

KY. DIVISION OF MINE SAFETY  
 APRIL 20, 2017

TEAM NO. \_\_\_\_\_

PROBLEM MAP

## **SUPERINTENDENT STATEMENT**

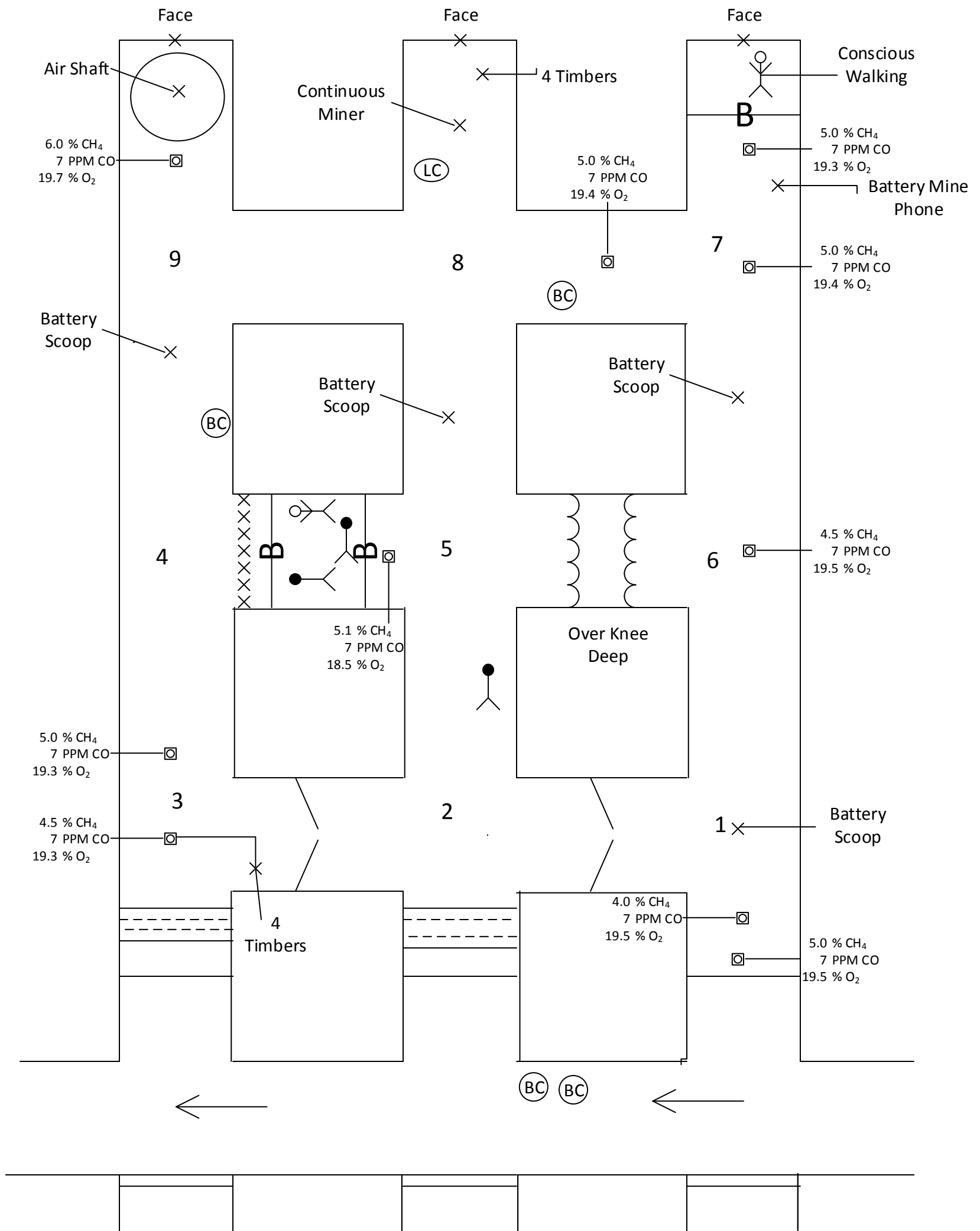
**I AM \_\_\_\_\_, THE SUPERINTENDENT OF THE JENNY NUMBER 2 MINE. THANK YOU FOR ANSWERING OUR CALL FOR HELP. WE HAVE JUST CUT AN AIR SHAFT INTO OUR NUMBER 3 SECTION. THIS MORNING A CREW OF 5 MEN WENT INTO THIS SECTION TO DISCONNECT SOME ELECTRICAL CIRCUITS AND TO ESTABLISH A RETURN AIRCOURSE FROM THE NUMBER 2 SECTION TO THIS AIR COURSE. OUR CREW ON THE NUMBER 2 SECTION REPORTED FEELING PRESSURE AND HEARD A LOUD NOISE. THIS WAS REPORTED TO THE OUTSIDE AND ALL PERSONS HAVE BEEN EVACUATED FROM THE MINE EXCEPT FOR THE 5 MEN THAT WENT TO NUMBER 3 SECTION. WE HAVE BEEN UNABLE TO CONTACT THEM.**

**WE HAVE NOTIFIED ALL APPROPRIATE AGENCIES AND THEY ARE PRESENT. THE POWER GOING UNDERGROUND HAS BEEN DISCONNECTED AND IS LOCKED AND GUARDED. MINE RESCUE TEAMS HAVE EXPLORED ALL AREAS OF THE MINE EXCEPT THE NUMBER 3 SECTION. A FRESH AIR BASE HAS BEEN ESTABLISHED AT THE MOUTH OF THE SECTION WITH AIRLOCKS BUILT GOING INTO THE NUMBER 3 SECTION. THE FAN IS A BLOWING FAN AND IS OPERATING. A SAFE RETURN HAS BEEN ESTABLISHED FOR THE FRESH AIR BASE AND ANY GASES THAT MIGHT BE FOUND ON THE NO. 3 SECTION AND AIR FLOW IS INDICATED BY ARROWS AT THE FRESH AIR BASE. A BACK-UP MINE RESCUE TEAM IS PROVIDED FOR YOU, BUT THEY CAN DO NO WORK EXCEPT TO BE YOUR BACK-UP TEAM.**

**GOOD LUCK!**

## **WRITTEN PROBLEM**

- **ACCOUNT FOR ALL MISSING PERSONS.**
- **BRING ALL SURVIVORS TO THE FRESH AIR BASE**
- **THE AIR SHAFT HAS BEEN CHECKED ON THE SURFACE AND DETERMINED TO BE SAFE.**
- **THE BRIEFING OFFICER IS LOCATED IN AN AIRTIGHT STRUCTURE AND MAY ONLY COMMUNICATE VIA THE COMMUNICATION SYSTEM.**
- **YOU MAY ONLY TRANSPORT 4 CURTAINS AT A TIME. THE CURTAINS MAY NOT BE THROWN OR KICKED TO ANOTHER LOCATION.**
- **THE FAN CANNOT BE TURNED OFF OR REVERSED.**



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Team Stops

**BARRICADE IN NO. 3  
PATIENT STATEMENT**

**HELP! GET ME OUT OF HERE. I AM OK. THERE IS A  
SOLID FACE BEHIND ME.**

# JUDGES BRIEFING

The team will have 4 minutes to arrange their equipment, lay out lifeline, etc. If the team captain does not start the clock within those 4 minutes, the Supt. will start the clock. They must check their gas detectors after the clock has started as well as their communications between the team and the Command Center. Teams must go over standard lifeline signals with the judges unless wireless communications are used.

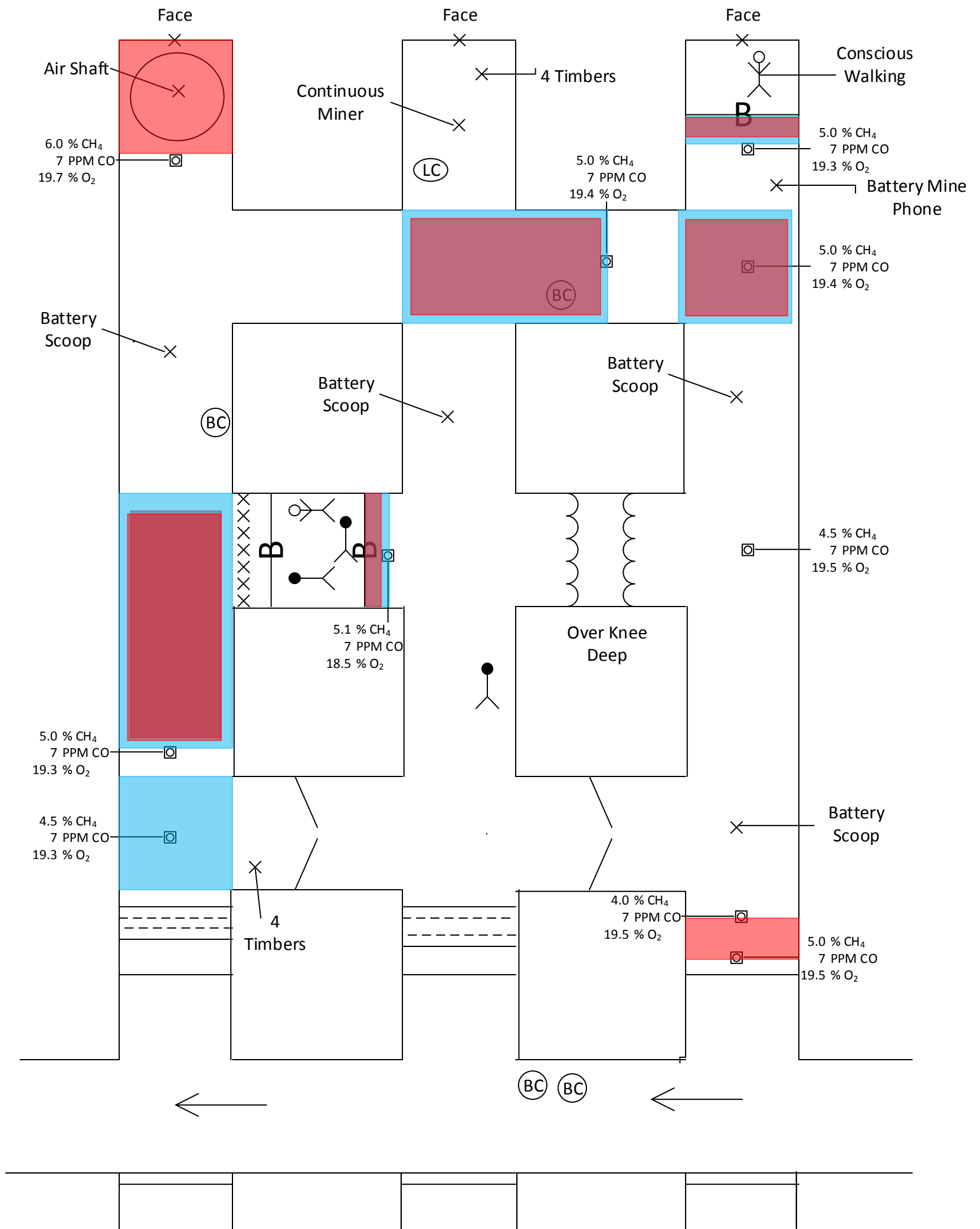
# WORKING PROCEDURES

The team is located at a fresh air base underground. The captain will examine all 3 entries before the team starts explorations inby the fresh air base. The captain will examine the No. 1 entry to the airlock. He will place the date and his initials at the airlock. A gas test is required in this area. He will then examine entry No. 2 to the airlock. He will place the date and his initials at the airlock and a gas test is required in this area. The captain can airlock into the temporary stoppings across the No. 1 and 2 entries to check up to the unsafe roof prior to airlocking into No. 3 if he chooses to do so at this point without taking the entire team underground as long as the team is connected to the lifeline. If the No 5 man does not enter the airlock at this time, an apparatus check does not have to be made. The captain will examine to the airlock in entry No. 3. He will place the date and his initials at the airlock and a gas test is required at this location. The team is now ready to explore inby the fresh air base. The captain will do a roof and rib test where the airlock is to be constructed in the No. 3 entry and an airlock will be built there after the entire team goes underground. An apparatus check must be made before the team leaves this location. The captain will tear down the inby airlock and a gas test must be made by the captain. The team will advance to **Team Stop 1** in the 1<sup>st</sup> intersection of the No. 3 entry. The captain will explore the crosscut to the imaginary line and place the date and his initials at the temporary stopping not intact. A gas test is required in this area. The captain will explore up the No. 3 entry to the imaginary line and a gas test will be made in this area. The team will advance to **Team Stop 2** in the 1<sup>st</sup> intersection of the No. 2 entry. The captain

will tie back to the unsafe roof across the entry. He will do a roof and rib test and place the date and his initials at this location. A gas test is required in this area. The captain will explore to the imaginary line of the No. 2 entry. He must stop and touch and place the date and his initials at the body before passing it. A gas test is required in this area. The captain will explore the left crosscut to the imaginary line. He must place the date and his initials at the temporary stopping not intact and a gas test is required in this area. The team will advance to **Team Stop 3** in the 1<sup>st</sup> intersection of the No. 1 entry. The captain will explore back down the entry to the unsafe roof. He will make a roof and rib test and place the date and his initials at this location and a gas test is required for this area. He will explore up the No.1 entry to the imaginary line and a gas test is required for this area. The team will advance to **Team Stop 4** in the 2<sup>nd</sup> intersection of the No. 1 entry. The captain will make a roof and rib test across the caved area in the right crosscut and place the date and his initials at this location. A gas test is required in this area. The captain will explore up the entry to the imaginary line and gas test is required in this area. The team will advance to **Team Stop 5** in the 2<sup>nd</sup> intersection of the No. 2 entry. The captain will explore the crosscut to the left and find a barricade. There is no response. He will place the date and his initials at this location and a gas test is required at this area. The captain will explore up the No. 2 entry to the imaginary line and a gas test is required for this area. The captain will explore the right crosscut to the water over knee deep and place the date and his initials at this location. A gas test is required for this area. The team will advance to **Team Stop 6** in the 2<sup>nd</sup> intersection of the No. 3 entry. The captain will explore the crosscut to the left to the water over knee deep. He will place the date and his initials at this location and a gas test is required for this area. If the team has not already explored the area between the airlocks and the unsafe roof in the No.1 and 2 entries, they must do so at this time prior to taking the No. 5 man past the inby corner of the 2<sup>nd</sup> intersection. The team will advance to **Team Stop 7** in the 3<sup>rd</sup> intersection of the No. 3 entry. The captain will explore up the entry and will find a barricade. There is a response from the barricade, "I have a solid face". He will place the date and his initials at this location and a gas test is required.

He will make the crosscut to the left to the imaginary line and a gas test is required for this area. The team will advance to **Team Stop 8** in the 3<sup>rd</sup> intersection of the No. 2 entry. The captain will tie back down the No. 2 entry by breaking the plane. A gas test is required in this area. The captain will explore up the No. 2 entry to the face. He will make a roof, face, and rib test and place the date and his initials at this location and a gas test will be made in this area. The captain will explore the left crosscut to the imaginary line and a gas test is required in this area. The team will advance to **Team Stop 9** in the 3<sup>rd</sup> intersection of the No. 1 entry. The captain will tie back by breaking the plane and a gas test is required in this area. The captain will explore to the face. A roof, face and rib test is made and his date and initials are place at this location. A gas test is required for this area. The mine can now be ventilated as per the ventilation diagrams.

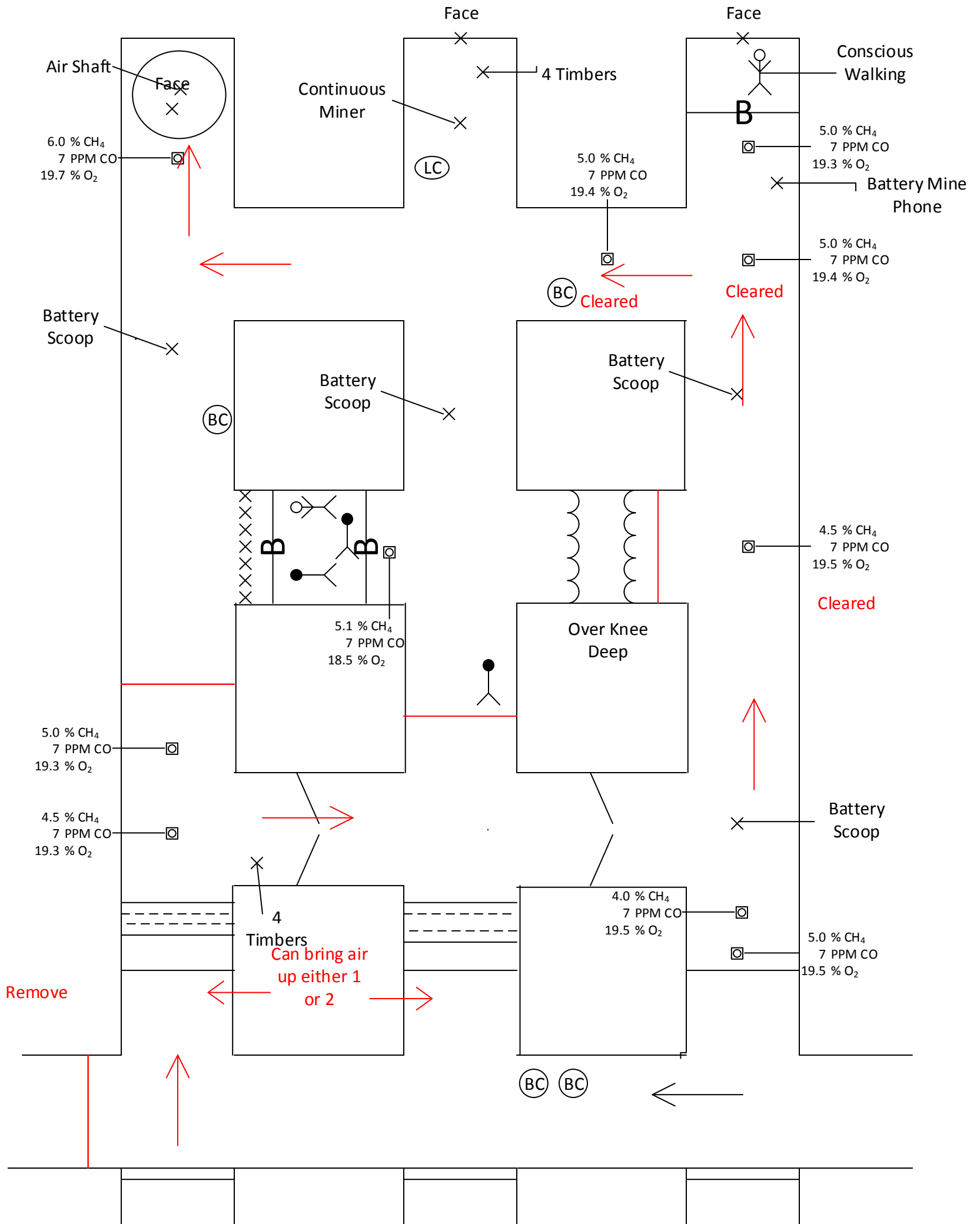




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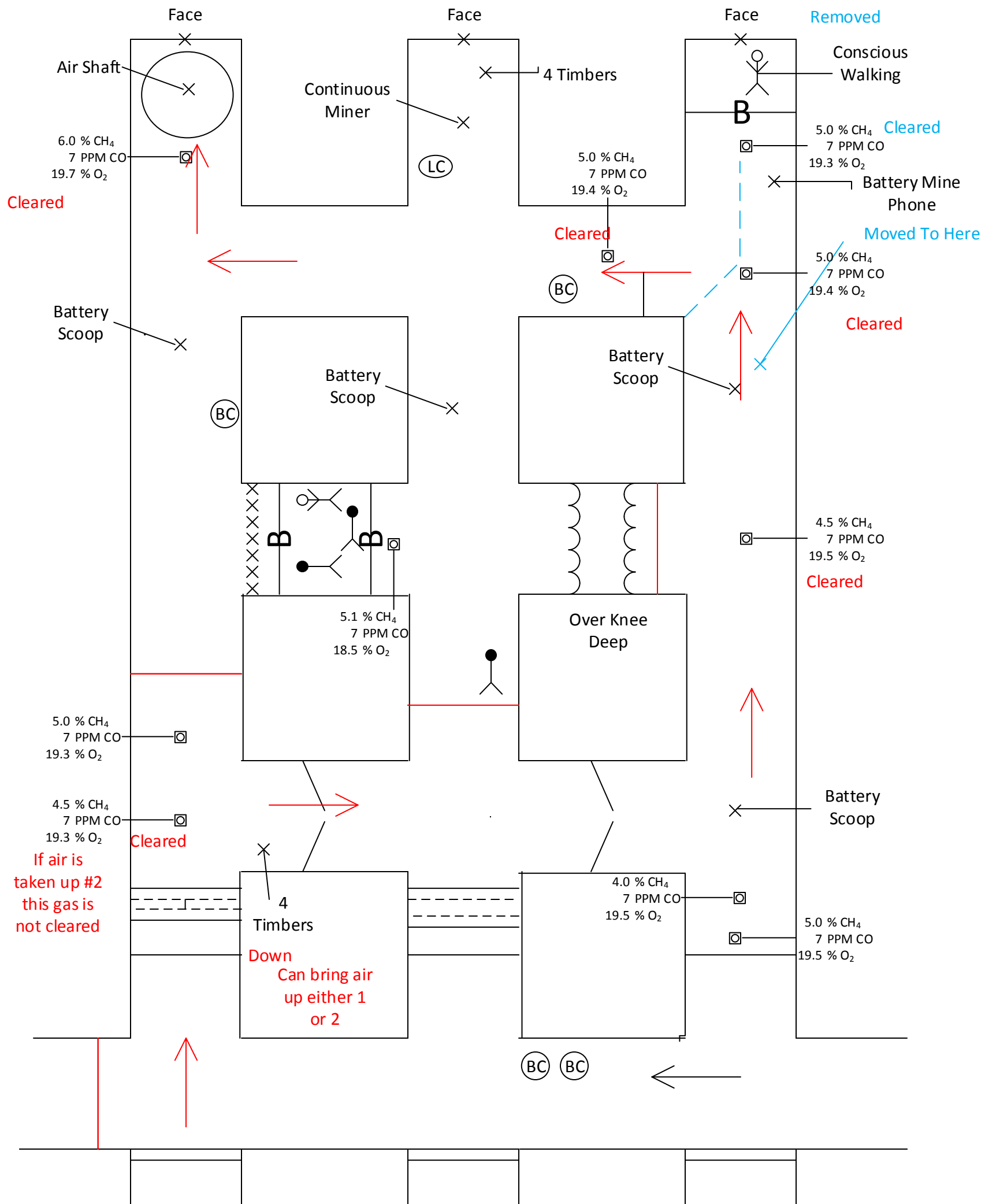
Extent Of Gases



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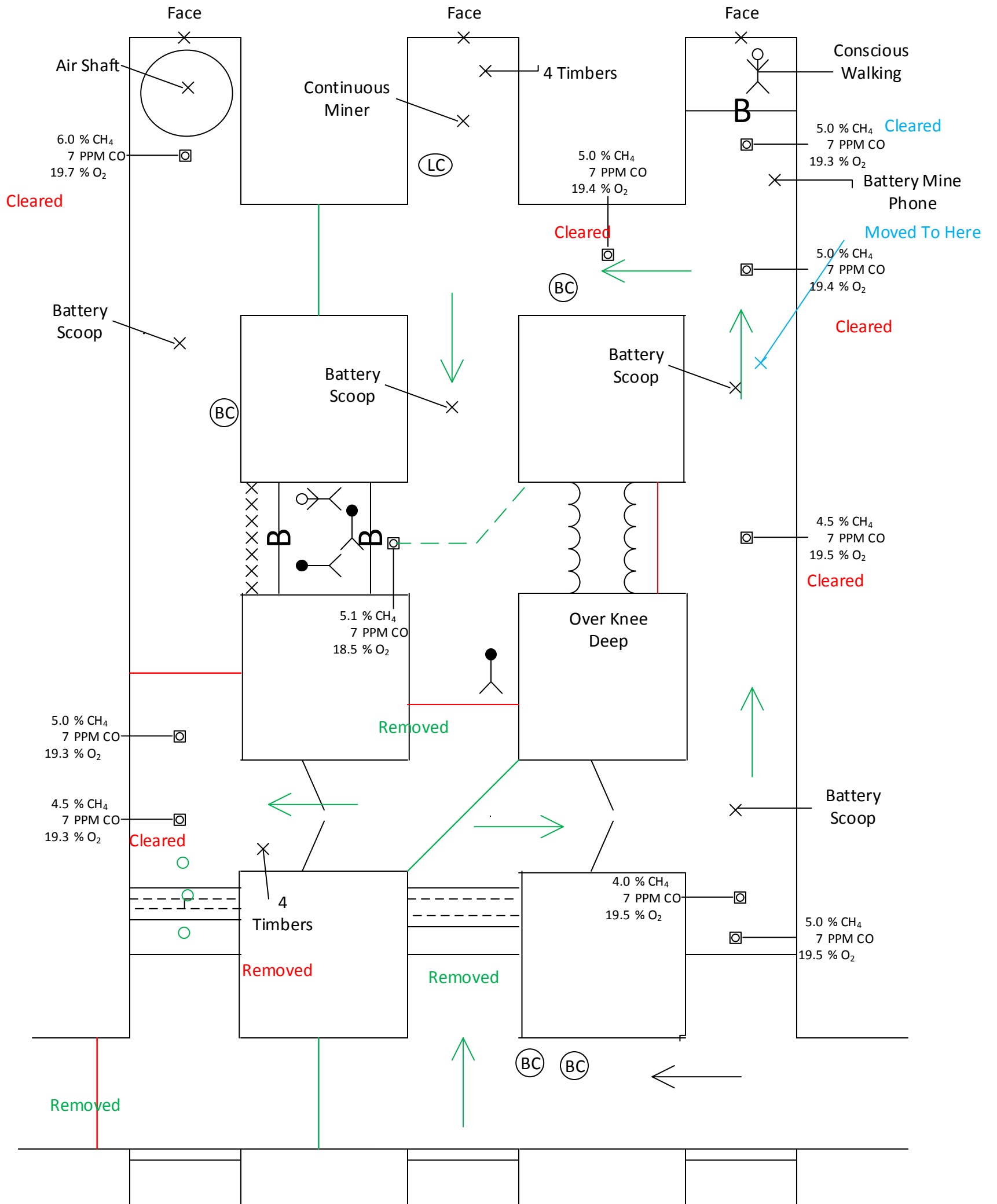
**First Vent**



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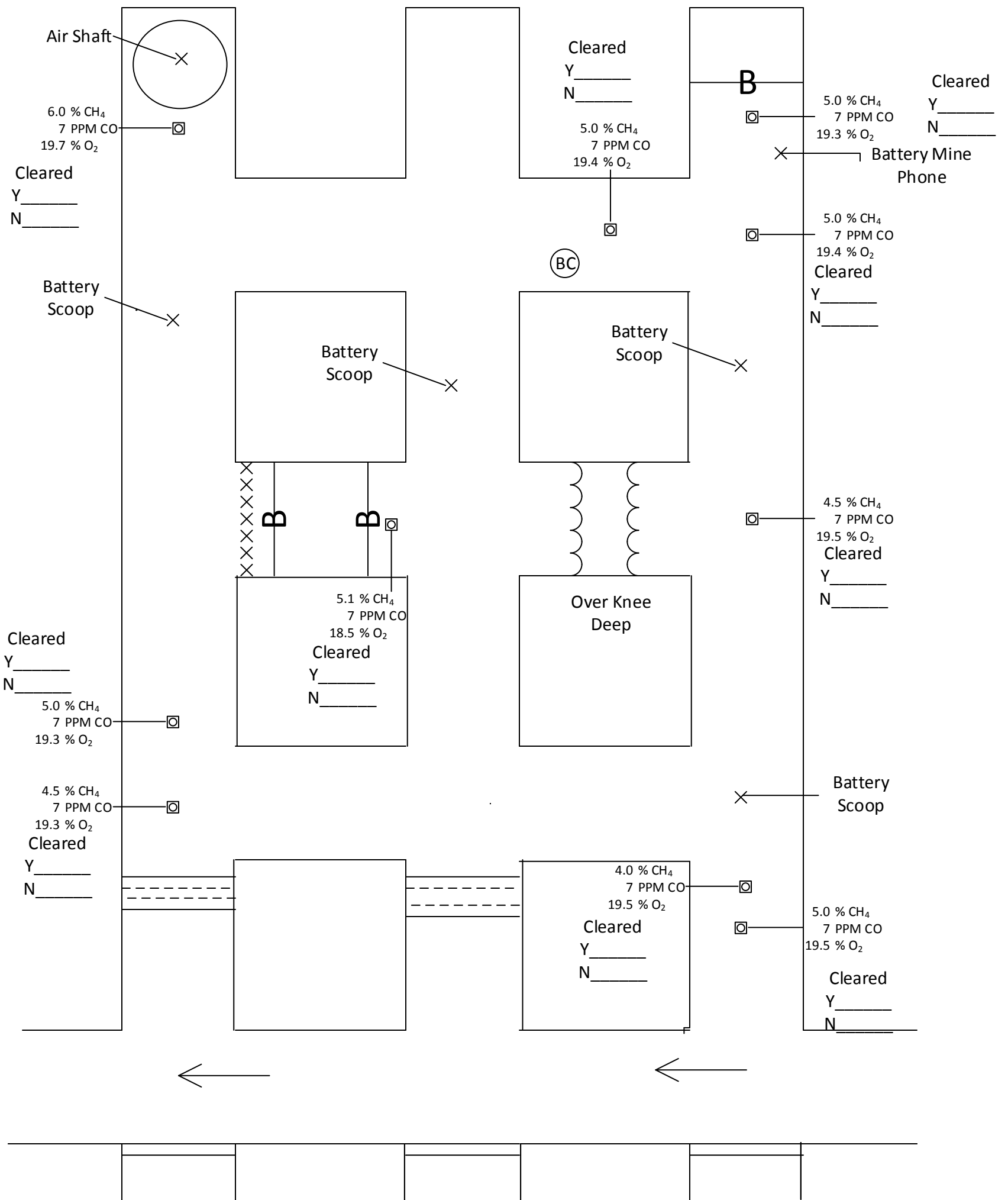
Second Vent



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**Third Vent**



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Final Vent Map