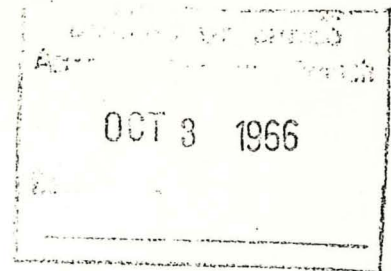


# COAL FATAL

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES

District A



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REPORT OF COAL MINE MULTIPLE FATAL FALL-OF-ROOF-COAL ACCIDENT

NO. 1 LYKENS VEIN SLOPE

LENDEL COAL COMPANY

JOLIETT, SCHUYLKILL COUNTY, PENNSYLVANIA

(Post Office - Tremont, Schuylkill County, Pennsylvania)

Code  
0104

September 14, 1966

By

Harrison F. Wilson  
Coal Mine Inspection Supervisor

Gerald W. Fortney  
Federal Coal Mine Inspector

Thomas J. Ward  
Federal Coal Mine Inspector

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Originating Office - Bureau of Mines  
Wilkes-Barre, Pennsylvania  
William Rachunis, Subdistrict Manager  
Wilkes-Barre, Pennsylvania, Subdistrict, Health and Safety District A

Widow 4 4 - - - Russell Deibert, mine foreman  
Widow 4 2 - - - Stanley Gravish, miner  
Widow 4 2 - - - John Anatislion, miner

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INTRODUCTION

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

A fall of roof coal, which resulted in the death of three persons, occurred about 10:45 a.m., Wednesday, September 14, 1966, in the monkey airway between Nos. 7 and 8 chutes off the No. 3 level west gangway, No. 1 Lykens Vein Slope, Lengel Coal Company, Joliett, Schuylkill County, Pennsylvania. The victims were Russell Deibert, mine foreman-miner, age 38; Stanley Gravish, miner, age 51; and John Hnatishion, miner, age 47. Deibert, who had 15 years' mining experience including 5 years as a foreman, the past 2 months at this mine, is survived by his wife and four minor children; Gravish, with 30 years' mining experience, the past 2 months at this mine, is survived by his wife and two minor children; and Hnatishion, with 20 years' mining experience, the past 2 months at this mine, is also survived by his wife and two minor children. A fourth person employed in the affected area escaped injury.

The Wilkes-Barre office of the Bureau of Mines was notified of the occurrence by Clyde Machamer, president, Independent Miners and Associates, at 1:17 p.m., on the day of the occurrence. Federal Coal Mine Inspectors Theodore F. Deak, Gerald W. Fortney, Clair S. Sigworth, and Thomas J. Ward, and Training Instructor (First Aid) Michael J. Jacobs, manning the Bureau's mine rescue truck, were sent to the mine immediately to lend assistance.

After completion of necessary notifications and arrangements, William Rachunis, subdistrict manager, and Harrison F. Wilson, coal mine inspection supervisor, left for the mine and arrived there about 5 p.m., on the day of the occurrence. The victims' bodies were recovered and removed to the surface at 6 a.m., Thursday, September 15, and a joint investigation of the accident by State and Federal inspectors was completed on Friday, September 16, 1966.

#### GENERAL INFORMATION

This truck mine on land leased from the Wilson Coal Company by Warren Lengel, operator, is a short distance east off the Joliett to Goodspring highway, about a mile northwest of Joliett, Schuylkill County, Pennsylvania.

The mailing address of the company is R. D. 2, Pine Grove, Pennsylvania; Russell Deibert (a victim) was the mine foreman.

The principal mine openings are a 740-foot-long haulage slope driven in coal on an average pitch of 70°, and an air chute.

Five persons were employed, four of whom worked underground on a single shift a day and produced about 20 tons of anthracite daily; all of which was loaded by gravity and by hand.

The north dip No. 1 Lykens coal vein being mined averaged 8 feet in thickness on a 70° pitch. However, in the area where the accident occurred, the vein was 7½ feet in thickness on an 80° pitch.

The breast-and-pillar method of mining was followed and pillars were recovered by the split method. However, mining in the immediate area where the accident occurred was confined to development of the No. 3 level west gangway, the monkey airway, and connecting chutes. The gangway and the monkey airway were driven about 6½ and 5½ feet in height, respectively, on widths corresponding to the thickness of the coal vein. The Nos. 7 and 8 chutes were driven on 51- and 29-foot centers and 24- and 31-foot lengths from the top of the gangway to the bottom (floor) of the monkey airway, respectively. The face of the gangway had reached a distance of 505 feet from the slope on August 30, 1966, at which time development of the gangway was stopped by the district State mine inspector because the face was more than 60 feet beyond the last open air connection (No. 6 chute). Consequently, the Nos. 7 and 8 chutes were driven through to the monkey airway to provide the necessary air connections, and were interconnected by the monkey airway driven by the usual method of slants driven midway from each chute and holing through at the apex, see appendix A. The slant west off No. 7 chute was started at a point about 7 feet lower than the slant east off No. 8 chute;

consequently, the top of the west slant corresponded to the bottom of the east slant at the point of intersection thus causing a difficult timbering problem due to the excessive height created at that point. The work of timbering that portion of the monkey airway where the slants had holed was in progress when the accident occurred.

Due to the heavy pitching vein, coal formed the immediate roof over the openings and the top rock and the bottom rock formed the ribs. The No. 1 Lykens coal vein in this area is of a shelly free-running nature; therefore, good timbering practices and extreme precautionary measures are warranted continuously to secure the coal adequately and prevent falls. Any voided area left above the timbers by a fall or otherwise presents the danger of the vein running out of control. Roof and rib support in the affected area consisted chiefly of spragged two-piece timber sets; however, single props were employed in the chutes and along the monkey airway where conditions permitted. The supports consisted mainly of 10-inch-diameter timber stood on 4- to 5-foot centers and with overhead lagging to support the coal. Forepoles were used where needed, and the method of timbering in effect was in accordance with that adopted by the company. When followed properly, this adopted method of timbering would probably suffice; however, because of inadequate support, the coal roof above the affected monkey airway and directly above the No. 7 chute had fallen prior to Monday, September 12, and had created a voided area about 13 feet at its highest point above the top of the timber. This unsupported voided area extended toward No. 8 chute and eventually became a contributing factor in the occurrence of this accident.

Representatives of the following organizations participated in the recovery operations:

- American Red Cross
- Independent Miners and Associates
- Joliett Hose Company
- Penag Coal Company
- Pennsylvania Department of Mines and Mineral Industries
- Pennsylvania State Police
- Salvation Army
- Tower City Hose Company
- Wilson Coal Company
- Yorkville Hose Company
- U. S. Bureau of Mines

The investigation of the accident was conducted by the following persons:

Pennsylvania Department of Mines and Mineral Industries

William D. Maurer  
Francis C. O'Connor

Area Supervisor  
State Mine Inspector

## United States Bureau of Mines

Harrison F. Wilson  
Gerald W. Fortney  
Thomas J. Ward

Coal Mine Inspection Supervisor  
Federal Coal Mine Inspector  
Federal Coal Mine Inspector

Warren Lengel, operator and hoisting engineer, and Terry Schreffler, miner, who escaped injury, were interviewed and furnished pertinent information. Robert Witmer, supervising foreman, Wilson Coal Company, (land owner), who had visited the mine on Monday, September 12, assisted in the investigation and furnished information relative to conditions.

The preceding Federal inspection of the mine was conducted August 24, 1966.

Sketches of the area where the accident occurred are included as part of this report.

### DESCRIPTION OF ACCIDENT

At the end of the preceding shift on Tuesday, September 13, the monkey airway between the Nos. 7 and 8 chutes off No. 3 level west gangway holed through about midway between the chutes by blasting from the No. 7 chute side. On the day of the accident, Wednesday, September 14, Russell Deibert, mine foreman-miner, conducted a preshift examination of the mine prior to entering the mine at 7 a.m. with John Hnatishin, Stanley Gravish, and Terry Schreffler, miners. The four men reached the monkey airway shortly after 7 a.m. and proceeded to clean out the loose coal blasted down on Tuesday afternoon. This work was accomplished by Deibert and Gravish working on the No. 7 chute side and Hnatishin and Schreffler working on the No. 8 chute side of the point where the airway had holed through. After the loose coal was cleaned out, hitches were cut for a set of timber and all four men went to the gangway from where they carried the necessary timbering material to the work area in the airway. The timber was then stood from the No. 7 chute side, and when the work of spragging the newly erected set was started about 10:40 a.m., the foreman (Deibert) sent Schreffler to the gangway to get a punch prop for installation under a weak timber collar in the monkey airway between Nos. 6 and 7 chutes. Schreffler traveled down the No. 6 chute and just as he reached the gangway, he heard a fall of material within the airway. Schreffler hurriedly returned up the No. 6 chute and saw the fall of coal in the monkey airway in by the No. 7 chute where the other three men had been working. Schreffler observed "reddish-colored" boots of one of his buddies extending from underneath the outby end of the fall, and just as he got hold of the boots in an attempt to pull the man from under the fall, he observed some material falling and barely got himself safely clear of the area before a second fall occurred and filled the airway completely. Schreffler then ran to the slope bottom and notified Warren Lengel, operator and surface hoisting engineer, of the occurrence via the mine telephone.

After receiving the message from Schreffler, Lengel took his pickup truck and started to a nearby mine for help and met his truck driver on the highway returning from the breaker, and sent him to a telephone at a nearby mine to call for help. Lengel continued on to another mine and informed the hoisting engineer of their need for help. Officials of the Penag Coal Company, who were contacted by the truck driver, relayed the call for assistance quickly. William D. Maurer, area supervisor, Pennsylvania Department of Mines and Mineral Industries, was the first to reach the mine. Terry Schreffler, who had been hoisted to the surface after Lengel returned to the mine, accompanied Maurer underground, and upon reaching the scene, these two men forced the compressed-air hose into the fallen material covering the victims and introduced compressed air into the pile in an attempt to prevent suffocation in event the men had survived the fall. By this time, local miners and personnel from various mining and civil agencies reached the mine in response to the call for help, and the work to recover the victims was started. Owing to the free-running nature of the coal vein, the recovery work was slow and hazardous and extensive relief timbering was necessary to protect the rescue workers against another fall and rush of coal. In addition to the timbering, 92 slope buggies or approximately 90 tons of coal had to be loaded out of No. 7 chute plus several buggies from No. 8 chute and hoisted to the surface before the bodies of the victims, all of whom may have been killed instantly by the initial fall, were recovered and removed to the surface. All three bodies were found in that portion of the monkey airway on the No. 7 chute side of the holing through point. Although carried out under existent difficult conditions, no personal injury resulted during the recovery work.

The investigation disclosed that the coal overlying the monkey airway at the scene of the accident had fallen to a height of  $22\frac{1}{4}$  feet at a point 9 feet inby the center of the No. 7 chute almost directly over the point where the three victims were recovered. The length of the fall extended from the east side of No. 7 chute to about 9 feet outby No. 8 chute; the timber along the affected portion of the airway had been swept out by the force of the fall. The highest point of the voided area above No. 7 chute on Monday, September 12, was reported to have been 13 feet above the airway timber; or slightly more than 9 feet less than that measured during the investigation.

#### CAUSE OF ACCIDENT

This accident was caused by failure to support the coal roof overlying the monkey airway adequately enough to prevent the creation of a voided area above the timbers by falls or runs of coal and by failure to secure the coal at the top of the voided area, or to afford adequate protection against falls of material before working directly underneath it.

## RECOMMENDATIONS

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

1. As openings are extended through this heavily pitching shelly free-running-nature coal vein, extreme care should be exercised in the selection and placement of lagging and forepoles atop timber collars and/or props to assure continuous adequate support of the coal to alleviate the possibility of falls and the creation of dangerous voided areas above working places and travelways.
2. The coal vein at the top of any voided area created above working places or travelways by falls and/or runs should be supported adequately before persons are permitted to work or travel underneath the area.
3. When proper support of the coal vein at the top of a voided area cannot be done safely, the underlying working place or travelway should be protected by one or more rows of props with lagging stood above the regular timbers, and a cushion of loose material should be kept on the top lagging to absorb the shock in event of a rush of material.
4. In order to protect against excessive height and unsupported roof at holing through points, monkey airways or headings driven between chutes or breasts by the slant method should be projected in a manner to assure the proper face to face intersection at the apex.

Although having no direct bearing on this accident, the following provision of the Federal Mine Safety Code should be complied with:

1. A mine accident resulting in the death of one or more persons, mine fires, and mine explosions should be reported immediately and by the quickest available means to the nearest office of the United States Bureau of Mines.

# ACKNOWLEDGMENT

The courtesies, cooperation, and assistance extended by personnel of the Lengel Coal Company, the Penag Coal Company, the Wilson Coal Company, (land owner), the Independent Miners and Associates, the Pennsylvania Department of Mines and Mineral Industries, various volunteers from nearby mines, and local civil agencies are acknowledged gratefully.

Respectfully submitted,

/s/ Harrison F. Wilson

Harrison F. Wilson

/s/ Gerald W. Fortney

Gerald W. Fortney

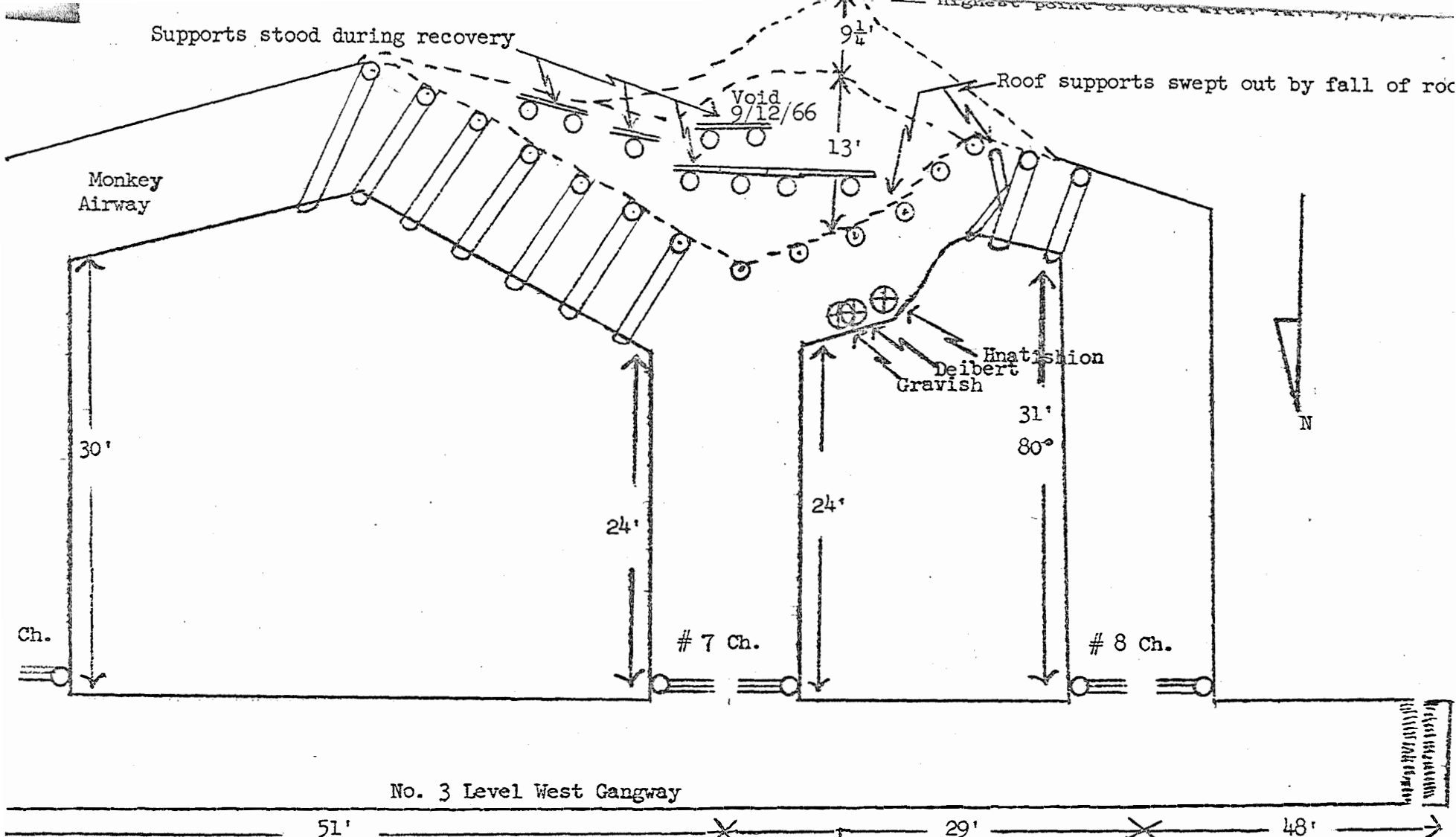
/s/ Thomas J. Ward

Thomas J. Ward

*J.G.W.*



Supports stood during recovery



No. 3 Level West Gangway

51'

29'

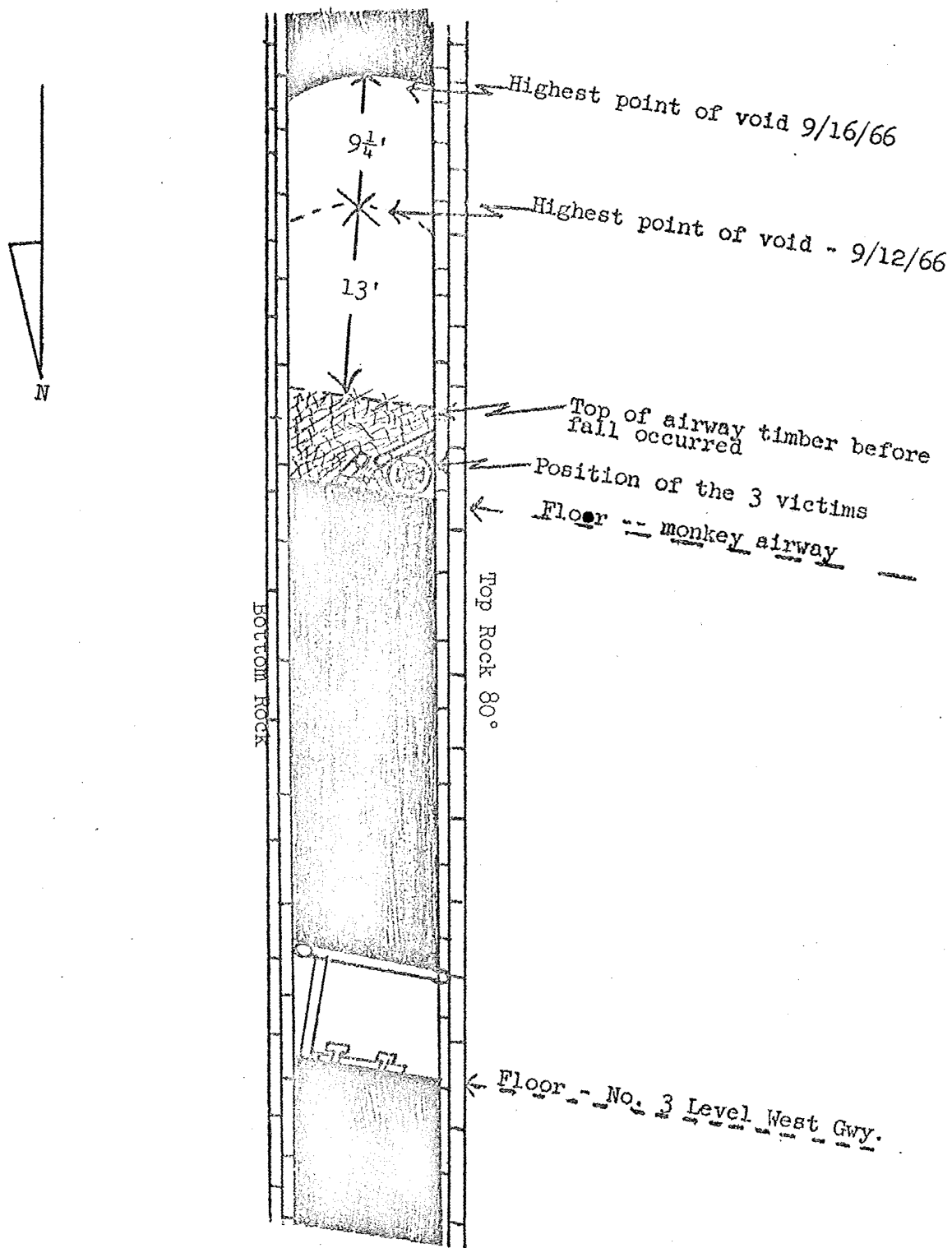
48'

APPENDIX A

Scale 1" -- 10'

MULTIPLE FATAL FALL-OF-ROOF COAL ACCIDENT  
NO. 1 LYKENS VEIN SLOPE  
LENDEL COAL COMPANY  
JOLIETT, SCHUYLKILL COUNTY, PENNSYLVANIA

September 14, 1966



Cross Section A-A

APPENDIX B

Scale 1" -- 10'

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