UNITED STATES DEPARTMENT OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface (Crushed & Broken Limestone Mining)

Fatal Powered Haulage Accident July 26, 2023

Lexington Quarry Company
Lexington Quarry Company
Nicholasville, Jessamine County, Kentucky
ID No. 15-06264

Accident Investigators

Joseph Armstrong Mine Safety and Health Inspector

Daniel Fox Supervisory Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Barbourville District
3837 S U.S. Hwy 25E
Barbourville, Kentucky 40906
Samuel Creasy, District Manager

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OVERVIEW

On July 26, 2023, at approximately 2:45 p.m., Kyle Pennington, a 24 year-old miner with over four years of mining experience, was seriously injured when he lost control of a pickup truck while driving up a slope. Pennington passed away on March 19, 2024, due to complications from injuries sustained during the accident.

The accident occurred because the mine operator did not correct the defective service brake in a timely manner before it created a hazard to Pennington.

GENERAL INFORMATION

Lexington Quarry Company owns and operates the Lexington Quarry Company mine (Lexington Quarry). Lexington Quarry is an underground limestone mine located in Nicholasville, Jessamine County, Kentucky. The mine employs 19 miners and operates one ten-hour shift, five days per week. The mine operator uses the room and pillar mining method to extract limestone from the underground portion of the mine. Miners use explosives to extract the limestone. Front-end loaders load the blasted limestone into haul trucks that transport it to an underground crusher. A belt conveyor system transports the crushed limestone out of the mine where it is processed through a screening plant into different sizes. The mine operator then sells the finished product to the public, local contractors, and local government.

The principal management officials at Lexington Quarry at the time of the accident were:

Donald Ross Mickie Conrad Wayne Harrison Mine Superintendent Underground Lead Man Surface Lead Man

The Mine Safety Health Administration (MSHA) completed the last regular health and safety inspection at this mine on May 8, 2023. The 2022 non-fatal days lost incident rate for Lexington Quarry was 5.38, compared to the national average of 1.29 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On July 26, 2023, at 6:50 a.m., Pennington arrived at the mine. According to interviews, Pennington asked Donald Ross, Mine Superintendent, if he could work on the pickup truck that had been assigned to him a couple of weeks prior. Ross agreed and told Pennington to work with Bobby Walker, Mechanic, to make the necessary repairs. The pickup truck had a broken brake line and had been out of service for one to two days. At approximately 9:30 a.m., Mickie Conrad, Underground Lead Man, drove Pennington to the location of the pickup truck.

According to interviews, at approximately 11:30 a.m., Walker drove down the surface slope, entered the mine, and continued to the pickup truck which was parked in the East 2/Second Level area across from the crusher. Pennington and Walker replaced the damaged brake line and completed a few other minor repairs to the pickup truck. Conrad stopped by to check on their progress and assisted Walker and Pennington in bleeding the brakes on the truck. Walker stated that they were able to get a pretty good brake on the truck, but they were still "a little spongy." The brake fluid reservoir was low, and they didn't have any more brake fluid underground.

According to interviews, at approximately 2:30 p.m., Walker drove outside to obtain more brake fluid and instructed Pennington to stay with the truck and not to drive it. Conrad left and also instructed Pennington to stay with the truck and not to drive it. Conrad advised Pennington that he would be back soon. Pennington was hearing and speech impaired, so management and coworkers communicated with him through texts on their mobile devices, handwritten messages, and some signing. Conrad and Walker stated that Pennington acknowledged their instructions by nodding his head and giving them a thumbs up.

According to interviews, at approximately 2:45 p.m., Conrad returned to the East 2/Second Level area, but Pennington and the pickup truck were no longer there. Conrad continued out of the mine to look for Pennington and found the pickup truck crashed against the gob pile at the mine entrance. Pennington was lying approximately 50 feet up the slope with obvious injuries. There were no eyewitnesses to the accident. Based on Conrad's statement of interaction with Pennington and an examination of the accident scene, Pennington indicated that the truck lost traction and began traveling backward down the slope. Pennington exited the vehicle and received significant head injuries from striking the ground and/or being struck by the truck. The truck continued backward down the ramp, coming to rest at the mine portal.

Conrad called Ross via cell phone and told him that Pennington had been involved in an accident on the slope and to contact Emergency Medical Services (EMS). Ross called dispatch via cell phone and told them to contact EMS and MSHA. Walker and Conrad attempted to stop Pennington's bleeding and provided first aid until Jessamine County EMS arrived on the scene. EMS transported Pennington to the University of Kentucky Medical Center. On March 19, 2024, Pennington passed away due to complications from injuries sustained during the accident.

INVESTIGATION OF THE ACCIDENT

On July 26, 2023, at 3:37 p.m., Misti Meece, Office Administrator, contacted the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC notified Michelle Abner, Assistant District Manager Secretary, who told Craig Plumley, Assistant District Manager. Plumley notified Brandon Baker, Supervisory Mine Safety and Health Inspector. Baker sent Daniel Fox, Supervisory Mine Safety and Health Inspector, to the mine. Plumley assigned Joseph Armstrong, Mine Safety and Health Inspector, to be the lead accident investigator.

At 4:25 p.m., Baker and Fox arrived at the mine. At 4:29 p.m., Fox 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. Baker and Fox gathered initial statements and took photos of the accident scene.

On July 27, 2023, at 8:30 a.m., Baker, Armstrong, and Roger Boggs, Mine Safety and Health Inspector Trainee, arrived at the mine to continue the investigation. 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 A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred on the surface slope at the entrance to the mine (see Appendix B). The grade of the slope is 14 degrees. The truck came to rest at the bottom of the slope (see Appendix C).

Weather

The weather at the time of the accident was 90 degrees Fahrenheit with sunny skies. Investigators determined that the weather did not contribute to the accident.

Equipment Involved

The vehicle involved in the accident was a 2002 Ford F150 Super Crew 4x4 Pickup Truck. The mine operator owned and maintained the pickup truck and assigned it to Pennington for use only inside the mine and to be able to contact other miners in the event of an emergency. Pennington and Walker replaced the pickup truck's broken brake line on the day of the accident.

Investigators examined the pickup truck and found it had zero effective service braking capabilities. The service brake pedal went directly to the floor with no resistance when pushed

while the engine was running and not running. The pickup truck's emergency brake was tested on level ground and functioned properly. Investigators determined the mine operator did not correct the defective service brake in a timely manner before it created a hazard to Pennington, which contributed to the accident.

The pickup truck was factory-equipped with a four-wheel drive feature. The truck was placed in and out of four-wheel drive by an electronic selector located on the control panel inside the driver's compartment. The selector was in the "four-wheel high" position at the time of the accident. Investigators found that the four-wheel drive feature was not functional. According to interviews, some pickup trucks without four-wheel drive capabilities have had problems driving up the slope in the past.

Training and Experience

Pennington had four years and 20 weeks of mining experience, and 15 weeks and three days of experience at Lexington Quarry as an equipment operator and general mine maintenance worker. Fox reviewed the mine operator's training plan, including Pennington's training records. Pennington received all training in accordance with MSHA Part 48 training regulations.

Examinations

The mine operator conducted a workplace examination of the slope and did not identify any hazards. Investigators determined that the workplace examination was adequate and did not contribute to the accident.

The mine operator did not conduct a pre-operational inspection of the pickup truck before Pennington operated it because the pickup truck was out of service for repair.

ROOT CAUSE ANALYSIS

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

<u>Root Cause</u>: The mine operator did not correct the defective service brake in a timely manner before it created a hazard to Pennington.

<u>Corrective Action</u>: The mine operator now requires more specific testing for braking functionality and other equipment defects up to and including removing keys for the equipment until the equipment is safe to operate. Additionally, the mine operator developed and implemented a new written procedure regarding pre-operational inspections of mobile equipment and trained all miners on the procedure.

CONCLUSION

On July 26, 2023, at approximately 2:45 p.m., Kyle Pennington, a 24 year-old miner with over four years of mining experience, was seriously injured when he lost control of a pickup truck while driving up a slope. Pennington passed away on March 19, 2024, due to complications from injuries sustained during the accident.

The accident occurred because the mine operator did not correct the defective service brake in a timely manner before it created a hazard to Pennington.

Approved By:	
Samuel Creasy	Date
District Manager	

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Lexington Quarry Company.

A non-fatal accident occurred on 07/26/2023, at approximately 14:47 when a truck driver exited his truck unexpectedly and received a head injury. 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.

On Tuesday, March 19, 2024, the truck driver passed away from complications as a result of the injuries suffered in this accident.

2. A 104(a) citation was issued to Lexington Quarry Company for a violation of 30 CFR 57.14100(b).

Defects affecting the safe operation of the Green 2002 Ford F150 Pickup Truck, VIN # C6530, in use in the active underground areas of the mine were not corrected in a timely manner to prevent the creation of hazards to persons. The truck's service brake is not operational at the time of inspection. When tested with the Engine both running and not running, the service brake pedal will go directly to the floor with little to no resistance when pressure is applied and has no stopping capabilities. Also, the truck's 4-Wheel Drive Feature is not working when tested.

APPENDIX A – Persons Participating in the Investigation

Lexington Quarry Company

Donald Ross Mickie Conrad Bobby Walker Mine Superintendent Underground Lead Man Mechanic

Mine Safety and Health Administration

Brandon Baker Daniel Fox Joseph Armstrong Roger Boggs Supervisory Mine Safety and Health Inspector Supervisory Mine Safety and Health Inspector Mine Safety and Health Inspector Mine Safety and Health Inspector Trainee

APPENDIX B – Top of the Slope



APPENDIX C – Bottom of the Slope

