

UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

AMENDED  
REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Fall of Roof Accident  
January 13, 2007

Cucumber Mine  
Brooks Run Mining Company, LLC  
Cucumber, McDowell County, West Virginia  
MSHA I.D. No. 46-09066

Accident Investigator

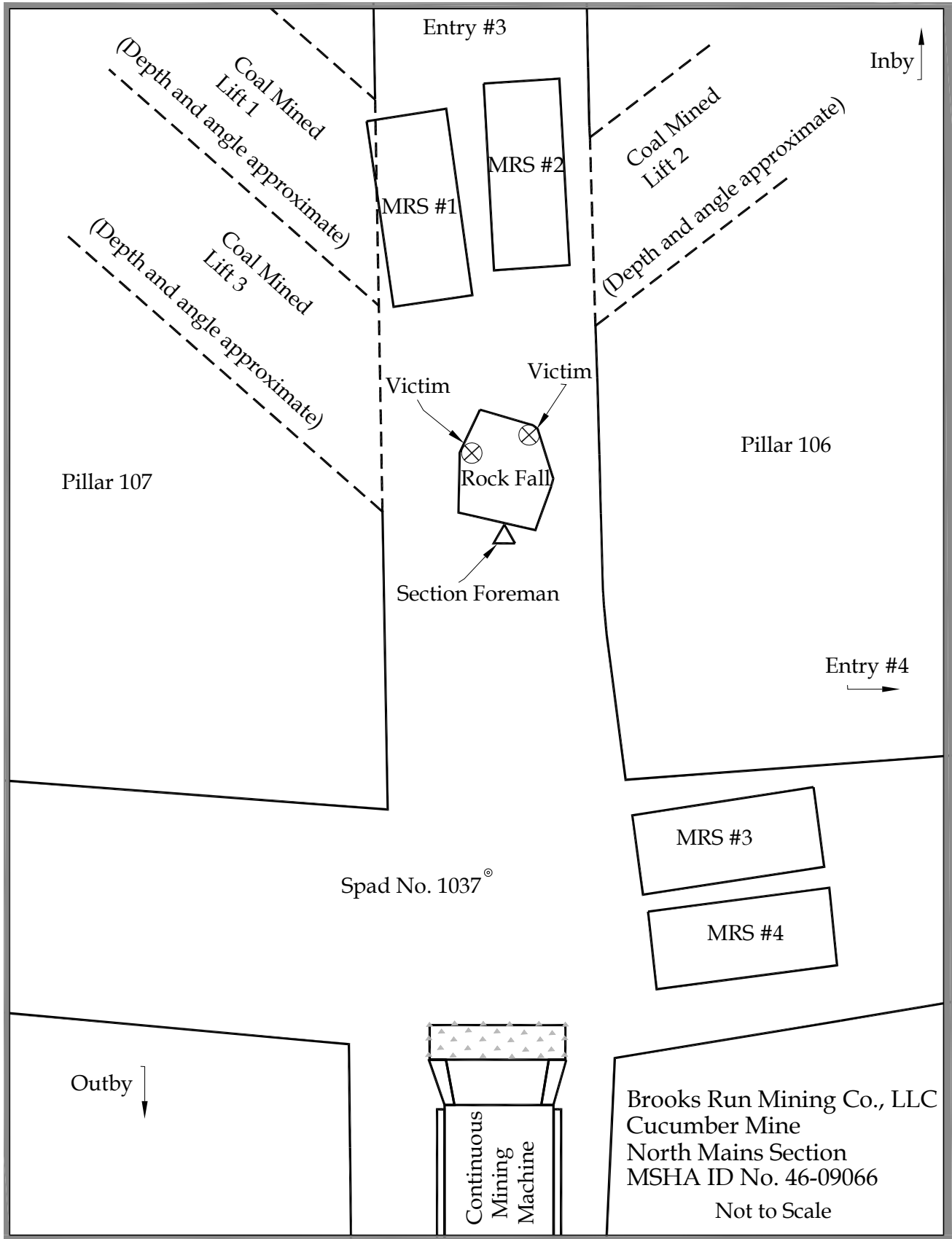
James R. Humphrey  
Coal Mine Safety and Health Inspector

Originating Office  
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District 4  
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Robert G. Hardman, District Manager

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This report has been amended to remove the following from page 2, "Kenneth Perdue  
Safety Manager"



**SKETCH OF ACCIDENT SCENE**

## OVERVIEW

At approximately 10:40 a.m. on Saturday, January 13, 2007, 48-year-old James David Thomas and 33-year-old Pete Poindexter, mobile roof support (MRS) machine operators, were fatally injured when a portion of the mine roof collapsed, pinning both individuals. Thomas and Poindexter had 12 years and 2.5 years of mining experience respectively. Thomas and Poindexter were repositioning MRS machines after the completion of the third lift in the #3 entry while performing retreat mining on the North Section. The slicken-sided portion of the mine roof that collapsed measured approximately 8 feet in width by 9 feet in length and was up to 18 inches thick.

## GENERAL INFORMATION

The Brooks Run Mining Company, LLC., Cucumber Mine, is located near Cucumber, in McDowell County, West Virginia. Brooks Run Mining Company, LLC., is a subsidiary of Alpha Natural Resources, LLC. The mine began operation on February 27, 2006, and operates in the Pocahontas No. 3 bituminous coal seam which averages 90 inches in height. Miners enter the mine through slope portals via diesel-powered, rubber-tired, self-propelled personnel carriers.

The mine employs 138 persons and operates 2 continuous mining units, of which one is a developing section and one is a retreat section. Approximately 6,000 tons of raw coal is produced daily on two 9-hour production shifts per day, 7 days a week. There are 3 production crews, referred to as A, B, and C crews. There are also two maintenance crews, referred to D and E crews. The mine liberates 919,243 cubic feet of methane in a 24-hour period.

The principal officers for Brooks Run Mining Company, LLC.  
Randy McMillion ..... President  
Dave Decker ..... Vice President

The last regular MSHA inspection of this operation was completed on December 4, 2006. A new inspection was started on January 8, 2007, but the physical on-site portion of the inspection had not begun. The Mine's Non Fatal Days Lost (NFDL) incidence rate in 2006 was 9.74, compared to the national average of 5.01 for mines of the same type.

## DESCRIPTION OF THE ACCIDENT

On Saturday, January 13, 2007, at approximately 6:30 a.m., the C-crew, under the direction of Richard Baugh, section foreman, traveled to the North Section (Mechanized Mining Units 001 and 002). The North Section was conducting retreat mining, or second mining, of the coal pillars which remained after initial development. After arriving on the section, Baugh and the crew met at the section power center where they

had prayer and a short safety meeting. After the meeting, he conducted a 30 CFR 75.362 on-shift examination of the pillar line.

After the examination, Baugh returned to the #4 entry, just outby the pillar line. He instructed the crew to mine 3-lifts in the #4 entry and then proceed to the #3 entry. No problems were encountered during mining.

The MRS machines were moved and set-up to begin mining the coal pillars from the #3 entry inby survey spad station 1037. Christopher Bowman, continuous mining machine operator, and Everett D. Perry, continuous mining machine helper, moved the continuous mining machine into the #3 entry and extracted the first lift from the coal pillar located on the left side of the entry (pillar number 107). Next, Thomas and Poindexter moved MRS #1 outby (away from the face) approximately 8 feet. During this time, Eustace "Buck" Perry, General Mine Foreman, was on the North Section to take seam height measurements and determine if extensions were needed for the MRS machines.

Bowman and Everett Perry moved the continuous mining machine and mined the second lift from the coal pillar located on the right side of the entry (pillar number 106). While the second lift was being mined, Eustace Perry, Baugh, Thomas, and Poindexter were located in the cross cut between the #3 and #2 entries just outby the blocks of coal being mined. Upon completion of the lift, Thomas and Poindexter moved MRS #2 outby approximately 8 feet. Baugh traveled into the #3 entry just behind Thomas and Poindexter to watch the mine roof while the MRS machines were being repositioned. Baugh normally did this while the MRS machines were being repositioned. The movement of MRS #2 placed the outby end of the machine approximately 5 feet inby the outby corner of the second lift. The outby end of both of the mobile roof support machines were almost side-by-side.

Bowman and Everett Perry moved the continuous mining machine and mined the third lift from the coal pillar located on the left side of the entry. The third lift was advanced approximately 7.5 feet deeper than the maximum distance allowed in the approved roof control plan. This condition did not contribute to the accident, and therefore a section 104(a) citation was issued under another inspection event.

Bowman and Everett Perry moved the continuous mining machine outby the last open cross cut in the #3 entry. Both MRS machines had green lights illuminated, indicating the canopies of the machines were pressurized against the mine roof. Bowman repositioned the continuous mining machine trailing cable while Everett Perry left the area to retrieve his lunch. Eustace Perry walked from the crosscut between the #2 and #3 entries, and began to talk to Bowman.

Thomas and Poindexter traveled up the #3 entry and repositioned MRS #1. Baugh was located immediately behind Thomas and Poindexter, near the outby corner of lift 3. Thomas had the radio-remote control transmitter that was used to operate the MRS machines. This transmitter enabled the equipment operator to operate the MRS machines while standing in a safe location. The MRS machines trailing cables were suspended from the mine roof with single strand rubber coated #14 copper wire attached to roof bolt plates. One of the tie wires had been twisted too tight and would not allow the MRS #1 machine trailing cable to drop freely from a roof bolt plate.

Poindexter traveled inby to within 5 feet of MRS #1 and untwisted the tie wire to free the machine's trailing cable. Poindexter then walked outby near Thomas and Baugh. The three miners were approximately 15 feet outby MRS #1 and #2. Using the remote control, Thomas released MRS #1 from the mine roof, while the miners were positioned inby the outby corner of the previously mined third lift. This was in an effort to reposition the machine for the next lift to be mined.

At the same time, Kevin Hale, #2 shuttle car operator, stopped his shuttle car and walked up the #3 entry. As Hale walked up the #3 entry, he saw the mine roof sagging and taking weight. At approximately 10:40 a.m. he started to signal and shout, as a portion of the mine roof fell. When the mine roof fell, Thomas and Poindexter were pinned and Baugh, whose hand was resting on the mine roof, was nearly struck. The falling mine roof caused Baugh's hand to drop away from the mine roof.

Eustace Perry traveled to the roof fall as Hale ran outby past the continuous mining machine and #2 shuttle car. Eustace Perry immediately instructed Bowman to reposition MRS #3 and #4 that were located in the last open crosscut between the #3 and #4 entries. Bowman moved MRS #3 and #4 from the #4 side of the cross cut to the #3 side of the cross cut and pressurized the machines against the mine roof. Eustace Perry then had Bowman to pressurize MRS #1 against the mine roof, which was in a lowered position, 6 to 8 inches from the mine roof.

The remaining crew members traveled to the roof fall and set temporary roof supports (timbers and cribs) to ensure no additional roof falls would occur. The fallen mine roof rock was moved, the victims were recovered and transported by the McDowell County Emergency Authority and the Wideners Ambulance Service to Welch Hospital.

## **INVESTIGATION OF THE ACCIDENT**

The Mine Safety and Health Administration (MSHA) was notified of the accident at 10:45 a.m. on Saturday, January 13, 2007 when Darrell Keene, day shift maintenance foreman called the MSHA Call Center. MSHA personnel from the Princeton, Mount Hope, and Summersville field offices were immediately dispatched to the mine site. A

103(k) order was issued to insure the safety of all persons during the investigation. The 103(k) order was later issued in writing.

The investigation was conducted with the cooperation of the West Virginia Office of Miners' Health, Safety and Training (WVOMHST), MSHA Technical Support personnel the mine operator and the mine employees.

The accident scene was photographed, sketched, and surveyed. Interviews were conducted of persons considered to have knowledge of the facts concerning the accident. A list of the persons who participated in the investigation is contained in Appendix A. The on-site portion of the investigation was completed, and the 103(k) Order was modified on January 17, 2007, to permit normal mining operations to resume on the North Section and on the West Section.

## DISCUSSION

### **Roof Control Plan**

The third cut extracted prior to the roof fall extended 7.5 feet beyond the center of the coal pillar. Page 12 of the approved roof control plan, under the subtitle, Full Pillar Recovery Plan (MRS) Deep Cut Mining, requires "The initial lifts taken from the pillar will not exceed ½ the block width. Blocks of larger dimensions may be mined using this plan, provided cut depth does not exceed one half the width of the pillar blocks or 40 feet."

Page 12a, item 9 under the subtitle "Safety Precautions for Mobile Roof Supports" of the approved plan states, "A breakaway type hanger shall be used in the pillar line to keep persons from going inby to take the mobile roof support machine trailing cables down." Poindexter traveled to within 5 feet of MRS #1 to take down a portion of the MRS machine trailing cable. Poindexter untwisted the tie wire which was too tight immediately before the roof fall. During interviews, it was indicated that the tie wire had been too tight on prior occasions. When overly tightened, persons would have to walk closer to the MRS machine and loosen the wire. This condition did not contribute to the cause of the accident, and therefore the condition was cited under a separate inspection event.

When the roof fall occurred, Thomas, Poindexter, and Baugh were near the center of the #3 entry, approximately 15 feet outby MRS #1. Page 12a, item 7 of the approved roof control plan under subtitle, Safety Precautions for Mobile Roof Supports, states, "Except when performing maintenance, all personnel shall stay in a safe area (minimum distance of 20 feet from the MRS machines) when the MRS machines are being trammed or the shields are being raised or lowered." The term "shield" refers to upper portion of the machine which contacts the mine roof. In addition, the miners were located inby

the outby corner of the second lift mined from the left pillar (pillar number 107), while MRS #1 was not in contact with the mine roof. From his position, Richard Baugh, Section Foreman, could observe the miners working in close proximity to the MRS machines and determine they were inby the previously mined area of the coal pillar.

### **Handling of MRS Trailing Cable**

Each MRS machine was equipped with a No. 6 AWG trailing cable which provided 480 volt electrical power to the machine. On-board each MRS machine was a cable reel which stored additional cable which facilitated the movement of the machine. Prior to the accident, the trailing cable of MRS #1 was manually removed from twisted wire which suspended the cables from the mine roof. To manually handle the cable, the MRS operators had to walk closer to the MRS machine than the 20 -foot minimum distance specified in the approved roof control plan.

### **Training**

An inspection of the training records indicated that Thomas, Poindexter, and all current mine employees had received newly experienced miners training in accordance with 30 CFR 48. All persons currently working on the North Mains section indicated the Full Pillar Recovery Plan (MRS) Deep Cut Mining part of the roof control plan had been reviewed. The mine operator could not provide any documentation of persons attending the review of the pillar plan.

The training was inadequate. During interviews, miners were not aware of the second sentence on page 12 of the approved roof control plan which states, while coal is being mined, all other persons shall be in a safe location outby the last open break. Miners indicated that MRS machine operators, foremen, electricians, continuous mining machine helpers, and anyone else observing mining operations stayed in the last open cross cut while mining was being performed.

This was the first occasion in which retreat mining was conducted at this mine. For that reason, required task training for retreat mining was crucial to the safety of persons exposed to the new mining method.

## **ROOT CAUSE ANALYSIS**

A root cause analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. Listed below are root causes identified during the analysis, and their corresponding corrective actions were implemented to prevent a recurrence of the accident.

**Root Cause:** Management allowed noncompliance with the roof control plan. Miners traveled inby a minimum safe distance of 20 feet outby the mobile roof support machines to approximately 15 feet. This was a location inby a previously mined portion



of the adjacent coal pillar. While in this position, MRS #1 was lowered so that it was no longer pressurized against the mine roof.

**Corrective Action:** Retreat mining provisions were removed from the approved roof control plan, causing the mining of coal pillars in the mine to cease. Miners and management were retrained in the provisions of the approved roof control plan to ensure they were knowledgeable in the requirements of the plan.

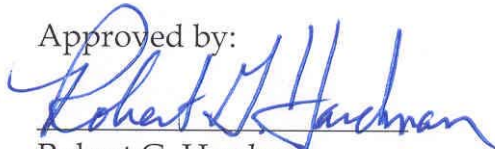
**Root Cause:** Miners exposed to retreat mining methods did not receive training in the health and safety aspects and safe operating procedures for work tasks, equipment, and machinery, and supervised practice during nonproduction. The required training and practice is essential to ensure that miners understand safe work procedures and are prepared to follow the safe work procedures outlined in the approved plan.

**Corrective Action:** Retreat mining provisions were removed from the approved roof control plan, and retreat mining has ceased, thereby removing miners from any exposure to hazards which may be presented during retreat mining.

### CONCLUSION

James David Thomas and Pete Poindexter, mobile roof support machine operators, were fatally injured when a portion of the mine roof collapsed onto both miners. At the same time Richard Baugh, section foreman, narrowly escaped serious or fatal injuries. Thomas, Poindexter, and Baugh were allowed to travel closer than the minimum safe distance of 20 feet from the MRS machines specified in the approved roof control plan. This travel was also in by a previously mined portion of the adjacent coal pillar. While in this position, MRS #1 was lowered so that it was no longer pressurized against the mine roof. The accident occurred because effective safe work procedures and practices specified in the approved roof control plan were not enforced by mine management. In addition, miners were not properly trained in safe work procedures for retreat mining.

Approved by:



Robert G. Hardman  
District Manager

07/11/2007  
Date

## ENFORCEMENT ACTIONS

1. A 103(k) Order, No. 7259197 was issued to ensure the safety of the miners until the investigation could be completed.
2. A 104(d)(1) Order, No. 7259200, was issued for a violation of 30 CFR 75.220(a)(1), stating the Mine Operator did not follow the approved roof control plan for mine ID 46-09066 on the North Mains Section (MMU-001/MMU-002).

The approved roof control plan states under subtitle, "Safety Precautions for Mobile Roof Supports", page 12a, item 7, "Except when performing maintenance, all personnel shall stay in a safe area (minimum distance of 20 feet from the mobile roof support machines) when the mobile roof support machines are being trammed or the shields are being raised or lowered."

Richard Baugh, Section Foreman, and two mobile roof support machine operators were not in a safe location and were located closer than the minimum safe distance of 20 feet from the MRS while the #1 mobile roof support machine was being trammed with the shield lowered. A slicken-sided portion of the mine roof collapsed causing the multi-fatality accident.

3. A 104(g)(1) Order, No. 7259201, was issued for a violation of 30 CFR 48.7(a) stating, miners assigned to new work tasks as mobile roof support operators were attempting to perform those tasks without having been trained in all the safe operating procedures related to their assigned tasks.

The second sentence on page 12 of the approved roof control plan stated, "While coal is being mined, all other persons shall be in a safe location outby the last open break. Miners being interviewed stated that the mobile roof support machine operators, foreman, continuous mining machine helpers, and anyone else observing mining operations stayed in the last open cross cut while mining was being performed.

**Appendix A**  
**Persons Participating in the Investigation**

Brooks Run Mining Company, LLC.

Teddy Sharp.....	Superintendent
Eustace Perry .....	Mine Foreman
Richard R Baugh .....	Section Foreman
Tim Pruett .....	Section Foreman
Will Cook.....	Section Foreman
Everett D. Perry .....	Continuous Mining Machine Helper
Kevin P. Hale .....	Shuttle Car Operator
Randall Chapman .....	Shuttle Car Operator
Benny Chapman.....	Utility Man
Garnett Sutherland .....	Mobile Roof Support Machine Operator
Jerry Lee Grimmett .....	Continuous Mining Machine Operator
David Jones .....	Continuous Mining Machine Operator
David L. Triplett.....	Mobile Roof Support Machine Operator
Stephen L. Dillon.....	Scoop Operator
David A. Horvath .....	Mobile Roof Support Machine Operator
Kenneth Baker .....	Shuttle Car Operator
Jeff Stiltner.....	Electrician/ Apprentice
Okey Sartin.....	Scoop Operator
Cassell Harden .....	Electrician
Jesse J. Spaulding Jr .....	Scoop Operator
Rick Johnson .....	Mobile Roof Support Machine Operator
Clifton R. Rowe .....	Utility
Randy Johnson .....	Continuous Mining Machine Operator
Darrell Keene .....	Maintenance Foreman
Michael Wallace .....	Electrician
Joseph Hudson Jr .....	Electrician

Alpha Natural Resources, LLC.

Randy McMillion .....	President
Dave Decker.....	Vice President
Ken Perdue.....	Safety Manager
Chris Presley .....	Safety Director
Cecil Daniels .....	Manager of Mines
Vaughn Groves.....	Attorney

West Virginia Office of Miner's Health, Safety and Training

Fred B. Stinson.....Inspector-at-Large  
Donald L. Dickerson.....Assistant Inspector-at-Large  
Terry Farley..... Accident Investigator  
Greg Norman..... Underground Inspector  
Dwight McClure..... Underground Inspector

Mine Safety and Health Administration

Robert G. Hardman .....District Manager  
David Fowler ..... Supervisory CMS&H Inspector  
Mike Gauna... Mining Engineer, Pittsburgh Safety and Health Tech. Center  
Sandin Phillipson ..... Geologist, Pittsburgh Safety and Health Tech. Center  
Don Winston.....Mining Engineer, Roof Control  
John Sylvester .....CMS&H Inspector  
James R. Humphrey.....CMS&H Inspector

## Appendix B Victim Information

Accident Investigation Data - Victim Information

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



Event Number: **4 1 1 3 1 9 2**

**Victim Information: 1**

1. Name of Injured/Ill Employee: Pete Poindexter 2. Sex: M 3. Victim's Age: 33 4. Last Four Digits of SSN: \_\_\_\_\_ 5. Degree of Injury: 01 Fatal

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: \_\_\_\_\_ 7. Date and Time Started: \_\_\_\_\_  
a. Date: 1/13/2007 b. Time: 10:40 a. Date: 1/13/2007 b. Time: 6:30

8. Regular Job Title: 199 mobile roof support machine operator 9. Work Activity when Injured: 041 repositioning a mobile roof support mach 10. Was this work activity part of regular job? Yes  No

11. Experience Years Weeks Days b. Regular Years Weeks Days c. This Years Weeks Days d. Total Years Weeks Days  
a. This Work Activity: 0 4 0 Job Title: 0 4 0 Mine: 0 28 0 Mining: 2 24 0

12. What Directly Inflicted Injury or Illness? 121 mine roof collapsed 13. Nature of Injury or Illness: 170 crushing

14. Training Deficiencies: Hazard: \_\_\_\_\_ New/Newly-Employed Experienced Miner: \_\_\_\_\_ Annual: \_\_\_\_\_ Task:

15. Company of Employment (if different from production operator) Operator Independent Contractor ID: (if applicable) \_\_\_\_\_

16. On-site Emergency Medical Treatment: Not Applicable:  First-Aid: \_\_\_\_\_ CPR: \_\_\_\_\_ EMT: \_\_\_\_\_ Medical Professional: \_\_\_\_\_ None: \_\_\_\_\_

17. Part 50 Document Control Number: (form 7000-1) \_\_\_\_\_ 18. Union Affiliation of Victim: 9999 None (No Union Affiliation)

**Victim Information: 2**

1. Name of Injured/Ill Employee: James D. Thomas 2. Sex: M 3. Victim's Age: 48 4. Last Four Digits of SSN: \_\_\_\_\_ 5. Degree of Injury: 01 Fatal

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: \_\_\_\_\_ 7. Date and Time Started: \_\_\_\_\_  
a. Date: 1/13/2007 b. Time: 10:40 a. Date: 1/13/2007 b. Time: 6:30

8. Regular Job Title: 199 mobile roof support machine operator 9. Work Activity when Injured: 041 moving mobile roof support machine 10. Was this work activity part of regular job? Yes  No

11. Experience Years Weeks Days b. Regular Years Weeks Days c. This Years Week Days d. Total Years Weeks Days  
a. This Work Activity: 0 4 0 Job Title: 0 4 0 Mine: 0 20 0 Mining: 12 0 0

12. What Directly Inflicted Injury or Illness? 121 mine roof collapsed 13. Nature of Injury or Illness: 170 crushing

14. Training Deficiencies: Hazard: \_\_\_\_\_ New/Newly-Employed Experienced Miner: \_\_\_\_\_ Annual: \_\_\_\_\_ Task:

15. Company of Employment (if different from production operator) Operator Independent Contractor ID: (if applicable) \_\_\_\_\_

16. On-site Emergency Medical Treatment: Not Applicable: \_\_\_\_\_ First-Aid: \_\_\_\_\_ CPR: \_\_\_\_\_ EMT: \_\_\_\_\_ Medical Professional: \_\_\_\_\_ None: \_\_\_\_\_

17. Part 50 Document Control Number: (form 7000-1) \_\_\_\_\_ 18. Union Affiliation of Victim: 9999 None (No Union Affiliation)

**Victim Information:**

1. Name of Injured/Ill Employee: \_\_\_\_\_ 2. Sex: \_\_\_\_\_ 3. Victim's Age: \_\_\_\_\_ 4. Last Four Digits of SSN: \_\_\_\_\_ 5. Degree of Injury: \_\_\_\_\_

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: \_\_\_\_\_ 7. Date and Time Started: \_\_\_\_\_

8. Regular Job Title: \_\_\_\_\_ 9. Work Activity when Injured: \_\_\_\_\_ 10. Was this work activity part of regular job? Yes  No

11. Experience: Years Weeks Days b. Regular Years Weeks Days c. This Years Week Days d. Total Years Weeks Days  
a. This Work Activity: \_\_\_\_\_ Job Title: \_\_\_\_\_ Mine: \_\_\_\_\_ Mining: \_\_\_\_\_

12. What Directly Inflicted Injury or Illness? \_\_\_\_\_ 13. Nature of Injury or Illness: \_\_\_\_\_

14. Training Deficiencies: Hazard: \_\_\_\_\_ New/Newly-Employed Experienced Miner: \_\_\_\_\_ Annual: \_\_\_\_\_ Task: \_\_\_\_\_

15. Company of Employment (if different from production operator) \_\_\_\_\_ Independent Contractor ID: (if applicable) \_\_\_\_\_

16. On-site Emergency Medical Treatment: Not Applicable: \_\_\_\_\_ First-Aid: \_\_\_\_\_ CPR: \_\_\_\_\_ EMT: \_\_\_\_\_ Medical Professional: \_\_\_\_\_ None: \_\_\_\_\_

17. Part 50 Document Control Number: (form 7000-1) \_\_\_\_\_ 18. Union Affiliation of Victim: \_\_\_\_\_