

WORK PLAN  
SHAFT WATER INVESTIGATION  
SECTION 12 MINE  
Southwest Resources Inc.  
7/19/2019

The scope of reclamation needed to close out the Section 12 Mine is substantially affected by whether the mine is, in fact, a “dry” mine, as presently classified, or if it has water in the shaft and mine drifts at the bottom of the shaft. Other than some apparently perched water encountered during shaft sinking, there is no record of water in the mine:

- There have been no records found of water being pumped from the mine during operations.
- There were no wells or surface impoundments or other hydraulic controls associated with water in, or removed from, the mine.
- No water was observed during a visual walk-through of the mine by a MMD employee several years ago.

Nevertheless, Southwest Resources Inc. (SRI) plans to conduct an investigation from the shaft collar to verify that the Section 12 Mine is a “dry” mine. If water is encountered and appears to be more than incidental inflow from the surface down the shaft, SRI will work with MMD and MMD to decide what, if any , additional investigations are needed.

### **Investigation Tools**

The primary investigation tool will be a water level meter, suspended on a flat electrical tape marked in 1/100 foot increments, lowered from the top to the bottom of the shaft. Contact with water is signaled with an audible alarm, a galvanometer, or light signal. If a visual record is needed, a downhole video camera will be lowered from the shaft collar to create a continuous video record of the shaft down to the water surface or to the bottom of the shaft if no water is encountered.

This Work Plan will include the following tasks in approximately the order listed:

1. Place work orders for required services including:
  - a. Contractor to manage site access and security.

- b. Contractor to remove the existing shaft cover and clear space for investigations tools and support equipment.
  - c. Contractor to provide and operate hoisting equipment for the investigation tools.
  - d. Contractor to provide and operate the investigation tools.
2. Schedule and mobilize the contractors in the order listed in #1.
3. Remove the shaft cover, clear working space around the shaft, and attached safety harnesses as needed.
4. Perform the water level meter sounding.
  - a. Document the results and demobilize the 1c and 1d contractors and go to task #6, or
  - b. If the water level probe is blocked by an obstruction and cannot be advanced to the bottom of the shaft, document the results and demobilize the water level meter contractor, then go to task #5.
5. Perform the downhole video survey (only if task 4a is unsuccessful)
  - a. Document the results and demobilize the downhole video camera.
  - b. If the downhole video camera is blocked by an obstruction and cannot be advanced to the bottom of the shaft, document the results and demobilize the downhole video camera.
6. Meet with MMD and NMED to review results of the shaft investigations.
  - a. If either task 4a or task 5a produce results that sufficiently document the absence of water (confirm that the mine is dry), SRI will propose a shaft backfilling plan using waste rock, clean soil, or a combination of both.
  - b. If the results of either task 4a or task 5a are not sufficient to document the absence of water (confirm that the mine is dry) or show that the mine is wet (standing water in the shaft), or the results are not conclusive (tasks 4b and 5b) SRI will propose either a shaft backfilling plan using waste rock, clean soil, or a combination of both or a shaft plug and cap design.
7. Document the shaft closure concept and distribute for approval.
8. Incorporate the shaft closure concept into the Reclamation Plan.