

## HART GROUP

Sample Descriptions:

## SOUTH HART:

2776c (5.0 ppm Ag, 820 ppb Au) - rhyolite fragmental, with vuggy, (Honeycomb) <sup>qtz</sup> vein - breccia; <sup>qtz</sup> commonly rusty; few altered trachyte patches (possibly fragments); dark grey matrix; buff weathered surface. <sup>angular-subang.</sup>

27833c (570 ppb Au) - layered, xline, <sup>qtz</sup> vein with rhy-trach fragmental host; trach frags(?) very altered to clay minerals; vugs also present with limonite coating; buff to rusty weath. surface; minor dissemin. py. throughout host; light grey host matrix, with wte. altered trachyte frags.

27715c (24.0 ppm Ag, 1400 ppb Au) "Honeycomb" <sup>qtz</sup> vein breccia ~~with~~ ~~qtz~~ ~~in~~ ~~contact~~ ~~with~~ ~~what~~ ~~appears~~ ~~as~~ ~~highly~~ ~~silicified~~ ~~rhyolitic~~ ~~host~~ ~~with~~ ~~dissemin. py.~~; some vugs present; limonite stained surface and vugs. <sup>Other</sup> colloform <sup>qtz</sup> leucite vugs

27710c (820 ppb Au) vuggy <sup>qtz</sup> with clay and limonite altered angular frags few mm's in size evident within (probably sil. fragmental caught up in <sup>qtz</sup> vein. Rusty surfaces,

92749B (11.68 oz Ag, 0.016 oz Au) Very white coloured. <sup>qtz</sup> in part vuggy <sup>qtz</sup> with layered in centre; red weath surface; clay alteration on fracture surfaces; silver <sup>bluish</sup> col. sulfide present - only few grains, soft, red with <sup>low As (22)</sup> Hematite? <sup>easy silver</sup>  $\rightarrow$  Hematite found in  $\$$  of 92750 which is same.

(11.8 ppm Ag, 440 ppb Au) 27717c fragmental; mainly trachytic frags, subround-subang. few mm's-1cm; bedded shale Takwahoni shale frags, one bedded up to 1cm-subang.; py in ~~matrix~~ <sup>matrix</sup> mostly but also in frags; silicified rhyolitic matrix w/ py; limonite staining on weath surf.

27617c radiating needle-like sulfide silver col. on fracture surface of ~~chry~~ porph - clear plag phenos; <sup>qtz</sup> in vugs; buff to rusty weath surf. sulfide - reddish?  $\text{As}, \text{H}, \text{H} > 2, < 5$ . ~~Hematite?~~ <sup>too hard for stibnite</sup>

~~Aspy~~ too soft for Aspy.

(< 0.003 Au, 0.14 oz/ton Ag)

Hematite?? but too soft

NB Hematite found in  $\$$  27709

~~Phy-trach porph possibly fuffs?~~

## SOUTH HART

~~27851C~~ v. altered to clay minerals - rhyolite porphyry with fsp phenos altered to clay minerals, minor silicification; patchy rusty weath; lt grey blue col.

~~27852~~ similar to 851C, also black altered phenocrysts. few flecks of silver sulfide as in 27617C. buff to rusty weath on fracture surfaces and weath surf.

~~27853C~~ rhy-trach few clear plag phenos; lt blue grey col. - rusty-buff weath surface

~~27854~~ - rhy porph. dark grey col. matrix; fsp? phenos altered to clay minerals; orange weath surface.

~~27855~~ rhyolite, lt. bl-grey colour, slaty cleavage, otherwise same as 853C.

- ~~27856~~ rhy porphyry, v. minor dissem py? (2.1 ppm Ag)

~~27857?~~ very altered, heavily Mn stained rhy; rusty, yellow-black weath surface.

~~27858~~ rhy porph, fsp pheno altered → clay, slaty cleavage, v. dissem py?, layering with clay altered lines in the rhy forming the layering pattern; weath. yellow-orange-buff col.

~~27859C~~ rhy porph, with dissem py, cubes visible. yellow-orange surface

~~27860~~ trach breccia, mainly trach altered to clay fragments, some ang. shale frags up to ~~few~~<sup>5</sup> mm in size; yellow-rusty weath surface.

~~27861~~ trach bx - <sup>altered</sup> trachytic frags → clay, from few mm to 2 cm, subround-angular, dark grey matrix (rhy).

~~27863C~~ rhy <sup>trach</sup> breccia; angular slate + trachyte frags. → <sup>largely</sup> altered to clay; yellow-rusty weath surface

~~27860C~~ black basalt, v. grained; cte coating on weath surface strongly magnetic.

~~27860B~~ rhy with gtz lined vugs.



Small < 5mm.

~~27825C~~ Rhy ~~fragments~~; rhy ~~fragments~~ - <sup>very fractured.</sup> though difficult to see ~~see~~ - rusty fracture surfaces, ~~and~~ ~~and~~ ~~and~~ ~~between~~ ~~fragments~~; ~~qtz~~ ~~vs~~ ~~form~~ ~~composite~~ Composite of 2 xls in rhy., some flow banding. Surface heavily Mn stained and rusty. Rhy has few fsp phenos.

~~27826C~~ Rhy - brecciated at one end with small v. angular frags, qtz lined vugs, one surface lined with colloform(?) quartz. Mn stained and rusty weath surf. (30 Au, 580 As)

~~27828~~ OL Basalt, magnetic, OL phenocrysts, heavy, black col. and v. small biotite? phenos.

~~27830C~~ ~~is~~ altered tuff(?) tuff with <sup>lots</sup> pyrite (cubes present). Very minor layering evident; yellow-rusty weath. (20 Au, 235 As)

~~27832C~~ v. silicious <sup>dark grey</sup> rhyolite, clay altered fsp phenos, dissem py throughout. yellow-rusty weath. (60ppb Au, 950 As) → possibly py → arsenopyrite.

~~27831C~~ v. fine grained basalt as in 27828, OL phenos, magnetic, heavy

~~27829C~~ (20 Au, 1000 As) silicified rhy breccia. (silicified rhy same as in 27832C; angular rhy frags up to 3cm; arg to subarg tuff frags up to 5mm; arg-subarg shale frags up to 6mm. Py blebs and amalgamation of cubes as well, as dissem py throughout matrix and single grains within frags themselves. Qtz veinlets few mm wide cut breccia many are vuggy)

~~27834~~ rhy porph. with py; rusty + Mn stained weath surface.

~~27805~~ silicious rhy with py ~~on~~ especially on fracture surfaces. Altered phenos of fsp; rusty weath surface (20, <sup>th</sup> 920 As)

~~27838C~~ Rhy porph; ~~is~~ phenocrysts altered → clay.

~~27819~~ ~~27839~~ Rhy w/ clay altered phenos, py throughout but especially near weath. surface; rhy very silicified. rusty weath; few qtz xls present.

~~27827C~~ Rhyolite breccia; very angular fragments of rhyolite porphyry with clear plat phenos; ~~is~~ very rusty limonitic matrix; rusty weath surface

# Dore

~~27837c~~ Rhyolitic pumice with gt = xls.; clay alteration; few angular shale and trachyte frags visible.

~~27824~~ Andesite porphyry; Mn stained, heavy, slightly magnetic, greenish-grey-black colour

~~27711~~ (20 Au, 650 As) Rhy breccia with drusy gt = vein, 8 mm wide. breccia is silicified, with minor dissemin py. Fragments of shale + rhy or trach; yellow-orange weath surf.

~~2772c~~ Rhy porph with abundant fine pyrite.; buff weath surface.

~~27707c~~ Rhy. breccia, angular trach frags up to 3 cm, darker grey silic. Rhy matrix. Py grains (cubes) through matrix and in frags. (71000 As)

~~27708~~ Rhy breccia; very altered arg-subarg clay altered trach fragments, up to 1 cm, smaller subarg-arg shale frags. Py throughout the matrix; of dense in contact with the breccia and extends into breccia. (830 As, 1.3 Ag)

~~27835c~~ Very clay altered trachyte porph. Abundant py. orange-yellow weath surf.

## NORTH HART

~~73662B~~ Rhy or Trach porphyry; clear fsp phenos and clay altered phenos; rusty weath

~~27661c~~ Black Rhy breccia, arg-subarg shale frags, and rhy frags.; some fragments rusty. minor py, ~~and~~ crusty weath



## SOUTH HART

Rhy ~~zone~~ Breccia

some bedded.

Mogul Zone Sample - ang-subang rhy, trach frags from few mm to 3-4 cm, few subang shale frags smaller in size (5 mm), 3-4 subrounded granitic? frags; py in rhy frags and in matrix; rusty-yellow staining; abundant py

27807 ~~zone~~ Breccia to ~~matrix~~ <sup>trach</sup> rhy + clay mineral frags, subang-subround, v. few subang-subround shale fragments dark grey rhyolitic matrix, dissem py; rusty-yellow weath.

27862c Rhy Breccia; Trachyte frags. subang + altered. from few mm to 3-4 cm in size, dark grey matrix; minor dissem py; rusty weath surface.

27897 (4.2 Ag) v. ~~porous~~ altered ~~rhy~~ rhy breccia; v. porous in places, abundant py throughout; v. altered trachyte-clay fragments; rusty weath.

27801c rhy, silicified - buff-rusty weath; dissem <sup>v. fine</sup> py throughout (tuffaceous?) (40 Au, 7000 As, 1.5 ppm Ag) => aspy??

27803 gtz vein cutting silicified rhy breccia. gtz drusy + ruggy; frags subang of banded rhy and clay altered trach; red-orange weath surface.

27808c - altered rhy porph, fsp phenos altered & clay (1.2 Ag), minor dissem py; few mm wide drusy gtz veinlet; py in part replacing phenos? v. red weath.

27804 (60 Au 200 As, 14.3 ppm Ag) drusy gtz vein cutting rhy porph -> pink tabular fsp phenos, rhy has been silicified, dissem py, aspy?; yellow-orange weath.

27802 (<10 Au, 380 As, 0.6 Ag) Rhy breccia, ang-subround clay (trachyte) frags, few subang shale frags, few subang greywacke? fragments; ~~low~~ drusy gtz on one surface with slightly rusty weath surface <sup>limonitic coating</sup>

27701 flow banded rhyolite porphyry, clay altered & phenos, yellow-orange weath surface. (1.7 Ag)

\* 27661B subrounded bed of v. altered rhy porph? seam of py = 1cm wide; yellow weath. <sup>clay?</sup> <sup>clay</sup> (1.6 Ag, 420 As, 20 Au, 4300 Hg)

13659 B Trachyte porphyry; clay altered phenos few mm in size; yellow staining, minor py.

→ 27702 C (20 Au 130 As 1.6 Ag) gtz vein cutting trachytic rk. minor py; orange weath surface.

27806 (40 Au, 310 As 1.2 Ag) rusty, drusy gtz on trachyte; yellow-orange weath.

27810 C flow banded rhy (trach) <sup>porph.</sup> v. v. minor py; rusty-red yellow weath. (360 As, 2.7 Ag).

27804 v. silicified rhy; v. small gtz vugs, rusty to buff weath.

→ 27749 C Volc breccia; trach frags altered → clay minerals, subround-ang; some small (few mm) subround - subang shale frags; some areas have greenish stain; weath surface buff - rusty, and p. ftd.

27613 C ~~trach~~ <sup>Rhy</sup> ~~trach~~ <sup>tuff</sup>; minor py, yellow-rusty weath. silicified.

→ 27611 C Volc breccia; mainly clay altered angular trachyte - trach tuff frags., few drusy gtz veinlets trachyte v. porous around one side of gtz veinlet; buff - yellow weath.

27619 C med grey rhyolite porph; clay altered phenocrysts, dissem <sup>minor</sup> py.

→ 27746 gtz vein; white; slight yellow stain, buff to rusty weath surface; ~~at green spots?~~

27615 C flow banded trachyte, minor py; rusty weath

27618 dark grey rhy porph; plag, quartz, gtz lined vugs, dissem py; lt br - rusty weath

→ 27745 gtz vein, vuggy, minor silver col sulfide (as in 27749 - hematite?, <sup>at</sup> clay minerals present; reddish orange weath surface.

→ 27743 v. silicified rhy <sup>at gtz.</sup> porph, vuggy gtz veining abundant w/ clay min.

27800 B Volc breccia; very silicious; angular - subangular trachytic frags.; buff to rusty weath.



~~27744C~~ wte, @ gtz vein, some vugs; similar to 92749, so darker grey area, some wte clay min - kaolin red weath., minor hematite. (0.008 Au, ~~1.37 Ag~~ 6.53 <sup>07/ton Ag</sup>)

~~27747~~ gtz vein with rhy and ~~black~~ frags., orange-red weath., + yellow <sup>kaolin (trach)</sup>

→ ~~27612~~ trachyte breccia; fragments angular and from few mm to > 8 cm. ~~gtz~~ silicified rhy matrix, dissem py - minor; drusy gtz on 1 surface; buff - slightly rusty weath.

~~27748~~ - Volc ~~breccia~~ <sup>or agglom?</sup>; silicified rounded - <sup>- mainly</sup> any trach frags in rhyolite (v. silicified matrix) in contact with trachyte porphyry; slight greenish ~~matrix~~ <sup>matrix</sup>, rusty spots.   
↳ possibly chloritic alteration

~~2764C~~ very silicious, ~~gtz~~ rhy, gtz, rich, gtz vugs. minor dissem py.

→ ~~27750C~~ <sup>highly</sup> silicified dk grey rhy with gtz, remnant frags barely visible; ~~lt bl~~ - rusty weath.

- ~~67798B~~ drusy gtz and v. silicified rhyolitic agglomerate subrounded - subang trachytic frags. minor py. buff - rusty weath.

→ ~~67799B~~ sil. rhy bx, rusty gtz lined vugs, subang trachytic frags barely visible; v. minor dissem sulfides - py.

~~27616C~~ v. silicified rhy.; few clay rich pheros? clear plag pheros; greenish staining near weath surface, rusty weath surf.; dissem py

- ~~67799~~ wte drusy gtz vein some darker grey areas kaolin around edges; buff - rusty weath. minor sulfides (0.172 Au; 3.78 Ag)

~~67797B~~ gtz rich, rhy agglomerate, v. sil, & areas of free gtz, minor sulf in matrix, kaolin kaolin altered trach frags few mm in size subang to subround. buff to sl. rusty weath.

~~67796~~ v. silicified rhy agglom, gtz rich + drusy gtz. minor dissem sulfides in ~~trach~~ matrix. buff to sl rusty weath.

~~6770~~

67703B trachytic tuff in contact with rhy lapilli tuff -  
agglom. with some kaolin frags, silicious, minor dissem  
sulf? sl. rusty weath.

67705 Rhyolitic lapilli tuff - agglom. Frags of kaolin,  
~~trachyte~~ trachyte, some shale, subrounded, gtz rich areas,  
minor dissem py.

Fragments - Trachyte.  
- Takwahoni shale.  
- few granitoid  
- few gneiss?

§ - 1 granitoid  
- shale, chert  
- trachyte - lithic + xl tuffs, porphyritic.  
- composite gtz  
- single gtz + Ksp

25553C (4.16oz/ton Ag, 0.020oz Au) gtz-py pumice-like ~~at~~  
seam up to 5cm wide in trachyte breccia; angular-  
subang trach frags in silicious, dk grey matrix; light  
weath.

25557C (40 Au, 7 Ag) Trach. breccia; ang-subang fragments  
of trachytic tuff; ~~py~~ <sup>dissem.</sup> especially on fracture surfaces.

27706C (>1000 As) Trachytic tuff?; remnant fsp phenocrysts  
kaolin on fracture surfaces; py cubes ~~esp~~ mainly  
on fracture surfaces; sl. yellowish to rusty weath.

25555C (3.66oz Ag, 0.005oz Au) tabular to rounded  
aggregates of marcasite.  $\approx 5\text{mm}$  in size in gtz matrix  
; "honeycomb-like" gtz in places. All within of rhy  
breccia with ang-subang frags