

West Virginia Office of Miners' Health, Safety and Training

October 24, 2003

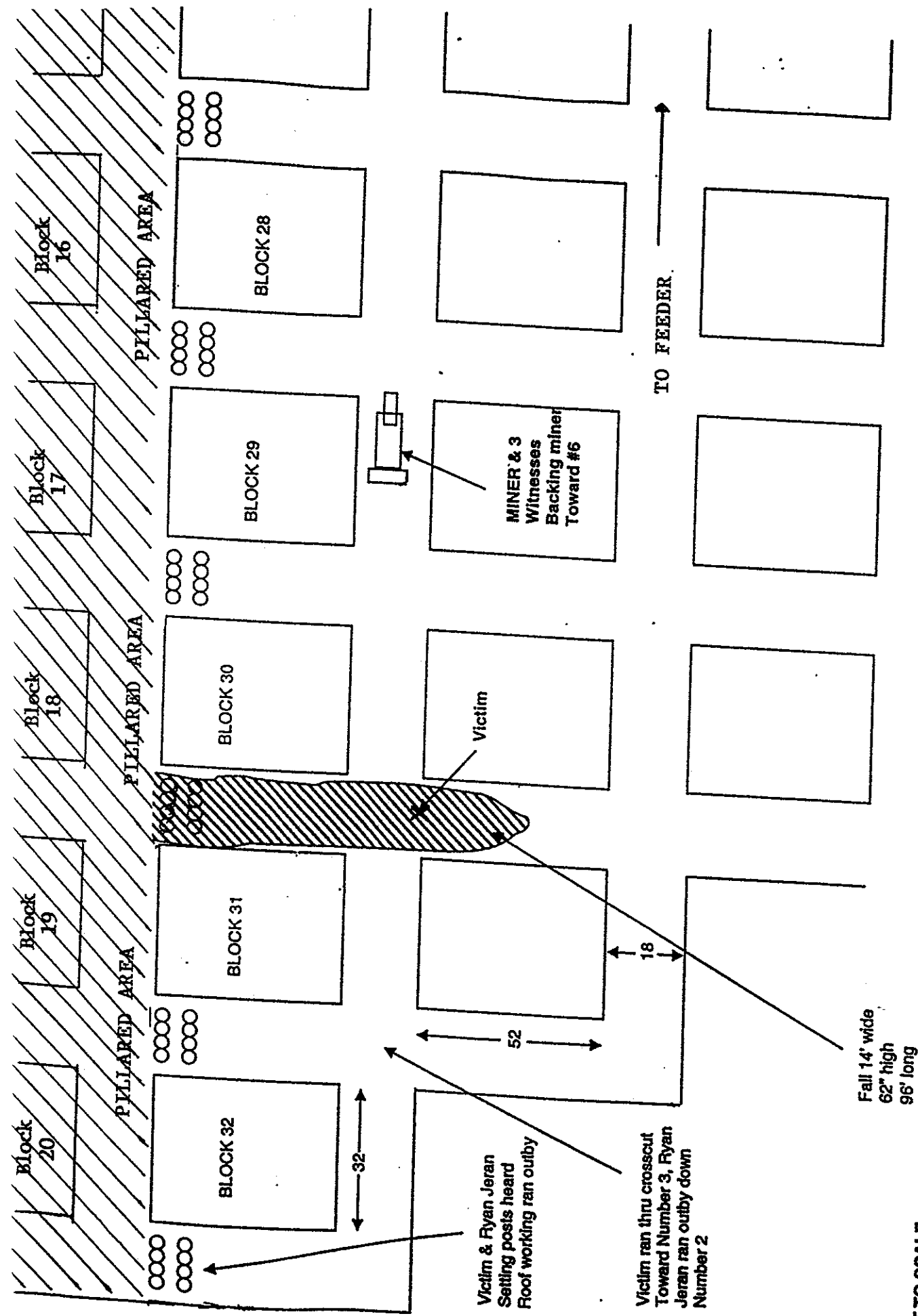
**Report of a Roof Fall Fatality
(Underground Coal Mine)**

**Roblee Coal Company
Hackers Creek No. 1 Mine
Permit No. U-2001-00**

**Region 1 Office
205 Marion Square
Fairmont, West Virginia 26554
Brian Mills, Inspector-At-Large**

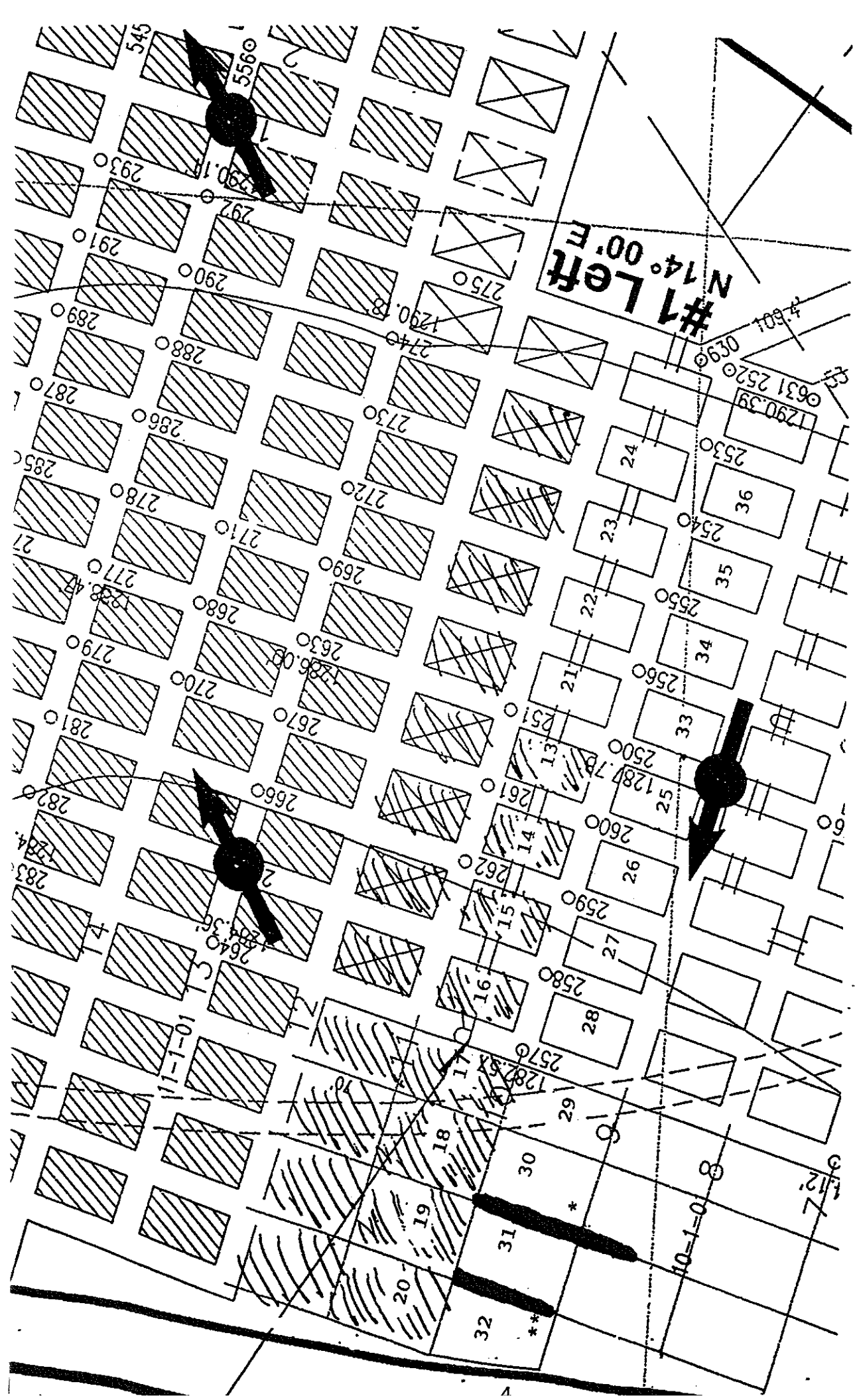
Table of Contents

*	Sketch	3, 4, 5
*	General Information	6
*	Description	6, 7, 8
*	Findings of Facts	8, 9
*	Conclusion	9
*	Enforcement Action	9, 10
*	Recommendations	10
*	Acknowledgements & Signatures	11
*	Appendix	12



1-LEFT SECTION

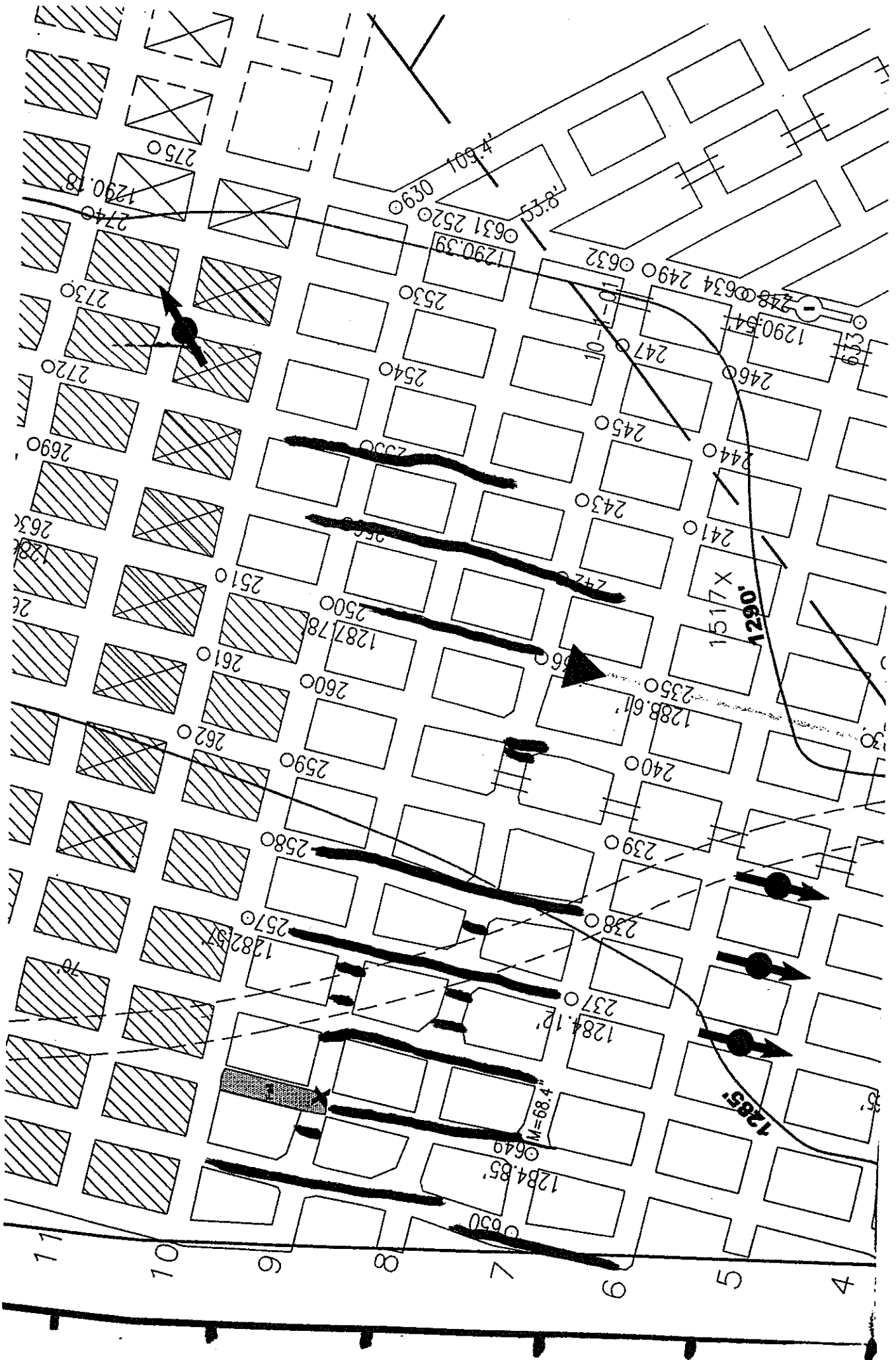
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* #3 ENTRY ROOF FALL OCCURRED 10/24/2003
 ** #2 ENTRY ROOF FALL DISCOVERED 10/27/2003

NOT TO SCALE

SKETCH SHOWING SURFACE CRACKS



General Information

A fatal roof fall accident occurred at approximately 10:20 a.m. on October 24, 2003 at the Roblee Coal Co. Hackers' Creek Mine. The accident occurred on the No. 1 Left Section where second mining (pillaring) was being conducted. Richard L. Harlan II, age 29, was struck by a section of falling roof in the last open intersection in the No. 3 entry. Mr. Harlan had a total of 2 years and 9 months mining experience and had been employed at this mine for 2 years and 2 months.

The Office of Miners' Health, Safety and Training's Fairmont office was notified of the accident at 11 a.m. on October 24, 2003 by Roblee Coal Co., President, Robin Jeran. A joint investigation with the Mine Safety and Health Administration (MSHA) was started immediately.

The most recent regular inspection at this mine was completed on August 6, 2003.

Description

The Roblee Coal Co. Hacker's Creek Mine is a drift opening mine producing coal from the Redstone Seam. The mine is located on Hacker's Creek road approximately 5 miles from Hodgesville, in Upshur County, West Virginia. The average mining height is approximately 60 inches, and the coal is transported to the surface by conveyor belt. The mine employs twenty-one (21) people on two shifts. Room and pillar methods are currently being used on the single underground unit.

The day shift crew, under the direction of Mark W. Chewning, entered the mine at approximately 6:50 a.m. on Friday, October 24, 2003. The men traveled by rubber tired vehicle and arrived on the active pillar section at approximately 7 a.m. Following instructions from Section Foreman, Mark Chewning, continuous mining machine operator, Thomas Elmore, and continuous mining machine helper, Steve Arbogast, moved the continuous mining machine into the No. 1 entry to begin mining the block designated as No. 20. After some preparation work shuttle car operators, William Coberly, and Russel K. Humphreys, began hauling coal to the section coal feeder at approximately 8:00 a.m. Roof bolting machine operators / timber setters, Jeffrey Tenney and Tim Tenney began setting posts on the opposite side of the section. Electrician, Ryan Jeran, performed some maintenance work then proceeded to the continuous mining machine where Richard L.

Harlan was helping to set posts during the mining cycle. Mining continued until this block was completed at approximately 10 a.m.

Upon completion of mining in this block, Elmore, Arbogast, and Coberly began moving the continuous mining machine across the section where they planned to mine the coal block designated as No. 21. Humphreys was at the section coal feeder. Jeff Tenney, Tim Tenney, and Chewning were located in No. 8 entry where they were using the scoop to pull the continuous mining machine cable slack. Elmore, Arbogast and Coberly were located at the continuous mining machine located in the last open crosscut between the No. 4 and No. 5 entries approximately one and one half crosscuts from the roof fall.

Jeran and Harlan had remained in the No. 1 entry where mining had just been completed to set breaker posts. After setting four posts they heard a loud rumble they thought might be a pillar fall. They then proceeded to the No. 2 entry to see where the fall had occurred. Upon arrival in the No. 2 entry, Jeran looked in by the check curtain to see if a fall had occurred. Jeran stated that they then heard a loud noise that sounded like a pillar fall. Mr. Harlan proceeded across the section through the crosscut between No. 2 and No. 3 entries toward the No. 3 entry where he was struck by falling roof in the No. 3 entry intersection. Jeran hesitated in the last open intersection in No. 2 entry and witnessed the roof fall before moving in the outby direction.

Following the roof fall, Elmore, Arbogast, and Coberly went toward the roof fall area and called out for Harlan and Jeran. Jeran made his way outby and across the section where he met Elmore and Chewning in the No. 4 entry. After searching the area the men came to the conclusion that Harlan had been struck by the roof fall. The men then set posts around the fall area while Chewning called outside to report the accident. The fall covered an area from the pillar line outby to a point approximately 96 feet including the last open intersection. The fall was approximately 14 feet wide and in excess of 5 feet thick. Given the size of the roof fall it was assumed by all that Mr. Harlan could not have survived.

Mine manager, Joe Johnson, arrived on the section shortly thereafter and a decision was made to send the crew to the surface at approximately noon. Johnson and Chewning remained underground.

Office of Miner's Health, Safety and Training inspector, Bill Tankersley, arrived at the mine at approximately 11:40 a.m. OMHST inspectors, Mark Wilfong, and Albert Lechiara, arrived at approximately 1:10 p.m. Tankersley, Wilfong, and Lechiara entered the mine at approximately 1:45 p.m. along with MSHA inspectors, Kenneth Tenney, James Satterfield and Jan Lyall and Ryan Jeran of Roblee Coal Co. to begin recovery efforts.

At approximately 4:45 p.m. Mark Westfall, Rocky Scott, Richard Gear and Kendall Riggleman of Roblee Coal Company and Ron Wyatt and Greg Fetty of the Mine Safety and Health Administration arrived on the section to help in recovery efforts.

Mr. Harlan's body was recovered at approximately 8:15 p.m. and brought to the surface at approximately 8:45 p.m. Pronouncement of death was then made by Upshur County Coroner, Keith Quinn. The Upshur County EMS personnel transported the body to the St. Joseph Hospital in Buckhannon.

Findings of Fact

- The roof fall occurred in the No. 3 entry approximately 150 feet from the outcrop. The depth of cover at this location was approximately 137 feet. The fall started inby the breaker posts and extended outby and through the last open intersection for a distance of approximately 96 feet.
- The approximate dimensions of the fall measured 96 feet long by 14 feet wide and 62 inches thick.
- Sixty-inch resin roof bolts had been installed as the primary support in the No. 3 entry and throughout this working section. Eight inch by eight inch bearing plates had been installed in conjunction with the roof bolts.
- A surface crack was present in the mine roof along the left rib extending from the pillared area in the No. 3 entry for approximately 70 feet outby the last open intersection where the crack turns to the middle of the entry and extends another 140 feet where it ends in the corner of the right coal block. The investigation revealed approximately 3 metal straps had been installed in the No. 3 entry intersection. The approved roof control plan specified that additional supports would be installed when two or more parallel surface cracks are encountered in a working place.
- Surface cracks were present in several of the 14 entries. (See sketch on page 5).
- The victim's body was eventually found and recovered in the last open intersection of the No. 3 entry.

- A roof fall was discovered in the No. 2 entry during the on-site investigation on 10/27/03. The fall is similar in characteristics to the roof fall involved in the fatal accident. The approximate measurements of the fall in the No. 2 entry are 50 foot long, 17 feet wide and 62 inches thick. There was also a surface crack observed in the No. 2 entry.
- Two other reportable roof falls have occurred in the mine. The first roof fall occurred 5/18/01 on the Northeast Mains Section in an intersection beside a surface crack. The approximate measurements of the first roof fall are 15 feet long, 12 feet wide and 66 inches high. The second roof fall occurred 6/06/01 on the 2 Northeast Mains Section in an intersection. The approximate measurements of the second roof fall are 25 feet long, 25 feet wide and 7 feet high. Also, during interviews six (6) statements were given stating that approximately 6 to 8 weeks prior to the fatal roof fall accident a similar type roof fall occurred in the No. 1 entry during development mining on the section.

Conclusion

Richard Harlan was fatally injured by a roof fall while traveling through the last open intersection in the No. 3 entry. The roof fall started in the pillared area overriding breaker posts and extending outby and through the intersection along a surface crack for a distance of approximately 96 feet.

Enforcement Action

A non-assessed control order was issued in accordance with Title 36, Series 19, Section 7.1 of the West Virginia Mining Laws, Rules and Regulations.

The West Virginia Office of Miners' Health, Safety and Training issued 2 notices of violation during this investigation. One is considered to have contributed directly to the accident listed as follows.

The West Virginia Code Chapter 22A, Article 2, Section 25(a).

It was revealed during the investigation that the mine roof was not supported or controlled adequately to protect persons from a fall of the roof in the No. 3 Entry on the 1-Left Section. A large roof fall occurred fatally injuring Richard L. Harlan II who was traveling through the last open intersection in the entry. The roof fall started in the pillared out area and continued through the breaker posts for a distance of 96 feet long, 14 feet wide and 62 inches high approximately, a surface crack was present along the left side of the roof fall.

Recommendations

The roof control plan shall be revised to address current mining conditions. Management shall train all employees on the revisions of the roof control plan.

* **See Appendix**

Acknowledgement

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the employees and management of Roblee Coal Company, Wolfe and Associates Engineers, Consultants and the Mine Safety and Health Administration.

Respectfully Submitted



Terry Farley, Administrator

11-24-03
Date



Brian Mills, Inspector-At-Large

11-20-03
Date



Mark Wilfong, Assist. Inspector-At-Large

Date



James Whetsell, Roof Control Inspector

11-21-03
Date



Billy Tankersley, District Mine Inspector

11-20-03
Date

APPENDIX

- * **Revisions to Roof Control Plan**
- * **Mine Date Sheet**
- * **Victim Data Sheet**
- * **Supplemental Information**
- * **List of persons providing information or present during the investigation**

Revisions To Roof Control Plan

- * No second mining will be conducted within 100 feet of the outcrop or highwall.
- * When a surface crack is present in areas where second mining is to be conducted:
 1. Three rows of posts (solid and no split) on 4 centers will be set at the intended breakline to all approaches to the gob.
 2. Before mining is started, all intersections across the section in the last open row of crosscuts and the next to the last row of crosscuts will be checked for surface cracks. If surface cracks are present, the intersections will be supplementally supported with six (6) cable bolts. The cable bolts will be a minimum of 8 feet in length or longer if needed to anchor in competent strata.
 3. Pushouts will not be mined.
- * Test holes, 1-foot longer than the bolts being used, will be drilled every 40-foot of advance and left open and identified in a manner so they may be found prior to second mining. Prior to starting pillar lifts, the test holes in the roadway to the pillar block to be mined will be tested for separations and strata movement.
- * When mining approaches within 150 feet of the outcrop or highwall, the minimum roof support will be a 5-foot resin bolt with oversized bearing plates. When mining approaches within 100 feet the entry and crosscut widths will also be reduced to 16 feet. When mining approaches within 50 feet of the outcrop or highwall, crossbars on 4-foot centers, installed on posts or pin rails will be set in addition to the above.
- * 4.(a) When we approach within 150 feet of the outcrop or highwall, it is our intention to make good visual examinations of the approaching area and to observe the roof for any surface fractures or other hazardous conditions created by water seepage and geological irregularities. As we continue to monitor the area, if conditions change, we will make the necessary adjustments to

correct any hazards. Also, this applies to second mining.

The following bolts may be used as supplemental support:

Resin Cable Bolt

Minimum Length:	8 Ft.
Diameter:	0.600"
Grade:	270 K
Hole Size:	1-Inch
Torque Range:	not tensioned
Type of Anchorage:	4' resin

***Bearing plates will be compatible in strength with the bolt being used.**

Mine Information

COMPANY: Roblee Coal Company

MINE NAME: Hackers Creek Mine No. 1

ADDRESS: P. O. Box 2198, Buckhannon, WV 26201

COUNTY: Upshur

DATE PERMIT ISSUED: July 10, 2000 **WORKING STATUS:** Active

LOCATION: Near Hodgesville, West Virginia

UNION: _____ **Non-Union** Yes

DAILY PRODUCTION: 600 Tons

ANNUAL PRODUCTION TO DATE: 162,062 (10/01/03)

TOTAL EMPLOYEES: 21 **NUMBER OF SHIFTS:** 2

NAME OF COAL BED: Redstone **SEAM THICKNESS:** 60 Inches

ACCIDENT INCIDENT RATE: 3.50 **LOST TIME ACCIDENTS:** 1

TYPE OF HAULAGE: Shuttle Car - Belt Conveyor

WV OMHST INSPECTOR: Bill Tankersley

DATE OF LAST INSPECTION: August 6, 2003 (Last Regular)

NOTIFIED BY: Robin Jeran

TIME OF NOTIFICATION: 11:00 A.M.

CMSP-ANNIVERSARY DATE: July 10, 2004

CMSP-CONTACT PERSON: Robin Jeran

Victim Information

NAME OF VICTIM: Richard L. Harlan, II

ADDRESS: P. O. Box 64, Norton, WV 26285

AGE: 29 **SOCIAL SECURITY NUMBER:** [REDACTED] 3776

TOTAL MINING EXPERIENCE: 2 Years 9 Months

EXPERIENCE AT THIS MINE: 2 Years 2 Months

OCCUPATION AT TIME OF ACCIDENT: Utilityman

REGULAR OCCUPATION: Utilityman

AVERAGE NUMBER OF HOURS WORKED PER WEEK: 40 Hours

AVERAGE NUMBER OF HOURS WORKED PER DAY: 8 Hours

TRAVEL TIME TO AND FROM WORK: 35 Minutes

AVERAGE NUMBER OF DAYS WORKED PER WEEK: 5 Days

NORMAL HOURS WORKED PER-SHIFT- 8HR., 10HR., 12HR., ETC: 8 Hour

COAL MINER'S CERTIFICATION: 7-52

OTHER CERTIFICATIONS: None

SPOUSE'S NAME: N/A

DEPENDENTS: N/A

DATE OF ACCIDENT: 24TH DAY OF October, 2003 AT 10:20 O'CLOCK AM

CAUSE OF ACCIDENT: While traveling through the last open crosscut in the No. 3 Entry, Mr. Harlan was fatally injured by a roof fall.

INVESTIGATION

The following persons were present during the on-site investigation and victim recovery on October 24, 2003.

Roblee Coal Company

Joseph Johnson	Director/Production & Maintenance
Mark Chewning	Day Shift Section Foreman
Ryan Jeran	Electrician
Mark Westfall	Miner Operator
Rocky Scott	Shuttle Car Operator
Richard Gear	Roof Bolting Machine Operator
Kendall Riggleman	Midnight Shift Foreman

Mine Safety and Health Administration

Kenneth Tenney	Supervisory Coal Mine Safety & Health Inspector
James Satterfield	Supervisory Coal Mine Safety & Health Inspector
Jan Lyall	Coal Mine Safety & Health Inspector (Roof Control)
Ronald Wyatt	Staff Assistant
Gregory Fetty	Industrial Hygienist

WV Office of Miners' Health, Safety and Training

Mark Wilfong	Assistant Inspector-At-Large
Bill Tankersley	District Mine Inspector
Albert Lechiara	District Mine Inspector

INVESTIGATION

The following persons were present during the on-site investigation on October 27, 2003.

Roblee Coal Company

Kendall Riggleman
Mark Chewning

Midnight Shift Foreman
Day Shift Foreman

Wolfe and Associates Engineers, Consultants

Bradley Crandall
Jeremy Devine

Surveyor
Chainman

Mine Safety and Health Administration

Jan Lyall

William Gray
John Cook

Coal Mine Safety & Health Inspector
(Roof Control)
Mine Engineer (Tech Support)
Mine Engineer (Tech Support)

WV Miners' Health, Safety and Training

Brian Mills
Mark Wilfong
James Whetsell
Bill Tankersley

Inspector-At-Large
Assistant Inspector-At-Large
Roof Control Inspector
District Mine Inspector

INTERVIEWS

The following persons were present during interviews on October 27, 2003.

Roblee Coal Company

Robin Jeran	Prsident
*Jeffery Tenney	Roof Bolter
*Timothy Tenney	Roof Bolter
*Marshall Scott	Utilityman
*Russell Kent Humpheries	Shuttle Car Operator
*Steven Arbogast	Miner Helper
*Thomas Elmore	Miner Operator
*William Coberly	Shuttle Car Operator
*Ryan Jeran	Electrician
*Mark W. Chewning	Section Foreman

Mine Safety and Health Administration

Greg Fetty	Industrial Hygienist
Jason Rinehart	Industrial Hygienist

WV Miners' Health, Safety and Training

Terry Farley	Administrator
Brian Mills	Inspector-At-Large
Mark Wilfong	Assistant Inspector-At-Large
Bill Tankersley	District Mine Inspector

*Denotes Interviewed

INTERVIEWS

The following persons were present during the on-site investigation on October 29, 2003.

Mine Safety and Health Administration

Nelson Blake
Jason Rinehart
Mike Evanto

Chief, Roof Control Inspector
Industrial Hygienist
Geologist

WV Miners' Health, Safety and Training

Bill Tankersley
James Whetsell

District Mine Inspector
Roof Control Inspector

The following persons were present during interviews on October 29, 2003.

Roblee Coal Company

Robin Jeran
*Kenneth Riggleman
*Dale Harlan

President
Section Foreman
Mine Foreman

Mine Safety and Health Administration

Jason Rinehart

Industrial Hygienist

WV Miners' Health, Safety and Training

Mark Wilfong
Terry Farley

Assistant Inspector-At-Large
Administrator

*Denotes Interviewed