Thank you for responding to our mine emergency. You are located at the-fresh-air base on the West Mains Section. A maintenance crew of 3 miners entered the section last night. Our tracking system had them located in the West Mains section prior to the event. Our tracking system became inoperable after the event in this section of the mine. There was a large rush of Air reported by others underground at the time. The check-in-out board has accounted for 28 of the 31 miners underground at the time also.

The West Mains contains two air shafts; With a blowing shaft on the surface in the #3 entry and a return air shaft in the #1 entry. The blowing Fan is currently off and being monitored. It can be started if needed, but cannot be reversed. The shaft can only be used as an intake shaft. Both shafts are being monitored and the locations of the shafts are on the mine map.

The exhausting Main Mine Fan is running and is located on the surface, it cannot be reversed. The fan is being guarded and sampled.

Mine rescue teams explored as far into Main West that they could and established a fresh-air-base where we are located. At present, there is no air movement into or out of the West Mains section inby the fresh-air-base. Air movement at the fresh-air-base is indicated on the mine map that will be provided. The map is up to date. Back up teams and all officials are on site.
Craig, CO  2017 Day 1

Written Problem

Account for all missing miners and bring all live persons to the fresh-air-base.

Explore all accessible areas that can be done safely.

You have 90 minutes to work the problem.

Good Luck
Craig, CO 2017 Day 1 Judges Instructions

1. Initial opening checks of each entry. Contaminent found in 1 entry but blocked by cave.
2. Team stop 1 - (apparatus check required) In 2 entry at XC 1 (Rule 44)
   Barricade found with irrespirable outside. Pt. communicates verbally "Help" when teams acknowledge barricade. (Pt. is unconscious when teams breach barricade). Team must travel XC 1 into 3 entry.
3. Team stop 2 – at XC 1 in 3 entry. Contaminent found inby XC 1 in 3 entry. Enough materials are available to vent barricade, breach (airlock required) and remove Pt. to FAB on stretcher (unconscious). (Rule 41 A)
   See Vent 1
   Team can travel inby in 3 entry or inby in 2 entry
4. Team stop 3/4 – in 2 entry at XC 2. diagonal unsafe roof found inby XC 2 with visible missing person. No timbers available to touch.
5. Team stop 4/5 – in 1 entry at XC 2. Explosive in intersection found. Ignition sources are pump cable and radio battery under brow.
6. Team stop 5/6 – in 1 entry at XC 1.
7. Team stop 3/6 – in 3 entry at XC 2. Ignition source found in 3 entry between XC 1 and XC 2.
8. Team stop 7/9 or 9/7 at teams discretion –Teams must tie across XC 3.
   Airtight cave and water roofed found preventing travel inby XC 3.
9. Team Stop 8 – in 2 entry at XC 3, unsafe roof with irrespirable found in 2 entry outby XC 3.
   Pump switch in CC.
   Teams must vent explosive in 1 entry to energize pump cable.
   See Vent 2
   Airlocks required in 2 and 3 entries prior to pumping. (Rule 42)
   When pumped, water in 2 entry (at pump, becomes waist deep. Water in 3 entry becomes ankle deep).
10. Team Stop 10 – in 3 entry XC 4. In Smoke. (Radio teams life line - Rule 22)
    Teams will tie across XC 4 – ALL IN SMOKE
11. Team Stop 11 – in 2 entry in XC 4. Barricade found inby XC 4 with contaminent outby – no response
12. Team stop 12 – in 1 entry at XC 4.
    Teams have materials to vent barricade.
    See Vent 3.
   Airlock required to breach barricade. 4 Timbers found
   Teams required to retreat to unsafe roog in 2 entry and timber in to touch missing miner. (Rule 32)
   2nd barricade found inby XC 4 – no response, with explosive and irrespirable outby it.
   Materials available to vent.
   See Vent 4
   Airlock required to breech inby barricade.
   Explosive mixture inside this barricade with smoke coming out of leeking seal.
   Pt. unconscious – can be removed to FAB under apparatus and on stretcher. (Rule 34)
   Captain must call quitter when smoke encountered.
   If any team member travels inby smoke, discount under Rule 31 B
   End of Problem