

Keys to Problem  
WV Alliance 2013

1. The briefing officer will be placed in the isolated area when the team makes the first team stop inby the Fresh Air Base and will remain there until the clock is stopped except while performing tasks consistent with the national rules.
2. The team must airlock in #2 entry first since #3 is the contaminated entry and the team cannot advance in it. (#2 is the adjacent entry) If the entire team enters the #1 entry first, it will be discounted for unsystematic exploration.
3. The team stop in #1 entry inby FAB between the temporary stopping and water over knee deep can be made at any time before the team moves inby the 2<sup>nd</sup> crosscut.
4. When the team reaches the RA a statement will be given to the BO stating that contact has been made with a miner in the face of #3 and to proceed there.
5. The team must advance through the crosscut to #3 entry since the crosscut has a contaminant. (water is only knee deep)
6. When the team ties in to #3 entry, the RA must be ventilated before any further exploration. The team can timber the unsafe roof outby the first crosscut in #3 entry and move the battery mine phone to the FAB. The team can then ventilate according to the 1<sup>st</sup> vent schematic.
7. The Battery Mine Phone must be brought to the fresh air base through the timbered area in #3 entry. If team moves it inby, the phone/ignition source will be moved into an explosive mixture.
8. The team captain and 1 other team member can enter the RA (after purging the airlock) and retrieve the conscious live man.
9. Water knee deep in the 2 right crosscut and between #1 and #2 crosscuts in #1 entry will require the teams to lift and carry the stretcher each time they travel through the area. (Skills rule only)
10. The non-explosive mixture inby the 2<sup>nd</sup> crosscut in #1 entry only extends to the open borehole since it requires another gas test.
11. The captain will have to timber to the person under the elongated unsafe roof 3<sup>rd</sup> crosscut between #2 and #3 when he gets there since timbers are available.
12. The atmosphere outby the Barricade in #1 entry is irrespirable (but non explosive) and will require ventilation. There is no response so the team is not tied to it.
13. The atmosphere outby the Barricades in #2 and #3 faces are respirable and will not require ventilation. (No response in #2)
14. The team must enter the Barricade in #3 face immediately after establishing verbal communication since the atmosphere is respirable outby the barricade. No airlock is necessary since the response indicates airtight.
15. The battery cap light in #2 entry is not an ignition source. Explosive mixture can be ventilated over it.
16. Teams must timber through the unsafe roof in #2 entry inby the first crosscut before ventilating the explosive and irrespirable mixtures through it. They may not use the timber already set for the first support.
17. The team must also timber through the unsafe roof in #3 entry outby the 3<sup>rd</sup> crosscut before ventilating explosive and irrespirable through it.
18. At the end of the problem, the team must timber through the unsafe roof in #2 entry between the 2<sup>nd</sup> and 3<sup>rd</sup> crosscuts. (One person not accounted for.)
19. If team asks about reversing the fan, tell them you do not know how to reverse it.