

2014 Central Mine Rescue Contest
Kellogg, Idaho
May 16th & 17th



Events

Thu. May 15

6:30am – 1:00 pm

Gravel Parking lot

Staff on-site setting up Mock Mine

12:00 am – 3:00 pm

Shoshone Meeting Room

Written Test / Classroom setup

3:00 pm – 5:00 pm

MSL – Bullpen

Judges Training

6:00 pm – 8:00 pm

Noah's Loft

Captains Meeting

Fri. May 16

6:30 am – 4:00 pm

Noah's Loft & Back Room

Lock-up

7:00 am – 4:00 pm

Parking Lot

Field Competition

7:00am – 2:00 pm

Shoshone Meeting Room

Team Technician Competition

Sat. May 17

6:30 am – 3:00 pm

Noah's Loft & Back Room

Lock-up

7:00 am – 2:00 pm

Graveled parking lot.

Rope Rescue

Where field is set up

7:00 am - 2:00 pm

Shoshone Meeting Room

First Aid Competition

6:00 pm – 7:00 pm

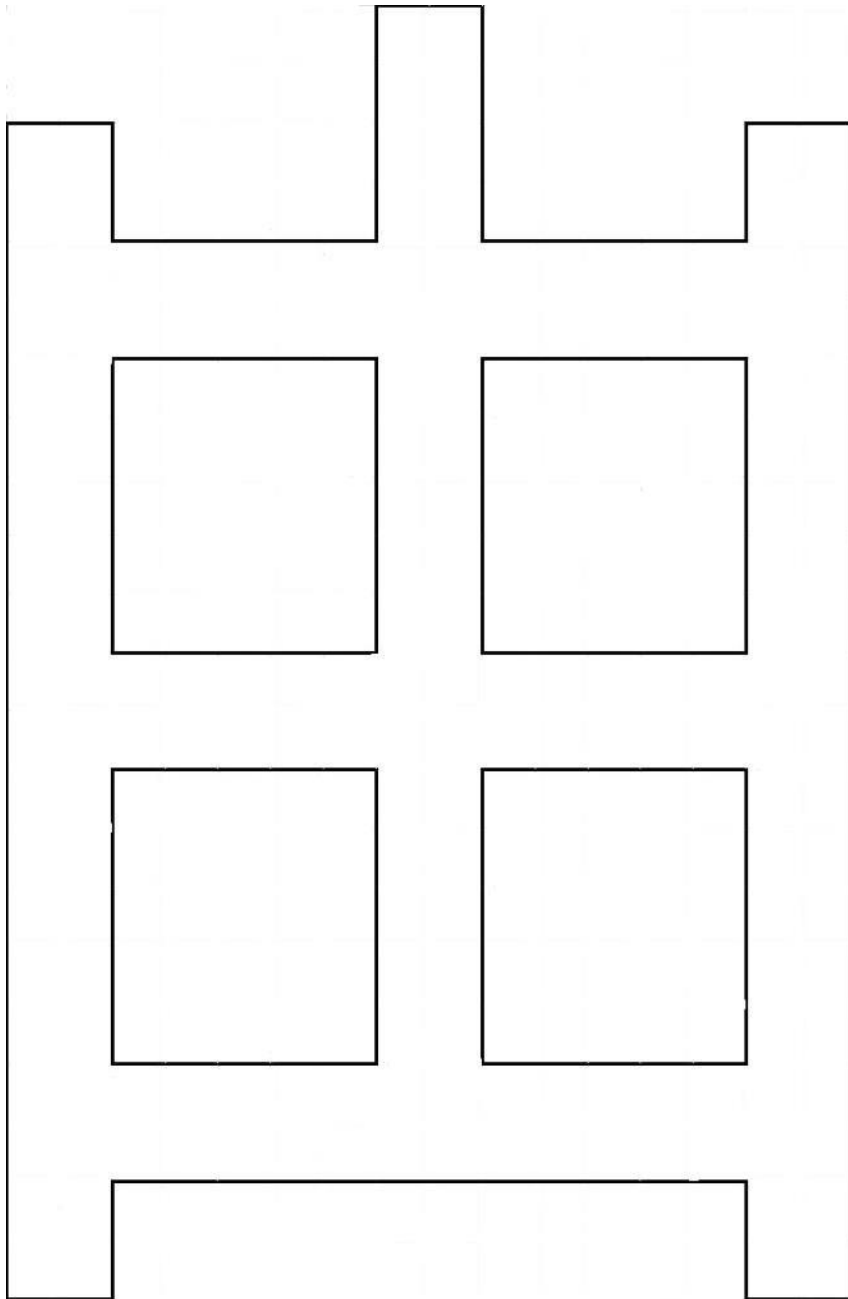
Noah's Loft

CMR Happy Hour/Recept (No- Host Bar)

7:00 pm – 10:00 pm

Noah's Loft

CMR Banquet (No-Host Bar)



- The problem this year is a little different. The teams will have 50 minutes to complete the problem.
- The idea is to take them back to the basics and to practice some of the changes to the contest rules adopted for 2014.
- The field set-up is room and pillar.
- There isn't any fire or fire related gasses.
- There are places where they will have to stand timber.
- There will be some water.
- They will need to ventilate the mine, but the ventilation is simple.
- Mapping of the mine is going to play a big part in the over-all score.
- The atmosphere inside the mine is oxygen deficient.
- There are no live patients to take out.

MANAGER'S STATEMENT

A call comes in from the **Hank Jefferson Mine** for emergency assistance. Your team has rushed to the mine and you meet the Mine Manager...

This morning I brought our two surveyors out to the mine to survey and map the existing workings in preparation to re-open the mine. This mine has been inactive since the early 1980's and the maps were mostly destroyed in a flood at the county courthouse. You will receive all we have.

When I dropped the fellows off I told them not to go into the mine until the mechanic got there and fixed the main fan. I left thinking the mechanic would show up in about an hour. I ran an errand and went to a meeting in town. When I got to my office I checked the phone messages and found out the mechanic had called in sick.

I called Ben and Jerry (my surveyors) to let them know I would be there soon to pick them up, but neither would answer their cell phones. When I got here I found the trailer door unlocked, their dinner buckets on the table, untouched and their equipment gone. I fear that they went into the mine without ventilation.

I have very little back ground information on the mine. We know that it was mined using conventional methods and that it was room and pillar in design. It was only open and working about a year and hadn't produced much in terms of ore. The company that owned it went belly up.

Over the years, vagrants had been seen coming out of the portals, but that stopped suddenly a couple of years ago.

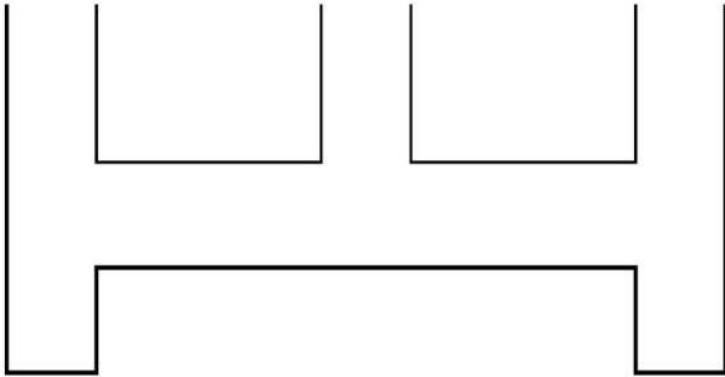
Your team is the first team ready to enter the mine. There is a back-up team here, but they cannot help you explore.

Instructions: Explore and map the mine, bring out survivors. If no survivors are found, your team will need to make sure that investigators can go in bare-faced after you are done.

You have 50 minutes to complete the problem. Good Luck

Mine Information

- ❖ Hank Jefferson Mine – Golden Tater Mining Co.
- ❖ MSHA ID 10-00002
- ❖ Silver ore mine
- ❖ Gas classification – Category VI
- ❖ Frequency of explosive gas being found – None
- ❖ Accuracy of the mine map – Partially destroyed
- ❖ Possibility of the mine cutting into another mine – None
- ❖ Condition of the fan – Not working, but a mechanic just arrived and is working on it.
- ❖ Have guards been posted – Yes, at generator and switches.
- ❖ Electric Power cut off from mine or affected parts – No power underground. Generator is not turned on.
- ❖ Recovery work accomplished – None
- ❖ Notification of authorities – All contacted and are here.
- ❖ Reserve rescue teams – On site, back-up is ready. 2 more on the way, 5 minutes out.
- ❖ Equipment/ materials available – stopping materials, timbers, air compressor & generator.
- ❖ Explosives – None
- ❖ Fuel & Oil storage – No fuel or oil storage underground.



A little about the mine name: Danny Peterson asked us to name the mine after a long time CMR member that passed away this year. Out of respect for a fallen team member it's the right thing to do. Tap `er light Hank!

What you see to the right is what is left of the mine map from the courthouse. The teams will need to truly map the entire mine.

Team Name _____

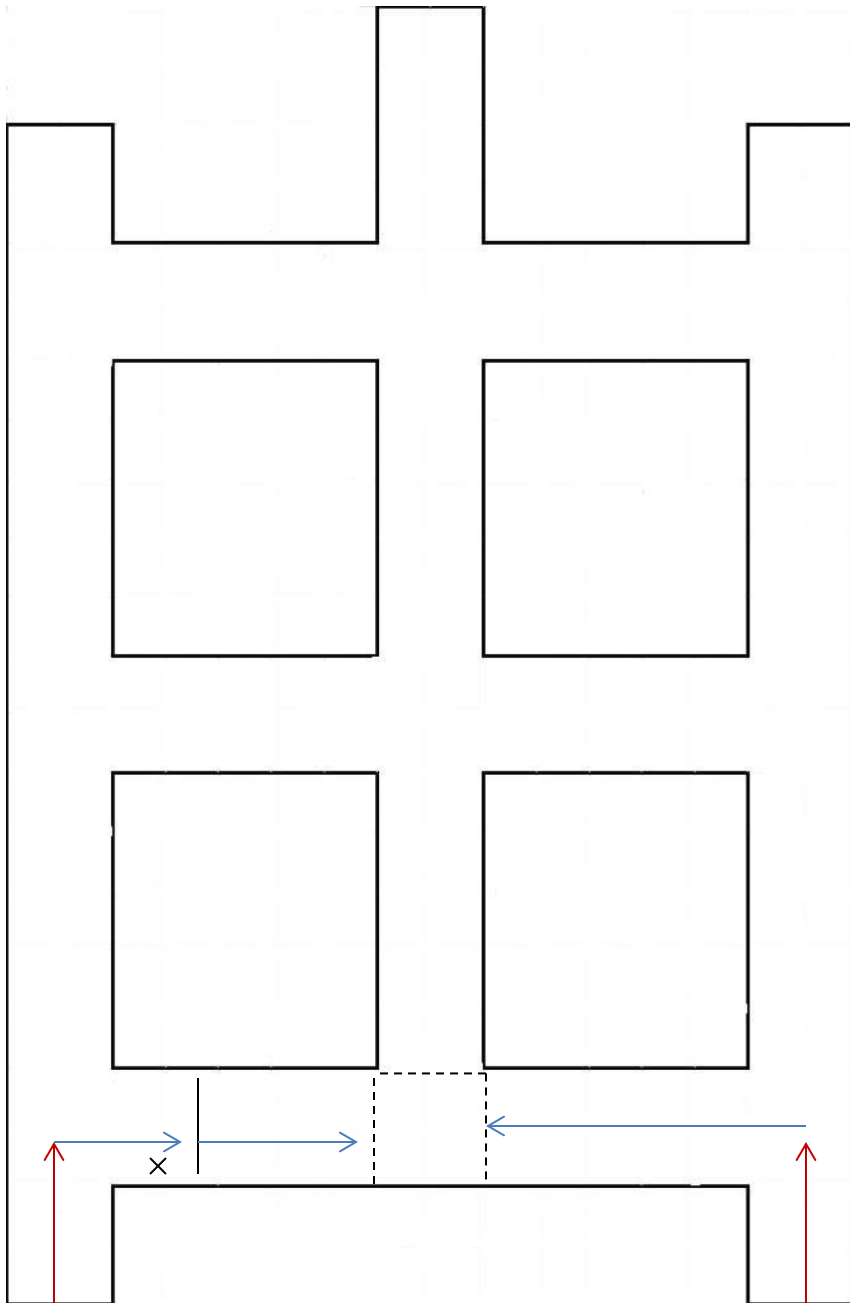
FAB MAP

SCALE 1" = 8'

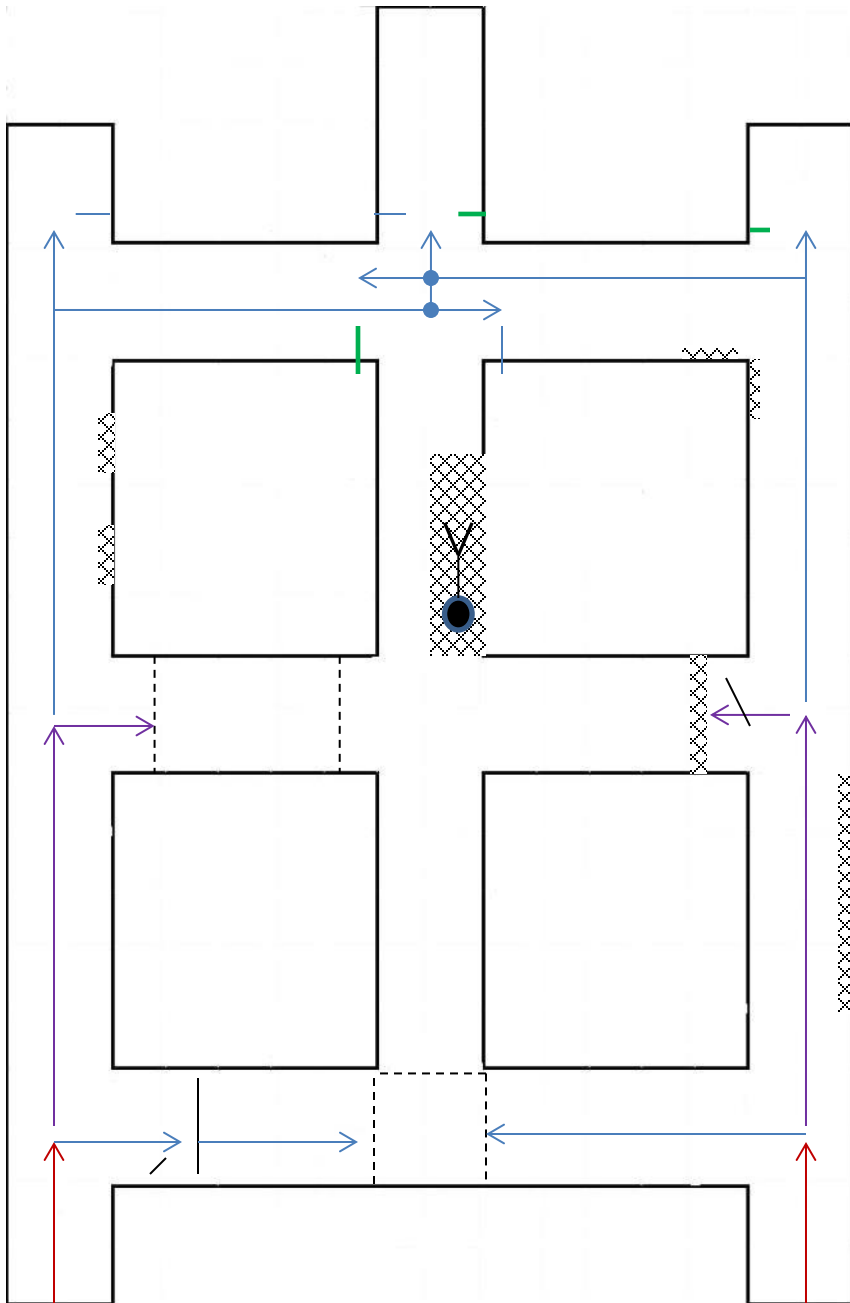
HANK JEFFERSON MINE

GOLDEN TATER MINING CO.

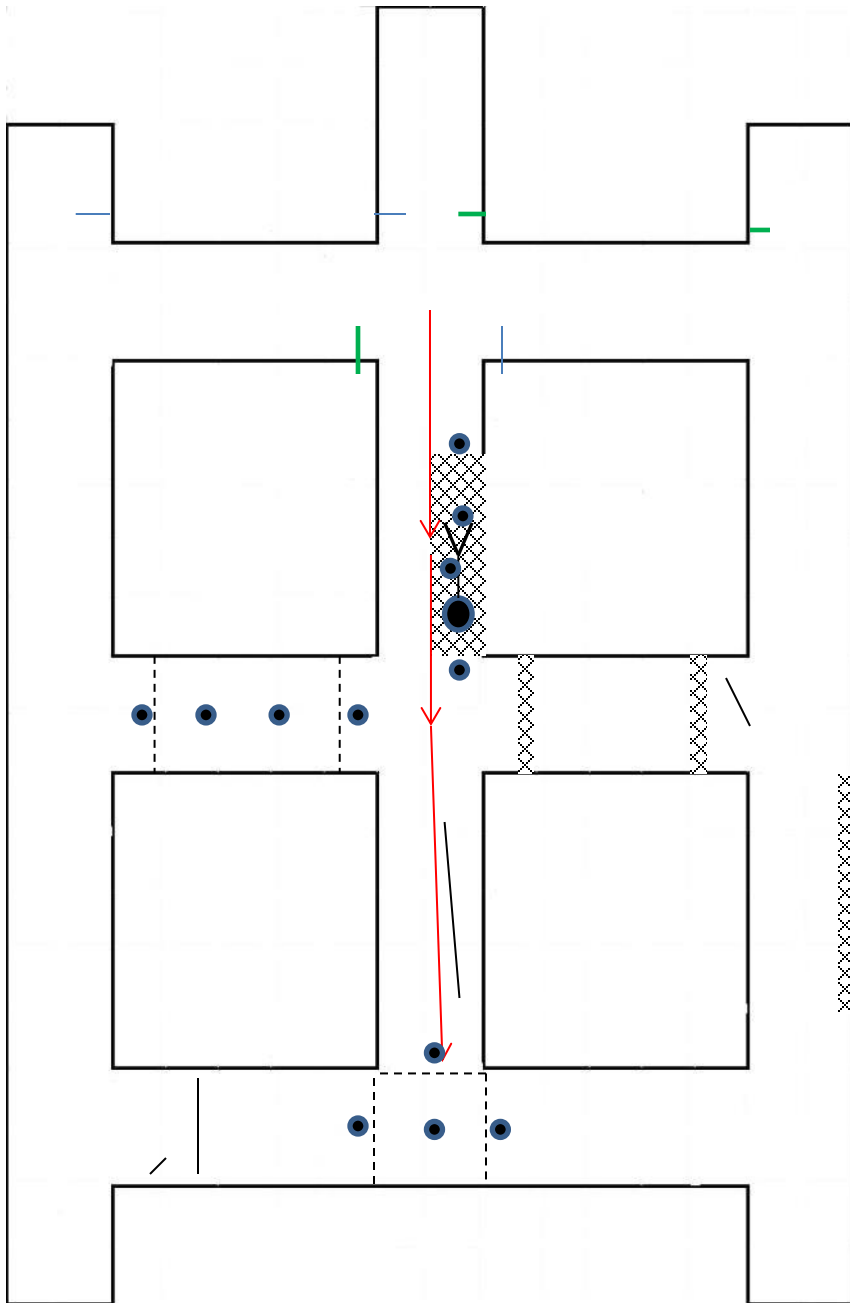
Date: May 15, 1975 Drawn By: GKH



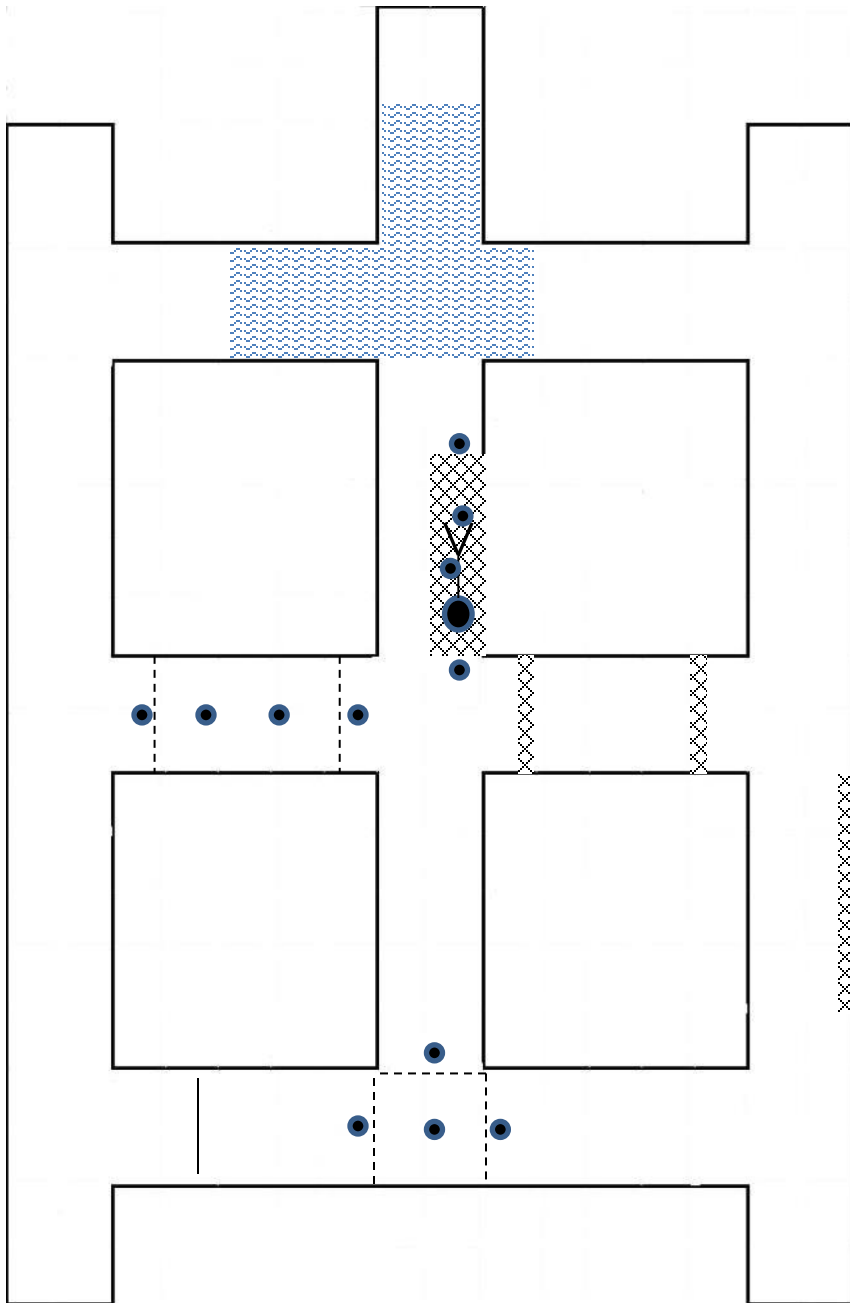
- There are a variety of way a team can solve the problem. There isn't any smoke, so the teams could decide to start in either portal.
- Timbers and stopping materials they will need to work the problem are available to them, both inside and outside the mine.
- Unlike years past, we have chalkboards to sign-in on and a real clock for the captain when he starts the problem. Remember that the only work the team can perform before doing so is laying out the commo cable.
- The team can enter either portal after they make their initial gas checks. The placards at both portals show clear air.
- The team will normally stop at the first intersection and do a team check (50 TC). They will find the first gas placard here, which shows a decrease in oxygen, but no other gas.
- If they enter through the left side, the team will find one set of stopping material along the right rib of #1 XC, and about 8 feet in by an open mine door. The team can continue through the door toward the intersection, but will encounter unsafe roof, rib to rib in the intersection. Most teams may decide to back out and explore northward.



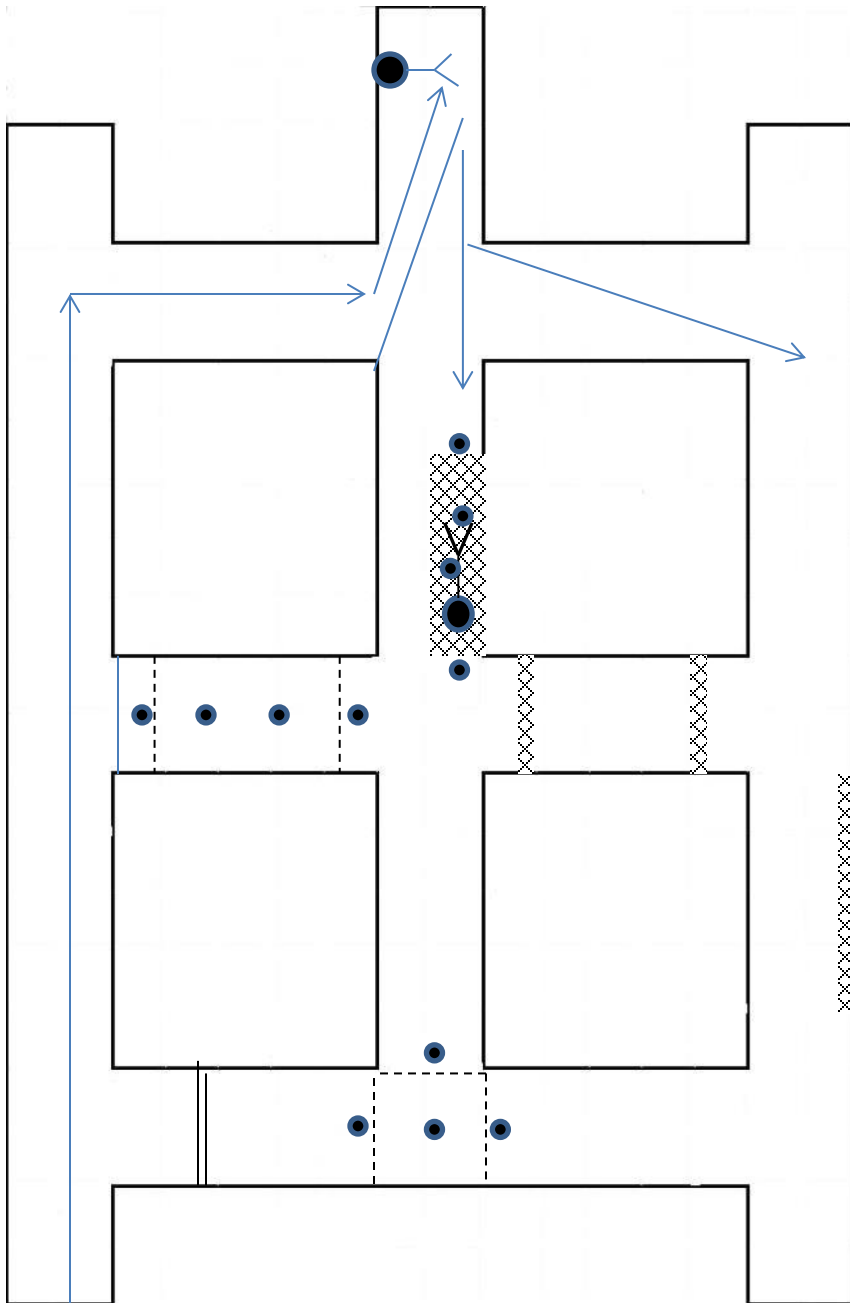
- Traveling northward on the left side of the mine, the team will perform gas tests at the intersection and find further reduced oxygen and 1% CH₄. Turning into #2 XC they will find unsafe roof rib to rib. Since they cannot travel any further they may decide to back out travel into #3 XC. Since #1 XC is open, but #2 is not, #3 XC is the next open crosscut. The captain cannot travel any further up the left side without tying in. In #3 XC, they will encounter the lowest oxygen concentration and 1% methane. Traveling inby toward the middle intersection they will encounter water ankle deep.
- Since the condition(s) of the entries and crosscuts are similar on both sides, the travel will be nearly identical on the right side of the mine if the team enters from that direction.
- On the right side, the team will find unsafe rib along the right rib. Watch for endangerment and the captain should announce the unsafe rib. Like the left side, the team will find lower oxygen levels and 1% methane. As they check into #2 XC they will discover a 6' scaling bar and a placard stating "caved tight" about 4' into the drift.
- You will notice stubby green and blue lines across entries and intersections. These are 2+3 areas where the team can violate the rules. Traveling from left to right, the lines are blue and right to left they are green. Teams cannot go past those marks until they have tied in by exploring the areas behind them.



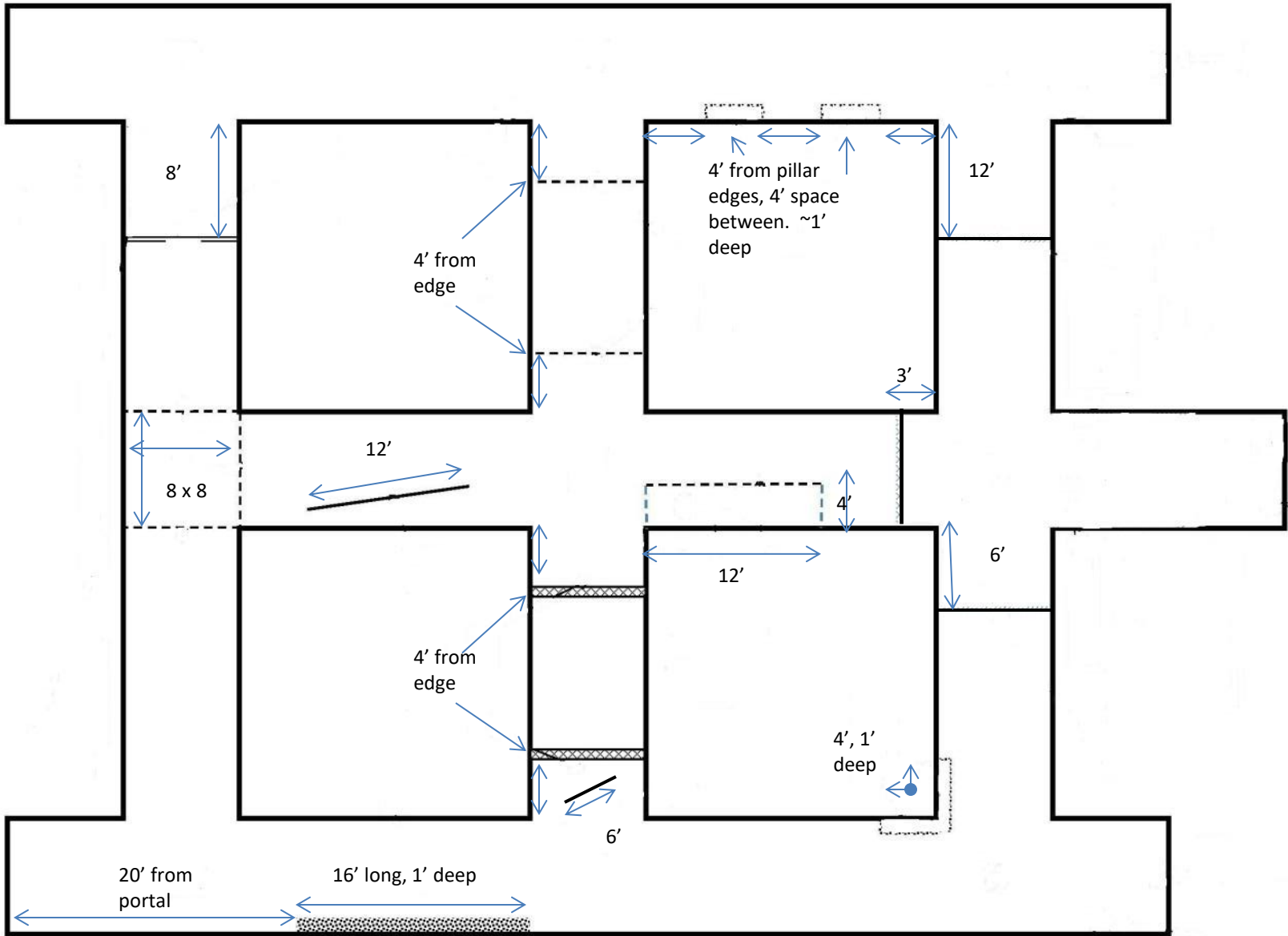
- As the team explores into the center entry, they will discover an area of unsafe roof partially across the entry. Near the inby end, they will see a placard with “Jerry” on it. Before attempting to enter the area, the team must erect timbers following the example shown on page 37 of the 2014 Rule Book. A minimum of four posts (2 outside the marked area, two inside 5 feet from the first two). Once the primary assessment is demonstrated, the #2 judge will flip the placard showing no signs of life. The captain must D & I the body.
- The team will continue south toward #2 XC. In the intersection they will find a Surveyor’s transom and tripod, the back side of the caved tight and unsafe roof. The captain will need to D & I the caved area.
- The team can continue south to the unsafe roof in #1 XC. Once they have reached #1 XC they have almost explored the entire mine. They must stand timber in the areas where unsafe roof is located in #1 and #2 XC’s. In #1 XC, depending on their approach they must stand 1 timber no less than 1 foot from the brow in the direction of travel and 1 in the center (the area is 8’ x 8’ & timbers must be on 5’ centers). In #2 XC the ribs are competent. The drift is 8’ wide and area with the loose is 12’ long. A minimum of 4 posts will be required. 2 no less than 1 foot from the brow on each end and 2 toward the center, 5’ from the brow support.
- Once the timbers have been put in, the team can tie in behind which will allow them to explore the rest of the mine.



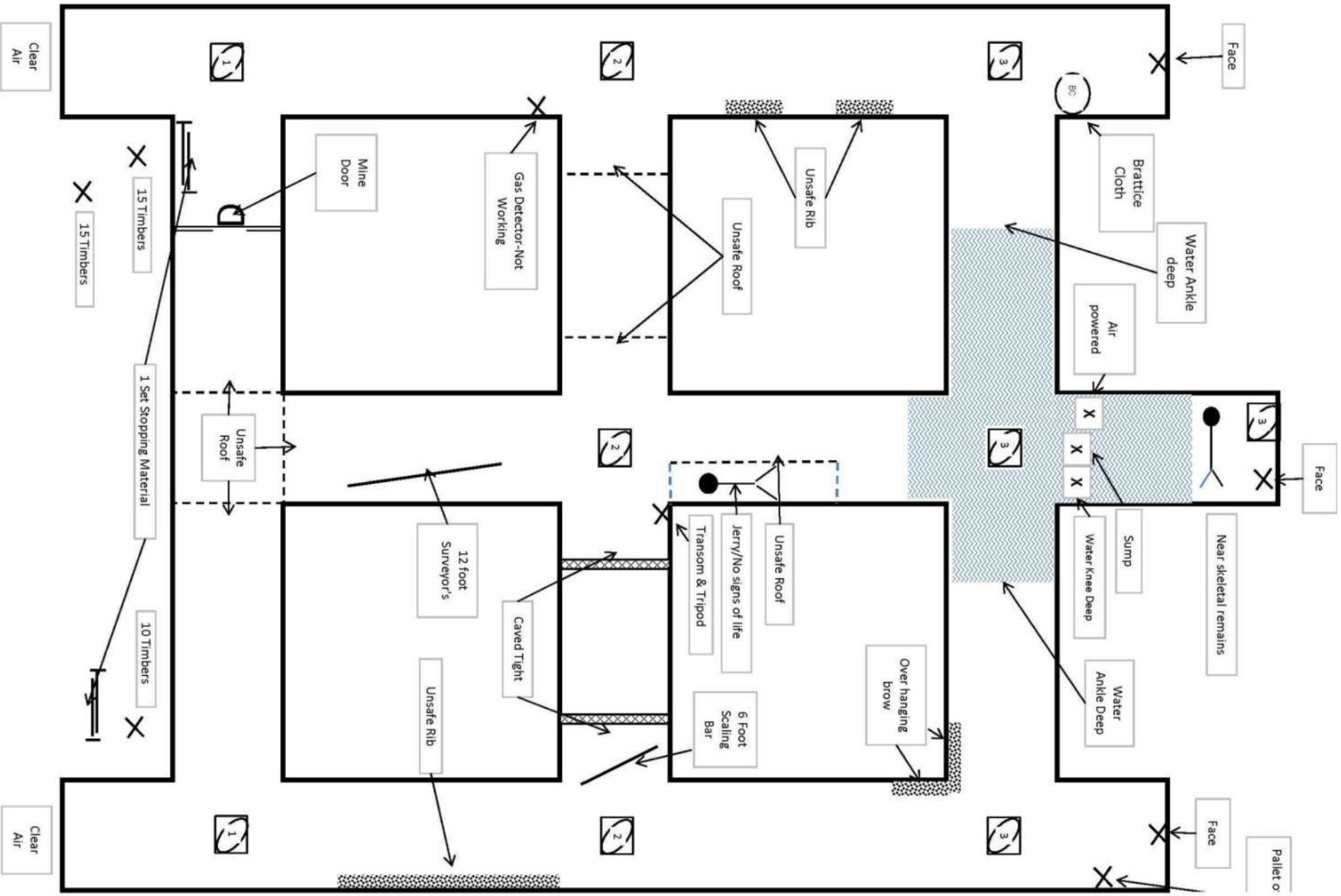
- The team encountered water ankle deep in #3 XC when they explored it. The condition extends rib to rib in the XC.
- Once they have timbered they can explore the stub drifts in entries 1 & 3. Entry 2 is a sump and must be pumped to explore it. There is an air powered pump sitting in the sump. The team must ask that the compressor be started to pump it out. Once the call is made flip the placards to the blank side. The water is gone.
- Since the team has only found one miner (there were two), the team will have to explore all accessible areas of the mine. This means going to the faces of all three entries.
- The teams will find brattice cloth in entry 1, and a pallet of old split sets in entry 3. In entry 2 they will find “Near skeletal remains”. It is NOT miner #2.
- The instructions given in the Team Briefing require that the mine be mapped, survivors brought out of the mine, and that the mine be ventilated to allow for bare-faced investigation if survivors are not found. Stopping materials have been provided.
- Since the sump extends so far back and there is a reason to enter it for investigation, the team will need to clear the air inside. The brattice in entry 1 should be long enough to allow it to be used as a wing curtain.

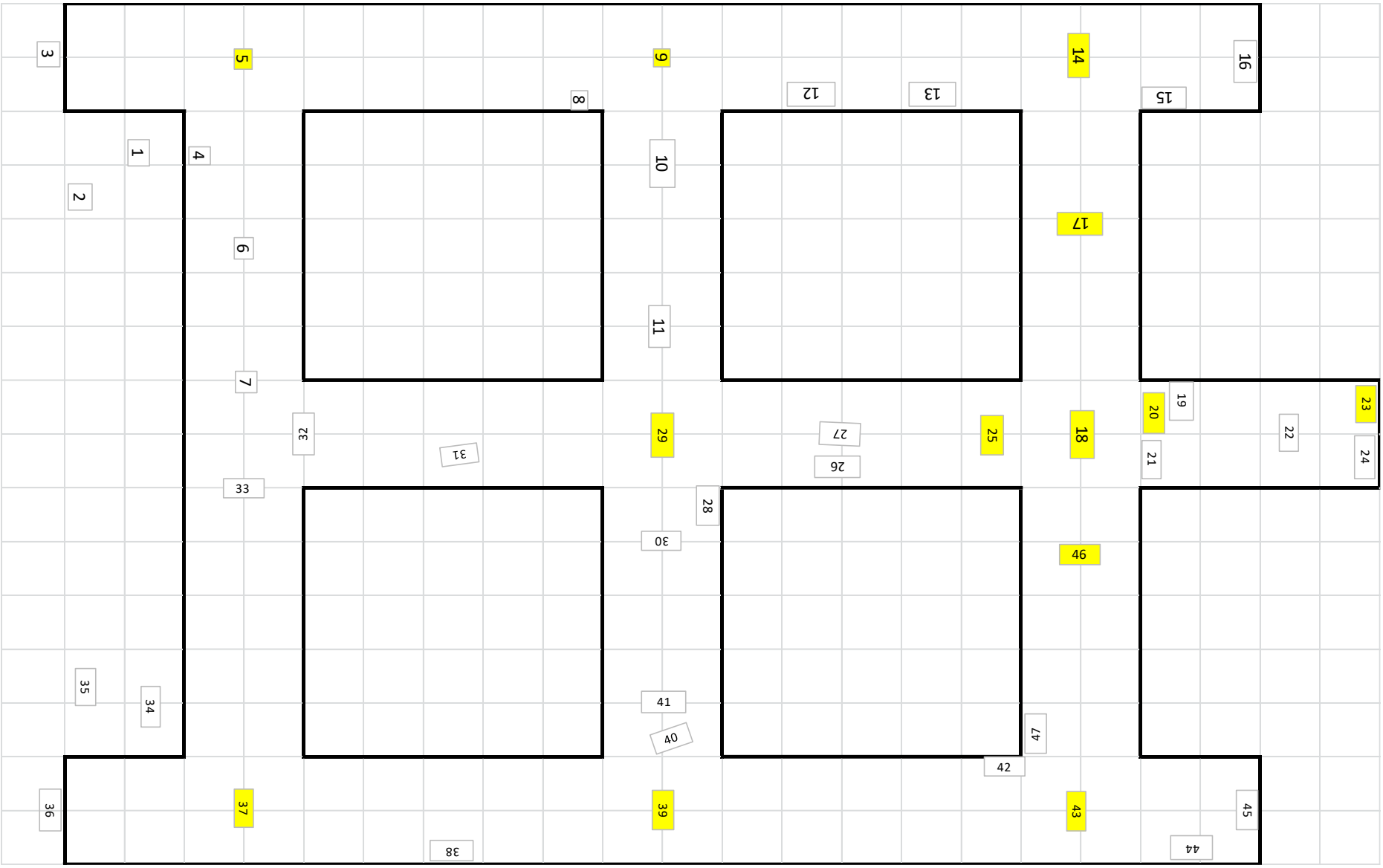


- Ventilating the mine is easy, but the mine must build to avoid short-circuiting the air.
- The fan will be operable by the time they are ready to ventilate.
- The team must call in for a ventilation change before they start the fan.
- Step one, the team must close the door in #1 XC.
- Step two, build a temporary stopping in entry 1, #2 XC. There is space to do this if the build at the outby corner.
- Once the fan is started, the team can gather the brattice in the entry 1 stub. They will need to stretch the brattice from the corner of the pillar into the sump area.
- Once the changes are made, the placards should be flipped to side "b" which indicates clear air.
- The team should then come out of the mine, inform the Mine Manager of their findings, turn in their maps and stop the clock.



PAINT MAP





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CMR 2014 Placard list

1	Clear Air				33	Unsafe roof across entry rib to rib		
2	Timbers (15)				34	Timbers (10)		
3	Timbers (15)				35	1 Set stopping materials		
4	1 set stopping material				36	Unsafe roof across entry rib to rib		
5 a	O2-13%, CO-0, NO2-0, CH4-0				37 a	O2-13%, CO-0, NO2-0, CH4-0		
5 b	Clear Air				37 b	Clear air		
6	Mine door-Open				38	Unsafe rib		
7	Unsafe roof across entry rib to rib				39 a	O2-6%, CO-0, NO2-0, CH4-1%		
8	Gas Detector-not working				39 b	Clear air		
9 a	O2-6%, CO-0, NO2-0, CH4-1%				40	6 foot scaling bar		
9 b	Clear Air				41	Caved Tight		
10	Unsafe roof across entry rib to rib				42	Over Hanging Brow		
11	Unsafe roof across entry rib to rib				43 a	O2-4%, CO-0, NO2-0, CH4-1%		
12	Unsafe rib				43 b	Clear air		
13	Unsafe rib				44	Pallet of old split sets		
14 a	O2-4%, CO-0, NO2-0, CH4-1%				45	Face		
14 b	Clear Air				46	Water-Ankle Deep		
15	Brattice cloth				47	Over Hanging Brow		
16	Face							
17	Water-Ankle Deep							
18 a	O2-4%, CO-0, NO2-0, CH4-1%							
18 b	Clear Air							
19	Air Powered Pump							
20	Water-Knee Deep							
21	Sump							
22	Near skeletal remains							
23 a	O2-4%, CO-0, NO2-0, CH4-1%							
23 b	Clear Air							
24	Face							
25	Water-Ankle Deep							
26 a	Jerry							
26 b	No signs of life							
27	Unsafe roof Partially across entry							
28	Surveyor's Transom & Tripod							
29 a	O2-6%, CO-0, NO2-0, CH4-1%							
29 b	Clear Air							
30	Caved Tight							
31	12 foot Surveyor's Pole							
32	Unsafe roof across entry rib to rib							

5/16/2014 Field Running Order

Draw	Company	Team
1	Hecla	Greens Creek
2	Hecla	Lucky Friday
3	Teck Washington	Pend Orielle
4	Coeur Alaska	Kensington
5	US Silver	Galena
6	Kinross	Buckhorn
7	Sumitomo Mining	Pogo

5/16/2014 Bench (REVERSE) Running Order

Run	Draw	Company	Team
1	7	Sumitomo Mining	Pogo
2	6	Kinross	Buckhorn
3	5	US Silver	Galena
4	4	Coeur Alaska	Kensington
5	3	Teck Washington	Pend Orielle
6	2	Hecla	Lucky Friday
7	1	Hecla	Greens Creek

5/17/14 First Aid Running Order

Draw	Company	Team
1	Teck Washington	Pend Orielle
2	Sumitomo Mining	Pogo
3	US Silver	Galena
4	Coeur Alaska	Kensington
5	Kinross	Buckhorn
6	Hecla	Greens Creek
7	Hecla	Lucky Friday

5/17/14 Rope Rescue Running Order

Run	Draw	Company	Team
1	7	Hecla	Lucky Friday
2	6	Hecla	Greens Creek
3	5	Kinross	Buckhorn
4	3	US Silver	Galena
5	2	Sumitomo Mining	Pogo
6	1	Teck Washington	Pend Orielle