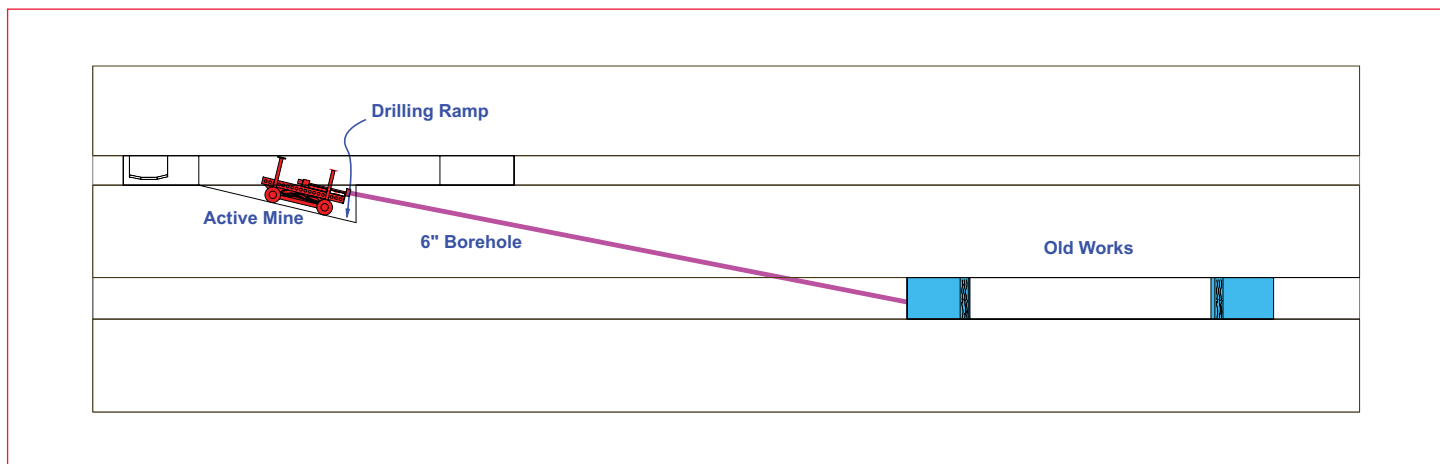


## Water Drainholes Targeting Adjacent Coalbeds

### Water Drainholes

Boreholes can be drilled to abandoned mines in adjacent seams either above or below the mined coalbed for drainage. Wellhead control prevents uncontrolled discharge of water.



### Water Drainholes – Coalbed being mined to adjacent coalbed previously mined

- Boreholes can be drilled either updip or downdip to adjacent seams to intercept abandoned and flooded mine works for drainage
- Downdip borehole to the seam below
- Installed 110 feet of 6 inch collarpipes and grouted in place
- Directionally drilled pilot borehole into abandoned mine, with 27 ft head of water
- Reamed pilot borehole to 6" diameter
- Wellhead control maintained at all times prevents uncontrolled discharge of water