

2015 Post #6 Pre-Shift Contest

June 2, 2015

Contestant Statement

Hello _____, acting as the shift foreman. First off, I'd like to thank you for coming out early to help us. You are requested to perform a fan run and pre-shift examination of the 9C Tailgate section.

The section is set up as follows:

#1 Entry – intake entry

#2 Entry – track entry

#3 Entry – return entry

Approximately 3 ½ hours ago, our shift encountered a fan outage. Unfortunately in 9C Tailgate the section foreman trainee was acting as their section foreman for the first time by himself. Jason was unsure as to what condition he needed to leave the section in due to the fan outage. With his crew's help, they did the best they could in the short time they had. The 9C crew as well as everyone underground have returned to the surface and left the mine except for a few foreman and fire bosses.

Do what you can to make the 9C Tailgate section ready to load coal as soon as the crew gets there. It also very important that you call out as soon as you've finished your run, so we can get all the power set up on time for the start of the next shift. We are very close to setting a new tonnage record for the mine this month. We really can't afford to have any delays. You will have 30 minutes to complete the problem and the judges will notify you when you have 1 minute left.

Good Luck!!!

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Roof Control Plan

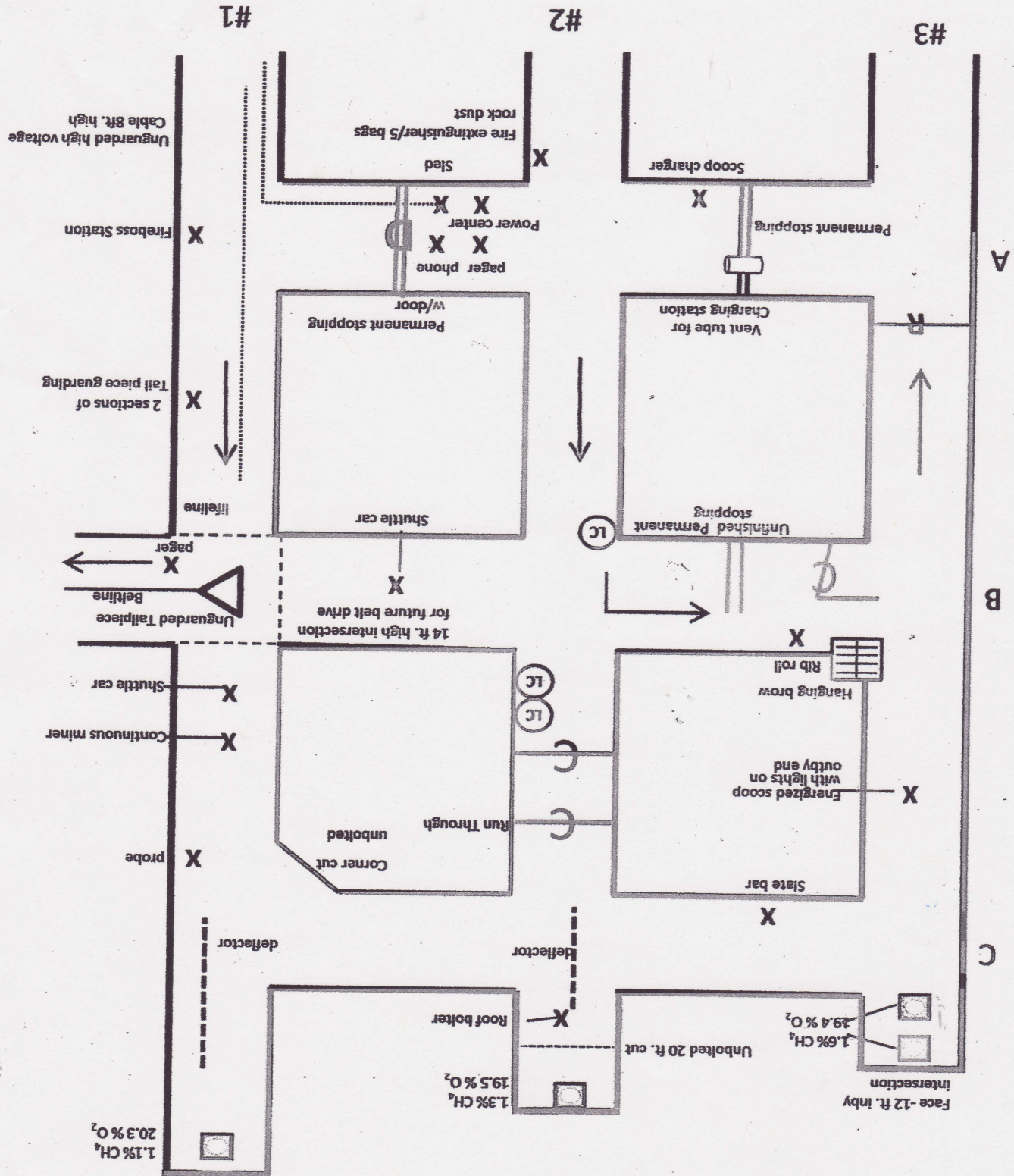
- Minimum roof support length – 96 inches
- Roof support installation – 4 feet x 4 feet
- Maximum entry width – 18 feet
- 67 feet diagonal intersection measurement
- Maximum cut depth – 20 feet
- Danger signs and/or physical barriers shall be placed to prevent entry into unsafe or unsupported areas
- Pillar size – 50 feet x 50 feet
- Mining height averages 8 feet

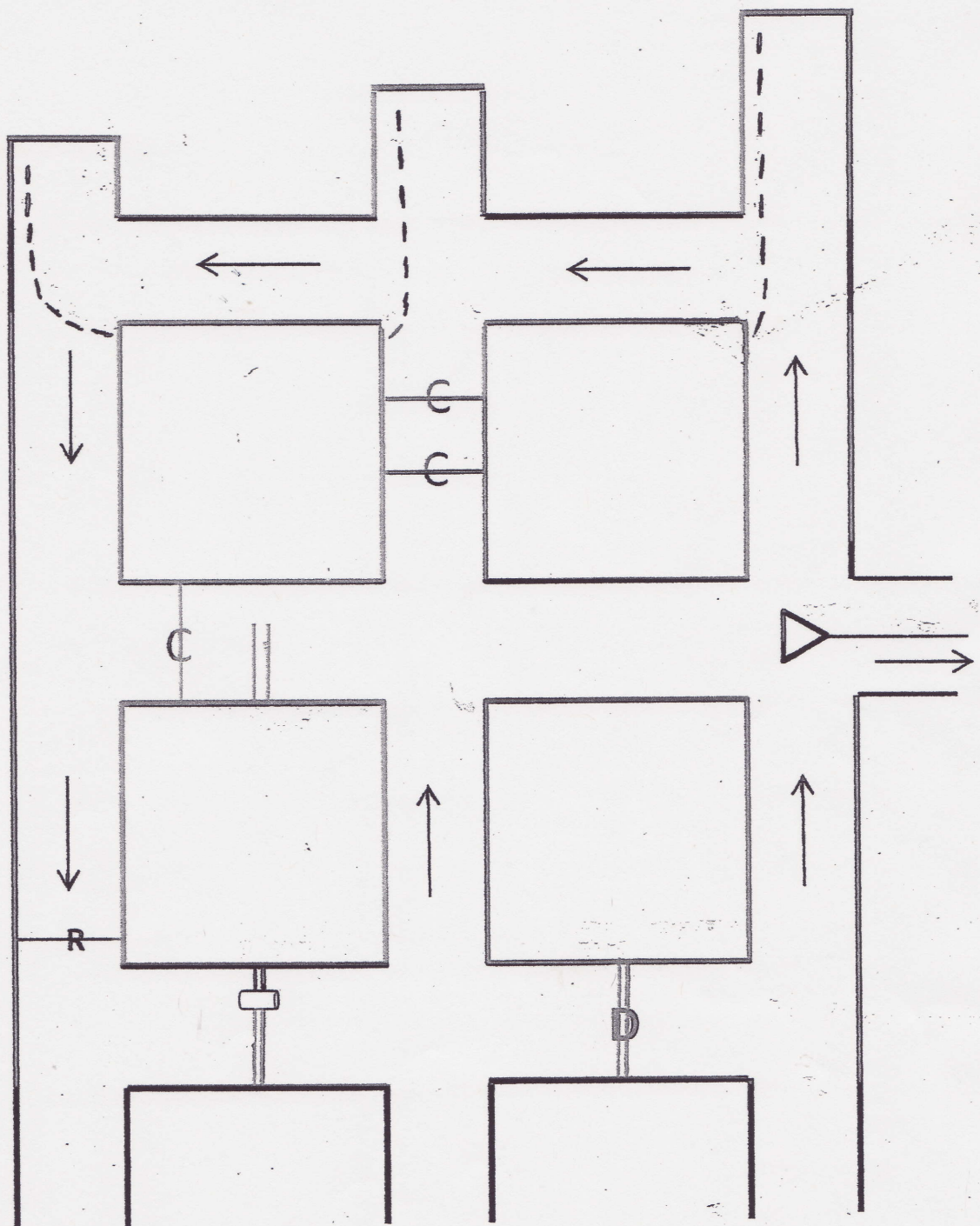
Ventilation Plan

- Not to scale
- Exhaust ventilation
- Belt air is ventilated outby into section belt regulator
- Permanent stoppings cannot be walked through unless doors or accessible openings are present at these locations
- Permanent stoppings shall be maintained up to and including the third connecting crosscut
- A total of 24 SCSRS must be present in the section cache
- CO sensors must be within 100 feet down wind of electrical installations
- The section's refuge chamber must remain within 1000 feet of the working face
- Face line curtains must be properly installed to dilute and render harmless any gas accumulation which may occur. They must be adequately hung tight to rib and roof and within 5 feet of face or unsupported area
- No ventilation changes can be made until the entire section has been examined
- 3 air readings are required:
 - 1) Velocity of airflow on belt (minimum 50 velocity)
 - 2) Last open crosscut (minimum 22,000 cfm)
 - 3) Section regulator (minimum 25,000 cfm)

[illegible]

Continuous Mining Method Exhaust Ventilation





Ventilation map

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Judge's Discount Sheet

Contestant _____ No. _____

Contestant has 2 minutes to start problem once entering fire boss station.

Fire Boss Station

Yes

No

Start Clock (rule 1)

Check in (rule 1)

SCSR Check (rule 3)

Gas Detector(s) (rule 19)

Required Equipment (rule 2)

Required Equipment Maintained
Operable (rule 14)

#1 Entry

Gas test/DTI #1 entry 0.0% CH4 20.9% O2
(rule 5)

Verbally state visual exam. roof/rib #1 entry
(rule 10)

Check pager phone (rule 19)

Unguarded tailpiece – gas test/DTI 0.0% CH4
20.9% O2 – travel just outby in #1 entry and
retrieve 2 pieces guarding to correct missing
tailpiece guarding (rule 12)

Air reading on belt #1B to #0B crosscut – proper
Air reading procedures – minimum velocity is
50 – velocity found 56 (rule 8)

Examiner finds probe and takes gas test at
14 feet high void at #1B intersection tailpiece
location 0.2% CH4 20.9% O2 (rule 5G)

Examiner finds unbolted corner without danger
signs #1 to #2C crosscut. Verbally state his findings
DTI and danger tags for approaches to this
unbolted area (rule 16)

Deflector in #1 face is not adequately ventilating
gases (too far away from face) can be corrected
during ventilation process (rule 7)

#1 face gas test/DTI CH4 found above 1.0% 1.1% CH4
20.3% O2 – can be corrected during ventilation
process (rule 12)

#2 Entry

Gas test/DTI #2 entry 0.0% CH4 20.9% O2 (rule 5)

Verbally state visual exam. roof/rib #2 entry
(rule 10)

Verbally state no rock dust or fire extinguisher at
scoop charger (rule 11)

Gas test/DTI scoop charger 0.0% CH4 20.9% O2 (rule 5)

Check pager phone and telephone at power center
- both OK – (rule 19)

Gas test/DTI power center. Power off from fan
outage 0.0% CH4 20.9% O2 (rule 5)

Refuge chamber – outby 1300 feet from face (rule 12)

Deflector in #2 face is not adequately ventilating gases
(too far away from unbolted cut) can be corrected during
ventilation process (rule 7)

#2 face unbolted 20 foot cut not endangered off (rule 16)

#2 face gas test with probe/DTI CH4 found above 1.0% -
1.3% CH4 19.5% O2- can be corrected during
ventilation process (rule 12)

#3 Entry

Gas test/DTI #3 entry 0.0% CH4 20.9% O2 (rule 5)

Verbally state visual exam. roof/rib #3 entry (rule 10)

Examiner take air reading, gas test, DTI at #3A to B entry
regulator – 25,000 cfm minimum

REGULATOR AREA - 54" wide x 60" high (rule 7)

4.5' wide x 5' high

Velocity 1245 x 22.5 area = 28,012 cfm

verbally state proper procedure when taking air
measurement (rule 8)

#3 to #2B crosscut – check curtain down – short
circuiting section air flow (rule 12)

Hanging brow in #3 to #2B crosscut is pulled down, with
slate bar found in #3 to #2C crosscut – once brow is pulled
down, the area where brow was will need additional roof
support – danger off approaches to area (rule 12)

Energized scoop found in #3B to C return entry with lights
"on" outby – de-energize scoop and turn lights off (rule 12)

3 face no line curtain in #3 face – can be corrected during
ventilation process (rule 7)

#3 face inby "C" crosscut to face low O2 19.4% & 1.6% CH4
were found – can be corrected during ventilation process
- examiner must remain on fresh air side of line curtain to
raise the O2 level and avoid exposure to the low O2 present
in face area (rule 16)

Air reading L.O.C. #2 to #3C – 22,000 cfm minimum

if section is properly ventilated area is $8.5 \times 16 (136) \times 202V = 27,472$

if section is not properly ventilated area is $8.5 \times 16 (136) \times 64V = 8,704$ (rule 7)

proper procedure when taking air measurement (rule 8)

Gas test/DTI at A.R.S. 0.0% CH₄ 20.9% O₂ (rule 5)

End of Problem

Call outside on telephone @ power center (rule 17)

Check out (rule 1)

Stop clock (rule 1)

Gas readings in faces after proper ventilation:

#1 0.3% CH₄ 20.9% O₂

#2 0.3% CH₄ 20.9% O₂

#3 0.4% CH₄ 20.5% O₂

PRESHIFT-CERTIFICATION EXAMINER'S REPORT

Date of Examination _____	Time From: _____ AM PM To: _____ AM PM
Section/Area: <u>9C tailgate section</u>	Reported Outside? Yes ___ No ___ Time: _____ AM PM
Reported By: _____	Received By: _____

Pre-Shift required within 3 hours prior to any 8 hour interval

Location	Hazardous Condition	Action Taken	CH4	O2
#1B intersection	tailpiece unguarded	installed guarding/corrected	0.0%	20.9%
#1C intersection	corner cut unbolted/no danger signs	dangered off corner/reported		
#2 to 3A scoop charger	no rockdust or fire ext.	dangered off/reported	0.0%	20.9%
#2 to 3 B	check curtain down short circuiting section airflow	rebuilt check/corrected		
#2 face	unbolted 20 foot cut/no danger signs	dangered off/reported	0.4%	20.9%
#3 entry	no life line	reported		
#3B intersection	corner hanging brow	pulled brow down/needs added support/dangered off/reported		
#3 B to C	scoop energized with lights on	de-energized scoop/corrected		
#3 face	no line curtain	installed line curtain/corrected		
#3C crosscut to face	19.4% O2, CH4 above 1.0%	cleared by ventilation/corrected	0.4%	20.5%
#1 & 2 faces	improperly ventilated, CH4 above 1.0%	cleared by ventilation/corrected	0.3%	20.9%
refuge chamber	outby 1300 feet	reported		

Air Measurements

Location	CFM	CH4	O2	Location	CFM	CH4	O2
L.O.C. 2 to 3 C	27,472	0.0%	20.9%	power center/#1,2,3 entries		0.0%	20.9%
return regulator	28,012	0.3%	20.9%	roof void #1B intersection		0.2%	20.9%
belt 1 to 0 x-cut	56 velocity			scoop charges		0.0%	20.9%

Remarks: All areas of this section: travel ways, faces, belt transfer and belt and electrical installations were found free of any dangerous conditions other than those noted above. The air is traveling in it's proper course and normal volume.

Signed by Pre Certified Examiner	Date	Certification #
Countersigned by Mine Foreman	Date	Certification #

PRESHIFT-CERTIFICATION EXAMINER'S REPORT

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Section/Area: _____

Reported Outside? Yes ___ No ___ Time: _____ AM PM

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Received By: _____

Pre-Shift required within 3 hours prior to any 8 hour interval

Location	Hazardous Condition	Action Taken	CH4	O2

Air Measurements

Location	CFM	CH4	O2	Location	CFM	CH4	O2

Remarks:

Signed by Pre Certified Examiner

Date

Certification #

Countersigned by Mine Foreman

Date

Certification #