

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Fall of Rib Accident
July 29, 2010

Loveridge #22
Consolidation Coal Company
Metz, Marion County, West Virginia
I.D. No. 46-01433

Accident Investigators

Michael Kelley
Coal Mine Safety & Health Specialist (Roof Control)

Todd Anderson
Coal Mine Safety & Health Specialist (Electrical)

Michael Gauna
Mining Engineer, Technical Support (Roof Control)

Originating Office
Mine Safety and Health Administration
District 3
604 Cheat Road
Morgantown, West Virginia 26508
Bob E. Cornett, District Manager

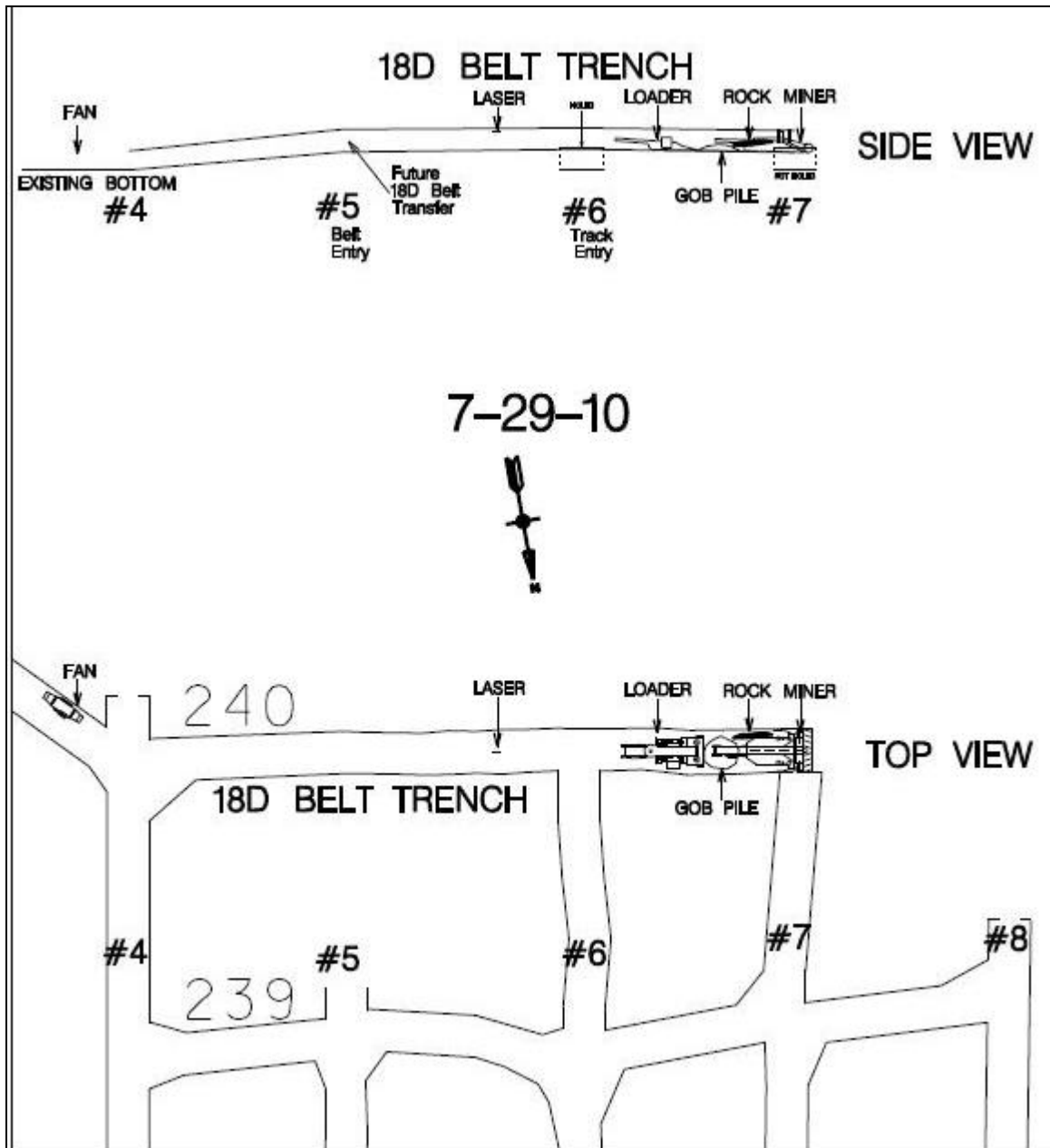
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SKETCH of ACCIDENT SITE

9-South Mains

Not to Scale



OVERVIEW

On July 29, 2010, at approximately 12:00 p.m., Jesse Adkins, a 39-year old Continuous Mining Machine Mounted Roof Bolter Operator (integral roof bolter) was fatally injured in a rib roll accident on the left side of the 9-South Mains section. The equipment involved in the accident was a continuous mining machine equipped with a roof bolting station mounted on each side of the machine. The crew had just started cutting the top portion of the 18D belt overcast between the No. 6 and No. 7 entries. The integral roof bolter operators were standing at their respective roof bolting stations along the sides of the continuous mining machine waiting to install the next roof strap. The continuous miner operator undercut the face, backed up and just started cutting the top when he noticed Adkins' light move. The continuous miner operator stopped the machine and walked around to the back side where he found the victim pinned between the machine and a section of rock rib measuring 193 inches long by 55 inches high and up to 16 inches thick. The rock broke at the rib protector and the broken piece extended an additional 83 inches inby (see photo of accident scene - Appendix B).

The accident was caused by a failure to effectively control the rib at the work area which exposed the victim to a hazardous condition. The hazardous condition consisted of slickensides that were present in the out-of-seam area of the belt overcast between the No. 4 and No. 7 entries. Contributing to the accident was an inadequate rib support system, the use of equipment that was not provided with a means to support the ribs as mining advanced, and failure to reevaluate changing conditions relative to equipment, mining procedures and practices.

GENERAL INFORMATION

The Loveridge #22 Mine is located near Metz, in Marion County, West Virginia. Consolidation Coal Company operates the underground coal mine, which employs 640 persons of which 583 are underground employees. The mine produces approximately 6 million tons of coal annually from four continuous miner units and one longwall unit.

The mine accesses the Pittsburgh No. 8 coal seam by one slope and eight shafts. Miners enter the mine at three portals. The Metz portal, located near the community of Metz, is where the majority of the miners enter the mine. The Miracle Run and Sugar Run portals are the locations of the slope and supply yard. Coal is transported from the working sections to the surface via conveyor belts. Both battery and trolley-powered rail-mounted vehicles are used to transport supplies and mine personnel. The mine is ventilated with six mine fans. The mine liberates approximately 18 million cubic feet of methane every 24 hours.

At the time of the accident, the 9-South Mains section consisted of two Mechanized Mining Units (MMU's). During advance mining, the active working faces were ventilated with an auxiliary fan and tubing. Idle faces were ventilated with line curtain. Coal was mined utilizing Voest Alpine, ABM 14 continuous miners equipped with integral roof bolters to extract the coal and install roof bolts. The two MMU's were engaged in developing the seven entry 9-South Mains in a southward orientation. The 9-South Mains development width is approximately 500 feet with approximately 925 feet of overburden established on 70 foot to 90 foot entry centers and 78 foot to 240 foot crosscut centers. The 9-South Mains left side continuous miner developed the No. 2 through No. 4 entries and crosscuts No. 4 through No. 8 for the 18D belt overcast. The 9-South left side No. 4 to No. 8 crosscuts were driven in a westward orientation. A loading machine and two ram cars were used to load and transport the coal to the section belt conveyor feeder.

The principal officers at the time of the accident were:

Jimmy Brock, Sr.....Vice President
Brent McClain.....Superintendent
Wayne Conaway.....Safety Supervisor

An E01, regular safety and health inspection by the Mine Safety and Health Administration (MSHA) was ongoing at the time of the accident. The previous E01 was completed on June 30, 2010. The Nonfatal Days Lost (NFDL) incidence rate in 2009 for the Loveridge #22 mine was 2.90, compared to the national average of 3.74.

DESCRIPTION OF ACCIDENT

On Thursday, July 29, 2010, Larry Mayle, Day Shift Section Foreman for the 9-South Mains left side section, received the pre-shift call out report from Brian Leonard, Midnight Shift Foreman, for the 9-South Mains left side section. No hazardous conditions were reported. After receiving the call out, Mayle and the day shift crew (Richard Barnhart, continuous miner operator; Jesse Adkins (victim), Integral Roof Bolter (Left Side); Donald Banko, Integral Roof Bolter Operator (Right Side); Frank Polce, Loading Machine Operator; James Wilkins, Ram Car Operator; and Ronald Buckley, Mechanic) for the 9-South Mains section proceeded underground and traveled to the section.

The crew arrived on the section at approximately 8:40 a.m., and walked to the power center. Mayle discussed page 7, parts 10, 11, and 12 of the approved mine roof control plan (see Appendix D) with the crew. After discussing this section of

the roof control plan, Mayle examined the working faces. The crew then proceeded to their work areas. Barnhart was approached by Charlie Dye, Integral Roof Bolter Operator (Right Side), who was walking off the 18D overcast. Dye informed Barnhart there was a crack in the left side rib adjacent to the continuous mining machine. An unsuccessful attempt had been made to pry down the rib on the midnight shift by Dye. Barnhart then walked to the continuous mining machine and retracted the Automated Temporary Roof Supports (ATRS) and rib protectors and moved the machine towards the left side of the entry for servicing. He then proceeded to check the bits on the cutter-head and determined there were several bits broken off in the bit holder. Buckley was called to work on the bits. The bits were repaired and the water sprays were cleaned.

Joe Morgan, Foreman Mentor, was also on the section when the accident occurred. Morgan had walked from the 17D section to the 9-South section and examined the faces on the right side of the section. He noticed the section had not yet begun to mine on the left side and traveled to the belt overcast where the continuous mining machine was located. He walked to the front of the continuous mining machine with Barnhart to examine the roof and ribs. The roof and ribs were determined to be safe by both individuals. The continuous mining machine was located approximately 20 feet from the face during their examination. During this time Banko and Adkins were in the process of hauling supplies to the continuous mining machine. Mayle began another examination of the No. 2 to No. 4 entries at approximately 10:48 a.m. During the investigation of the accident, the date board indicated the No. 4 face, which was located at the bottom of the belt overcast, was examined at 11:01 a.m. Soon after making examinations, Mayle walked onto the 18D belt overcast and asked Banko why the crew was not mining. Barnhart informed him of the broken bits that needed to be replaced. Mayle then left the 18D belt overcast and went to the right side section where he talked to Larry Broadwater, Right Side Section Foreman, concerning the mining of the No. 5 entry and ventilation.

Test bolts were installed at approximately 11:15 a.m., and the continuous mining machine was trammed to the face. The ATRS jacks were set and the face was undercut. The ATRS jacks were then retracted and the continuous mining machine was backed up to mine the top half of the face. The ATRS jacks were set again and Barnhart began cutting the immediate roof. Barnhart was about to flag Banko and Adkins to retract the ATRS jacks when he noticed a flash from the victim's cap light. Barnhart actuated the panic bar, which removed power from the continuous mining machine. Barnhart and Banko went around the boom of the continuous mining machine and found the victim pinned against the left side. He was located outby the rib protector near the rear bumper. The rock that struck the victim measured 193 inches in length, by 55 inches high, and up to 16 inches thick.

The general practice of the integral roof bolter operators at the Loveridge #22 Mine was to stand towards the rear of the machine, outside the protection of the rib protector (see photo of rib protector in Appendix E) while the continuous miner was cutting the roof for an overcast. They chose to stand at this location so they would not be struck by flying rock and debris.

Morgan was adjusting the laser sight located behind the loading machine when he heard Barnhart yell out for help (the laser sight had been struck by a piece of mobile equipment during the previous shift or when the scoop was supplying the continuous mining machine). Morgan proceeded to the accident site to assist. Due to the size and weight of the rock, they were unable to lift the rock off the victim. Morgan then went to the right side section to get help. Morgan instructed members of the crew to get jacks, cribs, and first aid equipment and take the materials to the accident site. Morgan then went to the mine phone located at the section power center to communicate with the dispatcher.

Mayle arrived at the accident scene and assisted with the removal of the victim. The victim was removed from between the rock and frame of the machine using jacks and cribs. Emergency Medical Technicians (EMTs) Melvin Delaney and Dana Burdette arrived at the accident scene. Delaney was on the East Mains haulage and Burdette was on the 17D section prior to the accident. Both men were only a few minutes away from the 18D section. The crew was already in the process of strapping the victim to a back board when they arrived. The victim was evaluated by both Delaney and Burdette with no vital signs detected. The victim was then placed into a ram car and cardio pulmonary resuscitation (CPR) was administered while he was transported to the end of the section supply track. The victim was moved from the ram car to a rail mounted mantrip and transported to the surface. CPR was continued during transportation. Once on the surface, the victim was transferred by the EMT's to the Marion County Emergency Medical Services (EMS). The victim was pronounced dead at 1:18 p.m., by Matt Smith, Marion County Medical Examiner.

INVESTIGATION OF THE ACCIDENT

Gregory Fetty, Staff Assistant, was notified of the accident at approximately 12:18 p.m. on the date of the accident by the MSHA Emergency Hotline. Fetty verbally issued a 103(j) Order over the telephone. However, an inspector was at the mine when the accident occurred, so the order was issued as a 103(k) action. Fetty notified Bob E. Cornett, District Manager; Carlos Mosley, Assistant District Manager for Technical Programs; Ronald Tulanowski, Assistant District Manager for Inspection Programs; and Kenneth Tenney, Bridgeport Field Office Supervisor. Fetty then notified MSHA Headquarters in Arlington, Virginia. Fetty

assigned Michael Kelley, Coal Mine Safety and Health Specialist (Roof Control) and Todd Anderson, Coal Mine Safety and Health Specialist (Electrical) to investigate the accident. Richard Vincent, Coal Mine Inspector, Bridgeport Field Office was already on mine property. The 103(k) Order was reduced to writing by the accident investigation team.

Upon arriving at the mine, the investigation team was briefed regarding the circumstances surrounding the accident. The accident investigation was conducted in conjunction with the West Virginia Office of Miners' Health, Safety and Training, Consolidation Coal Company and the United Mine Workers of America (UMWA). The parties agreed to conduct informal interviews with miners who were at the accident scene prior to traveling underground. The parties further agreed that formal interviews would be conducted with persons having knowledge of the accident the following day. After the interviews were completed, the parties traveled underground to the accident site and began the investigation. An overview of the area was made and the investigation teams took pictures and notes. The parties then determined additional safety precautions were necessary to assure the safety of the investigation team. The parties then agreed the mine operator would develop a plan addressing the installation of additional rib support to make the 18D belt overcast safe. The accident scene was dangered off and all parties returned to the surface.

On July 30, 2010, the 9-South left side crew members were interviewed again to ascertain additional facts surrounding the accident. Other documents and relevant information were gathered by the investigators. Between July 31, 2010, and August 1, 2010, the mine operator installed additional roof and rib supports in the 18D belt overcast area. Specifically, the mine operator scaled all loose ribs and installed rib bolts. Persons from MSHA, mine management and the representatives from the UMWA observed the installation of the supports to assure their adequacy.

On August 2, 2010, the operator completed supporting the 18D belt overcast area to the rear of the continuous mining machine. The MSHA accident investigation team, mine management and representatives from the UMWA returned to the accident scene to obtain additional measurements and an overview of the rock that had fallen out of the rib line. Mike Gauna, Geologist, MSHA Technical Support, also examined the geological conditions in the 18D belt overcast area. The parties then agreed the mine operator would develop a plan to remove the continuous mining machine from the scene and complete the supporting of the 18D belt overcast area to the face. The operator was given permission to remove the continuous mining machine after the plan was reviewed, submitted and agreed upon by all parties.

On August 4, 2010, the parties returned to the accident scene to obtain additional measurements needed to plot the location of the continuous mining machine at the time of the accident. All parties agreed the surveyors employed by mine management would provide an accurate map and depiction of the accident scene.

On August 5, 2010, the parties conducted additional interviews with miners who worked on the shifts prior to the accident. Information had been obtained throughout the investigation to indicate persons may have had knowledge of the geological conditions prior to and at the time of the accident. The results of the interviews indicated management was prudent with their actions in addressing rib conditions.

DISCUSSION

Geological Conditions

The belt trench was 8 ½ feet high and 16 to 17 feet wide at the accident site. The excavated material consisted of approximately 4 feet of gray claystone underlain by 4 ½ feet of interbedded black shale, gray claystone, coal bands. The upper portion of the pillar rib consisting of the gray claystone contained discontinuous small striation (groove) surfaces (roughly ½ x ½ inch in size) embedded in the claystone. The lower portion of the rib-side had a 14 inch coal bed underlain and overlain by black shale and gray claystone bedding that contained thinner coal bands within the shale/claystone. In the belt trench, the lower rib-side zone of coal bands and shale/claystone tended to preferentially spall more than the upper claystone. Where the lower rib spall occurred, the result was a rib profile where the upper claystone overhung into the trench.

The rib failure was defined by a system of curvilinear (a series of curves along a plane), meandering, slickensides that ran nearly parallel with the trench rib and dipped steeply (roughly 55° to 60°) southward into the left rib of the excavation. It appeared that the slickensides allowed the upper gray claystone and some of the underlying coal/shale/ claystone to detach and fall against the continuous mining machine and the victim.

The rib material that rolled out was roughly 0.6 inches to 16 inches thick, ranging from 24 inches to 55 inches in height and was approximately 23 feet in length. It fell from the top of the 8 ½ foot high left side (south) belt trench rib. From the left rear bumper of the machine the rock extended 17 ½ feet inby (west) and 5 ½ feet outby (east) the machine bumper. The rib roll extended inby and outby the left side rib protector shield. The belt trench width after the rib roll was 18 feet 4 inches wide.

Pillars

In the 9-South Mains, coal pillars did not show evidence of rib spall. Rib spall zones were only seen when out of seam mining was present. The top in the overcast area had slickensides and additional weight was put on the coal rib line causing the ribs to fall. The track and belt entries are cut into the pavement causing the coal ribs to slough. The ribs, when cutting into the immediate top, will crack horizontally and vertically due to the unconsolidated structures in the rock. The track and belt entries were cut into the pavement for additional height. This caused the coal ribs to slough. The coal ribs, when cutting into the bottom will crack vertical due to the weakness of the Pittsburgh coal.

Continuous Mining Machine with Integral Roof Bolting Equipment

The continuous mining machine was a radio remote controlled Sandvik MB450 (formerly or commonly know as a Voest Alpine or ABM 14) with fixed integral roof bolting equipment mounted on each side. The integral bolting stations are approximately 11 feet 9 inches from the tip of the cutting drum and 13 ½ feet from the rear of the machine. The machine was equipped with Joy specified rib protectors. The rib protection extends approximately 45 inches outby from the drill head location.

Roof Control Plan at Accident Scene

The primary roof support in the accident area consisted of two 5-foot point anchored, resin assisted bolts installed toward the ends of a 14-foot long T-5 channel (strap). The two point anchor bolts were installed slightly less than 9 feet apart and approximately 3 to 3 ½ feet from the rib line with the integral roof bolters. Tensar screen, 2-inch by 2-inch, was installed above the point anchor bolts and the strap. The screen openings were not to be greater than 6-inches by 6-inches. After the continuous mining machine was moved from the place, a third roof bolt was installed in the center of the channel with a single boom roof bolting machine.

Rib Support at Accident Scene

Rib support was not installed immediately in the belt trench overcast area of the 9-South Mains. Rib support was typically installed after the initial mining of the rock. Horizontal straps with screen (Tensar) and "pizza pans" were bolted along the side of the cavity. The bottom coal was then extracted and additional Tensar was installed with horizontal straps in the middle and the bottom of the sides of

the overcast. Pizza pans were installed between the straps. The straps and pizza pans were installed with 48-inch point anchor bolts.

Examinations and Other rib rolls

A review of the pre-shift and onshift examination records did not indicate any adverse roof or rib conditions were encountered or made known to pre shift examiners or other members of mine management. The continuous mining machine was located along the left hand side coal rib at the time the pre shift examination was conducted. Additionally, the 20" diameter auxiliary fan tubing was located on the left side of the entry and partially obscured the rib line where the rib meets the mine roof. This would contribute to the mine examiner not observing any cracks or deficiencies with the ribs.

Training Records

An examination of the training records revealed that Mr. Adkins had received the required training in accordance with 30 CFR, Part 48. Adkins had received annual retraining on March 29, 2010, and task training for the occupation of integral roof bolter on March 15, 2007.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic causes of the accident that was correctable through management controls. During this analysis, root causes were identified, that if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below are root causes identified during the analysis and their corresponding corrective actions being implemented to prevent a reoccurrence of the accident.

Root Cause: The mine operator's policies and administrative controls did not ensure that the ribs were adequately supported or otherwise controlled to protect persons from the hazards associated with rib rolls while mining out-of-seam.

Corrective Action: The approved roof control plan was revised to include rib bolting as mining advanced in out-of-seam areas (18 inches above or below the coal seam) as mining advances to protect miners from rib rolls.

Root Cause: Existing equipment was unable to install needed rib support and was thereby unsuited to current conditions. The continuous mining machine was not designed to install rib support. A design change to add rib bolting was not considered when mining out-of-seam or in adverse conditions.

Corrective Action: Rib drills were retrofitted to the continuous mining machine to install rib bolts as mining advanced.

CONCLUSION

The rib failure was defined by a system of curvilinear, meandering, slickensides that ran nearly parallel with the overcast rib and dipped steeply (roughly 55° to 60°) southward into the left rib of the excavation. It appeared that the slickensides allowed the upper gray claystone and some of the underlying coal/shale/claystone to detach and fall against the continuous mining machine and the victim. Contributing to the accident was equipment incapable of installing rib support and failure to reevaluate changing conditions relative to equipment, mining procedures and practices.

Approved By:

Bob E. Cornett

Bob E. Cornett
District Manager

2-14-11

Date

ENFORCEMENT ACTION

1. On July 29, 2010, a 103 (k) Order, No. 8026110, was issued to Consolidation Coal Company, Loveridge #22 mine, to protect the safety of all persons on-site, including those involved in recovery and investigation of the accident. The mine operator shall obtain prior approval from an Authorized Representative of the Secretary for all actions to recover and/or restore operation to the affected area. Additionally, the mine operator is reminded of its existing obligations to prevent the destruction of evidence that would assist in investigating the cause or causes of the accident. This 103 (k) order is issued for the entire 9-South Mains section from the tailpiece in-by.
2. The mine operator was cited for a violation of 30 CFR § 75.202(a), 104(a), low negligence. The left side rib line (looking inby) of the 18D Belt trench/overcast, located on the #9 South Mains section (MMU 065), was not adequately supported or otherwise controlled to protect persons from hazards related to falls of the ribs at the location of the continuous miner. A large portion of rock fell from the left side rib line and struck Jesse Adkins, Integral Roof Bolter Operator, resulting in fatal injuries. Adkins was standing between the rib line and the continuous mining machine, which was located on the top of the belt trench, and positioned with the front of the miner approximately 112 feet inby the 107+90 station. A large portion of rock measuring 23 feet long by 24 to 55 inches high and up to 16 inches thick fell from the left rib line. The rock broke into two parts after striking the left side rib protector. The outby section of rock, measuring 16 feet 1 inch in length, by 55 inches high and up to 16 inches thick struck the victim, and pinned him against the machine.

APPENDIX A _ Persons Participating in the Investigation

Loveridge #22 Mine/Consolidation Coal Company

Jimmy Brock Sr. Vice President of Operations
Todd Moore Corporate Safety
Brent McClain Superintendent
Brian Delloma Assistant Superintendent
Jim Latham Corporate Compliance
Wayne Conaway Safety Supervisor
Jeff Taylor Safety
John Larry Safety
Richard R. Shockley II Safety
Daniel Su Sr. Geomechanical Engineer
T. J. Morris Sr. Geologist
Rick Marlowe Corporate Safety
Mark Cramer Mine Engineer
Mike Basinet Shift Foreman
Joe Morgan Section Foreman Mentor*
Larry Mayle Section Foreman*
Brian Leonard Section Foreman*
Gary Hulderman Section Foreman*
Gary R. Sloan Section Foreman*

United Mine Workers of America

Tom Wilson UMWA International Representative
Ron Bowersox MWA International Representative
Mark Cochran UMWA Safety
James Summerfield UMWA Safety
Jeff Phillips UMWA Safety
Randy Mayhew UMWA Safety
Pat Layman UMWA Safety
Samuel Smith UMWA Safety
Ernest L. Payne UMWA Safety
Michael J. Payne UMWA Safety
Richard Barnhart Continuous Mining Machine Operator*
Donald Banko Integral Roof Bolter Operator*
Franklin P. Polce Loader Operator*
Melvin L. Delaney EMT*
Dana J. Burdette EMT*
Braden Skinner Integral Roof Bolter Operator*
Brian Toothman GI*
Charles Dye Integral Roof Bolter Operator*
Richard C. Keener Continuous Mining Machine Operator*

Glenn Switzer Integral Roof Bolter Operator*
Donald R. Satterfield Integral Roof Bolter Operator*

West Virginia Office of Miners' Health, Safety and Training

Ron Wooten Director
Al Landers District Inspector-at-Large
John Meadows Assistant to Inspector-at-Large
Tadd Rankin District Mine Inspector

Mine Safety and Health Administration

Greg Fetty Staff Assistant
Nelson Blake Chief, Roof Control Section
Michael Gauna Mining Engineer, Technical Support (Roof Control)
Paul Holler Mining Engineer, Technical Support (Roof Control)
Jan Lyall CMS&H Inspector (Roof Control)
James Young EFS, Mine Health & Safety Specialist (Training)
Bob E. Cornett District Manager
Carlos Mosley Assistant District Manager (Technical Group)
Kenneth Tenney Bridgeport Field Office Supervisor
Todd Anderson Accident Investigator (Electrical Group)
Michael Kelley Accident Investigator (Roof Control Group)

***Persons Interviewed**

APPENDIX B _ Photograph of the Accident Scene



APPENDIX C _ Victim Information, Form 7000-50b

Accident Investigation Data - Victim Information

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



Event Number:

6	2	6	0	5	4	4
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Victim Information: 1

1. Name of Injured/Ill Employee: <i>Jesse Adkins</i>		2. Sex: <i>M</i>	3. Victim's Age: <i>39</i>	4. Degree of Injury: <i>01 Fatal</i>																											
5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: a. Date: <i>07/29/2010</i> b. Time: <i>13:18</i>				6. Date and Time Started: a. Date: <i>07/29/2010</i> b. Time: <i>8:00</i>																											
7. Regular Job Title: <i>048 Roof bolter mounted (left side)</i>		8. Work Activity when Injured: <i>080 Roof bolter, Standing/Waiting to Install</i>			9. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																										
10. Experience a. This Work Activity: <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><th>Years</th><th>Weeks</th><th>Days</th></tr><tr><td style="text-align: center;"><i>3</i></td><td style="text-align: center;"><i>8</i></td><td style="text-align: center;"><i>0</i></td></tr></table>		Years	Weeks	Days	<i>3</i>	<i>8</i>	<i>0</i>	b. Regular Job Title: <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><th>Years</th><th>Weeks</th><th>Days</th></tr><tr><td style="text-align: center;"><i>2</i></td><td style="text-align: center;"><i>8</i></td><td style="text-align: center;"><i>0</i></td></tr></table>		Years	Weeks	Days	<i>2</i>	<i>8</i>	<i>0</i>	c. This Mine: <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><th>Years</th><th>Weeks</th><th>Days</th></tr><tr><td style="text-align: center;"><i>3</i></td><td style="text-align: center;"><i>16</i></td><td style="text-align: center;"><i>0</i></td></tr></table>		Years	Weeks	Days	<i>3</i>	<i>16</i>	<i>0</i>	d. Total Mining: <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><th>Years</th><th>Weeks</th><th>Days</th></tr><tr><td style="text-align: center;"><i>8</i></td><td style="text-align: center;"><i>0</i></td><td style="text-align: center;"><i>0</i></td></tr></table>		Years	Weeks	Days	<i>8</i>	<i>0</i>	<i>0</i>
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Years	Weeks	Days																													
<i>8</i>	<i>0</i>	<i>0</i>																													
11. What Directly Inflicted Injury or Illness? <i>122 Side or rib</i>				12. Nature of Injury or Illness: <i>170 Crushing</i>																											
13. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed <input type="checkbox"/> Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																															
14. Company of Employment: (if different from production operator) <i>Operator</i> Independent Contractor ID: (if applicable)																															
15. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																															
16. Part 50 Document Control Number: (form 7000-1) <i>220102140041</i>				17. Union Affiliation of Victim: <i>2555 United Mine Workers of Amer.</i>																											

APPENDIX D _ Page 7, Parts 10, 11 and 12, Approved Mine Roof Control Plan

10. Roof bolts will be installed within the ATRS system and the support of the ATRS system shall not exceed five (5) feet from the last row of permanent supports.
11. The quantity of supplementary roof support material required by the CFR 30 part 75.214(b) shall consist of a minimum of twenty (20) posts of proper length with sufficient cap pieces and wedges.
12. A test hole, one (1) foot deeper than normally drilled, is to be drilled in each working place during each production shift to assure that mechanically anchored bolts are anchored a minimum of twelve (12) inches from partings of coal, mud seams, or other irregularities.
13. All overhead protection supported by legs on haulage ways, installed after the approval date of this plan, shall be installed in a manner that will prevent such installations from falling in the event that the legs are accidentally dislodged.
14. Safety precautions regarding removal of supports under I-beams and crossbars where a place is less than twenty (20) feet in width are as follows:
 - A. Strapping and/or bolting of I-beams and crossbars shall be completed prior to removing supports.
 - B. Bolts will be of length to adequately anchor in firm strata.
15. Where mine conditions interrupt normal access to an area, a block maybe split to gain access to the area. Three (3) turn posts shall be installed until the first cut is bolted. The turn posts may then be removed. The minimum remaining pillar dimensions shall be twenty (20) feet.
16. The roof in the face of an entry, room, or crosscut will be supported to plan before a side cut is started.
17. As required by the CFR 30 part 75.221(a)(11), when mining into the coal seam creates an opening to the surface (slope or drift), a plan will be submitted to protect persons from falling material.

APPENDIX E _ Typical Rib Protector

