WEST VIRGINIA OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

REPORT OF FATALITY

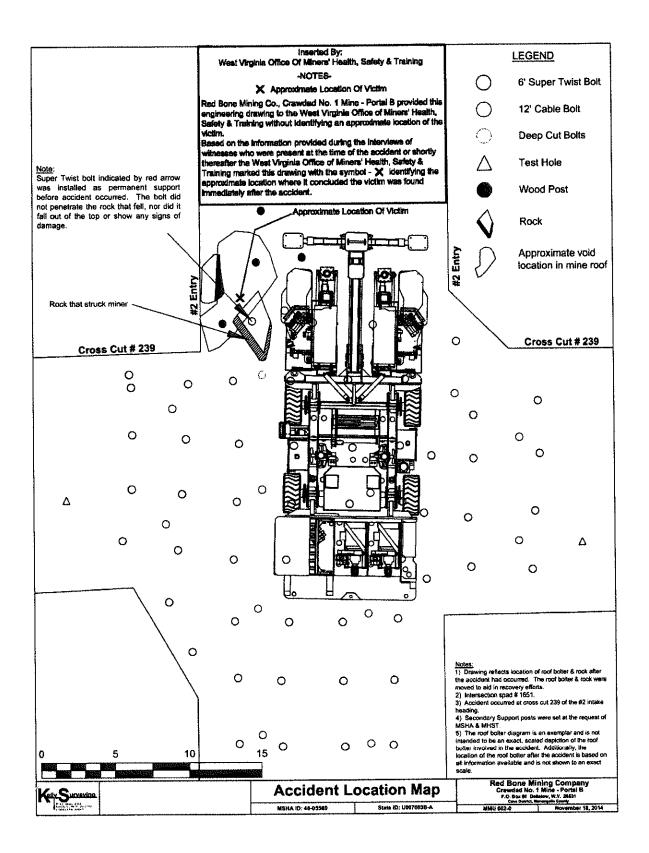
November 10, 2014

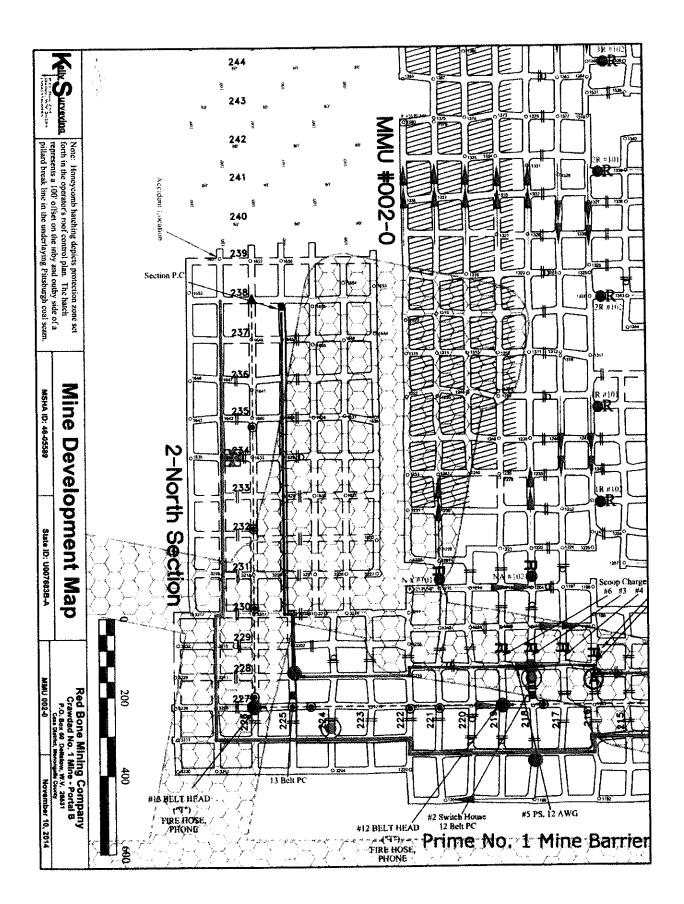
RED BONE MINING COMPANY CRAWDAD #1 PORTAL B PERMIT #U007683B-A

REGION ONE 14 COMMERCE DRIVE, SUITE ONE **WESTOVER, WEST VIRGINIA 26501** EDWARD PEDDICORD, INSPECTOR-AT-LARGE

TABLE OF CONTENTS

MAPS OF ACCIDENT SITE
GENERAL INFORMATION
DESCRIPTION
FINDINGS OF FACT
CONCLUSION
ENFORCEMENT ACTION
RECOMMENDATIONS
ACKNOWLEDGEMENT
VICTIM INFORMATION
MINE INFORMATION





GENERAL INFORMATION

Red Bone Mining Company, Crawdad #1 Portal B mine, Permit #U007683B-A is located near Maidsville, Monongalia County, West Virginia. The underground mine employs 47 miners. The Sewickley seam is accessed by four (4) drift portals. Coal is transported by conveyor belt from the working section to the surface. Battery powered, rubber tired vehicles are used to transport supplies and mine personnel. Red Bone Mining Company is a production contractor for Dana Mining Company, LLC Permit #U00007683B.

DESCRIPTION

On November 10, 2014, at 9:30 p.m., the Mine and Industrial Accident Rapid Response System was notified that an accident had occurred at the Crawdad #1 Portal B mine. West Virginia Mine Inspectors; Ward Colvin and Jeffrey Bennett were informed by John Meadows, Assistant Inspector-at-Large of the West Virginia Office of Miners' Health, Safety and Training and were instructed to go directly to the Crawdad #1 Portal B mine. A joint inspection with the Mine Safety and Health Administration and Red Bone Mining Company began immediately.

On November 10, 2014, at approximately 2:00 p.m., Raymond Scott Savage, underground mine foreman, and William Everly, roof bolter operator, traveled together underground along with John Shaffer, mechanic, and George Ray, roof bolter operator, in separate mantrips. Some miners regularly start prior to the oncoming shift performing fireboss duties, routine maintenance and preparing the section to produce coal. Dayshift is scheduled from 7:00 a.m.to 4:00 p.m.; afternoon shift from 3:00 p.m. to 12:00 a.m.; midnight shift from 11:00 p.m. to 8:00 a.m. Travel time from the surface to the section is approximately 45 minutes.

On November 10, 2014 at approximately 3:00 p.m., the afternoon shift coal loading crew traveled from the Crawdad # 1 Portal B to the #2 North section. This crew consisted of Jeff Belanger, Brian Mayle, Kenny Barnett and Andy Bankhead. The afternoon shift worked under the supervision of Mr. Savage.

The crew had mined the #2 crosscut and connected it with the #1 entry. They mined #3, #4, and #2 entries and had not completed mining in the #3 entry. During the shift, the #1 Fletcher, dual head roof bolter, which was being used, had been taken out of service due to a broken tram chain and electrical problems. These problems were soon corrected, but the roof bolting was not keeping up with the advancement of mining. Mr. Savage instructed Mr. Belanger, shuttle car operator, to assist with bolting the #2 entry. They started bolting with the #2 Fletcher, dual head roof bolter. Mr. Savage and Mr. Belanger installed the first row of permanent roof bolts in the #2 entry. After this was completed, at approximately 9:25 p.m.,

Mr. Savage advanced the bolter inby to install the next row of roof bolts and set the A.T.R.S. against the mine roof. Mr. Belanger, operating the helper's side of the bolter, swung the head/drill station out to install the outside bolt first. When Mr. Belanger started to drill the hole he heard a loud noise. Mr. Belanger looked over and could not see Mr. Savage who was preparing to operate the bolter on the operator's side.

Mr. Belanger immediately went to the operator's side from the front of the bolter, outby the A.T.R.S. and observed Mr. Savage underneath a large rock that dislodged from the mine roof. He removed a small rock from Mr. Savage's head area, but was unable to move the larger rock. Mr. Belanger went to the rear of the bolter and summoned the help of the continuous miner operator and shuttle car operator, located in the #3 entry. Other members of the crew were quickly notified and dispersed to assist retrieving medical supplies, communicating with the surface and bringing the readily available vehicle to the accident site. The miners returned to the accident site and tried to physically remove the rock that was on top of Mr. Savage, but it was too heavy. A quick decision was made to remove the rock by placing a nylon strap around the rock and attaching it to the end of the A.T.R.S. on the operator's side of the roof bolter after it was lowered and trammed outby. The A.T.R.S. was raised, lifting the rock while miners balanced the rock and the bolter was trammed outby successfully removing the rock from Mr. Savage.

The miners quickly went to Mr. Savage and started to render medical assistance. Mr. Savage was then placed on a backboard and secured for transportation onto a Johnson, nine (9) passenger, battery powered, rubber tired vehicle. They began CPR and oxygen was administered to the victim from the #2 North section to the surface, but Mr. Savage was unresponsive. Two EMTs that were assisting Mr. Savage stated they had detected a pulse. When arriving on the surface Mr. Savage was transferred to the care of Monongalia County, EMS. Mr. Savage was pronounced dead at 10:53 p.m. on November 10, 2014 at Ruby Memorial Hospital in Morgantown, West Virginia.

FINDINGS OF FACT

- Raymond Scott Savage was the section foreman at the time of the accident. Mr. Savage received a West Virginia Underground Mine Foreman Certification, #37081, on April 22, 1999.
- 2. Mr. Savage received a West Virginia Electrician Certification, #1-315, on February 20, 2004.
- 3. Mr. Savage was a certified EMT-M.
- 4. Mr. Savage was operating the #2 Fletcher, model RRII, dual head bolter on the operator's side, at the time of the accident.
- 5. The accident occurred on the #2 North section, in the first cut extracted in the #2 entry, #239 crosscut, just inby spad station #1651.
- 6. Mr. Savage was bolting with Mr. Belanger and had installed one row of permanent roof bolts in the #2 entry prior to the accident.
- 7. The roof supports that Mr. Savage and Mr. Belanger installed in the first row of the #2 entry consisted of six (6) roof bolts. They installed four (4), six (6) foot, Super-Twist Torque/Tension roof bolts and two (2), twelve (12) foot cable bolts that are installed in every other row.
- 8. The Pittsburgh coal seam is located below the Sewickley coal seam and had previously been mined.
- 9. The six (6) foot, Super-Twist Torque/Tension and the twelve (12) foot cable bolts are required when mining above the Pittsburgh coal seam where longwall or pillar mining had been performed with evidence of partial mining or when barrier pillars exist.

 Engineer's maps identify these areas by "honeycombed" colored areas plotted on the mine map. (Reference map on page 2)
- 10. The distance between the Sewickley and Pittsburgh coal seams averages ninety (90) feet.
- 11. Three (3), twelve (12) foot cable bolts, with plates were present on the operator's side, next to the rib that were going to be installed.
- 12. Six (6) foot, resin grouted roof bolts, four (4) per row, were being installed when not mining above "honeycombed" areas.
- 13. The engineer's map reveals that the left side of the #2 North section was not above longwall or pillar mining where extra and additional supports were being installed. The #2 entry is seven (7) crosscuts and approximately six hundred and seventy (670) feet inby the "honeycombed" area.
- 14. Bit marks were present on the mine roof throughout the unsupported area in the #2 entry evidencing that the continuous miner operator had checked for loose, broken and/or drummy roof, which is a common practice.

- 15. The mine roof in the working place where Mr. Savage was working was not being controlled adequately as required to protect persons from falls of the mine roof.
- 16. The rock that struck Mr. Savage had bit mark impressions from the continuous miner.
- 17. Mr. Savage had not positioned the drill station at the time of the accident.
- 18. The depth of the extended cut, in the #2 entry, measured thirty-three (33) feet. The approved roof control plan allows for a maximum depth of thirty-five (35) feet for an extended cut. This measurement was taken from the last row of permanent supports that existed when the continuous miner operator mined the #2 entry and extending to the face.
- 19. The last row of permanent roof supports that had been installed prior to the continuous miner operator taking an extended cut in the #2 entry had the required two (2) additional roof bolts for extended cut mining and both were identified by blue paint.
- 20. Mr. Savage received fatal injuries when he was struck by a large piece of roof rock that had dislodged from the mine roof. The cavity where the rock dislodged was located inby the last row of permanent roof supports and outby the A.T.R.S.
- 21. The dimensions of the rock that struck Mr. Savage were approximately five (5) feet in length, three (3) feet in width, and thirteen (13) inches thick. These measurements were taken at the longest, widest and thickest locations.
- 22. The mining height at the accident scene measured from sixty-eight (68) inches to seventy-two (72) inches.
- 23. The sum of the diagonal distance of the 90 degree, four (4) way intersection in the #2 entry, at spad station #1651, measured fifty-six (56) feet, six (6) inches. The approved roof control plan allows sixty-two (62) feet without additional support.
- 24. The width of the #2 entry where the accident occurred measured seventeen (17) feet, three (3) inches. The approved roof control plan allows eighteen (18) feet.
- 25. Mr. Savage and Mr. Belanger had installed permanent roof supports in the #2 to #1 crosscut prior to the accident.
- 26. No violations or hazardous conditions were noted in any examination book regarding the accident site prior to the accident.
- 27. The three (3) working shifts rotate on a scheduled basis.

CONCLUSION

Mr. Savage was fatally injured on November 10, 2014 at approximately 9:25 p.m. The victim was struck by a large piece of rock that dislodged from the roof in the #2 entry on the #2 North section while preparing to install permanent roof supports with a Fletcher dual head roof bolter.

ENFORCEMENT ACTION

A non-assessed order was issued in accordance with West Virginia Code 22A, Article 2 Section 68 to preserve evidence until an investigation by the Office of Miners' Health, Safety and Training is completed.

One violation was issued during the investigation of this fatal accident:

Chapter 22A, Article 2, Section 25(a) exists as follows: During the fatal accident that occurred on November 10, 2014 it has been determined that the roof in a working place was not being controlled adequately as required to protect persons from falls of the mine roof. Mr. Savage received fatal injuries when he was preparing to install permanent roof supports when he was struck by a large rock that fell from the mine roof. This fatal accident occurred on the #2 North section, #2 entry, just inby crosscut #239 and a spad station #1651.

RECOMMENDATIONS

- 1) During bolting operations, the A.T.R.S. extensions must be in the first or second notch from the outside.
- 2) Prior to entering a new cut or cycling between rows of roof bolts within a cut, the drill stations must be swung outward towards the ribs as far as practicable before lowering the A.T.R.S.
- 3) All employees will be trained in the new operating procedures.

ACKNOWLEDGEMENT

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the management and employees of Red Bone Mining Company, Crawdad #1 Portal B mine and the Mine Safety and Health Administration.

MINE INFORMATION

COMPANY Red Bone Mining Company
MINE COMPANY <u>Crawdad #1 Portal B</u>
WV PERMIT <u>U007683B-A</u> MSHA PERMIT NO. <u>46-05589</u>
ADDRESS P.O. Box 60 Dellslow, WV 26531
COUNTY Monongalia PHONE NO. 304-328-5116
DATE PERMIT ISSUED <u>March 26, 2009</u>
WORKING STATUS <u>Active</u>
LOCATION Maidsville, WV
UNIONNON-UNIONX
DAILY PRODUCTION <u>1,600 tons</u> ANNUAL PRODUCTION TO DATE <u>288,450 tons</u>
TOTAL EMPLOYEES47
NUMBER OF SHIFTS 3
COAL SEAM NAME AND THICKNESS <u>Sewickley 42"-66"</u>
ACCIDENT INCIDENT RATE 5.53 LOST TIME ACCIDENTS 10
TYPE OF HAULAGE Belt
WVOMHST INSPECTOR Jeff Bennett
DATE OF LAST INSPECTION Regular completed September 29, 2014
NOTIFIED BY Kerry Lilly
NOTIFICATION TIME 9:30 p.m. on November 10, 2014
CMSP-ANNIVERSARY DATE <u>April 9, 2015</u>
CMSP-CONTACT PERSON <u>Kerry Lilly</u>