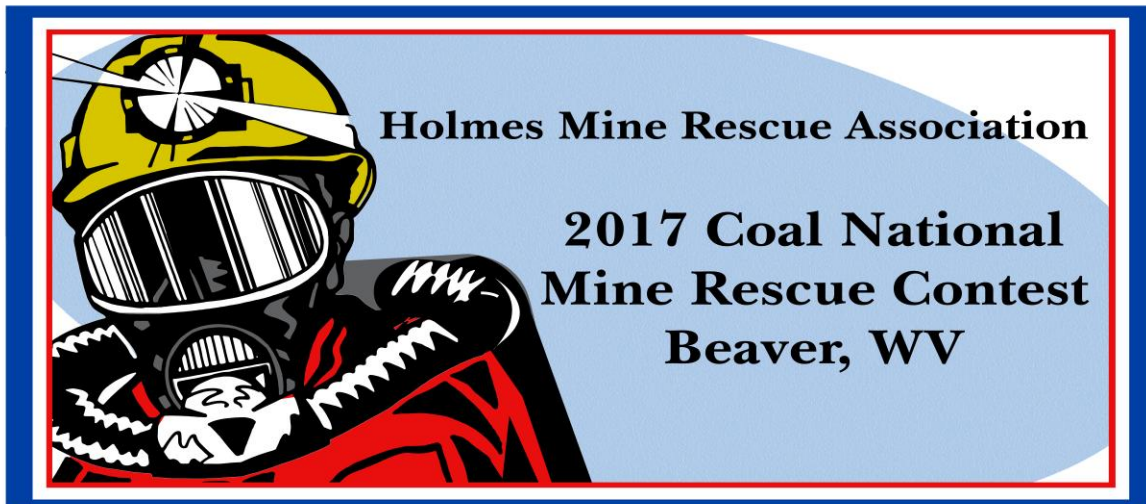


2017

DAY #1 MINE RESCUE

PROBLEM



September 12th, 2017

Beaver, WV

Judges Packet

NATIONAL MINE RESCUE CONTEST

DAY #1-SUPERINTENDENT STATEMENT

Thank you for answering our call for help and a quick response. I am the mine Superintendent of the Beaver #1 Mine.

Last night six miners went to the #1 section to repair equipment and finish electrical exams.

Nearing the end of the shift, one of the miners called out and said they smelled smoke. The responsible person immediately ran to check the elevator shaft and observed smoke coming out of the opened door. No response has been given from anyone since that time.

You are currently located on the surface, which is the Fresh Air Base. The elevator will take you to the #1 section, whenever your team is ready.

This mine is new, but does liberate methane, accumulate water and has some bad roof.

The mine fan is currently off. It can be operated by blowing or exhausting. It is currently being monitored and guarded.

Power controls to any pumps found underground are located in the command center.

All authorities have been notified.

The seam height here is about 7 feet.

Mine map is currently up to date.

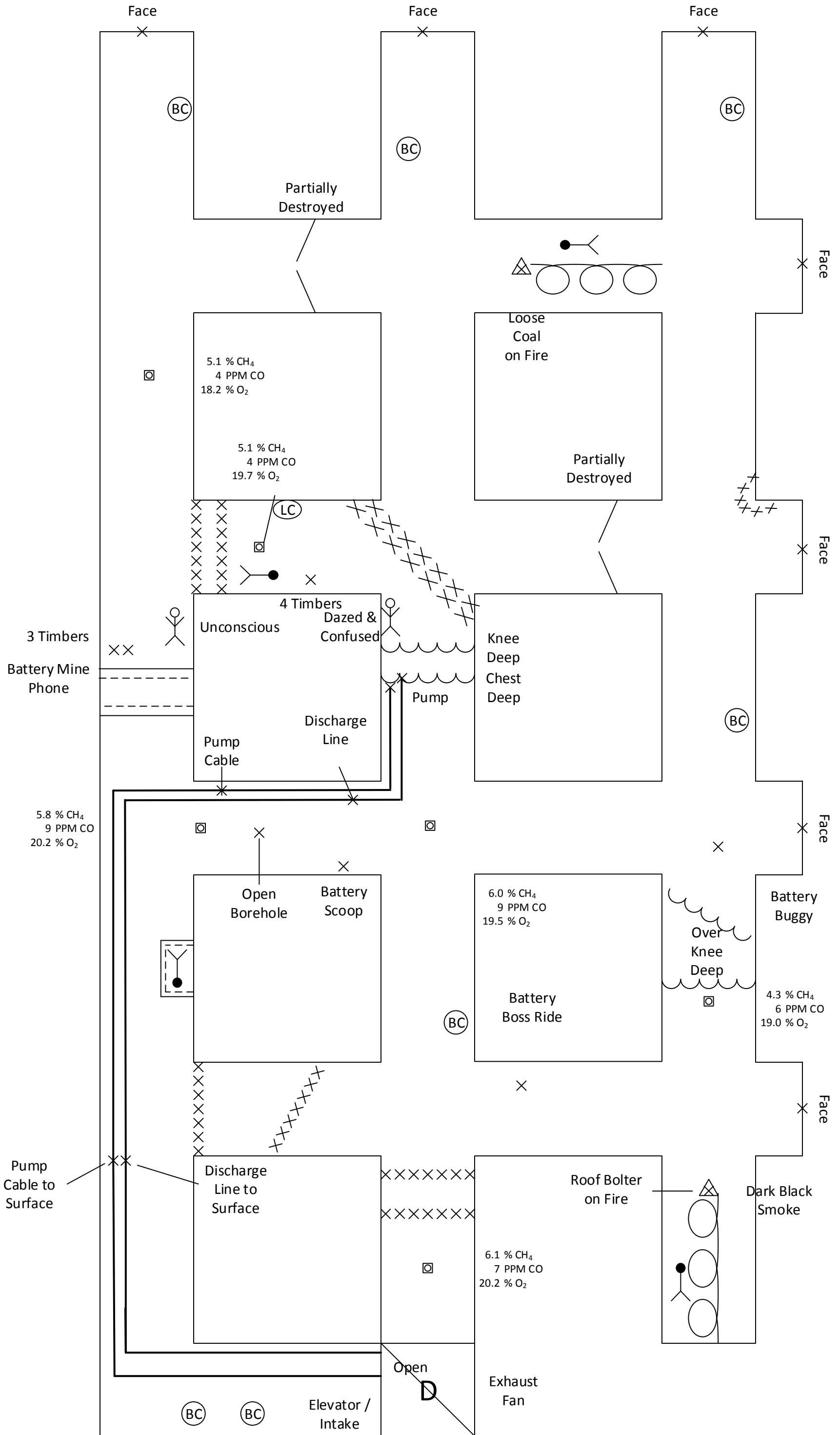
There is a trained mine rescue team on site ready to assist as a back up team.

We have a trained lifeline judge.

Thank you again.

PROBLEM MAP

Team Working Order # _____



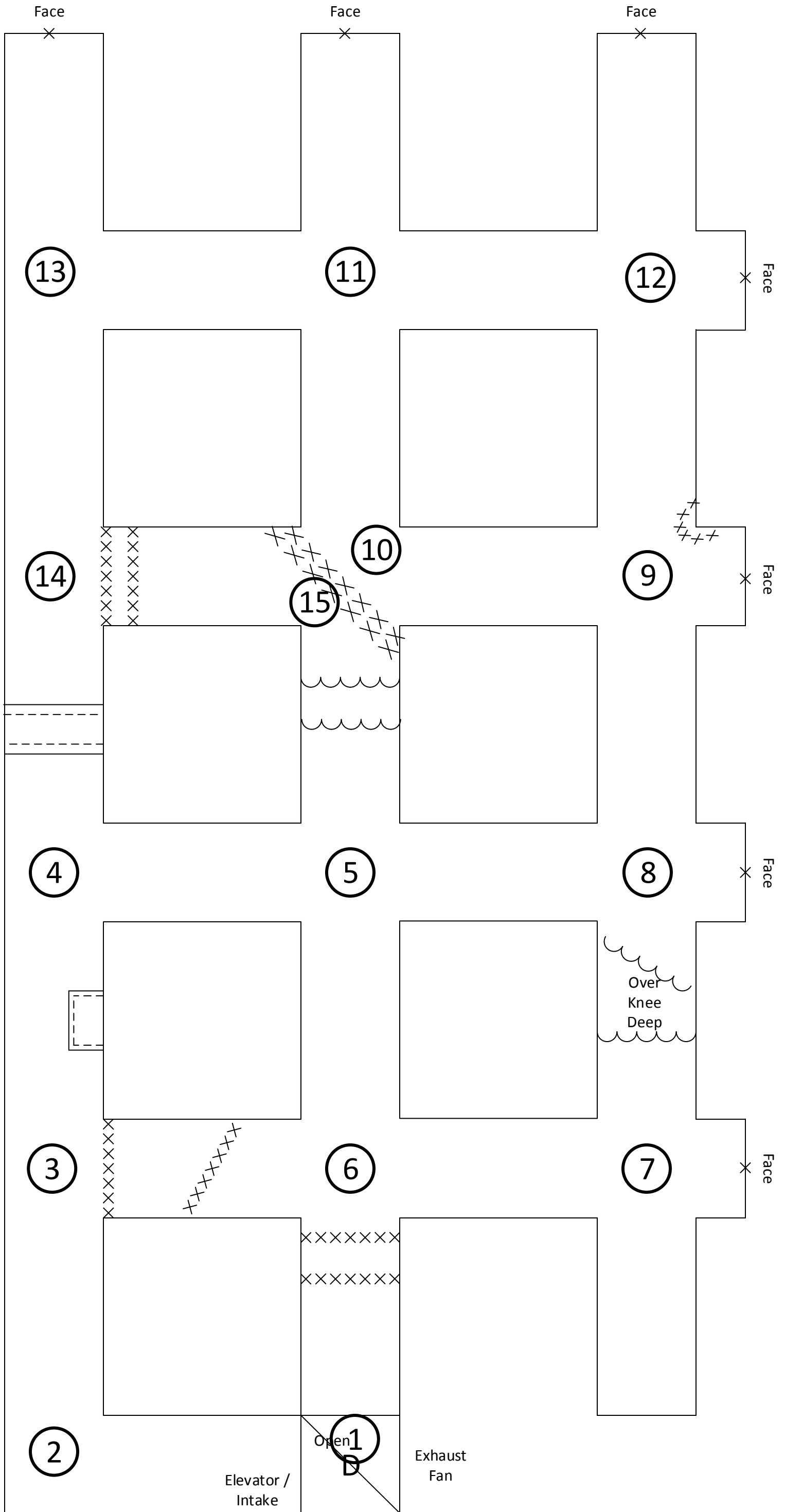
FAB

PROBLEM

- **LOCATE ALL MISSING MINERS**
- **BRING SURVIVORS TO THE SURFACE**
- **VENTILATE ALL IRRESPIRABLE ATMOSPHERES OUT OF THE MINE TO LEAVE FOR BARE FACE EXPLORATION**
- **FAN CAN BE OPERATED IN EXHAUSTING OR BLOWING MODES, HOWEVER FAN CAN ONLY BE REVERSED ONE TIME**
- **DO NOT STALL FAN**
- **TEAM CAN CARRY ONLY 2 SETS OF BUILDING MATERIAL AT A TIME WHILE ADVANCING OR RETREATING**
- **YOU HAVE 75 MINUTES TO WORK BEFORE BEING REPLACED**

TEAM STOPS

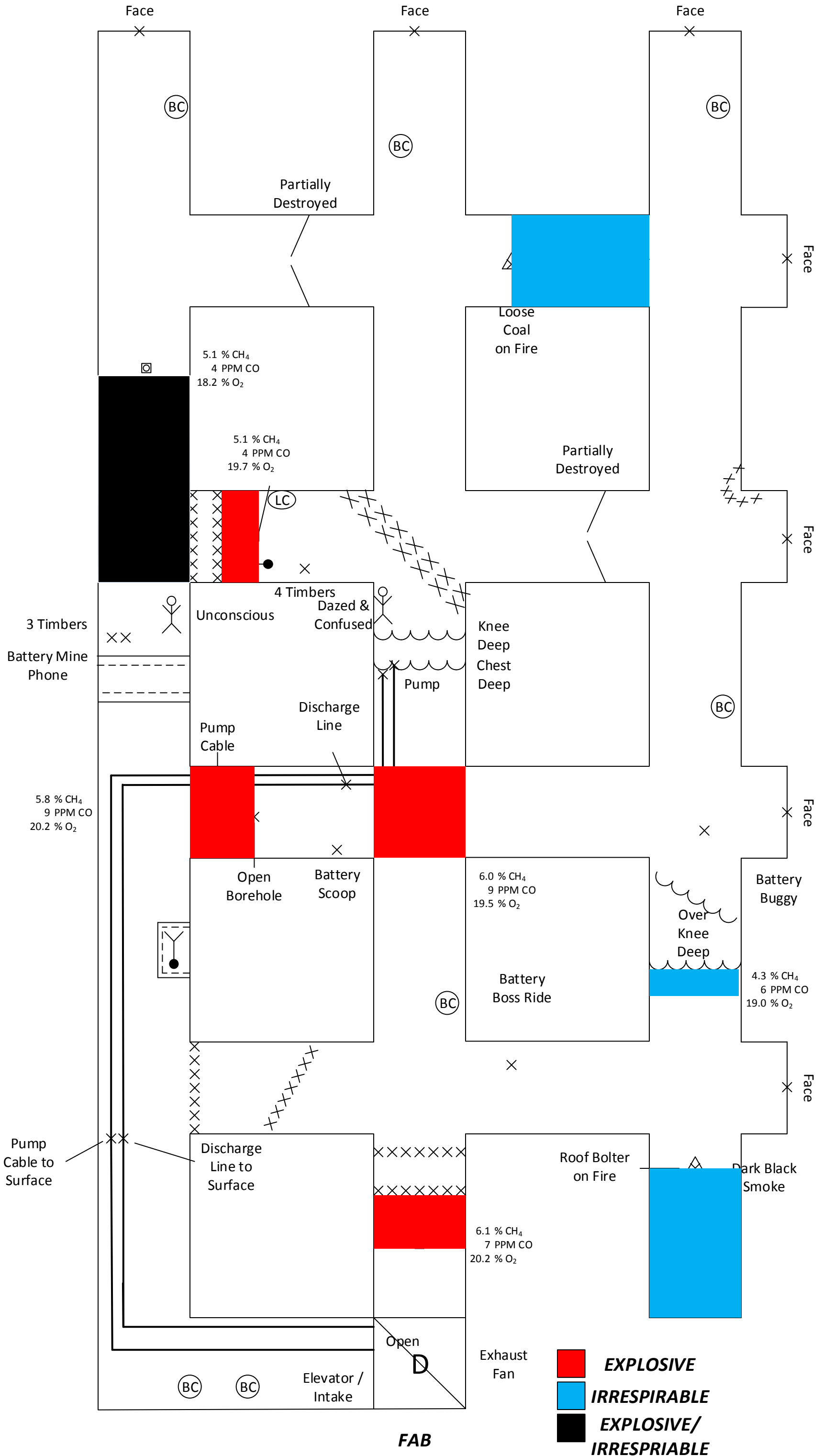
Team Working Order # _____



FAB

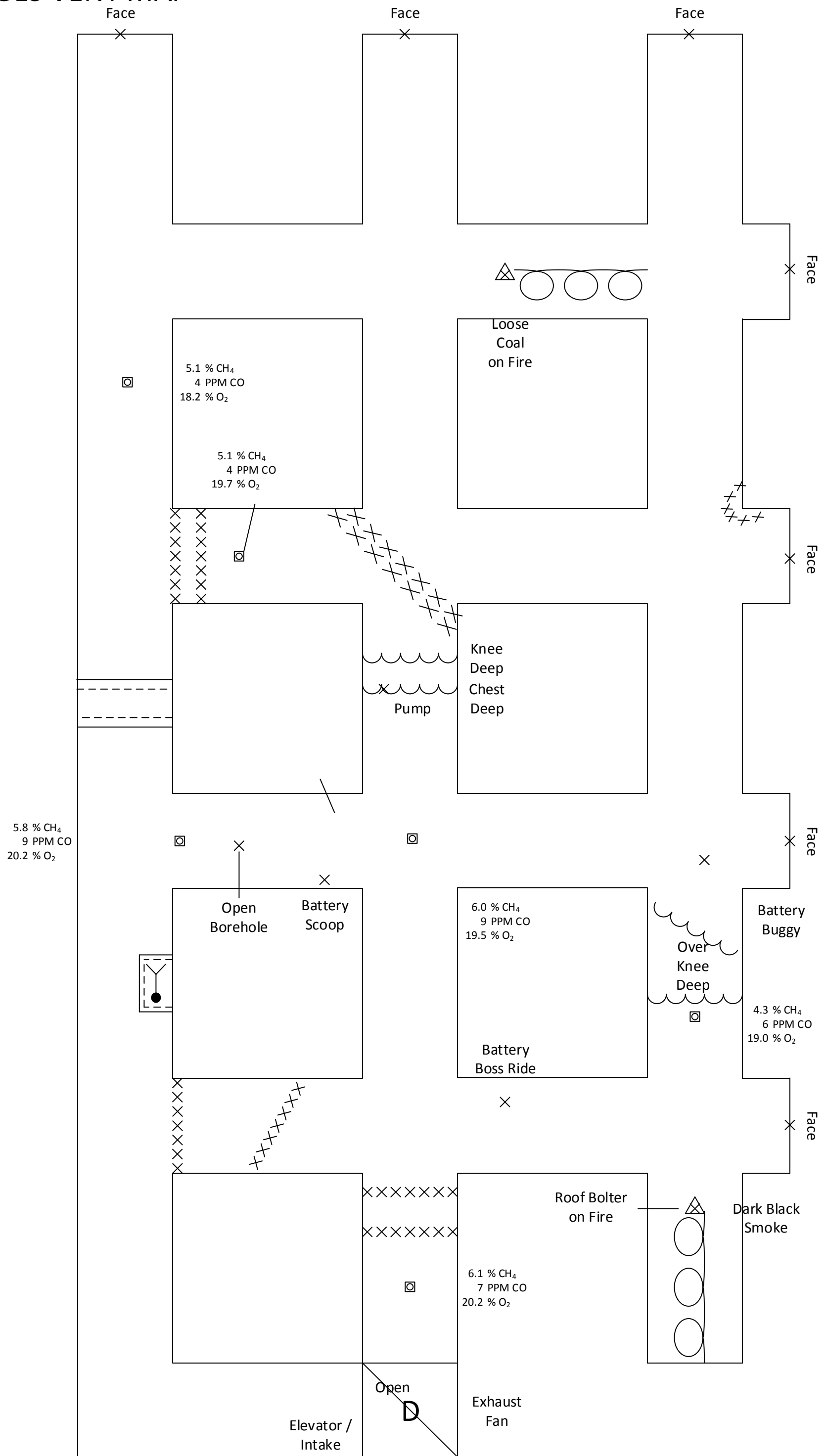
EXTENT OF GASES

Team Working Order # _____



JUDGES VENT MAP

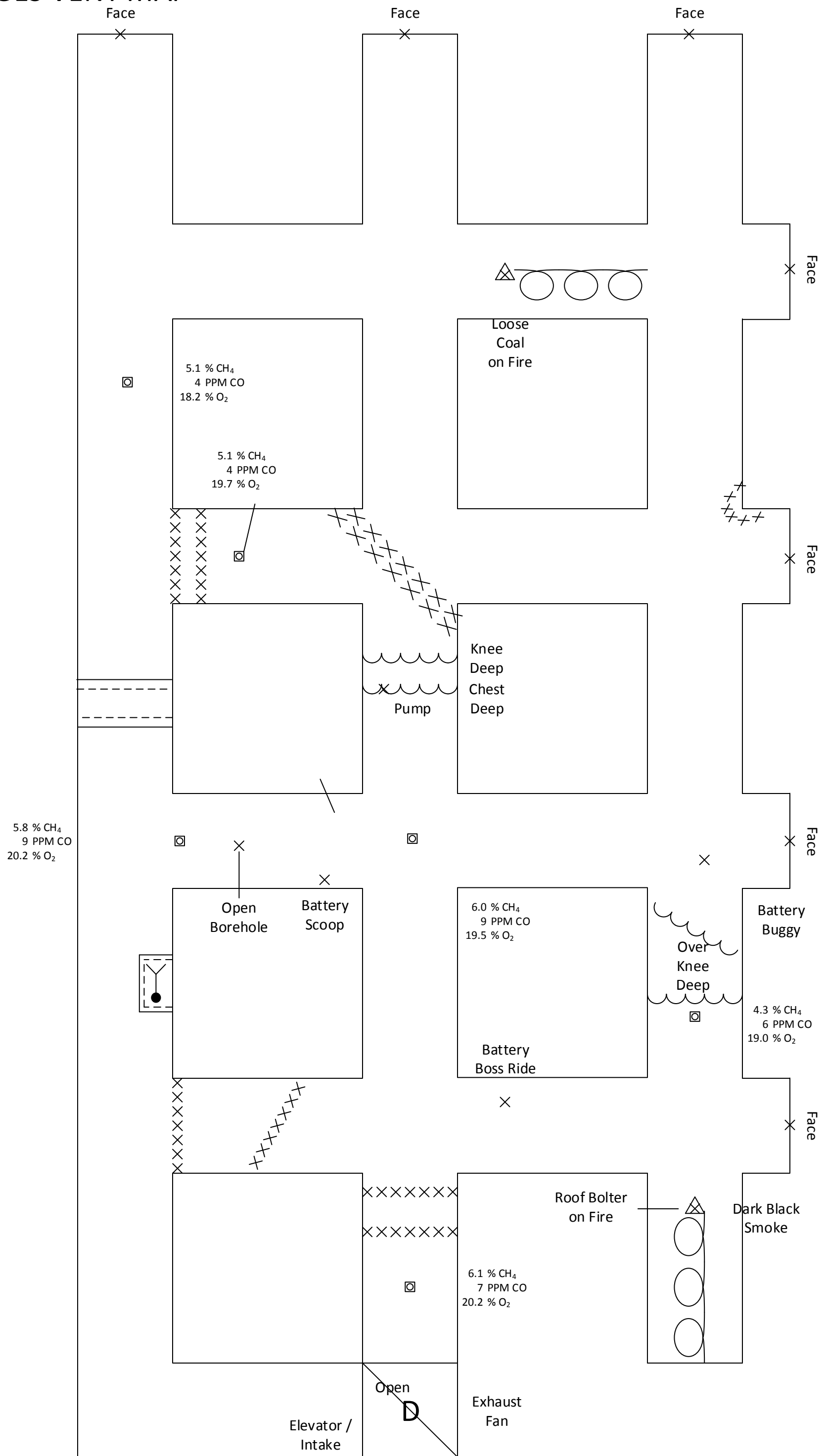
Team Working Order # _____



FAB

JUDGES VENT MAP

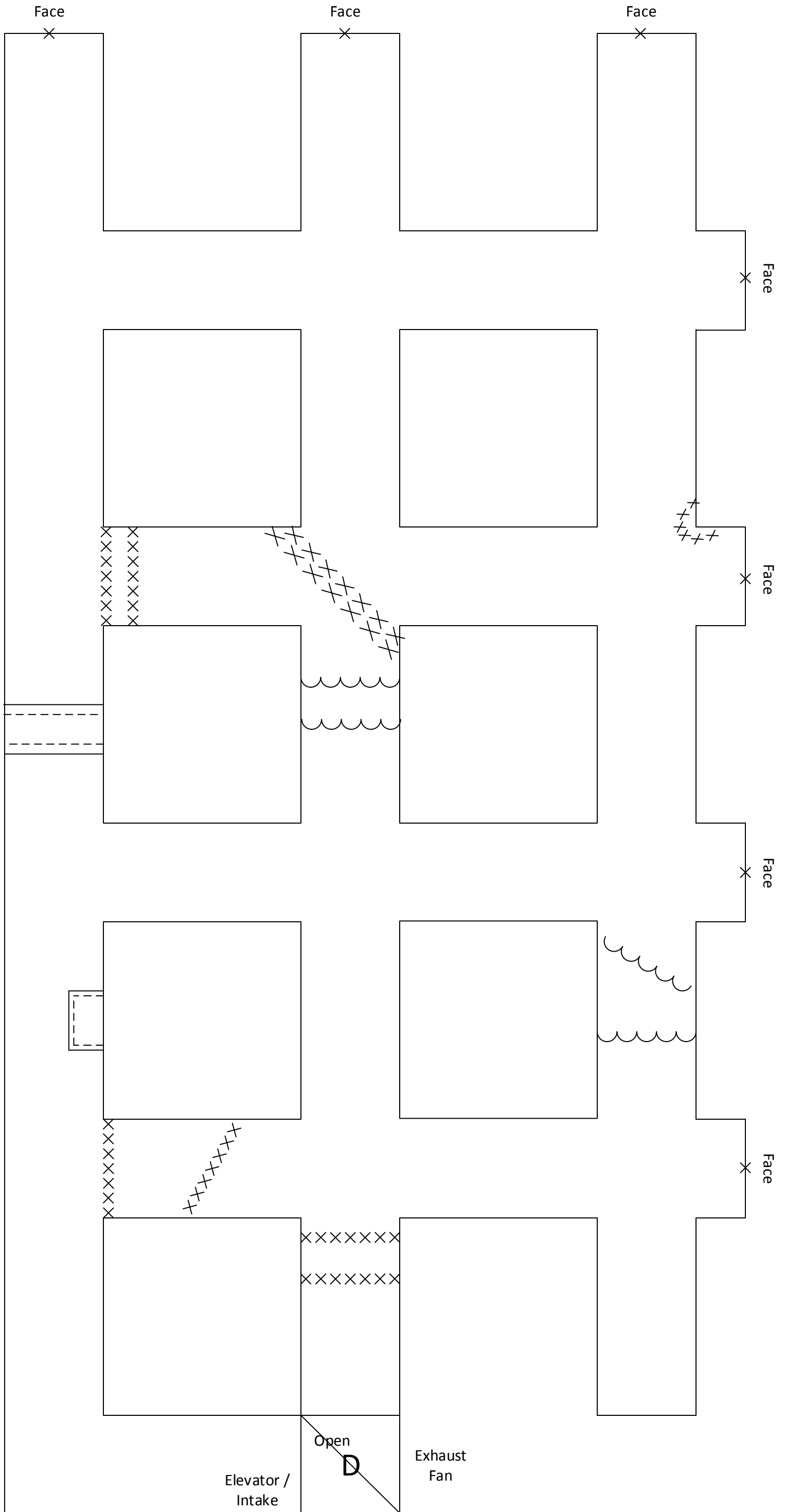
Team Working Order # _____



FAB

FINAL VENT MAP

Team Working Order # _____

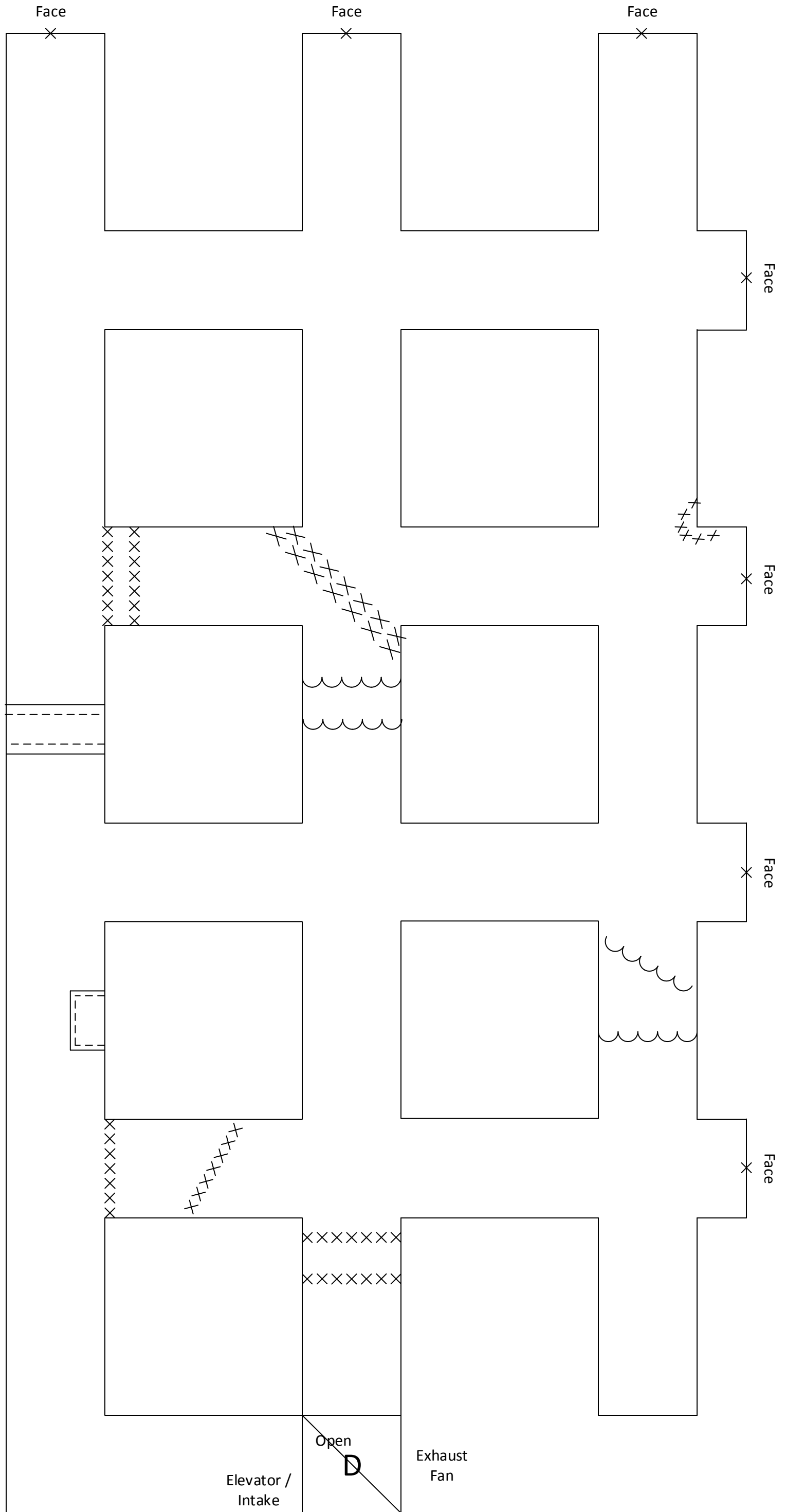


FAB

FINAL VENT

FINAL VENT MAP

Team Working Order # _____

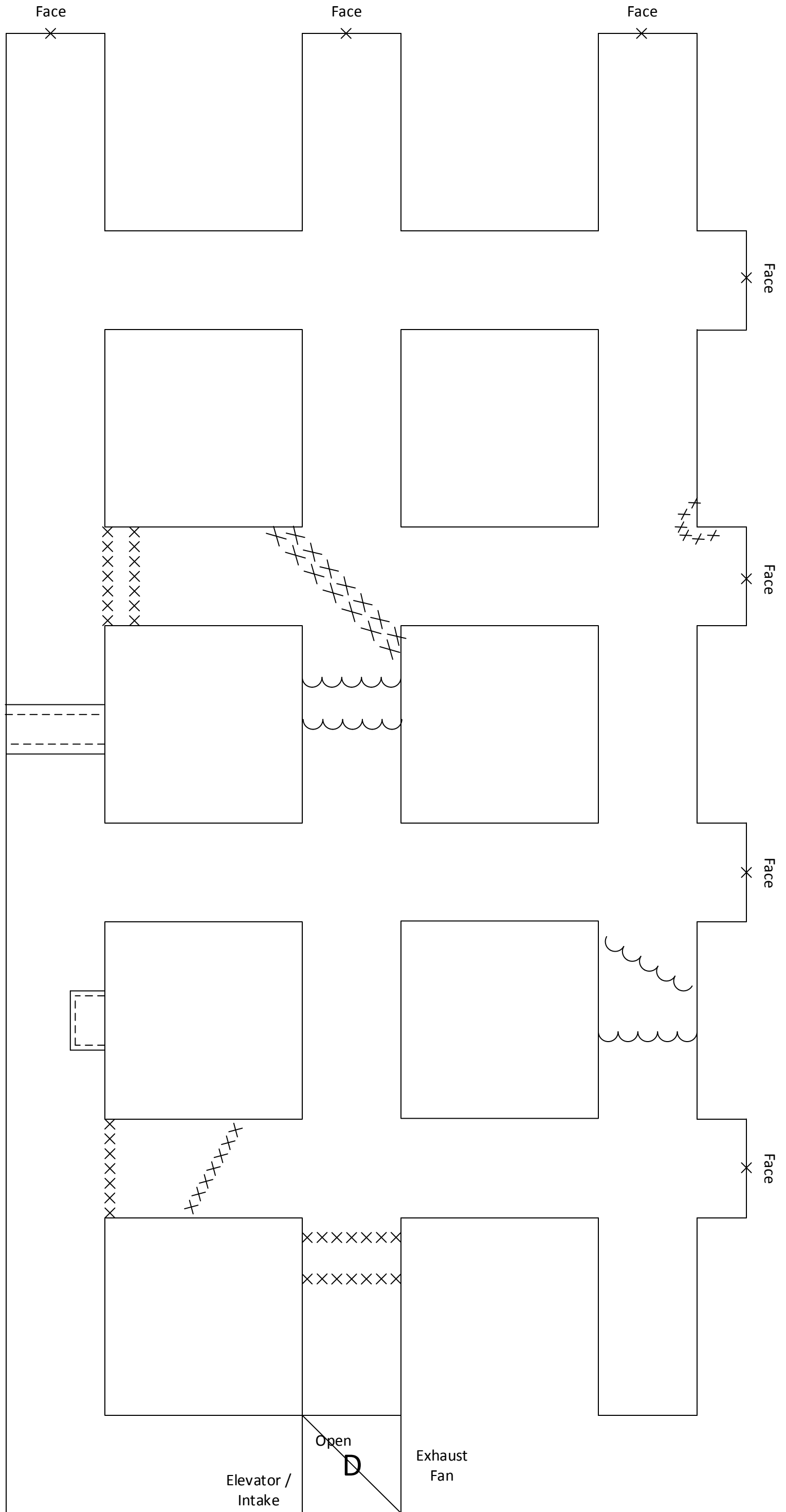


FAB

FINAL VENT

FINAL VENT MAP

Team Working Order # _____

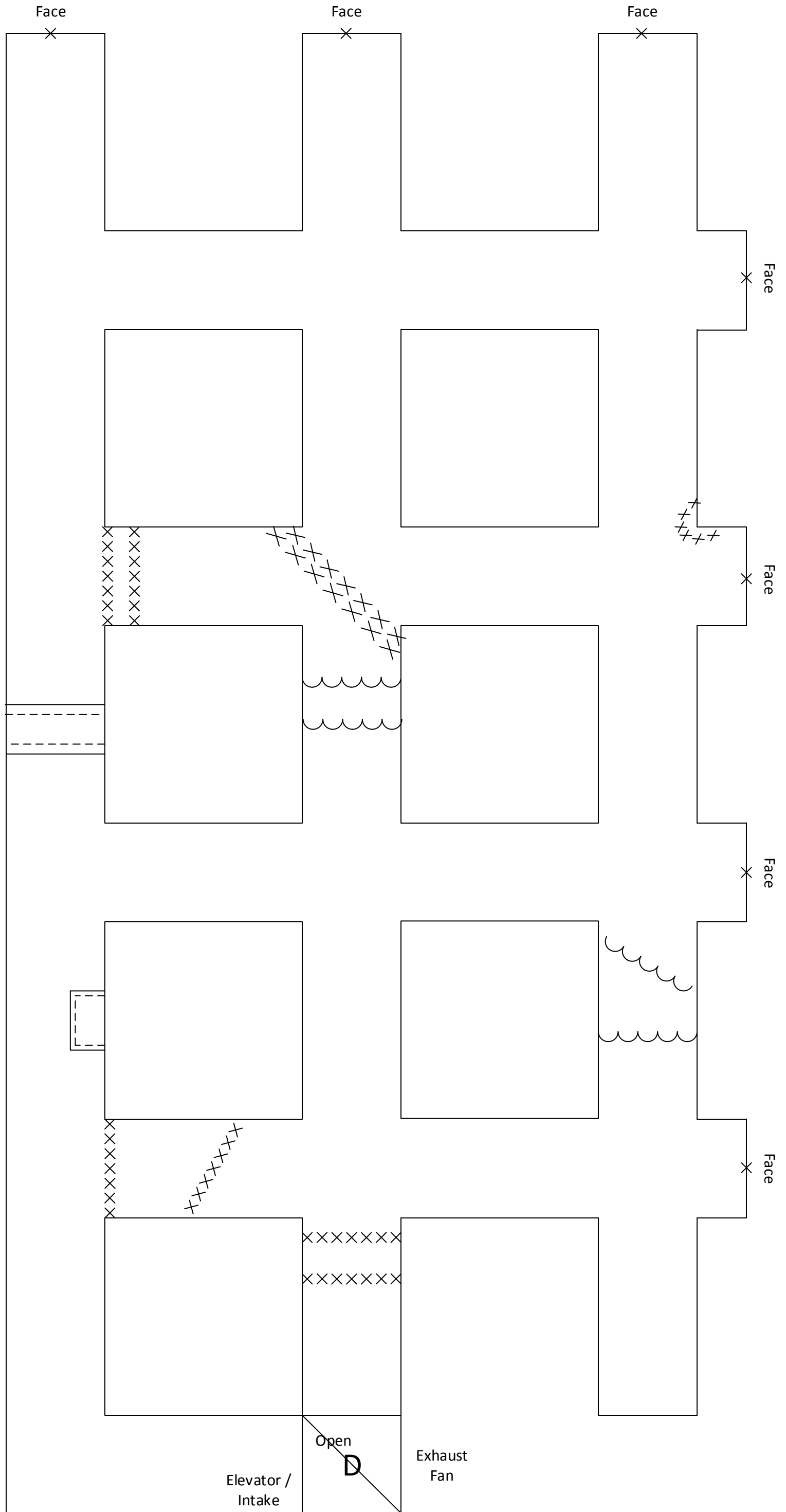


FAB

FINAL VENT

FINAL VENT MAP

Team Working Order # _____



FAB

FINAL VENT

2017 National Mine Rescue Contest
Judges Briefing
September 12, 2017

Surface/FAB/#1

After clock is started, teams will make advance into the elevator and travel to the bottom. Captain will explore up #2 entry to the caved area. GT, DI and RR required at the caved. Team will find an explosive gas placard, extending up to the caved area. DI is required on an index card and placed at the caved area. Teams will conduct their 50 feet apparatus check.

Team stop #2

Team will tie across into the #1 entry. Teams will find 2 BC and pump cable and discharge line to surface. GT required in crosscut and GT required up #1 entry.

Team stop #3

Team will advance up #1 entry, while making a zigzag roof test. If captain does not perform a zigzag test, discount under rule 23. DI required at the RR. DI is required on an index card and placed at the caved area. GT required at the caved area. Captain must also make a zigzag RR test at the elongated unsafe in #1 entry. DI is required on an index card and placed at the unsafe roof. Team will see the body placard, allowing them to vent irrespirable if necessary.

Team stop #4

Team must advance up #1 entry. Captain shall make a RR test at the unsafe in #1, with a GT inby the plane. DI is required at the unsafe (index card) and placed at the unsafe roof. GT is required in #1 right. NOTE: Additional gas test is required at the open borehole.

Team stop #5

Team will advance into the #2 intersection. Team will go up #2 and find water chest deep. DI is required at the water (index card) and placed at the water. GT is required up #2 entry, inby the plane. Captain will make #2 outby to imaginary plane, with a GT test required inby plane. Captain will make #2 right to the imaginary plane, with a GT required inby plane.

Team stop #6

Team will tie in down #2. Captain shall make over to the caved area, #2 left with a RR test (rib to rib) and DI (on index card) and placed at the caved area. GT is required inby plane. Captain will travel down #2 to the caved area, where a GT is required, RR test

(rib to rib) and DI required (index card) and placed at the caved area. Captain will make over to the imaginary plane in #2 right, with a GT required inby the imaginary plane.

Team stop #7

Team will tie across in the #3 entry. Captain will make down #3, finding the roof bolter on fire and dark black smoke. RR is required to be made prior to extinguishing the fire. GT required at the fire. NOTE: IF #5 man travels into smoke, then team must be tied off. Captain will travel up and find the second body. DI is required (index card) and placed at the body. GT is required inby the imaginary plane. Captain will travel up #3, finding the water over knee deep. DI is required at the water (index card) and placed at the water. GT is required inby the imaginary plane. Captain will make the face in #3 right, with a RR test and DI required (index card) and GT inby the plane.

Team stop #8

Team must travel back over and up #2 and across to #3 entry. Captain will travel down #3 and find back side of water over knee deep. DI is required (index card) and placed at the water. GT is required inby the plane. Captain will make up #3 entry to imaginary plane, with a GT required inby the outby plane. Captain will make the face in #3 right, with a RR test and DI required (index card) and GT inby the plane.

Team stop #9

Team must travel up #3 entry. Captain will make up #3 entry to imaginary plane, with a GT required inby outby plane. A zigzag roof test is required at the caved area, DI required (index card) and placed at the caved area. Captain will travel over #3 left to imaginary plane, with a GT required inby plane. DI is also required at the partially destroyed stopping (per rule 27). Captain will make the face in #3 right, with a RR test and DI required (index card) and GT inby the plane.

Team stop #10

Team will tie across into the #2 intersection. A zigzag roof test is required in the intersection at the caved. NOTE: Rule 23 requires a zigzag roof test if example is not in the rules. DI is required (index card) and placed at the caved area. Captain will make up #2 entry to imaginary plane, with a GT required inby the outby plane.

Team stop #11

Team will tie up #2 into intersection. Captain will make over #2 left to imaginary plane, with a GT required inby the outby plane. DI is required (index card) placed at the partially destroyed stopping. Captain will make the face in #2, with a RR test and DI required (index card) and GT inby the plane. Captain will make over #2 right, finding the loose coal on fire. RR test required prior to extinguishing the fire. GT required at

the fire. Captain will make over to the imaginary plane, with a GT required inby the plane. DI is required (index card) at the 3rd body.

Team stop #12

Team will tie across into the #3 entry. Captain will make the face in #3, with a RR test and DI required (index card) and GT inby the plane. Captain will make the face in #3 right, with a RR test and DI required (index card) and GT inby the plane. Captain will break the plane down #3.

Team stop #13

Team will tie across into the #1 entry. Captain will make the face in #1, with a RR test and DI required (index card) and GT inby the plane. Captain will make down #1 to the imaginary plane, with a GT required inby the outby plane.

Team stop #14

Team will travel down #1 entry. A zigzag RR test is required, DI required (index card) and placed at the caved. Team will find unconscious miner (#4) with a DI required (index card). Team will do assessment, place under oxygen and place on stretcher. Teams will find battery phone and 3 timbers at this stop. RR test required at the unsafe with a DI (index card) required to be placed at the unsafe. GT is required inby the plane. NOTE: IF team decides to timber through the unsafe roof to bring patient to the surface, discount under rule 41b.

Team will bring patient back to the surface.

Team will more than likely travel back to the unsafe roof and timber through.

AT this time, nothing else the team can do. Only 4 miners have been found, with only one area that have not explored (inby water). Problem states to locate all missing miners and means are available to continue to explore.

At this time see vent 1 and 2.

NOTE: Vent 2 timbers must be set and battery mine phone removed to surface or between fan and caved area.

NOTE: Fan can only be reversed once. IF they request to reverse fan more than once. Let them and then discount under rule 50.

After the 3rd vent has been completed, team can pump water.

Placard must be turned over by judges to read "knee deep".

Team stop #15

Team will advance up #2 entry into the intersection. Zigzag RR test required in the intersection as team advances. DI required (index card) at the caved. Team will find dazed and confused miner (#5) who will be able to walk out (standing). DI required (index card) at the location of the miner. Captain will travel across into #2 left finding the 4 timbers and #6 body. DI required at the body (index card). Captain will travel over and find the caved. RR required with a DI (index card) to be placed at the caved. Team will also find a line curtain. GT is required inby the imaginary plane.

At this time, team will bring out the conscious miner.

Team can now perform the final vent #4.

Team must timber to the #1 body found in #1 entry before stopping the clock.

NOTE: Final vent, the explosive found at the last team stop will be only gas/contaminant left in the mine.