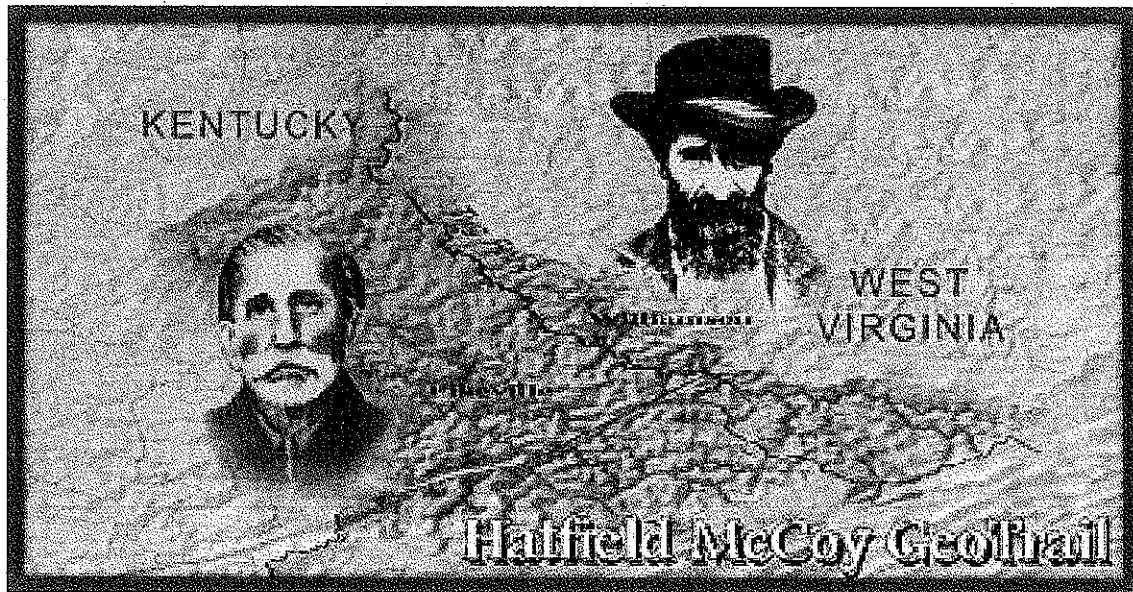


Hatfield & McCoy Mine Safety Competition Day 1

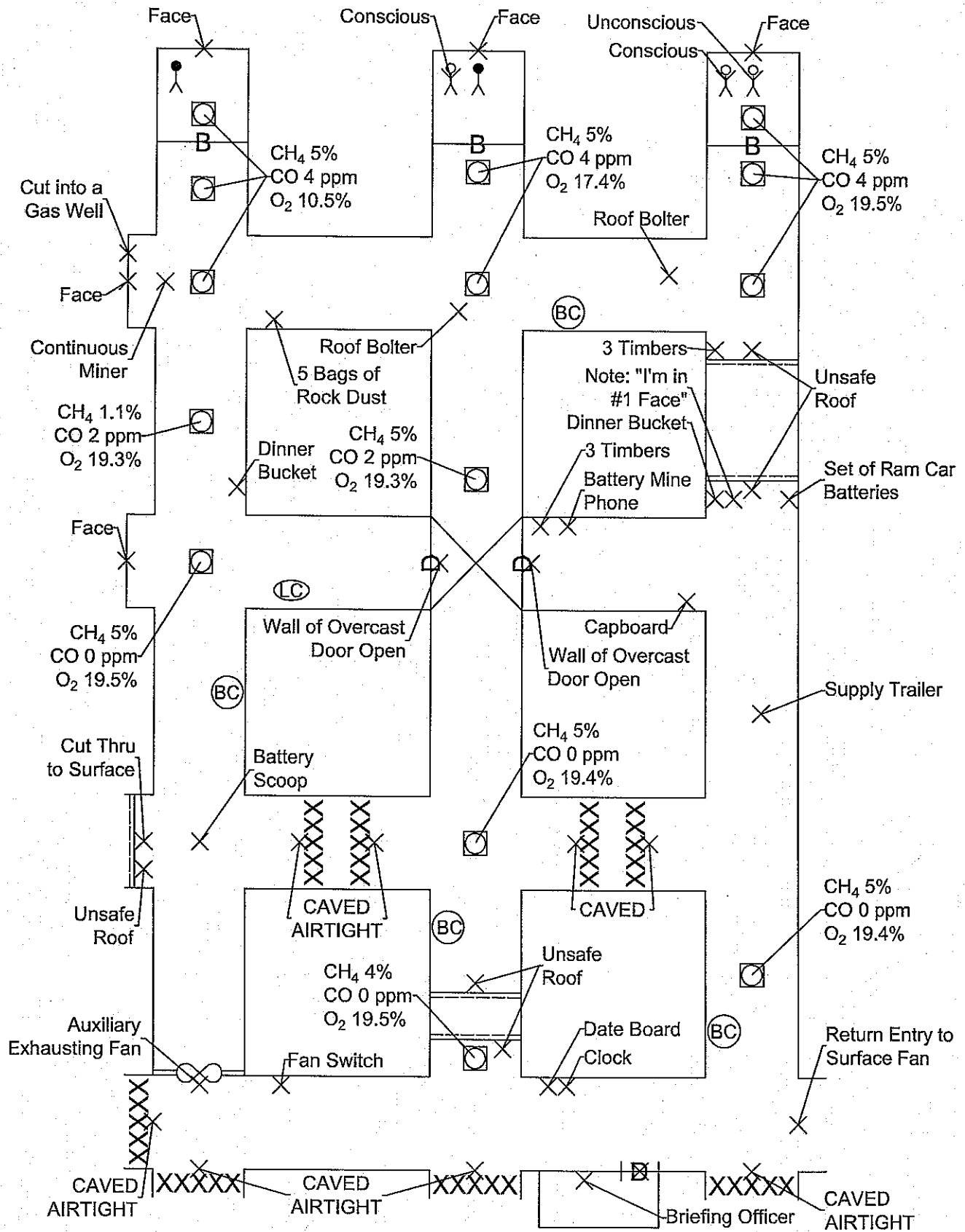
MINE RESCUE PROBLEM



2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

Problem Map



Scale: 1" = 15'

Hatfield & McCoy Mine Safety

Competition Day 1 Statement

Welcome to the Double Trouble Mine, thank you for answering our call for help. You are located underground in the West Mains at the mouth of the new North Section. This section has been developing to allow for a new portal to assist with ventilation. This section actually cut one place thru to the surface on 2nd shift yesterday. Since we have had so much ventilation problems, MSHA and OMSL have given us permission to use an auxiliary fan underground until we can reroute our air. The auxiliary fan is an exhaust only fan and is located in the #1 entry where it must stay and is currently off, but can be turned on if necessary, utilizing the switch between the #1 and #2 entries. However once started, it cannot be stopped or reversed. A five man crew went in at midnight to complete the other two cut thru's, and when completed they were supposed to build another overcast so we can reroute the air. No contact has been made with the crew since they entered the mine for their shift. The main fan on the surface is off due to damage from the roof falls here stalling that fan. Once the surface fan is repaired we can permanently reroute the ventilating current. At this time, all air courses outby the North Section have been examined and are clear. The cut thru has also been examined on the surface side and found to be clear but some unsafe roof kept teams from entering the North Section. Your Briefing Officer will be isolated in an airtight safe room that is receiving fresh air from the surface thru a borehole; however it cannot be used for ventilating the section. The maps we have are up-to-date except for whatever was mined by the crew missing. This mine has a history of bad roof conditions but no problems with methane or water. The underground power has been locked out and is currently guarded, except for the auxiliary fan circuit. We have a trained mine rescue team here to serve as your back-up. We have a lifeline man here to handle your lifeline. This is all the information we have at the present time.

GOOD LUCK

Working problem Day 1

- (1) ACCOUNT FOR ALL MISSING CREW MEMBERS AND BRING LIVE MEMBERS TO THE FRESH AIR BASE.
- (2) DURING TEAM APPARATUS CHECKS, CALL OUT THE LOW MAN'S O2 READING AND HIS NAME TO THE BRIEFING OFFICER.
- (3) YOUR TEAM HAS 75 MINUTES TO WORK THE PROBLEM BEFORE BEING REPLACED BY ANOTHER TEAM.

Patient Statement #2 Barricade

Help get me out of here!!
Its airtight behind me.

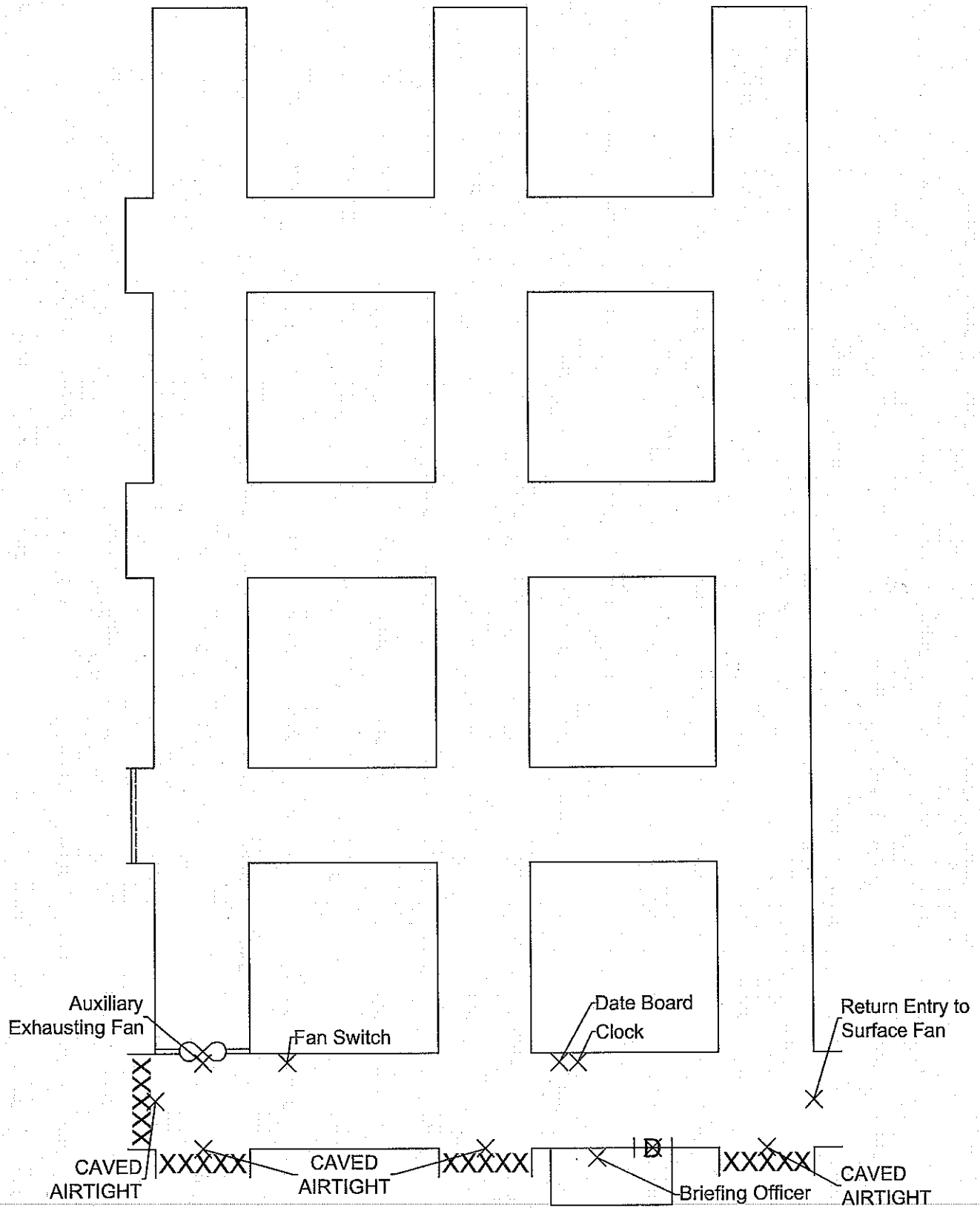
Patient Statement #3 Barricade

Help get me out of here!!

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

Team Map

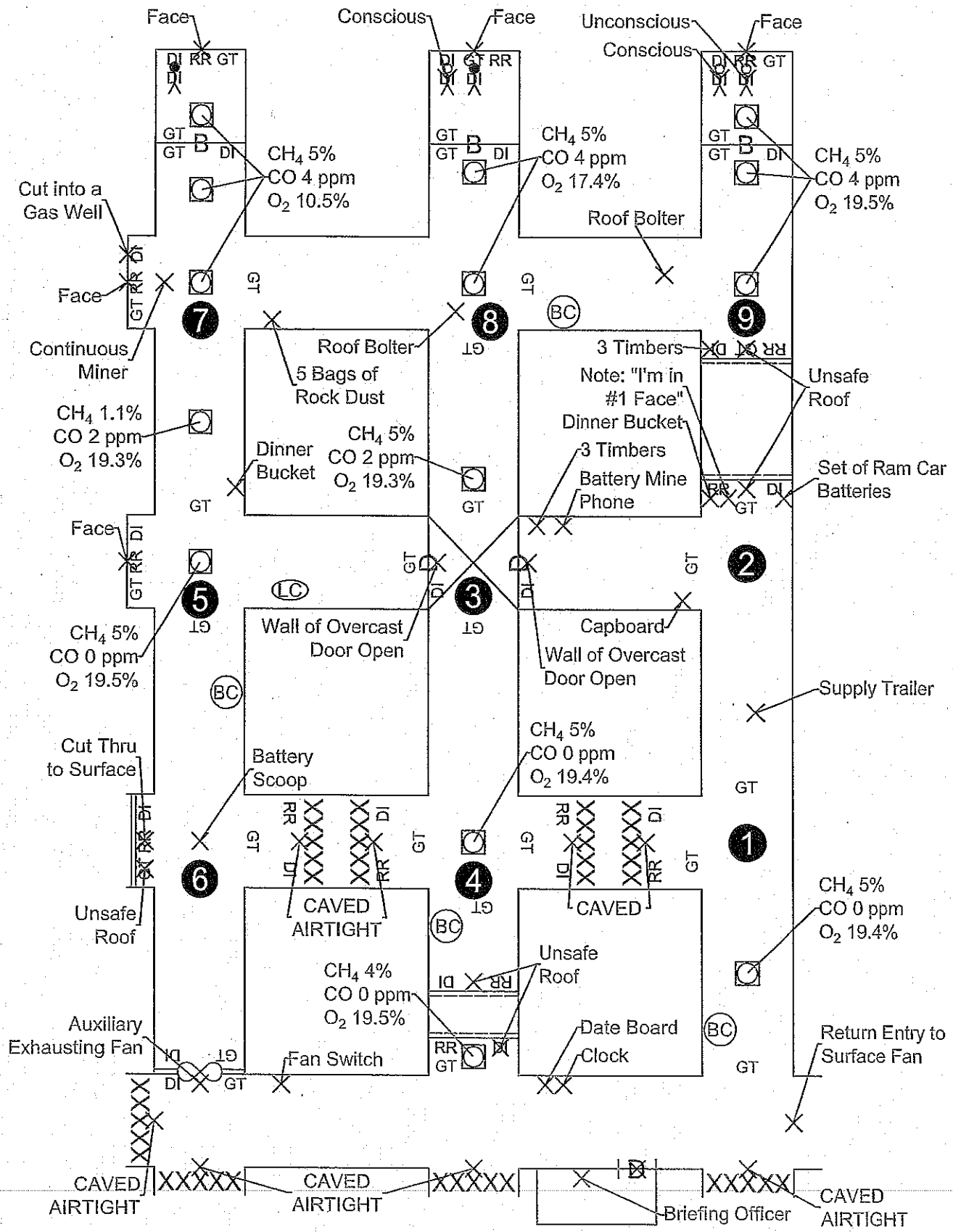


Scale: 1" = 15'

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

Team Stops, Roof & Rib, Date & Initial, Gas Test

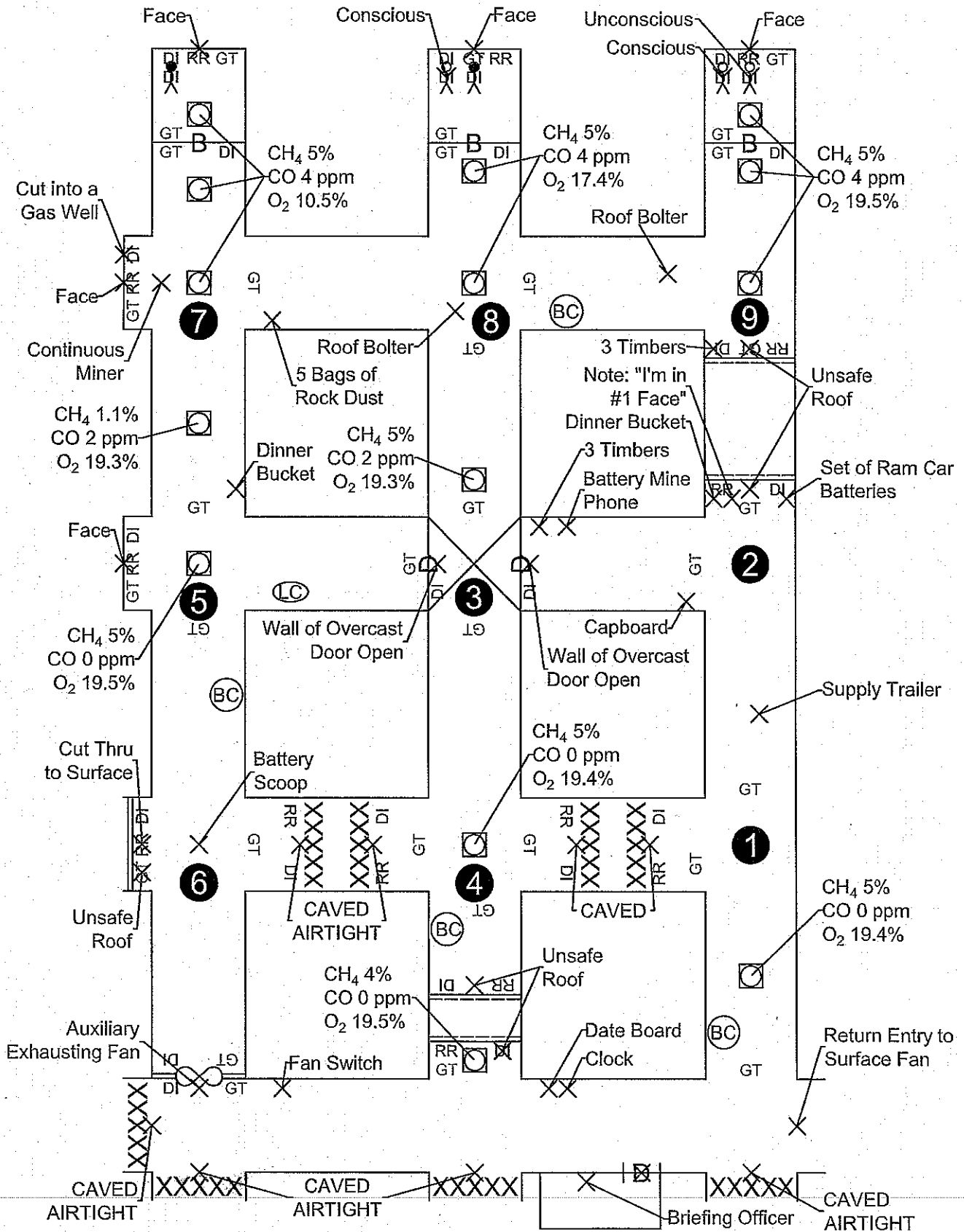


Scale: 1" = 15'

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

Team Stops, Roof & Rib, Date & Initial, Gas Test

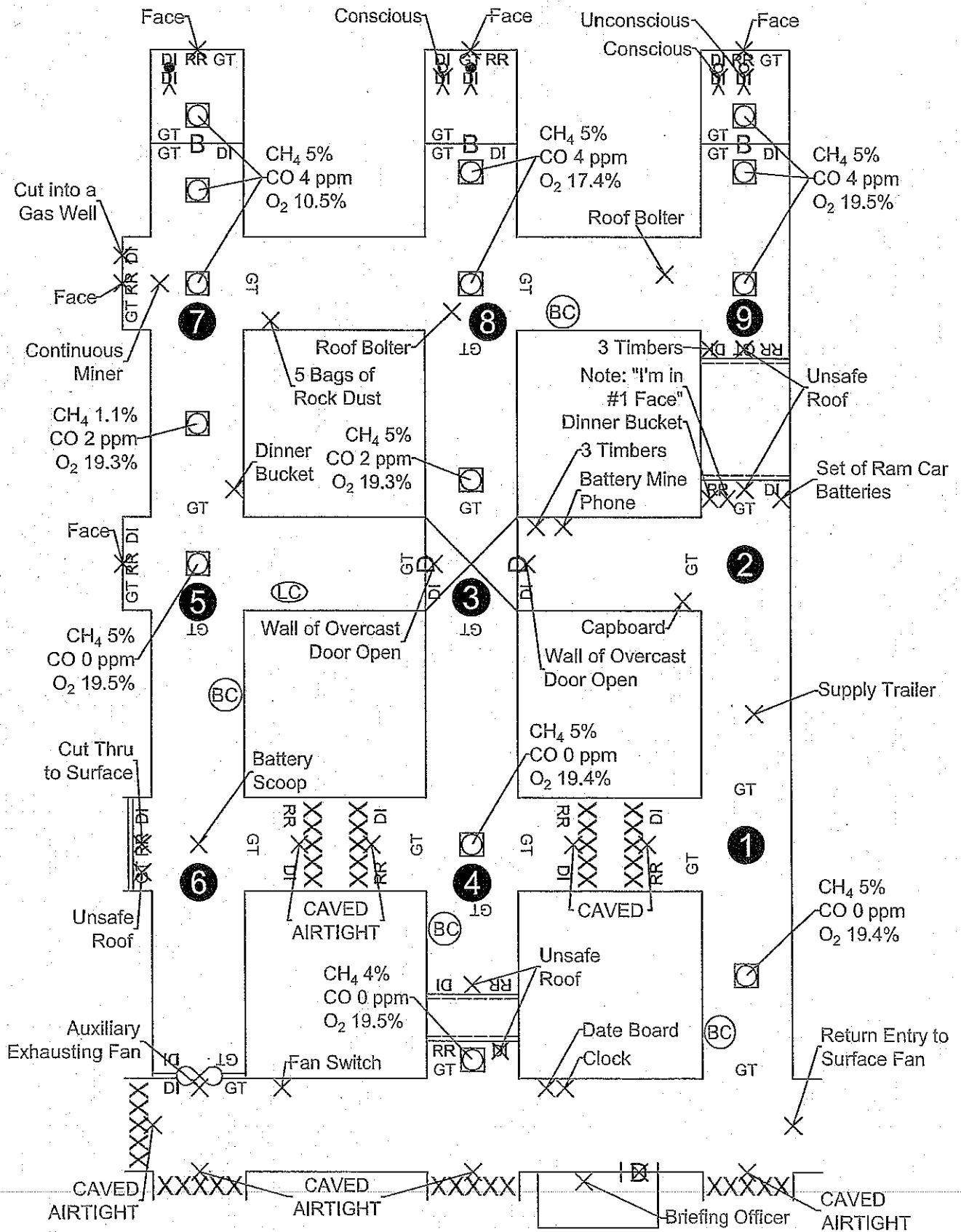


Scale: 1" = 15'

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

Team Stops, Roof & Rib, Date & Initial, Gas Test



After the clock is started a gas test will be required at the auxiliary exhaust fan rule24a, and D&I also rule27. Gas test is required in the openings of #2 and #3 rule24c before the team advances inby the FAB. Roof and rib test must be conducted in the #2 entry at the unsafe roof rule23 and D&I also rule27.

TEAM STOPS

Stop#1 – gas test required in the x-cut opening and the entry opening in #3 entry rule24b, roof and rib test rule23 and D&I rule27,at caved area.

Stop#2-- gas test required in the x-cut opening, and the entry opening in #3 entry, rule24b, roof and rib test rule23 and D&I rule27,at unsafe roof area. D&I overcast wall rule27.

Stop#3 – teams travels through open overcast door to #2 entry. Gas test required through the open door in x-cut going to #1, and inby and outby the openings of the entry rule24b. D&I overcast walls rule27.

Stop#4 – team must travel outby in the #2 entry rule45d. roof and rib test required at both caved areas and the unsafe roof rule23, also D&I required all three locations rule27. Gas test required all three openings rule 24b.

Stop#5 – the team must travel to #1 entry through the open overcast door rule45d. Gas test required inby and outby openings rule24b and at the face rule 24a. also at the face, roof ,rib and face test rule23 and D&I rule27.

Stop#6 – the team must travel outby in #1 entry first rule45e. Gas test required at the exhaust fan rule24a, and D&I rule27. Gas test both x-cut openings rule24b, roof and rib test at the unsafe and caved airtight rule23 also D&I rule27.

Stop#7 – gas test in the right x-cut opening rule24b, gas test at left x-cut face and the Barricade rule24a, D&I barricade and face rule27. Roof , rib and face test at the face in x-cut rule23. No response from barricade.

Stop#8 – gas test outby opening and right x-cut opening rule24b, gas test at barricade rule 24a. D&I barricade rule27. A response from the barricade, help get me out, its airtight behind here. The team must now ventilate (see ventilation#1) if team goes to #3 before ventilating rule42a. No timbers are needed to ventilate if the teams set timbers at this time they have delayed, Rule 42B. The battery mine phone must be relocated.

After ventilation is done, when the barricade is opened the captain must take a gas test rule 24d. Both locations of the people must be D&I rule27. The conscious person must be asked if he is okay or alright rule 12. At the face-- roof/ribs and face test rule23, gas test rule24a and D&I rule27. The team bring out the conscious person.

When the team travels back end.If the team elects to ventilate the #1 barricade before going to #3 first they can if they don't take the #5 man inby Corner of #1 intersection, if they do rule 45d(See 2nd ventilation for clearing #1 barricade.)

Stop#9 #3 entry, The captain must D&I the barricade rule27 a gas test must be taken at the barricade rule 24A, , roof and rib test rule23 and D&I rule27,at unsafe roof area. Gas test is required in the outby opening in #3 rule24B. A response from the barricade in #3, help get me out of here. No ventilation is needed due to the oxygen is 19.5% at the barricade. An airlock must be built by the team before breaching the barricade Rule43, also no timbers are needed if timbers are set rule42B.

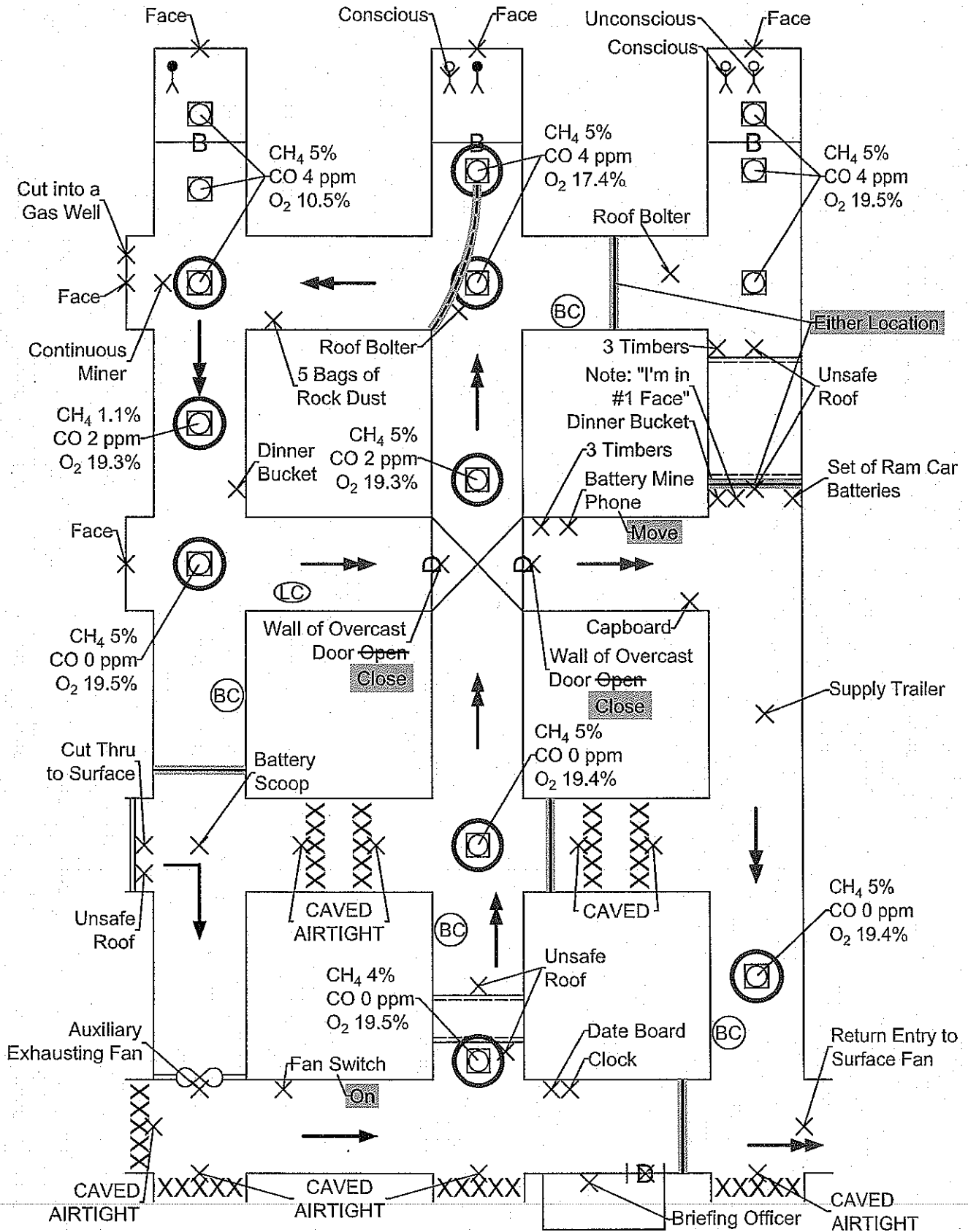
When the barricade is opened, the captain must take a gas test rule 24d. Both locations of the people must be D&I rule27. The conscious person must be asked if he is okay or alright rule 12. The unconscious person must be asked if okay or alright and someone from the team must state looking for absence of breathing or gasping rule12. At the face-- roof/ribs and face test rule23, gas test rule24a and D&I rule27.

If the team has not yet been behind the #1 barricade,(see 2nd vent). Again, the timber are not needed to ventilate rule42B.An airlock must be built by the team before breaching the barricade Rule43. the captain must take a gas test rule 24d behind barricade. The location of the body must be D&I rule27. At the face-- roof/ribs and face test rule23, gas test rule24a and D&I rule27. The problem is now completed, the timbers are never needed. If the timbers are set after all persons are accounted for they will be docked under Rule45F.

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

1st Ventilation

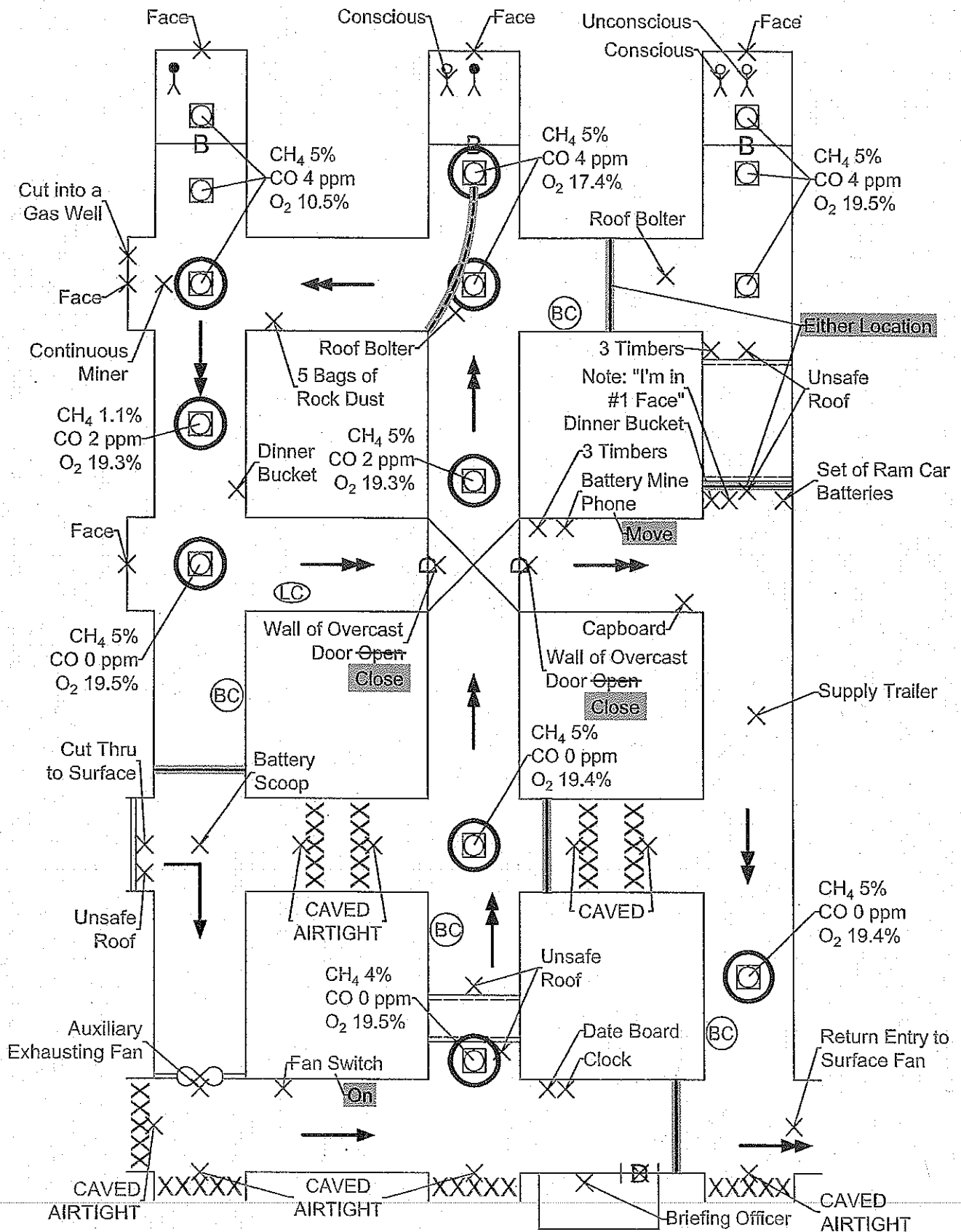


Scale: 1" = 15'

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

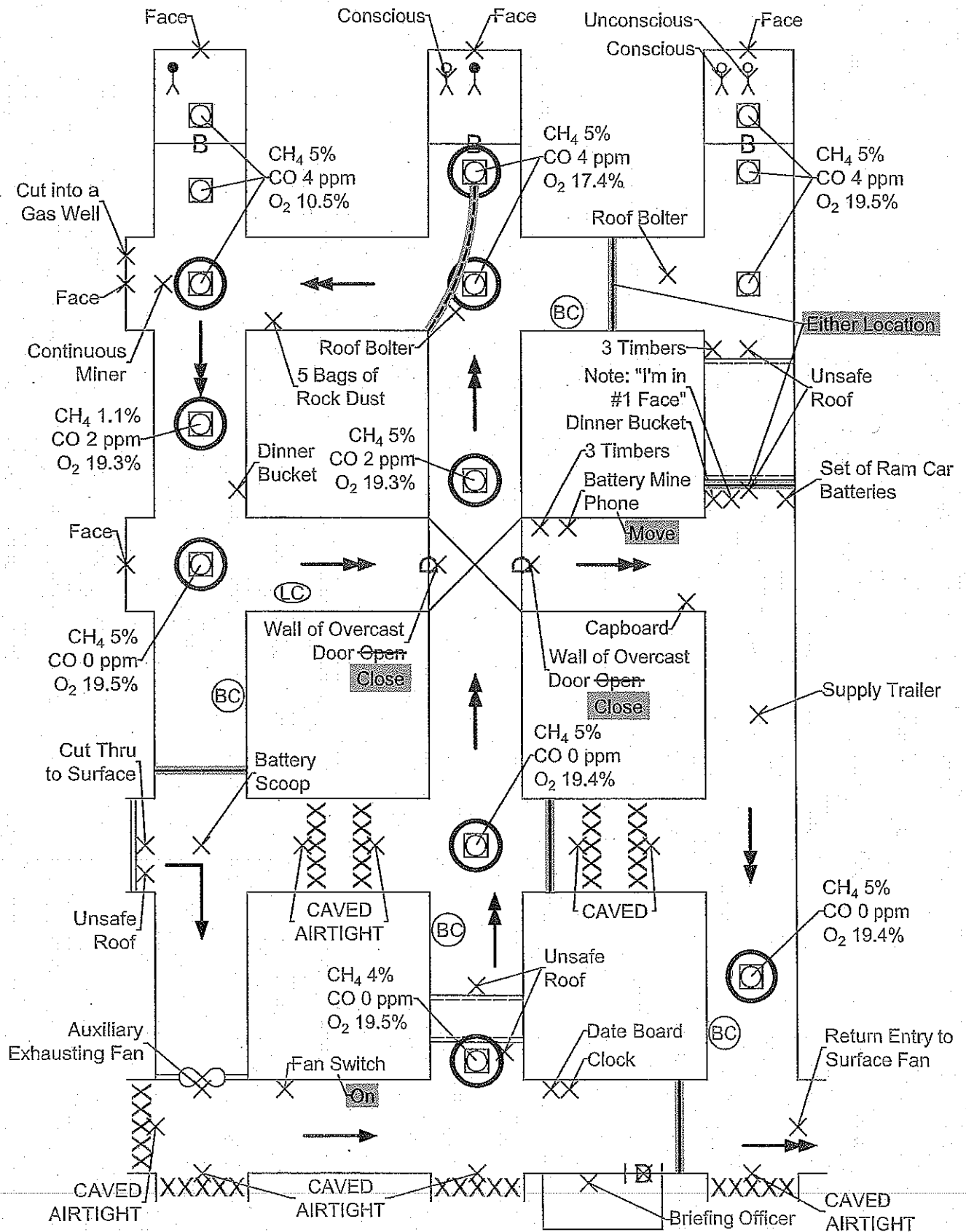
1st Ventilation



2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

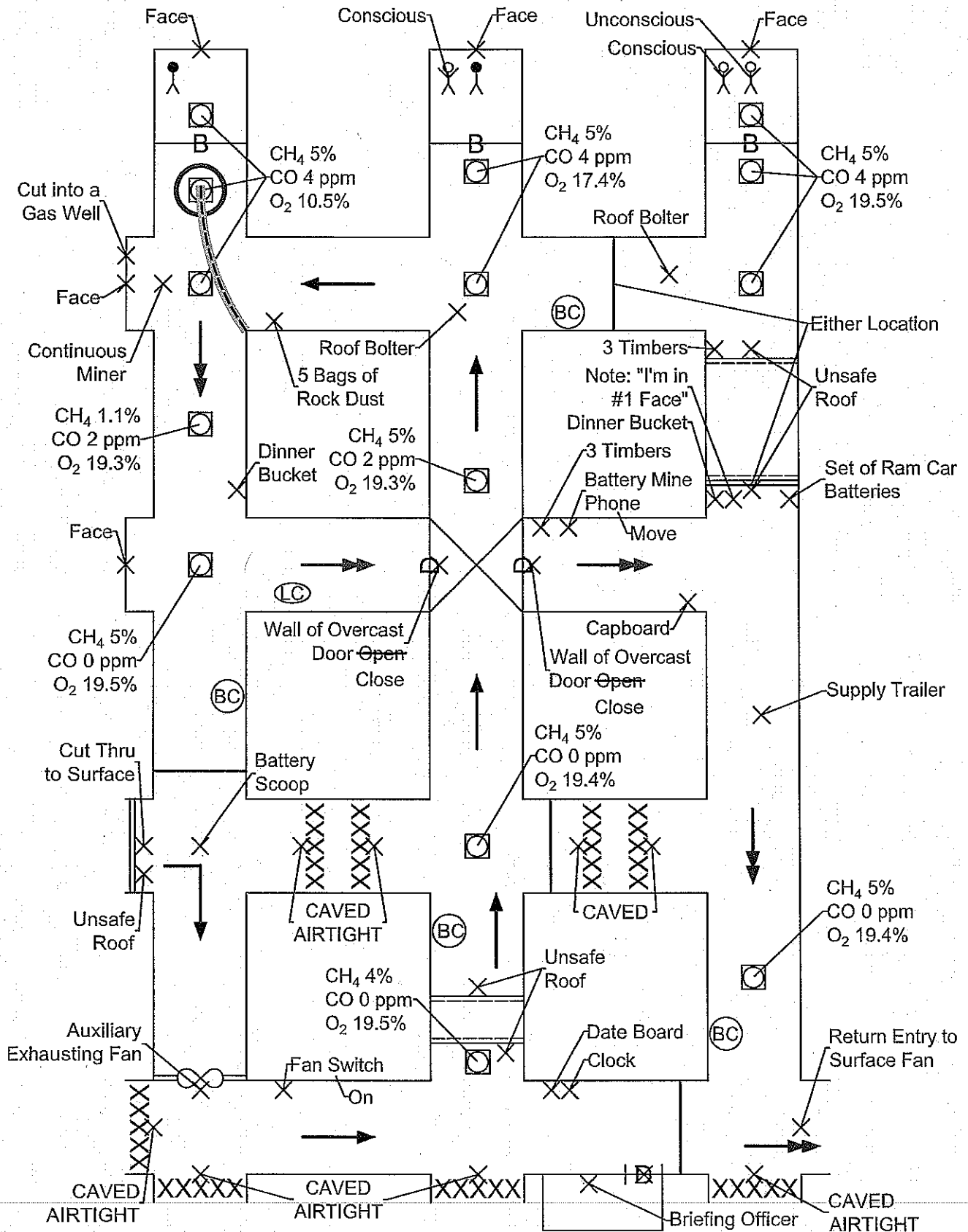
1st Ventilation



2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

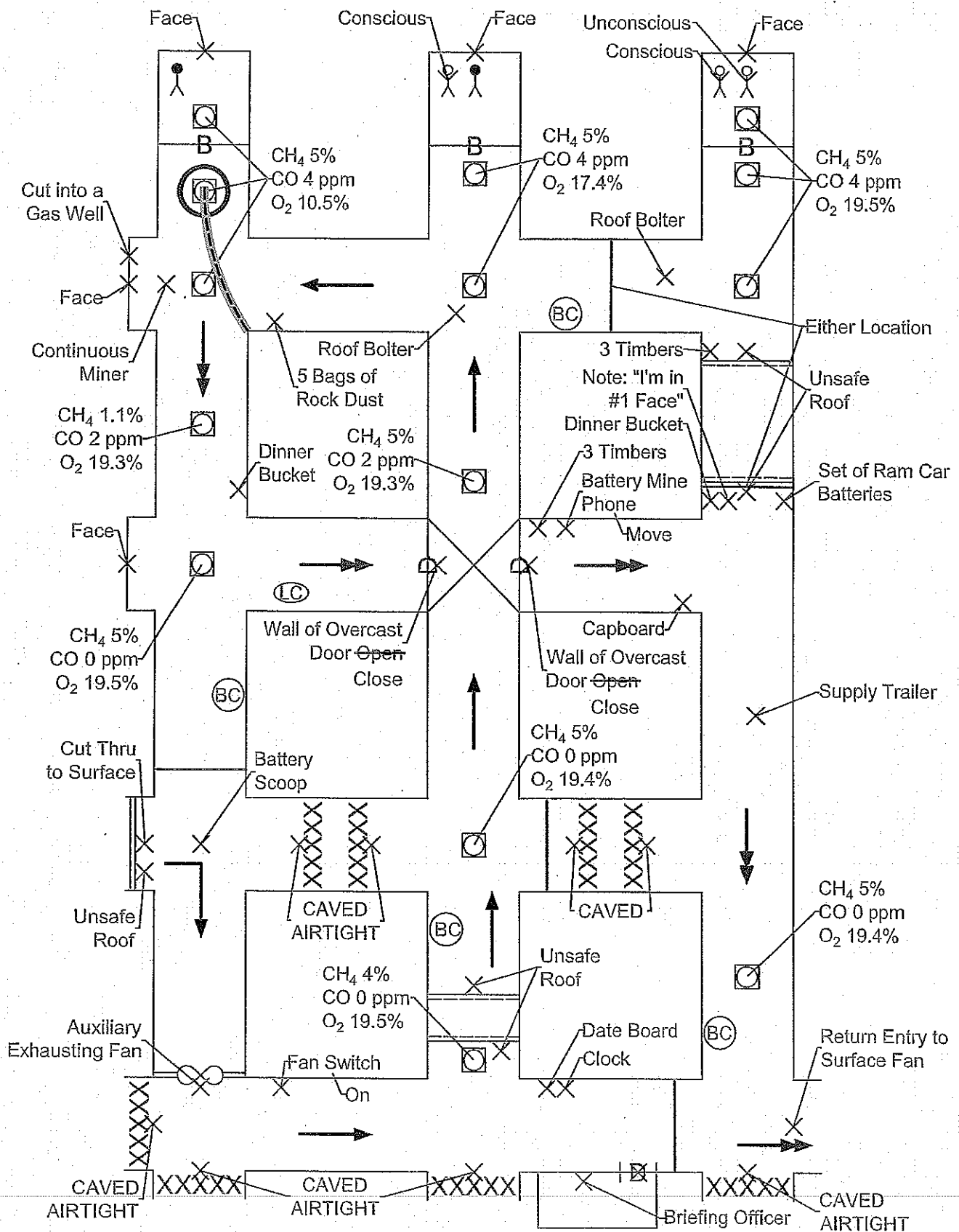
2nd Ventilation



2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

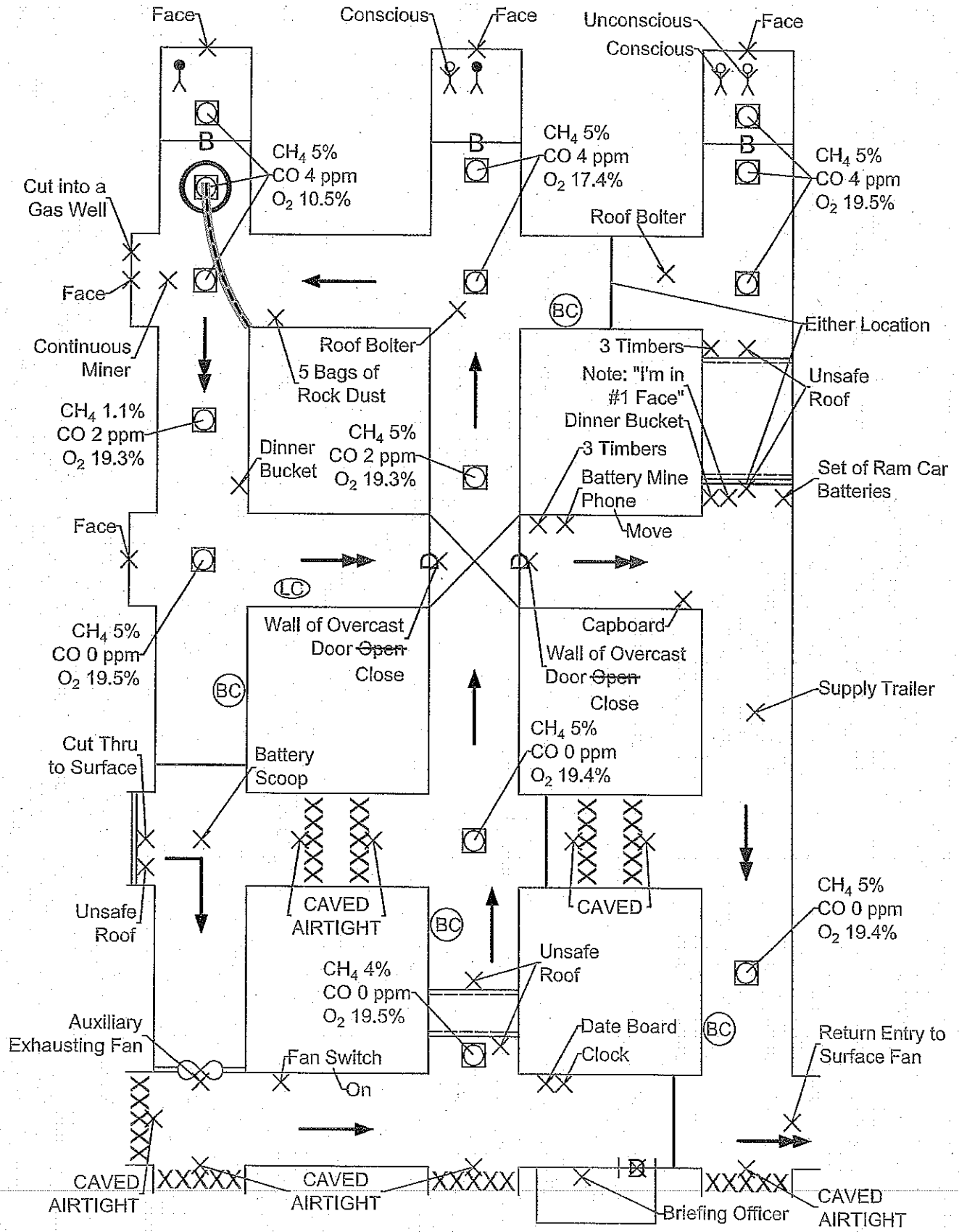
2nd Ventilation



2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

2nd Ventilation



Scale: 1" = 15'

SUPERINTENDENT CHECK LIST DAY 1

**FIRST TEAM CHECK UNDERGROUND, WAS THE LOW MAN'S
NAME CALLED OUT TO THE BO? (YES OR NO) WAS THE O2 READING
ALSO CALLED OUT? (YES OR NO)**

**SECOND TEAM CHECK UNDERGROUND, WAS THE LOW MAN'S
NAME CALLED OUT TO THE BO? (YES OR NO) WAS THE O2 READING
ALSO CALLED OUT? (YES OR NO)**

**THIRD TEAM CHECK UNDERGROUND, WAS THE LOW MAN'S
NAME CALLED OUT TO THE BO? (YES OR NO) WAS THE O2 READING
ALSO CALLED OUT? (YES OR NO)**

**FOURTH TEAM CHECK UNDERGROUND, WAS THE LOW MAN'S
NAME CALLED OUT TO THE BO? (YES OR NO) WAS THE O2 READING
ALSO CALLED OUT? (YES OR NO)**

**FIFTH TEAM CHECK UNDERGROUND, WAS THE LOW MAN'S
NAME CALLED OUT TO THE BO? (YES OR NO) WAS THE O2 READING
ALSO CALLED OUT? (YES OR NO)**

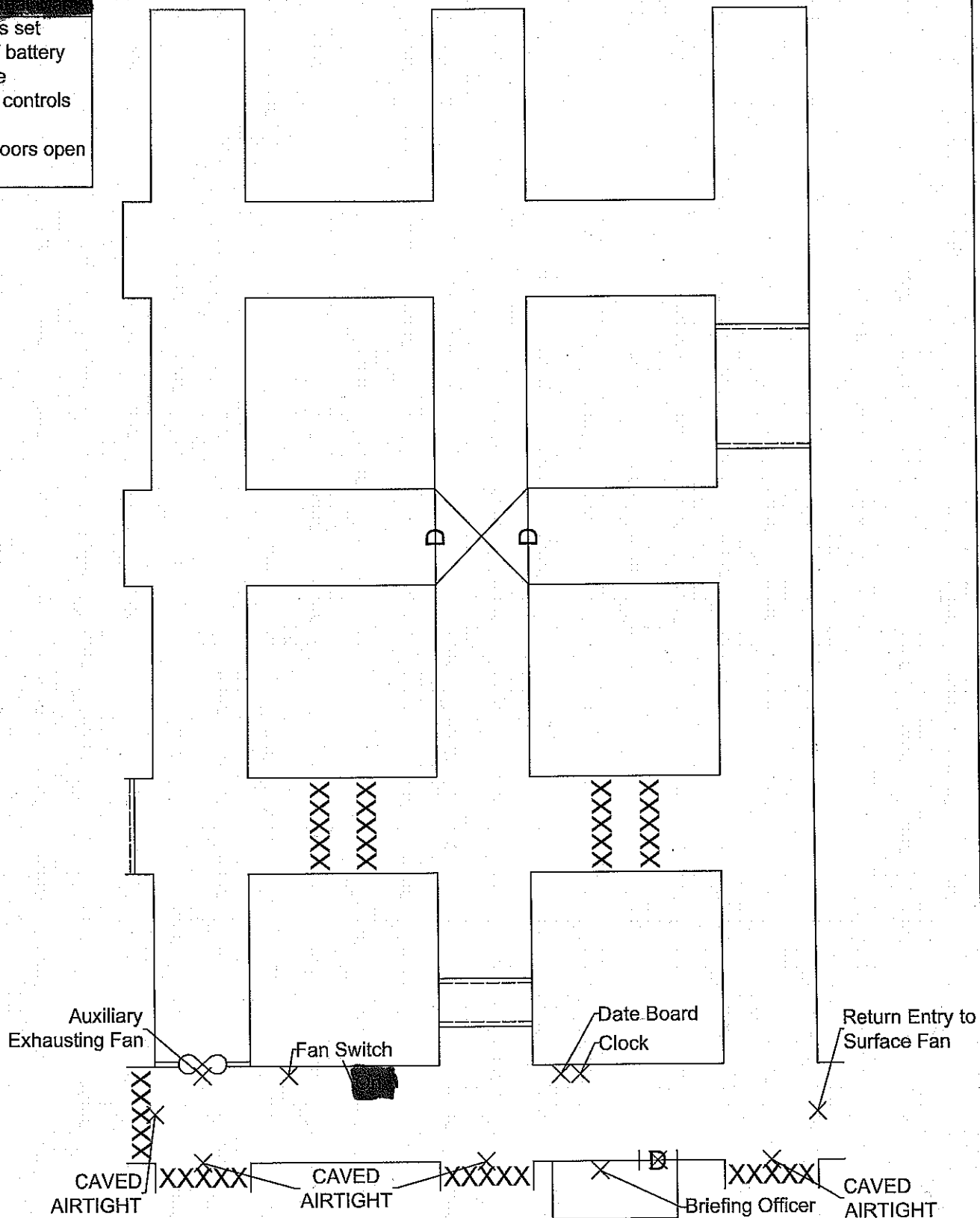
**SIXTH TEAM CHECK UNDERGROUND, WAS THE LOW MAN'S
NAME CALLED OUT TO THE BO? (YES OR NO) WAS THE O2 READING
ALSO CALLED OUT? (YES OR NO)**

2013 Hatfield & McCoy Mine Safety Competition

Mine Rescue Contest - Day 1

Final Ventilation

- Any timbers set
- Location of battery mine phone
- Ventilation controls left built
- Overcast doors open or closed



Name of chairman or designee:

Name of team captain or designee:

Scale: 1" = 15'