



2016
HARLAN SAFETY DAYS
MINE RESCUE CONTEST
DAY 1

MH

**Judges Instructions
BEFORE CLOCK STARTS**

Show the pump to the team and explain that the pump is controlled by the command center. The rope attached is the power cable and discharge line and as they move the pump the rope will feed off to show the location and routing of the power cable and discharge line.

CHECKLIST AFTER CLOCK STOPPED

1. GET TEAM MAP AND BO MAP MAKE SURE BOTH ARE MARKED AND NUMBERED.
2. GET VISIO SD CARD IF TEAM IS USING IT, MAKE SURE THEY HAVE SAVED INFORMATION AND PUT IT IN TEAM NUMBERED ENVELOPE.
3. TELL TEAM TO LEAVE ALL CONTEST MATERIAL IN FAB.
4. FILL OUT FINAL MAP HAVE TEAM INITIAL.
5. GET TIME FROM TEAM TIME CLOCK AND HAVE CAPTAIN CONFIRM TIME.
6. BE SURE TO PICK UP TEAM PACKET.

**HARLAN SAFETY DAYS MINE RESCUE CONTEST
SUPERINTENDENT STATEMENT DAY 1 AND DAY 2
JULY 20 AND 21, 2016**

Thank you for coming to help us. You are located at the fresh air base of the Harco #1 mine. This is a very large mine with multiple working sections and interconnected fans and air courses.

This morning 73 miners entered the mine. Around 9:00 am this morning the incident occurred. There was a loud rush of air out the portals and the CO system alarmed. The Responsible Person tried to contact the miners underground but was not able to contact anyone. We reported this to MSHA and contacted mine rescue teams. At 10:30 am fifty miners were able to escape. The other 23 miners are unaccounted for. There are multiple mine rescue teams working different areas of the mine at the same time you will be working.

A mine rescue team was able to explore to the area inby the area you will be exploring. They were stopped by unsafe roof in the number 1 entry, water roofed in number 2 entry and caved in number 3 entry. The team was able to setup a safe return and intake inby that you can use to ventilate. The fan ventilating this area is exhausting and will pull air through the area you will be exploring if you do not maintain an airlock or you can stall both fans if they are pulling or pushing against each other. The area is currently air-locked inby the fresh air base.

The air is currently going across the fresh air base and the return has been established so you can send smoke, and any gases out and they will not travel over any ignition source or unexplored area. The fan is currently blowing.

The mine has a history of bad roof, water and methane. The mine maps are up to date. We have a competent life line person to give and take life line signals if necessary.

Please find the 5 missing miners that were in this area of the mine that you will be exploring. Thank you and good luck.

PROBLEM DAY 1

BOTH FANS CAN BE TURNED OFF, AND REVERSED BUT CAN NOT BE STALLED DUE TO CAUSING DAMAGE TO THE FAN.

TO PREVENT STALLING ONE FAN HAS TO BE BLOWING AND THE OTHER EXHAUSTING WHEN USING BOTH FANS.

THE RETURN AND INTAKE OUTBY THE FAB AND INBY AREAS HAVE BEEN EXPLORED AND IS SAFE TO VENTILATE THROUGH.

ACCOUNT FOR ALL 5 MISSING MINERS THAT ARE IN THE AREA YOU ARE EXPLORING AND BRING SURVIVORS TO THE FAB

EXPLORE ALL AREAS OF THE MINE THAT CAN BE DONE SAFELY

PATIENT STATEMENT 1

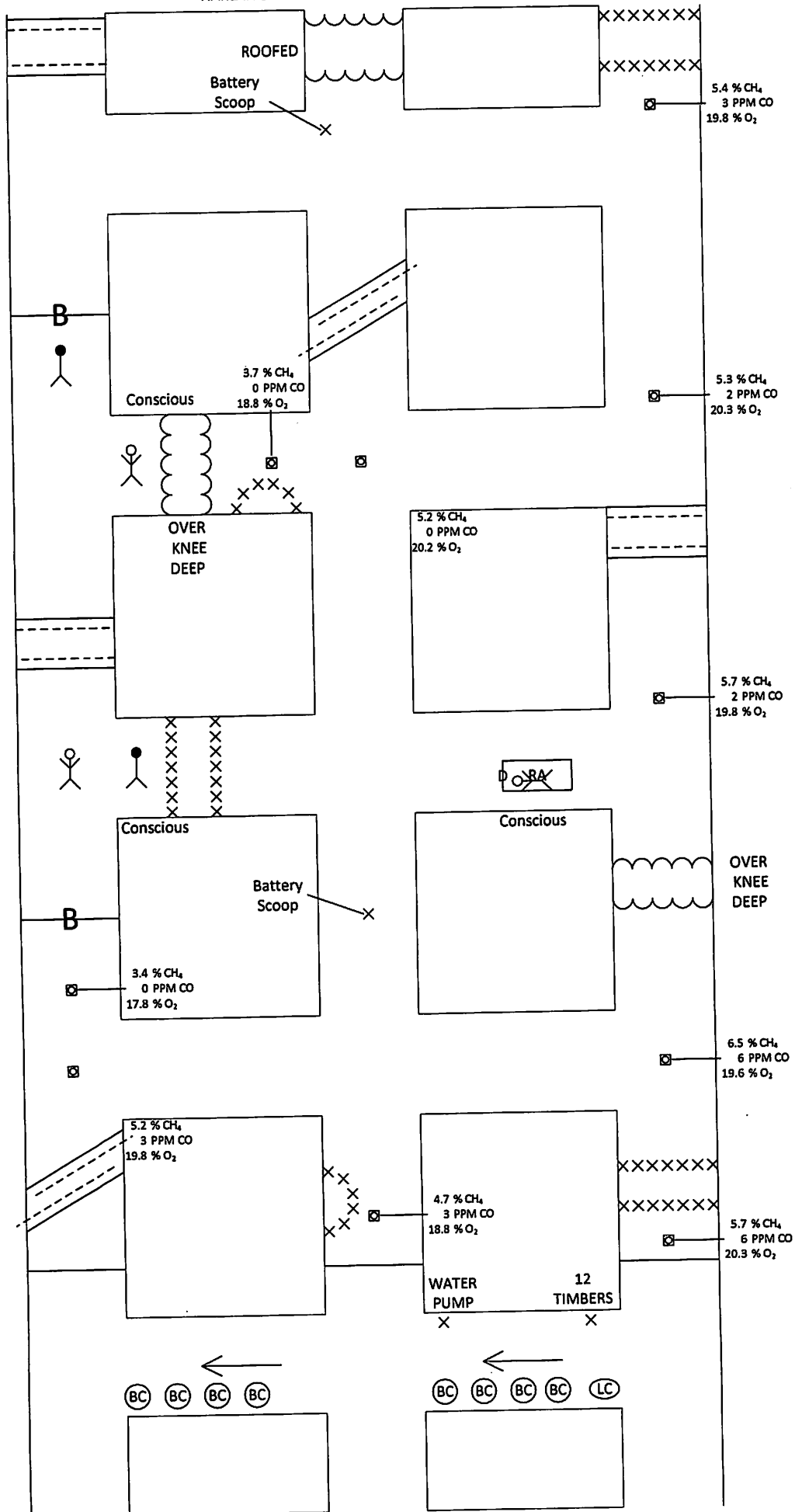
HELP!! GET ME OUT OF HERE.

PATIENT STATEMENT 2

HELP!! GET ME OUT OF HERE.

I AM BEHIND THE WATER.

HARLAN SAFETY DAYS 2016 DAY 1 PROBLEM MAP



HARLAN SAFETY DAYS RESCUE CONTEST DAY 1

JUDGES BRIEFING

Number 1 entry GT DI Airlock GT inby stopping DI GT RR
at unsafe roof.

Number 2 entry GT DI Airlock GT inby stopping DI RR ZIG-
ZAG at caved on left side.

Number 3 entry GT DI Airlock GT inby stopping DI GT RR
at caved area.

Team Stop before breaching stopping.
Team Check

Team Stop 1
Crosscut between 1 & 2 GT
Crosscut between 2 & 3 GT
Inby GT

Team Stop 2
Outby GT DI RR
Inby GT DI

Team Stop 3
Inby GT DI at barricade
Patient 1 reads statement
Outby GT DI RR

Team Stop 4
Inby GT
Crosscut between 1 & 2 GT DI RR
Crosscut between 2 & 3 GT, DI door of RA, GT inside 1st
door, GT inside 2nd door Touch Patient Assesss DI Remove
to FAB under oxygen.

Team Stop 5
Inby GT DI RR
Outby GT DI

Team Stop 6
Patient 2 reads statement
Inby GT DI RR
Crosscut between 1&2 RR ZIG-ZAG at caved GT DI
Crosscut between 2 & 3 GT

Team Stop 7
RR intersection ZIG-ZAG
Outby GT DI
Inby GT

Team Stop 8
Inby GT DI RR
Crosscut between 2 & 3 GT

Pump Water 1
Ventilation 1

Teams may get either patient at this time.

Team Stop 9
Entering barricade GT
Patient Touch Assess DI remove to FAB
Inby GT DI RR
Crosscut between 1 & 2 Body Touch DI, GT DI RR

Pump Water 2
Patient, Touch, Assess, DI, remove to FAB under oxygen

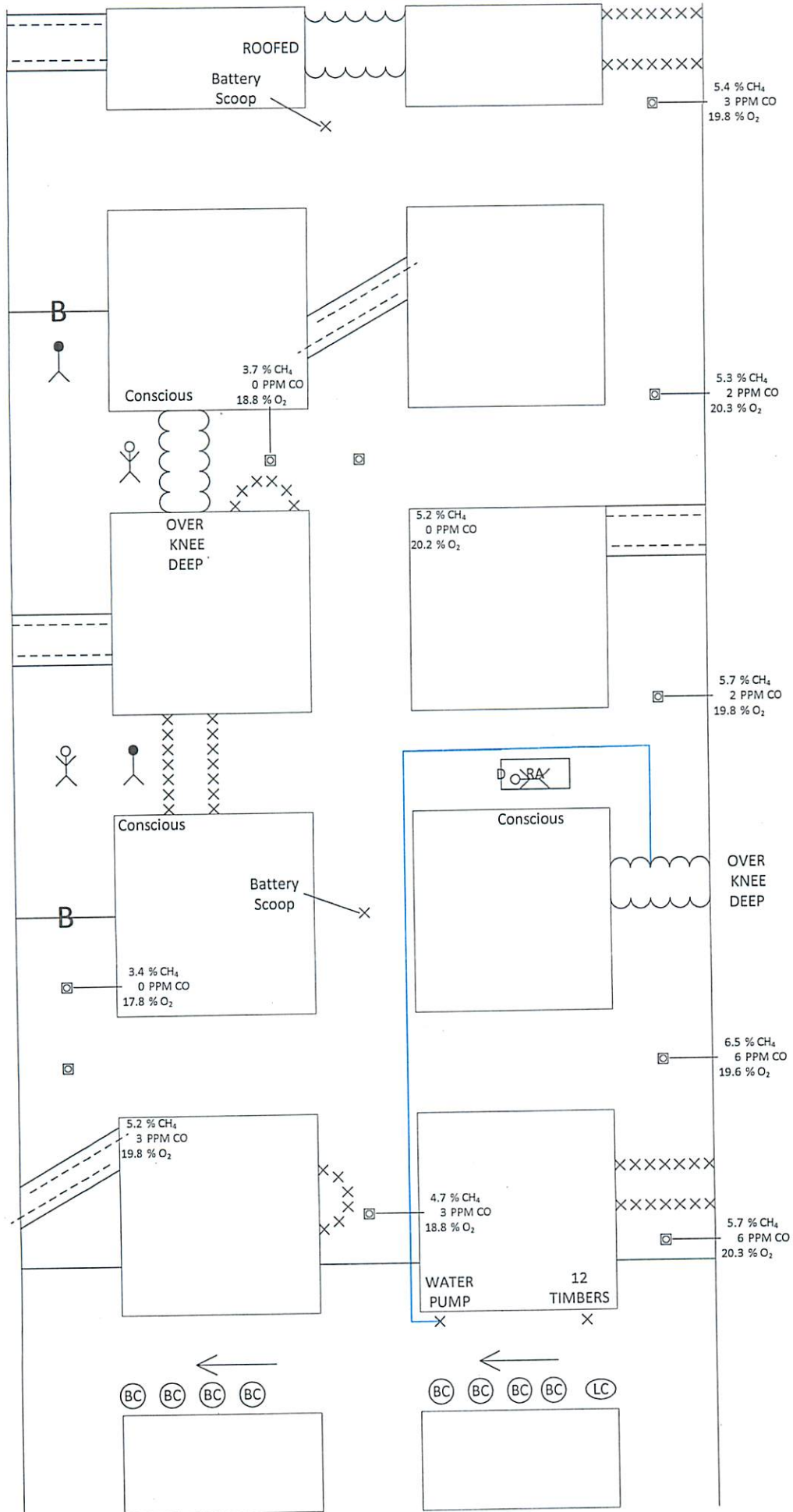
Team Stop 10
Inby body Touch, DI GT DI
Outby GT DI RR

Team Stop 11
Outby GT DI RR
Inby GT DI
Crosscut between 1 & 2 GT

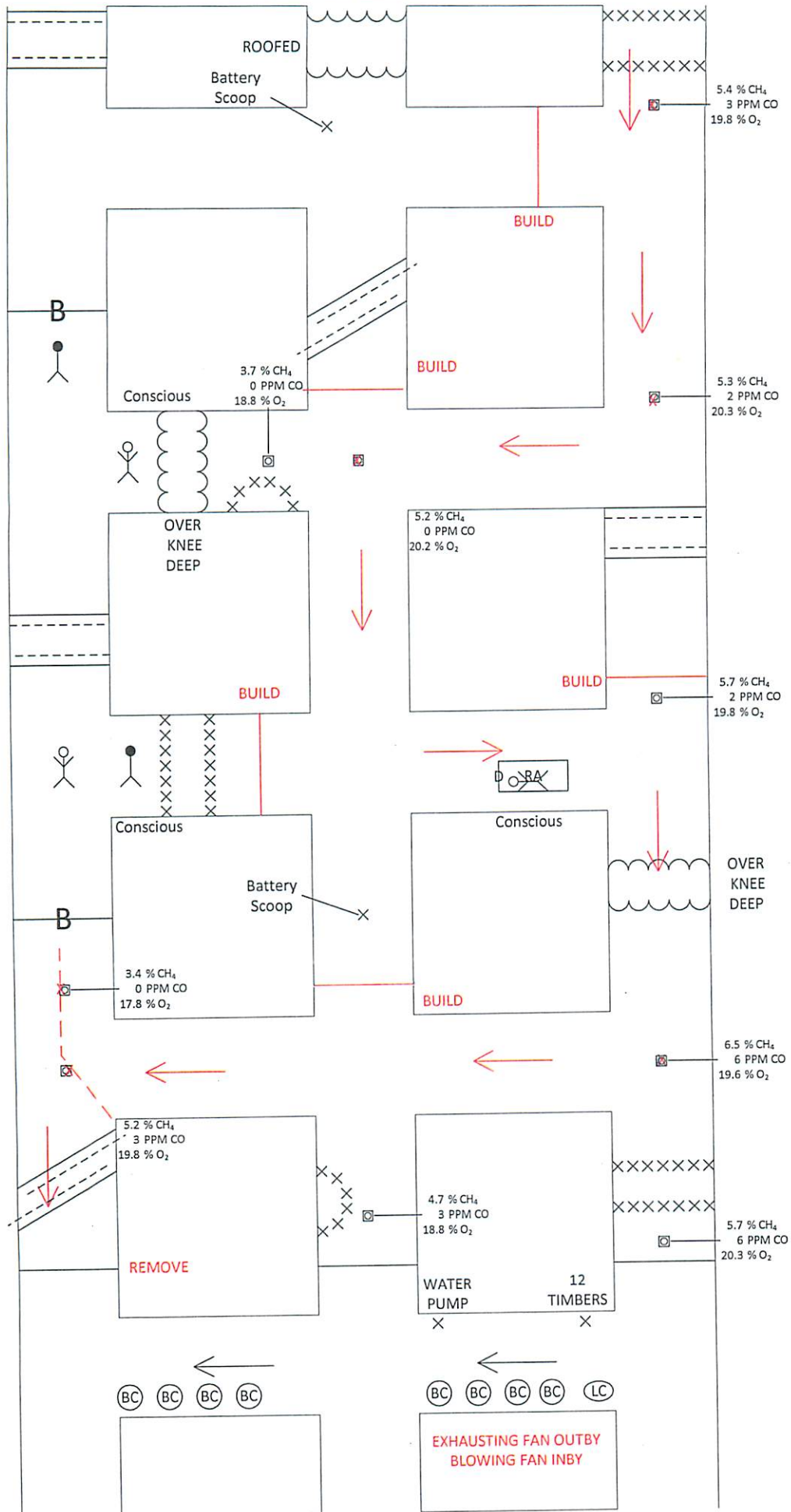
Team Stop 12
Inby GT DI RR
Outby DI GT

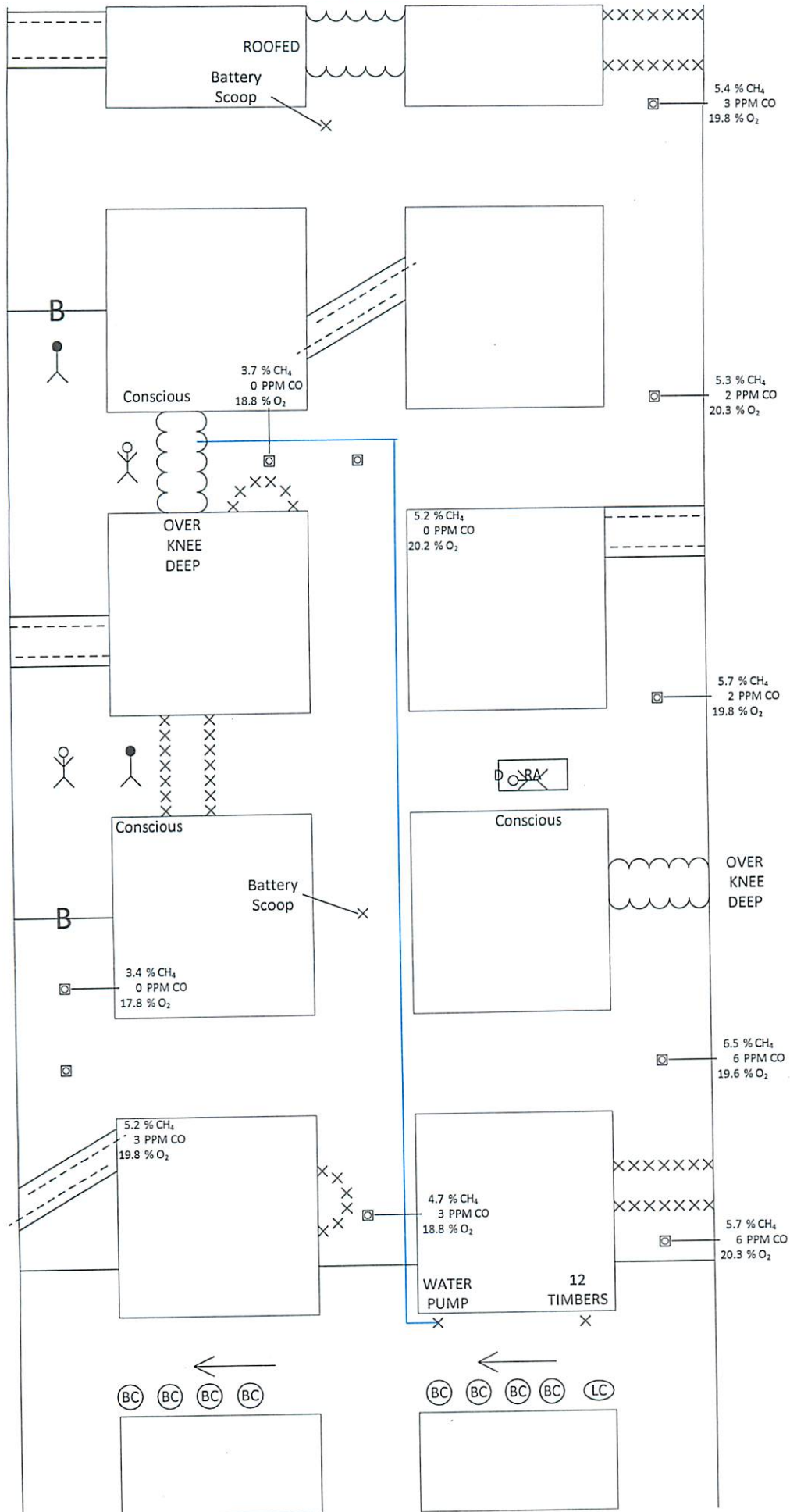
STOP CLOCK

HARLAN SAFETY DAYS 2016 DAY 1 PUMP WATER 1



HARLAN SAFETY DAYS 2016 DAY 1 VENTILATION 1





HARLAN SAFETY DAYS 2016 DAY 1 FINAL MAP

Retest
Y__ N__
5.4 % CH₄
3 PPM CO
19.8 % O₂

Retest
Y__ N__
3.7 % CH₄
0 PPM CO
18.8 % O₂

Retest
Y__ N__
5.3 % CH₄
2 PPM CO
20.3 % O₂

5.2 % CH₄
0 PPM CO
20.2 % O₂
Retest
Y__ N__

Retest
Y__ N__
5.7 % CH₄
2 PPM CO
19.8 % O₂

Retest
Y__ N__
3.4 % CH₄
0 PPM CO
17.8 % O₂

Retest
Y__ N__
6.5 % CH₄
6 PPM CO
19.6 % O₂

5.2 % CH₄
3 PPM CO
19.8 % O₂
Retest
Y__ N__

Retest
Y__ N__
4.7 % CH₄
3 PPM CO
18.8 % O₂

Retest
Y__ N__
5.7 % CH₄
6 PPM CO
20.3 % O₂

OUTBY FAN B__E__OFF__
INBY FAN B__E__OFF__

HARLAN SAFETY DAYS 2016 DAY 1 EXTENT OF GASES

