relict ribbon layering
N 50E 40SE

RNR-1118 N 30 W 70 NE
orange - yellow platy
dol w/ ribbon-layered
gray ls/dol beds
N 37° 07.402 W80 29.905
Mass gray ls block below
RNR-1119 Fold core?
beds of mass, then
thin bedded dol N46W
40NE N37°.410
RNR 1120 W80 29 975
Photos, Cherty blueish gray ls
highly sheared and pressure
solution stylolites E-W TON
Ribbon Rock at N37 07 416 W80 29 988
RNR 1121 photo of orange
yellow gray thin (cm) siliceous
dolomite in bank by pond
N37°07.477 W 80 30.032
N 40 E 30 NW lower elbrook

14 & 20 June
Start at Truck Stop
across

Monday June 3 13

Riner Field Review
N 37° 7.290 W 80 28.451
Stop 1 is a quarry along SR-
Pulaski fault splay 724
Walk from maxmeadows
breccia in Pulaski
seet through conocheage
copper ridge to beek
N 37° 7.248 W 80°29.898
Stop 2) is Elbrook
conococheage depositional
contact w/ folded ls
along same fault splay

2 Farms permission
N 37 6.855 W 80°29.307
Stop 3 — Zimmerman Road
Peritidal facies in Eco/Ecr
u anticlinal arch
N 37 07.168 W 80 25.698
Stop 4 SS near top of
Eco/Ecr and Beekman
town Diana Dune
below water Tower
Stop 5 Roanoke Valley Fault
N 37°6.696 W 80°25.353 Life Dune 1295

uphill from Rt 8
Elbrook Ss + Dol
and Rome (HW)
N 37° 6.481 W 80° 24.747
Stop 6 Iron mine off Lubn Kings
Developed an breccia Mill
mineralized by Kingston B.
sulfides, described
as Ded/Zinc
Prospect in Watson
Rome dolomite + Sh
N 37° 04.787 W 80° 24.349 road
Stop 7 Breccia and
Elbrook Dolomite " Window
along Peak Creek Fault

N 37° 01.423 W 80 26.379
Stop 8 Poor Mountain
Thrust (Blue Ridge System)
canine unicoi Phyllite
thrust over Rome
Dol & argillite along
Rt 8

N37°02.015
Stop 9 W80° 25.494'
Larkspur Circle Rt 8
Examine cambrian
coalgite Gunicoi
when Bartholomew
Mapped Thrust
slice of Shady
N 37°01.980 W 80°24 252
(SR 66) Stop 10 Dobbins Hollow Rd
Examine Pilot gneiss
epidote/hbd biotite
granofels - Western
Blue Ridge Basement
N 37°01.927 W 80°24.057
Stop 11 Dobbins Hollow Rd
Examine Melabasalt
goldenrumphibolite in
look for relict vesicles
possible pillows in Ek
tributary to Brush Ek
N37°0
Stop 12 Fries Thrust, Rt 8
Unicoi phyllonite
walk up stream along
0.865 N Little River to Quarries
25.573 on 716 Little Camp Road

greenstone
in road cut at

N37 0.682 W W 80° 25.404
Stop 13 Augen mylonite
N in old quarry
(Little River)
walk to
N 37°00.652 W 80°.25.385.
Stop 14 Leucocratic granulated
gneiss - Crossnore?
along Road at
old Bridge Abutment

Stop 14 Little River
N 37 00 .877
W 80 24 .213
Leucogranulated sills!

STOP 15 River bend
nursery terrace deposits
N 37 01.056 W 80 26.820

6/21/ Mayma Registration
38 00861060

Meeting Randy + Patty
Gail
540 797 1609
White Rock
Road

April 1 2013 [illegible]
RNR 343 N37 06 469
Rome dol in W80 24 823
drive
red argillite to N
beds dip SE then NW
2327
RNR 344 dol oc on knob
w/ prospect pit / bench
50' W + dc 10' NW
trends N80E 80SE.

black and white
yellow and red
mineralize breccia

N37 06 377
W80 24 682
RNR-345 20-30' deep pit
pit w/ oc of breccia
(spl A) and scattered
chunks of Limonite ore
at N37 06 465 W80 24 737
Red beds on road ~ 500' NE-W 20S

4/18/13

Samples, to Scan For.

April 18 2013

Radford S quad check

(1) breccia/tuffa in cut

(2) Red and yellow argillite in road bank

(3) Water Fall in laminated dol ledges upper elbrook

N 37 07 165 W 80 30 307

Massive gray dol w/ siliceous lamination (photo)

N 54 E 30 SE 18506

Ribbon banded dol above (Photo) cycles ↑

cgl ribbon rock

Lam

(4) ledges of med gray med-coarse xline dol w/ Vugs Filled coarse dol N 30 E 40 SE photo

N 37 07 .153 W 80 30.285

(5) Photo - Sandy laminated dolomite ls N 24 E 80 NW

lam (offset by

N 37° 07 153 (clear

W 80 30 243 (ls ?

4/16/13

(6) med thin bedded ribbony dol ls
N 10W 44 NE
Adjacent to open corner in Graybeal property at
N 37 07.117 W 80 30 2[illegible]
photo of ribbon 80° 30.203'
layering

(7) Photo of Mass. bedded gray dol on ridge top, photo of block of silicified flat pebble cgl
RDS 331 sp1
~~N 37 07.105~~ W 80 30.163
N46E 70 SE

(8) SS cobbles and blocks along medial ridge at top of elbrook N37° 07 090
W80 30 115
visibly traceable down hill along ridge to road ck at RNR 111 & 112

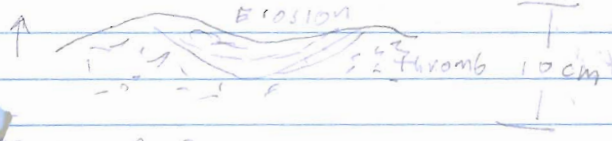
4/18/13

(9) photo of mass ledge w/ erosive base. Flat pebble cgl zone ~ 3" thick grd upwards into thin bedded dol w/ thin shaly partings ~2" apart 1/4" thick

N 37° 07.042' W 80° 30.223

photo along strike as well

Photo of eroded thromb and ribbon layered sequence above



good facing criterion

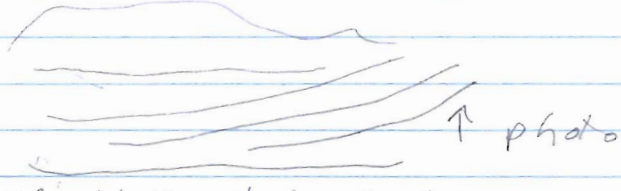
(10) light grayish green slaty argillite in road below deer stand at N 37.07 193 W 80° 30.297' el 1840'

N 70 E 20 SE cleavage

(11) N 76 W 70 SW ylw gry elbrook arg dol ledge

med bedded, sbly
N37° 07.352' W80° 30.227'
(12) rounded bldrs or
dol breccia along
fence at edge of
property.
N37 07 360 W80° 30.202'

RNR 111 redux photo
and spl of SS at
N37 07 255 W 80 29.858



RNR 1116 N46E 48SE
photo of bluish gry
dyalls w/ some tufa stain
below massive brown yellow gry
dol ledge Elbrook (Upper)
N37 07 332
W80 07 327
RNR 1117 el 1980 +
N37 07 350 W 80 29 927
med-gray, thk bedded
fine grained dol w/ cht

March 12 '13 Riner Quad Cloudy

RNR 8731 N70E 25 SE

Myl Foliation, biomyl

S52E 22 gn lineation plunges

RNR 874 N60E 40 SE

leucogranitic gneiss

qtz vein 4' thick

in ck [N 37 00 322

in field W 80 27 110]

above

RNR 875 N50E 36 SE

med gr pink orange

weathed bio leucogranitous

Fracture cleavage not strongly

foliated N 37 00 320 W 80 27 323

bio sch / augen myl gn float

on steep slops between 4 & 5

RNR 876 N36E 20 SE

big (8') layered mylonite bio

granitoid ledge below 5

RNR 877 N50E 25 SE

Mylonitic foliation in coarse

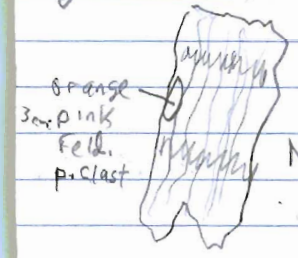
mylonite gneiss quartz and

feldspar augen drawn

into elongate porphyroclasts

S56E 20 SE lineation

Prom. Joints N 30 E 80 NW
close (1' or less)
RNR-7910 nose above LR
on powerline, ledges of
biotite mylonite gn + augen
mylonite on spur to SE, no OC
on this nose, brn loamy soil
qtz and pmk to white mylonitic
granitoid float at
N 37 00.407 W 80° 27.597
RNR-878 on top is orange
red clay soil, no OC
at N 3700.542 W80 27.383
just hay field
RNR-879 no OC, root rocks
qtz and quartz feldspar
cataclasite. Strong
mechanical shear cleavage
across composition
layering of coarse leuco
granitoid gneiss
— w/ cross fibre
structure



10 cm
N37 00.623 W80° 27.367
ZY Sg

Saving Jesus

Additional Fractures for Mowes Springs Fault Study

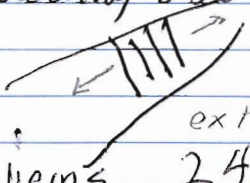
LOC.	STRIKE	DIP	character
BMT634	00	70	frac (dia)
BMT661	160	31	my
BMT6310	155	9 SE	lineation
BMT661	160	50	my
BMT663	040	70	my
BMT664	285	75	cht
BMT622	350	40	chl. clear
BMT345	320	74	chl clear
BMT342	155	45	cht clear
BMT343	120	45	old myl fol
BMT 345	170	85	joint in Rom
BMT 232	160	25	myl fol
BMT 261	325	60	mly fol
BMT 261	200	60	myl
BMT 233	200	20	mnfilled Frac
BMT2312	335	15	
GCY753	145	75	myl fol
GCY724	135	75	myl fol
GCY724	135	20 SE	crenulation axis
GCY792	135	?	" "
GCY471	130	48 SW	myl fol
GCY473	135	60 SW	cht frac
GCY798	030	90	dike (tension)
GCY485	190	35 SW	stretching lineation
GCY487	025	78 SE	my folia
GCY4213	200	45 NW	Frac clear (limonite)
GCY 774	100	75 SW	open (tem) joints
GCY 751	115	55 SW	Myl fol.
GCY 4410	155	65 SW	Myl fol

PORTABLE LINED PAGES ©1988, 1996, DAY-TIMERS, Inc.

GCY 4514	160	@ 20 SE	lin on myl f.
GCY 559	190	@ 15 SW	fold hinge
GCY 471	105	35 SW	gs dike mg
GCY 444	340	50 SW	frac clv (chl)
GCY 791	100	75	
GCY 791	020	90	joint
GCY 793	114	70 SW	joint
GCY 793	010	70 SE	joint
GCY 742	145	50 SE	lin
GCY 7211	290	80 NE	myl fol
GCY 487	020	30 SE	myl fol
GCY 718	126	80 NE	myl fol
GCY 728	020	75 SE	myl fol
GCY 729	172	80 SW	myl fol

BBG - 263 June 22
behind Chemistry bldng
dol, light gray
thin to medium bedded
slaty shaly beds on
top
white calcite veins
cut bedding

bedding 330 17 SW



Aug 1 veins 248 80 NE

Marshall University Geohazards
Country Inn and Suites
2120 Harper Rd Beckly WVa
$ 77 night gov rate
304 252 5100
Fairefield inn or Suites
155 Hylton Lane Beckly
WV (800 228 2800)

DAY 1 July 31, 2012
8:00 - 5:00 Field Trip
Venue - Tamarak Conf. Center
DAY 2 AUGUST 1
7:00 Regs

8:00 — 5
DAY 3 AUGUST 3

VT MESOZOIC - CENOZOIC PROJ

Jul 28, 2012

GDH 274 N 36 57 717
W 79°49.395
diabase adjacent to
Cemetary and old
Tobacco barn

GDH-831
diabase in road cut to
across From 6061
Sontag Road - Mitchell
N 36° 54.510 W 79° 48.307

MVW 551 N 36 42 083
W 79 56.035
diabase from old Fieldale

SPY 771
August 2012

STS 971 N 37°00.013
600 Wide dike
DAVID Hutchison Fm W 79° 09.908
STS 972 N 3700 090
East side of
Creek W 79 09.755

SPG-132

SPG-III Motley Farm Shova
N 36 51 978 W 89 20 270

BLR 531 diabase along
360 N 36°42.130 W 79°17.807

Aug 14 2012

PRC 771 on Horse Pasture
N 36° 35.145 W 79° 59.697

PRC 251 N 36 36 050
Marrobone W 79 56 413

PRC 631 N 36° 34 627
Fine W 34 53.102
grained sulfide rich
near east Branch of
Marrowbone

681
SPY Stewart Ck
N36 32.729
W 79 46 540

SPRAT

AXT 892 Cow Branch Fm
N36 32 669 W 79 40 .357

AXT 971 big dike on
ds 58 Med grained
Pyhrotite bearing
N36°.38 .023 W 79° 39.68

6/9/12

IRO 7-1-20 Cave photos
N 37° 09.608' W 80° 21.915'
17S 0556354
4112838

IRO 7 2 10 prospect
at N 37 09.585
W 80 21.298
0557281
4112794

IRO 7 2 21
iron mine N 37° 09.628'
W 80° 21.165'
17S 0557475
4112877

Kearns
Don L

rs08e

E mail 8/6/12

Salary	$10,000	10,000
FICA	765	765
Travel	1404	12,169
Indirect	1800	2,052.72
Contract	1031042	
R-		14,221.72
3693		

Sept 19 '12 Field Trip
Ricky Johnson
Oct 2+3
- 540 354 0374
- Joe Agnew -
rijohnst@vt.edu

392 -
2504

8/21/

Talked w/ Jo Thomson

8/22/12

Bobby Mullins

Mullins Painting

276-352-8021

Tuesday – Talked w/ Jake + Ethan

Mylonite - medium grayish gray, fine grained, strongly foliated mylonite, consisting primarily of chlorite quartz and epidote.

Watson
Wednesday

1) Skip
2) Ben
3) Work on Matt's ~~PP~~ list

Rock Chips Not Sent

IRO 241 - R-10396
IRO 379 - R-10394
IRO 2912 - R-10402
IRO 531 - R-10399
IRO 478 - R 10397
ESN 912 - R 10406
ESN 654 - R 10405

Penlone 2054

Central Iapetus
Magmatic Event
of eastern North
america that included
the Cutoctin Flood
basalts of North
Eastern Virginia.
That peaked at
at about 550 ma
Puffer 2002,
Beard 2019 personal
communication.

Edth 1.10

Sept 5

GVR 852

Sept 7

Stop: Pyroclastic flow in Unicoi, Elliston Quad

N 37° 13.107 W 80° 08.008

ESN 39 36 redar

10/25/12
RNR-331 redux

RNR-332 Celbrook
ls + dol interlaminated
light and dark gray
cut by white dol veins
delicate algal lamination
preserved, small tidal
channel cut and fills
inclined strat
N 37°07.277 W80 23 138'
RNR-333 algal ls, blue
gray, massive bedded
w clotted thrombolitic struct.
N60E 40 NW on
subtle bedding between
algal heads.
N 37 07 217, W 80 23 002
photo
Spring on other side of Fence
Photo of Rome slope to SE
w/ terraced slope above
ls residual soil.
RNR-334 qtz arenite w/
[illegible]ded sand grains (cobble in
soil)

N 37° 07.130' W 80 22.620
RNR-335 on Montg.
Falling Spring IP Gndry
N 37°06.920' W 80°22.560' Yellow
red argillite chips in soil
white sandy mtx.
Cleavage in bank // beds
N50W 16 SW Photo
RNR-233 Medium gray massive
bedded algal limestone interlayered
in slaty to brecciated tan
to gray fractured dol MADE 40 SE
on entrance drive to Cross Point
N 37° 06.690 W 80° 25.355
Photos
RNR-234 N 76 W 62 SW
ledge of y/w orange
to tan phyllitic arg
cleavage prominent
N 37°06 735 W 80° 25 157

RNR-341 large blocks of
tol on steep slope
behind new House
RNR-341 at turn around
on _____ ledge of tan phyl

10/25/12
cleavage most dominant!
argillite in bank N66E 64SE
N 37°.06.810' W80° 24.737
RNR-261 Poorhouse knob
tan weath slaty argillite
cleavage N 80W 80 SW
bedding? crenulated
fold hinges S 66W 16° SW
N 37° 06.456 W 80° 25.300
Romefm
RNR-262 N 64E 80 NW
1' thick arg dol overlying
dusky red argillite w/slaty
cleav N70E 50 SE
RNR-226 at end state Maintenance
gray to y/w grn slatey arg
E-W vertical cleavage in
ditch line N37° 06 700
W80° 26 563
RNR-227 on knob, low cut
in tan weath argillite
arg dolomite N70W 15 SW
bedding
RNR-235 gray to light gray fg
x/line dol ledge in road bank
N 24 E 16 SE N37 06.908'
W80 25.560'
Elbrook dol!

RNR-236 N 37° 06 843
W 80 25 373
large spring box 12x24'
RNR-237 photo of coarse
cellular chert, w/ relict
cyanobacterial / strom stru
also sandy siclicified
oolitic material on knoll
above spring at N 37° 06 .873
W 80° 25.317
RNR-237 N 30E 30SF
argillaceous - mealy tex ls, lt
blu gray ocs across drain
from Power line on trail
N 37 06 .840 W 80 25.210
RNR-239 rd + grn + ylw
arg chips / slaty clear
in trail across drain
from PL RW N 37 06 850
W 80 25 167
RNR-2310 Town of Christiansburg
Pump station N 37° 06 928
W 80 25 158
75 dia pad pump diesel backup
RNR-2311 N60E 26 NW FIZZ
3' med gray algal mottled mealy
dol edge in new cut N37 06 870
W80 25 395

These used on Riner Computation

Glass, F.R. JR 1970
Structural Geology of
Christiansburg area

Hergonroder J.D. 1958 Geology
of the Radford, area

Truman, W. E. III, 1976
Geology of the Blue Ridge
Front near Riner, VA

Vice, Ek 1962 Geology of
the Wolf Creek - Piney
Ridge area, Blacksburg VA

Susan Newman
< snewman@seismosoc.org>

Google Aps
username
password
Log in
Activate account

Nov 2 RNR-241 N37°06.522' W80°26.677'
dol, gray, thick-bedded N70W
·70 SW, 30' above Qal

RNR-242 block of
thk bedded gray dol
w thin beds of v dk gry
burowed or mottled dol
N37°06.330 W80°26.750'

RWR-243 ledges of dusty
red slaty argillite
N 50E 20 SE (Photos)
N37°06.272 W80°26.593

RNR-243 EW 60N ledge
of med gray fractured dol

100 4.17
24 ⟌100
96
400
24
160
16%

Nov 2 Cont'd

RNR-322 Ridgewood Swim Club parking area / Tennessee Conasauga orange yellow silty clay w abundant quartz cobbles most broken smaller still angular some well rounded Jasper, qtz mylonite, chert and silicified oolites ss

RNR-221 cut to new church (Grace) N37 06 753 W80 26 662 exposes tan silty soil w/ abundant & chert some rounded, dense, some dark gray

RNR - 211 white to gray weathered siltsn w/ slaty cleav N80W 18SW N 37°06 712 W 80 26 830 mapped as €r ? could be nolichucky / Rumkin Valley

RNR-252 1' thick med gry dol ledge by outdoor ring N37°06.547 W80°26.563 Photos 1im. N80E 80 NW

NOV 5 '2012 RINER

RNR 253 beneath Power line cut for drive exposed yellow sh chips, qtz veins

RNR-254 behind shed yellow grey resid soil with rounded chert cobbles photo

RNR 255 rouded oolitic sand and rounded, pitted and iron stained vein qtz cobbles in cut by show ring

RNR-256 N 74E 52SE ledge of dusky red to pinkish bn argillite w/ slaty cleavage, some fine siltsn/ss float at head of ravine photos

RNR-257 N5 18E dusk red argillite + mtsltsn in bank on farm road photos

RNR-258 N 74 E 64SE dusk red varved argillite in road cut. Er

NOV 5 RNR 259

N 75E 80 NW red ledge
Slt sn/arg Rome fm on hill
side photo

RNR 2510 red argillite w
slaty cleavage, ledges
N 70E 20 SE coase
dol + ss blocks in
drainage, possib breccia as
we

RNR-244 on farm for sale N 20W
From Silo on other side of I81
Red and green sh or slaty arg
OC in road embankment
N 50E 74 SE

RNR 245 N 80E 19 SE gray ls
or dol

Nov 6 2012

RNR 227 rounded dolomite
pebbles, angular and sub
rounded chert & qtz pebbles
in white sand top soil
in church yard

RNR 212 N 10E 16 NW thk
bedded fg, gray dol ledges along
Lake Vista Dr N 37° 06.873 W 80° 26.985

Nov 6 2012

RNR-213 on subdivision cul de sac
at N 37 07.295 W 80 27.003
light sandy soil chert + ss gravel

RNR-214 on subdivision road
at N 37 06 983 W 80 26 980
gray dol ledge thk bedded
shear cleav N 20 E 30 NW
N 3 20 SE thk beds
N37 06 982 W
W 80° 26.978' E
Photo
RNR-215 N 37 06.685 W 80 27.370
brn weathered thinly bedded siliceous
argillite. N 74 E 68 SE photo

RNR-161 N 80 E 60 SE thin
bedded slaty dol then
thick bedded folded dol
w red ptgs (photo) large
qtz ss cobbles in fd 2
N 37 06 138 W 80 27.957
RNR-151 new house no oc dol
in back on Kenhill fm dips 50 NW
N 37° 06.087 W 80° 28.815
some drs ant axis (photo)

RNR 152 N40E 18 NE AP N38E 70NW

N80E 32 NW NW Limb N28E 50SE SE Lim

wrong (refolded sym red and yellow argillite overlain by dol

RNR 153 N 37 06 257 W 80 28 907

N40E 60SE siliceous argillite meta sltn + fine SS Єr

RNR 191 N 70E 70SE siliceous argillite red - yellow chips is soil, resistant ledge

RNR-162 coarse porous chert blocks in "woods" now gone.

N 37 06 167 W 80 27.590

seems piled along old fence lie (photos) in ravine

RNR-163 small knoll has green argillite w/slaty cleavage within 6" of surface (Photo) Єrcl sn wit

N37 06 238 W 80 27.586

N 20W 20SW clear

RNR-164 N76E 76SE platy argillaceous dol pavement

75' std above limestone spring
in lower Elbrook, old
lime quarry ~ 200 m to NE along
strike (photos) N 37° 06 277
RNR-246 quarry | W 80° 27.497
N 50E 20 SE in quarry
N 37 06 297 W 80 27.313
1-2' qtz ss bldrs in
chert pile at edge of field
11/7/12 / Obama won!
RNR-121 N 72E 70 SE
clean? in dol, cream to
lt gry, fine (micritic) to sandy
text by sbbdivison reservoir
well house (Ecor N37°06.770 W80 28.498
RNR-122 ocherous sandy dol
sap/silicified cherty sand
blocks on ridge top ~ 2-3'
thick beds, higly mineralized
RNR-123 road crossing silicified
zone not ss ledges abundant
chert clasts
RNR-123 spring on side of
Gate rd at N 37°07.103 W 80°28.413
dolomite, gray to brn weath
rg N 70E 12 SE RSU

11/8/12 Laura

Mad/cd @ a01

RNR-124 N 70E 85E ledges of massive bedded med-dk gray dolomite N37 07.202 W80 28.462

RNR-125 N 70E 12 SE med light gray med thk bedded fg dol with crinkly siliceous partings (photo) N37°07.238 W80°28.455'

RNR-126 spring box on road side In massive gray dol N37 07.727 N20W 5SW in Quarry face W80 28.443

RNR-127 Quarry face 100' massive bed N70E 5SE gray dol, N70W 80NE face

RNR-128 breccia Ocs along road N 20E 55 SE

Photo 15 N5E 30 NW next Photo at N37°07.356' W 80° 28.472' bedding above N 20E 20SE ribbon rock joint N40E 50 NW N37 07 302 N5E 70 SE W80 28 445

RNR 129 N 30E 60 NW tgry weath dol ledge, siliceous bty

Looks like Eco 11/7/12

RNR-131 talk w/ tweedy
about beach spring
says up hollow and pavement
by ram. Ok in drive
thin bedded light gray
dolomite pavement N78E10SE
at N 37 07 242 W 80 28 258

RNR-1210 ds ledges above
house and in ravine
to NE N 30 E 22SE
looks RSU to me!

RNR-1211 E-W 70 S ledge
of thin-med bedded gray
arg. dolomite in R^2 drive
N 37° 07.523 W 80° 24.085

RNR-1212 E-W 50N dol ledge in
stream bank west of road
road bank are green shale
540 382 8848 - 540 320 9274

RNR-141 Tommy Altizer
N37° 06.013 Photos N45E10SE
W80 29 908

RNR-111 N40 E 80 SE massive
chert dol N 10E 40 SE

RNR-112 road black cht
2 fold plunge N80E 40NE
Ap N80E 85E N37 07 335
W 80 29 865

11/8/12

BBG-721 new road grade off of SR 719 at Crab Creek photos of white silt loam soil below reddish clay loam

N 37 09.233 W 80 29.501

white soil may be very old Td w chert cobbles

RNR-1212 N 20 E vertical laminated

Fractured light gray dolomite at along Fenceline N37°07.455 W80° 28.882'

RNR-1213 rounded qtzite cobble (photo) in wind gap

N 37° 07.433 W 80 28.768

RNR-1214 rounded ss cobbles and chert in wind gap

Thapson Cem @ N 37° 07.348' W 80° 28.87'

RNR-1215 2' thk block of med bedded sandy dol w 4" ss beds between 2" silicified oolite beds

N 37° 07 295 W 80° 20.765'

RNR-1216 Stone Pile & blocks & bldrs of white oolitic chert

some ss

RNR-1217 " " " "

RNR-1218 chert pile in woods by old deer stand some oolite N37 06 W80 29

RNR-1219 N40E 50 SE 2' SS Feld or
colcledge on slope at N 37 06.805
tco-ter W 80 29.07
RNR 1220 photo of ss blks
on slope below OC
N 37 06 798 W 80 29.118
RNR-112 REDUX Frac Cleav N35E 70NW
air strike (photos) N35E
on creme colored massive 20SE
ribbon layered dol - pavement tco
across drain fom log house
now/barn N 37°06.868W 80°29.335
RNR-113 " " "
RNR-115 higher on slope
RNR-116 N 80W 40 SW on
th fractured dol ledge
(photo)
RNR-1221 gray xline dol
N 30E 20 NW ledge above house
RNR 1222 dk gry xlin dol
w/algal thrhombolitic text
ldge is hard to orient
joints N22E 80NW
RNR 1223 N S 15 W ledge
of dol pavement in
horse paddock petted
4 horses

11/8/12 .

- 11.6 white qtz SS
cobbles on gentle slope
50' above Flood plain
RNR-114 redux N48E 35SE
Fract-cleaved-dol ledges
N 37° 06.972 W 80° 29.373
Cleav N76E 60 NW
RNR 117 N40E 30SE med
gry crystylline dol, intebbed
with algal burrowed ls blg grt
(photos) N 37° 06.995 W 80° 29.459
el 2780b
RNR118 Karst depression 2'
walknut, hollow at N 37 07.032 W80° 29.477
Photo al el 2280
RNR-119 highly Fractured thn bedded
to thick bedded gry dol
w/shly ptgs N 10E 44SE
linement of Kinkle Fold hinges
East at 30 N 90E 30E
N 37° 07.135 W 80° 29.562 el 2200
looks like € el brook! next
(10) photos of ot chertified
cyano bacteria colonies
similar to Hokie Stone Quarry
Must be Ochelpultepec - much
chert on

111

(11) SS Flt on
Flat nose
RNR-1112 big spring
at N 37 07 102 W 80 29 223
gray dol ledge above
ribbon banded facies (Eco)
N80E 34 SE
RNR-1113 N 34E 60 NW gray
thk bedded dol N37 07.078
W80 29.232
RNR-1114 N 40W 45W
ribbony banded gry to creme
colored massive dol ledge
N 37 06.983 W 80 29.250
RNR-1115 N 20E 16 SE
ribbony dol at N 37 06 947
W 86 29 237
Photo of house now a
stable 1951 chinking 11/13
RNR-1115 SS float on knob
at Radford / Montgomery
water tank (Eco)
RNR-116 N34W 16NE tan to
gray weath massive dol
for?
RNR-143 SS float along road
next to DM 144 SS
144 N90E 12 W

Oct 30

Brent Waters 804

Bill Henika 540 577 3623

R.E. Gay, Engineering

AEG spring flow

in area NE of Picknik

area

November 30 Matt Heller

high light individual

descriptions that are

different otherwise

combine!

Write more complete

descriptions for AXs

in cross sections

11/13/12 RNR 144 N 60 E 60 NW
SS, thin bedded 1' ledge
in dol w/sh fco
RNR 145 block of y/w bn - gray
SS along Z road
RNR 146 blocks of ∡ cht
and coarse siliceous oolite along
fence in woods
RNR 147 blocks of corse chert
and rnd cobbles of qtz SS
along fence line
RNR 148 3' dia, 1' thk fine
gr siliceous brn sandstone blk
in woods near break in slope
el. 2175 b
RNR 149 el 2360 linear
area of SS blks, angular,
some ||.|| thin bedded
on small cross ridge
RNR 1410 el 2250 T at fence
corner, large blks of coarse
SS 2-3' wide ~1.5' thk,
thin - med bedded
RNR 1411 N 60 W 40 NE 2' thk
ldg of med - thn bedded SS

11/8/12 30 miles to Plum Creek area River Quad.

on fence line in mid field planted w pines 22 to T

RNR-1412 2' ledge N40W 70NE coarse gray SS on next field 275' from fence corner

RNR-1413 large block pile 65'-high then 20' high bark and timber debris pile on fenceline

RNR-1414 huge pile of SS cobbles, blders and blks piled in small hollow

RNR-145 N40E 24 SE 2-3' qtz SS adjacent to metal building on ridge top

RNR-1416 N40E 7E SE SS, grey med grained, med bedded, 2-3' thk ledge w/ ot cross beds

11/15/12

RNR 215 chick & Helens lk
N 37 008 W 80 27 303'
large chert blk 5' dia
2' thk

RNR-132 at 2nd dm in herd
Devel no oc minor cnt flt
dm is breached out holding at
low water N37 07 120 W 80 28.5

RNR-171 dsk red and y/w weath
slaty argillite exposed
in frontage road cut-
N15E 20NW layering in dsk rd
slate. N37° 05.683 W 80°29.667
1 photo w/ clipboard

RNR-153 ribbon banded dol/ls
N82E 76NW ledge at
N37 05.823 W 80 28 558
photos acid bottle

RNR 172 red slick clay,
smooth qtz pebbles in ts

RNR 173 new cut on Meadow Ck Rd

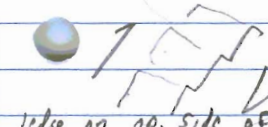
exposed thin bedded tan-lt gry dol overlying blue gray coarse algal ls (basal elbrook) overlying coarse metabreccia (p)

overling coarse dol breccia w thin box works and green min.

Dol / N85E 50SE N37° 05.258 W80 29.352

RNR-174 ledge of med gray med-thk bedded dol. along stream

N40E 80NW ledge on meadow lane gry dol with thin breccia seams N36W 64NE hackles show multiple move



ledge on op. side of CK N70E 30NW

11/16/12 additional photos

big Normal fault N36W 76NE

photos N37° 05.135 W80° 29.267

RNR-175 N37 05 360 W80 29 57 $

big spring source for meadow CK

RNR 176 photo of ribbon rock ls

Big old house + Spring house
dol ocs down stream
N 37 05 .348 W 80 29 522
N68 E 40 NW Cel
Nov 16 2012 Frida
RNR 176 N 37 05.176
N 50 E 50 NW W 80° 29.175
Blue and tan ribbon
bedded ls / dol photo Cel

RNR 181 N 70 E 75 SE
Cel dol ledges along ridge
at N 37 °0
relict sink on S side of road
at N 37 05 .437 W 80 28.553'

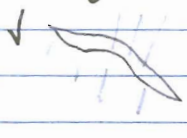
RNR-192 red + grn argillite
oc on nose, at N 37
N37 05 342 W 80 28 240
N40 E 30° NW N
RNR-193 N 37 05 375 W 80 28.308
N 40E 70NW RD + grn arg in strm

RNR 182 N 70E 40NW clear
in redgrnarg N 37 05 402
W 80 28 362

RNR 183 contact
between Rome & Elbrook
appears concordant.
Photos
RNR 461 greenish gray
sericite phyllite / argillite
(photo) thin bedded
section weathers yellow
(pyrite? N 80E 60SE
N37 03 570 W80 28.258
RNR 462 - gray dol weathers
slaty N 37 03 575 W80 28 243
gry argillite above
RNR 463 N 37 03 637
Fractured W80 28 147
massive bedded siliceous dol
N 20 E 20SE
algal matte
looks USO
RNR - 451 shale chips in
driveway cut beneath
5' yellow gray fine sandy
soil N 37 03 .381 W80 28.872
red argillite ledge in
drain 082 W 60 NE

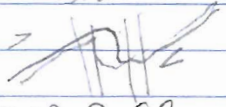
RNR 4 7 1 N 7SW 40 SW
Roadcut at drive N
N 37 03.130 W 80 29 293
Er red and grn phyll / arg

RNR-472 red and grn chips
N50W 30SW yellow sap rx
N37 02.650 W 80 29.993
11/21/2012 Riner Quad
sunny cool, breezy
RNR-2511 30' high cut in
dusky red and green slaty
argillite, color lam N 40 60NW
Cleavage N 70E 60 NW



N14W 30NE
calcite tension veins
cut cleavage
N37 06 248'
W80 25.282'

tension veins



cut by cleavage
E-W 30 SW
RNR 263 big spring (photo)
2½ stream N37 06 132 W80 25 822
photo, red arg across
Road N 60 E 80 NW
Subdivision 1328 Casatt lane

11/21/12 RNR-264 dolomite ledge ocs in road bank
Photo N 37 06 230 W 80° 26.628
shows 'brecciated, mineralized fabric bedding
in massive ledge form NS 50W
RNR-265 Red and green shaly argillite ocs along road beyond
N 80 W 76 NE 200' dol ocs
some ribbon lamination N 80E 60 NW
N 37 06 080 W 80 25. 705
RNR-266 N 60E 70 SE red and green shaty argillite
crops out at bridge crossing
N 37 05.915 W 80° 25. 677'
RNR-291 N 60 E 40 NW
dolom. ledges on ridge,
red argillite in roadcut SW
RNR-292 50' wide exposure
OF lt gray to yellow bn
dol, and dol. arg.
N 60E 34 SE RSW
RNR-293
E-W 60 S argillite ledges
along slope of hill
ls. dol up hill on saddle

RNR 294 E-W 40 N
green argillite then 6' thick
dol bed w/ shaley soils
large stone pile on slope
N 37 05.710 W 80 25 027

RNR-371 ledge of dusky
red and grn laminated to
thin bedded slaty cleaved argillite
photo or parasitic folding
N 37 05.735 W 80° 24 830
about 100' exposed along
road

RNR 372 new house 2860 Redbud
N 37 05 .674 W 24 630
gray and grn arg, then
gray dol blocks excavated
from basement
N 37 05 680 W 80 24 655

RNR-295 redtan argillite w/slaty
cleavage in cut N85E to
NW, N 37° 05.678
W 80° 25.310

RNR-296 red and grn arg
chips in soil at end
of Weyanoke N 37° 05 417
W 80 25 200

RNR-297 E·W 70 S ain strike
on 6' cleavage slab in pink
to brown slaty argillite
bed
RNR-298 y/w weath slaty
cleaved argillite, some olive gn
N 37 05.342 N 80 25.343
cleavage zone transposes
bedding, gossany weathering
zone indicates possible
sulfide mineralization N 70E 60 NW
50' wide dol se along rad
N 70E 50 NW
Clear, cool Nov 26 2012
RNR 298 N37 05 212 W 80 25.247
tan gray yellow vericolored
argillite w/ slaty clear
N20E 45 SE
RNR 531
N 56 W 60 NE
N 80E 70 SE ledge of yellow
gr slaty argillite, meta sltsn
N37 04 832 W 80 25 493
RNR 532 olive grn slaty arg.
N70E 80 NW N37° 04.705;
Crome 1 W80° 25.667

RNR 533 Rlay grn
slaty arg ledges N 37° 04 753
N70W 54 NE W 80 25288
Ledge descends hill side
RN534 N70E 60 NW
Ledge of gray dol, thin to
mid bedded.
Slickensided surface
greenish calcite on surface
w/ heckles N 10 W 58 SW
Rome dolostone

Bedding N70E 60 NW
N 37° 04. 828 W 80° 25. 227
RNR - 535 N70E 80 NW
brn weath slaty argillite
ledge in road cut
N 37 04 915 W 80 25 328
RNR-2910 N80E 80SE
Dusky red to brn lam
arg, w/ slaty clev.
N 37° 05. 048
W 80° 25. 327

RNR2911 N70E 30NW
Yellow orange weath dol
argillite in road cut

RNR-2912 N 68E 80NW
gray ribbon banded dolomite
in new road cut
N 37 05 217 W 80°25.195

RNR-373 olive to orange
gray laminated, cleaved
argillite. N80W/80NE
interbedded w/ dusk red
and green argill. &
and 2' dol beds N 37 05 250
W80 24 943

RNR-374 ledges of red,
and grn arg, 2' thick
broken dol beds E-W 80SE
N37 05.295 W80°24.700

RNR-375 " "
N70E 50 SE N37°05.367'
W80° 24.377'
N3

RNR-381 thin bedded grey
red and grn argillite
meta/sst N20E 20 SE N37°05.310'
W80 24 902

RNR-382 N37 05.668
LS OCS W80 23.532
N65W 60 S ~ 60' scot
between ponds
RNR-383
N37°05.477' W80°23 522
Photo of lime kiln
which was used to
burn lime on Newmans
Land
RNR-391 5± acres for
sale off good Road
540 239 0421
thin-bedded gray argillite
N10W 20 NE N37 05.810
W80 22.743
RNR-392 N70E 70SE
thk gray dol ledges
~20' at N37 05 795
W80 22.023
RNR-342 el 2250 b red
and green argillite in road
EW 70 N
RNR-351 el 2180, gray dol
ledge along road, ribbon
banding

RNR-352
N65E 80 NW laminated ary
dips beneath dk gry
algal (thrombolitic text
dol. w much later carbonate
veining at el
N 37° 06.112 W 80° 23.547'
RNR-353 el 1970 b
thin bedded red and grn
argillite w/ slaty cleav
at N 37° 06.022 W 80° 23.357'
bed EW 76N cleav N85E 50 NW
Photos
RNR-354 just above Rabbitry
beds gentler dipping N70E 24NW
cleavage n 80 E 50NW
N 37° 06.003 W 80° 23.315

RNR-361 ledge of dol
in creek bed at N 37° 09.941
N-S 10° E W 80 23.228

RNR-362 N20 W 70 NE rd and grn arg

RNR-363 N84W 60SW thk-moss
gray dol, hinge photo, 35 steps

Nov 29 2012 clear cold
RNR-384 Ls + dol beds thn
beded to massive lt to dk
gray N80E 50 NW 80x2.5
wide Oc by Cedar Springs Ch.
N 37°05 505 W 80° 23 408
PLT 141 N60E 50 SE dk gry
argilliceous dol in creek
above ford el 1750 Cr
N37°05 637' W 80°22 038

PLT 142 dark gray to blk
burrowed argillite, argillaceous
dolomite w/ white fibrous
dol? cross fiber veins
burrows mottle cleavage
planes, bedding N30E 80 NW

PLT 143 N 30W 34 SW
shale bank along
road olivve grn, maroon
slaty argillite Cr
N37 05 419 W 80 22 172

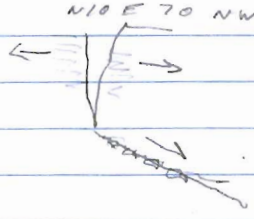
PLT 144 N20W 20NE strongly
Jointed blk xline dol ledge

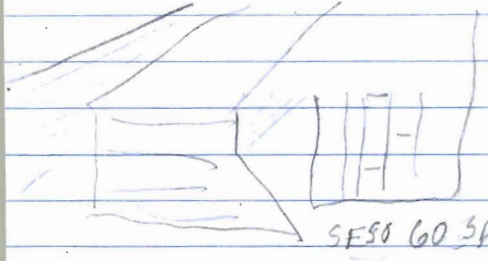
across stream (Fordable ra)
to restorable 12x12 log (above
next 100' strongly cleaved argillite
N 50E 40 NW grn + red mottled
fr N 37 05.352 W80 22.335
RNR 393 Rome slaty argillite
N3705 367 W 80 22 507
N 24E 60 NW in road
embankment
RNR 394 dk gry + white
sachaoidal text. Xline dol
w/ pryite zones rusty
streaks Massive ledge
N 37 05 373 W 80 22.263
N 30E 20 NW bedding
prominant joints NS 60E
(open joint Fracs

RNR 395 dol ~~N 30W 60SW~~
EW 20 N.

RNR 396 Karst/epikarst collapse
along prominent open Fractures
in Rome Dolomite Photos
along road. Bedding E-W 10S
Open Frac w/ slicks at N37 05 468 W80 23 238
E-W 80S, brecciated zones

brecciated zones lead from epikarst into listric (graff
slipping fractures (photo)
open zone N10E 70NW
listric N 20E 20SE





S80E 20SE

RNR-611 gy breccia coarse dolomitic mtx overlain by thick bedded to laminated dol N60W 20NE
RNR-612 red silty clay soil rd dol cobbles, breccia blds

breccia outcrops N 37° 04 857
W 80° 24.260

RNR 613 Green foliate zone in coarse dol mtx breccia polymictic N 60W 60 SW foliation N 37° 04.917
W 80° 24.320

RNR-614 heavily brecciated mineralized dol overlain by thn bedded grey burrowed argillite N 60 W 60 SW phyllite sheen on contorted bedding surface
N 37 84 692 W 80 24463

RNR-615 N 34W 40 SW
Fractured grey dol ledge
Close jointed N 70E 60 NW

RNR-616 olive grn lam org thn bedded, slaty
N 80E 22 SE

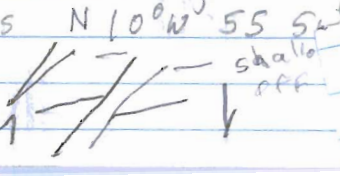
RNR-376 photos of folds in red argillite
hinge S 60 W 10 W ap N65E vert

Photos of cave in
Rome Carbonate
at N 37 05 023
W 80 24 132

RNR-617
beds below are thin
bedded to massive grn
olive to red weath
argillites N30W 28° SW
N 37 04. 998 W 80 24. 135

RNR - 377 possible gulling
on slop above road,
Dolomite Face 20'
blocks 2 x 4' in pit
at N 37 05 .078 W 80° 24 137
bed face N 66 E 70 SE

RNR - 384 N 40 E 40 SE
thin bedd argillite
w/phyllitic sheen on
bpc, some burrowed
silty or fine sand beds
Some rippled beds
Tension veins N 10° W 55 SW
photo
N 37 05 212
W 80 23 625



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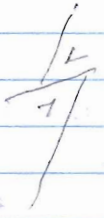
shallow fractures N 20E 20NW

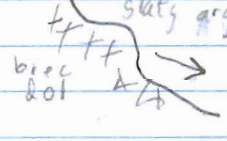


Anthony Phillips 11/30/12
N 36 59.973 W 80° 33.365'
RNR-561 green and tan weath argillite on road bnk N50E 70NW
Fr. photo of soil across drain on hill slope (N 30E 20NW to top of hill
RNR-617 N60E 60NW red grn yellow argillite in road bank Farm for Sale Sheila Zellers 540 230 3532
RNR 618 N50E 80SE Fr behind barn
N37 04 743 W80 23 465
RNR 621 N60E 20SE ledges of grn to brn weath arg.

RNR 622 Fawn lane
rippled argillite grn
grey - red
N48E 80 NW | lineation S40W 20
major open fracture

N30W 80NE

Photo N70W 80NE
RNR 631 at bench mk
N74E 74SE red grn
grn slaty argillite in
stream bank N37 04 708
BM 1964 gone W80 23 018
RNR 632 syncline axis at
drain NW limb N80E 20SW
SE limb N60W 40NE
hinge N70E 15NE photo
RNR-661 under pl
N74E 60SE folds plang
S60E32



N37 03 918
W80 22 517

brecciated remelded w/
folded argillite

and blue gray coarse ls in yard at N 37° 02.615 W 80° 27.375 photo of blue gray oolitic algal ls. Land owner described ls and "mud pockets in well.

RNR-572 red, grn, and yellow brn weathered slaty argillite N80E 30 SE OC in bank on road spring house N 37 02 888 W80 26 763

RNR-573 gry, grn + rd slaty argillite ledges on hillside N60E 30SE at N3702817 spring box 30' W W8026763 still flows

RNR 581 N80W 60NE ribbon layered gray fine grained dolomite N 37 03 278 W 80 26 597

RNR 582 N80W 24 SW laminated to ribbon layer dol ledge

RNR — 482 Dusky Red argillite N85E 40SE
side ditch OC N37° 03.113 W 80 28.865

RNR - 483 N 37 03 040
yellow ocher W 80 28.750
arg dol sap N85E 50SE

RNR - 484 yellow orange slaty
N37 02 780 argillite N 70E 40SE
W80 20.690 in cut bank
Talked w/ land owner about
lead mine on Calfee Knob
RNR-485 N 60E 80 SE sheared
RNR-486 N 60E 40SE ocher y/w arg sp then dol.
Little River Hideaway
Charlie Bowles, BB Strom
RNR 721 — Camp Carysbrook RNR
W 50E 45 SE thick SS in ck
interlayered w/ dark gray
arg or meta siltstone
N 37 02 443 W 80 28.721
RNR 722 fine SS thin lam
N 37 02 268 W 80 28 697
N 86E 40SE all dolomite
in cut, good red arg
in drive below (N 37 02 312
W 80 28 727

RNR - 761 N70E 50 SE
thin bedded quartzite
and mylonitic quartz schist
ledges on hill side Ech
RNR - 762 rusty silver gray
to red gray mica schist
with large quartz knots
and porphyroclasts interlayered
with greenish gray fine grained
thick meta graywacke beds
N40E 22 SE N37 01388 N80 24367
RNR 723 red arg/silt on road bed
N5 E 20 SE
RNR 724 N5 38 N yellow w.
argillite
1215/12
RNR 811 Sample descript.
qtz white - gray
fine - granoblastic
aggregates w/ no original
grain bldyrs vis in hand
spec ~ .5 mm - 1 mm
random ilmenite, magnetite
and zircon - rutile (brn prism
Feldspar? tan to yellow
gray, qtz white, gray

December 11

RNR 741 cuts along SR 672 are weathered brown purplish gray chl. phyllite with thin qtzite pods or interbeds N60E 70E foliation at N 37° 01.183' W 80° 29.622'

RNR 751 N46W 40 NE 1-2' thk w/rd SS in gray-grn chl phyllite qtz ss ledge in road at el 2300ft in agreement w/map N 37 01.162 W 80 29.072

RNR 752 SS lt tan weath medium cg N80E 32SE fold hinge N60E 10 NE cleavage N50E 65°SE SPL RNR 751 N40E 40 SE Loc N 37 01 165 W 80 29 163

RNR-452 N 37 03.930 W 80 26.915 N76W 70SW new road thn bedded embankment yl w orage argillite, red on fresh N 37 W 80 fold hinge 65NE 30SE

pods of
INCLUDES RED-brown and
dark gray thin-bedded
siltstone (Ellett Siltstone)
claystone and coarse grained
friable qtz sandstone
deposited in depressed areas
along unconformity on top
of Beekmantown (Knox)
group in the Ellett area
Eubank, 1967 Gilbert 1953

N 50

RNR-453 Cloverlowe Sub
N80W 4 SW thin lam
arg dol N37 04.050
W80 26.970

RNR-454 N37 04 228
W80 26 785

N40E 50NW slaty argillite
yellow ochreous weathered
saprolite

RNR 421 N30W 20SW
Dec 12/12 RNR-733 Sidney
UM church N37 01.732 W80 28.273 well
ledge near front apears N80E 20SE
2' thick light gry lithic pbl ss
in gray, grn, tan and pink

RNR-814 tan chl sericite phyllite, qtzite float above pond phyllite float (EUL) in upper parking lot embankment

RNR-734 ribbon layered dolomite ledge, gray to tan weathered N80E 20SE on road bank N37 01 827 2photos W 80 27 563

RNR-841 Photo of 4' quartzite on powerline / road at N37° 01 60 W 80 27 283 qtzite is white to gray medium to coarse grained, w/white gry qtz + feldspar grains + abundant blue quartz derived from basement

Photo of Siltston showing gray burrowed clay beds, brown (siderite) sand beds and fine gray clay layers with finger nail like shards 1mm thick. Cleavage N80E 50 SE bedding N 80 E 64 SE

842 N74E 48SE spl dk gray slate (photo) N 37° 01.602 W 80° 27.235

RNR-821 road bank exposed
red and ocherous orange
yellow argillite w/slaty
cleavage N 80E 4SE
banding N 80 E 30 SE
N 37 01 948 W 80 26 382
RNR-822 site of BM2291
No longer bank across road
has red slaty chips, color
changes at older house
N 37 01 903 W 80 26.393
RNR-823 highly deformed
qtzite (photos) on road
cut white qtz veins
show brittle deformation
crosscutting early ductile
late extension joints
pull apart earlier ductile and
brittle Loc N37 01 848 W 80 26 407
Foliation N64E 20SE Fluxion Str (N64E 4)
lineation N48N 20 NW (Fibers - hinges
late ext. N66E 74SE
RNR-824 N70E 30 SE
Mylonitic foli. in grg weath
phyllonite w large
.1 locks of boudined qtzite
N 37 01.777 W 80° 26.402

RNR-861 N48E 60SE Pilot Gn
Mylonitic foliation
in med grained lineated
qtz feldspar amp/bio granulite
gneiss mylonite
lineation S44E 60SE
RNR-862 Pilot Gn, Metabasalt
N 37 01.202 W 80°25.062
sills ∥ to mylonitic foliation
photo N 54E 20SE
RNR-863 greenish brn myl
gneiss saprolite cleavage
N 74E 28SE N 37 01.245
W 80° 25.127
RNR 865
Spring house in mylonite gneiss
resid. N 37 01 350 W 80 25.210
Stream at drive heavily fe cont
(Alpinglo fm) unicoi pebbly
qtz flt in drive
RNR 864 mylonite schist
w lenses of pink
granitoid folia N 70 E 20SE
photo
N 37 01 305
W 80 25 .200

12/14/12 Lucas Farm
Calfee Knob
RNR-711 Rome argillite
green and Red N 66E 80NW
N 37 01.845 W 80 29.712
el 20606
RNR-712 Rome arg + qtzite
some coarse pebbles (Cu? in
piles on ridge at e 22806
N 37 01 868 W 80 °29 595

RNR-713 ledges
N 60E 84 NW ribbon layered
dol then coarse xline
thrombolitic dol w/ sulfide
white, yellow and black
N 37 01 920 W 80 29 513
el 22606 red iron rich soil
RNR-714 Calfee Knob Mine
shaft ~ 15' x 15' x 50 deep
at N 37 01 937 W 80 29463
black and white dol
breccia Float massive
beds frame shaft
Face joint / thick beds (photo)

N40E 78 NW

Cross joints N 20 W 30 NE

Side joints N45W 70SW

RNR-715 el 2220 G N37° 02.032'

blocks of dk grey W80° 29.437'

xline dol w/garnish to

honey brown xls (Sphalerite)

and White nodules in vugs

photos + 2 spls of weath ore

RNR-716 adit and tailings

dump on hill side

at el 2010 - 2030 photos

adit was faced up in

shale and weathed cong. lith

and drove back ~ 100' into

dolomite large block above

adit blasted from shaft

area contain galena + sphal

photos at N 37 01 973 W 80 29 503

samples of fresh ore

River { 80° 30 00 W. 37° 07.30 N
{ ~~80~~° 22 30" W 37° 08.00 N

0.2 2 0/6

RNR 716-1 silver, lead,
Yb — rare earth ore Ytterbium
RNR 716-2 silver Zinc
RNR-994 Sowers Little River
1/4/13
Sowers Mill dam RNR-994 (Ylrg)
N 31 E 20 SE 1 in S45E 20
layered leuco mylonite gneiss
N 37° 00.295 W80° 22.825'
RNR-995 Little River
Gneiss SPl N 40E 24SE
photos @ N37° 00.275'
W80° 23.232'
RNR 981 Lr granitoid
coarse leucogranitoid
w/ mgl bands coarse
porphyritic text
N 37 00.343 W 80 23.415
N18E 20SE mg fol

RNR 941 VPI field stop (YLr)
coarse leucogranitoid gneiss
with finer granodioritic
sills at N26E 26SE
N37 00 828 W 80 24 227
37.014633 — 80.403 783

[illegible]

(٦١٢)

January 2 2013 am
Holden Field notes
Showalter mine 2 miles
West of Broadway 190-9 ?
(July 1909)
"nigger heads" N of
Harrisonburg
"trap rock"
Holden visited Cripple
Creek - Poplar Camp and
others with "Mr Lucas"
who is knowledgeable
July 4 1910 Pillsylvania
Molley iron ore Prospect
1/4 mile towards leesville
from molley

Shawsville July 6 2010
Met Showalter - Major
Ellis burned down
$ 60,000
January 2 2013 PM
Visited the montgomery
Co Museum to determine
if any info on Calfee
Knob. Mr. Shelton

Great Grandson of Abner Dobbins was a volunteer that dug and he knew about the pit but thought it was an iron mine

← →

Firestone → Check

P 195-75 R14

Winter force

961-2231

Hankook Optino H724

Prices — Pure —

552-5041

P 195-75-R 14

→ ←

552 ←→ 2581

→ 185.92 ←

80

thomasoj@vt.edu

1/04/13 Dixie Sunworks

SS 2292 Texas Buffalo

Shoulder Stock

1-800-238-6785

Jan 4 2013

Pilot quad / cold clear windy PLT 711 N37 02.172 N 80 22.363

Mylonitic granite gneiss w/ gray bold p-clasts chlorite sericite epidote - grn Phyllitic Fabric N40E 40SE

leucogneiss w/ relict granoblastic Fabric

PLT 741 photo of White vein qtz below St Matthews Ch N 37°01.220' W 80° 22.347'

Vein 6' thk N 60E 23 SE

possibly off set From Cross faulting

NW direction

RNR 991 el 2160 ft

N 37° 00 435 W 80 22.620

N40E 40SE strong bio musc Foliation. w/ bio rich sh layers S20E 40 lineation Formed by stretched qtz + Fel p. clasts down d.p

dk amp schist spl has coarse weather sulfide phenocrysts or amygdales

1/4/13 cont'd
RNR 992 - Oc of coarse
located augen mylonite
N 50 E 45 SE, qtz ribbons
blo folia, coarse feld augen
possible garnets weathered brn
between augen and dk bluish gy
qtz N50E 45 SE
RNR 993 Gary Yopp 167 Sowers
drive exposed gray brn
mylonite/schist layer
in Little River Gneiss
(Photo) qtz veins show
pink minerals stain N44E 50SE
Mylonitic foliation
N 37° 00 .140 W 80° 22.523
Terry Thompson Real Estate
540 745 8011 N 37 58 5
397 5384 W 80 23.037
Riser Front
Jan 9 2013
RNR-9-1-1 physiographic fd
~ 100' at fo steep slope
strath ~ 20' above
RNR - 992 steep cliff in
mylonitic foliated

N 37° 00.208' W 80° 24.763'

gneiss unit w/ mica schist

parting zones ll Foliation

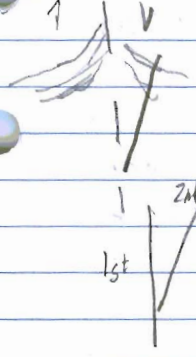
spaced at 20-50'

prominent cross fractures

(photo) w/ 2nd order shears

prom 1st ord N70W 80SW

2nd N40W 70NE



myl zones ll foliatio

N70E 24SE

1km

sketch of Photo

al plain ~200' then 30' slope

and a strath above

RNR-913 N10W 70 SW

photo

extensional

faults step

down to stream

N 37° 00 142 W 24 897

myl Foliation N60E 20° SE

RNR-891 Air strike S10E 5° intersect

plunge in augen gneiss

RNR 891

cleav 1 N 79 N 10 SW

cleav 2 E W 5 N

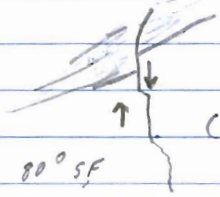
joints N 60 E 70 NW

RNR-892 N 72 E 28 SE

myl foliation augen gneiss

N 37 00 .168 W 80° 25.340

RNR-893 2-3' offset



down to NW

on prom joint

(photo) in myl augen

N 66 E 80° SE myl foliation

N 80 E 24 SE my @ N 37 00 227

air strike W 80 25 387

RNR-894 light colored granitoid

sills cutting my gneis in stream

bed

RNR-895 at abutment to old bridge

N 37 00 652 W 80 25 .382

37.010867 W-80.423033

leucocratic granitoid w/

myloitic gneiss stringers

N 30 E 32 SE my fol

RNR-895 Geochem Spl 1/9/12

RNR-896 quarry in green

augen mylonite (spl) photo

N 37° 00 680 W 80 25.403

continuous pentrative mylonitic Fol

RNR-896 contd

w/ 1/2 - 3/4" Feld and
qtz p-clasts in chl musc schist
quarry 100 x 40 x 50 deep
Foliation N 70W 20 SW

Joints N 60E 80 NW
fault? N 50W 20 NE (river)
surface w/ drumlin like groves,
and asparities
S 40 E 2°
RNR 897 2nd quary 200
60 by 60 augen mylonite gneiss
pho tails look
extensional N 72E 32SE
my Fol - Raining
Jan 10 2013
RNR 898
Changed tire at
RNR 897 898
is coarse green
augen mylonite
with some large
leucogranitoid porphyroclast
in ravine N 3700.767 W 80 25.473
N 80E 24 SE my foliation
contact w ch shist / myl

atrarine.

RNR - 898 green qtz chlt schist w Feld / pyrite? sulfide p-clasts

Photo cut by S2

S_1 main shear cleavage N 70E 20SE

S_2 fracture cleavage (C+S strict N 25E 60SE

N 37° 00.800 W 80° 25.493'

Unicoi

Photo of banded qtzite

truncated by mylonite fabric

bedding N 10E 5SE, SS about 30' above road

RNR - 866 - Fries Mg at Rt 8 overpass 50 m of continuously exposed Chl phyllonite Shear N 64E 20SE

C fract N 40E 70SE

N 37 00 867 W 0 25.577'

steep fract zones

N 44E 74 SE

open and right step

another steep set shows
Slicken lines and Fe minerals
N 60 E 80 SE
slicks S3GE80
- difficult zone -
RNR 867 Fresh exposures
of mylonitic Pilot Gneiss N 37.016218
N 60 E 20 SE myl Fol. W 80.425547
qtz pink & grn Feldspar, tremolite
actinolite needles in lineation
S 30 E 12 SE Sample
N60W 30 NE marked
RNR 899 OC on rt 8
greenish gry med grained
mylonite gneiss, qtz
Felspar muscovite chl
alignedin mylonitic
Fol. leucocratic on lineation
Face ~ 1/1g N 70 E 20 SE
lineation S80E 20SE
Sp/ loc N 37 00.617 W 80° 25.480
N 37° 00 458 W 80 25 563
RNR 890 dk grg augen
mylonite, lineated bio
chl mtx Feldspar p-class
to 30 mm photo shows
symmetry of wings
E-W 14.5 Lin S30E 10SE

Closely spaced cross frac
create wedge blocks
10 by 10
N 16 E 60 NW
E W 80 S
N 18 W 80 NE

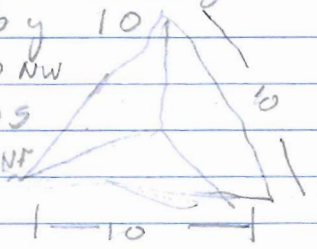


Photo Floyd Co 1256 762 2394

??

Feb 14 valentines day 2013

weathers to yellowish gry mica schist sap in phyll. layers, gray mica sap massive layers

RLT-718 Sap exposure highly sheared augen myl gn N58E 30SE lineation S40E 30SE muscovite or white mica predom in mtx — weathering or hydrothermal alt

RNR-961 vein quartz OC in grove on hill top "towers flowing N80E 40SE "air strike" on fracture cleavage

RNR-962 qtz vein in road

RNR-921 sight S5E to barns on next road ridge underlain by light colored qtz rich soil no rock but veingtz float

RNR-931 N80E 50SE cg qtz feldspar mica gneiss sap rolite, lt tan to brn dugout in bank of road

Feb 14 2012

RNR-922 road ditch exposures of mica qtz mylonite w/ detrital blue quartz clasts strong ext along mylonitic foliation N70E 50 SE uphill to site of "Brushy Bottom School Monument" N37° 01.890 W 80° 23.770

at RNR-924 no outcrop but uncharacteristic yellow brn - tan saprolite in road bank. No justification for deffent basement unit here! Above pink micaceous clay in free roots no fabric

RNR-925, coarse hornblende meta gabbro (basalt?) intercepts road cut appears to overly Meta sed contact in overturned sequence

N 37 01 952, W 80 24.010 SPL contact N50E 44 SE 45 steps wide along N 76 E trending road cut 50 steps back

Feb 18 2013

RNR-9837 photos of Pilot-Basalt-Unicoi transition in tributary to brush Creek

IRO-4417 photos of Edmburg topography on Kingston Farm in Ellett

Harbor Freight order 13.10

2013/02/17 · 27587 bell VGA order # 2467047

Feb 20 RNR-8911

N40E 24SE gray mylonitic mica gneiss w/scattered feld p-clasts up to 1" (30 m) long in stream bottom (photo)

Lineation qtz + kspar pclasts in mica sch mtx S28E 20S

RNR-8912 new cuts take out sharp curve

Fresh mylonite gneiss w/scattered qtz + feld pclasts weathers gray to olive photo

N40E 36SE

Feb 20 contd

RNR-8913 light gray to white qtz feldspar rich mylonite gneiss with leuco myl shist or phyllonite zones in SW end of curve N60E 28SE photo + spl

RNR-8914 OCs of light gray-white leuco myl gneiss N48E 40SE augen mg fabric lineation S30E 38SE ⌐ steps indicate up to NW

RNR-8915 White ledge under powerline N80E 30SE coarse feldspar pc lineation down dip S28E 24

RNR 8916 ledge of felsic gneiss / leucogranitoid comp. in stream bank <10' thick dips under gray augen myl and myl gn N80E 24SE lin S19E 20S on cleavage surface

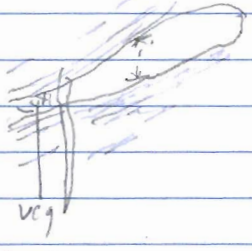
RNR-8917 N50E 20SE, ledges of greenish gray mylonite

2/20/13 contd.

gneiss, med to coarse
p. clasts 1-2cm bumpy
cleavage surface lineation
S50E 29SE

RNR-8919 N58E 20 SE
greenish gray mg/gn
with p clasts 2 2 10cm
white qtz + feld

RNR-8920 lens of leuco
gran in mg/gn
N80E 20SE



RNR-881 new house site
tan to brn mg gran sap
Many qtz shards mg fel
N60 W 24SW
N 37° 00 .353 W 80 26.560

RNR-843 on td at N 37° 01 077
N76E 60 SE W 80 26 873
thin - med bed white qtz ta

RNR - 844 mica phyllite
w/ Mgw, gray to gray
green N86E 36 SE
photo at N37° 01 122
Cu I W 80 27 032
thin 2" qtzites - deep
water chert ?
RNR - 845 cut behind green
house N37 01 052 W 80 26 972
rusty brn - green w/ earth
chl musc quartz
phyllite, some graphite
N70E 60SE
RNR - 846 white qtzite bldrs
on ridge) cut exposes phyllite
no qtzite N 30E 40SE
pale orange pink meta
gray wacke sap at
N37 01 053 W 80 27 052
RNR - 847 White qtzite/schist
and dk gray shiny phyllite
on top of ridge N37° 00 895
N76E 65SE W 80° 26 930
RNR - 871 sap crop in road bank
N40E 24SE, (biotite) musc mylonf
qtz feld gneiss, tan sap

RNR 872 coarse myl gn w/
feld p-clasts up to 40mm
diam ledges below power
line N60E 30 SE
lineation S40E 20 SE
Feb 21 2013
RNR-946 photo of leuco
gran lens in phyllonite
developed along Fries FZ
as defined by Barth
N 37°01.357 W80 24.725
N20E 60SE mg fol
N80E 20SE -C+S struct

photo

RNR-947 photo
of pale grn and pink
granitoid myl gn
sap in road cut
above - Pilot sap?
RNR-948 lot 2 eagle view
el 2200 t mylonitic leucogneiss
N 30E 38 SE photos of
oc an trailer spot
N 37°61.267 W 80°24.458

2/21/73

RNR-974 ocs of light grey white leuco granitoid gneiss on hillside above, 1 block in woods

RNR982 leuco gran gneiss N 34 E 34 SE air strike across river

RNR-983 N 30 E 35 SE air dk matrix augen gneiss strong mylonitic cleavage

RNR-984 N 60 E 30 SE air strike 30' ledge coarse leuco granite gneiss binocular view = 9 1/2

RNR-9410 20' cliff cut in biotite augen gneiss elongen up to 30 mm biotite 10-30% N 80 E 28 SE lineation S60E 20 SE

RNR-985 gray to tan weathered mica schist/mylonite exposed in bank of road N 40 E 60 SE N 37 66 40 S W 80 24 240

2/21/13

RNR-932 medgrained leuco gran
lenses in Mylonite gneiss
N80E 60 SE @ N 37 01.770
W 80 23 067

RNR-933 greenish gray musc-chl
blasto mylonite in creek
photo @ N 37 01 800 W 80 22.975
N70E 30 SE my foliation
down dip lineation
S 34 E 30 SE

RNR-934 30' cliff large
blocks along stream
N70E 30 SE mylonitic Foliation
large feldspar augen, bio
schist mx

RNR-935 N 80E 40 SE
Cliff of very coarse
biotite granitoid auger
Mylonite large rods
6" by 1" plunging
S50E 30 SE N 37 01.878
W 80 23.006

RNR-936 photos of
augen mylonite cliff
N 50 E 02 SE cant cross

Feb 25' 13 Brush Crk Bottom

RNR-9410 new house on hill

N

mafic rock spls in yd no OL

RNR-9411 N 37 01 · 407 W 80 24 · 487

N 40E 54 SE My Fol in sh.

mica rich mylonitic gran sap

musc chl + bio + hbd? + feld

medium grained

RNR-9412 below stream int.

coarse amphibolite layer

cuts across road

myl gn above N 20E 30 SE

Mafic Foliation N 40E 50 SE

Address 2104 no one home

RNR-9409 N 20E 32 SE

mylonitic foliation in

leucogranitoid gneiss

qtz + musc + bio + feld

RNR-928 N 40E 36 SE

grn myl sch/gn

ledge in drain N 37 51 760

W 80 23 717

RNR 929 N 20 E 40 SE
@ N 37 01 .742 W 80 23 780
leucogrn, qtz(A) N30E 50SE fold
w/ veins(A.) N 37 01 723 W80 23.760
RNR-9210 N 52 E 30 SE
photos of ledges of
course augen mylonite
gneiss w/ biotite schist
mtx cliffs ~ 30' high

RNR-952 massive vcg augen
mylonite / bio mtx
N 60E 32 SE lineation
S 26 E 20 SE 3-4" augen
@ N 37 01 582 W 23 662
RNR-962 N 80E 30 SE
mgl fol in massive
augen gneiss (air)

1405 Dobbins Hollow
Rustic Ridge SR
616-

2/27/2013

RNR 9411 mylonite
pink to light green leucogranite

N 37 01 352 W 80 24 762
PHOTO
gneiss exposed in 12'
by 75' cut on trailer
lot N 20E 50SE
lineation pink weath
Fold pclasts S40E 40SE
BNR-9412 N 37°01.345 W 80 24 83
light greenish gray to orange
mylonite granofels
w/coarse qtz fold
peg layers photo
myl N34W 38NE

BNR 9413 N 20E 40 SE
photo of green and orange
layered granofels
(Pilot) at 37 01.317
W 80 24 965
BNR 9414 N20W 20NE
Layering in meta SS
overlying green pyroclastic
beds at N 37 01 333 W 80
24.160
basal unicoi (photos)
BNR 9415 ledge v.cg augen
mylonite w Feld up to
40 mm N 37°01 105 W 80 24.418
black myl mtx N 38E 40SE
lin S48E 15

2/27/13

RNR 9416 mylonite + phyllonite
greenish gray mica rich fine
grained N 35E 30SE

RNR-872 N 60W 20SE
Mylonitic fol in leuco
granitoid myl gn, weathered
to yellow brn granular sap
cut by gray qtz myl
ultra myl (pseudoach
N60E 80SE

N 37 00 807 W 80 26 913

RNR-791 Myl augen gneiss
Hock-weatherd brown bio tite rich
mtx coarse feldspar porphyroc!
N 60E 20 SE mylonitic
sap w green matrix CtS struct
outcrops in roadbant
N 37 00 .437 W 80° 28.020

RNR-792 N 37°00.575 W 80° 28.057
dk gray mylonite gneiss
overlain by coarse mica basalt (alt)
N 40E 30SE on mylonite

RNR-793 N 37 00 602 W 80 28 063
N 50E 40SE meta grit with
strongly lineated clasts of
qtz and lithic frag overlain
by then fine grained mica basalt

Cy thin metabasalt layers
Samples RNR 793 A-D
RNR - 771. Alum Ridge
N60E 37 SE gray mica
phyllite N 35 59 792
W 80 29. 412
∝ in River N 3700.142 W 80 29.253
lite gray to yellow brn stained
mica phyllite in pavement ∝
along roadbed N 34 E 32 SE
sandy meta pelite

RNR-772 beneath power tower
N 37 00 307 W 80 29 277
S40E 24 SE int lin
N56E 28SE Fine grained meta
med bedded qtz arenite
March 4 2013
RNR - 794 leucogranite
gneiss w/ vein qtz + blk
minerals N 60 E 40SE
mylonic foliation, dk blue
qtz ribbons, pink k feld

RNR-795 Coarse ledges
of light gray to tan

leucogranitoid w white quartz, pinkish feldspar N60E 40SE mylonite foliation (Photo) N37° 00 153
W80 28 215

RNR-796 N78E 30SE
Ledge of coarse augen mylonite, biotite muscovite mylonite-schist mtx qtz vt kspar augen up to 40 mm N37° 00 .400
W80 28 323

RNR-781 N38E 30SE
green chl musc qtz schist in stream (Eu) or Y Pg? N37 00 .420 W80° 28.340
photo ⊡ 1m 550E 26SE
37.007-80. 472333

RNR-782 coarse blue qtz granofels, strong my foliation, distinct rounded qtz grains in chlorite-musc sch mtx = Eu1, bumpy grn schist in stream bed load N46E 38SE

314/13

N 37° 00 460 ctd

W 80 28 .365 RNR 782

RNR-783 Cleared Fields and

farm road exposes green

pebbly chlorite mica schist chps

and saprock in bank at

N 37 00 492 W 80 28 .360

green sapred photo!

N 50W 20 NE 37.0083 - 80.4718 33

RNR-784 eroded farm road

exposes silver gry to purple

"fish scale" c+s structured

mica schist (photo) 37.008694 80.4732000

beds? N 50 E 20 SE S_1

cleavage N 75 E 40 SE S_2

photo of Deer Stand and road

N 37 00 608 W 80 28 392

RNR-785 E-W 22 SE

Coarse pebbly meta

SS / mica gneiss

with feldspar clasts

and graphite schist

interbeds

N 37 00 570 W 80 28 .467

lineation S 30 E 22

photo

3/4/13 sunny, cool breez

RNR-786 interlayered qtz rich and lithic ss w graphitic phyllite on road at N37°00.605' W80° 28.646'

photo N74E 64 SE crenulation N24E 20NE

photo

RNR-787 N10E 60 SE interbedded qt ss + lithic sand + gray mica phyllite. @ N37 00 707 W80 28 696

RNR-788 O/ingr. Cem. photo 2 graves at N37 00 540 W80 28 538

RNR-789 coarse sandy gray to very lite gray fish scale schist float on knob at N 37° 00.445 W 80° 28.442

RNR 790 Scaggs Cem. N37 00 363 W80 28.402 white mica sh chips on slope to S

RNR - 797 OC OF
coarse granitoid gneiss
N30E 20SE in cut by dam
my fol. Some amphibolite
float.
RNR - 798 photo or
augen mylonite w/chl
& bio rich myl
sch mtx in steam
N60E 20SE lineated
feldspars plunge SDE 15
N 37 00 382 W 80° 28 .020
3/5/10 RNR - 7811 OC in drive
leucogranitoid gneiss gray
greenish gray N 37 00 297
qtz + mus + kspar W 80 28 423
N 60 E 40 SE

RNR - 7812 green myl
N 60E 20 SE
photo dt N 37 00 312
W 80 28 450
RNR - 7813 brn - grn olive
mica schist w/ leuco gran
gneiss layers = myl zone
N60E 30SE, peral white button
schist to drain / qtz mylonite

RINERQUAD 3/7/13

ROCK SPLS FOR ANALYSIS

1) RNR-716 Pb/Zn/Ag min ld brec.

2) RNR-898 Unicoi Metagraywacke

3) RNR-867 Pilot Gneiss

4) RNR-897 Little River Augen Mgl

5) RNR-991 " " "

6) RNR-995 Little River Mgl Gn

7) RNR-991A amphibolite dike intrusive Little River Mgl Gn

8) RNR-895 Leucogranitoid

Need To Sample 2/6/12

9) PLT-841 Little River Augen Gn (37.02015, -80.32665

10) RNR-941 Little River Granite (37.014667, -80.403717

RNR - 925 updated Spreadsheet

lat 37.032747 3/8/13

lon 80.39914 R-10663

N 37° 01.949 W 80° 24.014

RNR - 927 R-10664

lat 37.032367 N37 01.929

lon-80400171 W8024.066

7 March 2013

Muse Farm

7-8-20 N 40 40 SE

green - olive blasto

myionite gn/ sch photo

S 34E 30 SE lineation

N 37° 00.332 W 80 793

7-8-21 Leuco my

2 5 22 N 40 40 SE

Photo ok myonite gn

strong down dip lin

on gr

3/8/13 N 37 00 493 W80 28 823

RNR - 76 27 green

phllite in lower Unicoi

37.008217 -80.480823

March 5 '13

RNR-7814 green schist
act - epidote schist blocks
on roadside orange clay
soil N37 00 350 W80 28 533

RNR-7815 N37 00 360 W80 28 563
coarse chl musc schist
in bank ledges in creek
N45E 45SE - lower unconf
sheared lithic cgl or breccia
lichen clasts up to 1/1
N37 00 367 W80 28 565

RNR 7816 coarse aaen gneiss
in bank and blocks
N37 00 400 W80 28 643
N30E 20SE photo

RNR 7817 ledges of coarse
gneiss (photo
N37 00 453 80°28.743
N60E 30SE

RNR 7818 Melagrawacke
float on bank
N37 0 0405
W80 28 827
N70E 30SE
coarse mica mf sh

Tom Miller

RNR - 7819
mica phyllite / myw
N 50 E 40 SE / purplish
weath phyllite in ditch or bank
5896 Chestnut Ridge Rd
20

21 leuco N 60 E 50 SE
photo at N37 00 273
W80 20.235
22 gr augen my MS100 178
N40E 20SE W 80 28.573

RNR7823
23 leuco gran my blocks
at N37 00 43 W 80 28 595

24 leuco gran + bar gtz
at N36 59.950
80 28 583
25 lin S30 E 20SE N40E 10

RNR-7826
26 gtz arenite float
on road N54 E 30 SE
red brn + purple
phyllite in Trench Silo cat
N 37 00 + 42 W 80 28.902
RNR gtz
173 phy Octn Road Pavement N54E 22 SE Lin.
N 37 00 010 W 80 29 297 S20E 20SE

March 7 2013

ALR-111 ate at

N 36°59.560 W 80°29.417

green mylonite exposed in road bank very finely cleaved of white phyllonite gradational into lever gneiss

N40E 50 SE

Building Permit

Joshua Davis Altizer

6696 Chestnut Ridge Rd

Deck on Doublewide

ALR-113 N 36° 59.485

Altizer Cem

ALR-121 N 36° 59.692

W 80 29 512

green mylonite sap exposed in road bank

N40E 20 SE March 8 2013

ALR- 8 ledges of augen gray green gneiss in stream N 50E 30SE

N 36 59.975 W 28 913 Pilot gn

RNR 7828 Mylonite augen green mtrx N 48E 26SE

N 37 00 065

layered gneiss seq W 80 28 983

RNR 7830 tan phyllite chips.

RNR 7829 N52E 29SE
layered agen mtg
green mtg SAMPLE
N37 00 105 W80 29 035
37.0015142 -80.49395168

RNR 752 N 37 01 243
W 80 28 705
Unicoi qtz arenite
samples and photos
of pebbly ss

RNR 763 E-W 40S oc
of aher to tan weathered
phyllite in road bank
N 37 01.063 W 80 27.513

March 12 '13

RNR 7810 qtz vein at Bishop-Gardner Cem EW 40 SE

March 14 '13 cool clear breeze

RNR-936 graphite chlorite phyllite ridges stick up on ridge above Dobbins Cemetary ~10 souls @ N 37° 02.060 W 80° 23.255 pink to silvery gray qtz musc schist w coarse porphyroclastic beds overlain by graphite-chlorite phyllonite w/ my fol N70E 64 SW qtz pb-clasts stretched down dip

RNR 937 N 78E 34 pink to lt gry leucogranitoid straight layered gneiss (photos) N 37° 02.063 W80 23.102

RNR-938 N48E 50SE chl-qtz-graphic phyllonite in road bank at N 37°02.113' W80° 23.092 leucratic granitoid gneiss qtz vein qtz gravel bar Big spring by old house photos of houses

RNR-939 N 35E 30SE N 37 02.187 W80° 23.230 thk bedded lithic arenite / mica schist = mgw photo of flood plain scals

March 12/13

RNR 9310- First true grit mass
qtz arenite ledges cross
ck at N37°02.225
bed? N48E40SE W80°23.310
N 37 07

RNR-9211 ledge of grnish gry
lithic SS/Sh N60E 40SE
at N 37° 02.255 W 80 23 345
N 37.037583 W 80.389083

RNR-9212 2 6' thk grit ledges
N 20E 50SE N 37 02 .263 N37.037717
RNR-9213 W 80 23 .410 W80.390167

Massive ledges of unsheared grn
granulite gneiss w/ bio/books
replacing early mafic ass.
Original Grenville straight layering
preserved in Ocs spl at N37 02.193
photos N 37.03655 W 80.390583 W80°23.435

RNR-9214 N 40E 30 SE
grn - yellow mica schist saprolite
in stream @ N 37 02.037
~100' from ck W 80 23.372

March 15 2013 5850 River Road

Mr. Shepard says Erie Marshall

RNR-831 fe (limonite) breccia phyllite chips in soil N37 01 865 W 80 25 713 Ochreous phyll sap N60E 70NW

RNR-832 multi colored sandy phyllite saprolite chips in soil @ N37.01.882 W80 25 580

RNR-833 white qtz ss boulders in small colluvial chute @ N37°01.932 W80° 25.523

RNR-834 coarse qtz granule grit w/ strongly flattened schistose fabric 3' ledge exposed for ~ 30' als N60E 20SE.

RNR-835 5' ledge of coarse arkosic grit exposed next to picnic shelter N 70E 20 NW SPL N37°02.020 W 80 25.482

Yellow brown weathered friable punky stone

RNR-836 sidebank by dam White Fg qtzite

N 37 01.962 W 80° 25 475
N 80° E 70 SE strongly foliated
qs in fault

RNR-837 qtzite block
field below dm

RNR-838 ferruginous sandy iron
replacement pod in cut
bank on SW lake shore
@ N 37 01.970 W 80° 25.482

RNR-839 10' qtzite
ledge crosses hollow
N 30 E 40 SE air N37 01.960
OC on NE side at W80 25 542

RNR-8310 large 3x3'
blocks of white
qtzite in pasture
above barn @ N 37 01825
W80 25 585

3/18/13 NEW RIVER Spls

3/15 1) RNR-835 arkosic SS
N 37°02.020 W80°25.482

3/15 2) RNR-838 fe cemented arkosic Grit
N 37°01.770 W80°25.482

3/15 3) RNR-92/3 granulite gneiss
(Pilot granofels Gneiss)
N 37 02.193 W 80 23.435

3/13 4) RNR-911 Pilot Unakite

N
3/6/13
N 37°00 493
W 80° 23.823

5) RNR-7827 Unicoi tuff phyllite. N 37.100 821 W80.480823

scan 867 pilot
878 unicoi

Davids-10676
-10677

6/10/2013

(1) Huges et al

1) laplante
Sandra
Osborne 1624 McPeak

(2) Graybkal, Maxine J.
1911 Fire tower
639-1350 (Don)

3 McPeake
William D
1500 Stapler 639-5806

(3) 4) Zimmerman, Sally 3024 Z. Lane

(4) Ernie Marshall 763-2158