

# **2012 PA Regional Skills Contest**



**April 18-20, 2012**

## **Problem Statement**

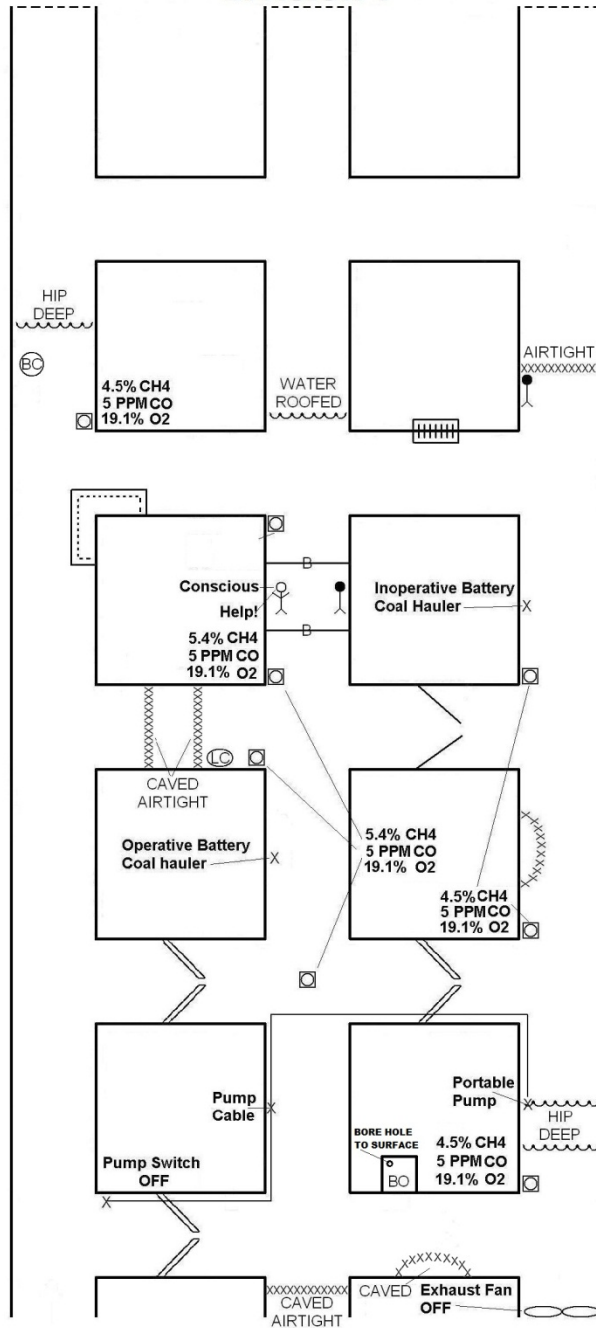
**You are presently standing at the established fresh air base in the first crosscut of the Cokeburg # 7 mine. This mine is ventilated by an exhaust fan which is off at the present time, but can be started by asking the Superintendent.**

**Early this morning, a 4 man maintenance crew and their foreman entered the mine to repair a scoop located in the last open crosscut. A call from the section stated that the scoop was on fire, and they needed immediate assistance. Shortly after the call, an explosion was heard and the fan stopped. This was the last communication we had with the crew.**

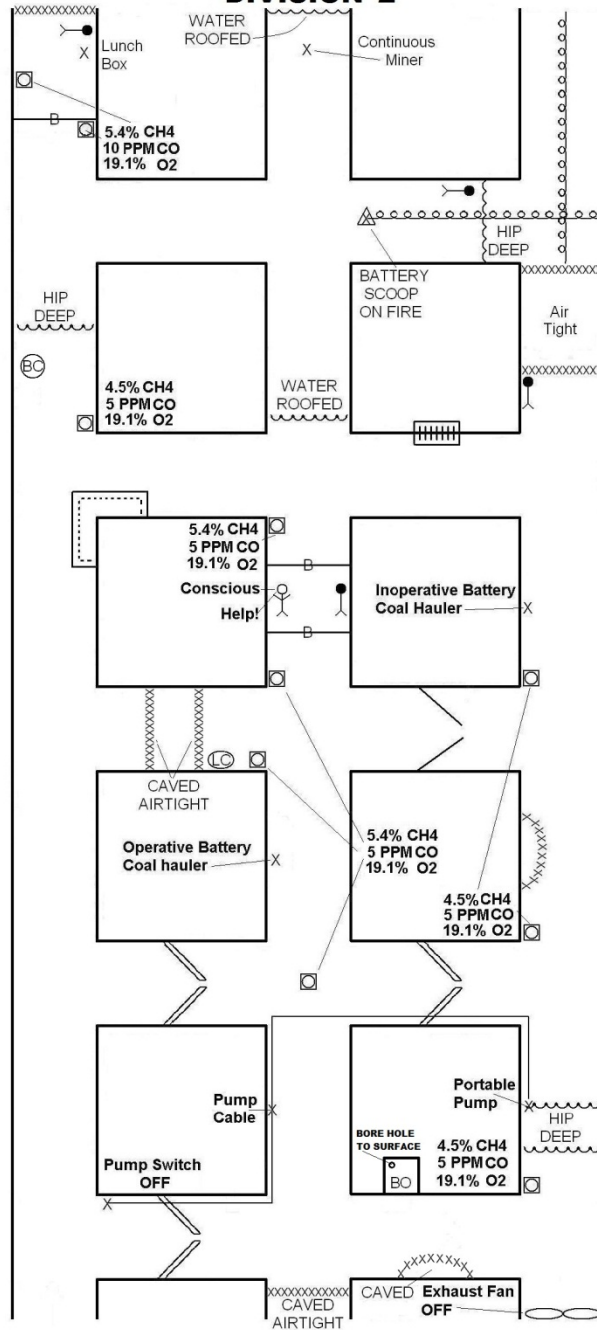
**All electrical power inby the fresh air base has been de-energized. Federal and state agencies have been notified and are on site to offer assistance. The mine maps are not up to date. The mine is noted for poor roof, high liberations of methane, and low oxygen levels. Water accumulations are also frequently found because of our constant dipping and rising of the coal seam. We have extra pump cable coming by truck and should arrive shortly should you need it. The Superintendent will inform you and your team when the extra pump cable is available for you to use.**

**A fully equipped back up mine rescue team is stationed here while you work inby the fresh air base. You may start work when your team is ready. Good luck, and thank you for responding to our emergency.**

# **2012 PA REGIONAL SKILLS CONTEST PROBLEM DIVISION 1**



**2012 PA REGIONAL SKILLS  
CONTEST PROBLEM  
DIVISION 2**



# 2012 PA Regional Skills Contest

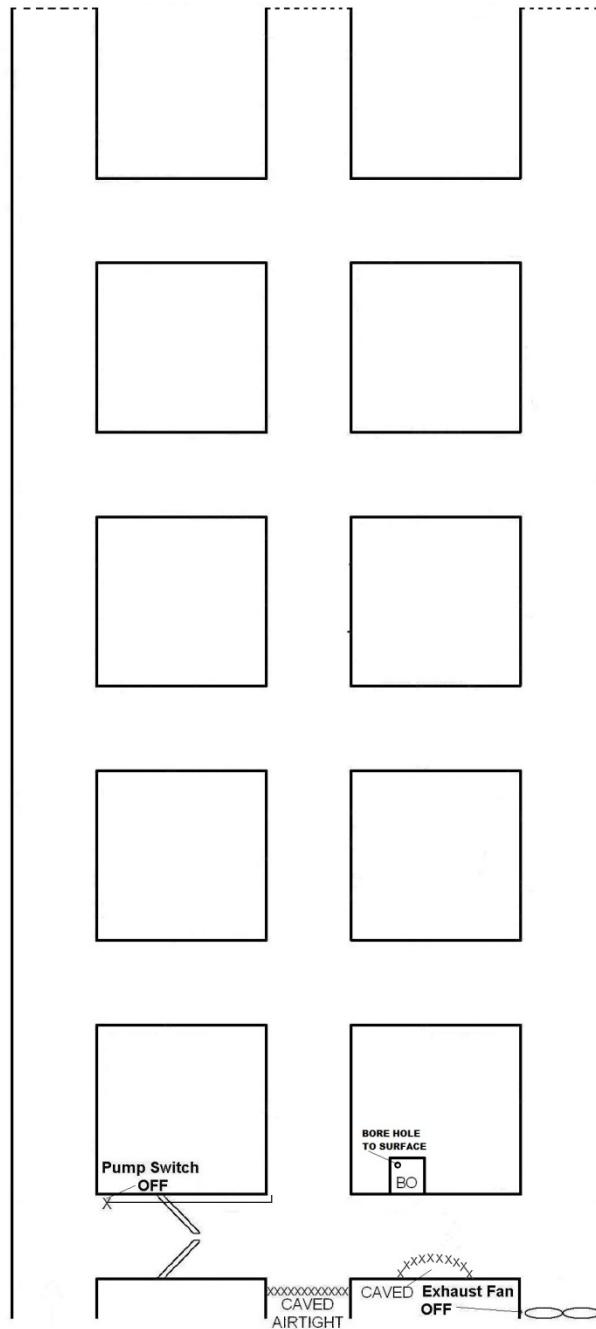
## Written Instructions

**BRING ALL SURVIVORS TO THE FRESH  
AIR BASE**

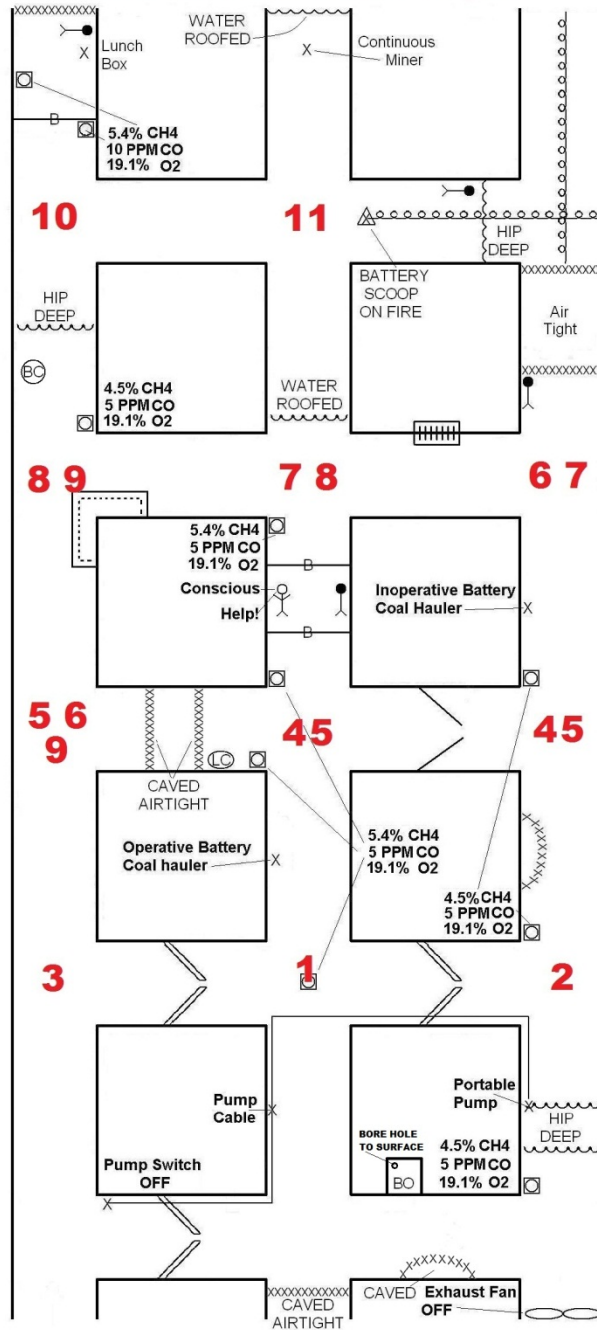
**THE EXHAUST FAN CANNOT BE  
STOPPED OR STALLED AFTER  
STARTING. THE EXHAUST FAN CAN  
NEVER BE REVERSED**

**PORTABLE PUMPS CAN BE MOVED TO  
ANY LOCATION THAT THE  
ATTACHED CABLE CAN REACH.  
WATER PUMPED BY PORTABLE  
PUMPS WILL DISCHARGE TO THE  
SURFACE**

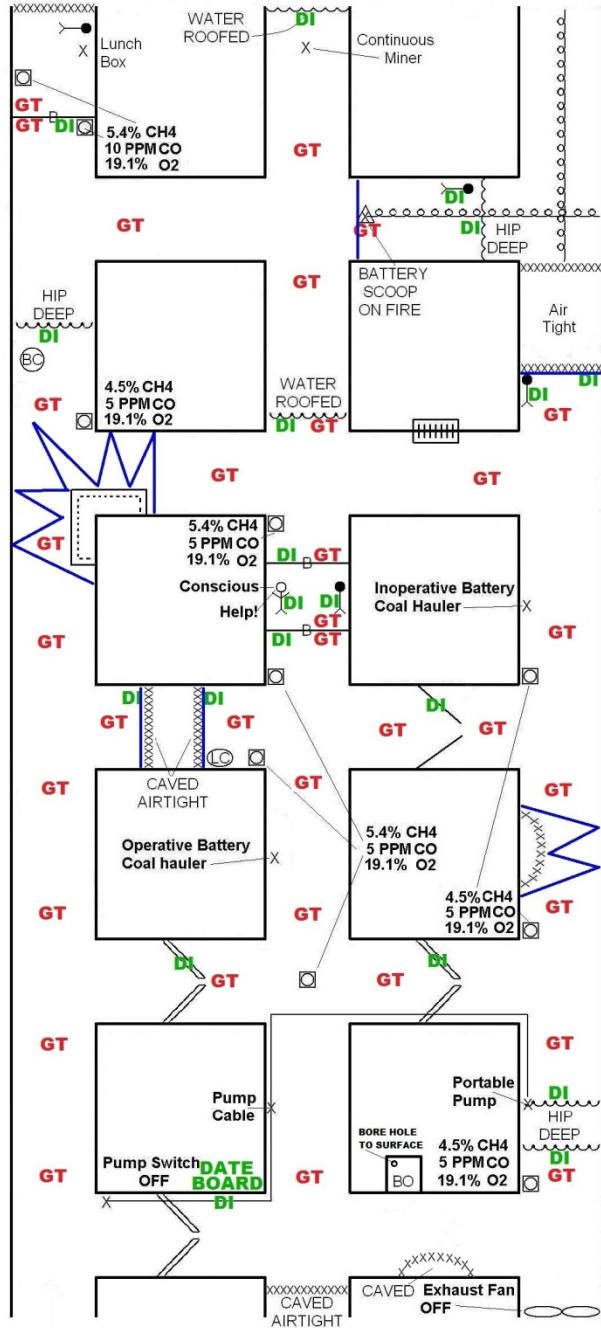
**THE BRIEFING OFFICER HAS BEEN  
ISOLATED AND IS IN A RESPIRABLE  
ATMOSPHERE**



## Possible team stops



## GAS TEST DATE & INTIAL ROOF & RIB

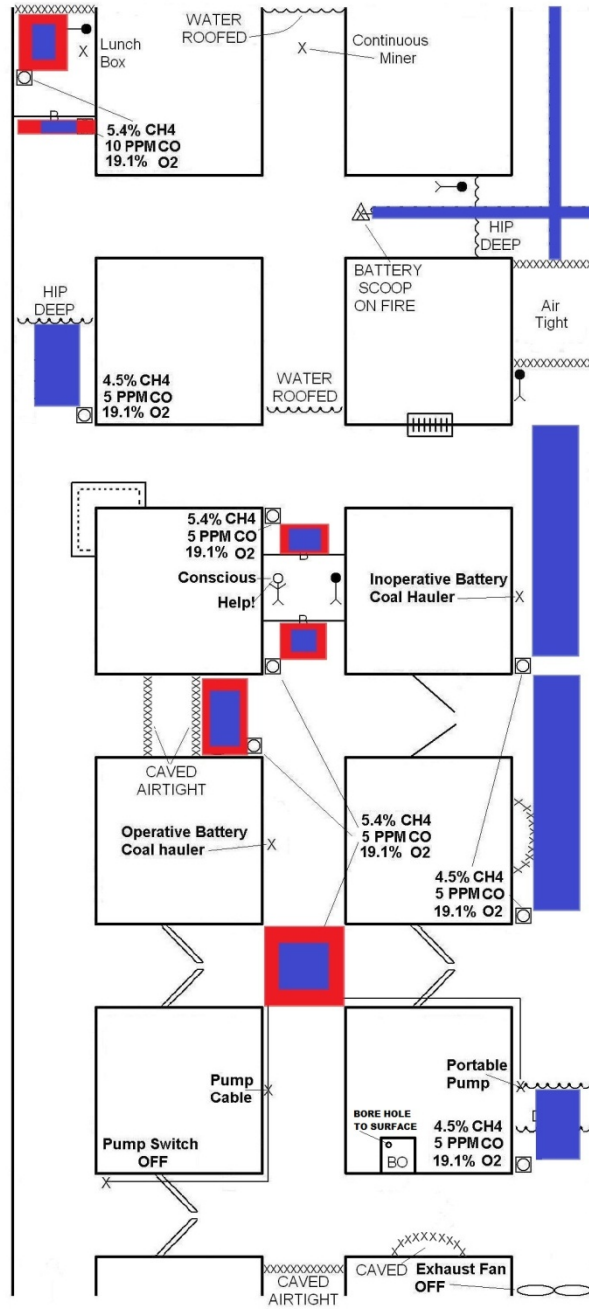


GAS TESTS ARE MADE ACCORDING TO TEAM TRAVEL

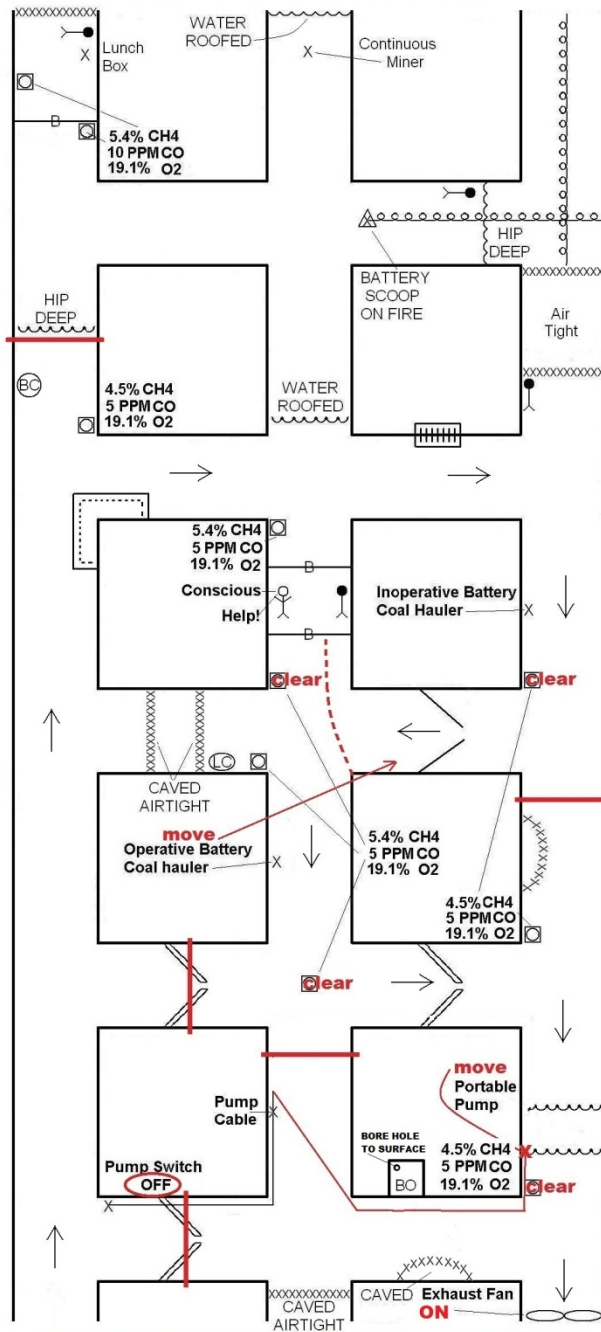


**Explosive**

**Irrespirable**



## Vent 1 for Division 1 & 2



**THIS IS THE ONLY VENT FOR DIVISION 1 TEAMS**

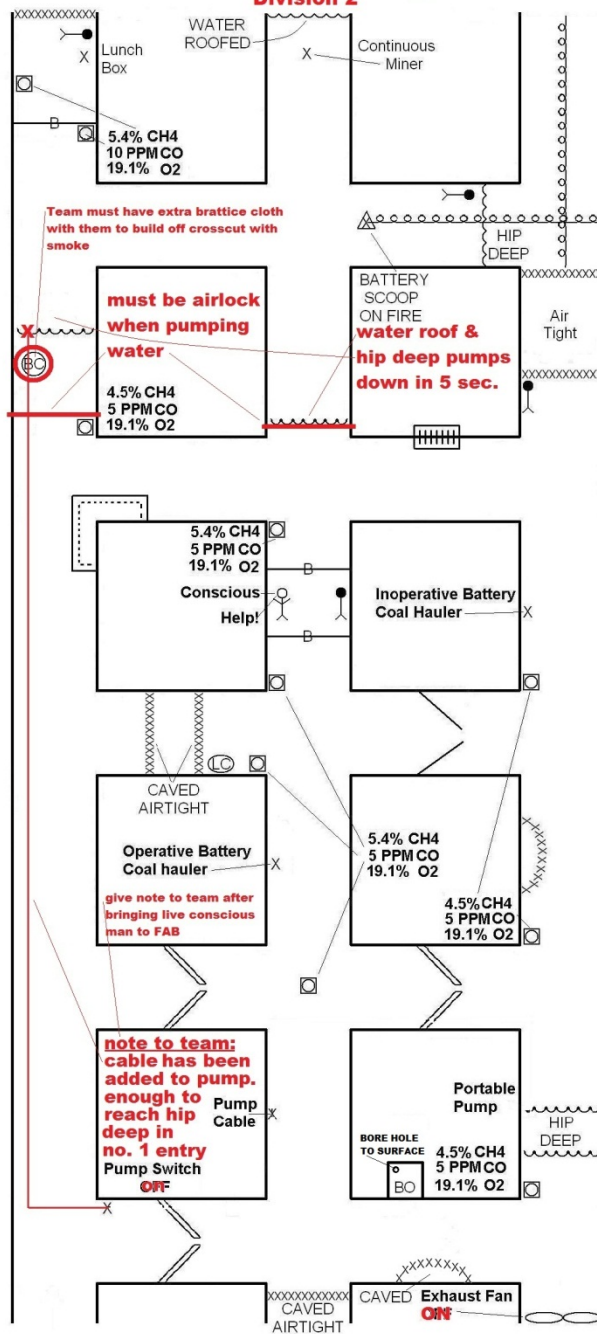
## 2012 PA Regional Skills Contest

Give note below to Division  
2 team captain after  
bringing conscious live  
man to FAB

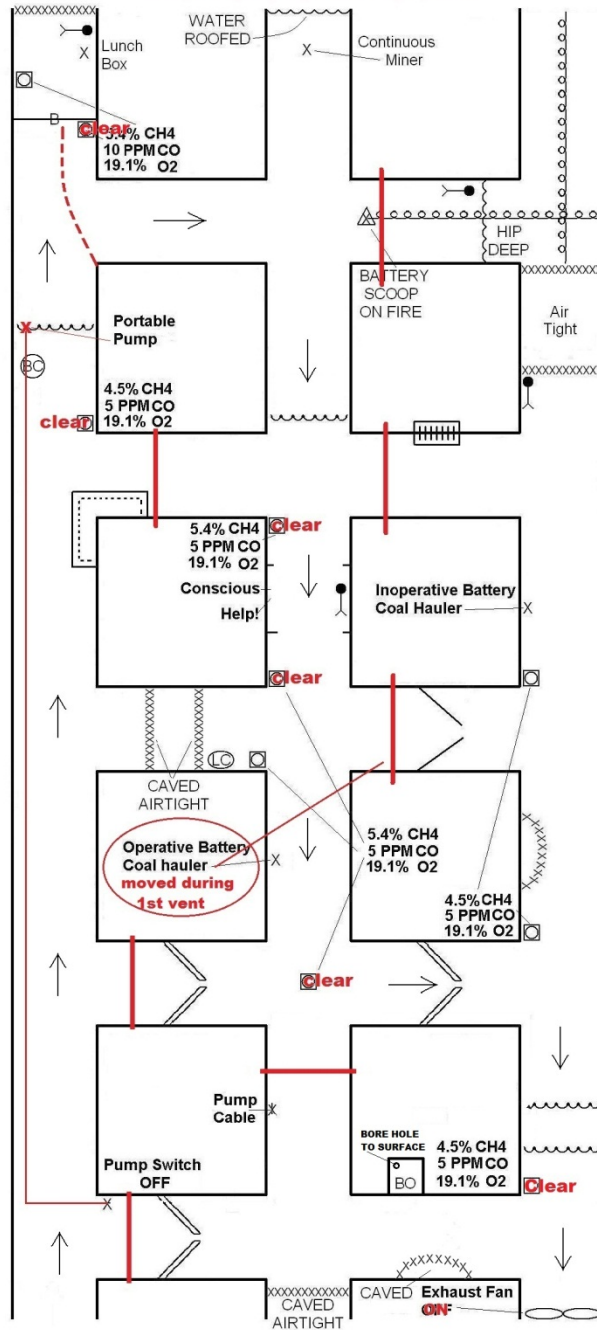
**WE HAVE ADDED POWER CABLE AND  
DISCHARGE LINE TO THE PORTABLE  
PUMP. THE PORTABLE PUMP WILL  
NOW REACH TO THE HIP DEEP  
WATER IN NO. 1 ENTRY**

## Airlocking for pumping water

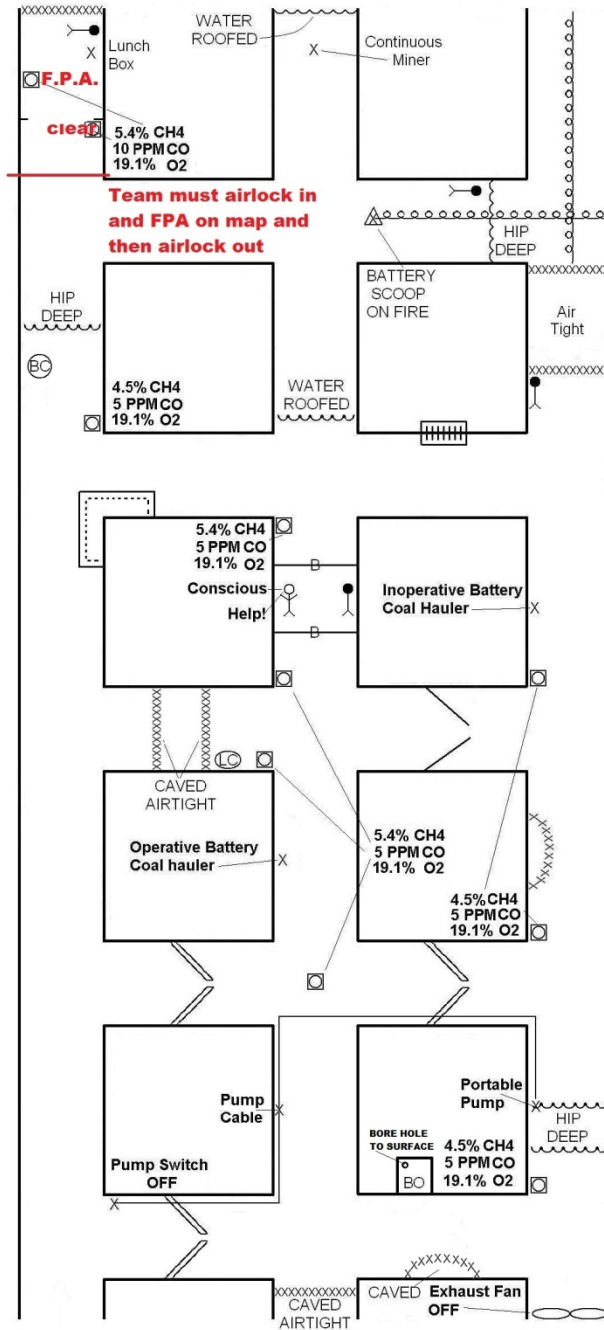
### Division 2



## 2nd Vent for Division 2



## End of Problem



PATIENT STATEMENT  
IN BOTH BARRICADES  
IN NO. 2 ENTRY

HELP! I HAVE A  
AIRTIGHT  
BARRICADE  
BEHIND ME.....

# Keys to Problem

- **TEAM MUST MOVE PORTABLE PUMP AND CABLE OUT OF AREA WHERE EXPLOSIVE MIXTURE IS LOCATED TO PUMP HIP DEEP WATER IN NO.3 ENTRY**
- **TEAM MUST BLOCK HIP DEEP WATER IN NO.1 ENTRY BEFORE STARTING FAN**
- **TEAM MUST MOVE OPERATIVE BATTERY COAL HAULER BEFORE WINGING BARRICADE IN NO.2 ENTRY**
- **TEAM MUST EITHER TURN OFF PUMP OR MOVE PUMP OUT OF NO.3 ENTRY WHEN VENT 1 IS FLOWING**
- **FOR DIVISION 2 TEAMS: CABLE WILL BE ADDED TO PUMP AFTER 1<sup>ST</sup> VENT IS COMPLETE AND PATIENT IS BROUGHT TO FAB FROM BARRICADE IN NO.2 ENTRY**
- **TEAM MUST BE AIRLOCKED WHILE PUMPING WATER OUTBY LAST OPEN CROSSCUT**
- **TEAM MUST NOT LET AIR BE PULLED FROM NO.3 ENTRY DURING WORKING OF THE PROBLEM**
- **TEAM MUST STOP AT EXPLOSIVE MIXTURE PLACARD JUST INBY BARRICADE IN NO.1 ENTRY AFTER 2<sup>ND</sup> VENT**