

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Underground
(Coal Bituminous)

Fatal Fall of Roof or Back Accident
May 31, 2024

Buchanan Mine #1
Buchanan Minerals, LLC
Raven, Buchanan County, Virginia
ID No. 44-04856

Accident Investigator

Christopher Cain
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Norton District
716 Spring Ave, SE Suite 200
Wise, Virginia 24293
Brian Dotson, District Manager

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OVERVIEW

On May 31, 2024, at approximately 4:20 p.m., Brock Jackson, a 27 year-old roof bolter with over three years of mining experience, died when a portion of mine roof fell on him. The accident occurred as he was traveling on foot through an area of unsupported roof.

The accident occurred because the operator did not ensure that all miners were working or traveling under supported roof.

GENERAL INFORMATION

Buchanan Minerals, LLC owns and operates the Buchanan Mine #1. The mine is an underground coal mine located in Raven, Buchanan County, Virginia. The mine operates 12 mechanized mining units (MMU) which includes a longwall system. The mine operates three production shifts, seven days a week, using both a longwall system and continuous mining machines. The mine employs 711 miners. The extracted coal is transported to belt conveyors and transported out of the mine with a skip system. Once the coal is transported out of the mine the coal is processed through a preparation plant prior to delivery to various consumers.

The principal management officials at Buchanan Mine #1 at the time of the accident were:

Keith Sigmon
Josh Honaker
Rex Penn

General Manager
Superintendent
Safety Manager

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on March 28, 2024. The 2023 non-fatal days lost incident rate for Buchanan Mine #1 was 1.04, compared to the national average of 3.21 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On May 31, 2024, at 3:55 p.m., the 16 East crew began their shift underground at Survey Station 41321 with a safety talk from Gregory Reynolds, Section Foreman. According to interviews, the 16 East crew consisted of Jackson; Rocky Lester, Continuous Mining Machine Operator; Brandon Dotson, Roof Bolter; Nick Gibson, Roof Bolter; Ellis Shortridge, Roof Bolter; Justin Vest, Electrician; Christopher Justus, Hauler Operator; and David Vance, Hauler Operator.

According to interviews, after the safety talk, Jackson proceeded to the last row of bolts in the No. 2 Right crosscut with Dotson. Lester arrived at the continuous mining machine located in the No. 2 Right crosscut. After Lester arrived, Dotson saw Jackson starting to walk into the area of unsupported roof. Dotson said, "You are not going to go through that break." However, Jackson walked through the unsupported area of the No. 2 Right crosscut to the No. 3 Entry at Survey Station 41348. He then walked over to the right-side roof bolting machine located in the face of the No. 4 entry in by Survey Station 41349.

According to interviews, Jackson saw Gibson and Shortridge and asked if they had any cable bolts, but they told him they did not. Jackson then left the No. 4 Entry and traveled the same route to the No. 2 Right crosscut. Lester and Dotson warned Jackson not to travel back through the unsupported area. While traveling back through the area of unsupported roof in No. 2 Right crosscut, Jackson was struck by a section of mine roof. The investigator measured the fallen section of mine roof that struck Jackson to be approximately six feet long, by four feet wide, and an average of fourteen inches thick.

According to interviews, Dotson witnessed the roof fall and traveled under unsupported roof to Jackson. Dotson stayed with Jackson while Lester traveled on foot outby in the No. 2 Entry to get help. Lester found Reynolds and informed him of the accident. Reynolds proceeded to the accident scene. After arriving at the accident scene, Reynolds directed miners to get first aid supplies, cribs and timbers. Reynolds radioed Vest to also bring bottle jacks.

Vest arrived at the accident scene and started to use the bottle jacks to lift the rock off of Jackson. Reynolds went to the mine phone to call Hassle Caudill, Belt Coordinator. Reynolds then returned to the accident scene with a bottle of oxygen.

Jason Roberts, Roof Bolter and Emergency Medical Technician (EMT), was working on the 6 North Section and was notified by Johnathan Breeding, Section Foreman, who heard Reynolds

call on the mine phone, that there had been an accident and to travel to the 16 East Section. Roberts arrived at the accident scene and assisted the miners who were attempting to lift the rock off of Jackson.

Jackson was freed from under the rock. Roberts and Vest evaluated Jackson's vitals and began cardiopulmonary resuscitation (CPR). An automated external defibrillator (AED) was placed on Jackson and a shock was advised.

While continuing CPR, Jackson was placed on a stretcher and a coal hauler and was taken to the track down the No. 2 Entry at Survey Station 41262. At 4:56 p.m. Jackson was placed on a mantrip and was transported to the No. 9 Vent Bottom.

At 5:25 p.m. Jackson arrived at the bottom of the No. 9 Vent Shaft where paramedics from Oakwood Volunteer Fire and Rescue took over the care of Jackson. Jackson was then transported to Clinch Valley Medical Center where Bobby Deel, R.N., pronounced him dead at 5:54 p.m.

INVESTIGATION OF THE ACCIDENT

On May 31, 2024, at 4:39 p.m., David Lawson, Evening Shift Supervisor, called the Department of Labor National Contact Center (DOLNCC) to report the accident. At 5:05 p.m., the DOLNCC contacted Gary Hall, Roof Control/Impoundment Supervisor. Hall contacted David Steffey, Assistant District Manager; and Lloyd Robinette, Assistant District Manager. Steffey directed Hall to contact Mark Tuggle, Roof Control Specialist; and Christopher Cain, Roof Control Specialist. Steffey contacted Brian Dotson, District Manager. Steffey assigned Cain as the accident investigator. Robinette contacted Paul Smith, Supervisory Mine Safety and Health Inspector.

At 7:30 p.m., Cain arrived onsite at the No. 9 Vent Portal. At 7:40 p.m., Cain 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. Cain continued the investigation with the assistance of Tuggle, Robinette, Steffey, and Smith.

MSHA's accident investigator, along with the Virginia Department of Energy accident team, examined, mapped, and took photos of the accident scene; took witness statements on May 31, 2024, through June 1, 2024; and interviewed miners on June 3, 2024. MSHA's accident investigator reviewed the mining conditions and work practices 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 16 East Section of the mine, near Survey Station 41348, in an area of unsupported roof in the No. 2 Right crosscut (see Appendices B and C).

The main mine roof at Buchanan Mine #1 consists of shale, sandy shale, and sandstone. The immediate mine roof, closest to the working areas and travel ways throughout the mine, consists of layers of the same materials in various thicknesses.

Roof Control Plan and Roof Support

The immediate mine roof is supported with fully grouted 72-inch bolts installed with a minimum six-inch by six-inch bearing plate. These bolts are installed on a minimum four-foot by four-foot pattern. The Buchanan Mine #1's roof control plan, on page 18, illustrates the requirement that two cable bolts are to be installed during the normal bolting cycle in the area where the accident occurred. The investigator determined the reason Jackson went to the other roof bolting machine was that there were no cable bolts on his roof bolting machine.

The Buchanan Mine #1's roof control plan on page six, item F, requires that no miner travel under unsupported roof. Also, page six, item C, requires warning devices (red reflective ribbons) that are readily visible or physical barriers to be conspicuously placed to warn miners approaching an area which is not permanently supported upon the completion of the loading cycle. Additionally, page 15, item Z, number 4, requires warning devices that are readily visible or physical barriers to be conspicuously placed to warn persons approaching an unsupported intersection prior to being mined through. The devices or barriers shall be placed outby the intersection with at least one row of permanent roof support between the projected intersection and indicators or barriers. The investigator saw these warning devices, and based on the interviews, determined the warning devices were installed prior to Jackson traveling through the unsupported area.

Examinations

A preshift examination of the 16 East Section was conducted by James Coleman, Section Foreman, between 12:30 and 1:30 p.m., and no violations or hazardous conditions were recorded.

Training and Experience

Jackson worked as a roof bolter for Buchanan Minerals, LLC for over 28 weeks and had over three years of experience as an underground miner. Jackson held certifications through the Virginia Department of Energy of General Miner Underground Only and Qualified Gas Detector. Jackson received annual refresher training on March 24, 2024. Jackson was task trained on a roof bolting machine and the roof control plan on February 5, 2024. The investigator determined that Jackson received training in accordance with MSHA Part 48 training regulations.

ROOT CAUSE ANALYSIS

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

Root Cause: The operator did not ensure that all miners were working or traveling under supported roof.

Corrective Action: The mine operator has developed and implemented a revision to the approved roof control plan. This revision includes more visible warning devices and physical barriers to all approaches leading to unsupported areas. All miners have been trained on the revision to the approved roof control plan which included a reemphasis that miners are not to travel under unsupported roof.

CONCLUSION

On May 31, 2024, at approximately 4:20 p.m., Brock Jackson, a 27 year-old roof bolter operator with over three years of mining experience, died when a portion of mine roof fell on him. The accident occurred as he was traveling on foot through an area of unsupported roof.

The accident occurred because the operator did not ensure that all miners were working or traveling under supported roof.

Approved By:

Brian Dotson
Norton District Manager

Date

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Buchanan Minerals, LLC.

A fatal accident occurred on May 31, 2024, at approximately 4:20 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(a) citation was issued to Buchanan Minerals, LLC for a violation of 30 CFR 75.202(b).

A fatal accident occurred on May 31, 2024, when a miner traveled through an area of unsupported mine roof in the No. 2 Right crosscut, near Survey Station 41348. The miner traveled from the supported area in the No. 2 Right crosscut, through the unsupported area, and into the No. 3 entry. The accident occurred when the miner traveled from the No. 3 entry back through the unsupported area. A section of unsupported mine roof approximately six feet, by four feet, and 14 inches thick fell, struck, and covered up the miner.

APPENDIX A – Persons Participating in the Investigation

Buchanan Minerals, LLC

Keith Sigmon	General Manager
Josh Honaker	Superintendent
Aaron Price	Director of Safety
Rex Penn	Safety Manager
David Lawson	Evening Shift Supervisor
Hassle Caudill	Belt Coordinator
Johnathan Breeding	Section Foreman
James Coleman	Section Foreman
Gregory Reynolds	Section Foreman
Rocky Lester	Continuous Mining Machine Operator
Brandon Dotson	Roof Bolter
Nick Gibson	Roof Bolter
Ellis Shortridge	Roof Bolter
Justin Vest	Electrician
Jason Roberts	Roof Bolter/EMT
Christopher Justus	Hauler Operator
David Vance	Hauler Operator

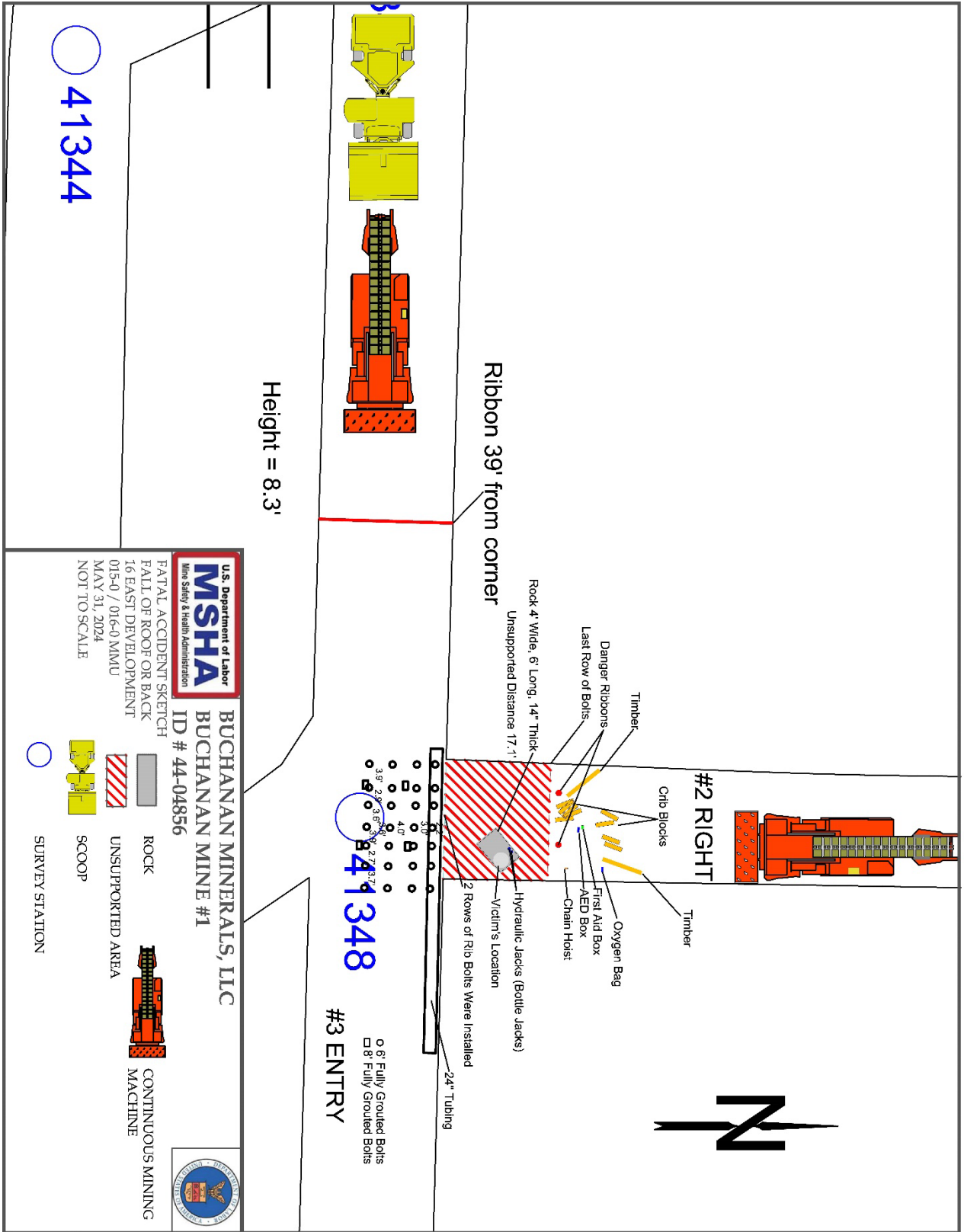
Virginia Department of Energy

Christopher Whitt	Emergency Manager
Sidney Crabtree	Mine Inspector
William Altizer	Mine Inspector
Donald Rife	Roof Control Specialist

Mine Safety and Health Administration

David Steffey	Assistant District Manager
Lloyd Robinette	Assistant District Manager
Paul Smith	Supervisory Mine Safety and Health Inspector
Christopher Cain	Roof Control Specialist
Mark Tuggle	Roof Control Specialist

APPENDIX B – Location of Accident and Accident Scene



APPENDIX C – Section Map with Survey Stations and Accident Location

