



Chief Judges Packet

2012



Kellogg, Idaho



May 18 & 19, 2012



Contest



Mine Information Sheet

- The Badfinger is a new mine in the development stage. The workings consist of a lower adit, ramp and the “Upper Stope” level. At this time, there is one 48 inch borehole that leads from the adit to the surface. This borehole acts as both an emergency escapeway and means of exhaust ventilation for the mine.
- Miners have been driving small, narrow drifts in preparation for breast-down stoping on the Upper Stope level. Rock is drilled, blasted, slushed down transfer raises and removed from the mine via muck bays on the adit level using a two yard diesel LHD.
- The mine operates two 10 hour shifts per day, five days per week. Total employment at the mine is 10 miners and 1 office person.
- Ventilation: The mine is ventilated using a Spendrup fan at the top of the exhaust/escape raise. Fresh air is drawn in through the adit, up the ramp to the Upper Stope level, and out the exhaust/escape raise. Small electric booster fans push air from the haulage into the stope accesses and vent bag is used to course fresh air into the working areas (see map).
- Ground control: Roof and back is supported by 6 foot long split sets and welded hog wire in most areas. Where needed timber is used, but not much has been needed so far.
- Water: No major problems
- Explosives: Powder is stored underground in a locked magazine. Prill is stored on the surface as are detonators in separated locked magazines. Blasting is conducted when a round is ready, but usually at the end of a shift.
- Refuge chambers: None (yet)
- Commo: One pager phone is located in the MCC on the adit level. The second is in the laydown area on the Upper Stope level.

Mine Information Sheet

- MSHA ID: 00-00123 Badfinger Mine Oh Heck Mining Company, Ltd.
- Gas Category: VI – Non-gassy
- Mine Maps on hand, but have not been updated in 3 months.
- No other nearby mines, gas wells or old workings.
- The main fan is located at the top of the Silver Bullet Escape/ventilation borehole. The fan is off and has been moved out of the way to allow use of the emergency hoist. The fan can be put back into place easily upon your command. It is fully functional. The area is currently guarded too. The emergency escape hoist is not working.
- Power to the underground was shut off by the miners that made it out. It can be reactivated if needed. Power to the main fan is off.
- The adit and ramp leading to the upper stope level was explored by the Mine Manager. No other work has been completed.
- All Authorities have been notified. MSHA is on the way and will be here soon.
- A back-up team has arrived and is almost ready. The standby team is on site. They are resting after the long drive, but can be pressed into service if needed.
- Materials are stored underground and located so you can get to them. Sometimes it can take awhile to get supplies to the mine because we're so remote.

Good Luck!

Oh Heck Mining Company, Ltd. ~ Badfinger Mine

Team Briefing Statement

- You are located at the fresh air base in the Oh Heck Mining Company's Badfinger Mine. The mine is a two level underground development mine. Currently, fresh air is drawn through the adit, up the ramp and out of a 48 inch borehole that serves as both the secondary escape and exhaust raise.
- It's been a really bad day at the Badfinger Mine. At 04:00 this morning, a call came in to the mine office that an LHD caught on fire in one of the stopes on the upper level of the underground mine. The stench system was activated and 2 of the 4 men that had been working underground came running out of the portal a little bit later.
- Bob and Carl had been assigned to work in the upper stope today. The other two were working below on the haulage. When they smelled the stench, they donned their self rescuers and headed out of the mine. On the way out, they stopped at the MCC on the adit level and turned the power off to the upper stope level.
- Bob and Carl are still underground. It's been a couple of hours and we're worried. We haven't heard a thing from underground and the smoke coming out of the ventilation/escape raise fan is black and pretty thick. We checked the gas readings at the fan. At that time they were 15% oxygen and 4500 ppm of carbon monoxide.
- We turned off the fan and lifted it out of the way so we could start up the emergency hoist and drop the bullet cage down. When we tried to start the hoist drive motor something went wrong and it died. We have parts on the way, but it's going to several hours before they get here. There isn't a ladder way in the escape raise. We are working on getting the fan put back in place and should be done soon.
- All of the government agencies have been called. Guards are in place at the fan controls and power station.
- There is a fully equipped mine rescue team now at the fresh air base, ready to serve as you back-up. The back-up team will be sent into the mine to relieve you in 90 minutes.
- I checked out the lower level with my self rescuer on a little while ago. I didn't find anything wrong down there, there wasn't any smoke I and couldn't find Bob and Carl.
- When you reach the mine rescue course, the Mine Manager (#1 Judge) will introduce you to the #2 judge. Once the Team Captain has started the timer, the Mine Manager will provide you with any changes to the briefing information that you have received. The Mine Manager will not answer any questions concerning the team briefing statement. The Manager will only respond to questions allowed by the rules while you are working the problem.

- The fresh air base attendant and alternate will be assigned a location where they can study the team briefing information, mine information, and map. The fresh air base attendant can assist the team and communicate with them while they advance past the fresh air base using wireless communication system. He must maintain an accurate map indicating all initial information that the team relays to him. He may also assist the team by relaying information to the mine manager when required by the problem. He may also assist the team when they retreat to the fresh air base. The fresh air base attendant and mine rescue team alternate are not allowed to speak to anyone during the working of the problem, except their team members and the mine manager.
- Team Instructions:
 - Explore and map the upper stope level,
 - Account for missing miners
 - Extinguish or seal any fires
 - Bring any live miners to the surface

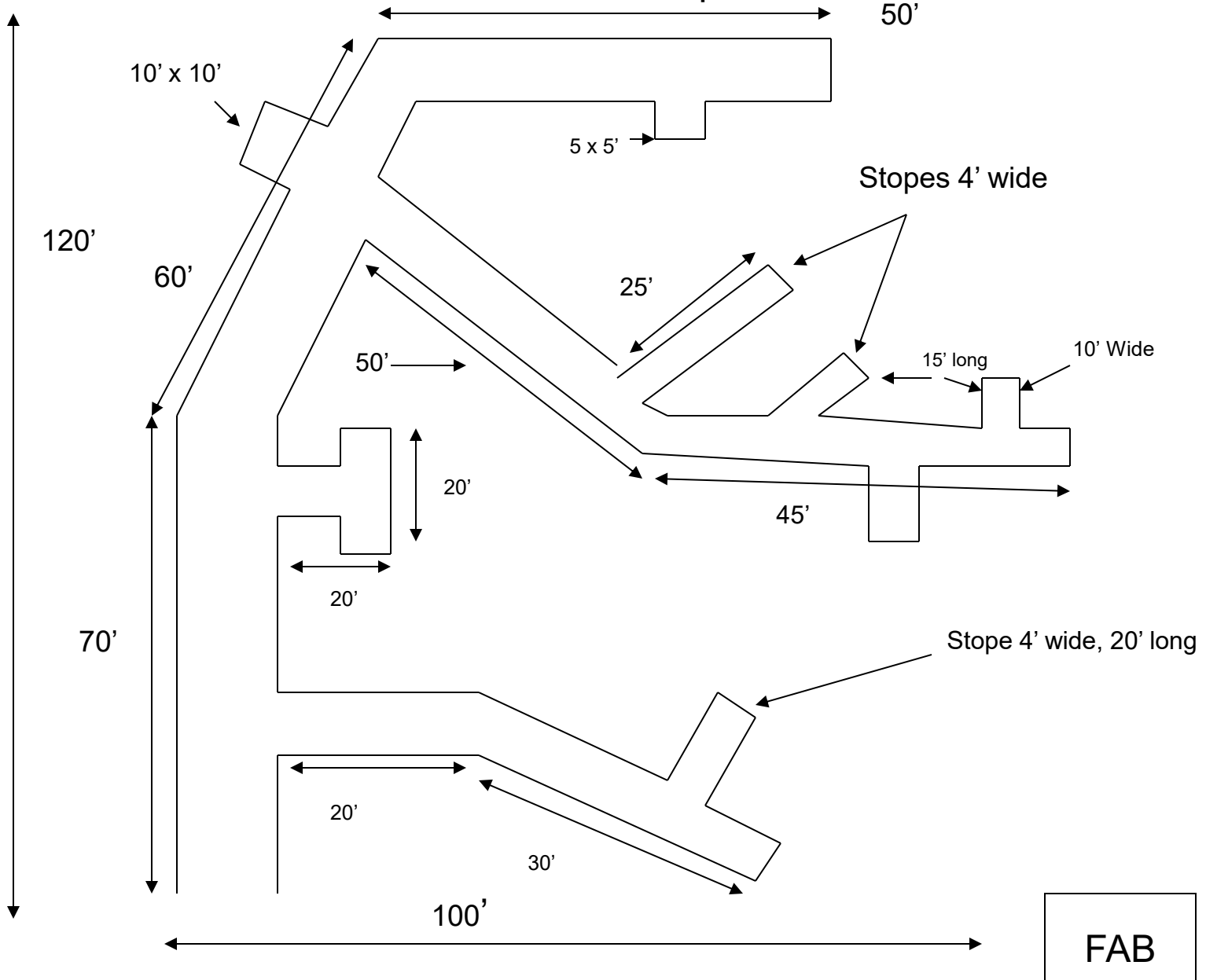
- FAB Instructions

The fresh air base attendant and alternate will be assigned a location where they can study the team briefing information, mine information and map (fresh air base).

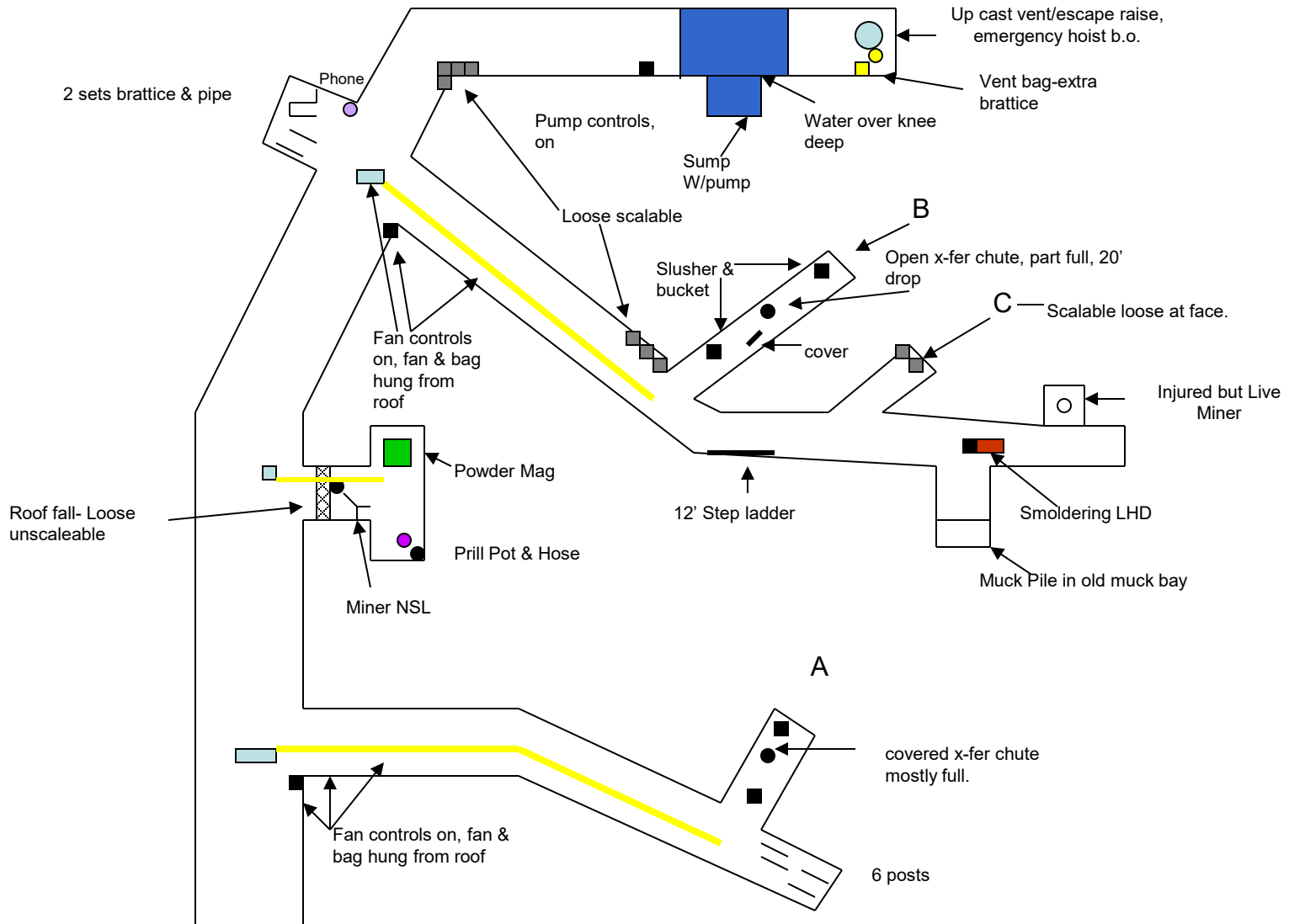
Only one attendant or alternate will be allowed to assist the fresh air base. This person can assist the team and answer any questions the team may ask. However, this person cannot physically assist the team beyond the fresh air base unless the person becomes an inactive team member in the event that someone drops out.

The fresh air base attendant and mine rescue team alternate are not allowed to speak to anyone during the working of the problem except their team members and the mine manager.

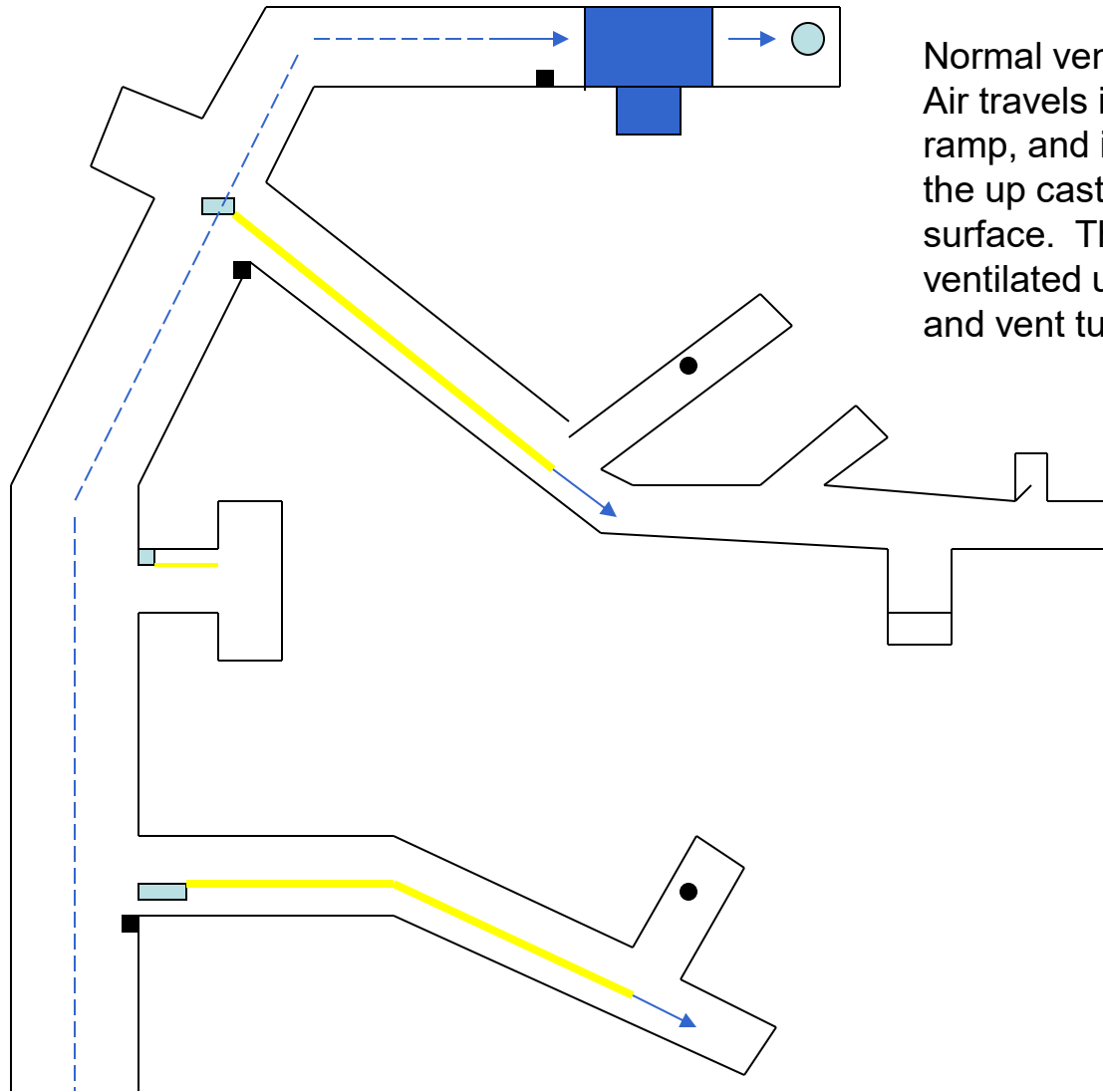
Build Map



Build Map 2



Normal ventilation



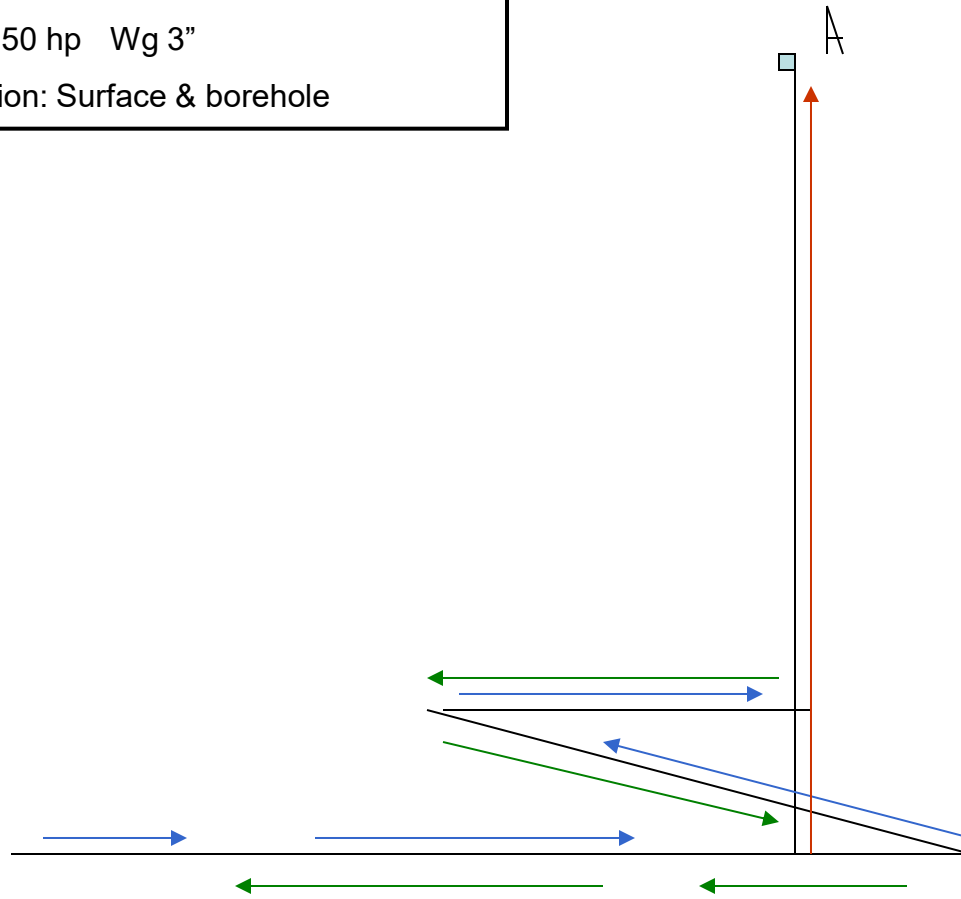
Normal ventilation for this level:
Air travels into the area from the ramp, and is pulled up through the up cast vent raise to the surface. The working places are ventilated using electric fans and vent tubing.

Badfinger Mine MSHA ID #00-00123

Ventilation/Escape/Evacuation Map

Main Fan: 48" Spendrup Axial
Blade setting #6 Capacity 49,000 cfm
BHP: 50 hp Wg 3"
Location: Surface & borehole

Emergency Hoist on surface next to borehole.

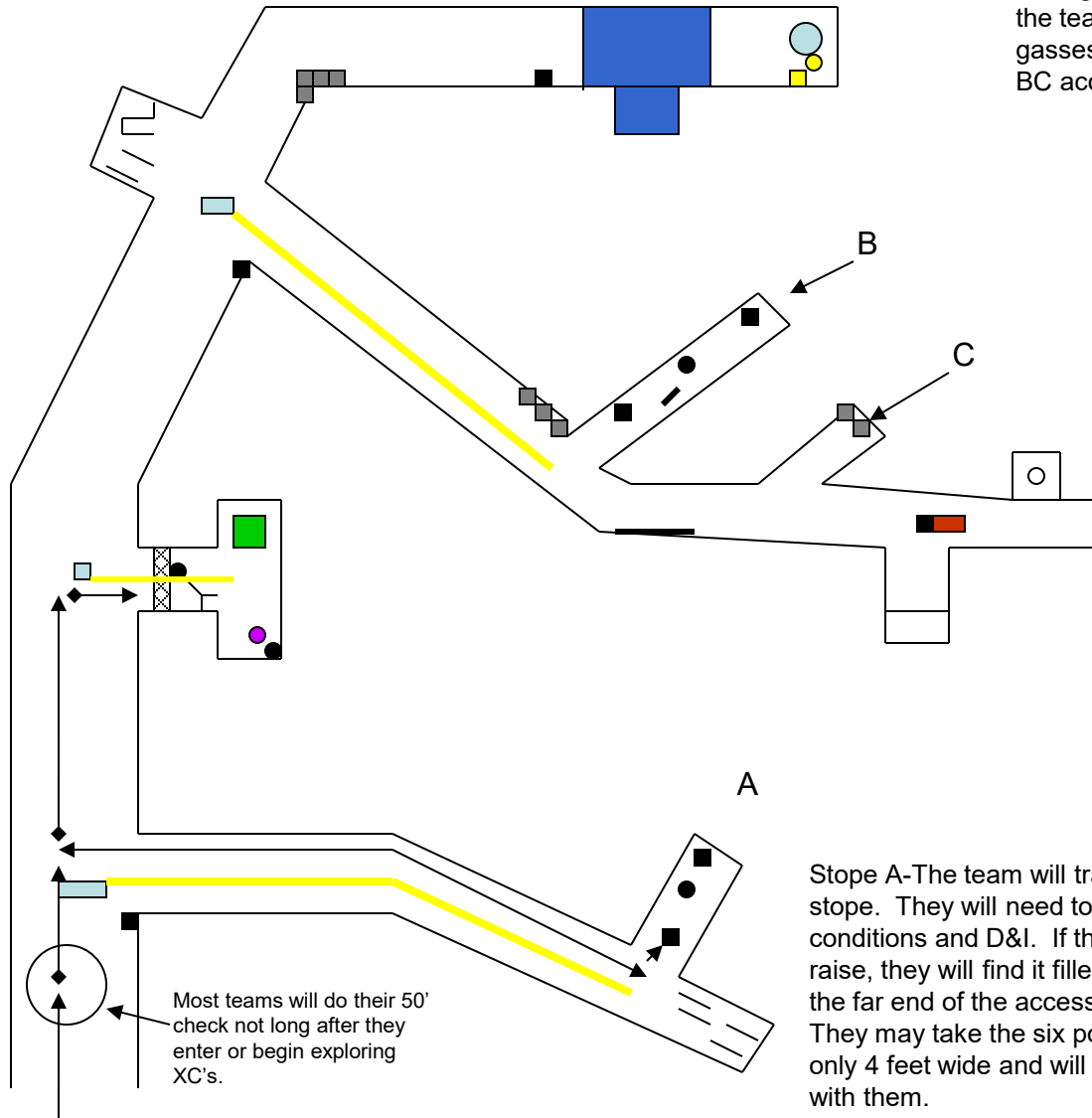


Intake —————→
Exhaust/Secondary esc. —————→
Primary Escape —————→

Exploration 1

During this stage of exploration, the team will be in light smoke with gasses up to the cross cut for the BC access.

The team will continue up the haulage to the magazine stub. Just inside the entry they will find a roof fall that must be supported before continuing on into the room. By rule, they may decide to continue north down the haulage. When they do enter, they must use all the posts from Stope A. once they have supported they may enter and will find a miner laying on his/her side. Once the primary survey is completed, flip the placard which will show that the miner is not showing signs of life. Continued exploration of the stub they will find a powder magazine, an empty prill pot and hose.

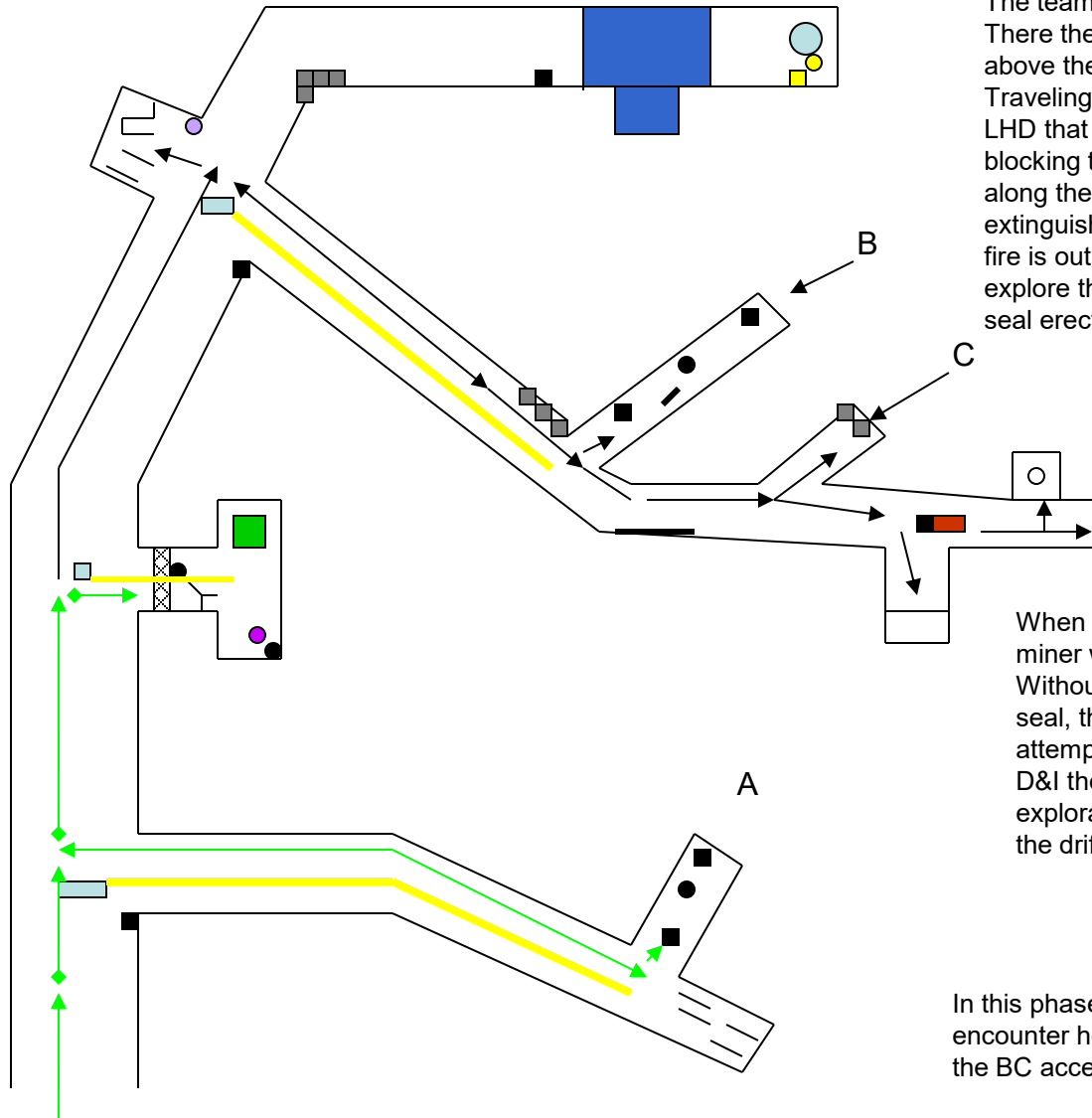


Most teams will do their 50' check not long after they enter or begin exploring XC's.

Stope A-The team will travel down the access to the stope. They will need to enter the stope to check conditions and D&I. If they check under the cover on the raise, they will find it filled with muck. They will travel to the far end of the access and check conditions and D&I. They may take the six posts with them. The stope is only 4 feet wide and will not be able to get the basket in with them.

Exploration 2

The team will travel up to the intersection for the B/C Stope access. They will check in the laydown stub and find items to map. The captain will need to D&I the face & check the phone (which works). They will need to travel down the B/C access. Just before B Stope they will encounter scalable loose on the left rib. A warning about the loose must be made. They may decide to scale it. Watch for endangerment if they do not scale it down. Continuing into the B Stope the team will find it's too narrow to bring in the basket. They will encounter a slusher, open transfer point and slusher bucket. No member of the team can travel past the hole until it is covered. The transfer point is partially filled with muck.



The team will travel from B to C Stope. There they will find loose in the back above the face that must be barred down. Traveling further inby they come across an LHD that is smoldering and partially blocking the path into the old muck bay along the right rib. They must use a fire extinguisher to put out the fire. Once the fire is out the team may continue to explore the old muck bay and inby to the seal erected by the trapped miner.

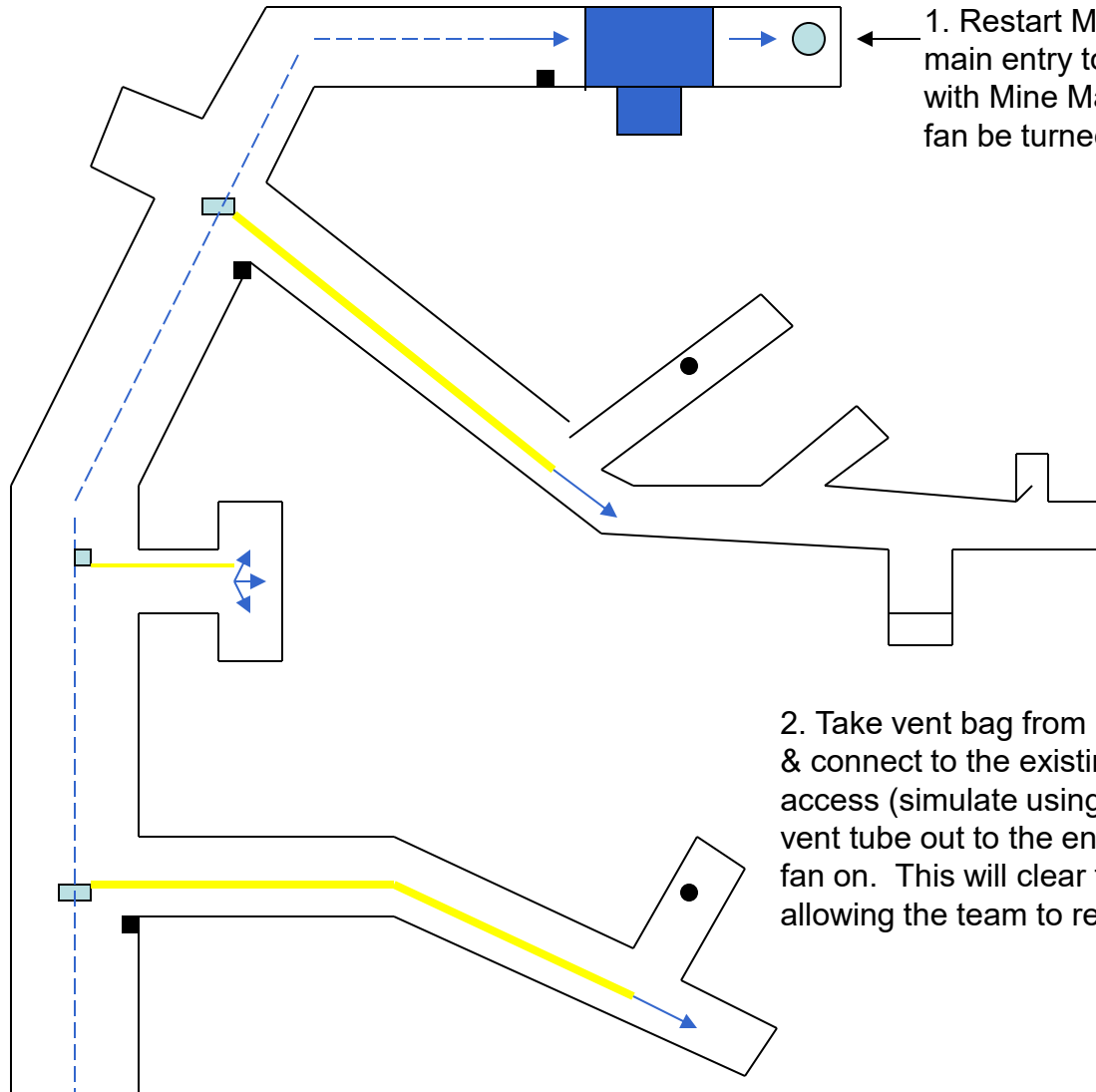
When the team checks the seal, the miner will answer back with a moan. Without knowing what is behind the seal, the team should not breach it or attempt to enter. The captain will D&I the stopping, and complete exploration by traveling to the end of the drift & D&I.

In this phase of exploration, the team will encounter heavy smoke and gasses from the BC access cross cut northward.

Ventilation Changes

Reminder: All ventilation changes require the permission of the Mine Manager.

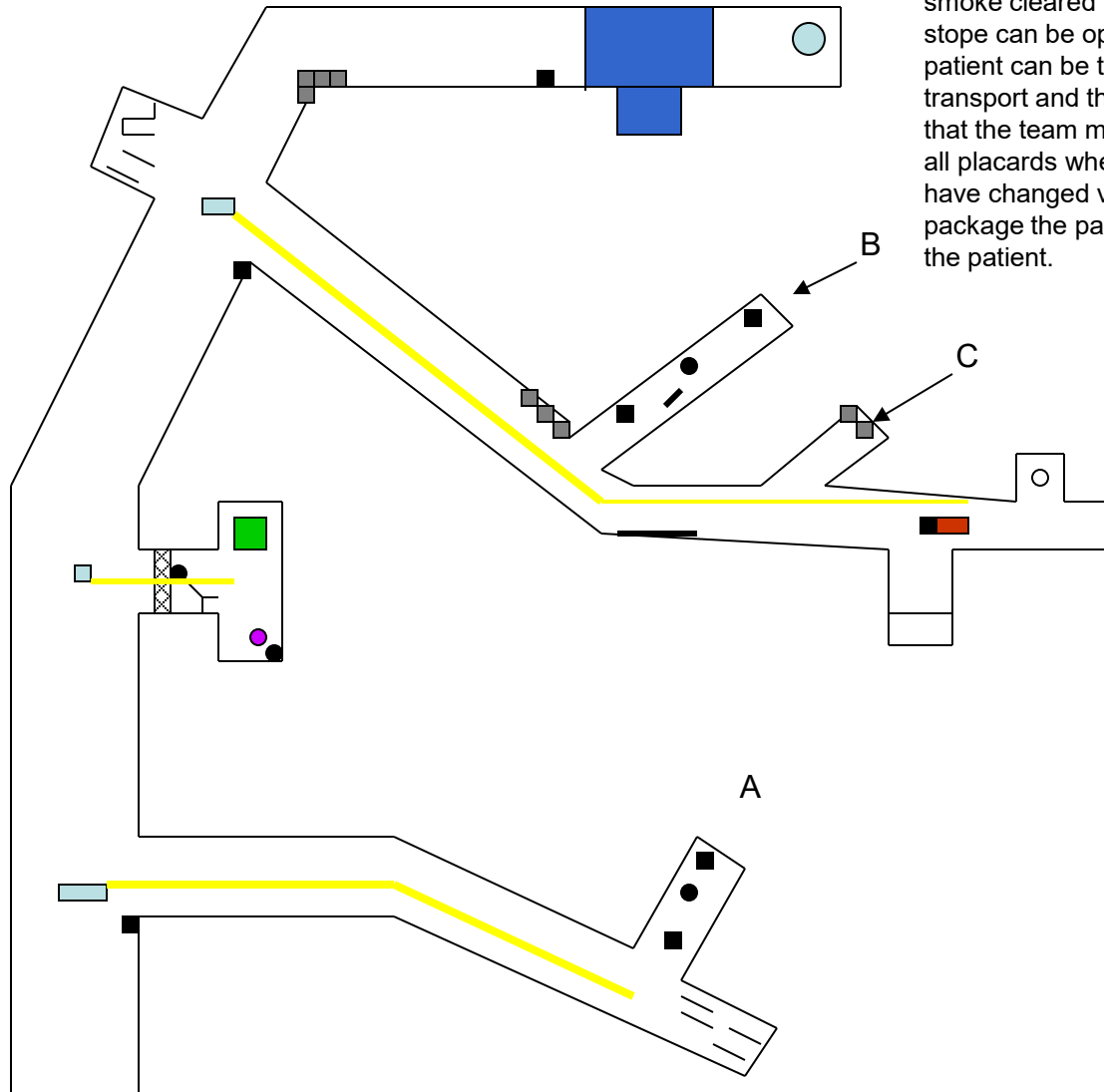
Turning on the power on this level will start the fans and the pump all at the same time. If the team does not turn off the fans before asking for restoration of the power it will be considered a ventilation change and discounted accordingly.



1. Restart Main Fan – Clears from main entry to 3rd XC. Must converse with Mine Manager and ask that the fan be turned on.

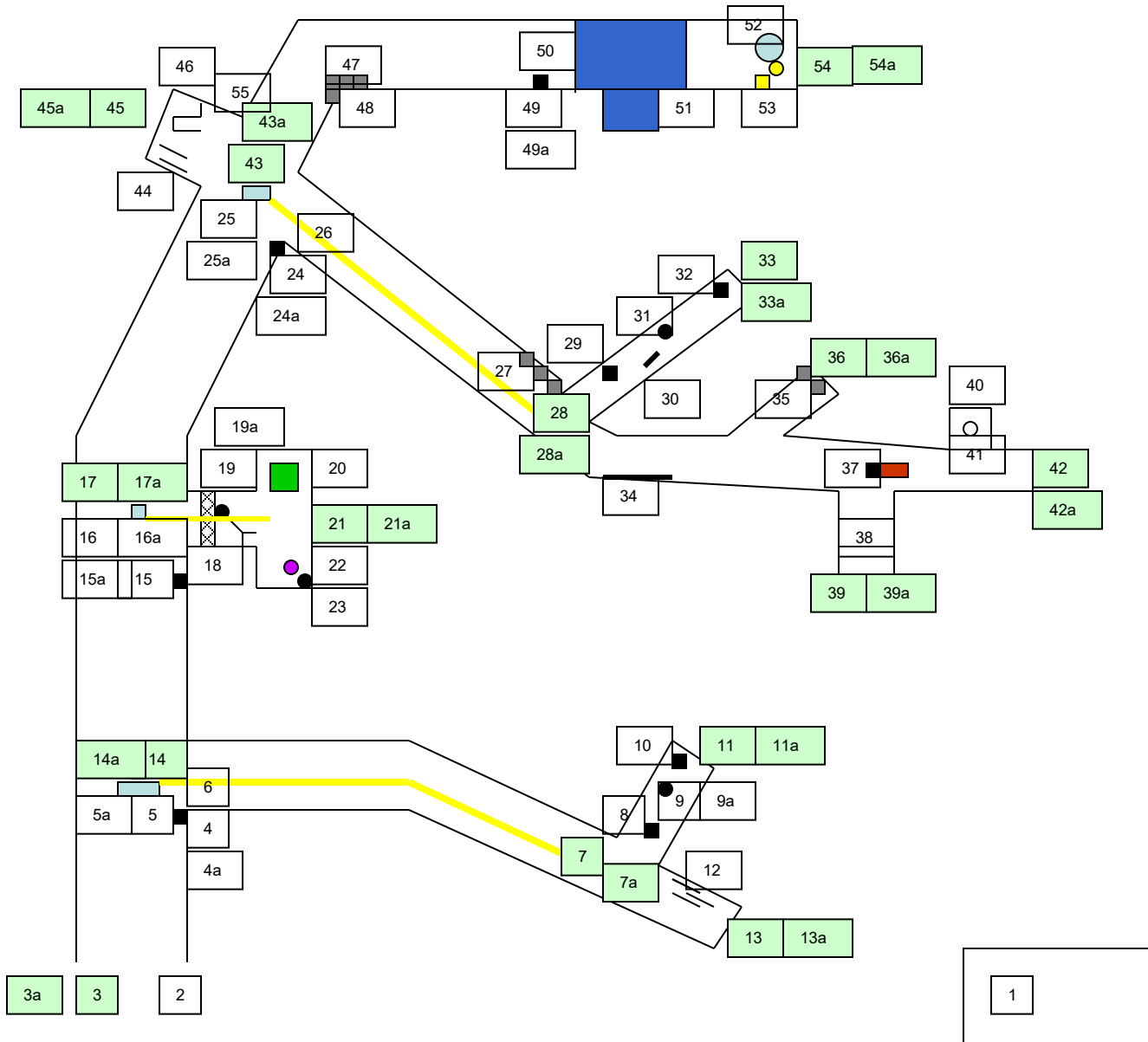
2. Take vent bag from next to vent/escape raise & connect to the existing tubing in the B/C stope access (simulate using the ladder). Stretch the vent tube out to the end of the drift & turn the fan on. This will clear the air in the access, allowing the team to remove the miner.

Rescue

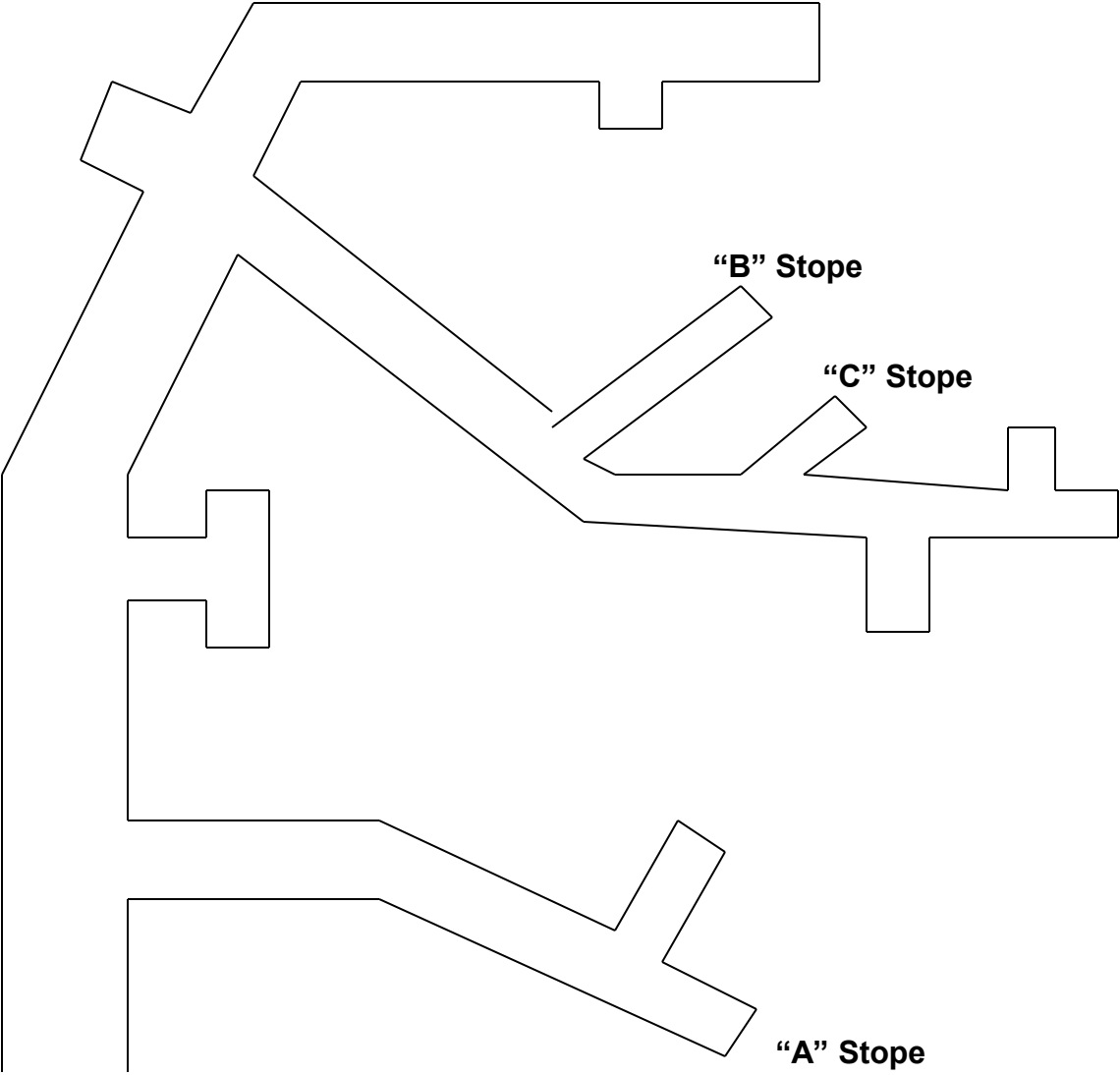
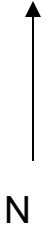


Once ventilation has been restored and smoke cleared from the B/C access the stop can be opened. Once inside the patient can be treated, packaged for transport and the stub drift. Keep in mind that the team must re-check for gasses at all placards where they travel once they have changed ventilation. The team will package the patient for transport, but not lift the patient.

Placard Map



Judges Map



"B" Stope

"C" Stope

"A" Stope