

Price Mine Rescue Contest

JUNE 8-10, 2010

Price, Utah



First Place - Energy West Mining - Silver
2010 Four Corners Contest



Second Place - Utah American Energy - Blue
2010 Four Corners Contest



Third Place - Bridger Coal - Blue
2010 Four Corners Contest

MINE RESCUE

PRICE, UT MINE RESCUE CONTEST

JUNE 9, 2010

STATEMENT

I am _____, Superintendent of the No. 1 Mine. You are located at the fresh air base on the West Mains section. A maintenance crew of three persons entered the section this morning to check the water level in the section and work on the section pump. A loud noise and a rush of air from the section were later noticed by the shift foreman, who was in the mine at the time. He called the control center and ordered a mine evacuation. A mine-wide evacuation order was transmitted over the mine's PED system. The check-in/check-out board indicates that 28 of the 31 miners in the mine at the time of the incident have arrived at the surface.

The West Mains section contains two air shafts; an intake shaft with a blowing fan on the surface and a return shaft. The blowing fan is off, but can be started if needed. Both shafts are being monitored on the surface. The locations of the shafts are shown on the mine map that will be provided. An exhausting main fan on the surface is also used to ventilate the mine. This fan must remain on and cannot be reversed. The fan is being guarded and sampled.

Mine rescue teams explored as far into West Mains that they could and established the fresh air base where we are located. At present, there is no air movement into or out of the West Mains section in by the fresh air base. Air movement at the fresh air base is indicated on the mine map that will be provided. The mine map is a solid-line, up-to-date map.

The mine is walking height and supported by resin-grouted roof bolts. All electrical circuits to the West Mains section have been disconnected, locked-out and guarded. The mine has experienced adverse roof conditions and problems with water. The mine liberates 11,670,000 cfm of methane per day.

A backup team is on site and another team is on standby. All state, federal, and local officials have been notified and are on site. You will have 90 minutes to work the problem. Mine maps and instructions will be provided.

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PROBLEM

Account for all missing persons and bring all live persons to the Fresh Air Base.

Explore all accessible areas that can be done safely.

You have 90 minutes to work the problem.

Statement of Person In First Barricade

To be read by Person when team enters intersection
in front of barricade

Help! Help!

(After saying Help! Help! Person becomes
unconscious)

When the team rescues the live unconscious person
an initial assessment is required(RULE 12).

2010 – PRICE, UT MINE RESCUE CONTEST INFORMATION

- A 90-MINUTE TIME LIMIT WILL APPLY. WARNINGS AT 20, 10, AND 2 MINUTES REMAINING WILL BE PROVIDED TO THE BRIEFING OFFICER BY THE JUDGE.
- THE FOLLOWING DISCOUNTS WILL APPLY IF TEAM FAILS TO COMPLETE PROBLEM IN 90 MINUTES:
 - **RULE 51** - 15 DISCOUNTS WILL BE ASSESSED FOR FAILURE TO FOLLOW WRITTEN INSTRUCTIONS IF PROBLEM IS NOT FINISHED BEFORE THE 90-MINUTE TIME LIMIT.
 - **RULE 5** – 2 POINTS FOR EACH OBJECT/CONDITION THAT SHOULD HAVE BEEN FOUND AND MAPPED IF PROBLEM HAD BEEN COMPLETED.
 - **RULE 32** – 10 DISCOUNTS FOR EACH MISSING PERSON NOT LOCATED.
 - **RULE 33** – 20 DISCOUNTS FOR EACH LIVE PERSON NOT BROUGHT TO THE FRESH AIR BASE.
 - **RULE 45.A.** – 4 DISCOUNTS FOR NOT EXPLORING ALL ACCESSIBLE AREAS OF THE MINE THAT CAN BE EXPLORED SAFELY IF PROBLEM REQUIRES SUCH.
- **RULE 43** – WHEN VENTILATION STRUCTURES ARE MOVED THEY MUST BE COMPLETELY DISMANTLED PRIOR TO MOVING. THE BRATTICE CLOTH MUST BE REMOVED FROM THE PVC PIPING AND THE TOP CROSS MEMBER MUST BE REMOVED FROM THE SIDE UPRIGHTS. THE SIDE UPRIGHTS AND BASES CAN REMAIN TOGETHER.
- **RULE 3** – AVERAGE WORKING TIME AND OVERTIME DISCOUNTS WILL NOT APPLY TO PROBLEMS WITH TIME LIMITS.
- **VELCRO STRAP/STOPPING DESIGNATIONS** – 3 STRAPS ON CROSS MEMBER INDICATE THE STOPPING IS INTACT WITH DOOR (IF APPLICABLE) CLOSED. 2 STRAPS ON CROSS MEMBER INDICATE THE STOPPING IS NOT FINISHED OR THE DOOR (IF APPLICABLE) IS OPEN.
- **AT LOCAL CONTESTS, THE MAP MAN CAN ACCOMPANY THE CAPTAIN AND JUDGES TO EXAMINE THE FIELD AFTER THE CLOCK IS STOPPED.** AT THE NATIONAL CONTEST, ONLY THE CAPTAIN MAY ACOMPANY THE JUDGES.
- **RULES GOVERNING 2010 CONTESTS – RULE 1 – COMPARING MAPS AFTER FINAL VENT.** A) ONE PERSON CAN'T LOOK AT BOTH MAPS AT SAME TIME. B) ONE PERSON CAN LOOK AT ONE MAP AND THEN GO TO OTHER MAP AND HAVE CHANGES MADE. MAPS CANNOT BE SIDE BY SIDE TO MAKE COMPARISON.

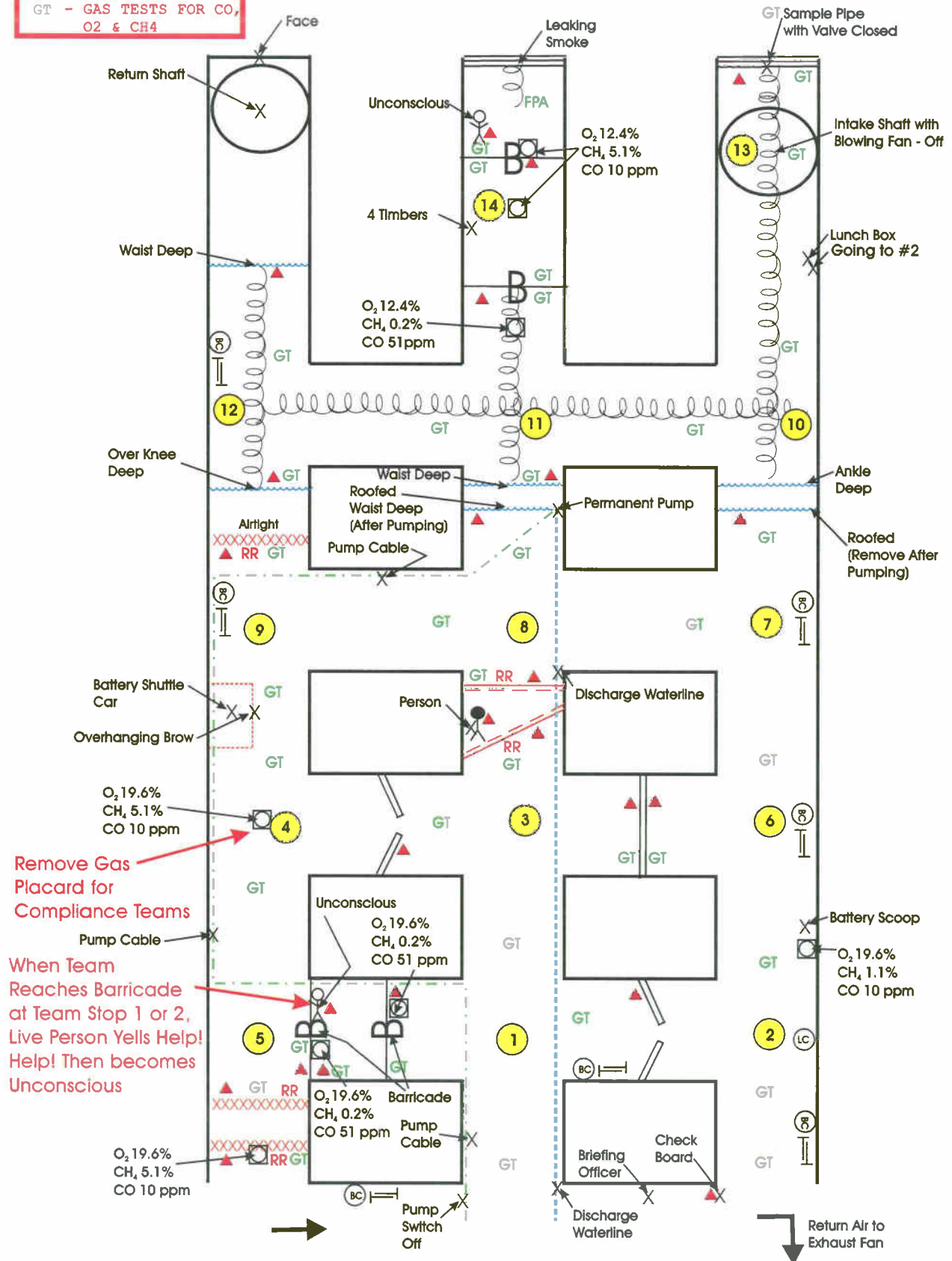
- **RULE 22** TEAMS USING RADIOS SHALL SECURE THEIR LIFELINE IN A LOCATION THAT IS CLEAR OF SMOKE AND CONTINUE WITH THAT LIFELINE TRAVELING INTO OR THROUGH THE SMOKE TO AIR CLEAR OF SMOKE, AND RETREAT THROUGH THE SMOKE USING THE REVERSE PROCEDURE.
- **RULE 30 A.** TRAVEL UNDER UNSAFE ROOF, UNSAFE RIB, OR OVERHANGING BROW. SEE FIGURES 2 AND 2 (A).
- **RULE 30 B.** TRAVEL INTO OR THROUGH WATER OVER KNEE DEEP. WHEN WATER IS ENCOUNTERED, THE EXTENT OF THE WATER WILL BE DENOTED BY PLACARDS.
- **RULE 34. FAILURE TO PROPERLY PROTECT A LIVE OR POTENTIALLY LIVE PERSON(S), EACH OMISSION___10** - PROPER PROTECTION MUST BE USED ON PERSONS EXPOSED TO OR FOUND IN IRRESPIRABLE ATMOSPHERES. ATMOSPHERES CONTAINING LESS THAN 19.5 PERCENT OXYGEN, CONCENTRATIONS OF CARBON MONOXIDE IN EXCESS OF 50 PPM OR SMOKE ARE IRRESPIRABLE ATMOSPHERES. IN AN IRRESPIRABLE ATMOSPHERE, UNCONSCIOUS PATIENTS MUST BE PROTECTED BY AN APPROVED BREATHING APPARATUS OR DEVICE WITH FULL FACE PIECE. ON A CONSCIOUS PERSON, IF CONDITIONS PERMIT, AN APPROVED SELF-RESCUER MAY BE USED. TRAINING MODELS MAY BE USED IF STERILIZED AND PROPERLY ASSEMBLED. SIMULATION OF PROPER DOWNING OF APPROVED RESPIRATORY APPARATUS SHALL NOT BE PERMITTED.
- **RULE 42.A. FAILURE TO REMOVE PATIENT(S) PROMPTLY TO THE FRESH-AIR BASE, EACH INFRACTION___6** - WHEN A TEAM FINDS A PATIENT(S), EITHER BY VISUAL OR VERBAL CONTACT, EVERY EFFORT MUST BE MADE TO REMOVE THEM SAFELY AND PROMPTLY TO THE FRESH-AIR BASE. VISUAL CONTACT WILL REQUIRE THE CAPTAIN'S PRESENCE IN THE AREA. VERBAL CONTACT IS ANY VOICE COMMUNICATION FROM THE PATIENT(S) THAT CAN REASONABLY BE EXPECTED TO BE HEARD BY THE TEAM. PATIENT(S) FOUND IN REFUGE ALTERNATIVE(S) ARE TO BE ALIVE, UNINJURED AND CONSCIOUS. ONLY ONE (1) PERSON MAY BE FOUND IN EACH REFUGE ALTERNATIVE.

PRICE, UT MINE RESCUE CONTEST - 2010

TEAM STOP MAP

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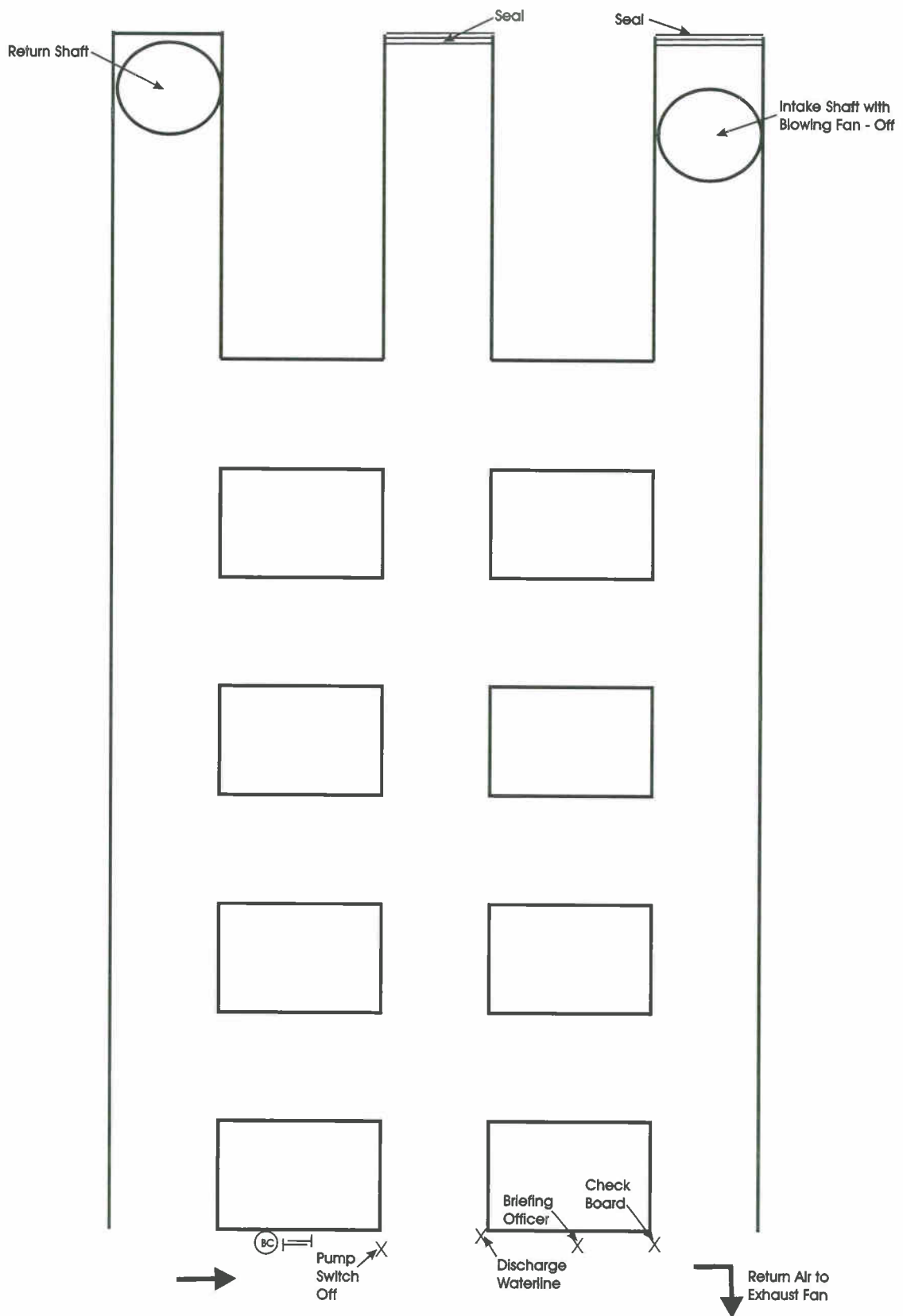
- RR - ROOF & RIB TEST
- RRF - ROOF, RIB &
FACE TEST
- ▲ - DATE & INITIALS
- GT - GAS TESTS FOR CO,
O₂ & CH₄



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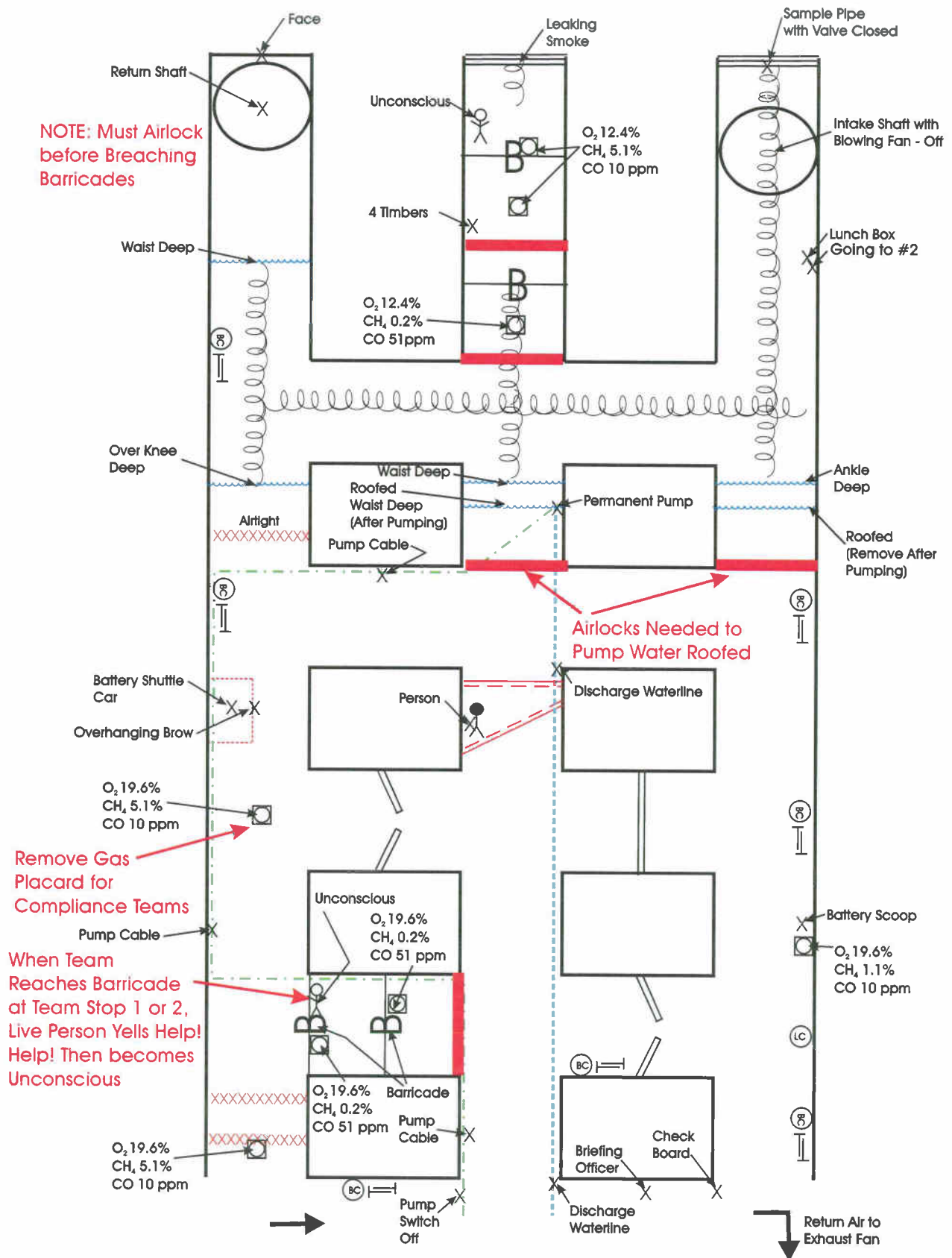
TEAM MAP

SCALE 1" = 10'

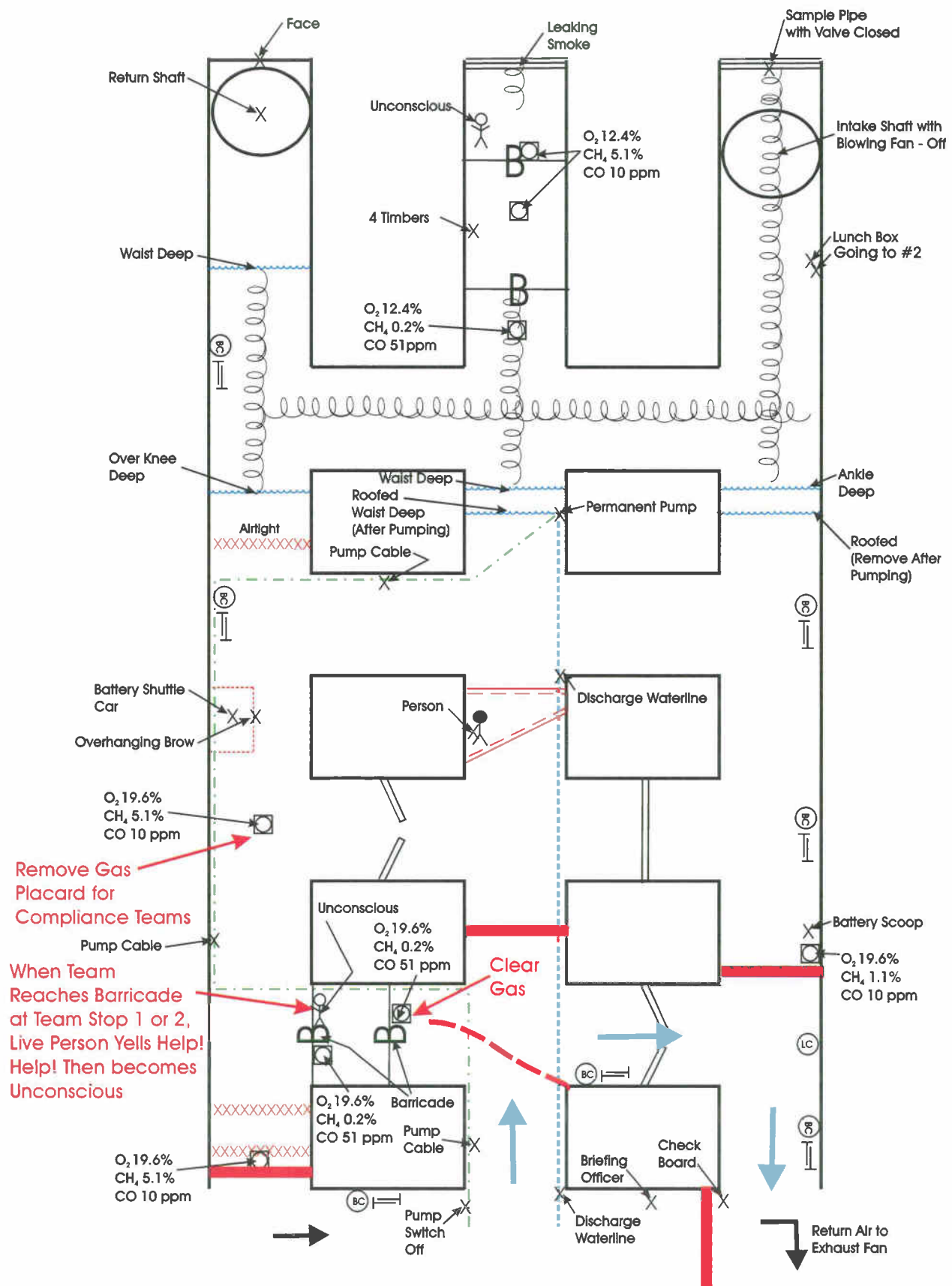


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Airlocks Required - Rule 43

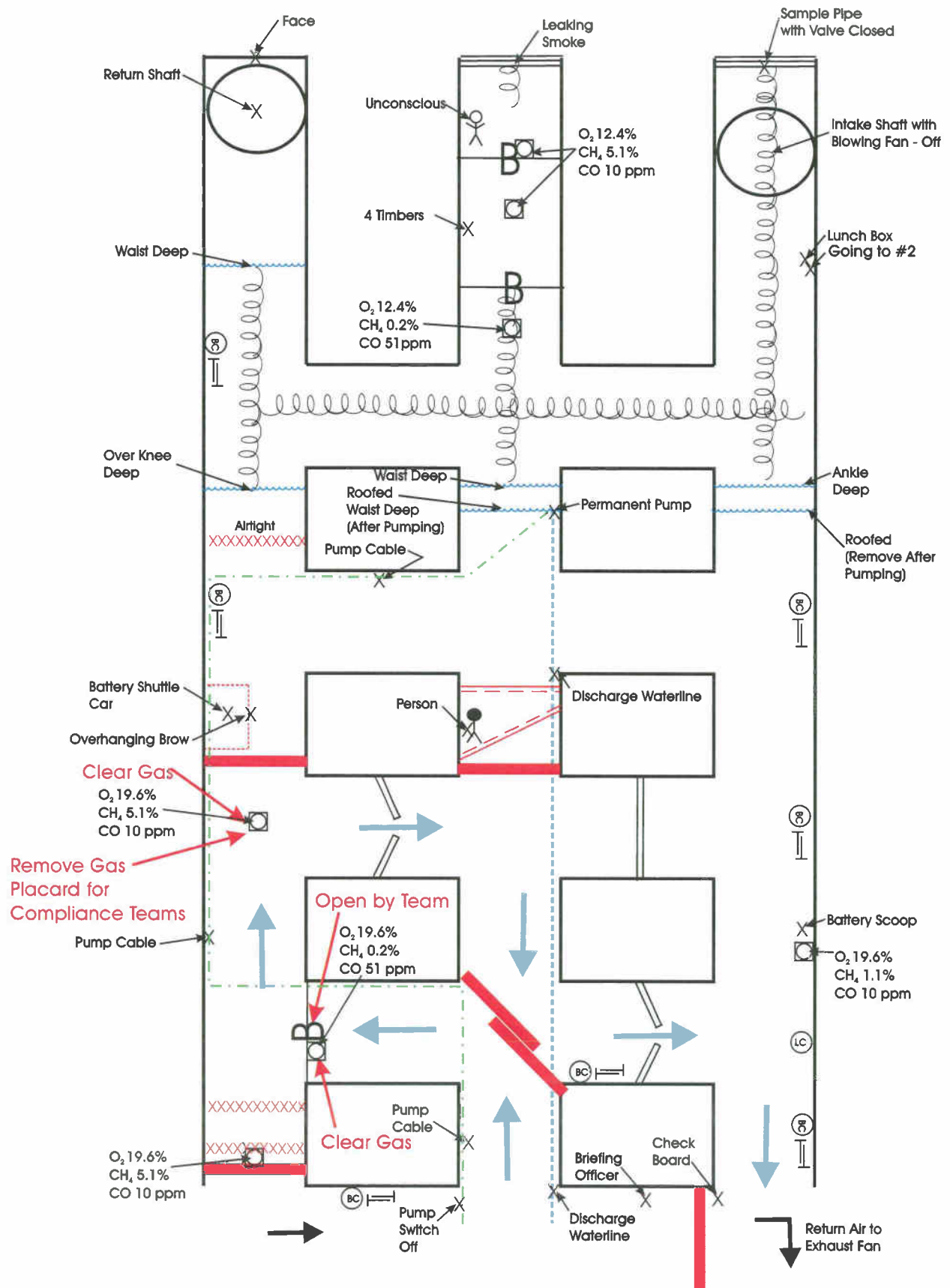


STEP 1 VENTILATION



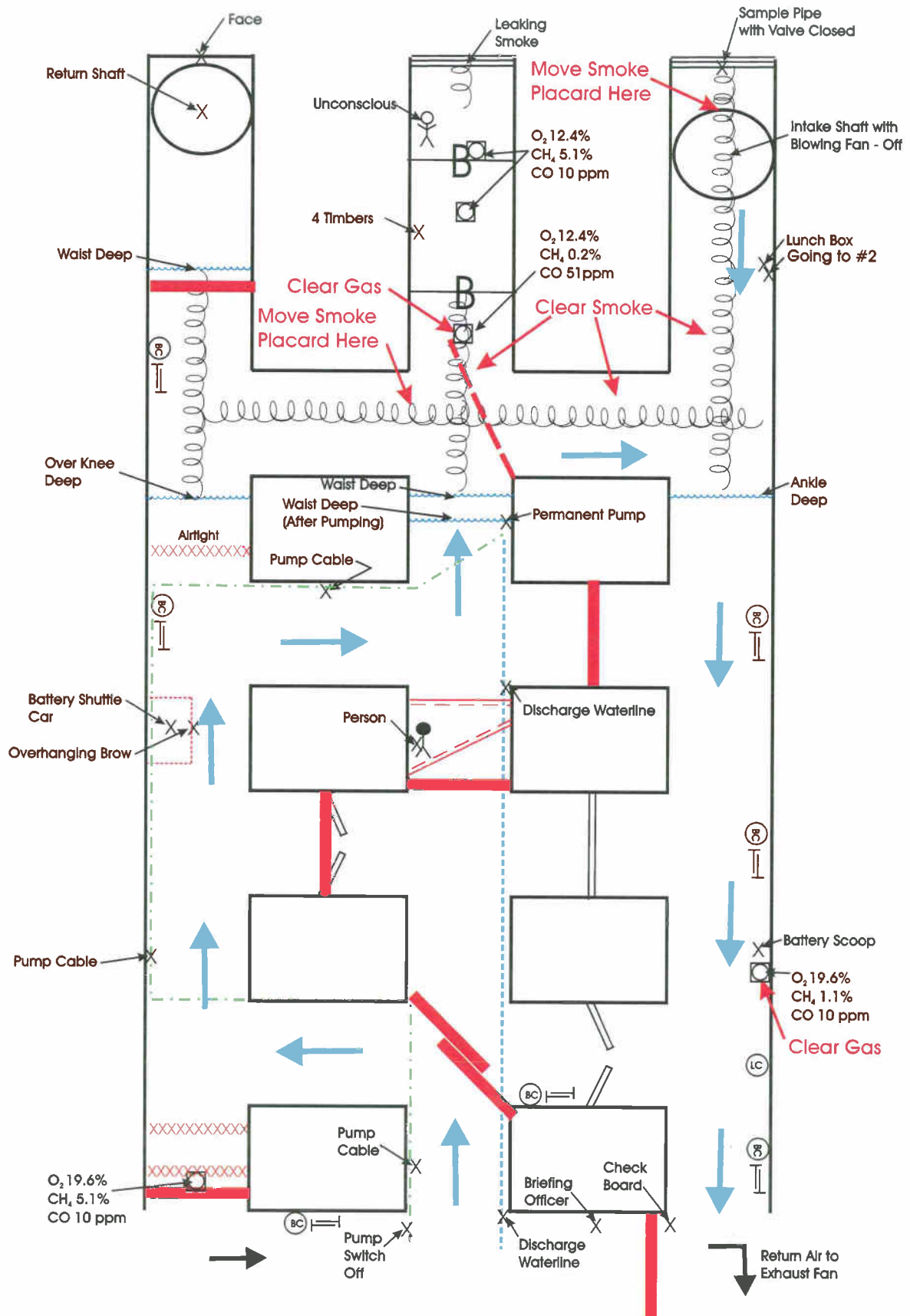
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STEP 2 VENTILATION



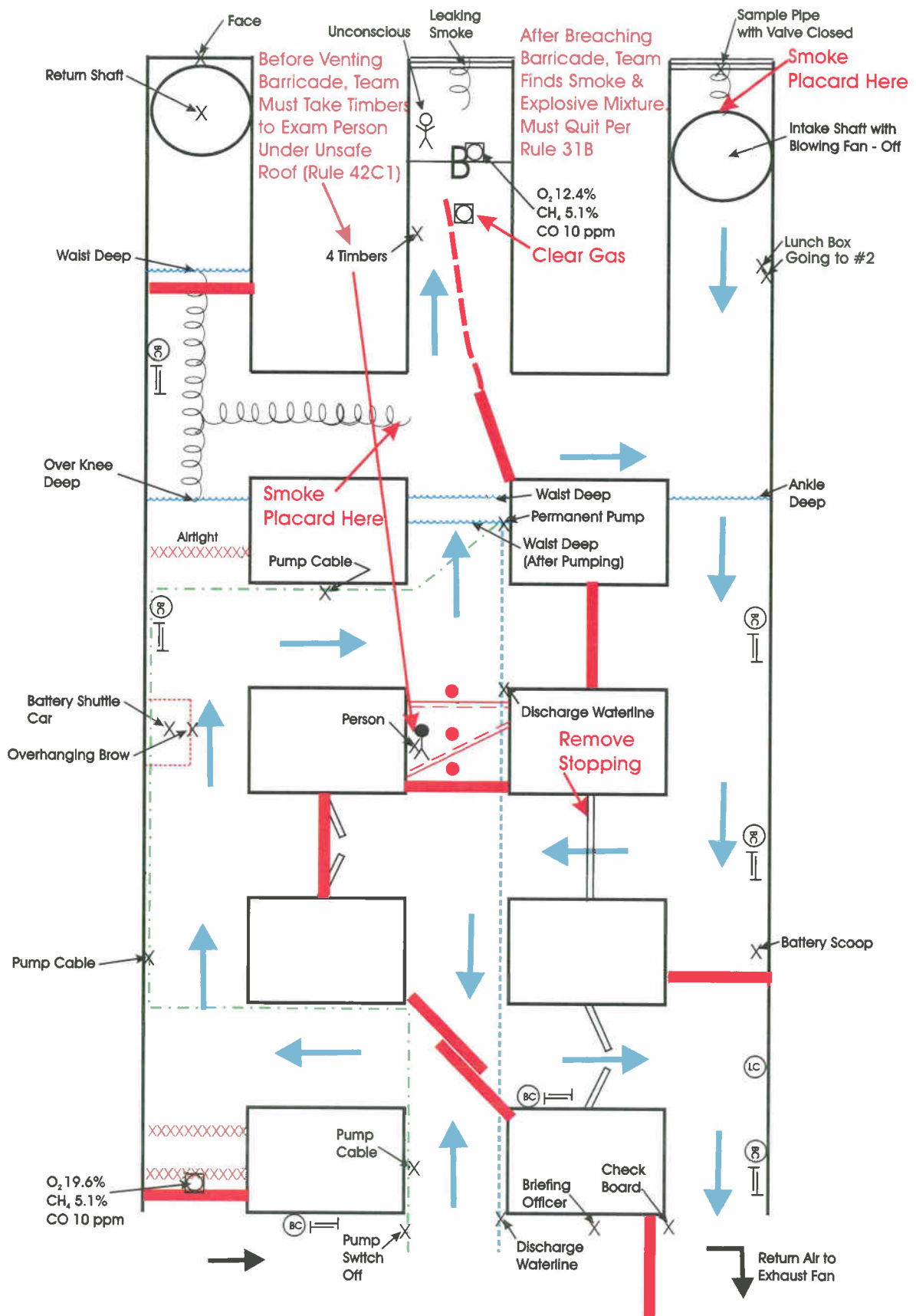
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STEP 3 VENTILATION



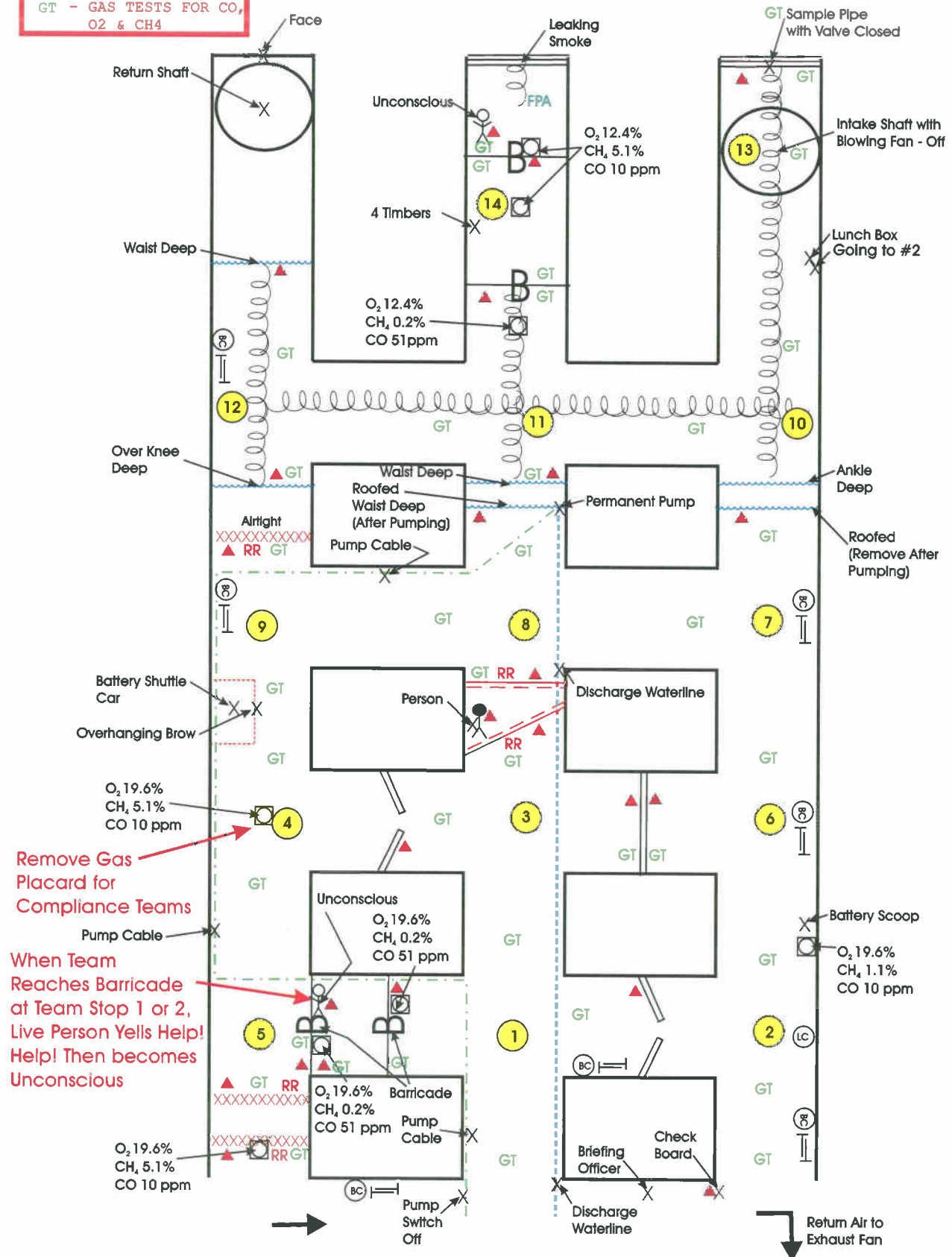
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STEP 4 VENTILATION



JUDGES MAP

- RR - ROOF & RIB TEST
- RRF - ROOF, RIB & FACE TEST
- ▲ - DATE & INITIALS
- GT - GAS TESTS FOR CO, O2 & CH4



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JUDGES VENT/FINAL MAP

