

5M CORPORATION  
Hurricane, Utah

VENTILATION SYSTEM  
METHANE AND DUST CONTROL  
PLAN

John Henry Mine  
Kaiparowits Plateau

333 NORTH HIGHWAY 17

P.O. BOX 752, HURRICANE, UTAH, 84737 (801) 635-2572



MINERALS  
MINING  
MILLING  
MELTING

*and*  
**MANUFACTURING**  
*of*

*METAL PRODUCTS - MINI MILLS - MINING EQUIPMENT*

**I N C O R P O R A T E D**

VENTILATION SYSTEM  
METHANE AND DUST CONTROL  
PLAN

John Henry Mine  
Kaiparowits Plateau  
Kane County, Utah

12 August 1975

VENTILATION SYSTEM  
METHANE AND DUST CONTROL PLAN

General:

1. Company name: 5M Corporation  
Post Office Address: P. O. Box 752  
Hurricane, Utah 84737  
Telephone Number: (801) 635-2572  
Mine name: John Henry Mine  
Location: Kaiparowits Plateau  
Kane County, Utah  
M.E.S.A. Identification No. 42-01227  
Operator's name: Jerry Glazier  
Operator's title: General Manager  
Operator's address: 100 South 150 West  
Hurricane, Utah 84737  
Operator's Telephone No.: (801) 635-2572

Life of Mine:

2. Life of mine is programmed to be greater than one year.

Employees:

3. Number of employees (first 6 months):

Underground	15
Surface	<u>4</u>
Total	19

Stoppings:

4. All stoppings, seals, undercasts, and regulators are built from non-combustible materials, i.e., cinders, or concrete blocks bonded by sacrete, bricks used as chinking. All stoppings are substantially constructed.

Man doors, equipment doors, and regulator openings are of metal set within the stopping.

Multiple Fans:

5. Does not apply.

Brattice Lines:

6. A brattice line is to be installed to within 15 feet of the face to ventilate entries or rooms where crosscuts cannot be provided before the entry or room is abandoned.

METHANE AND DUST CONTROL

Dust Control:

1. (a) At transfer points: Does not apply for first year.
- (b) At loading points: Loading points at face are to be continually kept shoveled and rock dusted. Sufficient moisture is to be provided by spraying as necessary.
- (c) Underground crushers: Does not apply
- (d) Underground dumps: Does not apply.
- (e) Along belt and track haulage systems: Does not apply.
- (f) Face areas: Brattice lines are to be kept to within 15 feet of the face in order to carry the majority of the dust into the return where a trickle duster is kept operating to keep the incombustible content above 80%.
- (g) Along shuttle car runways: Spraying is to be accomplished along haulage roads sufficient to substantially reduce the amount of dust created in tramming. Rock dusting along haulage ways is to be done periodically as needed.
- (h) Longwall faces: Does not apply.
- (i) Other problem areas: None determined at this time.

Water Sprays:

2. The conventional cutting machine is equipped with a water spray which pours water on the cutting chain while the machine is in operation.

The roof bolter is equipped with an internal cyclone type dust collector.

Water is to be sprayed on coal before and during

underground coal loading operations.

Respirators are available to all personnel.

Bleeder System:

3. Does not apply for first 3 years of mine development.

Methane Content:

4. Air returning from an active section shall not contain 1.0 volume per centum or more of methane.

The air in active workings shall contain less than 1.0 volume per centum of methane.

The methane content of any other return air shall not exceed 2 per cent.

If the methane content exceeds the limits, changes or adjustments shall be made at once in the ventilation system to reduce the methane content.

Seals:

5. Does not apply for first 3 years of mine development.

SECTION AND FACE VENTILATION SYSTEM

1. Section and Face Ventilation System:

See MAP No. 1 - "Section & Face Ventilation System".

2. Quantities and Velocities of Air:

See MAP No. 2 - "Development Ventilation Plan".

3. Ventilation of Belt Haulage Entries:

Does not apply for first 2 years of mine development.

4. Ventilation on Adjacent Pillaring:

Ventilation between adjacent pillaring and/or development sections is controlled through the use of overcasts and undercasts so as to prevent the return from one section from entering the intake air going to another section. The return air is overcasted across the intake air and the belt split air to be vented directly into the main return.

5. Permanent Stoppings:

Permanent stoppings are to be used to separate intake and return air courses, and are maintained to and including the third connecting crosscut, outby the faces of the entries.

6. Escapeways:

Escapeways are designated on all intake entries.

7. Coal Accumulation:

Coal is not to be allowed to accumulate at the outby end of the face equipment to the extent that ventilation of the working face is restricted.

MINE FAN:

The housing of the mine fan is made totally of incombustible materials.

The housing sides are made of 6 in. X 6 in. X 16 in. concrete blocks. The roof is made of 1/4 in. steel plate. The air duct connecting the fan to the mine opening is made of 1/4 in. plate.

The fan is offset a minimum of 15 feet from the return entry, and a weak wall - equal to the cross sectional area of the entry - is in direct line with any explosion force. The wear wall is made of 6 in. X 6 in. X 16 in. concrete blocks.

The fan is driven by an electric motor having a separate power circuit. The fan is equipped with a pressure recording gauge, and both a visual and audio stoppage alarm. The visual device is a red colored light installed in the side of the buzzer device, the latter being the audio alarm. The alarm device can be heard both inside the warehouse and on the surface area. The warehouse is manned whenever men are underground.

The area surrounding the fan is kept free of all flammable materials for at least 100 feet in all directions.

See MAPS No. 3 & 3(A), "Ventilation Fan".

MAPS:

<u>Number</u>	<u>Name</u>
1	Section and Face Ventilation System
2	Development Ventilation Plan
3	Ventilation Fan
3 (A)	Ventilation Fan
4	Stoppage

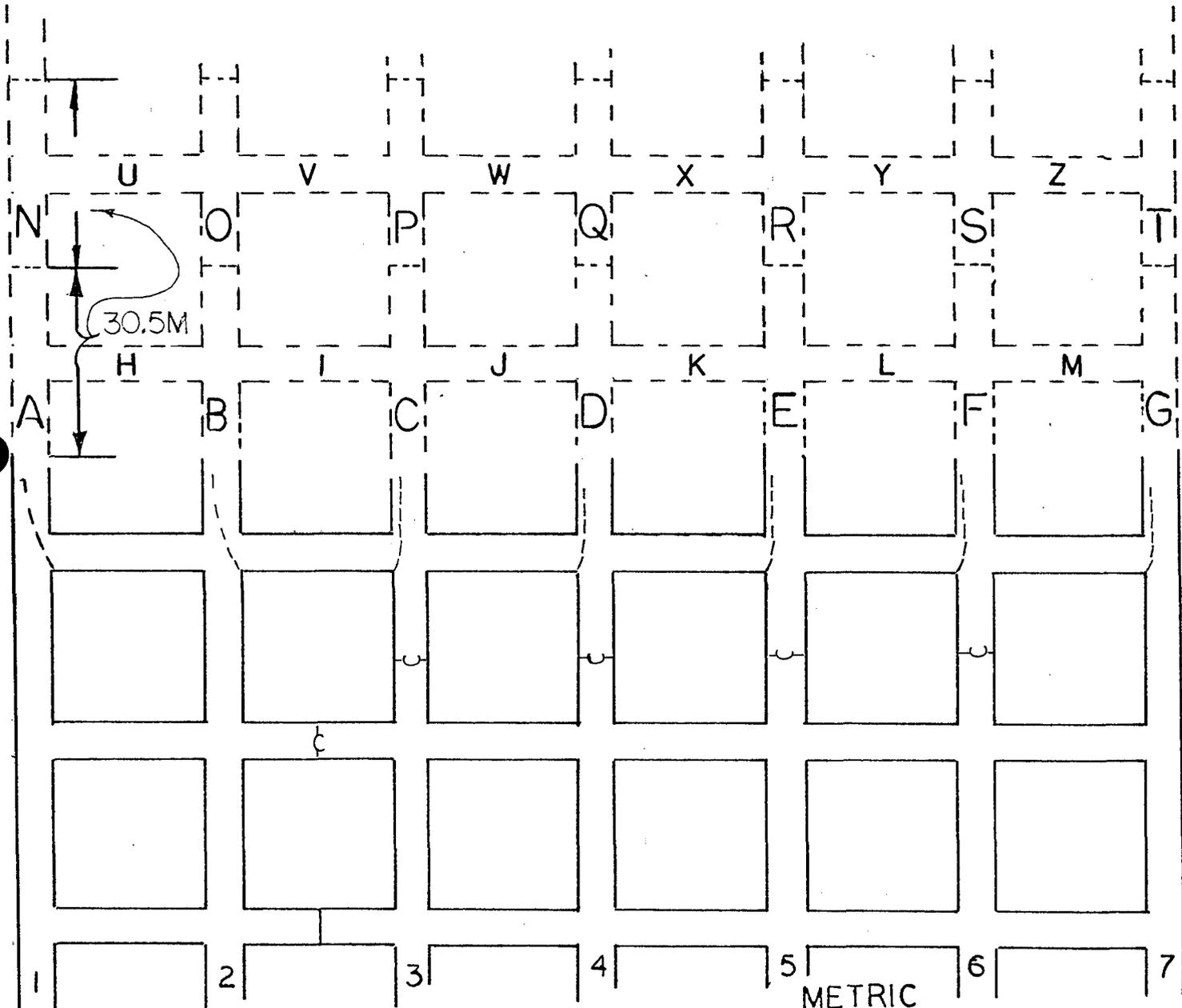
# SECTION & FACE VENTILATION SYSTEM

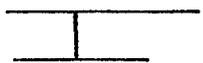
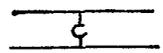
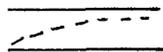
DRIVE ENTRYS 1 thru 7 FOR 30.5M AS SHOWN BY A thru G

DRIVE CROSSCUTS 24.5M AS SHOWN BY H thru M

KEEP UP BRATTICE LINES, ROOF SUPPORT, AND CLEANUP

REPEAT CYCLE FROM LEFT TO RIGHT AS SHOWN BY N thru Z

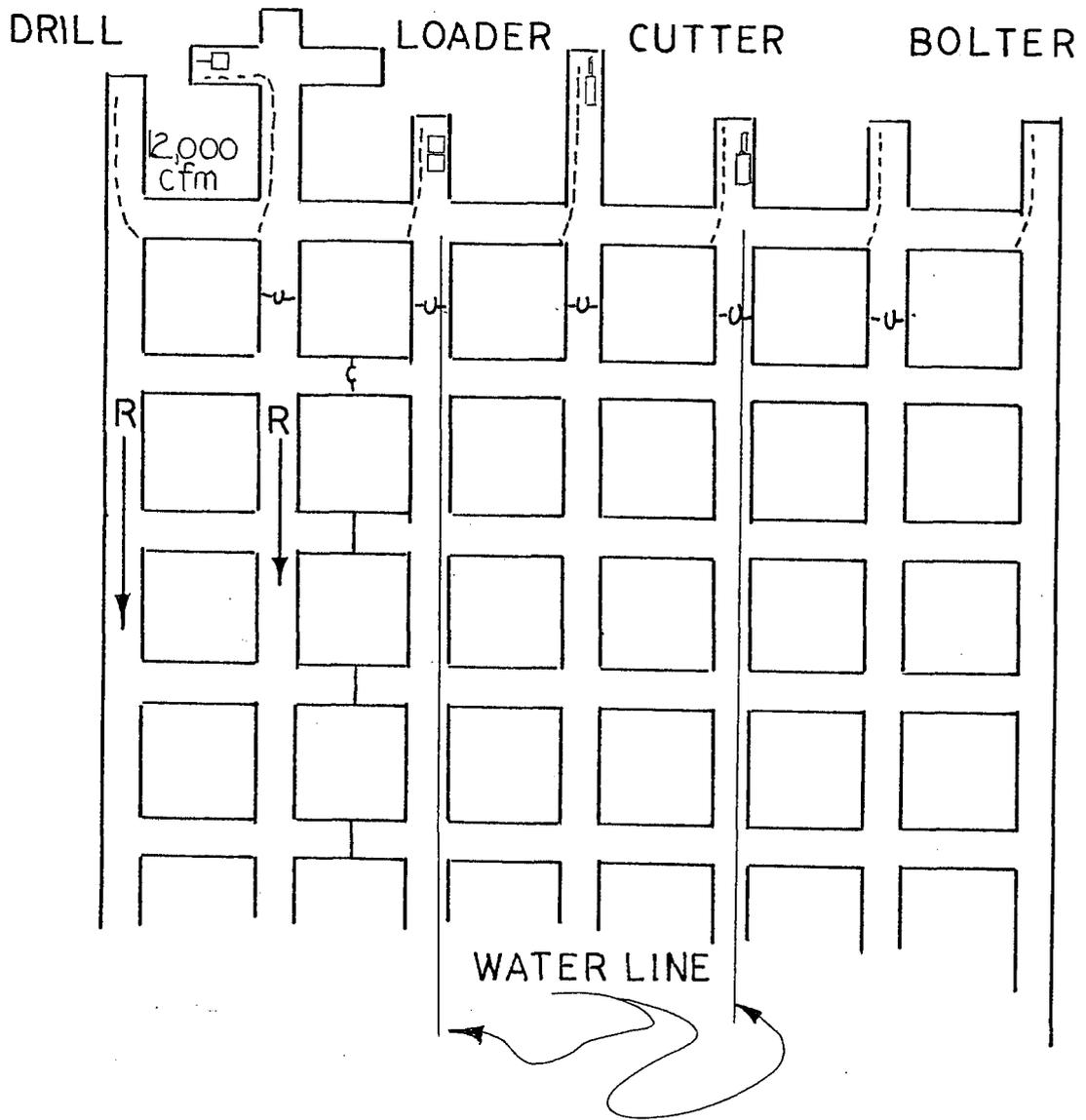


STOPINGS   
 CHECK CURTAIN   
 BRATTICE LINE 

JOHN HENRY MINE	DATE
	SCALE 1:100
MAP NUMBER ONE	DR. R.P.
5M INC. HURRICANE, UTAH	

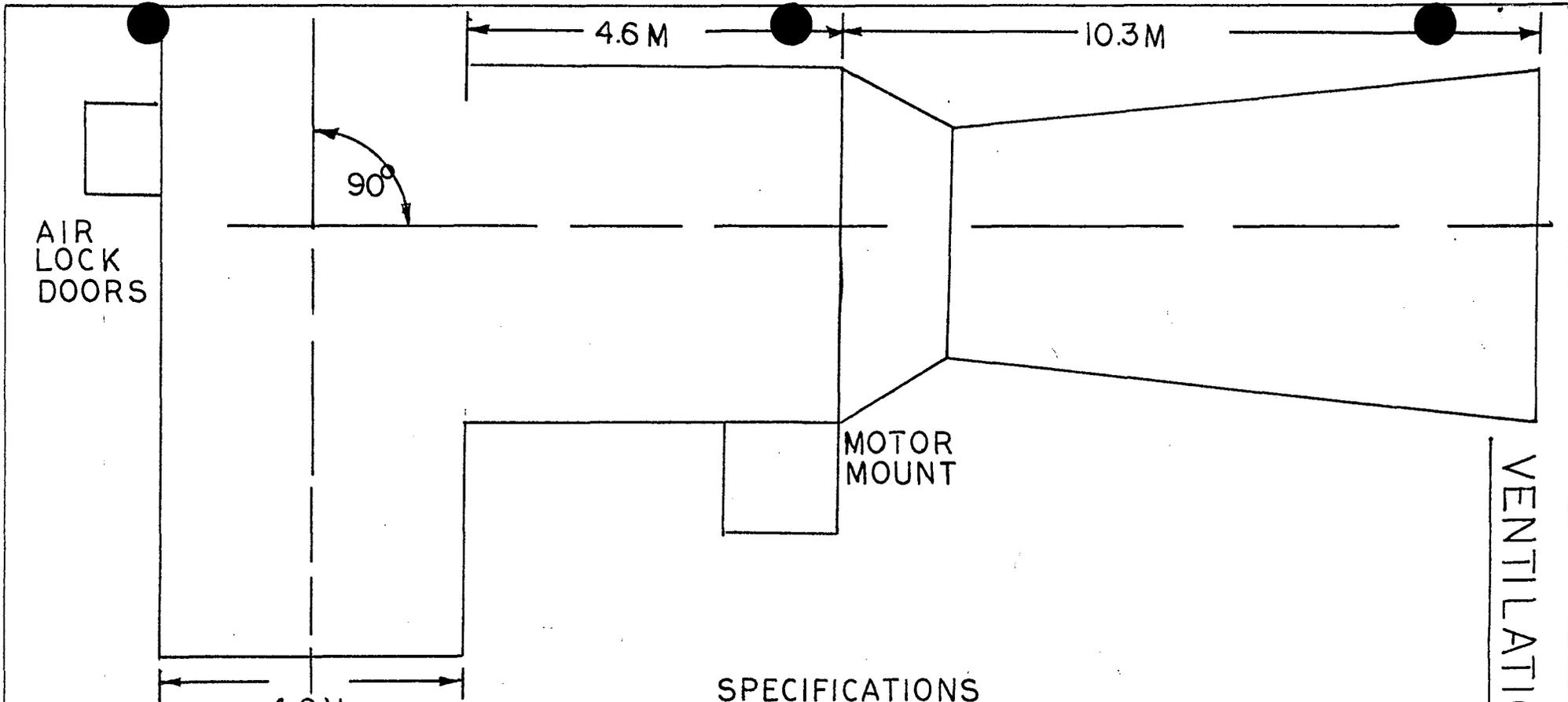
# DEVELOPMENT VENTILATION PLAN

BRATTICE LINES ARE  
3 M FROM FACE  
6,000 CFM



METRIC

JOHN HENRY MINE	DATE
	SCALE none
MAP NUMBER TWO	DR. R.P.
5M INC. HURRICANE, UTAH	



SPECIFICATIONS

FAN

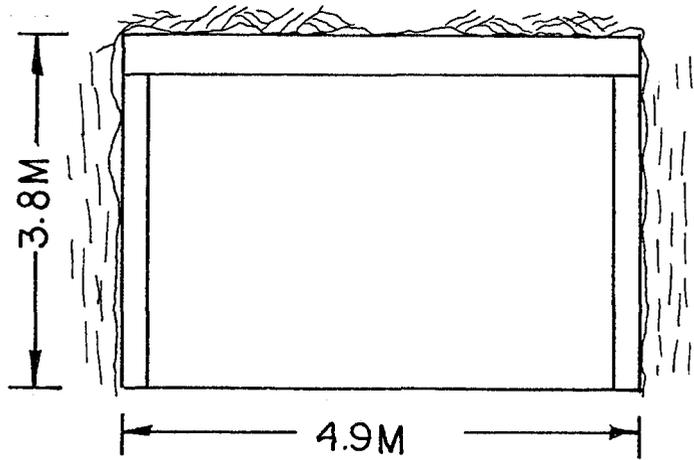
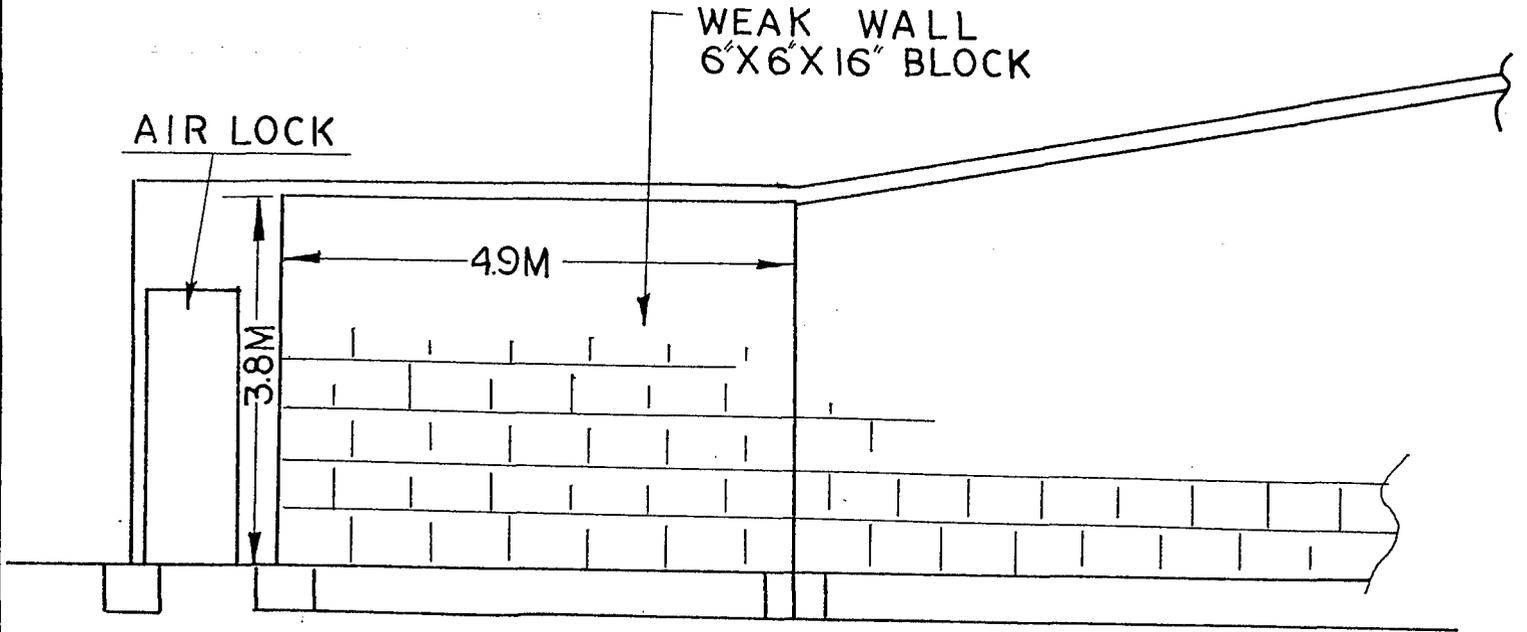
NAME Jeffrey No.8673 or Equiv.  
 SIZE 8-H-84 or Equiv.  
 RPM 300  
 WATER GUAGE  $\frac{1}{2}$  inch Min.  
 BLADE SETTING No. 1  
 CFM 25,000

MOTOR

RPM 1800  
 H.P. 15  
 VOLT 480  
 AMP

5M INC. HURRICANE, UTAH	MAP NUMBER THREE	JOHN HENRY MINE	DATE
	DR. R. P.	SCALE NONE	

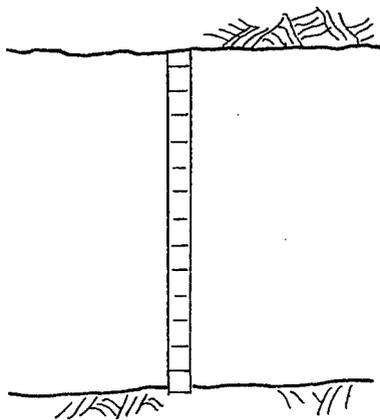
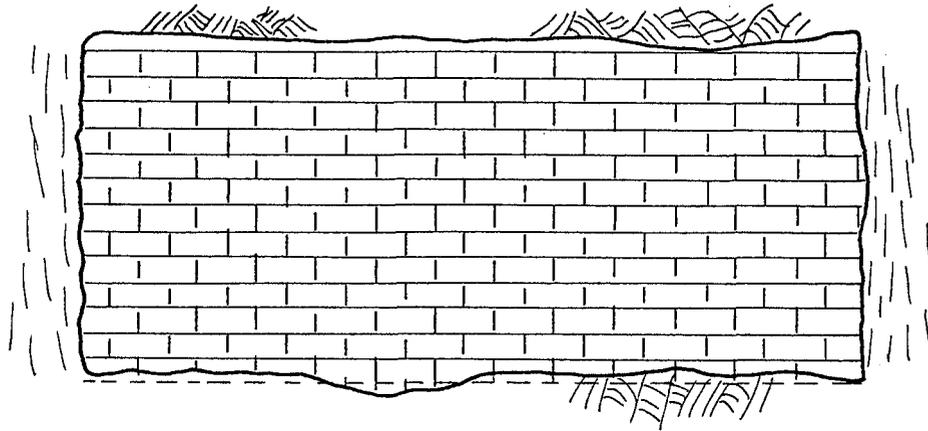
# FAN ENTRY & WEAK WALL



JOHN HENRY MINE	DATE
	SCALE NONE
MAP NUMBER THREE 'A'	DR. R.P.
5M INC. HURRICANE, UTAH	

STOPING - TYPICAL

STOPINGS CONSTRUCTED  
WITH 6"X6"X16" BLOCKS



JOHN HENRY MINE	DATE
	SCALE NONE
MAP NUMBER FOUR	DR. R.P.
5M INC. HURRICANE, UTAH	