

UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface Metal Mine  
(Iron Ore)

Fatal Powered Haulage Accident  
November 5, 2019

ArcelorMittal Minorca Mine Inc.  
ArcelorMittal Minorca Mine Inc.  
Virginia, St. Louis County, Minnesota  
ID No. 21-02449

Investigators

Duane L. Hongisto  
Mine Safety and Health Inspector

Daniel J. Goyen  
Mine Safety and Health Specialist

Gary Rethage  
Mechanical Engineer

Mark Kvitkovich  
Mechanical Engineer

Originating Office  
Mine Safety and Health Administration  
North Central District  
515 W. 1<sup>st</sup> Street, Suite 323  
Duluth, Minnesota 55802-1302

Christopher A. Hensler, District Manager

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## OVERVIEW

Kenny L. Mattson, a 51-year-old mobile mechanic with 15 years of mining experience, died on November 5, 2019. While operating his service truck, it veered off the road, struck a berm, and ejected him as it overturned.

## GENERAL INFORMATION

ArcelorMittal Minorca Mine Inc. owns and operates the ArcelorMittal Minorca Mine Inc. (Minorca) in Virginia, St. Louis County, Minnesota. Minorca employs 353 miners and operates twenty-four hours per day with multiple shifts. Minorca mines iron ore from a multiple bench open pit. Haul trucks transport the ore to the crusher. The ore is milled in a multi-step process and formed into heat-hardened pellets used for steel manufacturing.

The Mine Safety and Health Administration (MSHA) completed the last regular inspection on June 3, 2019. The non-fatal days lost (NFDL) incident rate for Minorca Mine for 2018 was 2.34, compared to the national average of 1.20.

The principal official for the ArcelorMittal Minorca Mine Inc. at the time of the accident was:

John Brett..... Chief Executive Officer

## DESCRIPTION OF ACCIDENT

On November 5, 2019, Kenny L. Mattson started work at 4:55 a.m. Mattson worked alone, performing maintenance at various working places.

At approximately 9:35 a.m., David J. Woods, Truck Driver, observed Mattson traveling east on the East Pits haul road toward the Laurentian and Lynx pits. Woods saw Mattson momentarily stop on the haul road, then resume traveling around a roadway curve and out of sight. As Woods rounded the same curve a short time later, he discovered Mattson's service truck overturned on the driver's side in the roadway. Woods radioed for emergency assistance.

Mine emergency response team members and plant security responded to the scene followed by local police and fire departments. Justin Root, Paramedic, City of Virginia Fire Department pronounced Mattson dead at the scene, at approximately 10:06 a.m. Root documented the victim's primary cause of death as "Traumatic Injury" and "Cardiac Arrest" as secondary cause of death. According to the medical examiner, since the victim had obvious multiple blunt force traumas, he performed an external exam only.

## INVESTIGATION OF THE ACCIDENT

On November 5, 2019, at 9:50 a.m., Mark Anderson, Safety Manager, contacted the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Daniel J. Goyen, Mine Safety and Health Specialist. Richard V. Boeckerman, Supervisory Mine Safety and Health Inspector responded to the accident. Upon arrival, Boeckerman issued an order under the provision of Section 103(k) of the Mine Act to ensure the safety of the miners and began the investigation.

On November 6, 2019 at 8:00 a.m., Duane L. Hongisto, Mine Safety and Health Inspector arrived on the scene to continue the fatal accident investigation. On November 8, 2019, Gary Rethage and Mark Kvitkovich, Mechanical Engineers, with MSHA's Approval & Certification Center, assisted with the investigation. On November 12, 2019, Amy A. Sandelin, Mine Safety and Health Specialist, with MSHA's Educational Field and Small Mine Services, assisted in the review of training plans and documentation.

MSHA's accident investigation team conducted a physical examination of the accident scene, and interviewed mine management, mine employees, the union representative, local law enforcement and rescue agencies. See Appendix A for a list of persons who participated in the investigation and those interviewed.

## DISCUSSION

### **Location of Accident**

The accident occurred on the "East Pits" haul road leading to the Laurentian and Lynx pits. The haul road was hard-packed dirt, wide and relatively level with an approximate one percent grade (see Appendix B). Berms, approximately ten feet high, alongside the roadway were made of hard-packed spoil material. Cold dry weather conditions created a frozen, but not icy, roadway.

### **Weather**

The weather at the time of the accident was 17° F with clear skies. Investigators did not consider the weather to be a factor at the time of the accident.

### **Equipment Involved**

The service truck involved in the accident was a 2012 Freightliner M2 Business Class, VIN 1FVACXDTODHFE6526, equipped with a Model 7500 IMT crane. Examination of the service truck did not reveal mechanical deficiencies or defects that would have caused the accident.

Tires on the service truck exhibited adequate tread depth and did not show any signs of mechanical damage.

The investigators examined the driver's seat belt and found the buckle to be functional. However, the seat belt retractor mechanism did not function properly. Investigators were unable to determine if this condition existed before the accident or if the accident damaged the seat belt retractor. Since Mattson was ejected from the vehicle and the seat belt was found to be unfastened, investigators concluded that the victim was not wearing his seat belt at the time of the accident.

### **Training and Experience**

Kenny L. Mattson had 15 years of mining experience with Minorca and met all Part 48 training requirements.

## Root Cause

**Root Cause:** Minorca's policy required drivers and passengers of all vehicles to wear seat belts at all times. A seat belt was not in use at the time of the accident, allowing ejection from the cab of the vehicle.

**Corrective action:** The company retrained all employees on seat belt usage and modified their policy to include performing a proper seat belt examination to ensure its functionality.

## Conclusion

Kenny L. Mattson, died while operating his service truck; it veered off the road, struck a berm, and ejected him as it overturned.

Approved By:

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Christopher A. Hensler  
North Central District Manager

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Date

**Appendix A**  
**Persons Participating in the Investigation**  
(Persons interviewed are indicated by a \* next to their name)

ArecelorMittal Minorca Mine

John Kramer\* ..... Shift Supervisor  
David J. Woods\* .....Truck Driver  
Justin Klakoski\* ..... Truck Shop Laborer  
Thomas Beton\* ..... Laborer  
Joseph Scinto\* ..... Laborer  
Thomas Kingsley\* ..... Laborer  
Lee Omdahl\* ..... Laborer  
David Illies\* ..... Laborer  
Michael Hoard\* ..... Laborer  
Jerimiah Reing\* ..... Laborer  
Anthony House\* ..... Laborer  
Todd Olson\* ..... Millwright  
Thomas French\* ..... Safety/Union Representative

Mine Safety and Health Administration

Duane L. Hongisto .....Mine Safety and Health Inspector  
Daniel J. Goyen .....Mine Safety and Health Safety Specialist  
Richard V. Boeckerman..... Supervisory Mine Safety and Health Inspector  
Gary Rethage ..... Mechanical Engineer  
Mark Kvitkovich ..... Mechanical Engineer  
Amy A. Sandelin..... Mine Safety and Health Safety Specialist (Training)

## Appendix B

