

## Porphyry Exploration Game Teacher Notes

- Run through copper porphyry presentation as a class.
- Split your class into groups.
- Groups have \$200 million to bid on their chosen site(s), they can split this across multiple sites or bid wholly on one site if they wish - each group must keep their bids secret from other groups.
- Groups must write their bids down at the end of the session (suggested 20 minutes) and give them to the 'government representative' (teacher).
- The group that bids the highest amount on each site wins the site.
- The most viable and easily exploitable copper porphyry deposit is **Site B**, however the disputed border must be considered.
- After students have submitted their bids a coin should be tossed to decide whether the disputed border running through Site B will allow mining take place or not – if yes (heads) the group who bid highest on Site B win the game, if no (tails) then all groups who bid for Site B lose their bids.
- The second most viable copper porphyry and less risky option is **Site A**. If Site B turns out to be un-minable, the group who bid highest on Site A win the game.

Site A – near zone of hydrothermal alteration and shows strong magnetic anomaly –copper porphyry deposit (but smaller than Site B)

Site B – clear potassic hydrothermal alteration and strong magnetic anomaly – most viable copper porphyry, BUT disputed border

Site C – no magnetic anomaly, contains a high concentration of pyrite in stream sediments, however these are likely to have been washed down from Site B

Site D – magnetic anomaly indicates that there might be a porphyry here however the site is under 2km of gravel would not be economical to mine here as this anomaly could be caused by a granite pluton.

Site E – granite batholith – no copper here



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