FAI-6886164-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Sand and Gravel)

Fatal Machinery Accident
October 20, 2021

Wegenhoft Plant
Alleyton Resource Company, LLC
La Grange, Fayette County, Texas
ID No. 41-02916

Accident Investigators

Ronnie Free
Supervisory Mine Safety and Health Inspector

Emilio Perales
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Dallas District
100 Commerce Street, Room 462
Dallas, TX 75242-0499
William O'Dell, District Manager

TABLE OF CONTENTS

OVERVIEW

On October 20, 2021, at approximately 9:35 a.m., Bonifacio Ibarra, a 50 year-old maintenance welder with nearly twelve years of mining experience, died when he was crushed between an excavator bucket and a telehandler.

The accident occurred because the mine operator did not maintain the excavator in safe operating condition.

GENERAL INFORMATION

Alleyton Resource Company, LLC owns and operates the Wegenhoft Plant (WP) mine. This mine is a surface construction sand and gravel mine located in La Grange, Fayette County, Texas. WP employs 11 miners and operates one 12-hour shift, five days per week. The mine excavates sand in an open pit. The sand is primarily used in the production of concrete.

The principal management officials at WP at the time of the accident were:

Stephen Gardner	Safety Director
Erik Villasana	Area Manager

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on June 29, 2021. The 2020 non-fatal days lost incident rate for WP was zero, compared to the national average of 1.36 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On October 20, 2021, Ibarra started his shift at 8:00 a.m. at the WP. Erik Villasana, Area Manager, directed Ibarra to assess what was needed at the #1 Plant to move the hopper back into its original position. The #1 Plant moved one to two feet from its installed location over the last 12 years due to vibrations from the operating hopper.

At approximately 7:30 a.m., Eleazar Aquirre, Equipment Operator, trammed an excavator to the hopper area. Aquirre then started removing material from around the front of the #1 Plant's hopper so that it could be moved. Around 8:00 a.m., Jose Soto, Lead Man/Equipment Operator, arrived at the #1 Plant area and started shoveling material from around the concrete pad on which the hopper sat.

Around 9:00 a.m., Aquirre finished removing the material and went to the lockbox at the #1 Plant to place his lock on the belt conveyor under the hopper. Aquirre, Soto, and Ibarra discussed how to move the hopper with the excavator. Aquirre positioned the excavator on the corner of the hopper and attempted to move the hopper by pushing on it with the excavator's bucket, but it would not move. At 9:25 a.m., Jose Sanchez, Maintenance Lead Man, arrived at the #1 Plant. Sanchez met with Ibarra, and they decided to use the telehandler to help move the hopper. While Ibarra lifted the hopper with the telehandler, Aquirre again attempted to move the hopper with the excavator. Sanchez noticed that there was a piece of rebar preventing the hopper from moving. Sanchez directed Ibarra and Aquirre to wait while Sanchez went to get a cutting torch.

Based on interviews, while Sanchez was getting the cutting torch and his personal protective equipment from his work truck, Ibarra exited the telehandler and positioned himself between the excavator bucket and the telehandler. During this time, Aquirre was applying pressure against the hopper with the excavator bucket. Soto was on the other side of the excavator bucket waiting on the cutting torch. From this position, Soto could not see Ibarra. When interviewed, Soto stated he heard a noise like a vibration and saw Ibarra laying on the ground. Soto saw Ibarra was injured and yelled for Sanchez to call an ambulance. At that moment, Villasana arrived at the #1 Plant in his truck. Sanchez told him to call an ambulance and ran over to check on Ibarra. The investigation later revealed that a linkage on the bucket of the excavator slipped off causing the bucket to rotate forward approximately 2.5 inches, crushing Ibarra between the excavator bucket and the telehandler.

At 9:37 a.m., Villasana called 911. At 9:55 a.m., Villasana met the ambulance on the main road and led them to the accident scene while Soto and Sanchez remained with Ibarra. Dr. Charles Anderson, from St. Mark's Hospital, pronounced Ibarra dead at 10:09 a.m.

INVESTIGATION OF THE ACCIDENT

On October 20, 2021, at 9:54 a.m., David Tijerina, Health, Safety, and Environment Area Manager, called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Wesley Hackworth, Supervisory Mine Safety and Health Inspector, who contacted Brett Barrick, Assistant District Manager. Barrick contacted Homer Pricer, Supervisory Mine

Safety and Health Inspector, who sent Emilio Perales, Mine Safety and Health Inspector, to the mine. At 11:11 a.m., Perales arrived at the mine and issued an order under the provisions of Section 103(k) of the Mine Act to assure the safety of the miners and preservation of evidence. Barrick then contacted Ronnie Free, Supervisory Mine Safety and Health Inspector, and assigned him as the lead accident investigator.

Free arrived at the mine site on October 21, 2021, to conduct the investigation. MSHA's accident investigation team conducted a physical examination of the accident scene, interviewed management officials and miners, 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 at the WP mine's #1 Plant hopper (see Appendix B).

Equipment Involved

A Volvo EC480EL Excavator with an 84-inch wide 5.5 yard bucket was involved in the accident. The excavator's bucket is connected to a hydraulic cylinder by a "dog bone" linkage (see Appendix C). Investigators observed that the linkage's keeper bolt was missing on the left side of the bucket, causing the linkage to slip off. The missing keeper bolt could not be located. Investigators determined that the missing keeper bolt contributed to the accident.

Additionally, another keeper bolt on a different part of the bucket assembly was missing. The second missing keeper bolt could not be located.

The excavator was used on multiple projects before the accident occurred. Since Aguirre did not document any missing keeper bolts during his pre-operational inspection, investigators believe the work performed with the excavator before the accident may have damaged the keeper bolts and caused them to fall out of the pins and linkages.

A Caterpillar TL1255D Telehandler was also involved in the accident. Investigators determined that Ibarra's use of the telehandler and Aquirre's use of the excavator did not exceed the manufacturers' recommendations.

Weather

The weather at the time of the accident was 72 degrees Fahrenheit with clear skies and a breeze of up to three miles per hour. Investigators determined that weather did not contribute to the accident.

Training and Experience

Ibarra had nearly twelve years of mining experience, all at this mine. Ibarra worked in maintenance for the entirety of his employment. Investigators reviewed training records, and Ibarra received eight hours of annual refresher training on January 18, 2021. Ibarra was task trained on multiple pieces of equipment, including the Caterpillar TL1255D telehandler that he was operating just prior to the accident. Ibarra received all training in accordance with MSHA

Part 46 training regulations. Aquirre received task training on the excavator on January 27, 2021.

Examinations

Based on interview statements and a review of examination records, investigators found that on the day of the accident, Ruben Salinas, Laborer, conducted the workplace examination of the plant area, which included the hopper. The workplace examination records made by Salinas on the day of the accident indicated that no hazards were found.

Aquirre performed the pre-operational inspection of the excavator on the day of the accident. The inspection did not note any defects such as the missing keeper bolts.

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.

Root Cause: The mine operator did not maintain the excavator in safe operating condition.

Corrective Action: The mine operator examined all the excavators on the property to assure that they were in safe operating condition and retrained all of the employees on how to recognize defects and maintain excavators in safe operating condition.

CONCLUSION

On October 20, 2021, at approximately 9:35 a.m., Bonifacio Ibarra, a 50 year-old maintenance welder with nearly twelve years of mining experience, died when he was crushed between an excavator bucket and a telehandler.

The accident occurred because the mine operator did not maintain the excavator in safe operating condition.

Approved By:

_____ _____

William O'Dell Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Alleyton Resource Company, LLC.

   A fatal accident occurred on October 20, 2021, at approximately 9:35 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 Alleyton Resource Company, LLC for a violation of 30 CFR 56.14100(b).

   A fatal accident occurred at this operation on October 20, 2021, when a miner was crushed between an excavator bucket and a telehandler. The mine operator did not assure that the Volvo EC480EL Excavator was properly maintained, in that two of the keeper bolts were missing on the bucket connections. The “dog bone” linkage that connects the hydraulic cylinder to the excavator bucket slipped off the pin because the keeper bolt was missing. This allowed the bucket to rotate forward, approximately 2.5 inches, crushing a miner between the excavator bucket and the telehandler.

APPENDIX A – Persons Participating in the Investigation

Alleyton Resource Company, LLC

David Tijerina	Health, Safety, and Environment Area Manager
Stephen Gardner	Safety Director
Erik Villasana	Area Manager
Joshua Schultz	Attorney
Jose Sanchez	Maintenance Lead Man
Jose Soto	Lead Man/Equipment Operator
Eleazar Aquirre	Equipment Operator
Ruben Salinas	Laborer

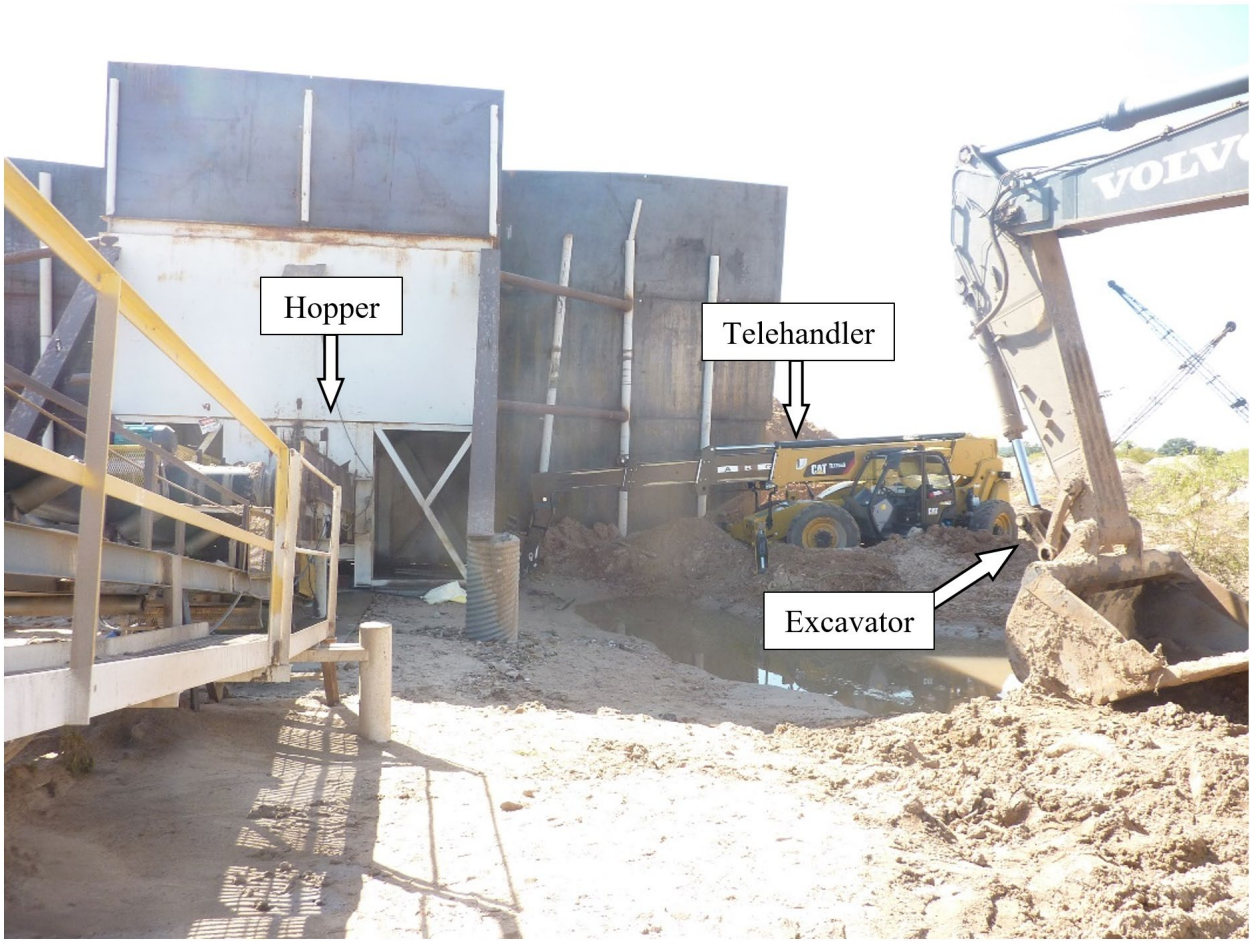
Fayette County Sheriff's Department

Terry Guentert	Sherriff Deputy

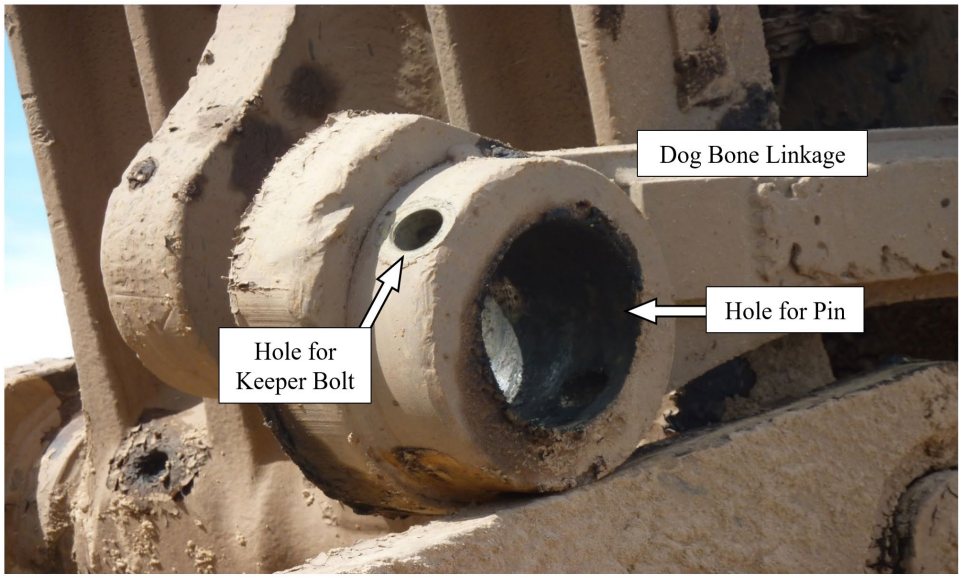
Mine Safety and Health Administration

Ronnie Free	Supervisory Mine Safety and Health Inspector
Emilio Perales	Mine Safety and Health Inspector

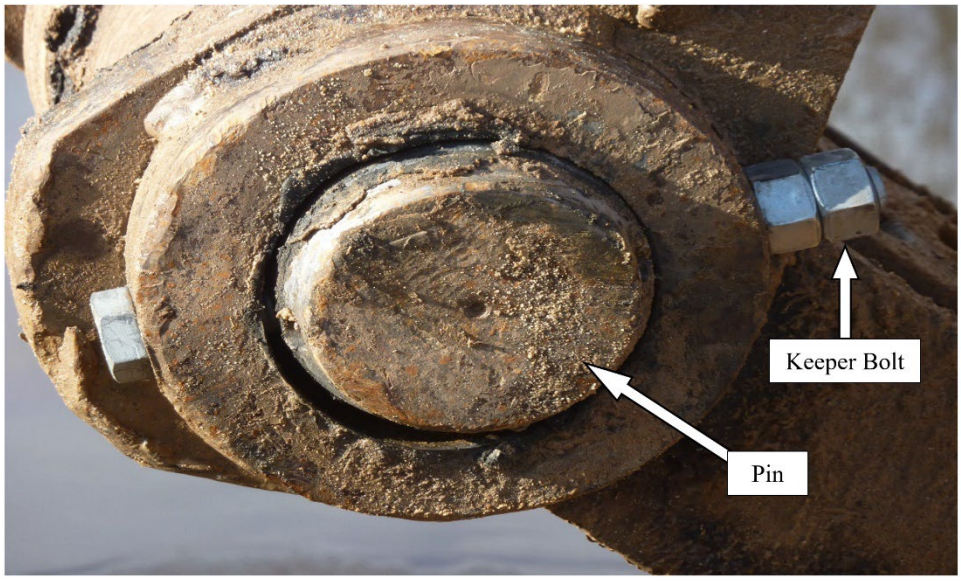
APPENDIX B – Location of the Accident



APPENDIX C – Dog Bone Linkage



Keeper Bolt and Pin Missing



Proper Installation of Keeper Bolt