### UNITED STATES DEPARTMENT OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION

#### COAL MINE SAFETY AND HEALTH

#### **REPORT OF INVESTIGATION**

Underground Coal Mine Fatal Machinery Accident October 16, 2008

Pattiki Mine White County Coal, LLC Carmi, White County, Illinois I.D. No. 11-03058

#### REVISED REPORT (08-17-09)

Accident Investigators

William L. Barnwell Coal Mine Safety and Health Inspector

> Dean Cripps Electrical Engineer

Steven M. Miller Coal Mine Safety and Health Inspector

Chad D. Huntley Electrical Engineer, MSHA Technical Support

Frank Jay Prebeg Electrical Engineer, MSHA Technical Support

Leland R. Payne Education and Field Services Western Region

Originating Office Mine Safety and Health Administration District 8 2300 Willow Street Vincennes, Indiana Robert L. Phillips, District Manager

# TABLE OF CONTENTS

| OVERVIEW                      | Error! Bookmark not defined.  |
|-------------------------------|-------------------------------|
| GENERAL INFORMATION           | .Error! Bookmark not defined. |
| DESCRIPTION OF ACCIDENT       | .Error! Bookmark not defined. |
| INVESTIGATION OF THE ACCIDENT | .Error! Bookmark not defined. |

## DISCUSSION

| Accident Scene  |                              |
|---|------------------------------|
| Continuous Mining Machine                                   | Error! Bookmark not defined. |
| Continuous Mining Machine Testing                           | Error! Bookmark not defined. |
| Electrical Current Level Log                                | 7                            |
| Technical Support Findings                                  |                              |
| Previous Accident   |                              |
| Training  |                              |
| ROOT CAUSE ANALYSIS   | 9                            |
| CONCLUSION  | Error! Bookmark not defined. |
| ENFORCEMENT ACTIONS   | Error! Bookmark not defined. |
| Appendix A – Persons Participating in the Inves<br>defined. | tigationError! Bookmark not  |
| Appendix B – Persons Interviewed                            | Error! Bookmark not defined. |
| Appendix C - Accident Scene Sketch                          | Error! Bookmark not defined. |
| Appendix D – Victim Information                             |                              |



Photograph of the accident scene showing the continuous miner cable standoff and the coal rib in the No. 9 entry of MMU 013-0

## **OVERVIEW**

On Wednesday, October 16, 2008, at approximately 1:08 p.m., Timothy Adamson, a 45year old continuous miner helper, was fatally injured when he was crushed between the remote controlled continuous mining machine and the coal rib. There were no eyewitnesses to the accident. Based upon the physical evidence observed at the scene and statements obtained during interviews, it is the consensus of the accident investigation team that Adamson was backing the continuous mining machine away from the face of No. 9 entry, MMU-013-0, when he was pinned between the machine's cable standoff and the right coal rib.

The accident occurred because the mine operator failed to implement safety precautions contained in the approved roof control plan; these safety precautions were designed to ensure that miners do not enter dangerous areas that present pinch hazards, such as the "Red Zones," established around remote controlled mining machines.

### **GENERAL INFORMATION**

The Pattiki Mine, I.D. No. 11-03058, is operated by White County Coal, LLC and is located near Carmi, White County, Illinois. The mine is accessed by two shaft openings into the Herrin No. 6 coal seam, which averages 60 inches in height. Coal is extracted by seven advancing Mechanized Mining Units (MMU's), using continuous miners. The coal is transported from the working faces by shuttle cars to belt conveyors for transport to the surface by a vertical (pocket) belt conveyor. The mine employs 303 persons, with 2 production shifts, and a maintenance shift, working 5 days a week. The mine was placed in active status on March 4, 2002, and production averages 16,000 tons of coal per day.

A regular (E01) safety and health inspection by the Mine Safety and Health Administration (MSHA) was ongoing at the time of the accident. The previous regular safety and health inspection of the mine was completed September 30, 2008. The Non-Fatal Days Lost (NFDL) injury incidence rate for Pattiki Mine in 2008 was 3.86, compared to a National NFDL rate of 4.44.

The principal officers at this mine at the time of the accident were:

| Dan Durham        | General Manager             |  |  |  |  |  |
|-------------------|-----------------------------|--|--|--|--|--|
| Johnny Garrett    | Superintendent              |  |  |  |  |  |
| Phillip Kittinger | Director, Health and Safety |  |  |  |  |  |

#### **DESCRIPTION OF ACCIDENT**

The day shift started at 7:00 a.m. Timothy Adamson (victim) started work early at 4:00 a.m. to prepare the No. 3 Unit to run coal. The No. 3 Unit included MMU's 013-0 and 003-0. Jeffrey C. Alexander and Nathan S. Fowler, shuttle car operators, and Alan C. Sinders, roof bolter operator, started at 5:00 a.m. The remainder of the crew started at 7:00 a.m. Adamson operated the continuous miner for limited, early production prior to the normal start of the shift. When the remainder of the coal producing crew arrived on the No. 3 Unit, Adamson moved into his normal job as a continuous miner helper.

The shift proceeded routinely, with Adamson relieving different miners for lunch on the MMU 013-0. At approximately 12:40 p.m., the regular continuous miner operator, Eddie Dotson, was operating in the No. 9 entry when Adamson relieved him for lunch. Derek Hosick and Fowler, shuttle car operators, were hauling coal away from the mining machine, to the unit feeder. The mine's vertical belt became inoperative and subsequently, all the belts underground were idle. The shuttle car drivers proceeded to clean and rock dust the feeder/tailpiece area of the conveyor during this period of downtime. Sinders was operating the roof bolting machine in the No. 8 entry, to the right of the No. 9 entry, and came to the No. 9 entry where Adamson was operating the continuous mining machine. Sinders asked if the face of No. 9 entry was ready to roof bolt and Adamson told him it would take four to five more loaded cars to finish. Sinders went back to his bolting machine in No. 8 entry to eat his lunch.

A few minutes later, Alexander finished his lunch at the dinner shack, located near the section power center, and walked to where Sinders was eating his lunch. Dotson left the dinner shack at 1:22 p.m. and talked with miners at the belt tailpiece. He returned to the

No. 9 entry and observed the continuous mining machine near the face, but did not see Adamson. The continuous mining machine was not operating, the belts were not running, and no shuttle cars were operating. Dotson thought that Adamson had gone to the dinner shack. Dotson walked over to the roof bolting machine and asked Sinders and Alexander if they had seen Adamson. They said they had not. Dotson went back to the continuous mining machine and found Adamson pinned between the continuous mining machine's cable standoff and the right coal rib. Adamson was unresponsive. Dotson shouted for Alexander and Sinders to help. Sinders went to get first aid equipment and alert others. Alexander went to the continuous mining machine to aid Adamson. Hosick and Fowler came to the continuous mining machine when they were notified of the accident. Fowler checked Adamson for vital signs and was unable to feel a pulse. Fowler, Hosick, and Alexander then began to retrieve the remote control box, which was partially beneath Adamson's hip and strapped around his neck. Dotson was directed to move the continuous mining machine enough to allow the men to place Adamson in a position to begin CPR. Fowler continued to apply CPR to the victim until they were able to travel to the surface, where a Life Flight paramedic was waiting. Adamson was pronounced dead at 2:37 p.m.

### INVESTIGATION OF THE ACCIDENT

The MSHA call center was notified of the accident at 2:00 p.m. on the date of the accident. The call center notified Mary Jo Bishop, Assistant District Manager, in Vincennes, Indiana.

An MSHA investigation was initiated by Steven M. Miller, Coal Mine Safety and Health Inspector, and Dean R. Cripps, Electrical Engineer, on the afternoon of the accident. William L. Barnwell, Coal Mine Safety and Health Inspector, District 10, Chad Huntley and Jay Prebeg, from Technical Support, and Leland Payne from Education and Field Services were dispatched the next day and assisted in the interviews of witnesses and other portions of the accident investigation.

The accident investigation was conducted in cooperation with the Illinois Department of Natural Resources, Office of Mines and Minerals. Interviews were conducted at the Pattiki Portal 1 Training Center, with seven people who had knowledge of the accident. An inspection of the accident scene and operational checks on the Joy 14CM-15 continuous mining machine were also conducted. Photographs, measurements, mapping, and testimony were obtained during the investigation.

#### DISCUSSION

#### Accident Scene

The accident occurred on the left side of the No. 3 Unit (MMU 013) in the No. 9 entry, approximately 250 feet inby Spad 44,400, and approximately 40 feet inby the last open crosscut. The seam height at the location of the accident measured 69 inches. The entry was approximately 19 feet wide. The left side of the entry had been advanced 38 feet beyond the last row of roof bolts. The right side of the entry had been advanced 33.5 feet beyond the last row of bolts. The mine had approval for cut depths up to 40 feet. Coal was being mined from the right side of the entry prior to the accident. When discovered, the victim was located against the right hand rib, between the last two rows of roof bolts.

The head of the continuous mining machine was approximately ten feet from the face on the right side of the entry. The victim's back was against the rib and the continuous mining machine's cable standoff was against his chest. The pump motor on the continuous mining machine was not running. This indicates that the remote control shutdown bar or pump start/off switch had been activated. Illumination was not a factor. When the machine was energized during the investigation, all of the lights were operative.

### Continuous Mining Machine

The equipment involved in the accident was a Joy Mining Machinery, Remotely-Controlled Model 14CM15-11BX, Serial No. JM5694A, MSHA Approval No. 2G-4159A-0, Continuous Mining Machine.

The machine used a Matric Limited Permissible Radio Transmitter, Model TX3, P/N 100112672, Serial No. 75204AC028 E, Frequency 458 MHz, MSHA Approval No. 2G-4096-0.

Information received from Joy Mining Machinery representatives indicated that the continuous mining machine was rebuilt and shipped on January 31, 2008. The nominal input voltage to the machine was 950 volt, 3 phase, 60 hertz. The machine was originally shipped as new on 5/24/2005 as serial number JM5694.

## Continuous Mining Machine Testing

The continuous mining machine was energized and moved to a safer location for testing. Upon being energized, only the lights and methane monitor were on. All critical functions of the machine were tested and verified to operate properly, with no problems reported from the machine operator or problems observed. Special attention was focused on the tram functions. All three machine speeds were indicated to be selected by toggling the "speed" switch. The tram enable function was verified to be set to "two seconds." Both tram switches worked normally. Both "stuck button" safety features of the remote control (one during startup and another when the pump is started) were verified to be operating properly. This safety feature prevents the continuous mining machine from starting or tramming if any switch on the remote control is not centered. The machine tram speeds were measured to be 6 feet in 18 seconds in 1<sup>st</sup> (lowest) speed (20 feet/min.), 10 feet in 18 seconds in 2<sup>nd</sup> speed (33.3 feet/min.) and 83 feet per minute in 3<sup>rd</sup> speed (measured by mine personnel).

The emergency stop function on the remote control operated properly by de-energizing the pump while only leaving the lights and methane monitor energized. The pump also remained energized when the remote control, power connectors and power cable were shaken. The remote control system demonstrated adequate range by having the pump remain energized until the operator walked approximately 100 feet away. The final function of the continuous mining machine tested with the remote control was the circuit breaker (CB) trip function; this function was verified to trip the power center circuit breaker.

The manual controls on the continuous mining machine were also tested. The manual controls were located in front of where the victim was pinned (right rear corner of machine) since the continuous mining machine is not equipped with an operator's compartment. These controls, including tram control, lights and remote/manual selector switch, were found to operate properly. All lights on the machine were found to be functional. The on-board machine lighting selector switch was found to be in the 2 o'clock position, which would turn on all lights (headlights and area lights). The remote control system is designed to only be able to toggle this manual lighting setting on or off via the "Aux 2" switch. Finally, the on-board emergency stop switches on both sides of the machine were found to operate properly.

Due to the close proximity of a second continuous mining machine to the continuous mining machine involved in the accident, testing with the remote control from the No. 3 Unit's right side, (MMU-003-0) continuous mining machine, was conducted to verify the continuous mining machine involved in the accident could not be cross-activated. The receiver for the continuous mining machine (MMU 013-0) involved in the accident was programmed for 458.525 MHz. The receiver for the MMU 003-0 continuous mining machine was programmed for 458.600 MHz. The MMU 003-0 continuous mining machine remote control box was brought to the area where the continuous mining machine involved in the accident was being tested. When it was tested, the MMU 003-0 mining machine remote control box was not capable of energizing the pump of the MMU 013-0 continuous mining machine. The pump of the MMU-013-0 continuous mining machine involved in the accident was then turned on via the victim's remote control box and functions of the MMU 003-0 continuous mining machine remote control activated with no movement of the MMU 013-0 continuous mining machine or shut down of the pump. Finally, a spare remote control was programmed to the MMU 013-0 continuous mining machine involved in the accident and the machine pump was turned on. When the second remote control box (victim's) that was programmed for the MMU 013-0 continuous mining machine was energized, the pump shut down immediately.

The shuttle car operators carried handheld Motorola radios. However, since no shuttle cars were in close proximity to the accident scene, this radio frequency (RF) device is not considered to have affected the operation of the remote control system. Also, the RF tags, worn on the miners' helmets (approved transmit frequency of 433.92 MHz), are not considered a factor in the accident since they are low wattage and several were in the area of the testing with no observed problems. Because of the unique identification codes associated with each remote control, and the testing conducted, cross activation was not considered a factor in the accident.

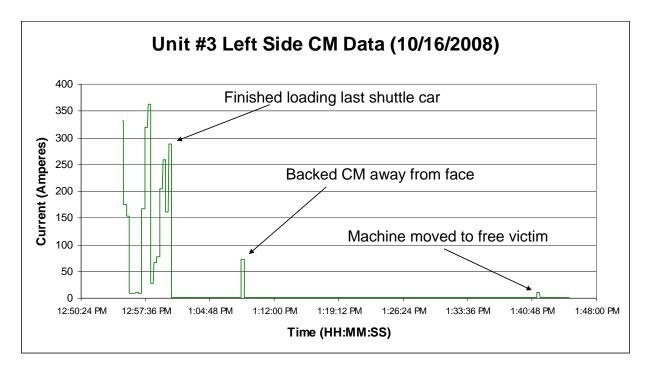
### Electrical Current Level Log

The mine had an RF tracking system and utilized current transformers at the power center to monitor machine and belt current levels versus time. A hard copy of the electrical current level log recorded the current and time for the MMU 013-0 continuous mining machine, as well as for the MMU 003-0 continuous mining machine, and the belt conveyor. The data included the time, versus current, from multiple places, including other mining units. The only location, in which the data was applicable, was for the No. 3 Unit, MMU 013-0 continuous mining machine. The time of this current log was verified to be correct. The current level data had a sampling rate of two seconds. From this data, it was confirmed that the belt current dropped significantly around 12:55 p.m. on the day of

the accident. The last high current reading (greater than 200 Amperes (amps)), which represents cutting coal, was at 1:00:29 p.m. for the MMU 013-0 continuous mining machine. This machine (victim's machine) current then varied between 0.96 amps and 1.28 amps, from 1:00:31 until 1:08:16 p.m. From 1:08:18 p.m. until 1:08:36 (18 seconds), the current level was 73.6 amps. From 1:08:38 p.m. until 1:41:20 p.m. (time in which the victim was presumed to be pinned), the current level varied between 0.96 amps and 1.37 amps. From 1:41:20 p.m. until 1:41:38, the current level was 11.21 amps (time in which the continuous mining machine was presumably moved to free the victim). From 1:41:40 p.m. until the end of the data, the maximum current recorded was 1.03 amps.

The current levels were then recorded during testing by the mine on December 2, 2008. Testing was conducted for all three speeds of the MMU 013-0 continuous mining machine. Since the current levels for the speeds were all relatively the same  $(1^{st}, 2^{nd}, and 3^{rd})$ , it was determined that the speed of the machine could not be deduced from the current levels. However, since the machine traveled ten feet from the face to the position in which the accident occurred in 18 seconds, it appears that the machine was trammed mostly in  $2^{nd}$  speed. The machine speed setting at the time of the accident could not be determined.

Below are the MMU 013-0 data, extracted from a compact disc (CD) and graphed after being inserted into an Excel spreadsheet. The three critical time markers have been added.



## Technical Support Findings

- 1. Functional testing of the continuous mining machine demonstrated that the machine and remote control system functioned properly, with no reported or observed problems.
- 2. There were no reported operational problems with the continuous mining machine involved in the accident. The only reported problems with this machine were that

the traction circuit breaker handle had broken off and was replaced two days before the accident, and the tram breaker kept tripping several weeks prior to the fatal accident. These two problems had previously been rectified, and are not considered contributing factors in the accident.

- 3. No certain determination of the machine speed at the time of the accident could be made. Based on the distance of the machine from the face (ten feet), and the time the machine was trammed away from the face until the accident occurred (18 seconds), it appears that the machine was being trammed in reverse in 2nd speed (33 ft/min.). However, since the machine speed could have been changed just before the accident, no positive determination can be made.
- 4. Both of the machine mounted emergency stop switches operated properly.
- 5. Cross activation of the continuous mining machine involved in the accident by the right side, No. 3 Unit, MMU 003-0 continuous mining machine, tracking tags, or hand held radios was not considered a factor in the accident.
- 6. No magnets, which could affect the operation of the remote control's "hall-effect switches," were reported to be used near the continuous miner involved in the accident.
- 7. The traction circuit breaker was incorrectly set at position "I" for all three phases, which corresponded to a trip current of 1750 amperes instead of position "B," which corresponds to 980 amperes. This was not considered a contributing factor to the accident.

### Previous Accident

On March 18, 2008, a similar serious accident occurred at this mine. A continuous miner helper was operating the mining machine when he was pinned between the tail of the machine and the coal rib. The employee was attempting to drop a cable sling from a hook on the side of the mining machine tail. While the pump motor was running, the employee entered the "Red Zone" beside the tail of the mining machine. The tail swing control on the remote control box was accidentally activated, causing the tail to swing and pin the operator. The miner was seriously injured. He returned to work on August 25, 2008. After the March 18 accident, the continuous miner crews were retrained on "Red Zone" hazards, including Adamson (this fatality victim).

### <u>Training</u>

The training program and records were reviewed and no deficiencies were identified related to training records or training content that would have contributed to the accident.

## **ROOT CAUSE ANALYSIS**

An analysis was conducted to identify the underlying cause of the accident that was correctable through reasonable management controls. Below is the root cause identified during the analysis and the corresponding corrective action implemented to prevent a recurrence of the accident: **<u>Root Cause:</u>** The mine operator failed to implement safety precautions contained in the approved roof control plan. The safety precautions were designed to ensure that miners do not enter dangerous areas that present pinch hazards, such as the "Red Zones," established around remote controlled mining machines. The mining machine operator was located in the Red Zone, between the continuous miner and the coal rib, while the machine was being trammed away from the face.

1. Corrective Action. The mine operator will submit and implement revisions to the roof control plan to the District Manager. The revisions require: 1) All employees will be re-instructed on the Red Zone procedures and documented as Hazard Training by a 5000-23 Form, 2) The mine operator will de-energize the pump motor on the machine before entering the Red Zone, 3) No one shall be in the Red Zone when the continuous miner is being trammed from place to place or being re-positioned in the working place, 4) The mine operator will install proximity devices on continuous miners, once the devices have been approved and the technology has been proven effective, 5) An additional miner will be assigned to assist each continuous miner operator in the moving of the continuous mining machine from a finished cut, 6) The additional miner will position themselves in a safe location and will be in direct voice communication with the continuous mining machine at all times while the continuous mining machine is relocated to the subsequent working face, 7) The additional miner will assist with the moving of the continuous mining machine until it is safely positioned at the subsequent working face, and 8) The additional miner will be trained and competent in the procedures relative to the movement of the continuous mining machine

## CONCLUSION

The accident occurred because of mine management's failure to ensure that employees did not work or travel in the "Red Zone" around the remote controlled continuous miner. Based on the physical evidence, measurements and interviews, it is apparent to the investigators that the victim was backing the continuous miner away from the face of No. 9 entry while positioned between the machine and the coal rib.

Approved By:

Robert L. Phillips District Manager Date

## **ENFORCEMENT ACTIONS**

- 1. A 103(k) Order, No. 6679918, was issued to ensure the safety of the miners until the investigation could be completed.
- 2. A 104(d) (1) Citation, No. 6683235, was issued citing 30 CFR §75.220(a)(1). The operator's approved roof control plan was not being complied with on the No. 3 Unit (MMU 013). The plan states, "The continuous miner operator shall be positioned to avoid any danger from moving equipment." Timothy Adamson, Continuous Miner Operator Helper, was fatally injured when he was pinned between the continuous miner and the coal rib while moving the miner away from the face of the No. 9 entry.

## Appendix A

## Persons Participating in the Investigation

#### Mine Safety and Health Administration

| William Barnwell | CMS&H Inspector, Accident Investigator     |
|------------------|--|
| Dean Cripps      | Electrical Engineer, Accident Investigator |
| Steven Miller    | CMS&H Inspector, Accident Investigator     |
| Leland Payne     | Training Specialist (EFS)                  |
| Chad Huntley     | Electrical Engineer, Technical Support     |
| Frank Jay Prebeg | Electrical Engineer, Technical Support     |

#### White County Coal, LLC, Alliance Coal, LLC

Maynard St. John Dan Durham Johnny Garrett Phillip Kittinger Jay Kittinger Ronnie Adams Brad Stokes Vice President General Manager Superintendent Director, Health and Safety Safety Department Maintenance Chief Automation Manager

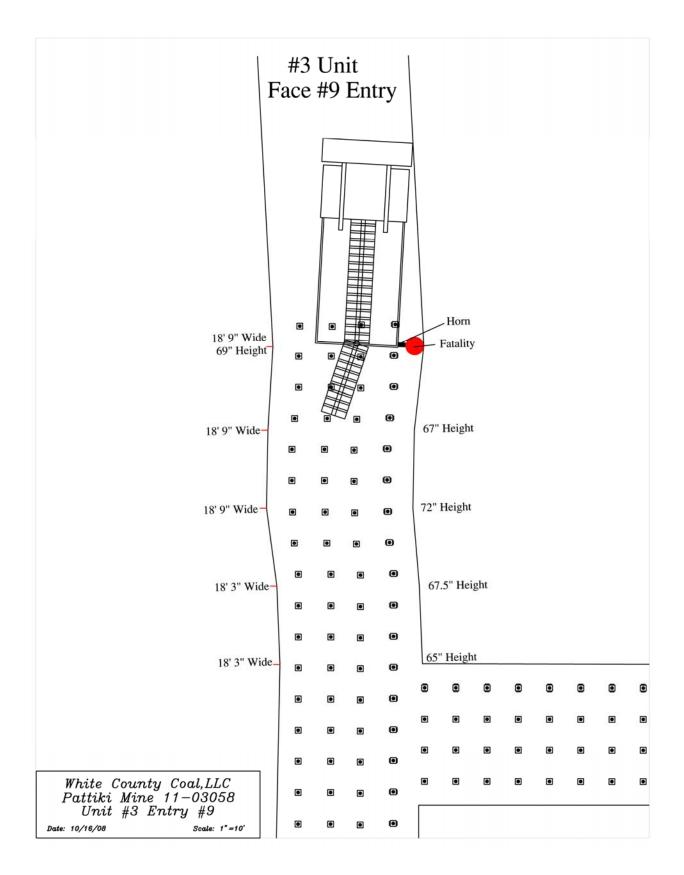
### State of Illinois Department of Natural Resources, Office of Mines and Minerals

Mike Simpson Roger Spresser Larry Jenkel Joe Angleton Mike Woods Don McBride Inspector Inspector at Large Inspector Director Manager Inspector at Large

## Appendix B

## **Persons Interviewed**

Chris Buchanan Cole Sinders Eddie Dotson Jeff Alexander Nathan Fowler Derek Hosick Gabe Sutton Section Foreman Roof Bolter Miner Operator Car Driver Car Driver Car Driver Car Driver Appendix C



| Accident Investigation Data  | - Victim   | Informatio       | n                                     |                         |              |                                       |              |   |              | of La         |              | lle           | \$      |
|--|--|------------------|---------------------------------------|-------------------------|--------------|---------------------------------------|--------------|---|--------------|---------------|--------------|---------------|---------|
| Event Number: 6 1 5  | 6 0 7  | 6                |                                       |                         |              |                                       | Mine S       | Safety a                                | nd Hea       | Ith Adm       | inistrati    | on 👌          |         |
| Victim Information: 1  |  |                  |                                       |                         |              |                                       |              | -                                       |              |               |              |               |         |
| 1. Name of Injured/III Employee:                                   | 2. Sex   | 3. Victim's Ag   | ge                                    | 4. Last Fo              | our Digits o | of SSN:                               | 5. De        | egree of In                             | jury:        |               |              |               |         |
| Timothy A. Adamson   | м  | 45               |                                       | 602                     | 20           |                                       | 01           | Fatal                                   |              |               |              |               |         |
| 5. Date(MM/DD/YY) and Time(24 Hr.                                  |  |                  |                                       |                         | 7. Date an   | nd Time Sta                           | rted:        |   |              |               |              |               |         |
|  | : 14:37  |                  |                                       |                         | a            | . Date: 10/1                          | 6/2008 b.    | Time: 4:0                               | 00           |               |              |               |         |
|  |  | 9                | Work Act                              | ivity when I            | iniured:     |                                       |              |   | 10. Was      | this work a   | ctivity part | of regular j  | ob?     |
| B. Regular Job Title:  | 9. Work Activity when Injured:<br>049 Operate continuous miner |                  |                                       |                         |              |                                       |              |   |              | Yes           | X   No       |               |         |
| 035 Continuous miner helper  |  |                  |                                       |                         |              |                                       |              |   |              |               | - d.,        |               |         |
| 11. Experience Years Weeks   | Days   | b. Regular       | Years                                 | Weeks                   | Days         | : This                                | ears W       | /eeks                                   | Days         | d. Total      | Years        | Weeks         | Days    |
| a. This<br>Work Activity: 4 32                                     | 0  | Job Title:       | 4                                     | 32                      |              | Mine: 8                               | 24           | 4                                       | 6            | Mining:       | 8            | 24            | 6       |
| Work Activity: 4 32<br>12. What Directly Inflicted Injury or Illne |  |                  | · · · · · · · · · · · · · · · · · · · |                         |              | Nature of l                           | njury or III | Iness:                                  |              |               |              |               |         |
|  |  |                  |                                       |                         |              | 170 Crus                              | shing        |   |              |               |              |               |         |
| 077 Continuous miner<br>14. Training Deficiencies:                 |  |                  |                                       |                         |              |                                       |              |   | -            |               |              |               |         |
|  | ewly-Employe   | ed Experience    | d Miner:                              |                         |              | Ann                                   | ual:         |   | Task:        |               |              |               |         |
| 15. Company of Employment: (If differe                             |  |                  |                                       | 1                       |              |                                       |              |   |              |               |              |               |         |
| Operator   | nt nom produ   |                  | ,                                     |                         |              |                                       | Indep        | pendent C                               | ontractor II | D: (if applic | able)        |               |         |
| 16. On-site Emergency Medical Treatm                               | nent:  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| Not Applicable: First  | 1 1  | CP               | R:                                    | EMT:                    | X            | Medical F                             | Profession   | nal:                                    | None:        |               |              |               |         |
| 17. Part 50 Document Control Number                                |  |                  |                                       | · · · · · · · · · · · · | 18 Union A   | Affiliation of                        | Victim:      | 9999                                    | None         | (No Union     | Affiliation  | )             |         |
|  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| Victim Information:  | 1 2 Carr   | 2 Mintim'r       | 100                                   | 14 Last F               | our Digits   | of SSN:                               | 15 D         | egree of l                              | niury:       |               |              |               |         |
| 1. Name of Injured/III Employee:                                   | 2. Sex   | 3. Victim's      | Age                                   | 4. Las()                | our Digita   | 01 0014.                              | 0.0          | ogree er n                              |              |               |              |               |         |
|  |  |                  |                                       |                         | 7 Doto       | and Time S                            | tarted:      |   |              |               |              |               |         |
| 6. Date(MM/DD/YY) and Time(24 Hr.                                  | ) Of Death:  |                  |                                       |                         | 7. Date      | and time o                            | laneu.       |   |              |               |              |               |         |
|  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| 8. Regular Job Title:  |  | Ş                | ). Work Ac                            | tivity when             | Injured:     |                                       |              |   | 10. Wa       | as this work  | activity pa  | art of regula | r job?  |
|  |  |                  |                                       |                         |              |                                       |              |   |              | Yes           | No           |               |         |
| 11. Experience: Venre Week   | <br>   |                  | Years                                 | Weeks                   | Days         |                                       | Years        | Week                                    | Days         |               | Years        | Weeks         | Days    |
| a. This  | s Days   | b. Regular       | rears                                 | WCCK3                   | Days         | c: This                               | 100.0        |   | ,-           | u. Totai      |              |               | -       |
| Work Activity:   |  | Job Title:       |                                       |                         |              | Mine:                                 |              |   |              | Mining:       |              |               |         |
| 12. What Directly Inflicted Injury or Illn                         | ess?   |                  |                                       |                         | 13           | 3.Nature of I                         | njury or ii  | iness:                                  |              |               |              |               |         |
|  |  |                  |                                       |                         | <b> </b>     |                                       |              |   |              |               |              |               |         |
| 14. Training Deficiencies:   |  |                  |                                       |                         |              |                                       |              | 1                                       | Task:        | t i           |              |               |         |
| 1102010.   |  | ed Experienc     |                                       |                         |              | An                                    | nual:        |   | 1056.        |               |              | •             |         |
| 15. Company of Employment: (If diffe                               | ent from prod  | uction operate   | or)                                   |                         |              | Independ                              | ent Contra   | actor ID: (i                            | f applicabl  | e)            |              |               |         |
|  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| 16. On-site Emergency Medical Treat                                | ment:  |                  |                                       | · ·                     |              |                                       |              |   | 1 Manau      | 1             |              |               |         |
| THOUT OF PRODUCT   | t-Aid:   | CPR              | :                                     | EMT:                    |              | Medical                               | Professio    | nai:                                    | None:        |               | _            |               |         |
| 17.Part 50 Document Control Numbe                                  | r: (form 7000-   | 1)               |                                       |                         | 18. Union    | Affiliation of                        | Victim:      |   |              |               |              |               |         |
| Victim Information:  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| 1. Name of Injured/III Employee:                                   | 2. Se:   | x 3. Victin      | n's Age                               | 4. Las                  | st Four Digi | its of SSN:                           | 5.           | . Degree c                              | of Injury:   |               |              |               |         |
| ,  |  |                  |                                       |                         |              |                                       | _            |   |              |               |              |               |         |
| 6. Date(MM/DD/YY) and Time(24 H                                    | .) Of Death:   |                  |                                       |                         | 7. Dat       | te and Time                           | Started:     |   |              |               |              |               |         |
|  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
|  | ·  |                  | 9 Work                                | Activity whe            | en Iniured:  |                                       |              |   | 10. W        | as this wor   | k activity p | part of regul | ar job? |
| 8. Regular Job Title:  |  |                  | 0. WOIN                               | Adding min              | on ngaroa.   |                                       |              |   |              | Ye            |              | 40     OF     |         |
|  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| 11. Experience: Years We   | eks Day  | s<br>b Decula    | Years                                 | Weeks                   | Days         | c: This                               | Years        | Wee                                     | k Da         | d. Tot        | Years<br>al  | Weeks         | Days    |
| a. This  |  | b. Regula        |                                       |                         |              | Mine:                                 |              |   |              | Minin         |              |               |         |
| Work Activity:   |  | Job Title        |                                       |                         |              | 13. Nature                            | of loiury o  | r illness                               | -            |               |              |               |         |
| 12. What Directly Inflicted Injury or III                          | 16221  |                  |                                       |                         |              |                                       | o. injury 0  | ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |              |               |              |               |         |
|  |  |                  |                                       |                         |              | · I                                   |              |   | _            |               |              |               |         |
| 14. Training Deficiencies:   | w/Newly-Emr  | oloyed Experie   | enced Mine                            | er:                     |              |                                       | Annual:      | 1 1                                     | Tas          | sk:           |              |               |         |
| Tidzaru.   |  |                  |                                       |                         |              |                                       |              | ↓ <b>↓</b>                              |              |               |              |               |         |
| 15 Company of Employment: (If different                            | ent nom prod   | uction operation | .,                                    |                         |              | Independ                              | lent Contr   | ractor ID: (                            | if applicab  | le)           |              |               |         |
|  |  |                  |                                       |                         |              | · · · · · · · · · · · · · · · · · · · |              |   |              |               |              |               |         |
|  |  |                  |                                       |                         |              |                                       |              |   |              |               |              |               |         |
| 16. On-site Emergency Medical Trea                                 | 1  | -                | ND: 1                                 |                         | AT:          | Modio                                 | al Profess   | sional                                  | Nor          | ne:           |              |               |         |
|  | First-Aid:   | _                | PR:                                   | EN                      |              | Medic                                 | al Profess   |   | Nor          | ne:           |              |               |         |

MSHA Form 7000-50b, Dec 1994

Printed 04/20/2009 12:04:34 PM