COAL FATAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
DISTRICT C

REPORT OF MULTIPLE FATAL COAL-MINE ROOF FALL ACCIDENT
NO. 2 MINE
BETTY B. COAL COMPANY
HERALD (P. O. NORA), DICKENSON COUNTY, VIRGINIA

February 3, 1966

By

W. R. Stewart
Federal Coal Mine Inspector
and
Ray G. Ross
Technical Assistant (Management Trainee)

Originating Office - Bureau of Mines
Norton, Virginia 24273
J. S. Malesky, Acting District Manager
Health and Safety District C

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INTRODUCTION

This report is based on an investigation made in accordance with the provisions of the Federal Coal Mine Safety Act (66 Stat. 692; 30 U.S.C. Secs. 451-483).

A massive roof fall, which resulted in the instant death of three men working in the immediate area, occurred along the No. 1 room off the main entries in the No. 2 mine, Betty B. Coal Company at about 11:15 a.m., Thursday, February 3, 1966. The fall, approximately 237 feet long, 28 feet wide, and up to 36 inches in thickness, probably originated in the worked out inby portion of the No. 1 room. The roof that fell extended across the face area of the active No. 8 crosscut. The bodies were recovered by 2:45 p.m., the same day. The names of the victims, their ages, marital status, mining experience, occupation, and number of dependents are listed in appendix A of this report.

The Bureau of Mines office at Norton, Virginia was notified of the occurrence by a representative of the company at 12:25 p.m., February 3, 1966. An investigation was started that day and completed February 4, 1966.

GENERAL INFORMATION

The No. 2 mine is on Kilgore Fork off State Route 652, near Herald, Virginia, and is opened by drifts in the Splash Dam coalbed, which averages 40 inches in thickness in this mine. A 37-foot shaft connects the company's Nos. 1 and 2 mines.

The 20 men employed worked underground on two shifts, five days a week. An average of 700 tons of coal was loaded by a Wilcox Mark 20 continuous mining machine and transported to the transfer point by belt conveyor and thence to the surface in track mounted mine cars.

The mine was developed by a room-and-pillar method. Entries, in sets of 3 to 10, were driven 20 to 22 feet wide on 60-foot centers, and crosscuts were generally 75 feet apart. Main entries had been advanced to a depth of about 6,900 feet inby the portal to a location where a fault was encountered. A pair of rooms (Nos. 2 and 3) had been driven to the right, paralleling the fault, to a depth of 950 feet and stopped. The No. 1 room was being driven from the inby end by connecting crosscuts from No. 2 room at 37½-foot intervals. The crosscuts were started 25 to 30 feet wide and, as the face advanced, the right side of the place was widened as it holed through to the inby worked out area. (See sketch No. 2). This resulted in making an opening of excessive width and reduced the effectiveness of the pillar between the crosscuts. The No. 8 crosscut had almost been completed when the accident occurred.

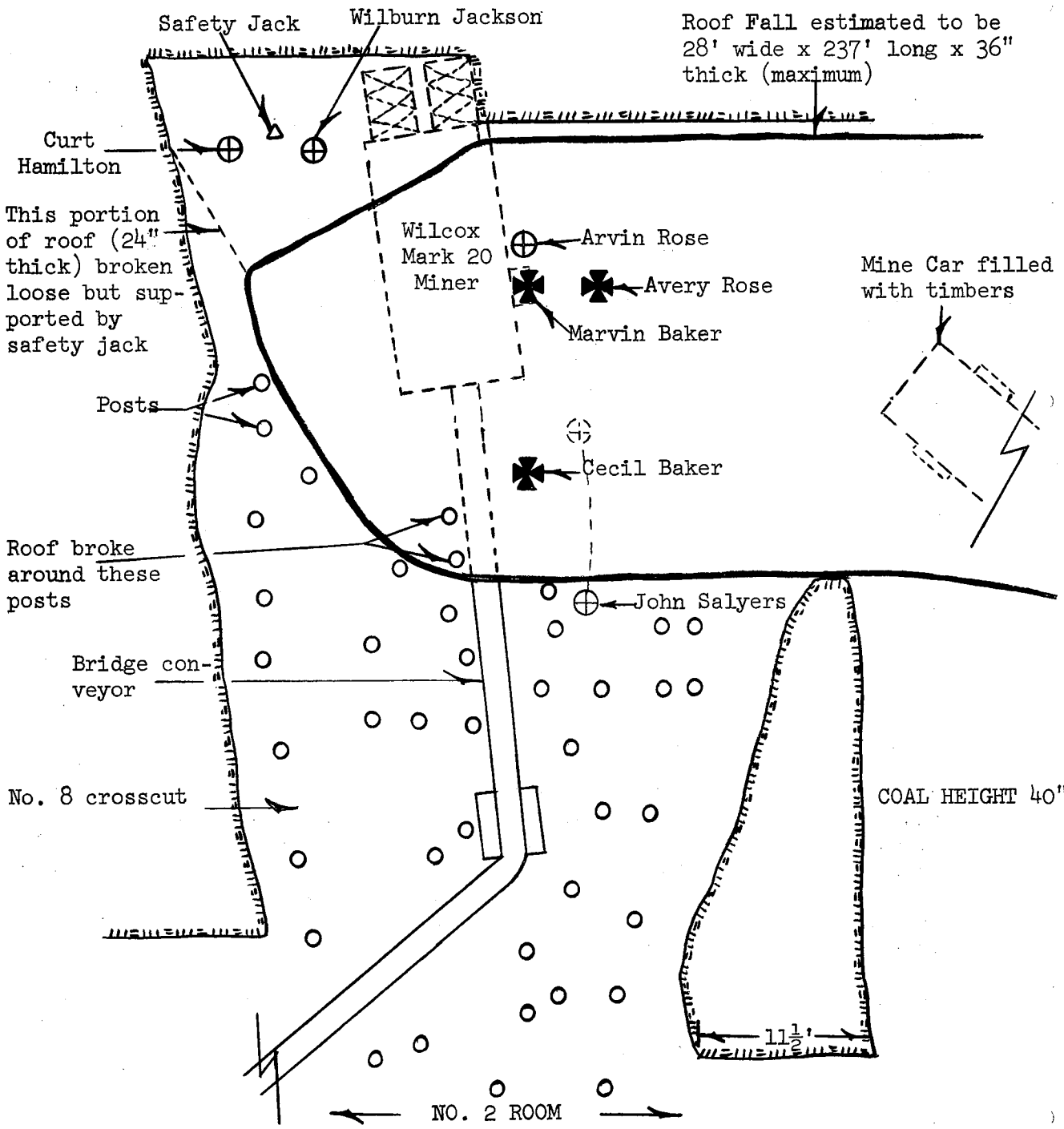
The company's mining plan required rooms and crosscuts be driven 24 feet and 20 feet wide, respectively. This was not followed in the accident area in that rooms were up to 30 feet wide and crosscuts ranged from 25 to 35 feet wide.

The immediate roof on the section where the accident occurred was generally firm shale. The main roof was sandstone. The roof support plan required two rows of permanent posts to be set not more than four feet apart on one side of the bridge conveyor and one row on the opposite side to be installed to the outby end of the bridge conveyor. At least six safety posts or jacks were to be installed inby the bridge conveyor. Five safety jacks were provided for use on each side of the continuous miner but only one jack had been set on the left side. The extent of timbering on the right side of the miner could not be determined due to the caved areas. Reportedly, several timbers had been set in the No. 1 room between No. 8 crosscut and the worked out No. 7 crosscut. Supplies were being delivered to the face of the No. 8 crosscut through the worked out No. 7 crosscut and a car of timbers had been placed in the crosscut just prior to the fall.

An investigation of the adjacent worked out areas indicated that a systematic method of timbering had not been followed in that timbers were set haphazardly leaving areas of unsupported roof. Breaker lines had not been established.

Information for this report was obtained from an investigation at the scene of the accident and from statements by Wilburn Jackson, jacksetter, and John Salyers, timberman. Jackson and Salyers were eyewitnesses.

The investigating committee consisted of:



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SCALE 1" = 10'

SKETCH NO. 1

BETTY B. COAL COMPANY

Arcus Adkins	Superintendent
Harold Childress	Mine Foreman
Claude Mullins	Section Foreman (No. 1 Mine)
Wilburn Jackson	Jacksetter
John Salyers	Timberman

DIVISION OF MINES AND QUARRIES
VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

J. J. Gembach, Jr.	Assistant Chief Mine Inspector
Louis Henegar	Roof Control Inspector
Vernon Horton	Mine Inspector
G. L. Pippin	Mine Inspector

UNITED STATES BUREAU OF MINES

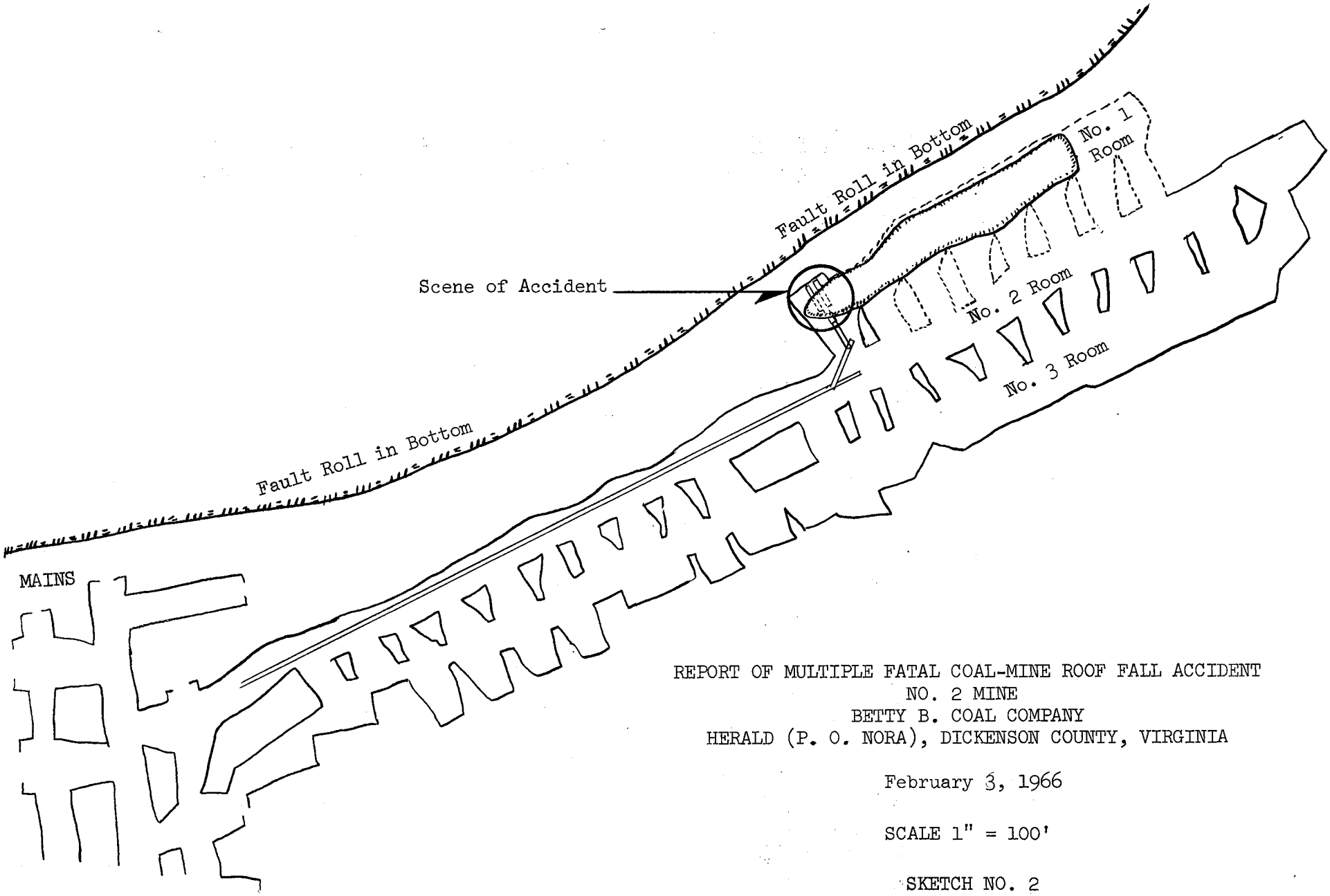
W. R. Stewart	Federal Coal Mine Inspector
R. G. Ross	Technical Assistant (Management Trainee)

The preceding Federal inspection of the mine was made December 1, 1965.

DESCRIPTION OF ACCIDENT

The employees, including the victims, entered the mine at 6:45 a.m., on the day of the accident and arrived on the working section about 7:30 a.m. Mining had been completed in the No. 7 crosscut on the previous shift and the continuous miner had been left near the entrance to this crosscut. Before starting the No. 8 crosscut, a section of belt (37½ feet) had to be taken off and the miner and bridge conveyor moved back. This work required approximately 30 to 40 minutes. The extraction of coal from the No. 8 crosscut was started about 8:15 a.m. Mining operations progressed normally with the miner cutting both ways across the face until the face had been advanced about 52 feet inby No. 2 room. The miner was then sumped into the left rib and had cut about 14 feet toward the right rib when suddenly and without warning, the roof fall occurred.

Avery Rose, Marvin Baker, and Cecil Baker were killed instantly. John Salyers, Wilburn Jackson, Curt Hamilton, and Arvin Rose escaped uninjured. Arvin Rose was caught under the roof fall but managed to crawl to the face and climb over the fall. The bodies of Cecil Baker, Marvin Baker, and Avery Rose were recovered at 1:00 p.m., 1:30 p.m., and 2:45 p.m., respectively.



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SCALE 1" = 100'

SKETCH NO. 2

John Salyers, timberman, and Wilburn Jackson, jacksetter, both eye-witnesses, stated that prior to the accident, conditions appeared to be normal and there were no indications of an impending fall. They both stated that the roof had been tested several times during the shift and nothing unusual was detected.

The size of the roof fall could not be measured accurately, but it was estimated to be 237 feet long, 28 feet wide, and from a feather-edge to 36 inches thick. The coal was 40 inches in height. Designated timbermen were responsible for the placement of temporary and permanent supports in the face areas.

CAUSE OF ACCIDENT

The accident was caused by failure to provide sufficient roof supports in the face area and at the excessive opening (30 feet) which had been made into the worked out area. Failure to comply with the company's mining plans in regard to width of rooms and crosscuts was a contributing factor.

RECOMMENDATIONS

Compliance with the following recommendations may prevent accidents of a similar nature:

1. The roof in all underground working places, including where men are required to travel, should be supported adequately to protect the workmen from falls of roof.

2. The company's mining plan should be followed in that widths of rooms and crosscuts should not exceed those specified. Should these widths be inadvertently exceeded, additional roof supports, such as breaker posts and/or cribs, should be provided.

ACKNOWLEDGMENT

The cooperation of the company officials and employees and representatives of the Division of Mines and Quarries, Virginia Department of Labor and Industry during this investigation is gratefully acknowledged.

Respectfully submitted,

/s/ W. R. Stewart

W. R. Stewart
Federal Coal Mine Inspector

/s/ Ray G. Ross

Ray G. Ross
Technical Assistant (Management Trainee)

APPENDIX A

VICTIMS OF MULTIPLE FATAL COAL-MINE ROOF FALL ACCIDENT
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Name	Age	Occupation	Mining Experience (Years)	Marital Status	Number of Dependents
Marvin Baker	21	Miner Operator	1½	Married	2
Cecil B. Baker	26	Section Foreman	8	Married	2
Avery W. Rose	31	Jacksetter	6 weeks at this mine (Previous experience unknown)	Married	6