

**2015**  
**DAY #2 MINE RESCUE**  
**PROBLEM**



**SEPTEMBER 16, 2015**  
**LEXINGTON, KY**  
**JUDGES PACKET**

# NATIONAL MINE RESCUE CONTEST

## Day #2 Superintendent Statement

Thank you for answering our call for help and for your quick response. I am the mine Superintendent of the Trinity Coal Company, #1 Mine.

Last night four electricians and three examiners went to the west left panel, off 2 left mains, to repair equipment and finish weekly 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 return portal. No response has been given from anyone since that time.

You are currently located in the fresh air base at crosscut #46 on the west left panel.

This mine has a history of methane liberation, accumulating water, and bad roof.

This mine has a blowing fan which is currently on. It is being monitored and guarded. When in blowing mode, air enters the section in the #1 entry and exits down #3 entry. Due to electrical problems, the fan can only be reversed (as many times as needed). The fan can not be stopped or stalled. To reverse the fan, you must ask the superintendent to do so.

No other electrical power is currently available, but we do have certified electricians working on the problem. The teams will be notified when power is available to pump water, etc.

All authorities have been notified.

The seam height here is about 7 foot. All outby areas have been explored and the mine map is up-to-date.

There is a trained mine rescue team here as a back-up.

We have a trained lifeline judge.

All face-down placards will be turned over by the captain prior to he/she passing the placard.

Please find the missing miners, thank you and Good luck.

## **PROBLEM**

**ACCOUNT FOR ALL MISSING MINERS AND  
BRING SURVIVORS TO THE FAB**

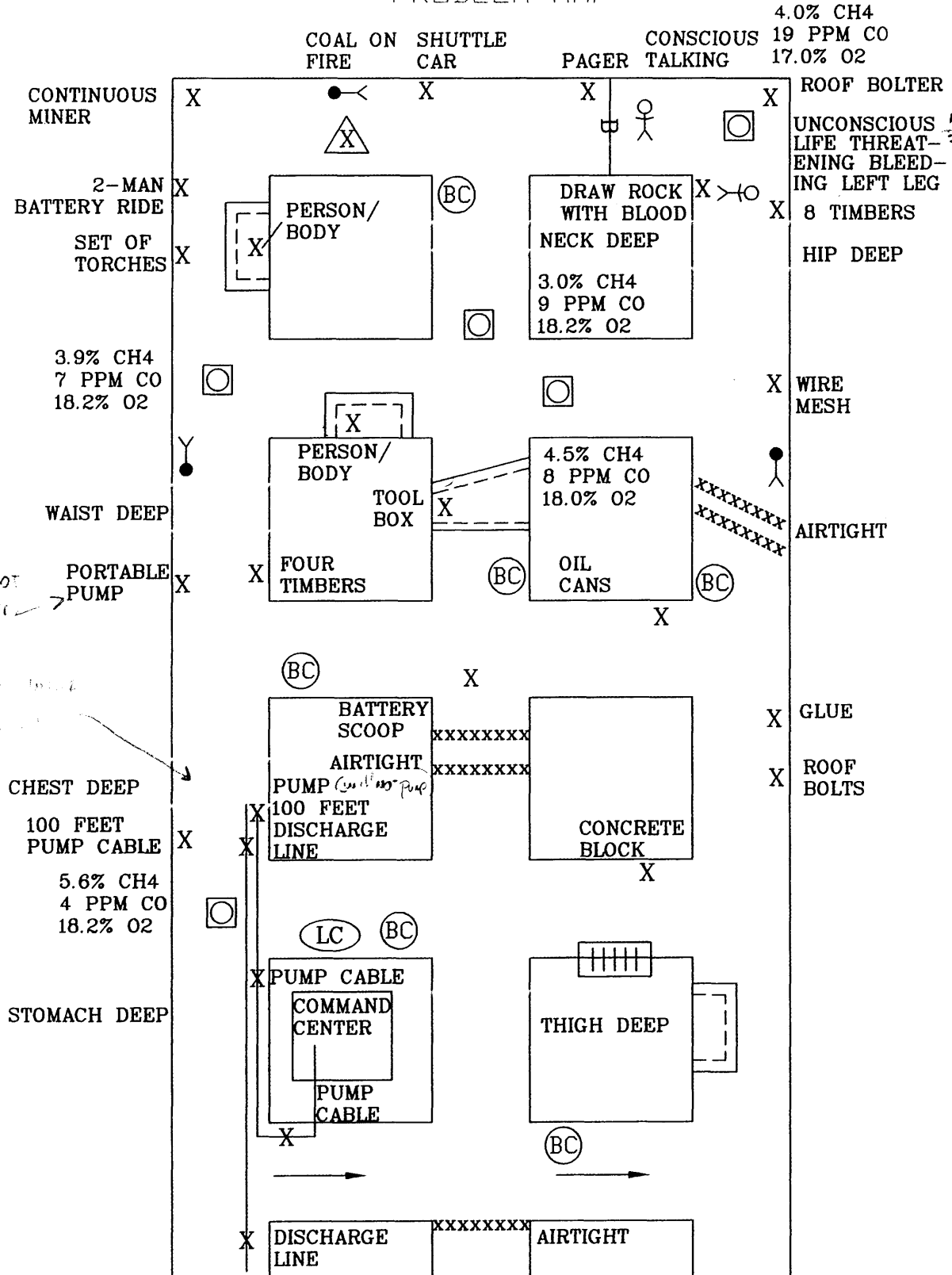
**EXPLORE ALL AREAS OF THE MINE THAT  
CAN BE DONE SAFELY**

**TEAM CAN ONLY CARRY TWO SETS OF  
BRATTICE CLOTH WHILE ADVANCING OR  
RETREATING**

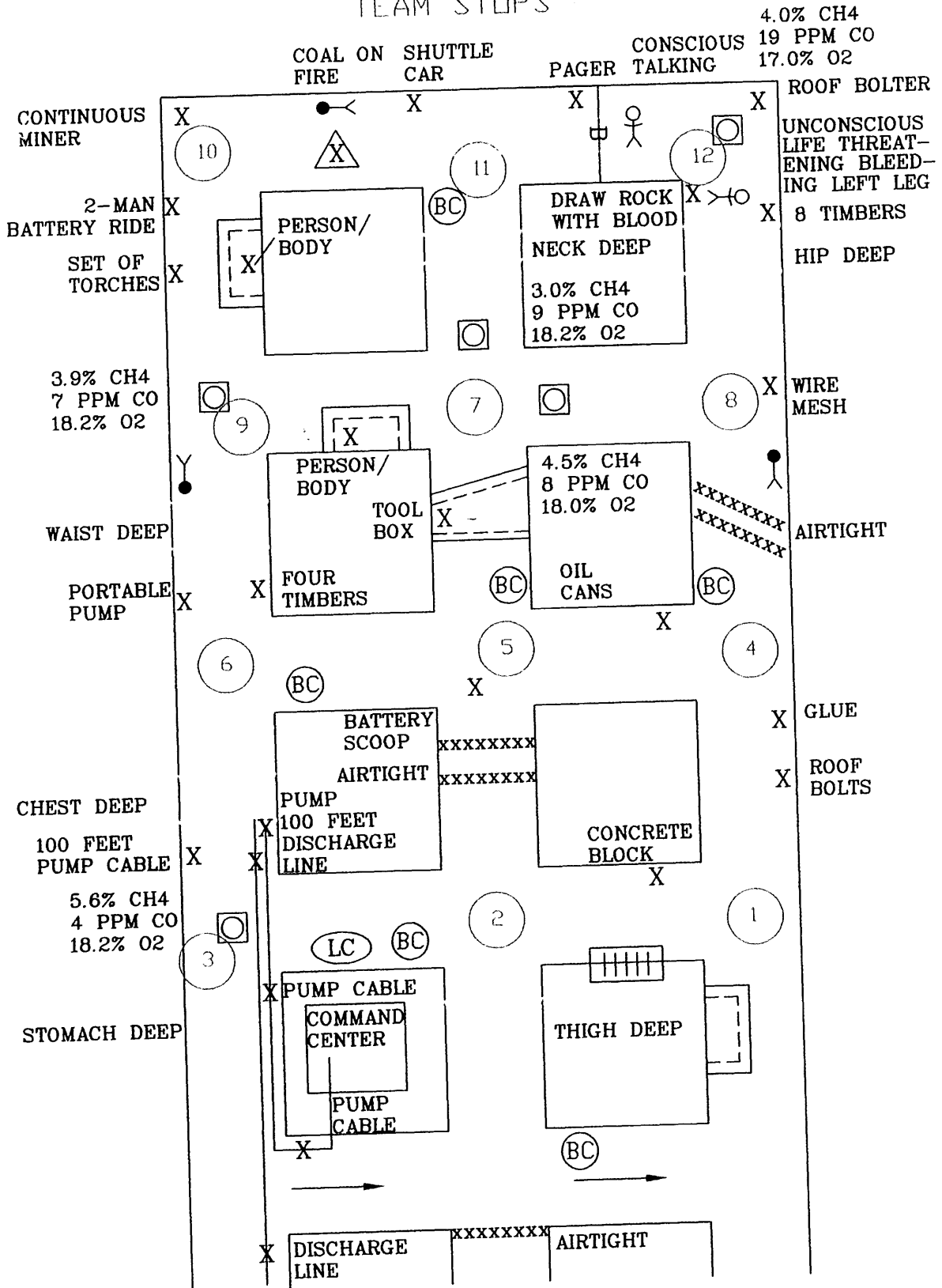
**COMMAND CENTER MUST ASK  
SUPERINTENDENT IN WRITING WHICH  
DIRECTION TEAM WANTS AIR FLOW FROM  
THE FAN. CC MUST MARK AIR DIRECTION  
EACH TIME REQUEST IS MADE.**

**TEAM HAS 75 MINUTES TO WORK PROBLEM  
BEFORE REPLACED BY A BACKUP TEAM**

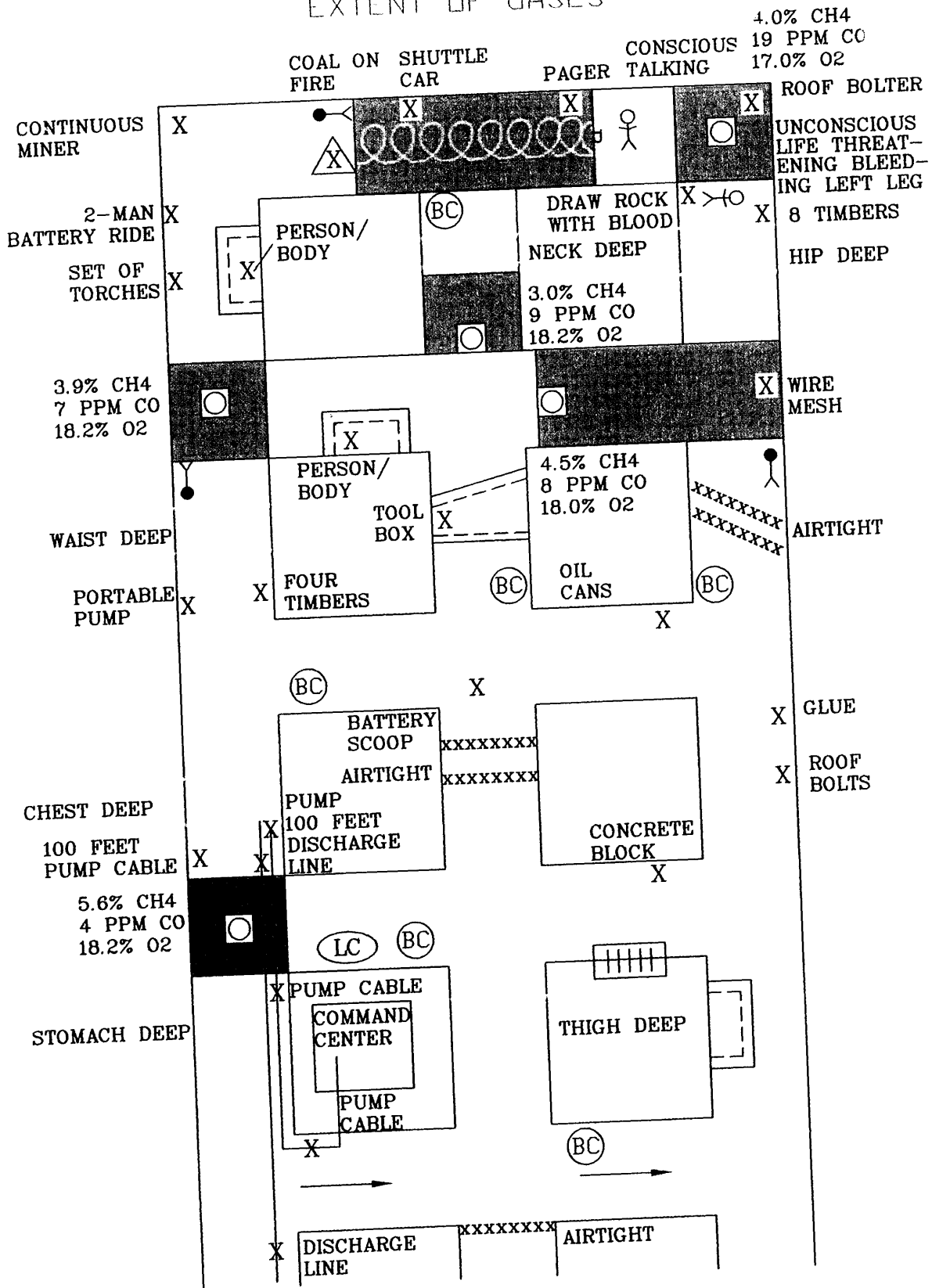
# PROBLEM MAP



# TEAM STOPS

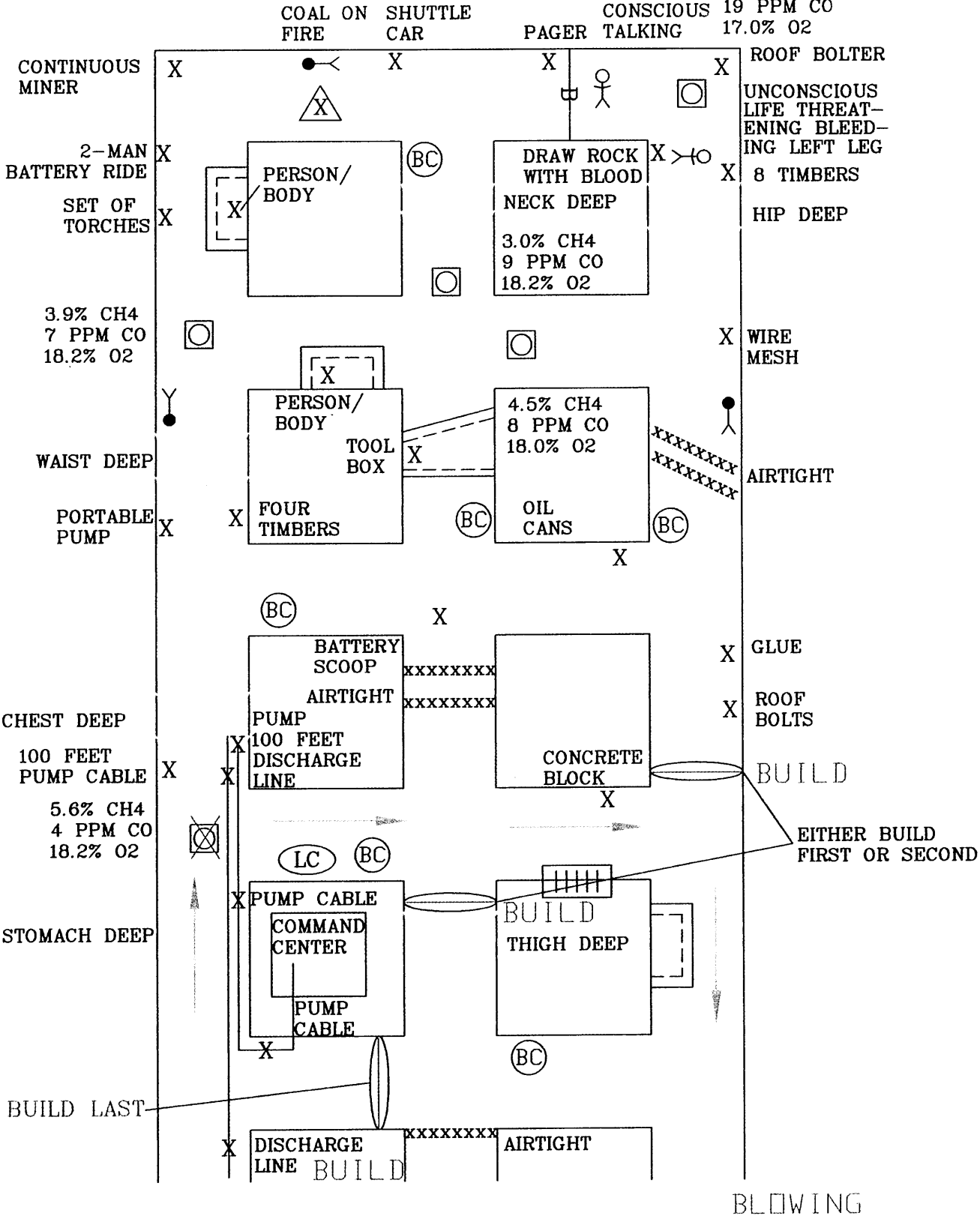


# EXTENT OF GASES

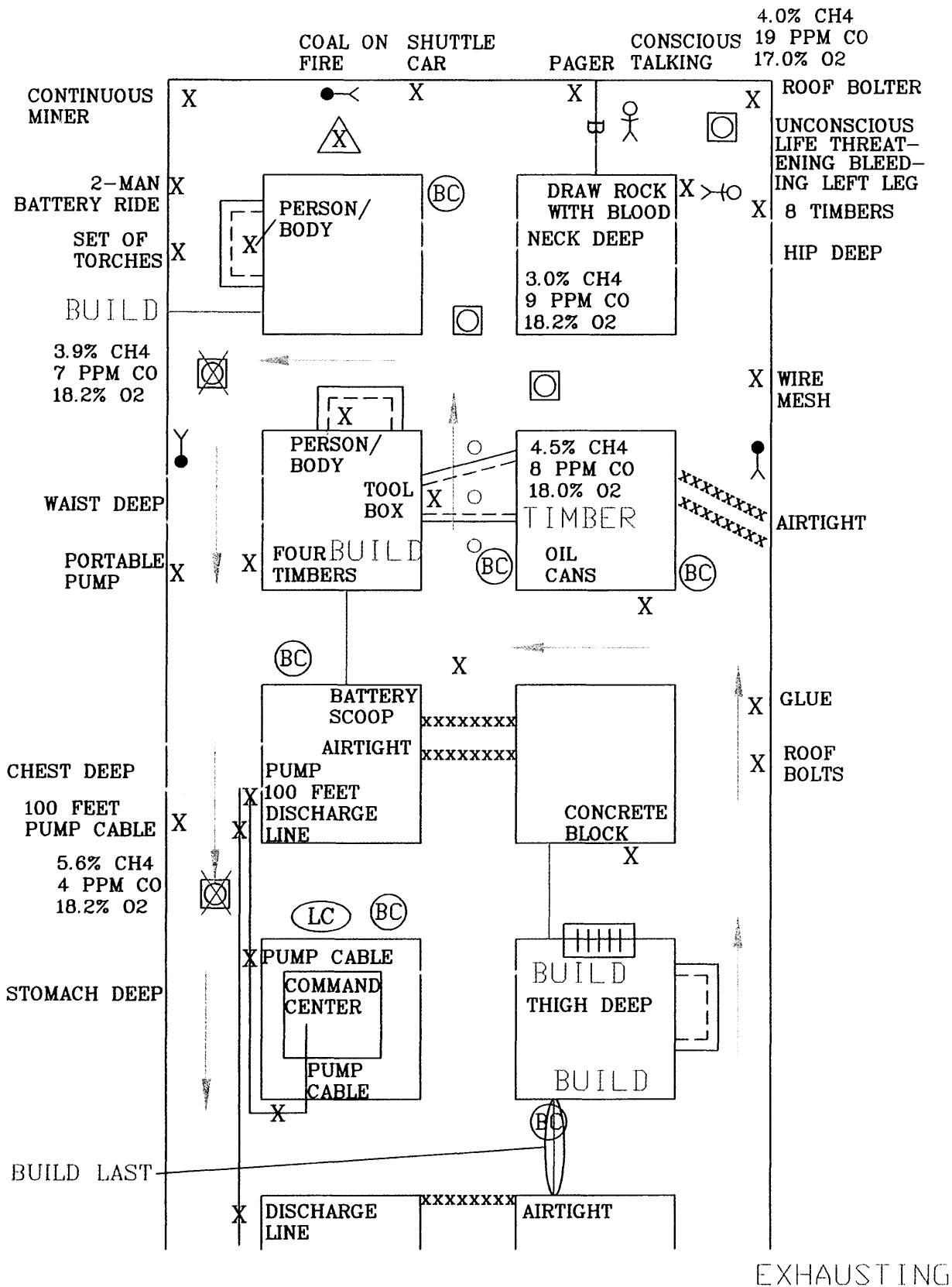


VENT 1

4.0% CH4  
19 PPM CO  
17.0% O2

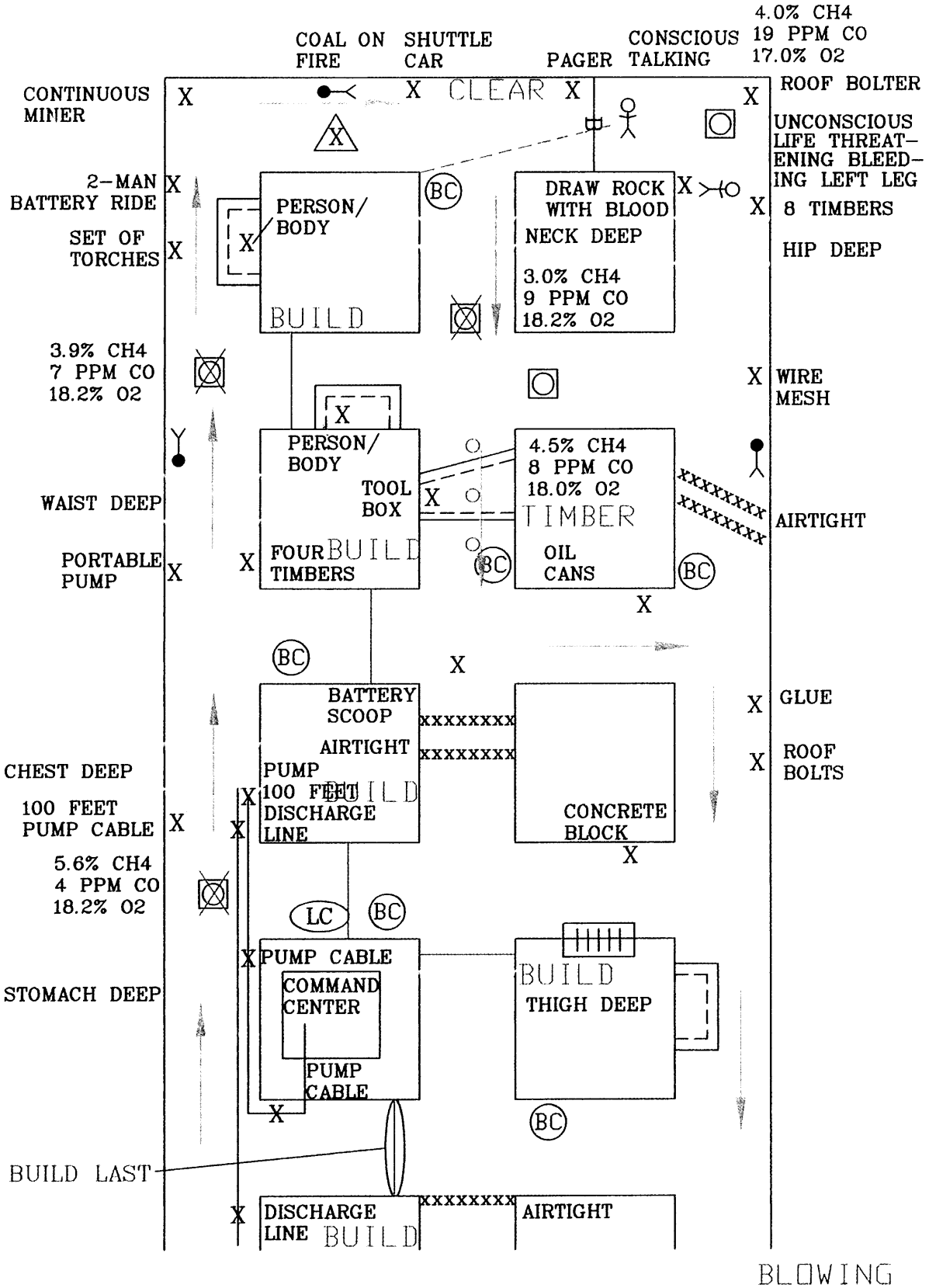


# VENT 2





VENT 3



4.0% CH4  
19 PPM CO  
17.0% O2

COAL ON SHUTTLE  
FIRE CAR

CONSCIOUS  
PAGER TALKING

CONTINUOUS  
MINER

2-MAN  
BATTERY RIDE  
SET OF  
TORCHES

3.9% CH4  
7 PPM CO  
18.2% O2

WAIST DEEP

PORTABLE  
PUMP

CHEST DEEP

100 FEET  
PUMP CABLE  
5.6% CH4  
4 PPM CO  
18.2% O2

STOMACH DEEP

BUILD LAST

CLEAR

PERSON/  
BODY  
BUILD

PERSON/  
BODY  
TOOL  
BOX  
FOUR BUILD  
TIMBERS

BATTERY  
SCOOP  
AIRTIGHT  
PUMP  
100 FEET  
DISCHARGE  
LINE

PUMP CABLE  
COMMAND  
CENTER  
PUMP  
CABLE

DISCHARGE  
LINE BUILD

DRAW ROCK  
WITH BLOOD  
NECK DEEP  
3.0% CH4  
9 PPM CO  
18.2% O2

4.5% CH4  
8 PPM CO  
18.0% O2  
TIMBER  
OIL  
CANS

CONCRETE  
BLOCK

BUILD  
THIGH DEEP

AIRTIGHT

ROOF BOLTER

UNCONSCIOUS  
LIFE THREAT-  
ENING BLEED-  
ING LEFT LEG  
8 TIMBERS  
HIP DEEP

WIRE  
MESH

AIRTIGHT

GLUE

ROOF  
BOLTS

BLOWING

## FAN CHANGE REQUESTS

REQUEST #1

BLOWING \_\_\_\_\_ EXHAUSTING \_\_\_\_\_

REQUEST #2

BLOWING \_\_\_\_\_ EXHAUSTING \_\_\_\_\_

REQUEST #3

BLOWING \_\_\_\_\_ EXHAUSTING \_\_\_\_\_

REQUEST #4

BLOWING \_\_\_\_\_ EXHAUSTING \_\_\_\_\_

REQUEST #5

BLOWING \_\_\_\_\_ EXHAUSTING \_\_\_\_\_

**HELP! THERE ARE TWO OF US**

**BACK HERE**

**BARRICADE STATEMENT**

**HELP! THERE ARE TWO OF US**

**BACK HERE**

# JUDGE'S VENT MAP

4.0% CH4  
19 PPM CO  
17.0% O2

