37 01 117 W80 17.890
PLT 562 N60E 80SE
brn weath mica sch/gn
sab tan to light orge
granitoid soil below
old school @ N37 00977
W80 17.900
PLT 563 N70E 40SE myl
fol. in wh mica - feldspar
sap - sklared lewco gns
N37 01063 W80 18 022
PLT 564 N37 00965 W80 17.973
vein qtz pile on road

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Rob
Harrisons Beef Cattle Farm
552 1067

PLT - 561
Photo of coarse mylonite
biotite gneiss (y ma)
w/o mica schist layers
at W N 37 03 032 W 80 10 [illegible]
N 80W 70SW

PLT 553 dark to
silvery gray chl mica
phyllite or slate OC
In odd road bank N 50E 80SE
N 37 04 110 W80 18 605

PLT 522 Soil Profile along
old Farm Acess Road
at N 37 0
sandy loam brownish gy
bright orange silty clay

y/w orange clay w [illegible]

Gold in Montgomery
Lode Gold deposit
characterization using
evidence from stream
sediments: an example
from Brush Creek,
Montgomery Co. Virginia
by Alan J. Driscoll, Jr.
1989 Pickup 2125 dessg
LD5655.V855 1989.0747

RSB 311 & 313 ore spl
RSB 312 marble sample
collected on Feb 20 '14
w/ Billy Lassiter Josh
Rubenstein (DMME) and
Zack Lavicoff

Thursday April 10
Latham
Solitude 4:15

Engineering Experiment Sta

TA7.V5 c-3

March 27 letter
Reply

Dietrich Virginia Minerals
in Library also
available from DMMF
book store in Charlle
I have copy

I dont know specifically
if COMMINCO found
rodenite they never
showed me core.
That is why we
need to make a connection

I know the model
they chose for their
exploration project
was Broken Hill in
australia which
was a volcanogenic
sulfide deposit meta
morphosed to granulite
facies

Relict Grains of qtz
Most unstrained

no statistical relationships of gold to other heavy minerals in samples

gold mineralization

aureiferous quartz truncates the mylonitic foliation in barren qtz deposited after mylonitization associated with the Fries Fault

3 gold spls show low temp hydrothermal orthoclase or Adlaria

One spl shows gold interpenetrated fractures in Ilmenite (Ilmenite relicts of regional metamorphism)
Limonite (relict pyrite associated with gold
euhedra = static cond.
Fluid inclusions
Conclusions
- ore minerals gold, qtz, pyrite and adularia

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Reset Pass Word

Pilot Quad

Field Review

Qal

Qtd

QdF

Qtd_2

Mp

Ol

Ob

Pulaski

Eco / Ecr

Eel

b

Er

Fishers

E Zu

cq

Zmb

Zuc

Ezq

Eq

Zmb

Zqc

my

Yzp

Ybc

Ybp

Ypg

Fries

Yzlg

Ylrr

Ygb

Ezwr

Ezwrg

Horsepen Mtn

Plutonic Suite

– Yme

Ybg

Galwaldy

Flt

please scan as PdF File
and email to

ssouthworth @ usgs.gov
bhenika @ vt.edu

Scott Southworth
12 201 Sunrise Valley Dr
Reston Virginia 20192-0002

4/24/14
Complex
Ediacaran
Lick Ridge Eclogite
Charles Wilson
510 McKinney Rd
Home 828-688-1122
Work 828-[illegible] 9208
ext 4409

Ed Lener
4030 Newman Library

Saved as

Edracoran

April 8 2014
Smith R.C

mcarter @ usas.gov
Matt.heller @ dmme.virginia.gov
Lorrie Corner @ dmme.virginia.gov
jp maynard @ deq.virginia.gov
mcclellen, Em mcclellan
@ radford.edu
Johnatha Tso jtso @ radford.edu

PROPERTY ON BRUSH CK
DENTON CLIVE ALTIZER
5091 BRUSH CK
MICHAEL FITE
4900 BRUSH CREEK

PROPERTY ON FALLING BRANCH

CHRISTOPHER B. WRIGHT
1361 FALLING BRANCH
QUARRY on Sowers RD NE
Yopp, Gary L. SR. 113
Corvette Drive Floyd VA
24091

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392 7795

N 60E 55° NW PLT 1-2-11
N 37 07 300 W 80 20 928
Er gray to purple gray
siliceous meta siltsn
and fine sand OCS
in "Basket Ball Branch"
below spring Chris Wright 382-1172
PLT 1212 N 50W 26 SW red brn
arg + MSS above pond Er
@ N37 07 268 W 80 20 997
PLT 1213 green phyllitic
argillite in shale bank
along drive way at
N37° 07.343' W 80° 21.103
N80E 10 NW lamination
N 70 E 60SE steep fracture
cleavage
PLT 1214 N20E 10SE
lam - slaty dol + arg
lower Ecl @ N37 07 367
W80 21 113
PLT 1215 mass gray dol on
ridge top
PLT 1216 lam concocheague
like elbrook cylic dol
N 10E 20SE
PLT 137 red argillite in
bank behind shed
N37 07 470 W 80 20 366
Hamilton, Dale, Deborah
Benson / VT

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5/27/14 Clear cool (AM)
PLT 7115 relux (7156 spl

N 30 - 10 W 5 SW
gently dipping myl Foi
in stream, mostly myl

Some phyllonite on road
blasto - augen mylonite
in streambank - Pilot gneiss
or Bottomck

N 37 02.498
W 80 22.137

PLT - 7112 N 50 E 45 SE
Mylonite Foliated ledges
~20' above creek. Fine stp
gneiss w/ quartz ribbons
like mylonitic lovingston gneiss
Ylr @ N 37 02 388 W 80 22.001

PLT 7113 gray-greenish gray qtz
feldspar grit or myl arkose
cuttings From new well
at Fite House (4950 Brush Ct)
chlorite / muscovite phyllite
W/ CtS structure Rock
Spl Float below well from
grading site for log house
@ N 37 02.797 W 80 21.991
well 37° 02.503 W 80 21.973

PLT-4712 May 23 '2014
N37 02 200 W 80 21 987
OC of mylonitic layered
granulite gneiss, green
and orange to pink,
leucogranitoid parent.
30 M upstream from
Bridge # 8262 on Brush Ck

Begin Stop 5 at PLT 474
mylonite + augen mylonite
gneiss at N37 02.522 W 80 22.127
walking SE along SR 617
end stop 5 augen mylonite
in Little River at
N37 02 532 W 80 22 070
mylonite augengneiss

PLT-4710 qtz vein 5'
in augen mylonite and
mylonite gneiss/schist
sap, brn, biotite rich
N 37° 02.223 W 80 22.007
Foliation N 50E 98 SE

PLT-4711 mylonite gneiss
ledge along Brush Creek

PLT-4712 mylonite gneiss
augen mylonite Little River
N 40E 30SE @ N37° 02 332 W 80° 22 035

G. EARTH N 37.2.339 W 80° .22.067

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5/27/14

PLT-775

Spl of Fresh Little River Augen gneiss from quarry at N 37°00.310' W 80° 22.335'

Gary Yopp Sr

540 7454938

342 7795

PLT-781 redx

N 37° 00360 W80 21.447

PLT - 944 redux No 70W 70SW

banded or Schistose vrs Mass gneissic sap orange pink to brn mica rich soil

N 37°.01.513 W 80 17 000

old trench Silo

N75E 55NW Mica phyllonite sap on nose

PLT 4610 YBCP Spl
N 37 03 480 W 80 19 .9 60
vtdrs along rad
Very coare Kspar p-
clast in augen myl
May 28 2014 PLT-633
on road east of Vaugns Chapel
Sap ledge of coarse mylonitic
granulite, n 40 E 42 SE
green mica + chl + bio +
qtz + Kspar ± amphibole
dark brn bio schist / augens
N37° 04 165 W 80 15.345
PLT-629 el 2350 b thk orange
brn clay loam w/ my chips
on ridge top
PLT-6210 on logging skid road
bnk gray-brn mica phyllonite
sap n 60 E 60 SE Foliation
at el 2300 b
N 37 04 680 W 80 15 873
leucogranitoid float block
~ 16" thick layer
from gneiss
PLT-6211 el 2200
Tan augen mylonite saprolite
Photo N 50 E 60 N37 04 500
W80 15.612
assymmetric feld p clasts
top to NW cross joint zone

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brow N54E 60NW photo

PLT 634 spl of dk greenish gray augen mylonite with 1" polycrystalline K Feldspar augen.
el 2150b e N 37 04 555 W 80 15 772

N58E 52SE mylonitic Foliation

PLT 635

N60E 30SE bearing on water line 30' ledge of dk gray tan banded mylonite gneiss w thick leucogranitoid Mega porphritic zones
N37 04 635 W 80 15 802
el 2120 b

PLT-6212 sap rock in old ridge road bed tan-brown mica gneiss w feld p clasts qtz ribbons up to 9mm N40E 30SE
N37° 04 463 W 80° 15.862

PLT 636 qtzite in shed foundation, dk chl phyllite outcrops on ridge possible Unrei?

PLT 6311 Phillips Realestate sale
Tom Moser 745 485
N 40 W 20 NE

PLT 448 6/16/14

Qtz cgl in drive above Blue Ridge Fault

Rome in Bank to NW of house and carports

PLT 4410 gray phyllite, w/slaty cleavage and 2' ledge of crushed qtzite in cut on middle of curve N 40E 40SE

PLT 449 white 2' sheard qtzite ledge in embankmen N 50E 22 SE Transposed bedding

PLT 4411 Coase white cgl blrs, brown cobbles in debris flow Sap exposures along road

PLT 4611 June 10 '14

N 40E 30SE chl sericite phyllite, thin qtzite lenses in new drive way 3826

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June 10' 2014
PLT-975
N50E 60SE silver gray
chlorite mica phyllite
sap crop in road bank
(2W- on Caldwell farm

CHK-443 el 27206
ledge of white-light gry
leucogranitoid w/ mylonitic
foliation N30W 70 NE

CHK 471 contact coarse
mylonite biotite gneiss
with massive to sheared
amphibolite or amphibole
rich foliate, Spl
PLT-486 coarse
porphyroclastic granulite or
charnokitic gneiss Ybp

June 16 2014

PLT - 125 11.9 Miles at
first stop to walk to Rome
Then back to Breccia

PLT - 261 debris flow deposit
in head of hollow w/ Unicoi Mr
Conglomerate Talked w
Mrs _____ rome Shale chips
down slope in road bank
at el 1620 b

PLT 262 N 40 E 60 SE
airstrike, brown slaty
cleaved arg-qtzite in
stream bank Er? Ezu?
blocks and bldrs on slopes
w/ qtz veining

PLT 263 el 1550 b
deep red clay sltsoil dark
gray dolomite blocks and
boulders - Er?
N 45 E 55 SE bed of lam
to massive, siliceous
gray dol. in road
bed
N 55 E 70 NW Lam in dk gy
mass dol / edge, Shl below

PLT - 234 qal ~ 300
feet wide at Tenlorsec

PLT-181 el 1900 b
red sh sapin road bed
house on left

PLT-182 el 1830
red slaty argillite w/ bedden
plane cleavage N 80E
60-70 NW

PLT-183 el
N 80E 60SE dusky
red argillite, orangish rpl
laminated dolomitic
ocbt int.

PLT-184 N 50E 30 NW
red shale crop in
ditch before Ck

PLT-191 N 40E 50 NW
ledge of dusky red
argillite w/ bpc
in branch

June 16 2014

PLT 192 N60 E 60NW
Rome Inck

Pilot Basement Samples

			Cut
PLT 4712	(Pilot)	Yp	✓
PLT 7612		Ylr.	✓
PLT 841		Ylr	
PLT 744		Ylr	✓
PLT 775B		Ybg	✓
PLT 775A		Ylr	✓
PLT 634		Ybp	✓
PLT 6410		Ybp	✓
PLT 781		Zlg	✓
PLT 673		Zlg	✓
PLT 344		Zlg	

RNR-CHK Basement

RNR - 941 Ylr R-10658

RNR - 911 Ypg R-

RNR - 8913 Zlg R-10683

RNR - 897 Ylr R-10665

RNR - 693 Ybp R-10689

RNR - 945 Ypg R-10659

RNR - 867 Ypg R-10654

RNR - 9214 Ypg R-10678

RNR - 895 Zlg R10655

CHK - 171 6/19/14

N 80 E 40 SE Med grained greenish grey to b & w mg/ gneiss w/ augen shaped qtz and Kspar granules in chl/bio schist matrix

LAMP FOR SALE MKB

FRANK SAUNDERS 521-0125

N 37° 05.037', W 80 14.285'

PLT - 665 cut in y/w orange pink grgn mg gn sap foliation N 42 E 65 SE

Lin. S 60 E 60 SE pc ~ 5mm qtz + kspar

PLT 666 N 10 E 40 SE

f - mg mg / gn weath orange qtz + kspar + musc/bio + blue qtz

PLT 667 Blocks and bldrs of coarse, weathered, red to pink granulite w/ blue qtz, feldspar (kaolin) biotite and magnetite not strongly foliated but w/ granulitic fabric

PLT 637 spl of med grained dk gry granulite, non foliated w/ large relic pyx? now amp

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PLT-637

N 37 04 288 W 80 15 323

mylonitic zone above N50E 20SE

el 2600

PLT-638 mylonitic biot

schist in road bank

N 70E 50SE

PLT-639 bull qtz vein

mapped as Y/bC - Pierson Farm

some 6" round granitoid Gldrs in gar

augen mylonite, mylonite gn flagstone -

PLT 6310 blastomylonite

pavement OC behind

house N 45E 30SE

Fold pc up to 30mm

N 37° 04.555

W 80 15 355

Lin S55E 30SE

1623 lick Ridge

Pierson

PLT 6311 redux

6/20/14

pavement

N 25E 42SE

LIN S20W 28S.

my Foliation coarse dagn

myl w/ brosch mly

S

6/20/2014
PLT 6312 big qtz vein
outcrops on hilltop
at N37 04 573 W 80 15 417
PLT 6313 el 2460 bio
musc sh / mylonite
w qtz at Kspar PCS
strung out along Folia
(Float No meas)

PLT 6314 el 2300 b
augen mylonite myl Fol N40E
52 SE Kspar + qtz augen
plung S20E 30 SE
GPS N37 04 623 W80 15.722'
PLT 6315 el 2130 on slope
above creek (100') Fine leuco
granulite gneiss layered
N40E 30SE Y gr
PLT-6213 el 2030 b green
mylonite + layered myl gn
w/ leucocratic zones qt rich
Fine Schistose zone N45E 30SE
Property Corner 20' below
N37 04.792 W 80 15.827
steel pipe
PLT-6214 el 2000 b N37 04.809'
W 80 15.860'
water Falls on f[illegible]
ledges of layered
leucogranulite gneiss w/ strong
my fabric N30E 42 SE
w bio in down dip (Mots 51 SE 30 N

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N37 04 820 W80 15 [illegible]
PLT-6215 e22006
N50E 40SE
coarse tan phyllonitic
mica schist w/ button
texture

PLT-6316
N55E 60SE mylonitic
foliation in lineated
leucogranulite sap on
embankment

PLT-6317 gray to greenish
gray coarse porphyroclastic
mylonite gneiss folia
outcrop in road bed
N50E 50SE lineation of PCs
down dip, quartz ribbons
EW 20E lin

PLT-6318 N50E 30SE
lin S70E 20SE

N37 04 843 W80 15 143
gray mylonitic / phyllonitic gn

6/20/14 PLT 695 ~ 70 & 50 SF
coarse pink weath leucogran/Syenite
ledge at back of field 7 1/2
Spl

6-26-14 Drove to Redwood (F150)
to Recollect Spl RDW 872
Marble from Pigg River Crossing
OE SR 705
Lunch at Subway in Rocky
Mount Then drove to
Appamattox Stone Co. To
Recollect Sample STW 351
Drove to Richmond PC (Dinner) + Lodging
6-27-14 Drove to Howardsville
for annual Virginia Geology
River Conference Meals +
Loging

7/5/14 PLT 7712 Mylonitic
bio gneiss in stream
3' white quartz vein
pointed out by land owner

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