

2019 Craig Colorado Day 1 Written Statement

Welcome to the Mile High Coal Mine.
We appreciate your team responding to our
mine emergency.

Yesterday 6 miners were working in 7 East.
We have had no contact with them. The 7
East entries are numbered from left to right 1,
2 and 3. We sent a crew to investigate and
they could only make it to crosscut 35 in the
section due to unsafe roof and a cave. There
are 43 crosscuts in 7 East. A Fresh Air Base
has been established in crosscut 35.

Our mine has methane, some low O2, bad
roof in areas and a lot of water issues mostly
from nearby abandoned mines.

The Exhausting mine fan on the surface is
running, is guarded and cannot be reversed or
turned off or it might not start up again. All
power into the mine is locked out.
If power is required to energize any
equipment in the mine, switches will be
available at the command center which has
been set up at the mouth of 7 East.

All officials and backup teams are present.
The mine map is up to date.

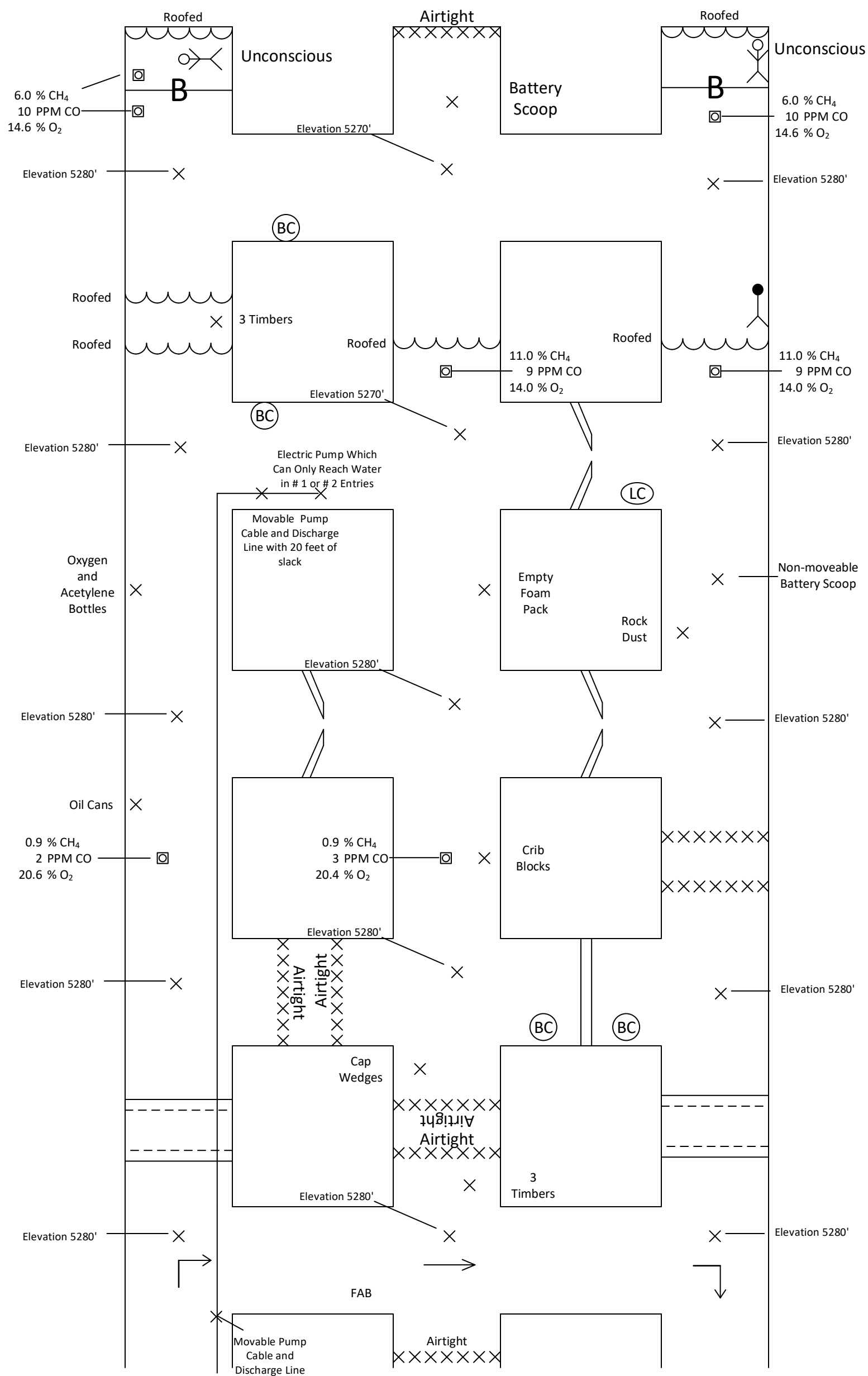
2019 Craig, CO Day 1

Written Problem

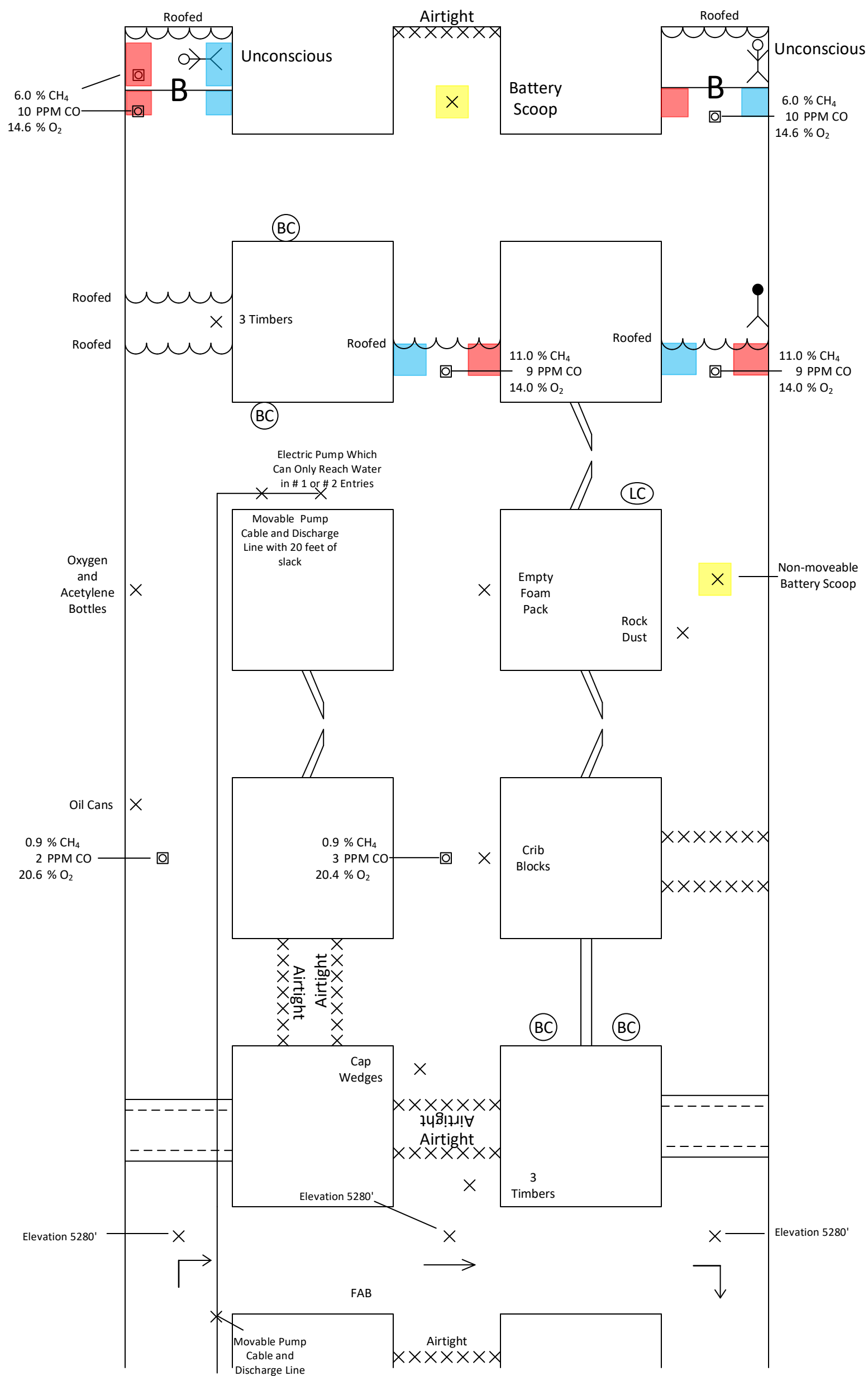
Explore 7 east up to crosscut 40 if it can be done safely and account for as many of the 6 missing miners as your team can.

Bring any live miners to the FAB.

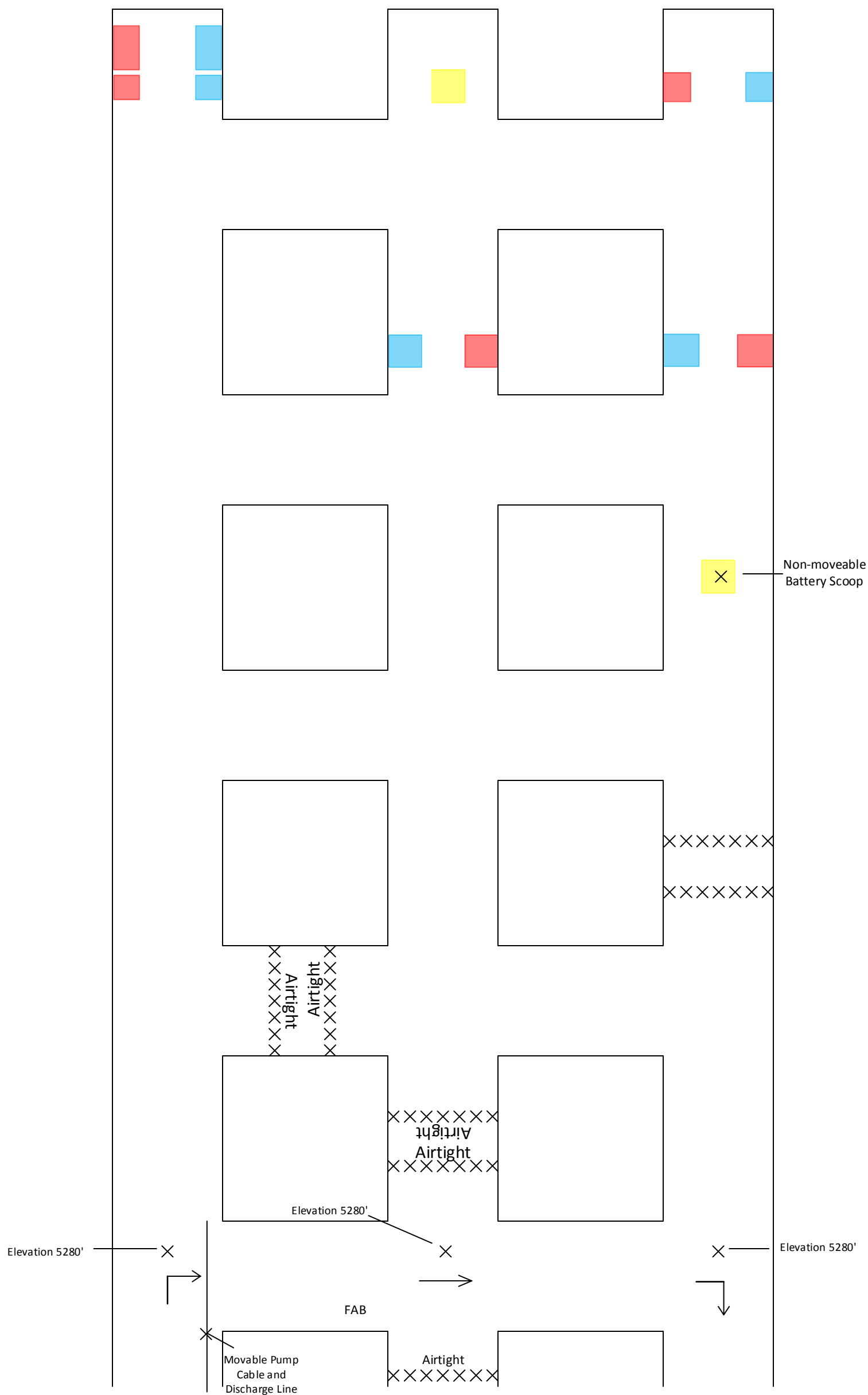
Your team is not allowed to move any battery powered equipment or associated batteries.



Gas Extents



Judges vent map



PUMP AND DISCHARGE LINE CAN ONLY REACH WATER ROOFED IN # 1 OR # 2 ENTRIES

IF PUMP IS DEENERGIZED ANY WATER PUMPED RE-ROOFS

PUMP

1 ENTRY PUMP
Team moves pump/discharge line to water inby XC 3

When pump is energized ONLY the outby water level is removed in # 1 ENTRY

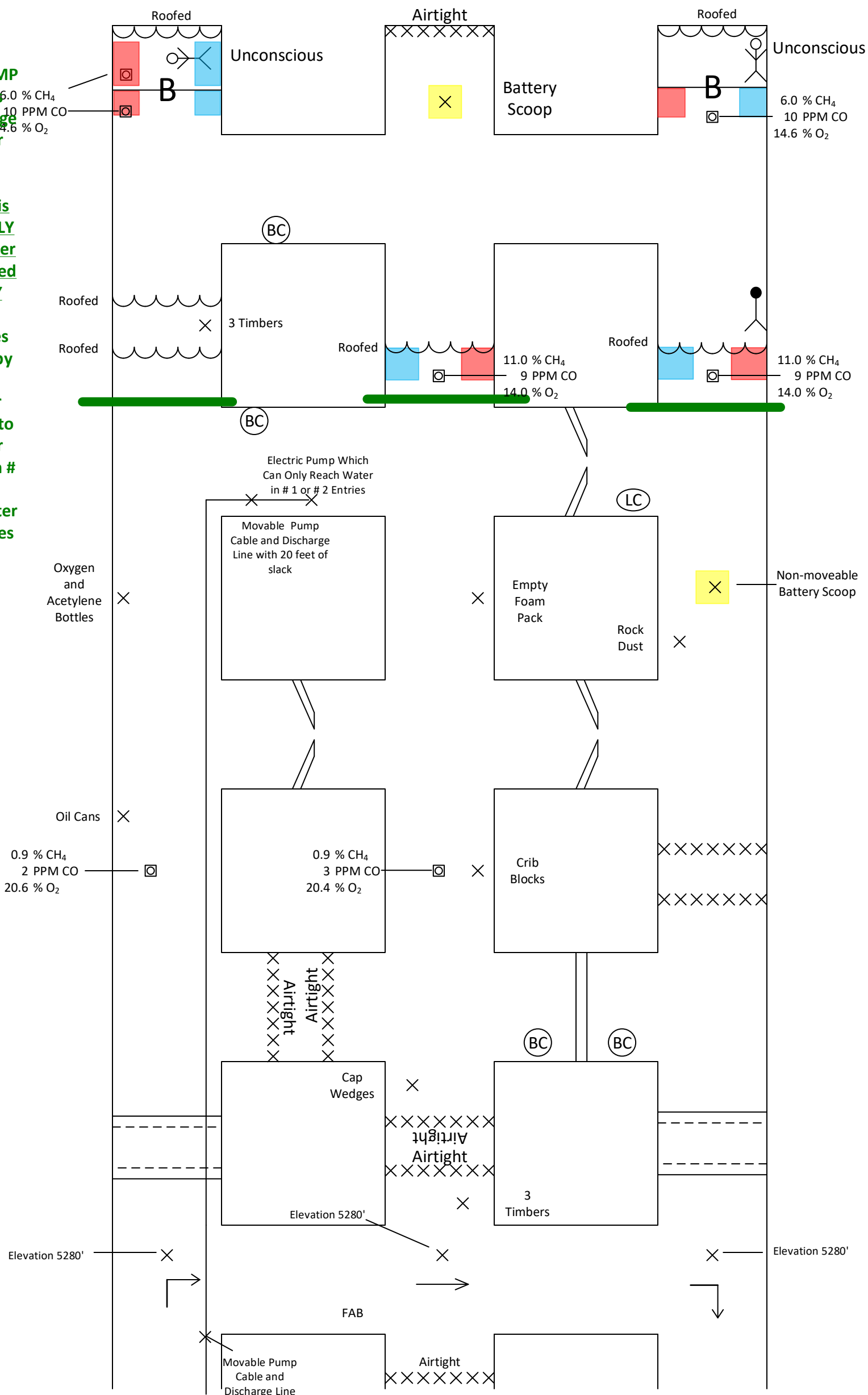
If Team places pump into inby water in # 1 Entry, water pumps down to "Water Over Knee Deep" in # 1 Entry. No Change to water in 2 or 3 entries

2 ENTRY PUMP
Team moves pump/discharge line to water inby XC 3 AFTER VENT 1

When pump is energized ALL the water levels are removed in ALL ENTRIES

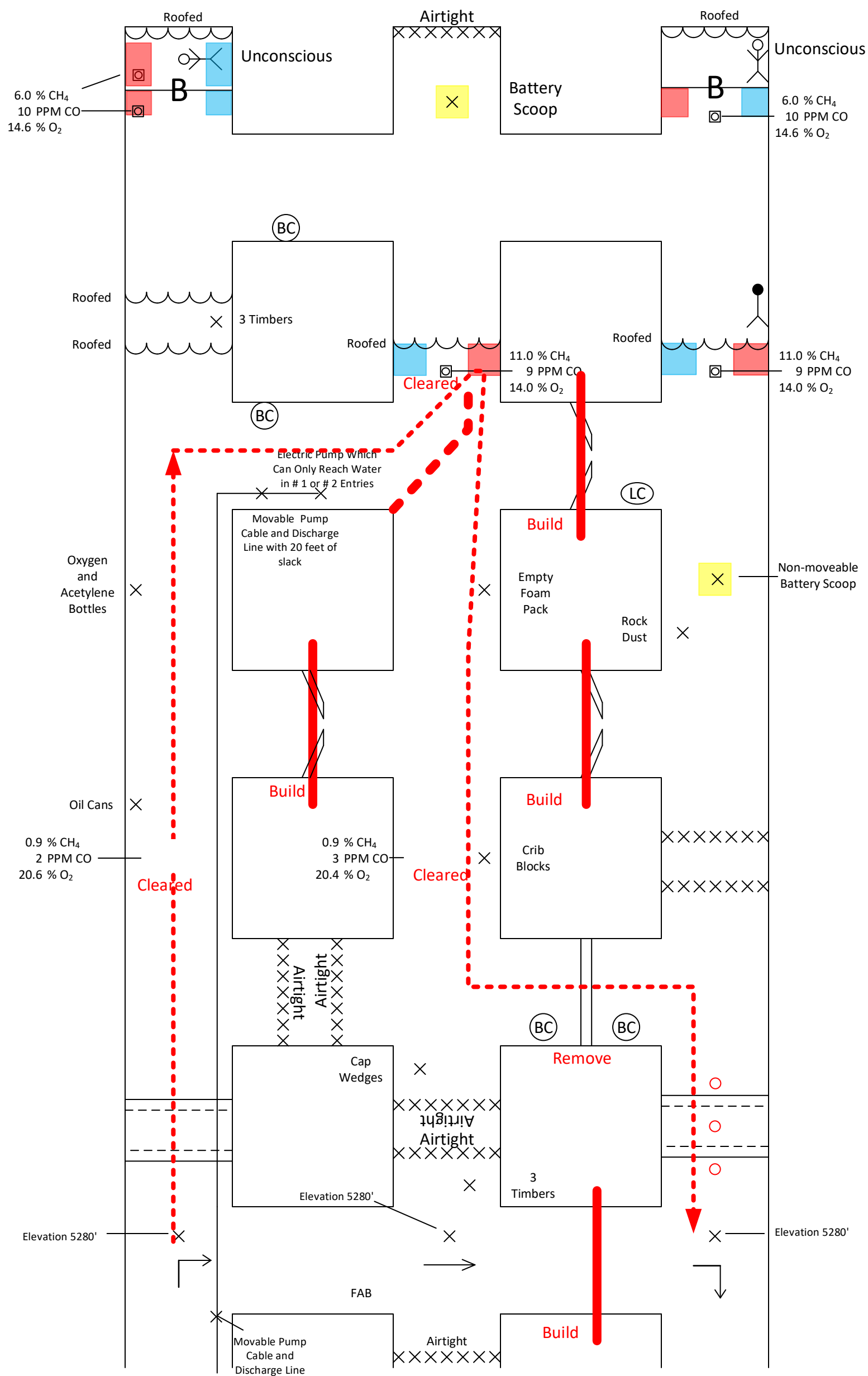
PUMP MUST REMAIN RUNNING OR ALL WATER RE-ROOFS

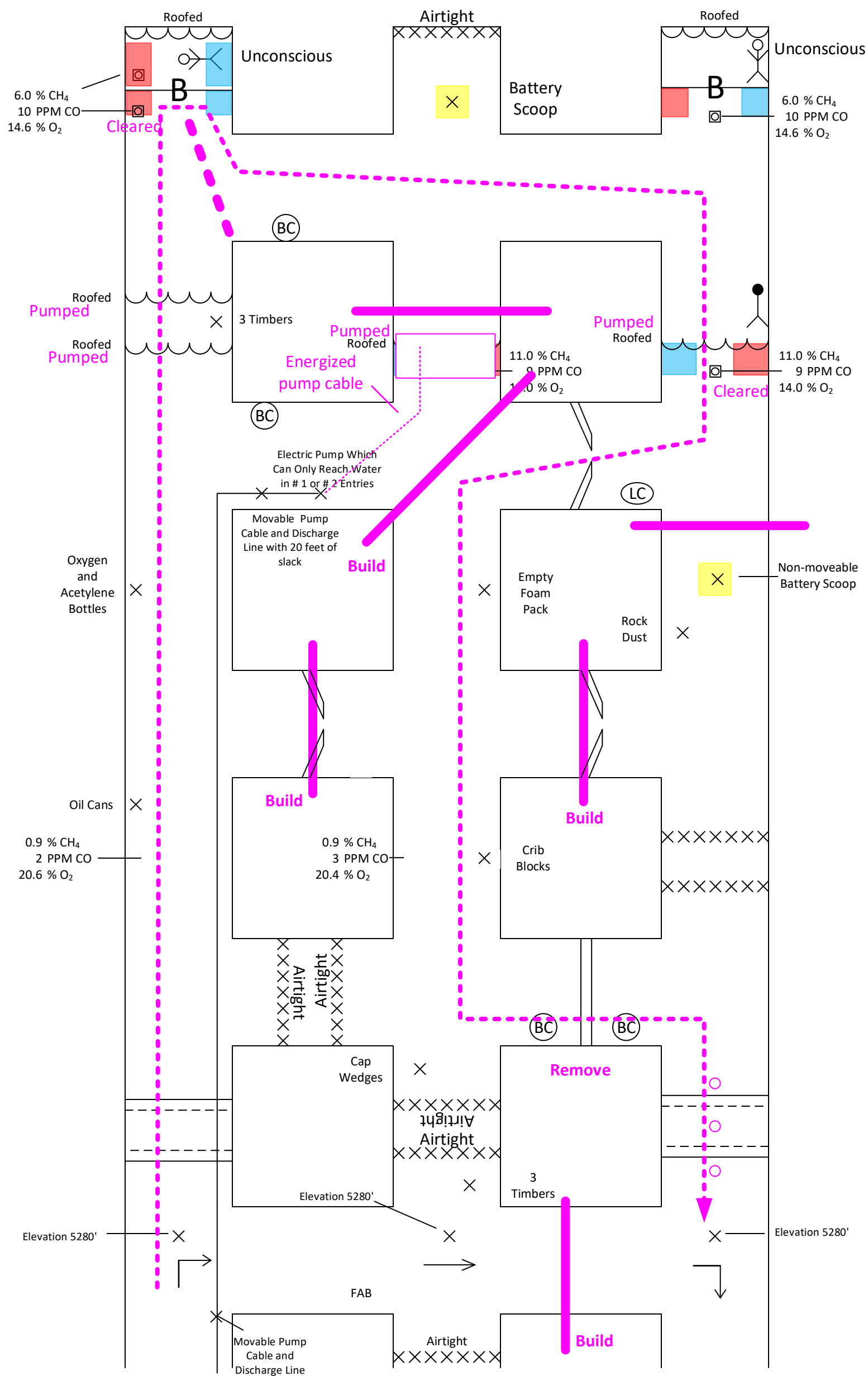
Rule 42: To pump teams Required to have 3 builds



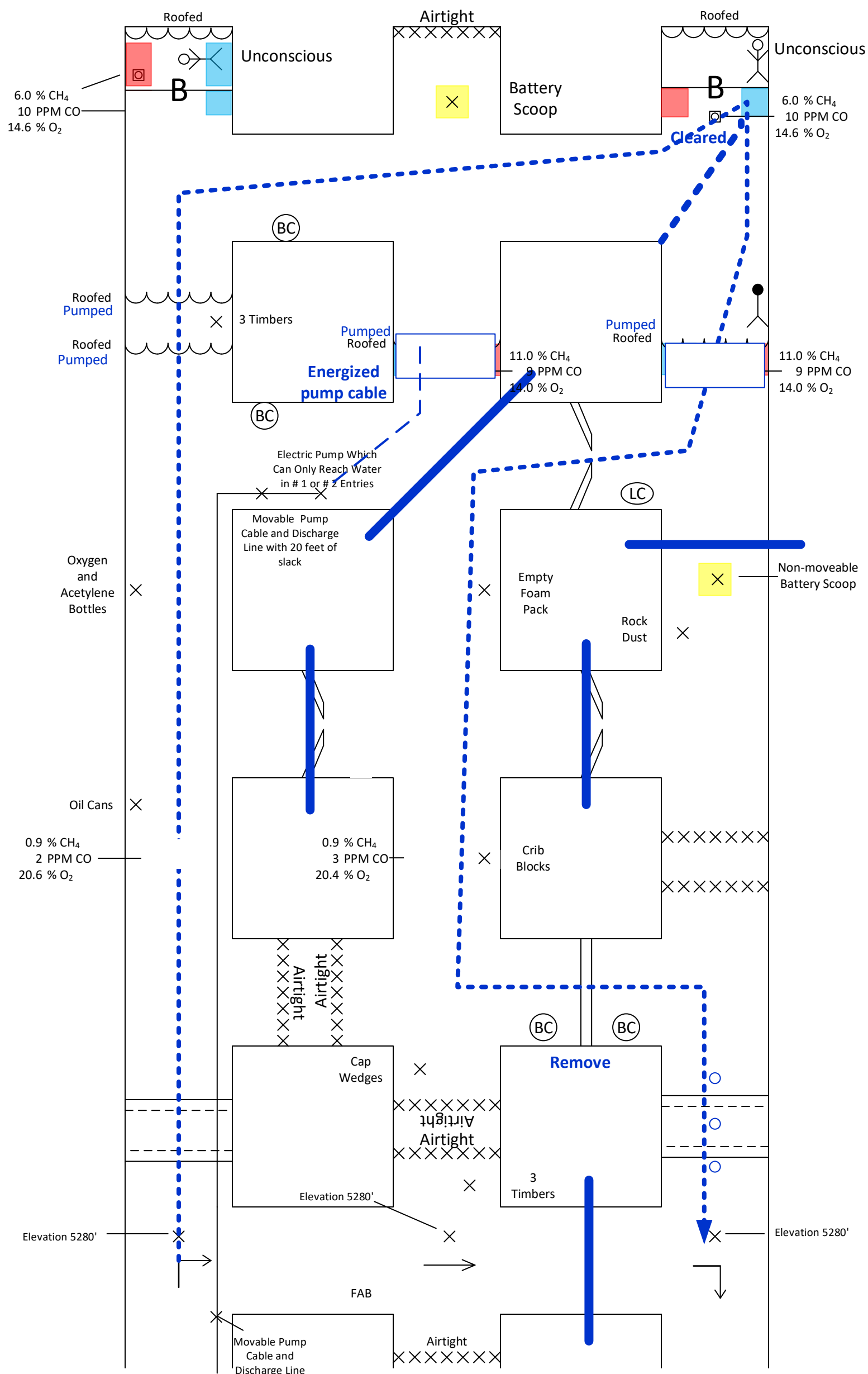
Pump Cable Energized - Deenergized

VENT 1





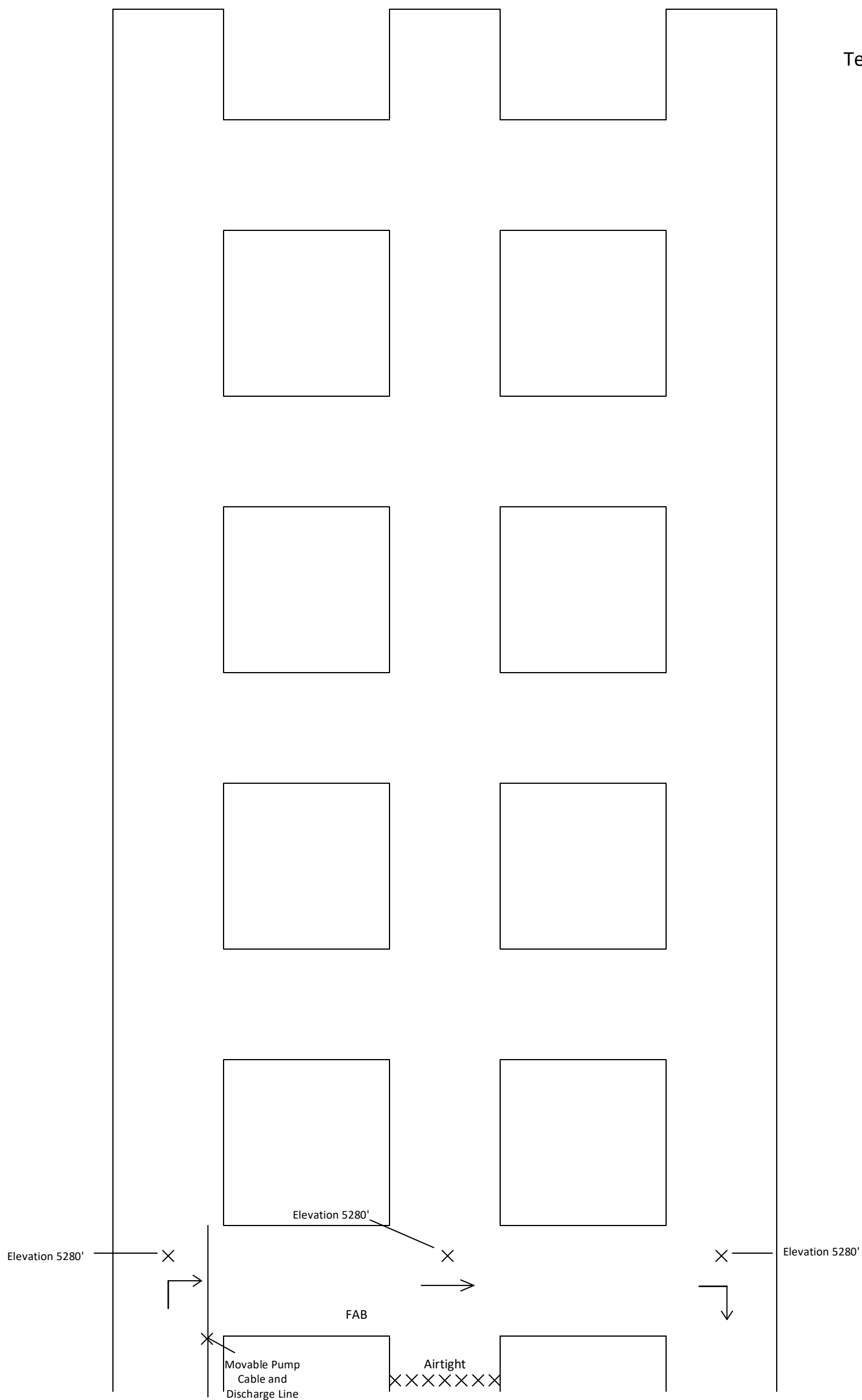
VENT 3



Final Vent Map

Judge:

Team Capt:



Craig CO 2019 Day 1 Judges Instructions

1. Initial opening checks all 3 entries at FAB. (timbers found in 2 entry).
2. Teams can timber into 1 or 3 entry. (apparatus check required when entire team inby FAB).

Timbers set in 1 E:

3. Team stop 1, 5, 6 in 1E at XC 1 – caved airtight found in crosscut 1.
4. Team stop 2, 4, 5 in 1E at XC 2 – XC open to 2 E.
5. Team stop 3 – in XC 2 in 2E – Team must tie outby.
6. Team stop 4, 2 – in 2 entry at XC 1. – Team can airlock across XC 1 to Stop 5,1 in 3E or retreat to Stop 3 and tie across to 3 E to Stop 4,6 but if latter, cannot advance inby XC 2 until stop 5,1 is made. XC's 1 and 2 should both be tied in.
7. Teams can advance into XC 3 from any entry and tie in XC 3 following Rule 44.

Water roofed found inby XC 3 in all entries. Explosive mixtures found in 2 and 3 entries. Movable pump and discharge line can only be placed in 1 or 2 entry water. 1 airlock build required outby water in each entry prior to pumping. (rule 42) If timbers were set in 1 entry, teams DON'T have means to ventilate explosive mix in 2 entry and must pump water from 1 entry – then only the outby water in 1 Entry is pumped and 3 timbers are found. These timbers enable team to explore unsafe roof in 3 entry inby FAB and now can vent explosive mix from water in 2 entry.

Pump has to remain on or all water re-roofs in all 3 entries.

Teams can energize pump cable from switch in command center.

See pump for required builds/ airlocks

If pump is moved into inby water in 1 entry, this water pumps down to "Water Over Knee Deep" only and No change to water levels in 2 or 3 entries.

See vent 1

Teams can now move pump to 2 entry and pump water. (Water in 1 entry re-roofs when pump is turned off or moved)

When water is pumped from 2 entry ALL water placards are removed as long as pump remains energized.

8. Teams can advance to stop 10.
 9. Teams can tie in XC 4. Barricades found in 1 and 3 entries each with explosive mixtures and irrespirable outside each and no response from either. Body found in 3 entry outby XC 4.
- Teams can ventilate each barricade.

See vent 2 and 3

LUM within each barricade can be taken to FAB on stretcher (Pt. in 1 entry barricade MUST have respiratory protection)

Timbers set in 3 E:

- 7A. Team stop 5, 1 – in 3 entry at XC 1. Teams can airlock through XC 1.
 - 8A. Team stop 4, 2 – in 2 entry at XC 1.
 - 9A. Team stop 3 – in 2E XC 2. Teams can tie in XC 2 then outby in 1 entry but must make stop 1, 5, 6 in 1 entry at XC 1 before advancing inby XC 2.
 - 10A. Teams can advance into XC 3 following rule 44. Water roofed, movable pump and explosive mixtures found inby XC 3 in 2 and 3 entries respectively.
- See item 7 above for required builds – BUT since team set timbers in # 3 entry, gases outby the roofed water in 2 entry CAN be ventilated.

See vent 1

Pump can only be placed in 1 or 2 entries. Teams can now pump water.

Pump has to remain on or all water re-roofs in all 3 entries.

Teams can energize pump cable from switch in command center.

See pump for required builds/ airlocks

If pump is placed in 1 entry only the outby water is pumped.

Teams can move pump to 2 entry and pump water.

When water is pumped from 2 entry ALL water placards are removed as long as pump remains energized.

8. Teams can advance to stop 10.
 9. Teams can tie in XC 4. Barricades found in 1 and 3 entries each with explosive mixtures and irrespirable outside each and no response from either. Body found in 3 entry outby XC 4.
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End of Problem