

MDRU SC 108 : Vectoring to and Within Porphyry Copper Systems

DAY 1		
7:45am - 8:30am	Registration and coffee available	
8:30am - 9:30am	1. Introduction to porphyry copper deposits a. Tectonic settings of formation b. Magmas and enrichment processes c. Metallogeny and districts d. Calc-Alkaline vs Alkaline systems	Craig Hart
9:30am - 10:10am	2. Foundations of Hydrothermal Alteration	Greg Dipple
10:10am - 10:40am Morning Coffee Break		
10:40am - 11:30am	3. Alteration mineral assemblages and zonation	Farhad Bouzari
11:30am - 12:20pm	4. Vein types, paragenesis and mineralization chronology	Farhad Bouzari
12:20pm - 1:20pm Lunch		
1:20pm - 2:20pm	5. Tools to map alteration mineralogy a. Staining for feldspars b. SWIR for white mica and chlorite c. Hyperspectral imaging d. Other methods	Robert Lee
2:20pm - 2:50pm Afternoon Coffee Break		
2:50pm - 5:00pm	6. Exercise: Rock and veinlet types, alteration assemblages a. Hands on rock identification b. Vein types and paragenesis c. Alteration mineral assemblages d. Discussion	
DAY 2		
8:00am - 8:30am	Coffee available	
8:30am - 9:30am	1. Distal alteration features in porphyry deposits a. Fluid pathways b. Distal minerals c. Early vs late	Robert Lee
9:30am - 10:30am	2. Geochemical vectors in porphyry systems a. Theory to rocks b. Geochemical patterns c. Other zoning patterns	Craig Hart
10:30am - 11:00am Morning Coffee Break		
11:00am - 11:30am	3. Petrophysical characteristics of altered rocks	Dianne Mitchinson
11:30am - 12:00pm	4. Geophysical patterns in porphyry systems	Dianne Mitchinson
12:00pm - 12:30pm	5. Surficial geochemical and indicator mineral patterns	Craig Hart
12:30pm - 1:30pm Lunch		
1:30pm - 2:15pm	6. Integration to build a footprint model	Craig Hart
2:15pm - 3:00pm	7. Workflows and sampling strategy in an exploration program	Robert Lee
3:00pm - 3:30pm Afternoon Coffee Break		
3:30pm - 5:00pm	8. Exercise: Synthetic Exploration Targeting a. Application of lessons learned b. Alteration features c. Geochemical, mineralogical, petrophysics, geophysics ... integration for vectoring d. Discussion	