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UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Underground
(Coal)

Fatal Fall of Roof or Back Accident
September 6, 2024

Mountaineer II Mine
Mingo Logan Coal LLC
Sharples, Logan County, West Virginia
ID No. 46-09029

Accident Investigators

Paul Milum
Mine Safety and Health Inspector

Yancy Rode
Mine Safety and Health Specialist

Originating Office
Mine Safety and Health Administration
Pineville District
4499 Appalachian Hwy
Pineville, West Virginia 24874
Craig Plumley, District Manager

TABLE OF CONTENTS

OVERVIEW 1

GENERAL INFORMATION 1

DESCRIPTION OF THE ACCIDENT 2

INVESTIGATION OF THE ACCIDENT 3

DISCUSSION 3

- Location of the Accident 3
- Equipment Involved 3
- Roof Control Plan 3
- Examinations 4
- Training and Experience 4

ROOT CAUSE ANALYSIS 5

CONCLUSION 6

ENFORCEMENT ACTIONS 7

APPENDIX A – Sketch of Accident Area 9

APPENDIX B – Persons Participating in the Investigation 10

OVERVIEW

On September 6, 2024, at approximately 5:55 p.m., Gary Chapman, a 33 year-old continuous mining machine (CMM) operator with over 12 years of mining experience, died when he was struck by falling rock from the mine roof.

The accident occurred because the mine operator did not: 1) comply with the approved Roof Control Plan (RCP), 2) conduct adequate examinations of the I-5 working section, and 3) have procedures in place to prevent miners from working or traveling under unsupported roof.

GENERAL INFORMATION

Mingo Logan Coal LLC owns and operates the Mountaineer II Mine. The mine is an underground coal mine located in Sharples, Logan County, West Virginia. Mountaineer II Mine employs 375 miners and operates two nine-hour production shifts and one maintenance shift, six days per week. The mine uses the room and pillar mining method on five separate sections and with a total of seven mechanized mining units (MMUs). Remote control CMMs are used to extract the coal from the face which is loaded into shuttle cars. Shuttle cars dump the coal at the section loading point onto belt conveyors. The belt conveyors transport the coal directly to a processing plant.

The principal management officials at Mountaineer II Mine at the time of the accident were:

Jonathan Hensley	Mine Manager
David Porter	Superintendent
Jerry Mann	Safety Manager

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on June 27, 2024, and an E01 inspection was ongoing at the time of the accident. The 2023 non-fatal days lost incident rate for Mountaineer II Mine was 0.79, compared to the national average of 3.26 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On September 6, 2024, at approximately 3:00 p.m., Chapman began his shift by attending a safety meeting with all evening shift miners. At 3:29 p.m., Chapman traveled with the crew to the I-5 working section and arrived at the section loading point at approximately 4:00 p.m. The I-5 working section consisted of the 007 MMU on the left and the 001 MMU on the right. Chapman and the other miners congregated at the section power center where Gregory Williams, Section Foreman, instructed the crew on the mining sequence for the shift and gave each miner a miner wearable component (MWC) for the proximity detection system (PDS) installed on the CMM.

After receiving instruction on the mining sequence, Chapman walked to the No. 6 entry and conducted a pre-operational examination of the right side CMM he would be operating. At 4:30 p.m., Williams completed an examination of the 7 Right crosscut as evidenced by his date, time, and initials on the 7 Right coal rib. According to interviews, at approximately 4:30 p.m., Chapman positioned his CMM in the 7 Right crosscut. During the previous shift, the 7 Right crosscut had been mined into the No. 8 heading. The No. 8 heading had been mined ten feet short, leaving a stump of uncut coal in the face (see Appendix A).

At approximately 5:10 p.m., Chapman began mining the stump from the 7 Right crosscut across the No. 8 entry into the 8 Right crosscut. According to interviews and data retrieved from the CMM's PDS, at 5:54 p.m., Cameron Frye, Shuttle Car Operator, left the CMM after being loaded and traveled to the coal feeder to dump the coal. Frye returned to the CMM at 5:57 p.m. and did not see Chapman. Frye turned the shuttle car off and began looking for Chapman. Frye saw Chapman lying on the mine floor on the left side of the CMM with several pieces of rock on top of him. Frye ran to Chapman, removed rock from his upper body but could not move a larger rock on Chapman's right foot. Frye was unable to get a response from Chapman.

Frye told Mark Hileman, Shuttle Car Operator, who told Micah Mahon, CMM Operator, of the accident. Mahon went to the accident scene while Hileman informed Jordan Dent and Mark Hall, Roof Bolter Operators. Mahon checked Chapman's pulse but couldn't find one. Mahon then informed Williams and James Smith, Section Foreman, at the section power center of the accident. Williams instructed Smith to call the dispatcher and stay near the phone and went to the accident scene. Hileman also checked Chapman's pulse but did not find one. Frye used a jack bar to lift the rock off Chapman's foot while Hileman and Dent pulled Chapman free. Dent started

cardiopulmonary resuscitation (CPR). Michael Ball, Dispatcher, called 911 at 5:58 p.m. Ball radioed Michael Decker, Parts Runner/Emergency Medical Technician to go to the accident scene.

Chapman was transported to the elevator and taken to the surface and transported to the Logan Regional Medical Center, Logan, West Virginia where Glen Hayes, DO, pronounced him dead at 7:19 p.m.

INVESTIGATION OF THE ACCIDENT

At 6:15 p.m., Michael Lovins, Shift Foreman, called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted Tracy Calloway, Staff Assistant. Calloway notified Paul Milum, Mine Safety and Health Inspector, and instructed him to travel to the mine to begin the investigation as the lead accident investigator. Calloway also notified David Thacker, Supervisory Mine Safety and Health Inspector; Herman Morgan, Supervisory Mine Safety and Health Specialist; and Craig Plumley, District Manager.

At 7:47 p.m., Milum arrived at the mine and issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and preservation of evidence. Plumley, Thacker, and Morgan met Milum at the mine to assist with the investigation. In conjunction with the West Virginia Office of Miners' Health Safety and Training, MSHA's accident investigation team conducted an examination of the accident scene, interviewed miners and mine management, and reviewed conditions and work practices relevant to the accident. See Appendix B for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred in the 12th crosscut of the I-5 working section in the No. 8 heading.

Equipment Involved

Chapman was operating a remote-controlled Joy JM1415 CMM. The Matrix PDS and the Joy Network Architecture (JNA) Face Boss System installed on this CMM provided investigators downloadable data to determine the position of the CMM operator and the functions of the CMM at time of the accident. This data indicated the CMM was functioning properly and did not contribute to the accident.

Roof Control Plan

MSHA approved the mine operator's RCP on April 6, 2022. The RCP states, "When subnormal or adverse roof conditions are encountered, the depth of cut shall be limited to 20 feet or less until roof conditions have improved to a point where extended cuts may be safely resumed. At least 60 feet shall be advanced in good (normal) roof and the roof evaluated by the mine foreman or section foreman, roof bolter operator, and/or the miner operator before extended cuts are resumed" (Page 11, Item 28).

According to interviews, CMM operators encountered adverse roof conditions on the I-5 working section and limited cuts to 20 feet on the evening shift of September 5, 2024. Section foremen

documented adverse roof conditions in production reports for several shifts prior to the accident, but did not communicate them to other foremen and miners working on the section. The right side of the 8 Right crosscut was mined a total distance of 36 feet from the last complete row of roof bolts. During interviews, investigators discovered the mine operator allows CMM operators to determine the depth of each cut based on the conditions encountered during that particular cut. This practice ignores the adverse conditions that were present throughout the active section and does not comply with the RCP.

Chapman mined the eight-foot wide, 20-foot-long stump in the No. 8 heading from the 7 Right crosscut and an additional 13 feet into the 8 Right crosscut. Investigators measured this cut a total distance of 33 feet from the last complete row of roof bolts. While mining the stump, Chapman lowered the cutting head to avoid cutting the roof bolts previously installed in the No. 8 heading. Investigators determined this by observing the CMM's cutting bit pattern on the mine roof. This action left an eight-foot wide, 20-foot-long section of draw rock measuring eight to 18 inches thick where the stump was mined. The RCP states, "Draw rock will be taken as the extended cut is mined" (Page 11, Item 32). This unmined draw rock left in the mine roof fell and struck Chapman.

After mining the right side of the cut into 8 Right crosscut, Chapman backed the CMM into the 7 Right crosscut. Data from the PDS indicates Chapman was positioned along the left side of the CMM near the cutting head. The RCP states "When the continuous miner is being trammed anywhere in the mine, other than when cutting or loading coal, no person shall be allowed along either side of the continuous mining machine" (Page 10, Item 17). While positioning the CMM into 7 Right crosscut, Chapman was under the unsupported roof alongside the CMM when the roof fall occurred. The investigation team determined not complying with these portions of the RCP contributed to the accident.

Examinations

Ivan Evans, Section Foreman, conducted a pre-shift examination for the oncoming evening shift on September 6, 2024. Missing test holes in the mine roof, separation of the mine roof, and wide bolt patterns were not observed and reported during this examination. Also, the pre-shift examinations conducted by Evans and Williams on September 5, 2024, and September 6, 2024, did not document the adverse roof conditions recorded in the production reports, nor were the depth of cuts reduced to 20 feet or less when these adverse conditions were observed until 60 feet of good (normal) roof had been evaluated. Investigators compared conditions of the I-5 working section to examination records and production reports and concluded inadequate examinations had been conducted during at least nine shifts, totaling 27 examinations by multiple examiners prior to the accident. The investigation team determined that inadequate examinations were conducted because examiners did not observe and report conditions that were not in compliance with the RCP. This exposed miners to hazardous conditions and contributed to the accident.

Training and Experience

Chapman had over 12 years of mining experience, two years of experience operating a CMM, and six months at Mountaineer II Mine. Chapman completed experienced miner training on March 6, 2024, and received CMM task training on March 7, 2024, and August 19, 2024. Investigators determined this training was in accordance with MSHA Part 48 training regulations.

ROOT CAUSE ANALYSIS

The accident investigators conducted an analysis to identify the underlying causes of the accident. The investigators identified the following root causes, and the mine operator implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The mine operator did not comply with the approved RCP.

   Corrective Action: The mine operator developed, implemented and trained miners on a revision of the RCP addressing mining stumps for connecting crosscuts and measures taken for adverse roof conditions.

   A. When possible, the heading will be advanced enough to be flush with the inby side of the crosscut to be connected.
   B. If a stump is created when holing through, bolting will be advanced from each approach up to the stump.
   C. Once the stump is mined, no additional cuts from the intersection will be made until the stump area and intersection have been bolted in its entirety.
   D. When subnormal or adverse roof conditions are encountered on an MMU, the depth of cut shall be limited to 20 feet or less on that specific MMU, until roof conditions have improved to a point where extended cuts may be safely resumed. At least 60 feet shall be advanced in normal roof and the roof evaluated by the mine foreman before extended cuts are resumed. The 60 feet will be measured inby along the heading(s) and does not apply to adjacent measurements along the crosscut(s).

2. Root Cause: The mine operator did not conduct adequate examinations of the I-5 working section.

   Corrective Action: The mine operator has conducted an adequate examination of the I-5 working section and has trained examiners on conducting adequate examinations.

3. Root Cause: The mine operator did not have procedures in place to prevent miners from working or traveling under unsupported roof.

   Corrective Action: The mine operator revised the RCP and training plan to provide quarterly training to miners on hazards of work or travel under unsupported roof. The mine operator trained all miners on this revision. The revised RCP and training emphasized that miners must never work or travel under unsupported roof.

CONCLUSION

On September 6, 2024, at approximately 5:55 p.m., Gary Chapman, a 33 year-old CMM operator with over 12 years of mining experience, died when he was struck by falling rock from the mine roof.

The accident occurred because the mine operator did not: 1) comply with the approved RCP, 2) conduct adequate examinations of the I-5 working section, and 3) have procedures in place to prevent miners from working or traveling under unsupported roof.

Approved By:

_____ _____

Craig Plumley Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Mingo Logan Coal LLC.

   A fatal accident occurred on September 6, 2024, at approximately 5:55 p.m. This order is being issued under the authority of the Federal Mine Safety and Health Act of 1977, under Section 103(k) to insure the safety of all persons at the mine and requires the operator to obtain the approval of an authorized representative of MSHA of any plan to recover any person in the mine or to recover the mine or affected area. This order prohibits any activity in the affected area. The operator is reminded of the obligation to preserve all evidence that would aid in investigating the cause or causes of the accident in accordance with 30 CFR 50.12.

2. A 104(d)(1) order was issued to Mingo Logan Coal LLC for a violation of 30 CFR 75.220(a)(1).

   On September 6, 2024, a continuous mining machine (CMM) operator died after he was struck by falling rock from the mine roof. The mine operator did not comply with the approved Roof Control Plan on the I-5 working section (007-0/001-0 MMU). The following conditions were observed during the investigation:

   1. After mining the 8 Right crosscut, the CMM operator traveled along the left side of the CMM near the cutting head as he was backing the CMM into the 7 Right crosscut. While the CMM is being trammed anywhere in the mine, other than when cutting or loading coal, no person shall be allowed along either side of the CMM (Page 10, Item 17).

   2. CMM operators encountered adverse roof conditions on the I-5 working section and limited cuts to 20 feet in the 7 Right crosscut on the evening shift of September 5, 2024. Section foremen documented adverse roof conditions in production reports for several shifts prior to the accident. However, on the day of the accident, the No. 8 Heading stump and 8 Right crosscut were mined from the 7 Right crosscut a total distance of 36 feet from the last complete row of roof bolts. When subnormal or adverse roof conditions are encountered, the depth of cut shall be limited to 20 feet or less until roof conditions have improved to a point where extended cuts may be safely resumed. At least 60 feet shall be advanced in good (normal) roof and the roof evaluated by the mine foreman or section foreman, roof bolter operator, and/or the miner operator before extended cuts are resumed (Page 11, Item 28).

   3. During the mining of the stump in the No. 8 Heading, the CMM's cutting head was lowered to avoid cutting the roof bolts previously installed in the No. 8 heading. This action left an eight-foot-wide, 20-foot-long section of draw rock measuring eight to 18 inches thick where the stump was mined. This unmined draw rock left in the mine roof fell and struck the miner. Draw rock will be taken as the extended cut is mined. (Page 11, Item 32).

   The mine operator engaged in aggravated conduct constituting more than ordinary negligence. Section foremen were aware of the adverse roof conditions, but did not communicate them with

other foremen and miners working on the section. This violation is an unwarrantable failure to comply with a mandatory standard.

3. A 104(d)(1) order was issued to Mingo Logan Coal LLC for a violation of 30 CFR 75.360(b)(11)(i).

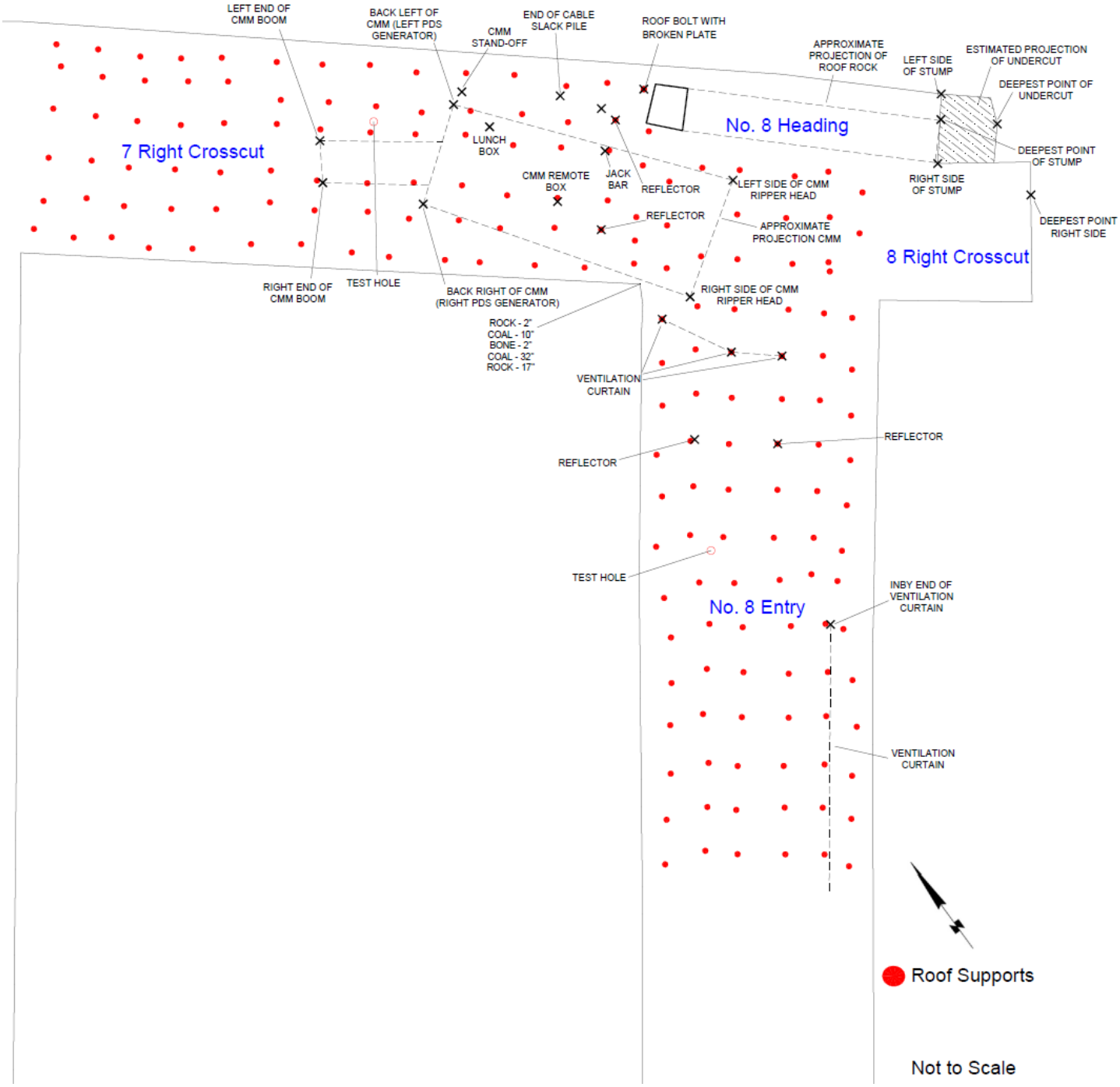
   On September 6, 2024, a continuous mining machine (CMM) operator died after he was struck by falling rock from the mine roof. The mine operator did not identify and report violations of the Roof Control Plan during pre-shift examinations of the I-5 working section (007-0/001-0 MMU). Missing test holes in the mine roof, separation of the mine roof, and wide bolt patterns were not observed and reported. Also, the pre-shift examinations conducted on September 5, 2024, and September 6, 2024, did not document the adverse roof conditions recorded in the mine operator's production reports, nor were the depth of cuts reduced to 20 feet or less when these adverse conditions were observed.

   The mine operator engaged in aggravated conduct constituting more than ordinary negligence by not observing, reporting, and correcting hazardous conditions and violations. The section foremen were aware of adverse roof conditions and still did not report them during the examinations. The mine operator did not conduct adequate examinations which exposed miners to hazards. This violation is an unwarrantable failure to comply with a mandatory standard.

4. A 104(a) citation was issued to Mingo Logan Coal LLC for a violation of 30 CFR 75.202(b).

   On September 6, 2024, a continuous mining machine operator died after he was struck by falling rock from the mine roof. The mine operator did not have procedures in place to prevent miners from working or traveling under unsupported roof. The miner traveled underneath unsupported roof after mining across the No. 8 heading into the 8 Right crosscut. Draw rock measuring approximately eight feet wide, 20 feet long, and eight to 18 inches thick fell on the miner resulting in fatal injuries.

APPENDIX A – Sketch of Accident Area



APPENDIX B – Persons Participating in the Investigation

Mingo Logan Coal, LLC

Garrett Barton	General Manager
Jonathan Hensley	Mine Manager
Jerry Mann	Safety Manager
Michael Lovins	Shift Foreman
Ivan Evans	Section Foreman
James Smith	Section Foreman
Gregory Williams	Section Foreman
Micah Mahon	CMM Operator
Cameron Frye	Shuttle Car Operator
Mark Hileman	Shuttle Car Operator
Jordan Dent	Roof Bolter Operator
Mark Hall	Roof Bolter Operator
Jason Murphy	Outby/Ventilation Man
Michael Decker	Parts Runner/Emergency Medical Technician
Michael Ball	Dispatcher

Matrix Industries

Bruce Hunt	East Coast Field Supervisor

Joy Global – Komatsu

David Adams	Service Technician

West Virginia Office of Miners' Health Safety and Training

Mike Pack	Inspector-at-Large
Randy Carter	District Inspector
Timothy Powers	District Inspector
Eddie Collins	District Inspector

Mine Safety and Health Administration

Craig Plumley	District Manager
Herman Morgan	Supervisory Mine Safety and Health Specialist
David Thacker	Supervisory Mine Safety and Health Inspector
Yancy Rode	Mine Safety and Health Specialist
Paul Milum	Mine Safety and Health Inspector
Bruce Linville	Mine Safety and Health Training Specialist
Matthew Wharry	Supervisory General Engineer, Technical Support