

2016 Delta, Colorado DAY 1 Written Statement

Thank you for responding to our mine emergency. Last night 3 miners were working in the outby main west section. This section had stopped production due to mining very close to the outcrop. We have been monitoring carbon monoxide levels and heat where the coal turned to peat in the number 3 entry. The crew notified the surface at 3:00 AM that smoke was filling the area. All efforts to contact this crew have failed.

A fresh air base has been established in crosscut 70.

A Command Center has been set up outby the fresh air base.

The power to this area has been locked out. The fan on the surface is running, exhausting, guarded and cannot be reversed or stopped.

All officials and backup teams are present, however your team will be expected to do all work in this area.

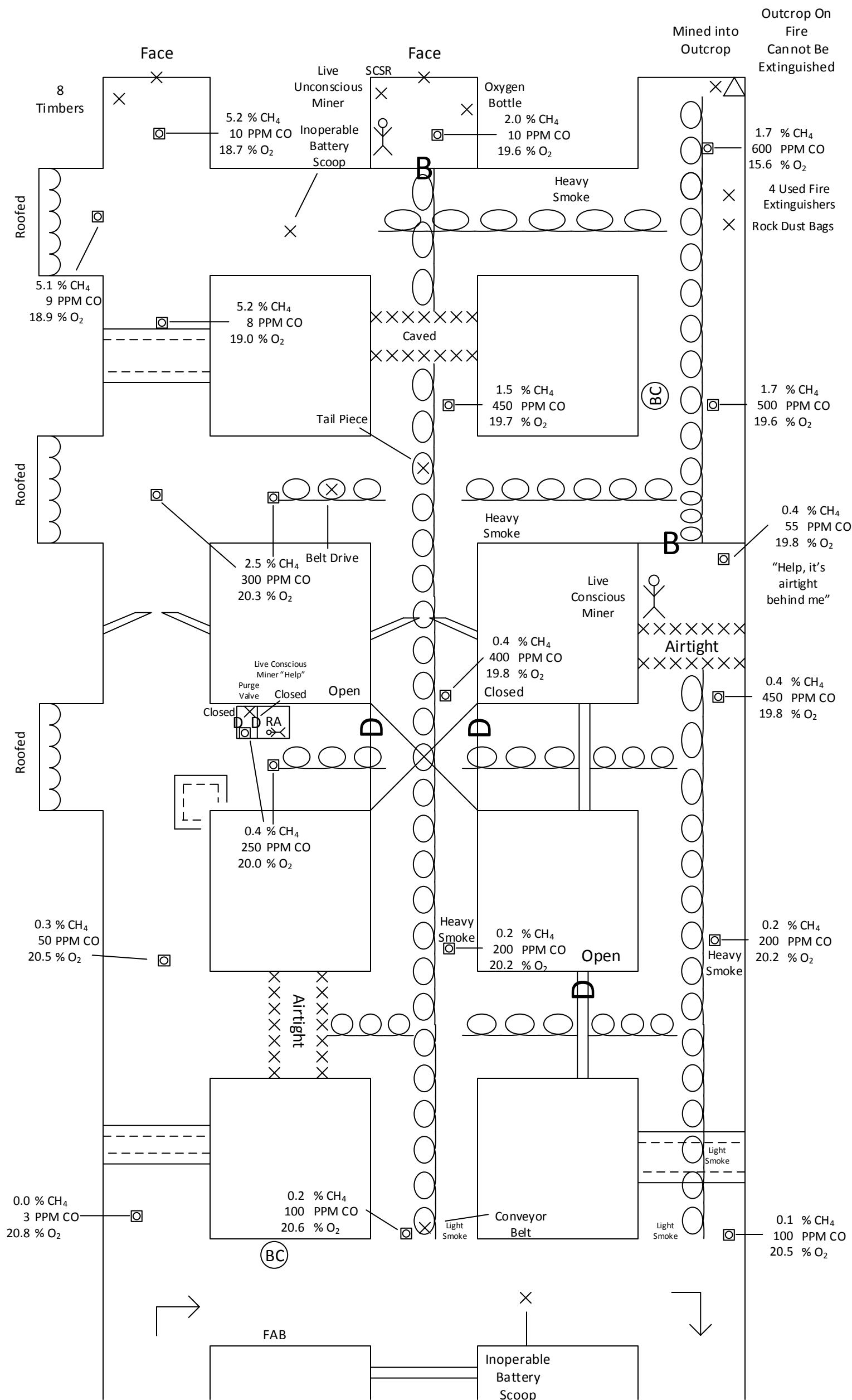
The mine map is up to date.

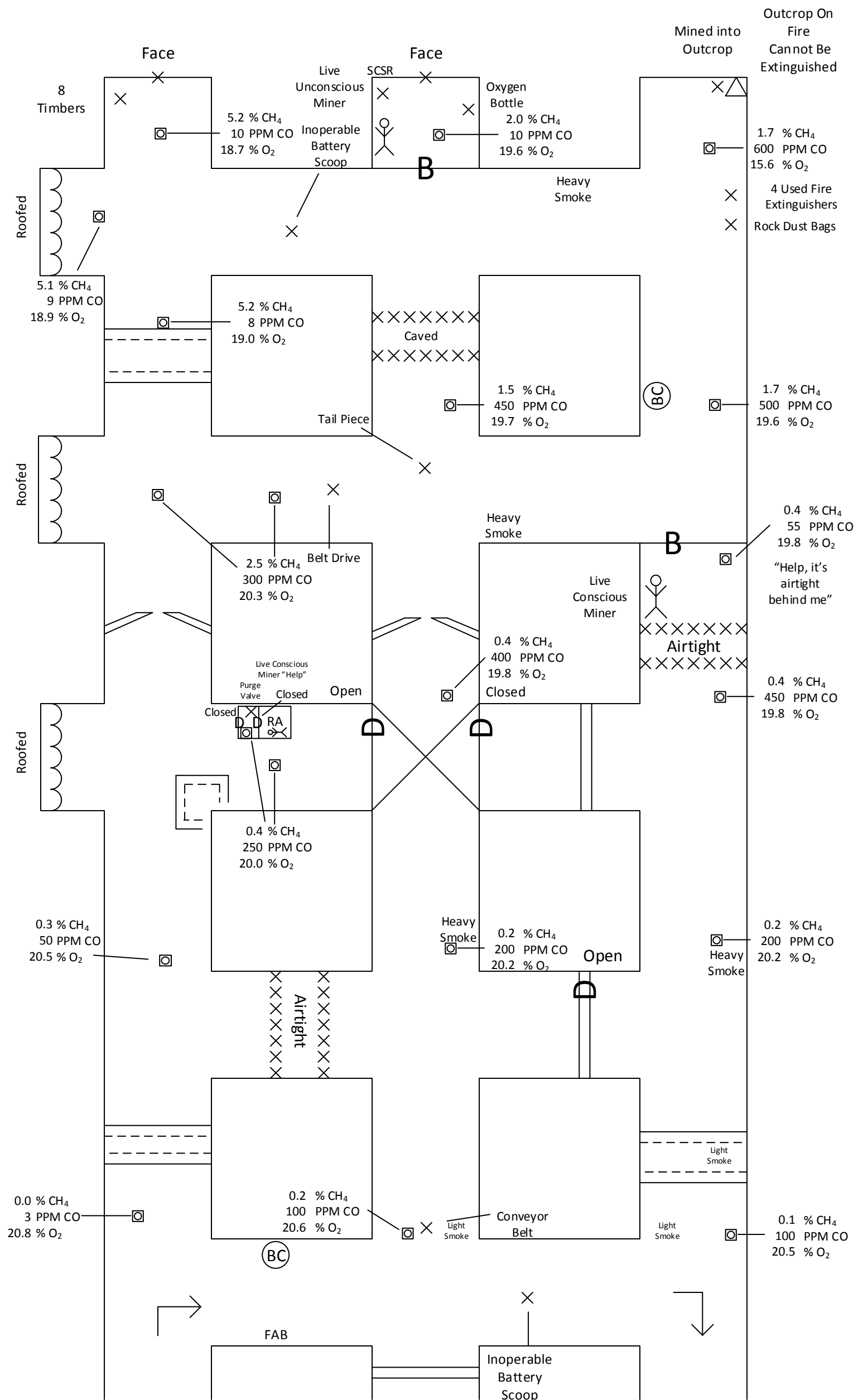
Delta, Colorado 2016 DAY 1
Written Problem

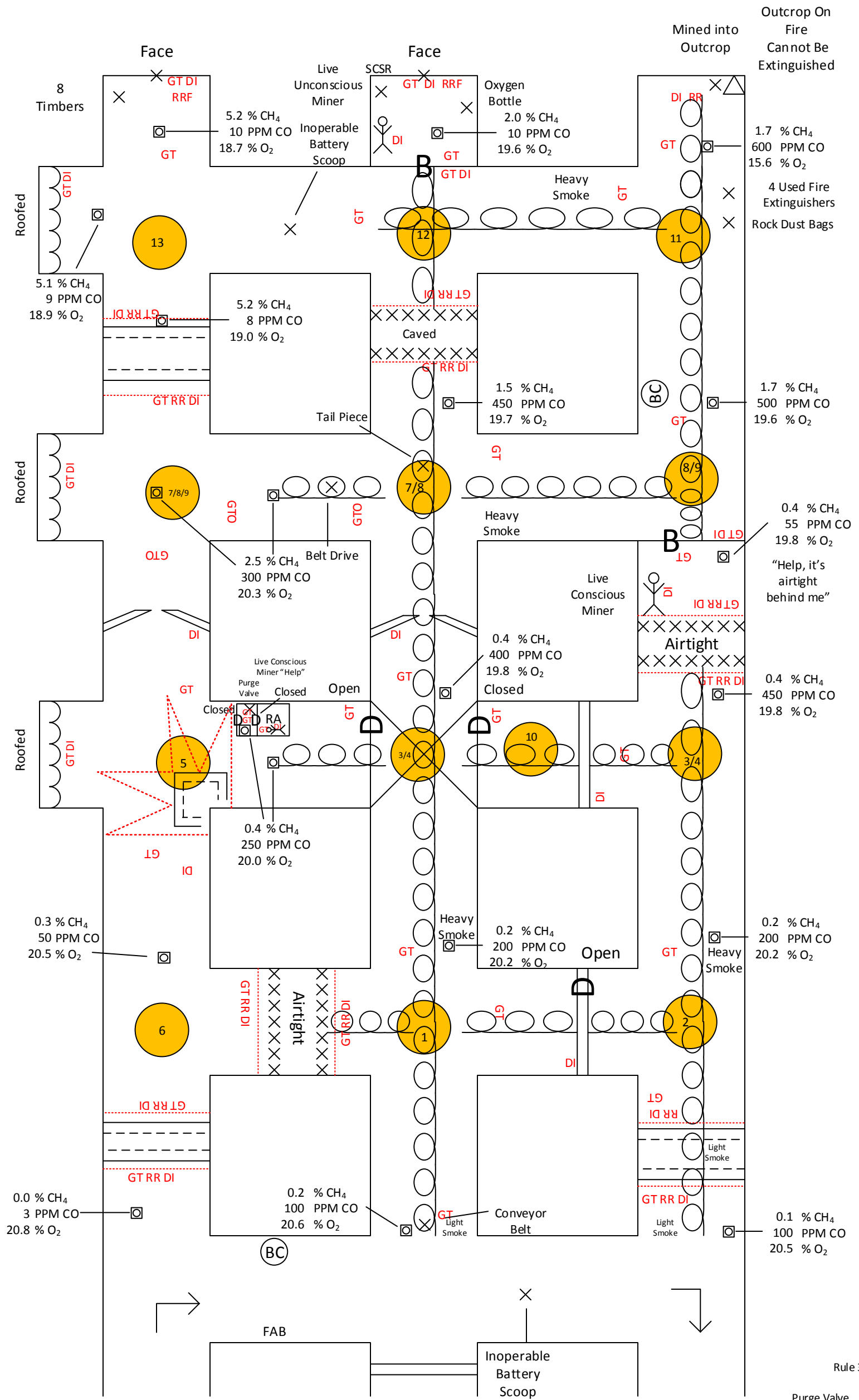
Account for the 3 missing miners.

Bring any survivors to fresh air.

Your Team can only transport One (1) set
of Brattice Cloth or stopping building
material at any time.







Outcrop On Fire Cannot Be Extinguished
 1.7 % CH₄
 600 PPM CO
 15.6 % O₂
 4 Used Fire Extinguishers
 Rock Dust Bags

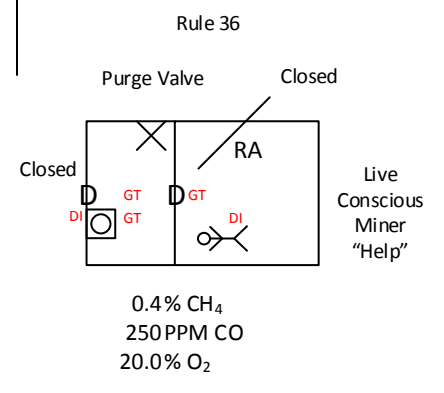
1.7 % CH₄
 500 PPM CO
 19.6 % O₂

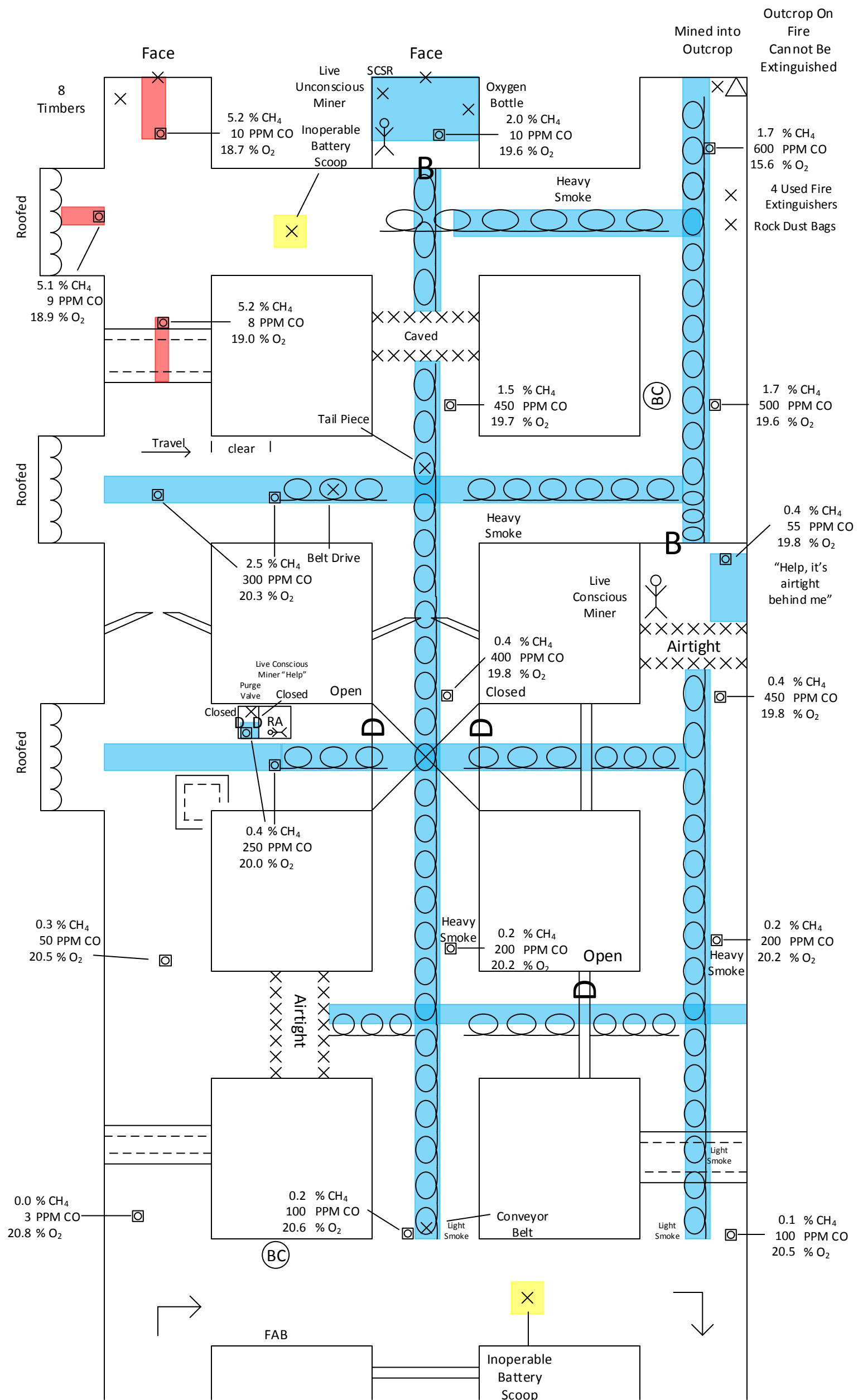
0.4 % CH₄
 55 PPM CO
 19.8 % O₂
 "Help, it's airtight behind me"

0.4 % CH₄
 450 PPM CO
 19.8 % O₂

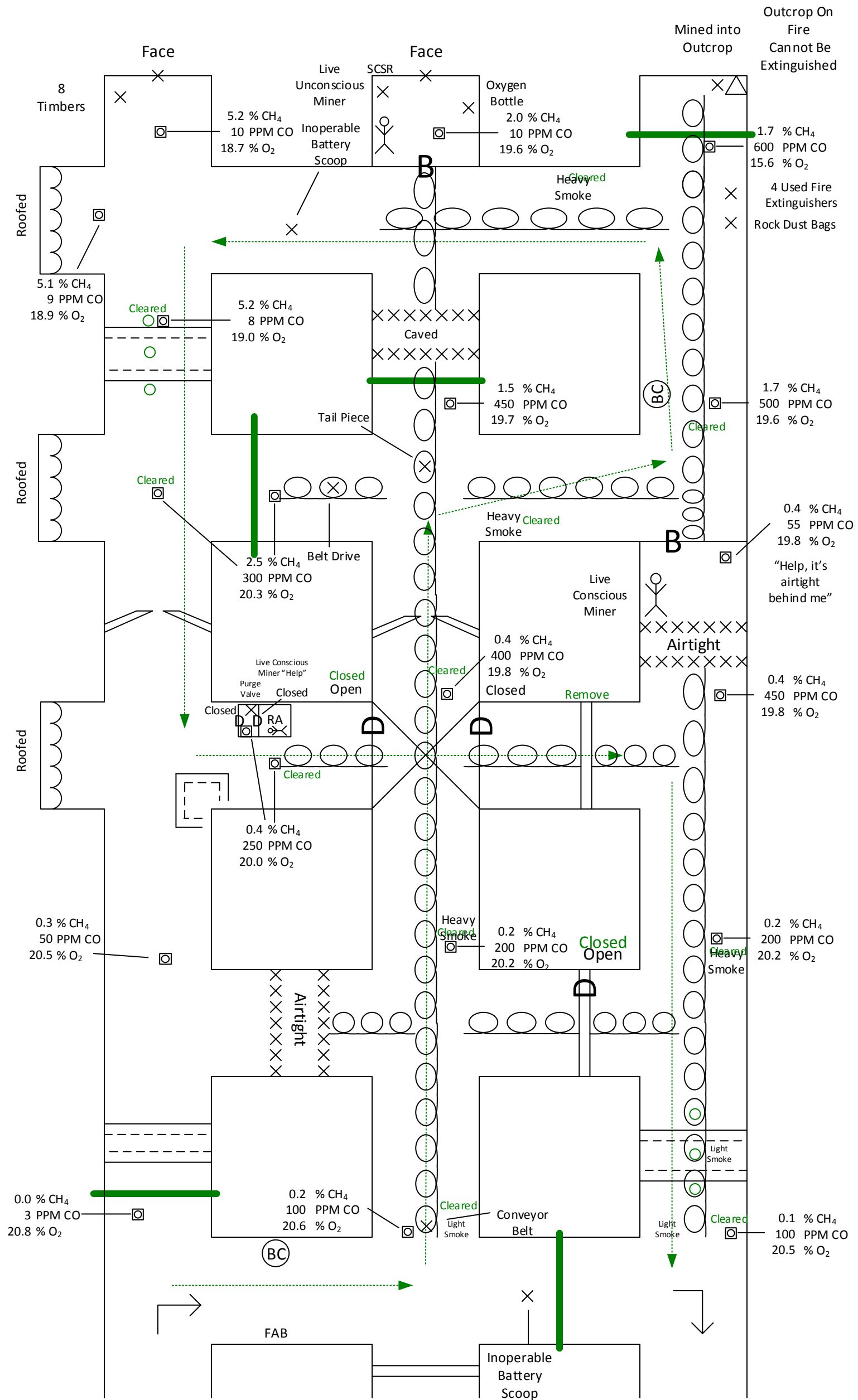
0.2 % CH₄
 200 PPM CO
 20.2 % O₂
 Heavy Smoke

0.1 % CH₄
 100 PPM CO
 20.5 % O₂
 Light Smoke





VENT 1



Delta, Colorado Day 1 2016 Judges Instructions

1. Initial opening checks of each entry. Contaminants found in 2 and 3 entries.
INBY FAB IN 1 & 2, ALL TEAM MEMBERS ARE IN SMOKE. Radio teams must install lifeline through smoke.
2. Team Stop 1 in entry 2 at xc 1. (apparatus check required at xc 1) Review rule 29 and fig. 5
3. Team stop 2 in entry 3 xc 1.
Team can travel to xc 2 in 3 or 2 entries.
- 4A. Team Stop 3 in 3 entry.
- 4B. Team Stop 4 in 2 entry.
5. Team Stop 5 in 1 entry in xc 2. WHOLE TEAM MIGHT NOT BE OUT OF SMOKE- RA found with 1 Pt. Capt. must start zig zag to get to front door of RA. Purge of gas in RA takes 5 seconds. Team Member(s) in RA can be off lifeline. Pt. can walk out with resp. protection. Zig zag must be completed through intersection when team returns. When entire team is in intersection OUT OF SMOKE
6. Team Stop 6 in 3 entry in xc 1. OUT OF SMOKE
Team can airlock inby and outby overcast in 2 entry to get to Team Stop 10. (this can be done anytime prior to team reaching stop 11 (Rule 44)
7. Team Stop 7 can be in xc 3 in 1 or 2 entries. (2 entry most likely) -IN SMOKE IN 2 E- smoke in xc 3 allows team to tie across to 1 or 2 entries.
8. Team Stop 8 in xc 3 in 1 entry. OUT OF SMOKE
9. Team Stop 9 in 3 xc in 3 entry. IN SMOKE 1st Barricade found with response. Not enough information to ventilate. MUST GO TO STOP 10 IF UNEXPLORED (Rule 44)
10. Team Stop 11 in 3 entry in xc 4. Fire found, cannot extinguish.
11. Team Stop 12 in 2 entry in xc 4. 2nd Barricade found, no response.
12. Team Stop 13 in 1 entry in xc 4. OUT OF SMOKE explosive mixtures found and timbers found. Teams have enough materials and information to vent 1st then 2nd Barricades.
Team should timber through unsafe roof in 1 entry between XC 3 and 4 and in unsafe roof in 3 entry between FAB and xc 1.
Vent 1 - team can vent barricade in 3 entry safely by building temp. stoppings; in 1e between FAB and xc1, close door in stopping in xc 1 between 2 and 3 entries, close door in OC, xc 3 between 1 and 2 e, 2 e between xc 3 and 4, remove permanent stopping in xc 2 between 2 and 3 e, in FAB between 2 and 3 e (vent change). Rule 30 F
Team can breach 1st barricade without airlock and bring LCM to FAB.
Team can travel to 2nd barricade and smoke will have cleared as long as team built temporary in 3 entry inby xc 4. Must to airlock both crosscuts to breach. Can put LUM on stretcher and take to FAB w/o respiratory protection.

End of Problem