

INTERPRETED PIMA-II SWR MINERALOGY

PLATE No. 2466.1

Batu Hijau Cu-Au 3

porphyry

Australasian & Pacific Porphyries

Sample	Mineral1	Mineral2	Mineral3	Mineral4	Possible Mineral1	Possible Mineral2	Dominant Illite/muscovite composition
001r	biotite/chlorite	ankerite	smectite		+/-kaolinite		
002r	biotite/chlorite	ankerite	smectite		+/-kaolinite		
003r	biotite	ankerite			+/-chlorite		
004r	biotite?				+/-chlorite?		
005r1	biotite	ankerite			+/-kaolinite		
005r2	noise						
006r	biotite?						
007r	smectite-illite	kaolinite	biotite		+/-ankerite		muscovitic (i.e. potassic or of "normal" muscovite or illite compositions)
008r	smectite-illite	kaolinite	biotite/chlorite	ankerite			muscovitic (i.e. potassic or of "normal" muscovite or illite compositions)
009r	kaolinite	?					
010r	biotite	ankerite			+/-chlorite	+/-illite/kaolinite	
011r	biotite				+/-kaolinite	+/-ankerite	
012r	AlOH clay?	MgOH mineral					
013r	biotite/chlorite				+/-ankerite	+/-kaolinite/illite	
015r	biotite/chlorite	illite-smectite	ankerite	smectite			muscovitic (i.e. potassic or of "normal" muscovite or illite compositions)
015v	biotite/chlorite?						
016r	kaolinite	illite-smectite	chlorite/biotite	ankerite	+/-hornblende		
016v	biotite/chlorite	ankerite	illite-smectite		+/-kaolinite		
017r	biotite/chlorite	ankerite	kaolinite	illite-smectite			
018r	biotite/chlorite	ankerite	illite-smectite		+/-kaolinite		
020r	biotite/chlorite	ankerite	illite-smectite		+/-kaolinite		
020v	chlorite/biotite				+/-carbonate		

Samples on Lithotheque plates number left to right, commencing at top left. Samples are numbered 001-020. The letter after the number refers to the type of measurement made: r = representative; v = vein; vs = vein selvage; m = matrix; c = clast; l = layer; p = phenocryst (if large). Not all plates contain 20 samples; not all samples have been measured; some samples have multiple measurements. THIS PAGE IS DESIGNED TO BE PRINTED.

Summary of Batu Hijau Lithotheque Plates 2464.1, 2465.1, 2466.1, 2467.1, 2468.1

The samples from the supergene alteration zones at Batu Hijau are characterised by spectra that are dominated by chrysocolla and malachite, with minor brochantite, alunite (Na-alunite) and kaolinite. The spectra from the chalcocite and hypogene zones are typically of low reflectances and noisy due to the presence of sulphides and magnetite. These zones are dominantly characterised by biotite, ankerite, illite, kaolinite/dickite, smectite and chlorite, minor (probably primary) hornblende. The biotite appears to be of an intermediate Fe-Mg composition, which appears to be a characteristic of the Batu Hijau alteration system, as biotites in porphyry systems are often more Mg-rich. The alteration zones represented by the samples in plate 2467 are characterised by chlorite, epidote and ankerite (propylitic altered samples), illite/sericite, kaolinite, pyrophyllite, smectite, chlorite (sericite-chlorite-clay zone) and biotite, ankerite and chlorite (biotite alteration zone). The illite at Batu Hijau appears to be Al-rich (which is often due to a paragonitic, Na-rich, composition) and of varying crystallinities from moderate to high.

Please note that the summary is based on a relatively small number of samples which are not spatially attributed. Conclusions drawn are, therefore, indicative rather than definitive of the spectral and mineralogical characteristics of this deposits.

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