

CAI-2015-10

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Surface Coal Mine

Fatal Slip or Fall Accident
September 26, 2015

Johnson Mine
Cahaba Resources LLC
Brookwood, Tuscaloosa County, Alabama
ID No. 01-03375

Accident Investigators

Jarvis Westery
Coal Mine Inspector, Surface

James Brodeur
Coal Mine Inspector, Surface

Originating Office
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Richard A. Gates, District Manager

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OVERVIEW

On September 26, 2015, at approximately 5:45 a.m. a 58-year-old bulldozer operator with 10 years of mining experience was found lying unconscious on the ground next to a bulldozer. The mine foreman had driven the bulldozer operator to his designated working area. After seeing that the bulldozer had not moved, he returned and found the bulldozer operator lying on the ground. First aid was started immediately by mine personnel and they continued medical treatment until emergency personnel arrived. The miner was airlifted to the hospital where he remained until October 5, 2015, when he died from his injuries.

GENERAL INFORMATION

The Johnson Mine, MSHA ID No. 01-03375, is owned and operated by Cahaba Resources LLC, and is located near the city of Abernant, Jefferson County, Alabama. This mine is a surface bituminous coal operation, utilizing typical drilling and blasting with explosives to break the overburden. The mine currently has 18 employees. The one active pit normally operates one 10-hour shift per day, Monday through Friday, and intermittently on Saturdays. Two excavators are utilized to remove the overburden. Once the overburden is removed, the coal seam is excavated using front-end loaders, skid steers and haulage trucks. The primary coal seam mined is the Johnson Seam averaging 25 inches in thickness. The daily production rate is approximately 700 tons.

The principal officials of the mine at the time of the accident were:

- Randall Crawford.....General Manager
- Dennis Crawford.....Mine Foreman
- Dena Crawford.....Staff Assistant

The last regular safety and health inspection was completed by the Mine Safety and Health Administration (MSHA) on June 2, 2015. The mine’s Non-Fatal Days Lost (NFDL) incidence rate for 2014 was 0, compared to the national rate of 3.31 for surface coal mines.

DESCRIPTION OF THE ACCIDENT

On Saturday, September 26, 2015, the morning of the accident, Tim Norris, Maintenance Service Truck Operator, arrived to start the equipment and perform partial pre-operational examinations before the miners arrived to begin work. At approximately 5:10 a.m., Norris started the Komatsu D375A-5 (serial no. 18616, company no. 105) bulldozer engine and checked the lights, fluids, and conducted a cursory walk around the machine to look for anything out of the ordinary. Norris noted no deficiencies and left the bulldozer running.

In the parking lot at approximately 5:16 a.m., Dennis Crawford, Mine Foreman, picked up Bobby Wimberly (victim), Bulldozer Operator; Greg Ballard, Bulldozer Operator; and Matt Hopkins, Excavator Operator; and transported them to their worksites in the pit (a 10 minute drive). D. Crawford dropped off Wimberly and Ballard at the short

rock dump, where their two bulldozers were parked. He then traveled further into the pit to drop Hopkins off at the excavator he would be operating that day.

In the meantime, Ballard and Wimberly performed their pre-operational examinations. Ballard finished his examination and then drove his bulldozer into the pit. Ballard, as he traveled by, observed Wimberly mounting the bulldozer on the left side of the machine.

At approximately 5:45 a.m., D. Crawford traveled back to the short rock dump, after observing that Wimberly's bulldozer had not moved. As he approached the bulldozer, he observed Wimberly lying on the ground to the right side of the bulldozer.

D. Crawford found Wimberly face down and saw that he had a head injury and had difficulty breathing. David Thacker, Water Truck Operator, stopped at the accident scene to see what D. Crawford was doing. Thacker began to assist D. Crawford by providing spinal stabilization and then turned Wimberly on his side to make it easier for him to breathe. At approximately 5:50 a.m., D. Crawford used his radio to call General Manager, Randall Crawford to request additional mine personnel to assist at the scene.

At approximately 5:51 a.m., R. Crawford called 911 for medical assistance.

First responder Dewayne Jacobs, Rock Truck Operator, assumed treatment of the victim upon arrival. He continually assessed the victim until Brookwood Fire Department, Lakeview Fire Department and paramedics from North Star Ambulance arrived. At approximately 5:56 a.m., R. Crawford called 911 again to request a medical helicopter be sent to the scene. The victim was airlifted to DCH Regional Medical Center in Tuscaloosa, Alabama. Wimberly succumbed to his injuries nine days later, on October 5, 2015.

INVESTIGATION OF THE ACCIDENT

MSHA was notified of the accident at 6:09 a.m. on Saturday, September 26, 2015. MSHA supervisor Edward Boylen dispatched Surface Coal Mine Inspectors James Brodeur and Jarvis Westery to the mine.

Upon arrival at the mine, Westery issued a 103(k) order to ensure the safety of all persons and to prevent the destruction of evidence during the accident investigation.

Inspectors Brodeur and Westery examined the accident scene, interviewed witnesses, and reviewed work practices specific to the scene. Persons participating in the investigation are listed in Appendix A. Upon arrival at the mine, the MSHA investigators were presented with six written statements provided by mine personnel. During the course of the investigation, MSHA investigators conducted six face to face interviews. There were no witnesses to the accident.

DISCUSSION

Pre-operational Examinations and Maintenance

The Komatsu model no. D375A-5 bulldozer, serial number 18616, company no. 105, was started and left running by Norris. He conducted a partial pre-operational examination prior to Wimberly's arrival and observed no deficiencies. Ballard witnessed Wimberly mounting the bulldozer on the left side. D. Crawford and Ballard stated in interviews that it was Wimberly's practice to recheck the items checked by Norris. Wimberly did not fill out a pre-operational examination checklist for the day (normally turned in at the end of the shift). There were no safety issues reported on this bulldozer for the previous two weeks, according to pre-operational examination records.

Physical Factors

On the first day of the investigation, Brodeur and Westery inspected the bulldozer assigned to Wimberly and noted no mechanical or safety defects.

Shortly after the accident occurred, the operator had Tractor & Equipment Company (TEC), the authorized service provider for all Komatsu equipment in Alabama, check the bulldozer assigned to Wimberly. Arthur Wesley Williams, TEC Service Representative, performed a safety audit, in the presence of the MSHA Accident Investigators, and no mechanical or safety defects were identified.

The operator's compartment of the bulldozer is accessed by:

1. stepping up on the step on the push arm while holding a grab bar on the tilt cylinder,
2. walking across the bulldozer's tracks while holding the grab bar on the blade lift cylinder, and

3. stepping up on the step adjacent to the engine compartment while holding the grab bar attached to the engine compartment.

The operator's platform (outside the operator's cab) is 8 feet from the ground and the tracks are 5 feet above the ground. The hand rails and grab bars used for mounting and dismounting the machine were intact. The operator's platform and the top step have cleated surfaces and were in good repair.

Since the bulldozer was running when the victim arrived, atmospheric bottle samples were taken for gas analysis in the operator's compartment and at the transmission fluid inspection door. All atmospheric sample results were within normal ranges.

Environmental and Human Factors

The weather conditions at the time of the accident were clear and dry with a temperature of 67 degrees Fahrenheit. It was dark when the victim was dropped off at his bulldozer. The lights on the two bulldozers provided illumination in the area.

According to Norris, the machine was dry at the time of the accident. During the MSHA inspection of the bulldozer, no extraneous materials were found on the tracks, steps, or operator's cab platform. No slipping hazards were observed during the investigation.

No information was provided that Wimberly had any pre-existing injury or illness.

Accident Scenario

There were no witnesses to the accident.

The bulldozer engine was started prior to the work shift beginning and was running when the victim arrived. The push blade located on the front of the bulldozer, and the ripper located in the back of the bulldozer, were on the ground, and the transmission was in the parked position. From the time the victim arrived at the scene, until the time of the accident, there was no evidence that the bulldozer had been moved.

Information obtained through interviews indicated the victim mounted the bulldozer from the left side. The victim's lunch bucket was found in the cab of the bulldozer. The victim was found lying face down unresponsive on the ground six feet to the right side of the bulldozer. The victim had head injuries, most likely sustained when he fell off the bulldozer.

The medical examiner stated on the death certificate that the manner of death was accidental head trauma that was received when he fell from the bulldozer.

Work Experience and Training

The victim had been operating bulldozers at this mine since June, 2008.

The victim received the Annual Refresher training each year, as required, during his employment with Cahaba Resources LLC. He also received task training on September 3, 2014 for 8 pieces of equipment including the bulldozer involved in the accident.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic cause of the accident, which could have been corrected through reasonable management controls. During the analysis, a root cause was identified that, if eliminated, would have prevented the accident.

Root Cause: Most likely (as mentioned earlier, there were no witnesses), a bulldozer operator sustained head injuries consistent with a fall to the ground and later died at a local hospital. He was found lying on the ground beside a bulldozer he was going to be operating that work day.

Corrective Action: The operator retrained all miners on the best practices for mounting and dismounting equipment, stressing three points of contact, while conducting a pre-operational check of mobile equipment. All equipment operators were trained in these best practices.

CONCLUSION

On September 26, 2015, a 58-year-old bulldozer operator was injured and later died at a local hospital after being found lying on the ground beside a Komatsu D375A-5 bulldozer. Although there were no witnesses to the accident, the injuries of the victim are consistent with a fall from the bulldozer.

Approved by:



Richard A. Gates
District Manager



Date

ENFORCEMENT ACTIONS

A 103(k) order, No. 8529466, was issued to Cahaba Resources LLC, Johnson Mine on September 26, 2015, to prevent the destruction of any evidence that would assist in investigating the cause or causes of the accident, and to ensure the health and safety of person who are employed at this mine until an investigation of the accident can be completed.

Appendix A

Persons providing information and/or present during the investigation:

Cahaba Resources LLC

Randall Crawford.....General Manager
Dennis Crawford..... Mine Foreman
Gene Ed Crawford..... Foreman
Greg Ballard..... Bulldozer Operator
Dewayne Jacobs..... Rock Truck Operator
Tim Norris..... Maintenance Service Truck Operator
David Thacker..... Water Truck Operator
Ezekiel Caddell.....Front-End Loader Operator
Kyle Williams..... Maintenance Service Truck Operator

Tractor & Equipment Company

Arthur Wesley Williams..... Service Representative

Mine Safety and Health Administration

James Brodeur..... Inspector/Investigator
Jarvis Westery..... Inspector/Investigator

Appendix B

Victim Information

Accident Investigation Data - Victim Information

U.S. Department of Labor
Mine Safety and Health Administration



Event Number **6 4 9 2 4 6 1**

Victim Information: 1																	
1. Name of Injured <input type="checkbox"/> Employee Bobby Wimberly				2. Sex M		3. Victim's Age 58		4. Degree of Injury 0: Fatal									
5. Date (MM/DD/YY) and Time (24 Hr.) Of Death a. Date: 10/05/2015 b. Time: 8:11										6. Date and Time Started a. Date: 09/28/2015 b. Time: 5:30							
7. Regular Job Title: 169 Bulldozer/Tractor Operator				8. Work Activity when Injured: 047 Operate Bulldozer/Tractor								9. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
10. Experience			Years	Weeks	Days	b. Regular			Years	Weeks	Days	c. This			Years	Weeks	Days
a. This			7	9	1	Job Title			7	9	1	Mining			7	9	1
11. What Directly Inflicted Injury or Illness? 002 Bodily Motion										12. Nature of Injury or Illness 370 Multiple Injuries							
13. Training Deficiencies Hazard: _____ New/Newly-Employed Experienced Miner: _____ Annual: _____ Task: _____																	
14. Company of Employment (if different from production operator): Operator Independent Contractor ID: (if applicable)																	
15. On-site Emergency Medical Treatment Not Applicable First-Aid <input type="checkbox"/> CPR <input type="checkbox"/> EMT <input type="checkbox"/> Medical Professional <input checked="" type="checkbox"/> None <input type="checkbox"/>																	
16. Part 50 Document Control Number (form 7000-1)								17. Union Affiliation of Victim: 9999				None (No Union Affiliation)					