

Illinois State Mine Rescue Contest

2017

I am (Your Name), Superintendent of the Saluki #1 Mine. Thank you for responding to our emergency. Last night a 6 person crew entered the 1st Right Panel to perform work. Halfway through the shift the section foreman called outside and stated that he had high levels of methane coming from the face. While talking, the tracking operator heard what sounded like an explosion and there has been no communication since.

The mine manager tried to make it into the panel but encountered high levels of methane, elevated carbon monoxide, and low oxygen. He was forced to exit the mine. He notified the agencies and the mine rescue teams.

The mine is ventilated by an exhausting fan that is on at the present time. The fan cannot be stopped but may be reversed by a switch in the command center. Once reversed, the fan cannot be changed back. The intake air travels up the #3 Entry and returns out the #1 Entry. All power has been disconnected in the mine. This mine is noted for poor roof, high liberations of methane, and high levels of water.

The map was up to date as of yesterday.

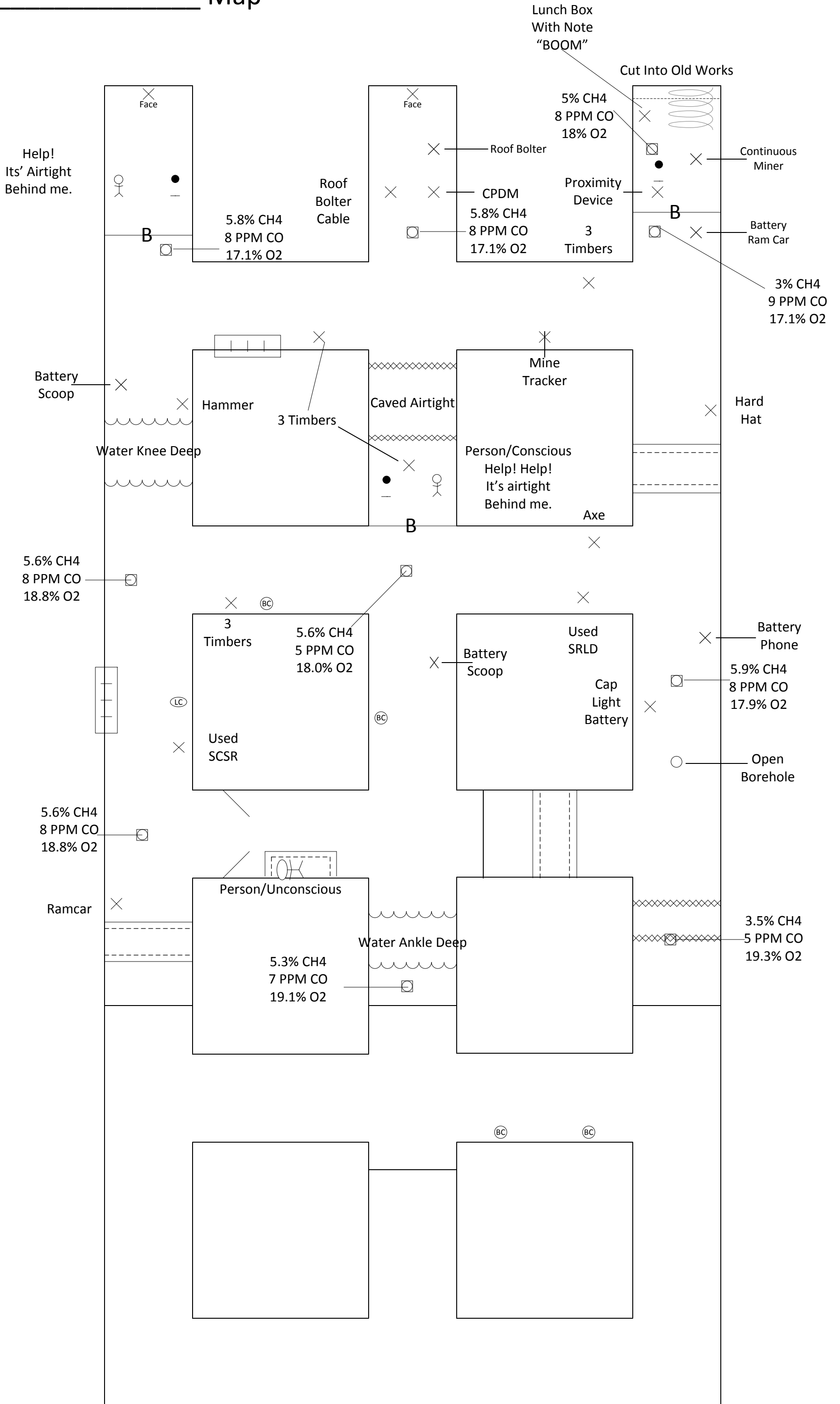
A fresh air base has been established at the mouth of the panel and there is a fully equipped back up mine rescue team stationed there. The backup team will not be able to perform any work in your area. Thank you and good luck!!

**Illinois State
Mine Rescue
Written Instructions**

- **Account for all missing persons**
- **Bring Survivors to the fresh air base**
- **You may only transport 2 curtains at a time. The curtains may not be kicked or thrown to another location.**
- **Explore the mine in its entirety where safe to do so.**

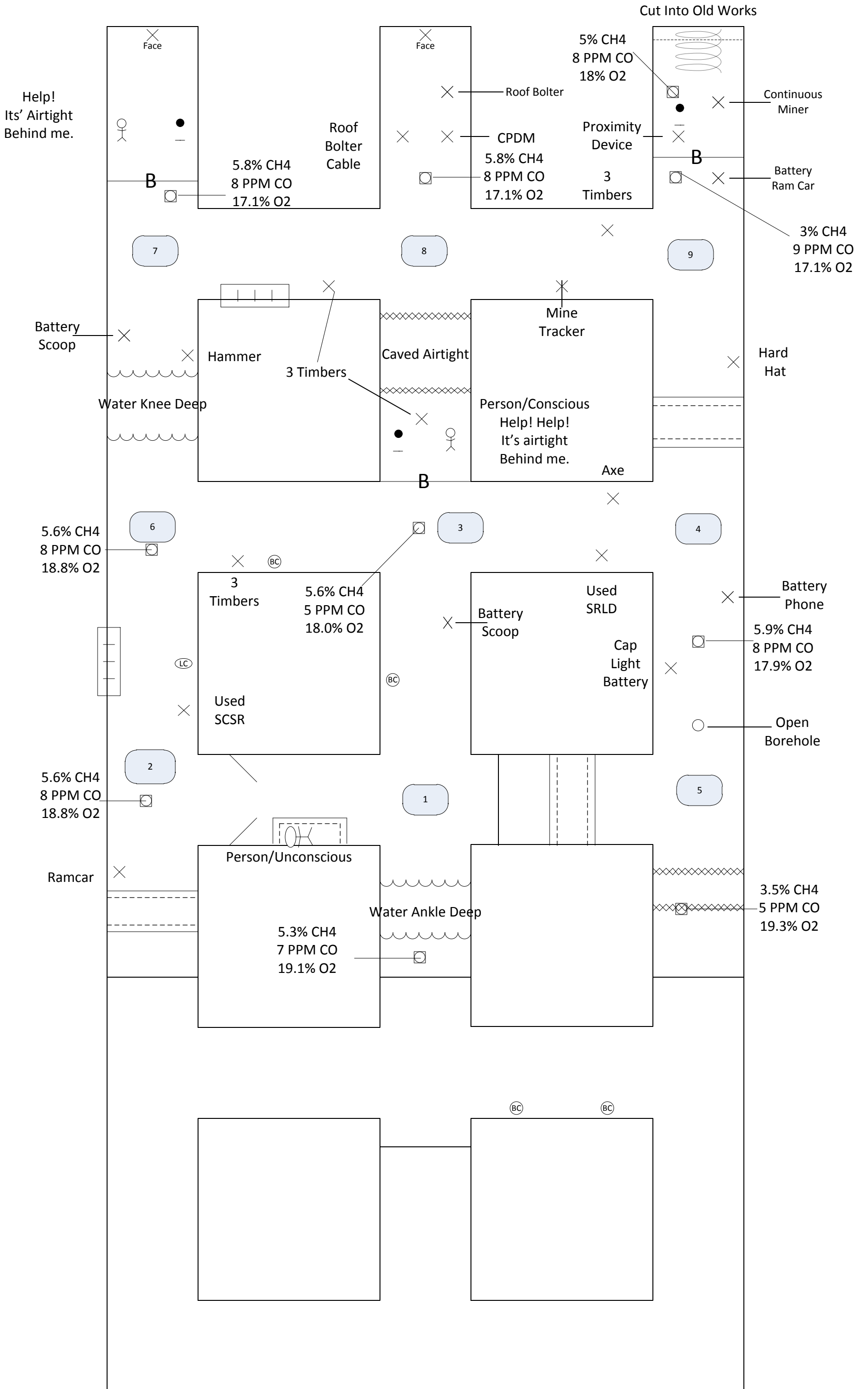
Map

Team Working Order # _____



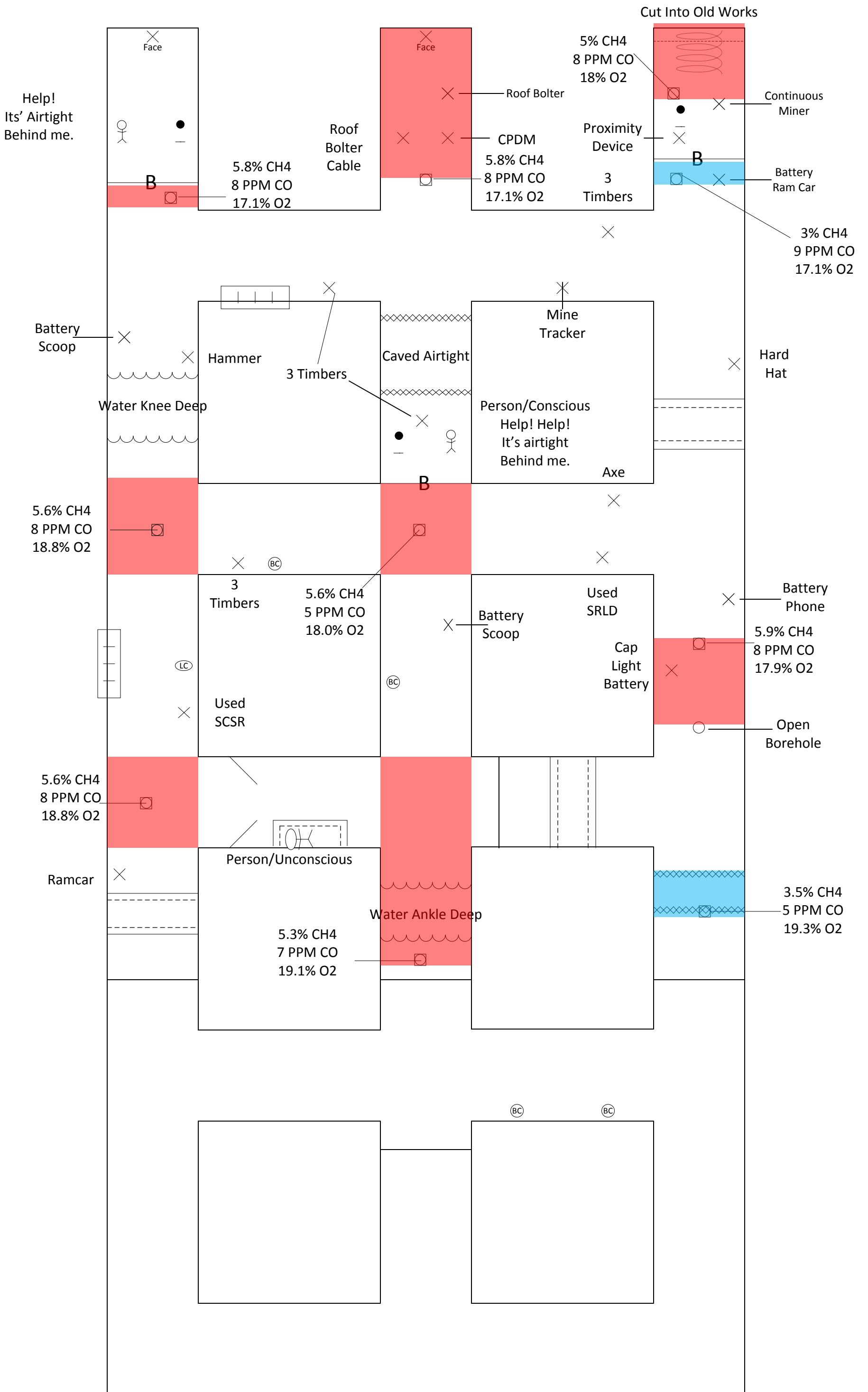
Team Stops Map

Team Working Order # _____



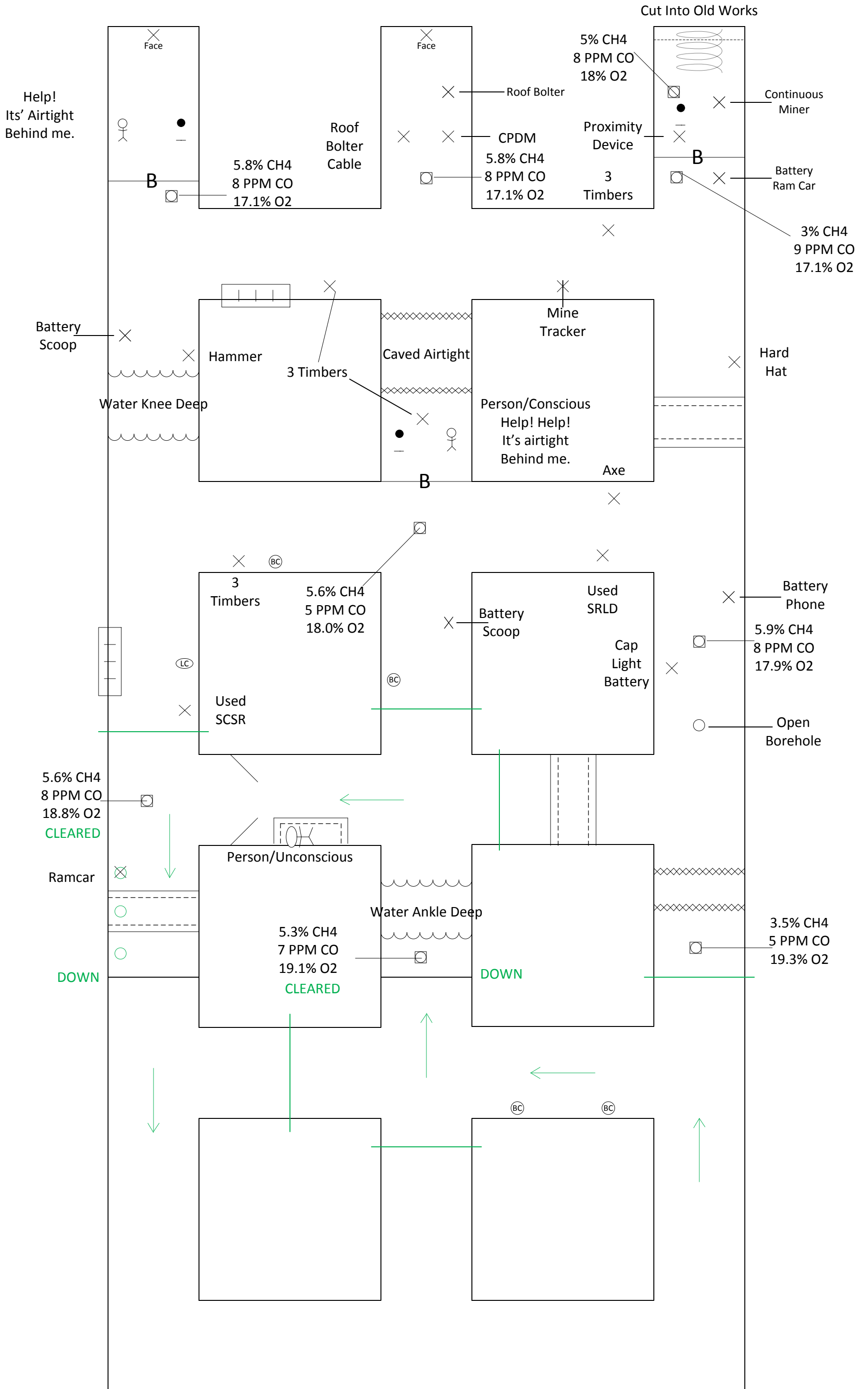
Extent of Gas Map

Team Working Order # _____



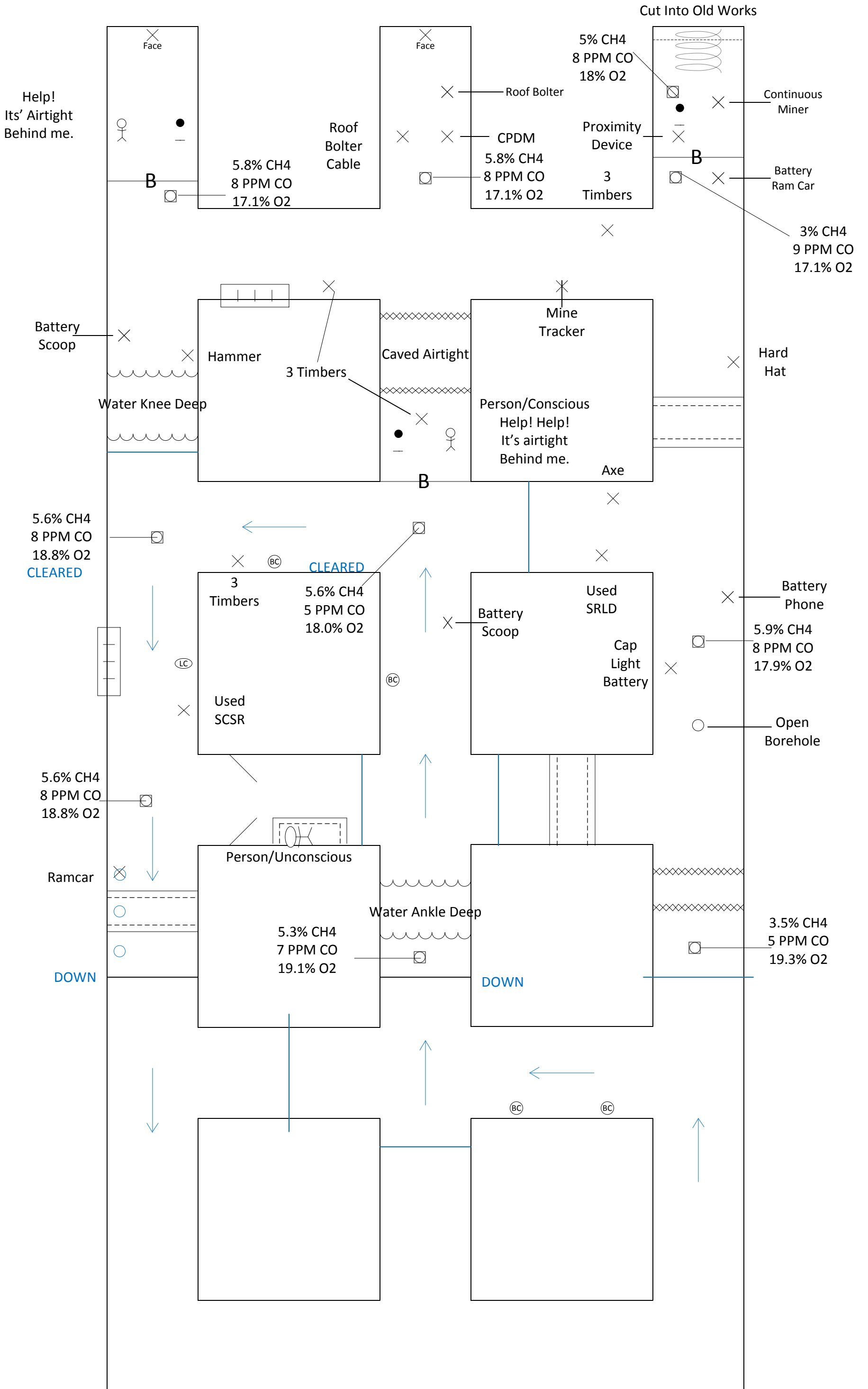
Vent 1 Map

Team Working Order # _____



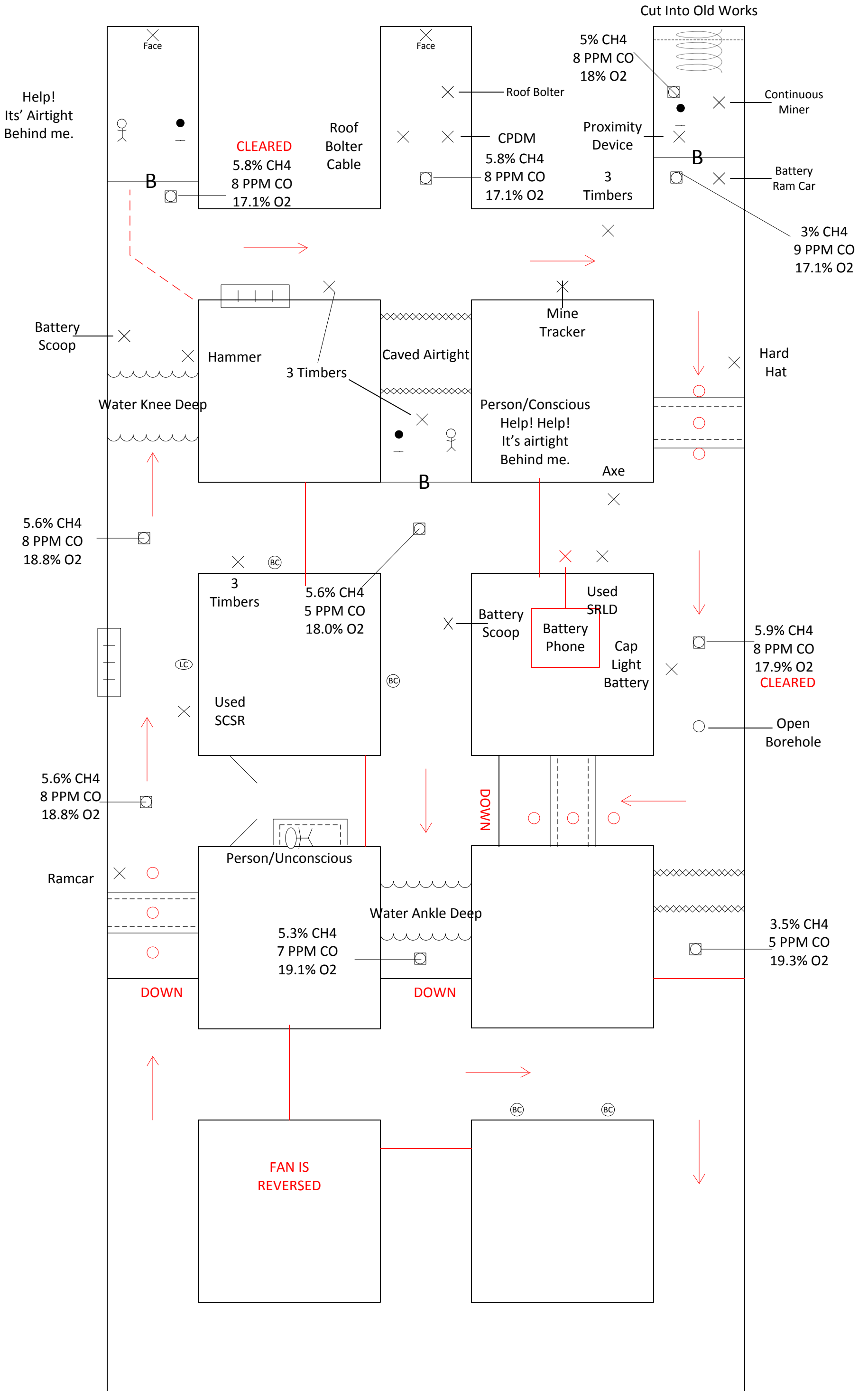
Vent 2 Map

Team Working Order # _____



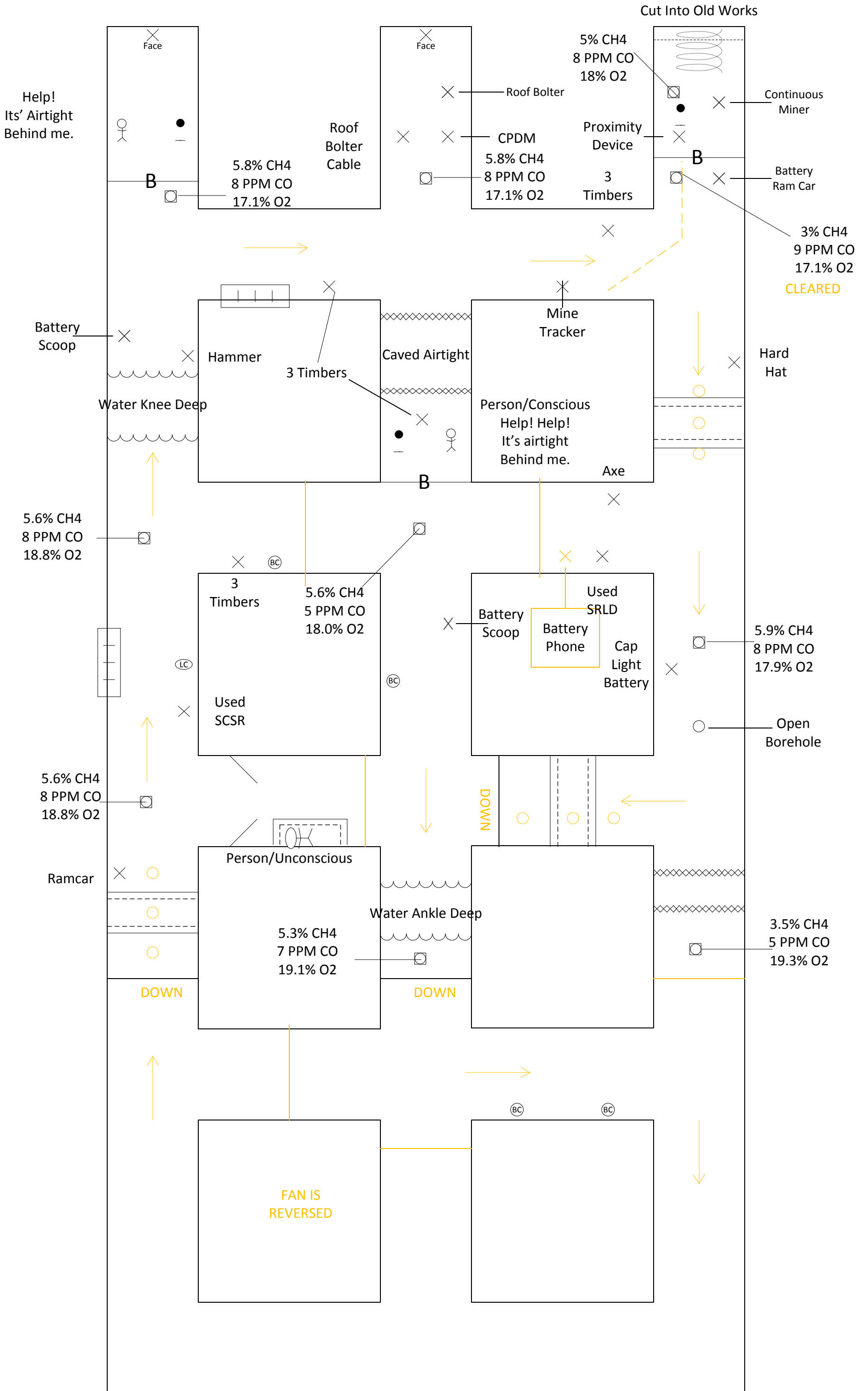
Vent 3 Map

Team Working Order # _____



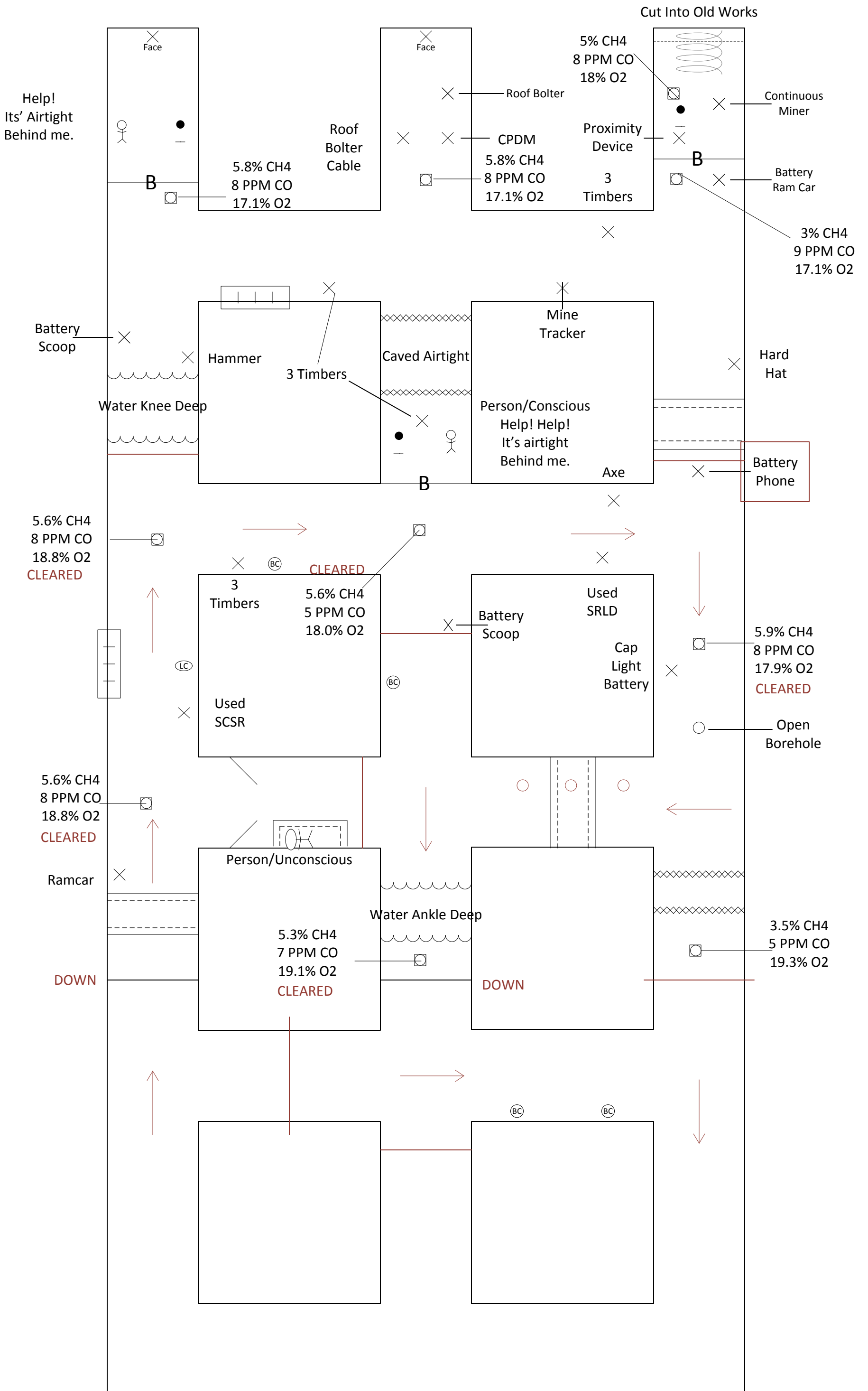
Vent 4 Map

Team Working Order # _____



Combined Vent Map

Team Working Order # _____



Keys to the Problem

1. The unconscious person in the unsafe in the B crosscut will be the first person brought out after the team finds the timbers at team stop 3. The unconscious person must be protected by an approved breathing apparatus or device with a full face piece.
2. The team will have to follow the team stops as indicated. If team travels up number 1 to team stop 6 it will be unsystematic. The team must find the end to the gas in the #3 Entry at caved.
3. At team stop 7, the team will encounter three timbers at which point they have the means to get the patient out of the Barricade in the #2 Entry. The teams will timber the unsafe in the #1 Entry, then see ventilation 1 and ventilation 2. Due to the statement reading once fan is reversed it cannot be switched back, I am hoping vent 1 and 2 are completed. If not there is a combined vent that can be done. (See combined vent)

4. After all team stops have been made the teams can ventilate the barricade in the 1 Entry. The team will have to move the battery phone in the #3 Entry, timber the unsafe in the #3 Entry, timber the unsafe in between the #2 and #3 Entries, and reverse the fan. See vent 3 and 4.
5. When team enters barricade in the #3 Entry there is an FPA when the explosive mixture and evidence of a fire (smoke) combine. There is a lunch box with a note in it just in by the smoke. The note says "BOOM".