

PA Bituminous Safety Association
Mine Rescue Problem

August 21, 2018

Statement

Past Events

In 2005, BrantHenson Mining company opened the Evandale Mine. It was designed as a slope mine with the intake being composed of two entries, Main Entry 1 and Main Entry 2 are the main to intake airways. The BrantHenson company declared bankruptcy in 2010 after 3 years of the mine being idled. The mine was sealed off and abandoned. In 2012 Jensen Mining Company acquired the abandoned mine and reopened it for mining activity. Their plan was to reopen the mine, restore the main airways through the mine and reenter Section West 3 and resume mining activities in this section. The section was full of gob and they aren't exactly sure what was done in that section prior to the BrantHenson Mining Company's Chapter 11 bankruptcy. The BrantHenson Company had numerous safety violations, along with previous miner's allegations of unmapped mining. They may have mined further into the seam than the maps show. The mine is exhausting fan. The Mine has six sections with 5 of the 6 sections being sealed off.

Current Timeline

August 21 06:00 – The four-man crew entered the mine to resume loading the gob out of Section West 3 using the Miner and one shuttle car.

August 21 06:30 – The Mine foreman noticed belts were unloading coal outside.

August 21 08:00 – The section foreman called out to say they were down with a cable splice

August 21 08:30 – The section foreman called out to say they were resuming mining operations

August 21 08:40 – The Mine Foreman noticed coal on the belt coming outside.

August 21 13:35 – The Mine Foreman noticed that the belts were empty

August 21 14:00 – The Mine Foreman tried to contact the Section West 3 to see what was wrong

August 21 14:30 – The Mine Foreman left the surface and traveled into the Section West 3

August 21 15:00 – The Mine Foreman called out from the section power center phone to relay that he encountered low levels of oxygen. He had donned a SCSR and stated he was going to travel into the section. The mine superintendent ordered him to return outside, and they would contact State and Federal Authorities. The mine foreman refused and stated he was taking extra SCSR's with him as he traveled into the section.

August 21 15:14 – The mine superintendent contacts state and federal governments regarding the incident at the mine.

August 21 15:30 – The mine foreman contacted the surface via the IWT radio and stated that he had fallen in his haste to get into the section and thinks his leg is broken. He found some of the crew but thought they were dead. He is barely coherent and complains of chest pain, He has stated that he has two spare SCSR's with him and is about to change-out to one of them, he also barricaded himself in entry 3 near the continuous miner.

August 21 15:31 – Radio communication with mine foreman is lost

August 21 16:00 – State and Federal Officials are on site.

August 21 17:00 – Mine Rescue Teams are on site.

August 21 17:30 – Mine Rescue Teams are given the go ahead to start exploration.

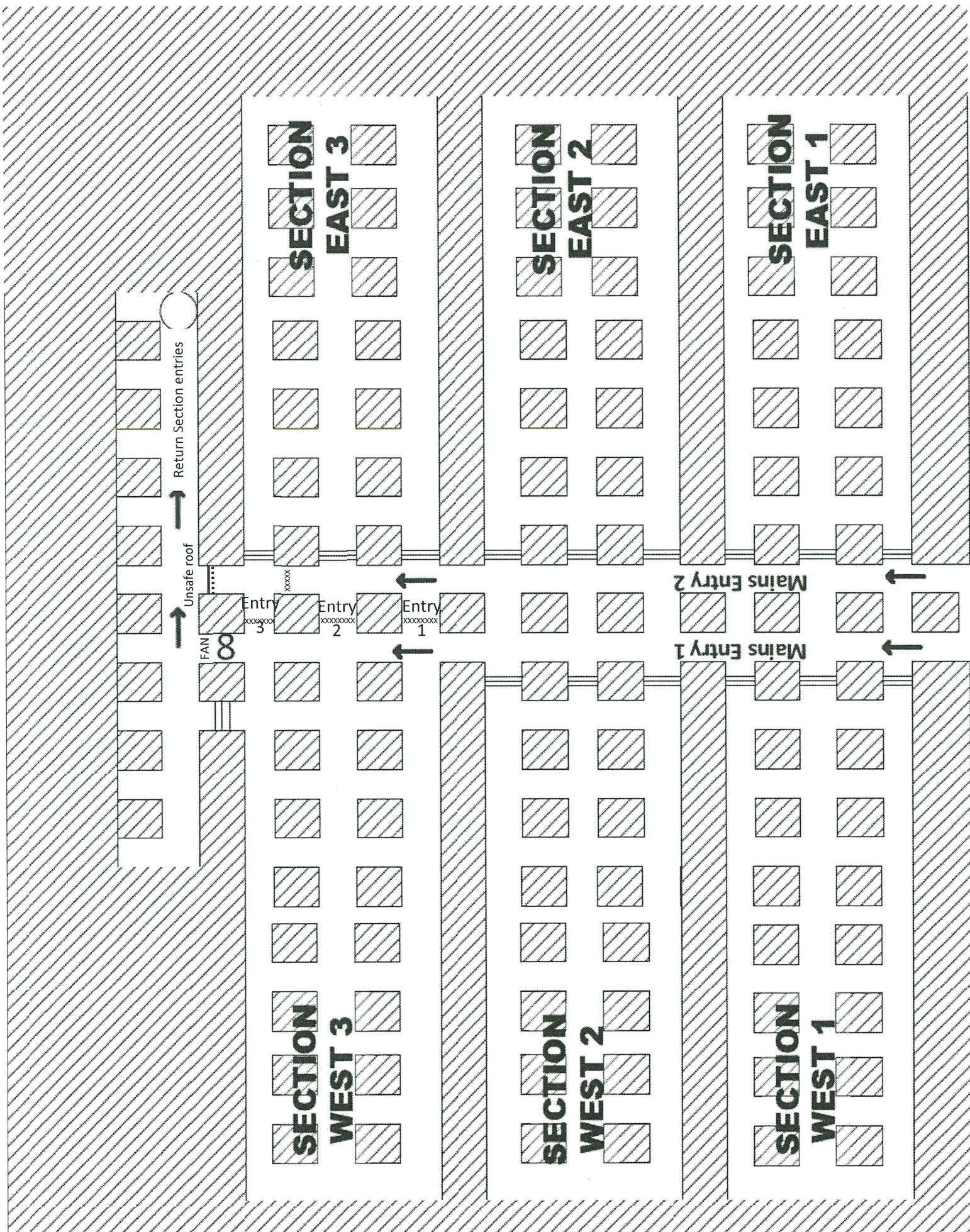
August 21 18:00 – Mine Rescue Team Alpha enters the mine through the main intake entries. Mine Rescue Team Bravo enters through the return shaft elevator and will explore the return toward the Section West 3.

August 21 18:21 – Mine Rescue Team Bravo explored the return section entries. They found unsafe roof in Mains Entry 1 and the booster fan Mains Entry 2 that prohibited them from reaching the section. They marked an FPA at several piles of garbage they found near the seal located in the return. They were unable to reach the back side of the seal due to retreating out of the mine when a low oxygen level alarm went off on the mapman's BG-4.

August 21 18:21 – Mine Rescue Team Alpha reached the entrance of Section West 3 where they setup a Fresh Air base for the final exploration of the section.

August 21 19:00 – The Mine Foreman is able to make contact with a radio; reception is poor but the command center is able to ascertain that he is still alive although had put on the last SCSR that he had with him.

August 21 19:30 – Mine Rescue Team Charlie is on site at the FAB at Section West 3. The SCSR manufacture rep thinks that the Mine Foreman has 30 minutes of air left in his SCSR.



Seal Plan

Prior to breaching seals establish an
airlock.

Check for gas after breaching the seal

Pump Plan

The team may pump water to any other location that contains water.

Provided the power cable is long enough to reach the power center, and the discharge line is long enough to reach to the discharge to surface.

Problem

Locate the missing miners and bring survivors to the fresh air base.

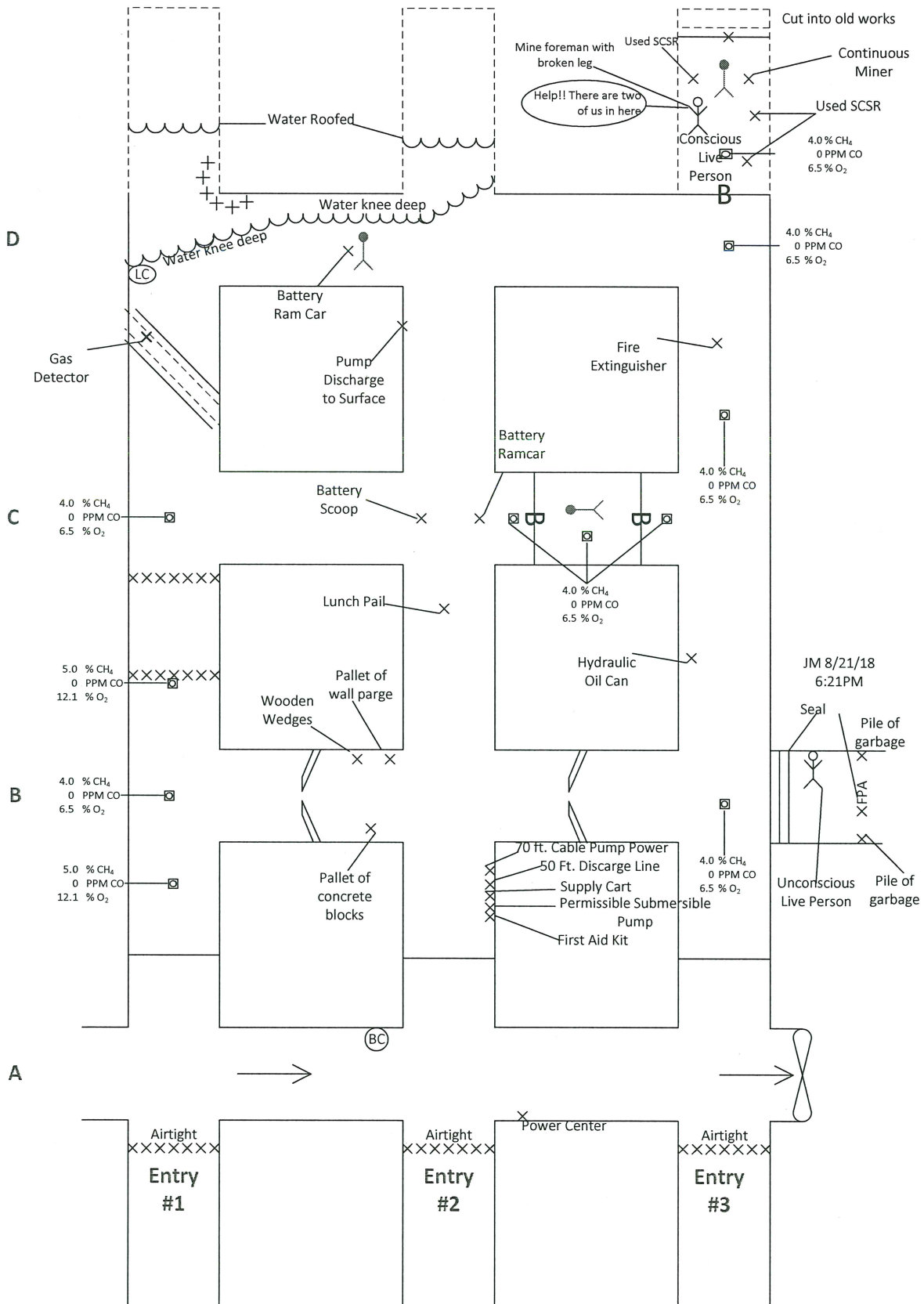
We have approved plans to pump any water found or breech seals if necessary. There is a permissible pump, cable and pump line in a supply cart in-by the FAB

The mine fan cannot be stalled, stopped or reversed.

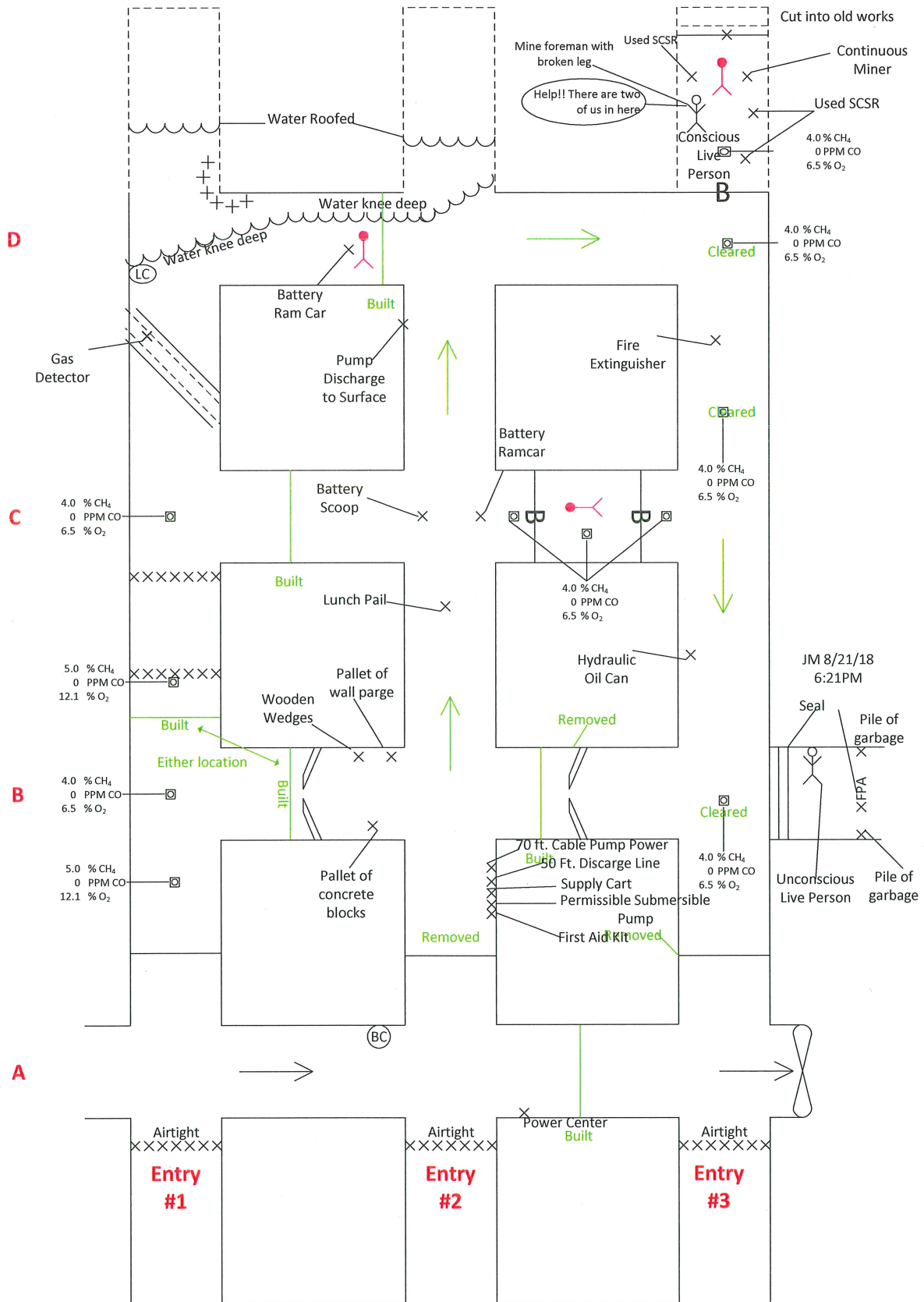
Ensure the mine foreman is in life sustaining atmosphere before 30 minutes has elapsed.

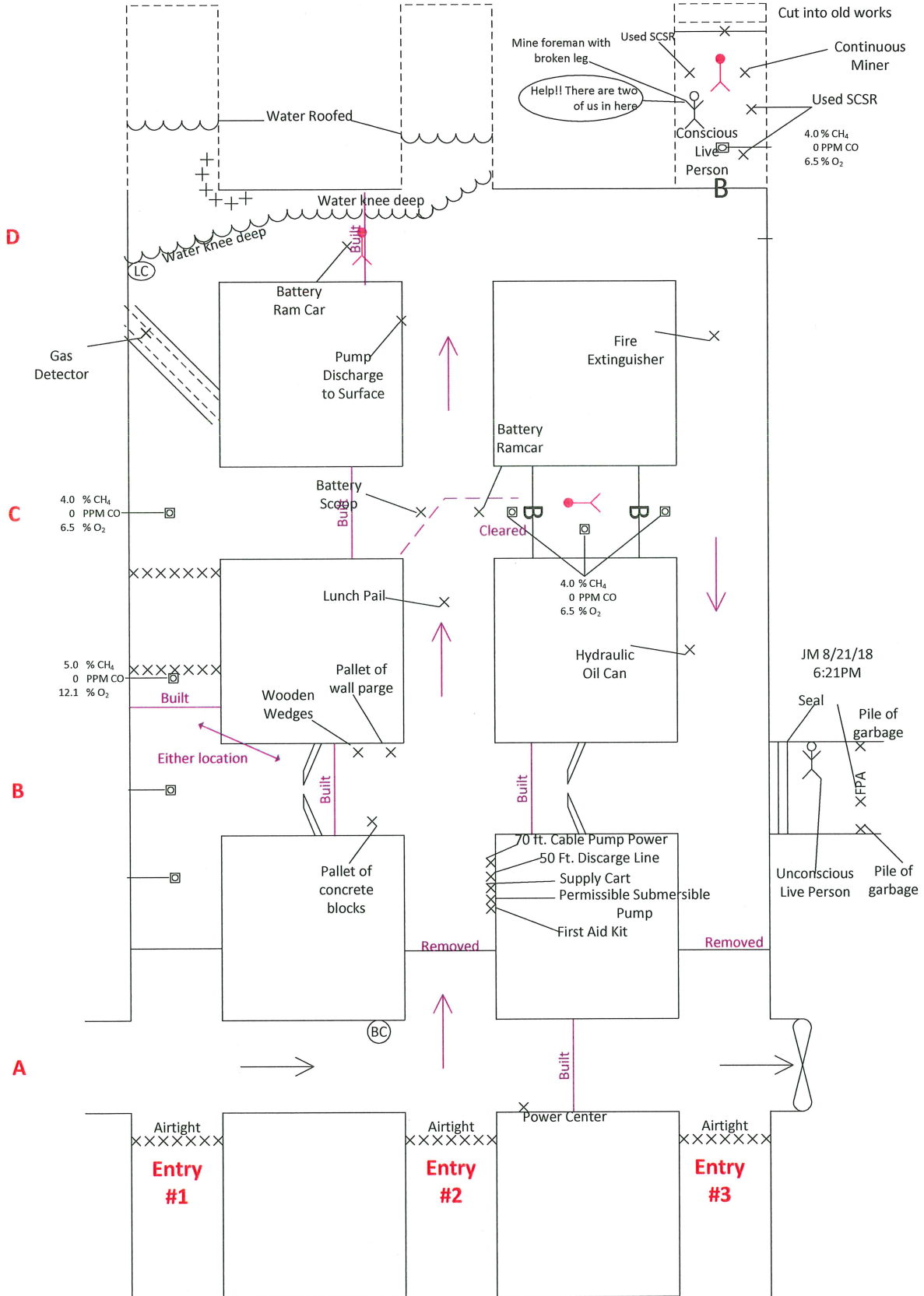
The power center at the FAB is energized.

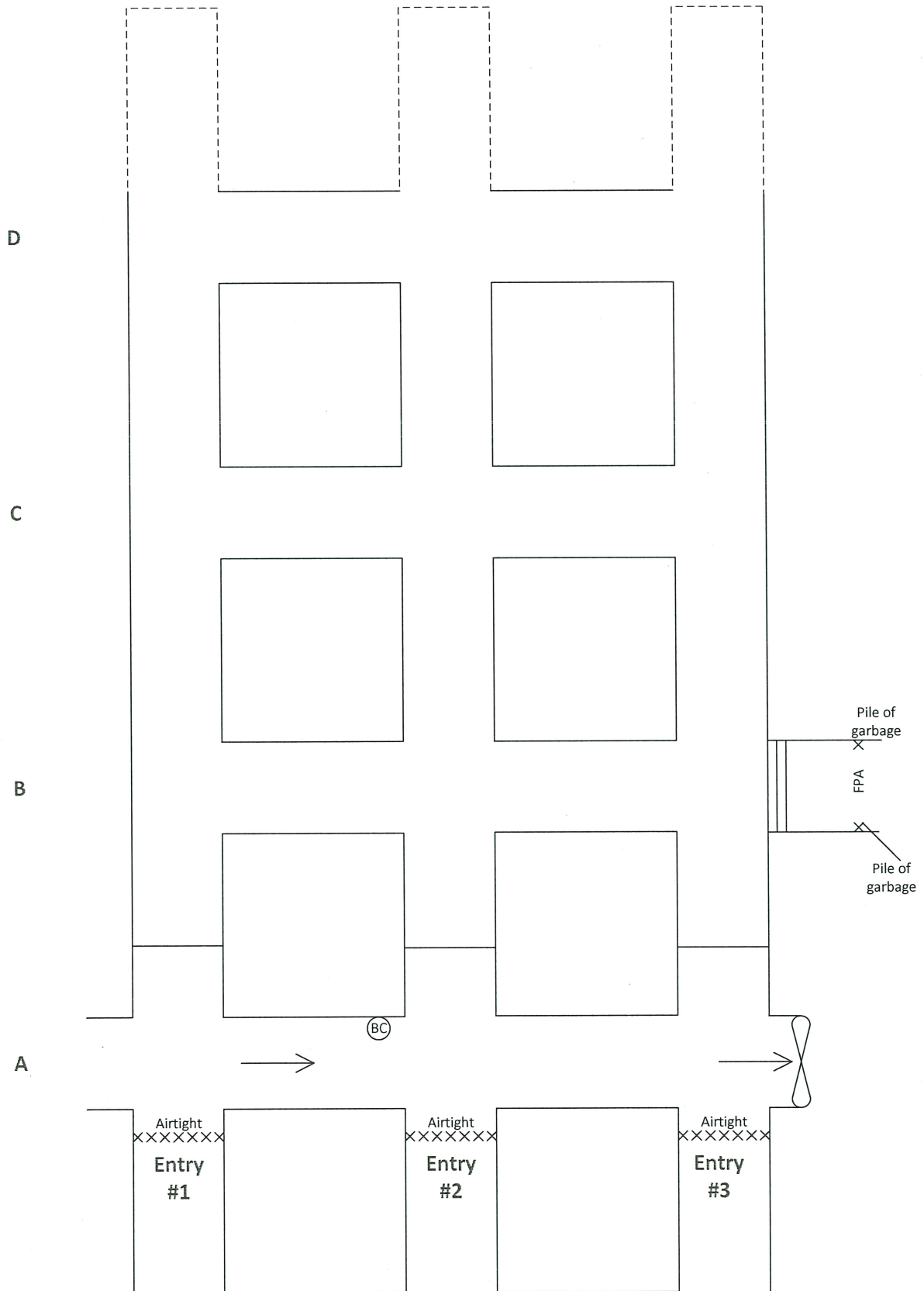
The mine is currently ventilated through a fan located immediately out-by the FAB. This is a permanent fan location. You cannot pass through the mine fan. No other fan exists to ventilate the mine at this time.

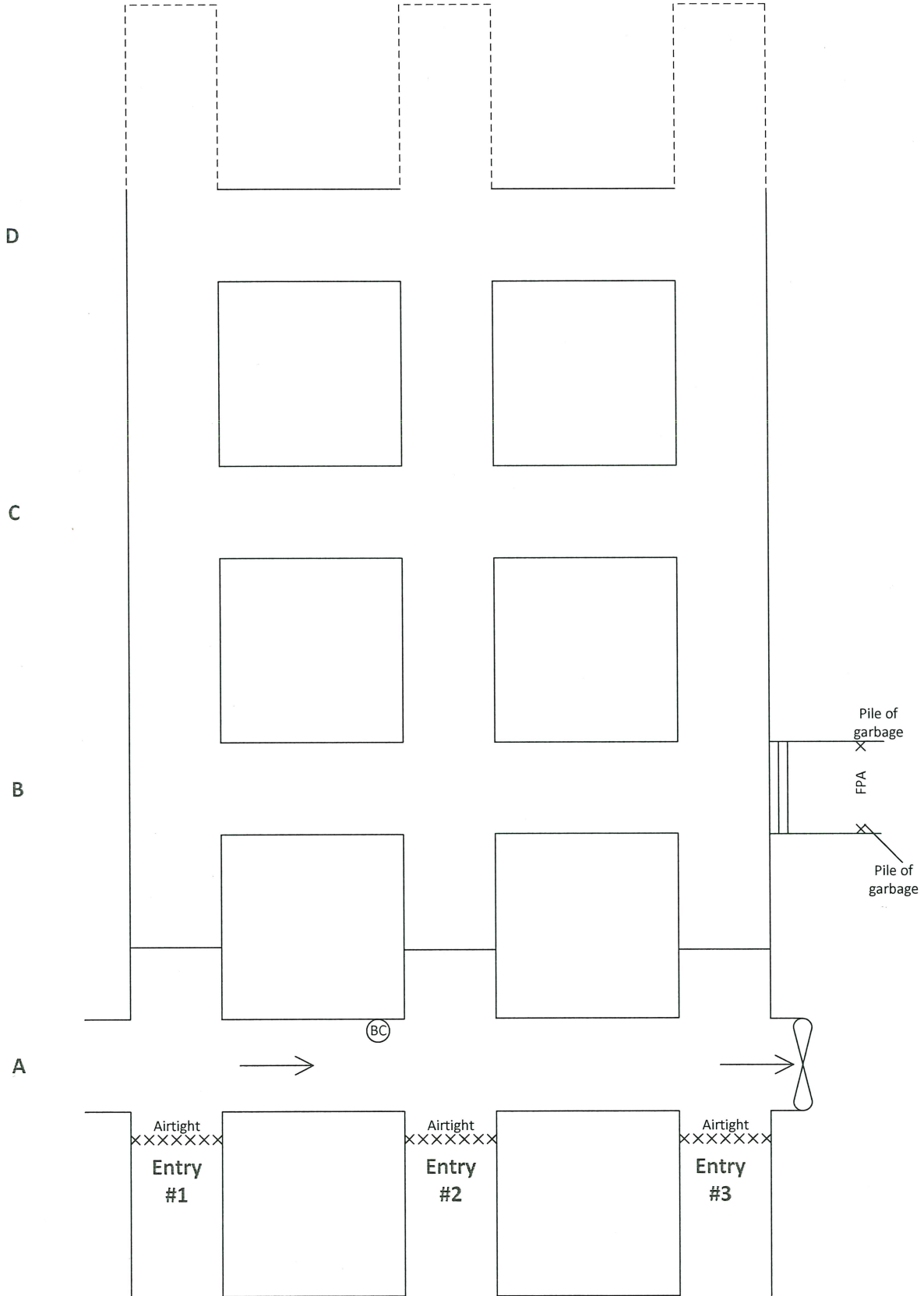


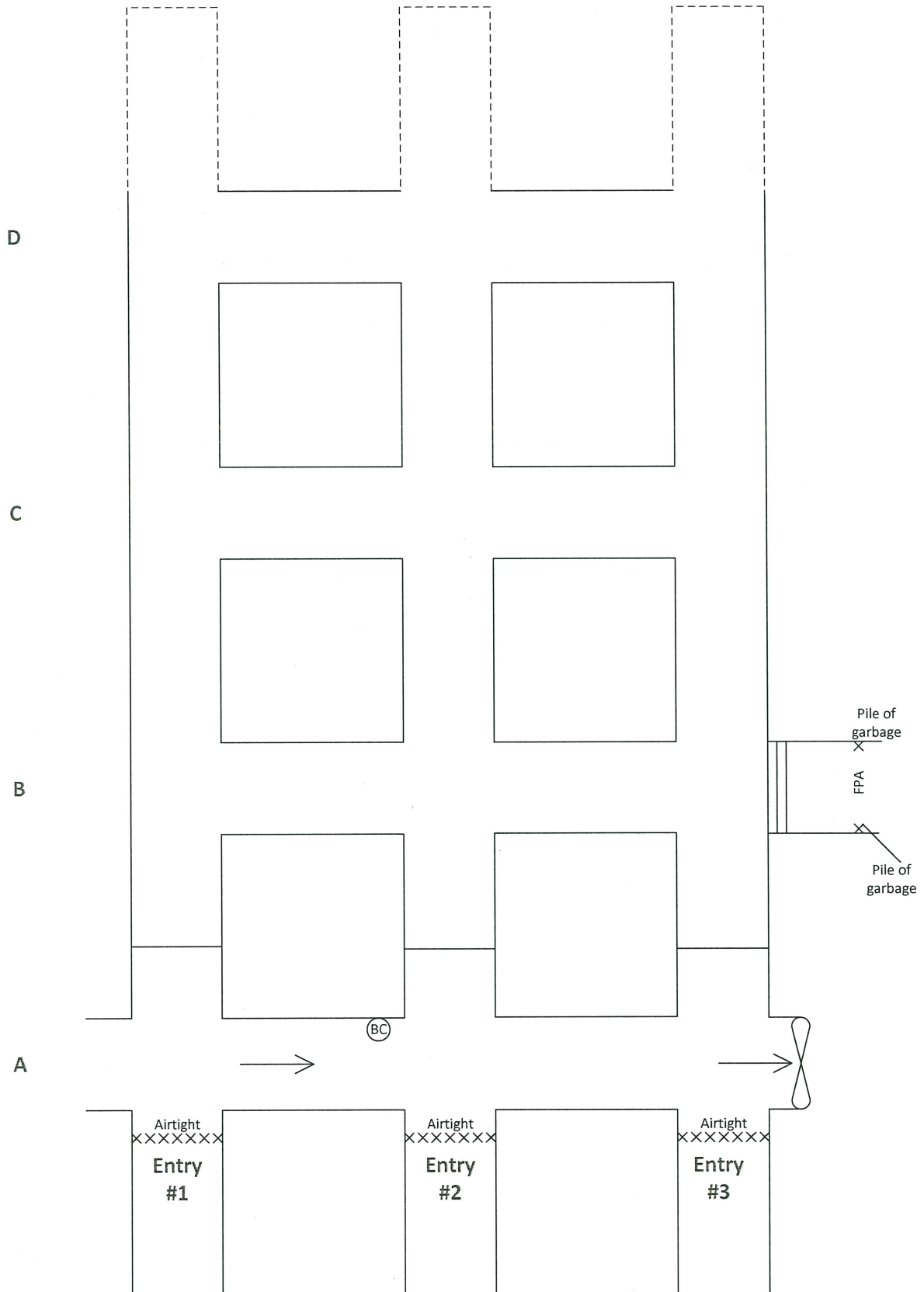
Problem Map

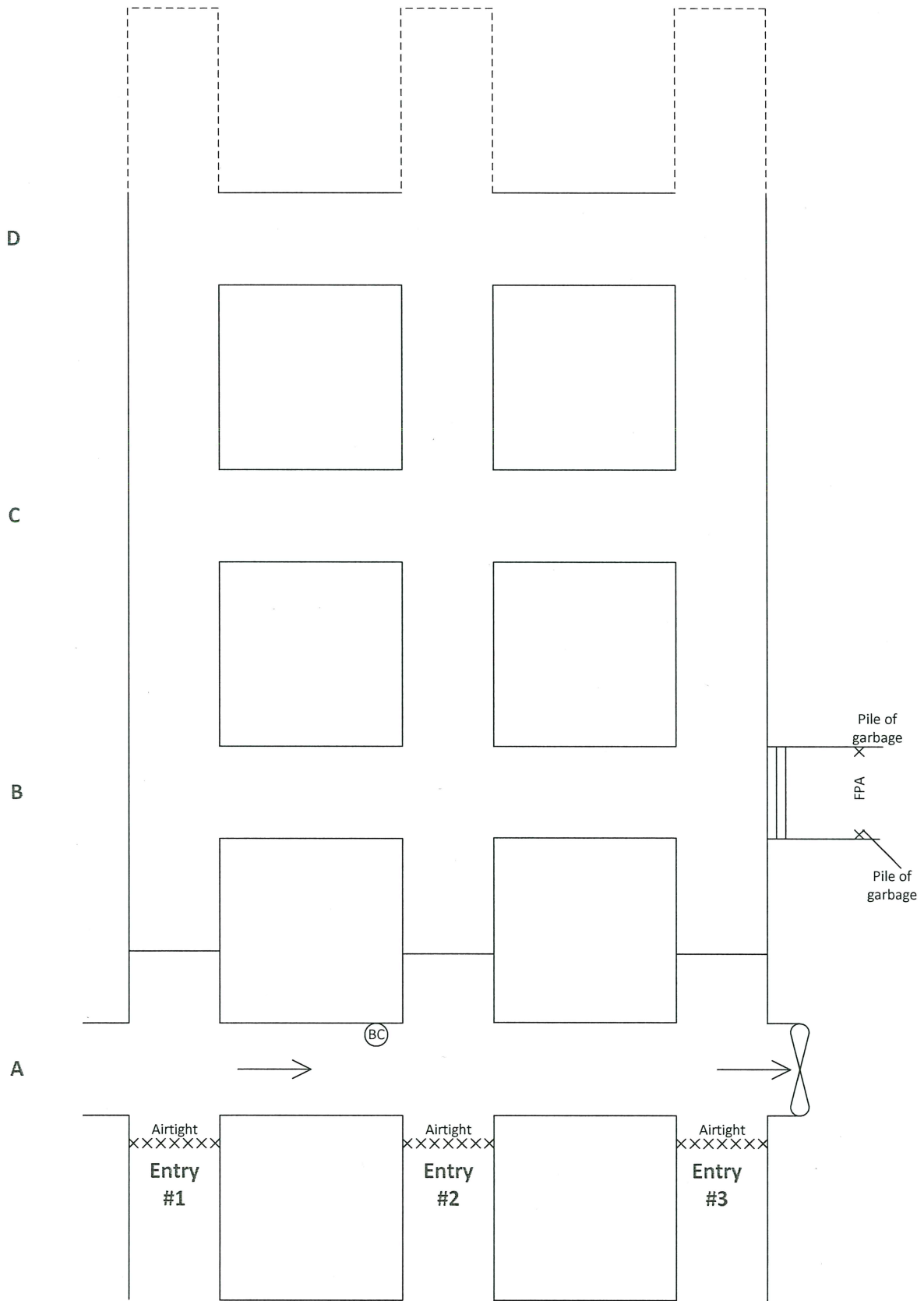












Keys to the Problem

Team Stop 1 and 2—Verify the team remembered the Team check in the airlock when the *entire* team enters the mine for the first time (*Rule 28*). The team has the choice of making entry into the mine between entry 1 or entry 2. (*Rule 44*) Entry 1 in-by crosscut B, the gas placard should be placed directly on the caved to ensure the extent of gas runs into the caved area. Team should DI/GT/RR at the caved. Roof rib test should be conducted parallel to the caved in the entry.

Team Stop 3 – The team should DI (Rule 26)/GT(Rule 26) at the seal, team should not breach the seal at this point.(Rule 44)

Team Stop 4 – The team when exploring towards entry 3 will find the barricade with no response. Team should not explore through the barricade at this point due to the irrespirable in front and behind the barricade.

Team Stop 5 – Team needs to return to entry one to find the extent of gas through caved area, reaches the diagonal unsafe roof GT/DI/RR.

Team Stop 6/8 – Team should travel to entry 3 where it will find a barricade and irrespirable. Team will either travel up entry 2 or entry 3 to team stop 7.

Team Stop 6/7/8— Entry 2, they will find the water roofed in entry 2 inby crosscut D. Team should DI/GT this location. When captain explores towards entry one in crosscut D he should find the caved area on the corner. If captain begins RR test at this location ensure he doesn't break the plane of the crosscut into entry 1.

Team Stop 7/8 – Entry 3, Have the patient voice his state as soon as the plane is broken in Entry 3 Crosscut D. The captain should DI/GT the Barricade.

Once the team has completed team stops 7 and 8, they have enough material and information to safely ventilate and retrieve the patient behind barricade in entry 3 in-by Crosscut D. This should be accomplished in 1 vent. Traveling to what is listed as Team Stop 10 on the Team Stop map, prior to rescuing the patient would be discounted under (**Rule 41**)

Team Stop 9 – The captain should DI locations of the live person, body, unsafe roof. There should be a RR test at the unsafe roof. There should be a GT immediately inside the barricade upon breaching the barricade. Another GT should be performed at the unsafe roof. The team must complete an initial assessment of the patient behind the barricade. (*Rule 12*) Failure to conduct a complete initial assessment of each patient. 2 maximum per patient An initial assessment must be conducted of all **live** persons who are encountered during the working of the problem. The assessment should commence once the captain has physically made contact with the person. Any of the five working team members may be utilized to conduct the assessment. However, the team member starting the assessment of a live person will continue and complete the assessment. When assessing a conscious live person, a team member must physically contact the patient and verbalize the following assessments.

1. Ask if he/she is okay; asking person if he/she is "alright" will suffice.
2. Looking for life threatening injuries.

Team Stop 10 – Team should continue exploration of the mine. Verify the captain does the correct RR test at this location. DI at the caved area and water roofed, GT at the water roofed.

Teams will probably ventilate the irrespirable at the barricade in entry 2 crosscut C & Entry 1 Crosscut C. **See Vent 2.** Teams must use the line curtain of the corner of the crosscut in entry 2 as show. They cannot wing from the solid rib in entry 3. (**Rule 49 Letter E**)

Team Stop 11 – Team has enough room to airlock in crosscut C to breach the barricade. Verify the captain has completed the gas check immediately in by the barricade. DI the location of the body.

Team Stop 12 – Ensure the team has airlocked with three temporary stoppings due to the seal being flush with the plane of crosscut B. Verify the captain has performed GT upon breaching the seal, DI the location of the unconscious person and the team has performed an initial assessment on the unconscious person as per (**Rule 12.**)

When assessing an unconscious live person, a team member must physically contact patient and verbalize the following assessments.

1. Ask patient if he/she is okay; asking if he/she is “alright”
2. Look for absence of breathing or gasping.
3. Check for presence of a carotid pulse (5-10 seconds).
4. Looking for life threatening injuries.

The time keeper should verify that the patient in entry 3 behind the barricade has donned an SCSR/Care-vent or has reached life sustaining atmosphere prior to 30 minutes elapsing on the time clock. If not, discount the team according to **Rule 50**

The team is not allowed to pass through the fan at the FAB location. If the team attempts to do so, stop and discount under **Rule 48**