



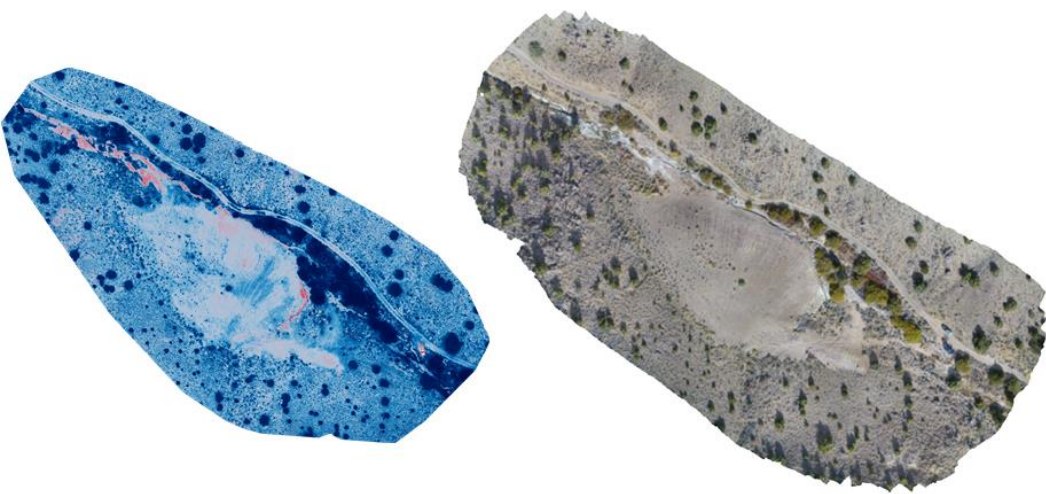
# Existing Partnerships in AML Environmental Research

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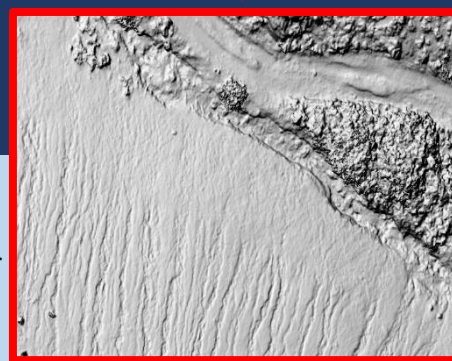
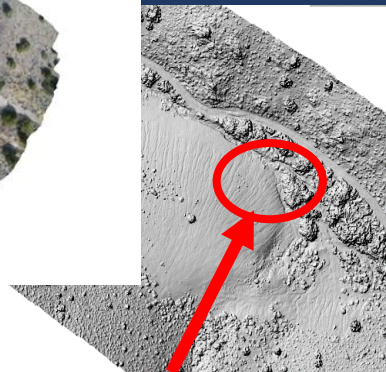


# Perry Canyon AML Project

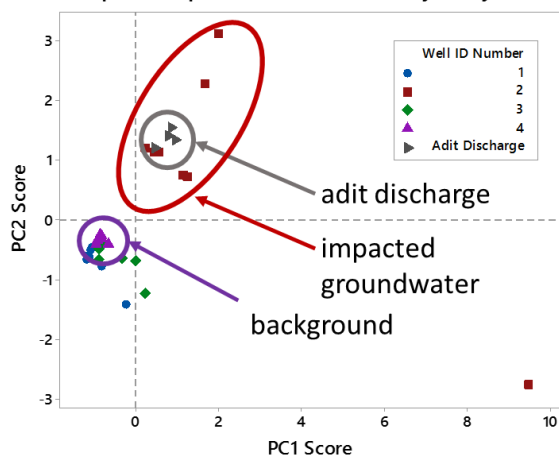




*False-color multispectral analysis (left) and true-color (right) imagery of the Perry Canyon AML waste-rock site. Areas of known waste rock/transport impacts are highlighted in red in the multi-spectral image and are observed as white deposits in the true-color image.*



**Principal Component Scores for Perry Canyon Wells**



*Chemical fingerprinting of groundwater in Perry Canyon to assess potential impacts to groundwater*

*Development of high-resolution DEMs from drone (UAS) based data to track and quantify surface changes (erosion)*

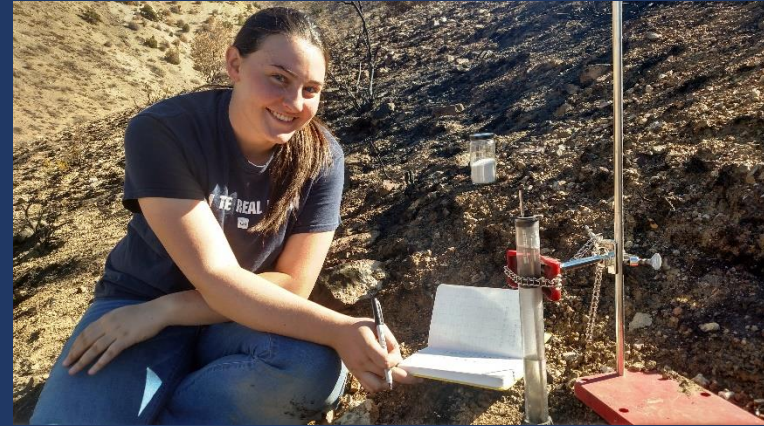
# Perry Fire Project

- In July/August 2018, the site was burned in the Perry Fire leading to an opportunity to study landscape change on an AML





# Evaluating post-burn hydrology





# Caselton BLM Tailings

- Approximately 125 acres
- Combined acid generating sulfide tailings (top) and oxides (bottom)
- Estimated typical depths between 20 and 50 feet
- Estimated volume ~ 11 million cubic yards
- Tailings are located on BLM land



# Ongoing Work

- Ongoing testing to build an unsaturated flow and transport model to apply to field

