coarse musc (rare) V-fine orange pink garnet, qtz, dk gray qtz, some rare feldspar - ~ 70% qtz

VHL 836 N 30E 16 NW layered hbd gneiss amphibolite OCS in gully on hillside light and dark layers crenulated folds in coarse hbd layers

VHL 837 N 65 W 22 NE med thn layered bio musc sch/gn sequence

VHL 838 N50W 20 NE thn bedded qtzite/sch seq above amp sch/gn flt

VHL 839 very coarse amphibolite hbd sch w hbd clumps up to 1"

VHL 8310 N 24W 20 NE ledge of fg s+p hbd gneiss crossing road bed

VHL 911 N10W 22 NE lineation S 5° grooving on qtz lenzs bio sch sap in red brown bio gn sap, cave in (soil pipe in spillway to large pond. Drainage in subsurface along foliation). Some ferruginous clay layers

VHL 8311 coarse qtz mica schist float along buried phone cable

VHL 186 N52E 20 NW [illegible]
dark bio gn sap w/ 3" amp layer
VHL '86 N52E 40 NW Pavement OC
on meander cg gign
VHL 191 N55E 24 NW mylonitic
foliation in bio gran gneiss, some good comp band
VHL 192 N60E 30 NW My fol in dk bio gn
OC banded brn mica sap in bank
VHL 193 N32E 35 NW, very dk gr/blk
mica/hbd? Sap
VHL 194 N35E 20 NW cascades
(low pavement ledges in
F-mg bio gran gn
VHL 195 dip 325 @ 17° on coase bio
schist, dk brown sap in stream
banks
VHL 431 - N38E 40 NW Fine stp gn
w/peg stringers musc sch F/T
N80W 20 NE leuco bands in mica
gn sap in spillway of pond
VHL 432 304 strike 18 Dip qtz Feld
layer in gn sap crossing branch
N60E 25 NW mica gn sap above qtz Feld
layer - (comp banding)
VHL 822 12/3/97 Fine grained musc sch sap
in stream bottom - orange brn clay soil
N40E 20 NW schistosity
VHL 823 N40E 10 NW Fg ep-bio qtz
granofels (mgw), heavily eroded land,
rocks show comp layering (sed) thick
to massive ledges in stream, contorted
VHL 824 N75E 10 NW med thk bded fine
qtz ite - mgw layers in stream
VHL 825 N28E 18 NW Thck bedded qtz wacke
beds, large blocks in cascade down

stream full of dia + qtz cobbles / gldrs
blue gray clay ~ old td

VHL422 28° N20W dip or N70E strike
Fine grained salt and pepper tex Mica
gneiss, lite - med gray
N62E 45 NW good banded med/coarse
grained meta sed sap w white gran
discordant dikes and concordant
qtzite layers - GOOD OC*

VHL 181 N70E 45 NW bands in med grained
gray gran gneiss / bio predom mica
gn chl (talc) layer 1" thick 6"
hbl amp layer

VHL 182 parement oc of f-mg bio
gn / layers trend N52E 60 NW
Massive OCs look like orthogneiss
but comp is pelite w/ orange-red
garnet pbs, possible ky

VHL 183 N25E 35° NW well banded dk
gray mac bio gn sap w/ granitic stringers
granite blebs at edge of field in
stream bottom

VHL 184 med gr gr gn / bio w c fold
and qtz grains, granular text
qtz ribbons and seams N30E 60 NW
steep joints

VHL 961 Sil breccia along trail at gate

VHL 962

VHL 991 N 25E 40 NW LINEATION S 45 W @ 25° cg brittle-ductile myl gn Granitoid protolith

VHL 992 N 25E 20 NW Fg qtzite layer in Fg pelitic gneiss ± Aprolite

VHL 993 N 70W 20 NE Fg blk + gry banded gn sap (May be calc gneiss - marble unit)

VHL 994 at new pond N 60E 35 NW bio gn/sch with amp layers some pbs Chapps Mill

VHL 971 N 30W 15 NE lineation N45E > medgr stp bio gran gn - massive layers or sills

VHL 972 N 55W 55 NE gran gn in brn mica soil

NHL 973 N35W 25 NE MASS LEDGES OF FG GRAN GN IN STM

NHL 974 N 35 W 25 NE Fg qtzite interbed in Fg bio gn/mica sch unit

VHL 975 bio gn/sch N50 15 NW

VHL 976 hbd layer in bio gn/sch N 50W 14 NE

VHL 977 N 55W 14 NE Sheared gry + white gran with 2 - 3" lenco gran sills and stringers crushed and mylonitized along foliation

VHL 941 upland surface heavily gullied - highly erodible residual soil

VHL 942 N 25 W 10 NE banded gry/dk gry bio musc gneiss sap in stream bank very minor amp partings

gr (bw) grgn sap and ledges in stn

VHL 396 beautiful layered stp and dk f-mg blo gn in stn below 4 wheeler bridge at end of long field Good Field Stop

VHL 397 thin layers of wh to light gray felsic gneiss or qtzite (tuff?) N55W 5NE MS and thn amp layers in soq ip stream

398 N45W 10 NE dk orange-brn + grn sap with thin 1"-2" bands of amp below felsic interval Possible andesite/felsite then thk dio dike bldrs mss

VHL 631 N45W 25 NE 1' amp gn layers in felsic mafic layered soq. rnd mica schist felsic gn and amp clasts in stream

VHL 632 abundant dio bldrs then mass, foliated grgn sap in bnk N45W 45NE

8/5/47

VHL 321 & 2 well layered gry and white grgn/stp text extensive leucogranitoid stringers/migmatite

VHL 323 fe mn nodules in soil along Highway 501 - Orange clay loam = fe qtzite or amp?

VHL 361 Kyanite (blue 6mm laths) qtz rock floating in red soil / sandy top N80E 17 NW layering exposed in deep drnck of log skidway red granular sap = fe ss? or amp? with partings of mica qtz rx
VHL362 more qtz ite RIP
VHL 351 N 55E 25 NW Fine gr brn musc bio gn / sch with thin stp amp gneiss layers oc in stream bed

VHL 363 Ky qtzite bed ~1-2' thk interbedded with schist in stm, thin bdd ss sh seq?
VHL 331 amp oc behind church
VHL 332 N70E 18 NW amp oc in bare landing area, red sap abd + magnetite in wash
Buttonschist N 70E 35 NW on trail to stream crossing. lineation N50E30

top to SE

8/1/97 VHL 391 white qtz gravel. Float in stm / prb grgn
VHL 392 N70E 15 NW cg grgn sap with 4" leucozone layers
VHL 393 N40W 16 NE cg btw bio gn with 2-5mm deep red garnet pbs more leucocratic bio gran gn at 4 wheeler crossing
VHL 394 N65W 25 NE dismembered musc peg cutting gn along foliation
lineation N25E 18 ~ 11 sym
tops NE

VHL 768 N40E 20 NE cg pnk weath grn

VHL 769 N40E 30 NE F-mg banded blo gr gn

VHL 7610 322 N20E 25 NE, lineated leuco granitoid with coarse pnk. K-spar gran dike (N22 005

VHL 76 11 342 - 5 18 NE polyphase folded gr/ hbd - blo gn plunge S 80 E 18

VHL 791 N45W 15 pavement ledges of cg lineated grgn in stm big spring abd running cedar etc

VHL 792 N35W 20 NE lineated blo gr. (OSt) then N55E 20 NW layered blo-hbd gn sap in cut bank just before major drainage to nt

VHL 793 - N65W 10 NE felsic gn, layered, F-ms wht, lt gy - pnk laminations

VHL 794 N40E 48 NW Fg white - lt gy stp grgn gneiss with coarser granitoid bands (tuff beds??)

VHL 795 N55W 5 NE mass ledges with drill marks, abnd quarry site, pavement in stream wh t-lt gy grgn

VHL 796 N45W 18 NE layered hbd blo gn sap dark grnish gry to dk brn micaceous (soil) with latns of feldspar weatered out of leucocomes

VHL 797 N55W 5 NE th layers of qtz

VERNON HILL QUAD 1996

VHL 455 cont'd

isoclinal Fold hinges in bdd/bio gneiss

plunging 5.25 W at 5°

axial surface dipping S80W at 5° (est)

VHL 456 N70E 10 NW 6' gran layer in thin bedded amp gn gentle open folds in amp N 10E 5° great loc For Field trip

VHL 457 N70W 20 SW layered garnet hornblende gn/sch, abundant dia/basalt boldrs

VHL 458 blocky jointed diabase make cascades in stream ~100' thick joints N80W N15E, strong vertical component of mag field contact NS 75E (lower) Xenoliths of fine felsic gn, contact with lineated felsic gn

VHL 459 N15E 75 NW massive/layered Felsic gn/metatuff unit

VHL 461 N85E 20 SE coarse muscovite porphyroblast / mylonite schist across stream, pebbly, garnetiferous, musc-bio gneiss layers with real Euhedral garnets up to 5.5 mm, garnets in schist up to 3mm, garnets in amphibolite up to 12mm

VHL 462 N60E 10 NW comp layered pink weath laminar Felsic gneiss, cliff on side of hill

VHL 523 N65E 24 SE ledge of Felsic gn in Field

VHL 553 Kyanite qtzite at corner (554) N 60W 14 NE banded ky qtzite blue green Kyanite laths in white-lt gray qtz mtx

555 N35W 10 Anticlinal hinge N15W 40NE ap

Folds in ky qtzite

561 photo of asymmetric syncline N 15E 10 (hingeline) N 15W 20 NE axial surface, medium bedded Ky-musc qtzite

VHL 546 N40E 30 NW med-thin bedded Felsitic qtzite 8' cliff.

FEB 7 1997

VHL 493 Second note - coarse garnet schist appears to be Fork Mtn Like melange unit with cobbles slabs and clds of other qtz-Fld gn

Lithologies.

VHL 494 N80W 35 NE contorted qtz-mica-schist nearly 50% qtz a Foliated micaceous coarse qtzite is responcible for "Flats" above

VHL 495 red brn clay soil w/ abdt qtz gravel and chips

VHL 496 qtz limus f/t (pg) + Fine amp.

VHL 495 qtz Feld gneiss, lt gray to dk, banded N55E 35 NW

VHL 731 ← HINGE N40W 15 cross Fold. at base of qtz feldspar gneiss, underlain by dark hbl gneiss N60E 15 NW

VHL 732 S60W 10SW hinges of small folds in banded blo gn sap some folds ε chevrons, some others ≋ are refolds along transposed layering N80E 15° NW

VHL 733 Cg musc granite pegmatite crossing stream, highly sheared (brittle-ductile cleavage N55W 70 NE

VHL 721 N45E 18 NW Medium bedded bio and hbl bio gneiss ledges in stream bed

VHL 722 ≋ hinge N20E 8 SE versing Fold Axial

Surfaces are in plane of Foliation N80E 24 NW unit is black and white hbl gn saprolite

VHL 723 N70W 50 NE, gray stp bio-granitoid gn with millimeter layering and centimeter black bio schist banding

VHL 724 EW 15 N Fe-mn bands ~ 1' thick in qtzite sap, with muscovite schist/gn above

VHL 725 N30E 20 NW 60S (hbl rich)

VHL 221 Dk Gry-black med gr biotite gneiss / schist cuttings from new well next to roadway

VHL 252 N60E 14 NW lin N 40E 5 or less NE intersect of cleavage, schistosity in layered leuco bio gneiss - med - coarse granitoid

VHL 251 N20E 5° NW med grained lt gray to black and white foliated - massive granitoid gn leucocratic stringers, bio stks Diabase bldrs along rt bank

VHL 253 N45E 10 NW Hbd bio gn hbd elongate along strike

VHL551 blocks of black fe qtz fels fine gran text pos

VHL552 coarse [illegible] qtz schist and [illegible] rich qtzite float on old farm road

VHL541 Slope covered fe mn qtzite + schist - dip slope, pos ky + staur sch outcrops of blocks of schist X

VHL542 coarse mylonitic pegmatite, microcline fish musc books w/garnets N30W 35 NE Mylonitic foliation

VHL543 coarse pebbly grit or qtzite with ferruginous layers N35 44 NE APPARENTLY OVERLYING SHEARED MUSC Pegmatitic granite

VHL544 cm bedded white quartzite N55 W 20 NE

VHL 821 new well in black gnt bio sch with white qtz feld layers, bio gneiss unit

DEC 12, 1996

VHL 451 heavy gray clay silt in stream bottom white qtz gravel lens, prism cracks - Very old alluvium

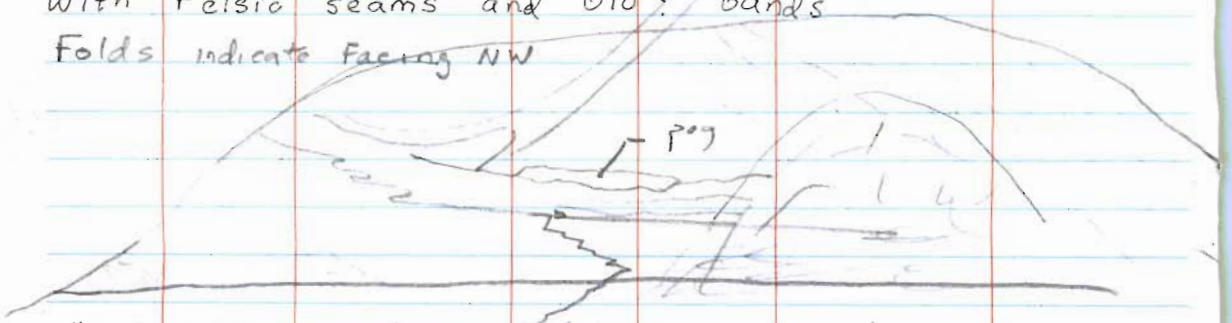
VHL 491 N75E 10 NW mica sch layer in fe qtzite sequence blocks of ferruginous Qtzite

VHL 461 N50E 25 NW feld stringers in bio gn Sap

VHL 462 [illegible] layered [illegible] gn [illegible] 15 NW
VHL 463 piles of [illegible] mica Fe qtzite - pyrite cube impressions
VHL 464 pit, stone pile - Fe qtzite + garnet [illegible]
VHL 465 stone pile [illegible] + bgn
VHL 442 N75E 10 NW Fe qtz ocher sap (amp?) in Front of house, mn Fe bloom on road by upper [illegible]

JAN 6, 1997

VHL 441 N45E, 45 NW, Bio foliation, btw comp layering in med gr grgn
VHL 442 N45E, 30 NW, lt brn granular saprolite - grgn with Felsic seams and bio? bands
Folds indicate Facing NW



VH443 coarse muscovite pegmatite granite dike Float
VH444 " " " " outcrop - joint or strike ∥ joint N85W 55 NE, grn-gray sand in stream suggests mafic sap above
VHL 445 N 55 E 20 NW amp gn w/ leuco layers Ocs in stream bed
VHL 452 N60E 12 NW coarse leucogranitoid gneiss, pegmatite Float in stream, measurement is spaced cleavage/layering? tourmaline in Float
VHL 453 N 65E 0-5 very gently dipping med gr bio gran gn N35°W, granite dike (4") vert. continuous Oc in St.
VHL 454 N65E 25 comp layering in f-mg bio gran gn - dk gry to tan in stream bed exposure
VHL 455 N70W 15 SW N50W Vert joints close spaced zone in hbd gn/schist unit

VHL 726 4' diabase dike cuts mica schist, schist layers undulose form broad elephant backs in stream channel N35E 30 NW

VHL 727 Cut bank ~20' high on NE side of stream exposes base of mica schist unit with mn Fe layers ~ Mt Athos or Alligator Back and act/hbd gn/sch unit in 505 below.

VHL 728 Cut bank ~ 10' exposes fe-mn sap N60E 30 NW thin bedded mica gn below

VHL 485 N25E 15 NW schistose saprolite brown Fe stained amp or mica?

FEB 8, 1997

VHL 741 N75E 20NW BANDED PINK GRAY AND BROWN mica gneiss SAPROLITE IN GULLY BELOW SPILLWAY

VHL 742 N75E 20 NW LEDGE OF MED TO COARSE B&W BIO GRAN GNEISS

VHL 751 DARK GRAY AND WHITE BANDED GNEISS SAP N80E 20NW

VHL 752 N80E 10 NW lt gry fg meta tuff (qtz feld granofels) or qtz schist interlayer in grgn

VHL 753 Black and white layered hornblende schist crossing stream N 20E 22 SE gentle folds plunging 55 S E

VHL 754 N35 W 50° NE interlayered felsic & mafic volc schist/gneiss in channel of Polecat Creek broad flood plain with saprolite at stream base level ~2' gray silty clay tho ~1-2' of light gray brown sand. cobbles and pebble gravel mostly vein qtz, felsic gneiss and meta tuff with rare hornblende schist amphibolite and diabase

VHL 755 N35W 20NE layered lt gry - wht grgn - old mill dam Found. Hbd gn band N75W 25 NE

VHL 756 N75E 35 NW laminated qtz Feldspar gneiss on Felsic tuFF breccia

VHL757 N75E 20 NW laminated qtz Feldspar gn

VHL ~~758~~ T82 N30E 12 NW Lam/thn ~~Flaggy~~ bbd sch/Felsic gn sequence ledges across stream - good Field stop

VHL 783 Felsic gneiss - angular relation at stream int. N ~~30~~ E 30 NW N 70 W ~~45~~ NE gentle rolls on NW dip plunge N30W at 12 ~~→~~ syncline to NW

VHL 784 Thick bedded Felsic gneiss ledge at fence line N 70E 10 NW massive blocks on slope below 785 same thk layerd gn as above

VHL 791 Massive exfoliation domes in Field of med-coarse qtz Feldspar bio gneiss with thin leucocratic layers N 70W 30NE strong foliation (planar not linear as in Shelton N 30 W 15 NW tight asymm Folds in leucosome

VHL 792 Same layered Felsic gneiss sas above
N35W 35 NE hinge plunge N 35 W 17 NW
layers
Shears N50W 35 NE

Feb 18, 1997 N45E 25 NW bio gran gneiss, med grained lt gy - salt and pepper texture, with leucocratic veins or layers, massive-bedded with mica schist interlayers (VHL 743)

VHL 771 N55E 40 NW qtz Feld gneiss Flattened feld porphyroclasts ✓ mica Foliation

VHL 772 N75E 20 SE ledge of qtz feld gn below dam site. (dam and pond are geone) mica sap interlayers

VHL 773 gray mica gn sap in cut bank, leuco bands N50E 32 NW

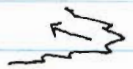
VHL 774 ledges of w/lg thin lam to massive srp grgn

VHL 775 N80E 10 NW Fine felsic gn / bio / hbd along foliation

VHL 776 N70E 5 NW Fine bio / hbd gn flat layers in stream gentle folds ~

VHL 777 Fine laminated hbd gneiss N 55 W 30 SW at stream crossing near end of field ocs are possibly good flagstone

VHL 778 Photos of Fine lam hbd bio sch / gn with intra folial folds, hinges plunging S 80 W 5°
layering N80W / 5NE epidote rich layers (metasom)


axial surface EW plunging 30 W lots of folded leucozomes cutting S, hbd up to 5mm

Photos of 4' diabase dike N 20 W vert, Photos of coarse gran cutting Fn Felsic gn ~~N 50 W 30 NE~~ dike or sill

VHL 779 N45E 20 NW bio layers in white feldspathic sup

VHL 841 N85E 15 SE fg felsic gn in stn — Feb deer fly

VHL 842 N10E 65 SE fg Felsic gn, qtz with x/s

VHL 761 N75E 65 NW rotated root rx (mica sch/gn sap root

VHL 762 Shelton Gn Pavement in Corner of Field
grgn med gr hypidiomorphic granular — foliato, lt pink-gny exfoliated contorted bio Foliation plunges N 30 W at 20 NW

VHL 763 1/2 acre or more pavement w/ contorted foliation N35W 30 NW

VHL 843 N25 W 24 plunging crenulation in bio foliation massive Shelton Gn pavement in center of field, swamp below

VHL 844 shelter cave beneath OC N85W 34 NE

VHL 845 N80E 25 NW F-mg med bedded Metatuff (qtz feld gn)

VHL 846 slaty amphibolite, grn soil in field

VHL 847 N80W 15 NE Folds + lin N10E 10 NE bio gn / ms / amp Layers

VHL 871 N60E 12 lineation in lt gy - pink grgn (Shelton)

VHL 872 N60E 10 SE Pavement surface w 11 Foliation med to coarse pinkish grgn at head of pond

VHL 848 N40W 50 NE coarse myl gn (Shelton Gneiss)

VHL 873 Photo of orange red plastic clay w/ diabase blds forms left bank of Pond

VHL 831 fg s+p biogneiss (Bossett Like) in drainage

VHL 832 N85E 29 NW Migmatite of coarse granitoid sills N55E 25 NW stringers along foliation planes in s+p textured grgn

Photo, Fault, gnn stringers

Photo of X Cutting gr vein EW 45 N

VHL 833 Oc of crenulated Shelton N30W 24 NW

Photo OF Beaverdam between 2 and 3

(VHL 862)

VHL 822 photo of downed trec along Polecat Creek steep embankment is in hornblende gneiss/schist another bench above may be contact with shelton Grgn

VHL 823 hbd sch/epidosite flags in stream

VHL 824 N60E 28NW Hbd gn/ Felsic gn lagers below spillway 18" diabase N10W vert Great Field Trip Stop

VHL 834 Iredell type Fe nodules yellow brn soil in saddle contact above

VHL 861 N25W 5 NE on skid road dog into hbd sch/gn sap

VHL 862 N46W 22 NE in 5' dia soil pipe in Felsic gn sap with bio/musc/mn stained schist partings

VHL 863 N75W 20NW Layed bio/hbd gn sap

VHL 864 N35W 20NW hbd sch/gn in stream bottom above lake

VERNON HILL 2-20-97

2/20/97 VHL865 N25W 55 NE ox in stream coarse sheared granite with oriented inclusion (septum) of f-mg grgn (Bassett Like)

VHL866 N45W 15 NE hbd bio sap in stream bants

VHL867 N45W 55 NE large block or ledge of coarse lineated grgn

Responce to Phone Call from Wayne Ellis

VHL835 AAA Drilling Co drilling granite with cable Tool SMPL IN PEPSI BOTTLE 90' white and black sand