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UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Coal)

Fatal Fall of Face, Rib, Side or Highwall Accident
January 29, 2025

Twilight Mtr Surface Mine
Lexington Coal Company, LLC
Twilight, Boone County, West Virginia
ID No. 46-08645

Accident Investigators

Joshua McNeely
Mine Safety and Health Specialist

Warren Stover
Mine Safety and Health Inspector

Brittany Horton
Mine Safety and Health Specialist

Originating Office
Mine Safety and Health Administration
Beckley District
1293 Airport Road
Beaver, West Virginia 25813
Craig Plumley, Acting District Manager

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OVERVIEW

On January 29, 2025, at approximately 7:20 a.m., Steven Fields, a 55-year-old drill operator with 20 years of mining experience, died when rock fell from a highwall and struck the cab of the drill he was operating.

The accident occurred because the mine operator did not: 1) ensure the drill operator did not work under a dangerous highwall, 2) ensure hazardous areas were scaled before work was performed in the pit, 3) conduct an adequate examination of the highwall, and 4) provide adequate experienced miner training to the drill operator.

GENERAL INFORMATION

Lexington Coal Company, LLC, owns and operates Twilight Mtr Surface Mine (Twilight Mine), a surface coal mine in Twilight, Boone County, West Virginia. The mine employs 33 miners and operates two ten-hour shifts, six days per week. The mine operator contracts Austin Powder

to drill and blast overburden. Bulldozers, front-end loaders, and haul trucks remove the overburden to expose and mine the coal seam. The mine operator also uses a highwall mining machine to extract coal from highwalls. Haul trucks transport the coal to a processing facility where it is prepared for sale to industry.

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

Travis Fisher	General Manager
Jerry Hager	Superintendent

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on September 26, 2024. A regular safety and health inspection was ongoing at the time of the accident. However, no MSHA inspectors were on-site at the time of the accident. The 2024 non-fatal days lost injury rate for Twilight Mine was zero, compared to the national average of 0.87 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On January 29, 2025, at approximately 6:00 a.m., Fields arrived at the mine for his shift. Jerry Hager, Superintendent, assigned Fields to drill a test hole in the Chilton A pit (pit). The purpose of drilling the test hole was to determine the depth of the current coal seam and location of the next coal seam. Fields trammed the drill into the pit. At approximately 7:10 a.m., Fields positioned the drill against the highwall and began drilling the test hole.

At approximately 7:20 a.m., Ethan Rogers, Front-End Loader Operator, was tramming his front-end loader into the pit and saw a large rock fall from the highwall onto the drill operated by Fields. Rogers called out to Fields on the radio but received no response. Hager was in his pickup truck near the pit and heard a "thump." Hager drove his pickup truck into the pit, ran up to the drill, and determined Fields passed away due to the extent of the damage to the drill's cab. Christopher Grimmett, Front-End Loader Operator, was operating a front-end loader in the pit, and Gary Howell, Bulldozer Operator, was operating a bulldozer on the blast bench beside the pit. Grimmett and Howell heard Rogers' call on the radio, went to the drill, and checked Fields for a pulse but did not detect one. Additionally, Hager called Travis Fisher, General Manager, who called Joseph Jacobs, Safety Advisor.

At 7:30 a.m., Howell, who is also Chief of the Van Volunteer Fire Department, contacted Boone County Emergency Medical Services (EMS) via his fire department radio. At 8:30 a.m., EMS arrived at the accident scene. Leslie Hobbs, Equipment Operator/Emergency Medical Technician – Mining (EMT-M), who had assessed Fields and the accident scene, informed EMS that this was a confirmed fatality, and that EMS would not be able to access Fields until the drill was moved away from the highwall. EMS radioed Regional Command, and Pierre Charbonniez, D.O. for Charleston Area Medical Center, pronounced Fields dead at 8:33 a.m.

INVESTIGATION OF THE ACCIDENT

On January 29, 2025, at 7:49 a.m., Jacobs called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Lisa Mercado, Mine Safety and Health Assistant, who contacted Larry Bailey, Assistant District Manager. Bailey sent Warren Stover, Mine Safety and Health Inspector, and Joshua McNeely, Mine Safety and Health Specialist, to the mine. Vernus Sturgill, District Manager, sent Michael Moten, Assistant District Manager; Fred Harless, Supervisory Mine Safety and Health Inspector; and Brittany Horton, Mine Safety and Health Specialist, to the mine.

At 8:30 a.m., Stover 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 the preservation of evidence. Shortly after, McNeely, Harless, Bailey, and Moten arrived at the mine. On January 30, 2025, Sturgill, Moten, Horton, McNeely, and Stover returned to the mine to continue the investigation.

The MSHA accident investigation team, in conjunction with the West Virginia Office of Miners' Health Safety and Training, conducted an examination of the accident scene, interviewed miners and mine management, and reviewed conditions and work procedures relevant to the accident. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred in the pit (see Appendix B). Investigators measured the work area of the pit to be 72 feet wide and 126 feet long. Two front-end loaders were loading haul trucks when the drill trammed into the pit and began drilling the test hole, causing the pit to become crowded. When the accident occurred, the drill was positioned at a slight angle to the highwall with the cab between the highwall and the drill's mast. The cab was three to five feet away from the highwall. Investigators determined the mine operator did not ensure the drill operator did not work under a dangerous highwall, which contributed to the accident.

Weather

The weather at the time of the accident was 37 degrees Fahrenheit with fair skies. According to the National Weather Service, the mine experienced severe freezing conditions starting on January 20, 2025. Average daily temperatures began to increase above freezing starting on January 26, 2025, causing thawing conditions. Investigators determined that the freezing and thawing conditions contributed to the accident due to the presence of mud seams and loose, unconsolidated rock in the highwall.

Equipment Involved

The equipment involved in the accident was an Atlas Copco DML LP XL1200 Drill. Due to the damage sustained because of the accident, the investigators were unable to conduct an examination of the drill to determine if there were defects that contributed to the accident.

The drill's cab was an ISO 3449 Certified Level II Falling Object Protective Structure (FOPS). ISO 3449 notes that, "although FOPS meeting these criteria do not give crush protection under

all the circumstances in which the machine could be struck from above, it is expected that protection from penetration will be ensured" under the prescribed testing conditions. Additionally, the drill's instruction manual states, "Never stop the drill against a highwall that is liable to collapse or cause a crushing risk."

Ground Control

Development of the pit began on December 16, 2024. Austin Powder blasted the portion of the highwall involved in the accident on January 10, 2025. At the time of the accident, the highwall was 63 feet high. Investigators observed hazardous highwall conditions that were obvious and extensive, including mud seams, unconsolidated rock, and overhangs (see Appendix C). The mine operator did not have adequate equipment to scale the overhangs from a safe location, and did not install berms or signage to prevent miners from working under the hazardous highwall. Additionally, the mine operator assigned miners to work in the crowded pit, beside a highwall during a major freeze and thaw event. The mine operator did not ensure hazardous areas were scaled before work was performed in the pit, which contributed to the accident.

Ground Control Plan

MSHA acknowledged Twilight Mine's Ground Control Plan on February 22, 2022. The Ground Control Plan contained the following provisions that were not followed which contributed to the accident:

1. "Methods to provide and maintain clean highwalls will include pre-splitting…and the use of shovels, excavators, loaders, and dozers to clean and scale unstable or loose material. Highwalls will be cleaned as the shot is removed and maintained as necessary as production continues. Highwalls that produce loose material after mining has advanced will be re-scaled. Areas that cannot be adequately re-scaled will be meshed or barricaded along the bottom to prevent access. The barricades will be a distance out from the toes of the highwall that will provide adequate protection from the hazard that is present."

2. "In active pit areas that may have highwall stability concerns, a berm will be constructed to prevent equipment access within the drop zone while still facilitating coal removal."

3. "When failure to control the developing highwall occurs such as the existence of overhangs, loose material, unconsolidated rocks, material falling into the pit, movement in the wall, or blasting practices fail to result in a clean and stable highwall, and corrective action cannot be taken to eliminate the existence of these conditions, the affected area will be barricaded to prevent persons from being exposed to the conditions and the plan will be revised to safely control the highwall and provide for safe conditions."

4. "Equipment with side mounted cabs such as drills, and excavator will be located away from the highwall so as to never position the cab between the boom or the drill mast and the highwall when the machine is working near the

toe of the highwall unless it can be shown that failure of the highwall will not affect the operator."

Examinations

Hager conducted the daily inspection of the mine, including an examination of the pit and highwall, from 4:20 a.m. to 5:30 a.m. on the day of the accident. The record states no hazards were observed. Each examination record for the six days prior to the accident also states that no hazards were observed. Investigators determined that the mud seams, unconsolidated rock, and overhangs existed since the highwall was blasted, over two weeks prior to the accident. Freeze and thaw conditions were present in the days leading to the accident, which should have put Hager on the alert for additional hazardous conditions.

Hager stated that he used a spotlight to examine the highwall from the pit because it was still dark during the inspection. Investigators determined that the spotlight did not provide sufficient illumination to conduct an adequate highwall examination. The mine operator did not conduct an adequate examination of the highwall in the pit, which contributed to the accident.

Training and Experience

Fields had 20 years of mining experience, including eight weeks of experience at Twilight Mine. Nearly all of Fields' mining experience included operating drills. According to documentation provided by the mine operator, Fields received annual refresher and task training on the drill involved in the accident in accordance with MSHA Part 48 training regulations. Hager provided experienced miner training to Fields on December 10, 2024. This training did not include instruction on the acknowledged Ground Control Plan, hazard recognition, and the prevention of accidents. Investigators determined the mine operator did not provide adequate experienced miner training to Fields, which contributed to the accident.

ROOT CAUSE ANALYSIS

The accident investigation team conducted an analysis to identify the underlying causes of the accident. The team 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 ensure the drill operator did not work under a dangerous highwall.

   Corrective Action: The mine operator revised their Ground Control Plan to include a provision that prohibits miners from being positioned in dangerous locations near a highwall. The mine operator trained all miners on the revised Ground Control Plan.

2. Root Cause: The mine operator did not ensure hazardous areas were scaled before work was performed in the pit.

   Corrective Action: The mine operator revised their Ground Control Plan to include procedures that ensure areas with hazardous highwall conditions are scaled prior to work being performed. The mine operator trained all miners on the revised Ground Control Plan.

3. Root Cause: The mine operator did not conduct an adequate examination of the highwall.

   Corrective Action: The mine operator revised their Ground Control Plan to include a new procedure for highwall examinations. During hours of mining operations that the highwall cannot be seen without illumination, a light plant or equivalent means of illumination will be utilized to ensure the areas being examined will be seen clearly. Additional examinations will be conducted and documented when any adverse weather condition such as freeze, thaw, and/or heavy rains occur. The mine operator trained all examiners on the procedure.

4. Root Cause: The mine operator did not provide adequate experienced miner training to the drill operator.

   Corrective Action: The mine operator's approved MSHA Part 48 training plan for the mine now requires the mine operator to train all miners on the new Ground Control Plan. This includes how to recognize hazardous highwall conditions.

CONCLUSION

On January 29, 2025, at approximately 7:20 a.m., Steven Fields, a 55-year-old drill operator with 20 years of mining experience, died when rock fell from a highwall and struck the cab of the drill he was operating.

The accident occurred because the mine operator did not: 1) ensure the drill operator did not work under a dangerous highwall, 2) ensure hazardous areas were scaled before work was performed in the pit, 3) conduct an adequate examination of the highwall, and 4) provide adequate experienced miner training to the drill operator.

Approved By:

_____ _____

Craig Plumley Date
Acting District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Lexington Coal Company, LLC.

   A fatal accident occurred on January 29, 2024, at approximately 7:20 a.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(a) citation was issued to Lexington Coal Company, LLC for a violation of 30 CFR 77.1006(a).

   On January 29, 2025, at approximately 7:20 a.m., a drill operator died when rock fell from a highwall and struck the drill he was operating. The mine operator did not ensure the drill operator did not work under a dangerous highwall.

3. A 104(d)(1) citation was issued to Lexington Coal Company, LLC for a violation of 30 CFR 77.1005(a).

   On January 29, 2025, at approximately 7:20 a.m., a drill operator died when rock fell from a highwall and struck the drill he was operating. The mine operator did not ensure hazardous areas were scaled before work was performed in the pit. The mine operator engaged in aggravated conduct constituting more than ordinary negligence. The hazardous highwall conditions, including mud seams, unconsolidated rock, and overhangs, were obvious and extensive and existed for over two weeks. Multiple examination records prior to and on the day of the accident indicate no hazards found. This is an unwarrantable failure to comply with a mandatory standard.

4. A 104(d)(1) order was issued to Lexington Coal Company, LLC for a violation of 30 CFR 77.1713(a).

   On January 29, 2025, at approximately 7:20 a.m., a drill operator died when rock fell from a highwall and struck the drill he was operating. The mine operator did not conduct an adequate examination of the highwall. The mine operator engaged in aggravated conduct constituting more than ordinary negligence. The hazardous highwall conditions, including mud seams, unconsolidated rock, and overhangs, were obvious and extensive and existed for over two weeks. Freeze and thaw conditions were present in the days leading to the accident. This is an unwarrantable failure to comply with a mandatory standard.

5. A 104(d)(1) order was issued to Lexington Coal Company, LLC for a violation of 30 CFR 48.26(b).

   On January 29, 2025, at approximately 7:20 a.m., a drill operator died when rock fell from a highwall and struck the drill he was operating. The mine operator did not provide adequate experienced miner training to the drill operator. The training did not include the acknowledged Ground Control Plan, hazard recognition, and the prevention of accidents. The mine operator engaged in aggravated conduct constituting more than ordinary negligence. The superintendent was responsible for providing experienced miner training and assigned the drill operator to drill the test hole in the pit. This is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A – Persons Participating in the Investigation

Lexington Coal Company, LLC

Travis Fisher	General Manager
Joseph Jacobs	Safety Advisor
Jerry Hager	Superintendent
Joseph Spence	Highwall Miner Foreman
Frank Cooper	Haul Truck Driver
Warren McClung	Haul Truck Driver
Christopher Grimmett	Front-End Loader Operator
Ethan Rogers	Front-End Loader Operator
Gary Howell	Bulldozer Operator
Leslie Hobbs	Equipment Operator/EMT-M

Austin Powder

Rocky Burnette	Blaster

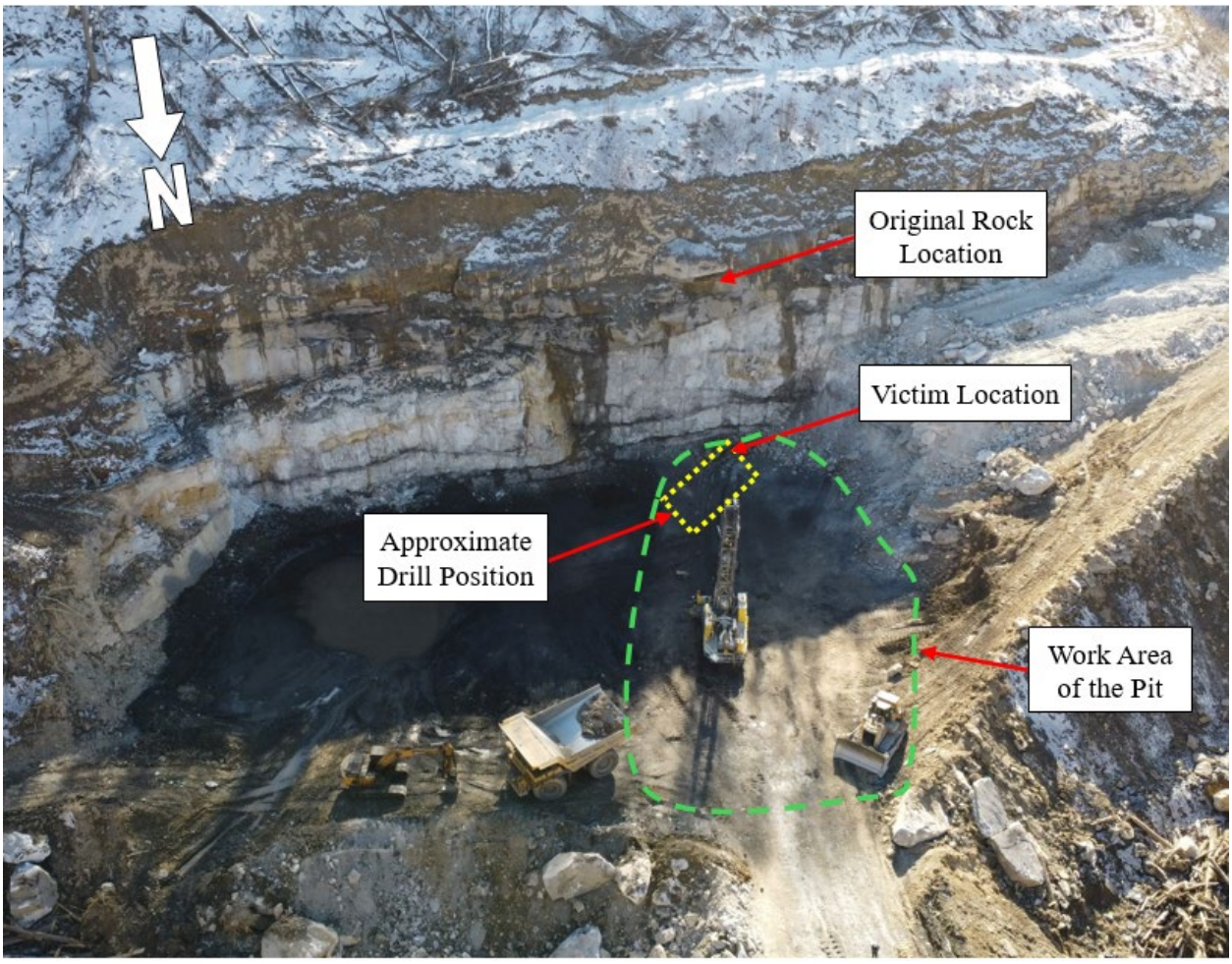
West Virginia Office of Miners' Health Safety and Training

Matthew Mollohan	Surface Inspector
Steven Phares	Surface Inspector

Mine Safety and Health Administration

Michael Moten	Assistant District Manager
Fred Harless	Supervisory Mine Safety and Health Inspector
Brittany Horton	Mine Safety and Health Specialist
Joshua McNeely	Mine Safety and Health Specialist
Warren Stover	Mine Safety and Health Inspector

APPENDIX B – Aerial View of the Chilton A Pit



APPENDIX C – Highwall