



April 28, 2008

MEMORANDUM FOR RICHARD E. STICKLER

Acting Assistant Secretary
Mine Safety and Health

FROM:

CHARLES J. THOMAS

Director, Office of Accountability

A handwritten signature in cursive script that reads "Charles J. Thomas".

SUBJECT:

MSHA Office of Accountability Audit, Albuquerque,
New Mexico Field Office, and the [REDACTED]

Introduction

This memorandum summarizes an Office of Accountability audit of the subject mine and MSHA field office. Audit subjects included MSHA field activities, level of enforcement, gravity and negligence determinations, supervisory oversight including Field Activity Reviews (FARs) and accompanied inspections, conditions and practices in the mine, approved plans, Peer Reviews, and the Uniform Mine File (UMF). The audit was conducted the week of [REDACTED] by Jerry Kissell, Arlie A. Webb, and Charles J. Thomas. Both positive findings and issues requiring attention are included in this audit report.

Overview

The audit revealed several positive findings related to MSHA activities, including documentation indicative of complete, thorough inspections. Several positive findings regarding the mine operator's efforts, such as the Lock-out/Tag-out program for mobile and support equipment, haul road design and maintenance, berming, communications, and the simulator training program were also noted.

Included are recommendations to enhance the inspector's ability to promote compliance, as well as issues that will require corrective actions. Among these recommendations are the need for inspectors and supervisors to pay closer attention to detail regarding documentation of the violations, level of enforcement, and determination of gravity and negligence. In addition, a closer review of MSHA Form 7000-1 accident and injury reports is needed to ensure the information is accurate.

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received
4/30/08 - *had to wait for IS reports*

There were no headquarters or district Peer Reviews conducted during FY 2007 that involved this mine or this field office.

Audit Results (Positive Findings)

1. E01 inspection reports and accompanying documentation for the 2nd quarter of FY 2007, and the 4th quarter of FY 2007 indicated the mine was inspected in its entirety;
2. During the most recently completed E01 inspection (1st quarter of FY 2008), inspectors spent an average of 57% of the total E01 time on-site, with 31% spent on travel, 12% of the event time was spent on "other" inspection activities.
3. In the open pit, three Caterpillar 793-D haul trucks and 2 P&H shovels were inspected. One 52 minute round trip haul truck ride along was completed with a new miner. (6 months total experience) The mechanics shop and tire shop were also inspected.
4. The training plan was reviewed prior to the mine visit. Interviews with mine personnel indicated that thorough training had been conducted.
5. An effective Lock-out and tag-out policy was observed. This policy ensures that all persons use their individual lock when participating in equipment maintenance or repair. Additional procedures are included for mobile equipment inspections and circuit protection. The policy also provides a hazard zone that must not be entered if an individual has not provided their lock on the primary lock-out box. The Policy is attached in attachment A.
6. The mine's communication system is very good. The "Dispatch" building, also known as the "Field Office" is located on a ridge overlooking the pit areas. The dispatcher gives assignments to operators and can observe their position most of time as well as most of the pit haulage roadways.
7. The "field office" has computer links to the ground monitoring warning system. If ground movement is detected, at the minimum movement action level, the "field office" notifies all person's affected and directs the areas to be evacuated. There are additional actions for notification in the plan as well.
8. The mine owns and utilizes a simulator for training purposes. This simulator also for training miners to become accustom to equipment operation for the Caterpillar haul trucks, P&H shovels, and other mobile equipment. The software is designed and utilizes the actual mine sight topography and haulroad locations for the purpose of the training.

9. This system allows training personnel to evaluate and score individuals without exposing them or others to hazards of equipment operation. The simulator allows for the creation of equipment emergencies such as an electrical malfunction, tire blow-outs, mobile equipment fires, steering loss and other related equipment failure emergencies.

Emergency Response

This operation has a policy for pit evacuation in the event of substantial ground movement. Detection instrumentation that is installed at key locations has a minimum tolerance which will activate the emergency notification protocol. Emergency numbers and order of notification are posted in the "Field Office" (dispatch).

In the event of a fire, the company has a trained fire brigade available to handle most any mine site fire event. They are coordinated with the local EMS from the communities of [REDACTED] in the event they need additional support. Training is done more frequently than the minimum bi-annual requirements of the CFR 56.4331 standard.

Mine Visit

The audit team conducted in-mine activities on day shift on [REDACTED]

During a review of the mines NFDL rate with the companies safety professionals, it was determined that a contractor to this mine and two other affiliated mines with separate mine ID numbers, had incorrectly charged eight of their reportable accidents to the [REDACTED]. This error resulted in an increased NFDL rate, which was one of the criteria that brought this mine to the attention of the Office of Accountability. This error was not caught by the mine operator until the audit team provided the data used for selecting this mine as part of the audit.

Both the MSHA field office and the company will review more diligently the nature and location of reportable accidents. The company will also initiate a second level review prior to submitting the MSHA 7000-1 accident and injury report to ensure correct reporting.

Recommendation - A supervisor audit of all the current MSHA 7000-1 accident and injury report forms is recommended to verify correct reporting under 30 CFR part 50 requirements.

The mine was clean and well maintained in most all areas visited by the audit team. Production areas and associated haulage ways were clean and well maintained.

The mining equipment observed and inspected was maintained in good condition. (Most equipment is fairly new, specifically the haulage truck fleet of 28 haul trucks.)

Miners, miners' representatives, and mine management appear to have a cooperative and positive attitude toward safety and health issues. The mine management at this mine has been in position for some time, and has an established open communication with the work force that helps address major improvements and mining practices cooperatively and timely in most cases.

The work force is predominately new, as **80 percent of the employees have 2 years or less experience.**

The operator has established Job Safety Analysis (JSA) for most tasks at the mine and the program is tightly followed: One example is the Lock-out/tag-out policy (LOTO). All persons involved in maintenance and repair must place there tagged lock on a master lock box that is controlled by a lead person for lockout safety, before entering the hazard perimeter of the equipment to commence work. This practice was observed and appears very effective to ensure the safety of all persons in the area of equipment maintenance and repair activity. An example is for the large shovels that load the haulage trucks, a Lock-out tag-out sign is posted at minimum of 50 feet from the shovel. Any person accessing the shovel must apply their individual lock on the supplied lock box at this sign before entering the 50 foot hazard zone of the shovel.

The haul road design and maintenance adequately engineered and maintained at this mine site. Roadways traveled were maintained to adequately handle the equipment that traveled the roadways with no compromise to vehicles traveling in either direction. The berming was mainlined easily above the minimum mid-axel height requirements. Most locations observed, the berming met at least three-quarters or higher on the tires of the largest equipment that traveled the roadway.

Enforcement activities

During the mine visit, six citations were issued for the following observed violations. Copies of the citations are included in Attachment B.

- 30 CFR § 56.14100(b) - A Defect affecting safety was observed on the man-hoist for the #34 P&H shovel. The latching mechanism did not secure the man-hoist to the shovel platform as designed exposing persons to a falling hazard.
- 30 CFR § 56.11001 - A safe means of access to the #34 shovel saddle block was not maintained. Broken welds were observed in 3 locations along the ladder-way. (Area is accessed for maintenance only)

- 30 CFR § 56.14100(b) - Defect affecting safety were observed on the man-hoist for the #43 P&H shovel. The latching mechanism did not secure the man-hoist to the shovel platform as designed exposing persons to a falling hazard.
- 30 CFR § 56.3200 - Loose and unconsolidated materials were observed on the [REDACTED] area highwall. Equipment was observed working parallel to the toe under these conditions. Materials were observed falling after persons were removed from the area. Materials could fall from more than 600 feet above this area of the pit. A safety perimeter was established in this area and MSHA tech support was requested to assist in evaluating the safety necessities for this area to ensure that miners are protected from falling material hazards. (A laser range finder was used to determine distances for hazardous conditions, and heights.) NOTE: MSHA's tech support group was requested to assist with a falling materials analysis for determining an appropriate safety zone at the toe areas. [REDACTED] from Tech Support traveled to the mine site the week following the mine visit to assist the MSHA field office and its staff. A tech support report on this action is included in Attachment C.
- 30 CFR § 56.12004 - A 480 VAC 6/4 type SOOW electrical cable was pulled out of the fitting on the Miller welder. This allowed inner conductors to be exposed to potential mechanical damage. The welder was in the Mechanics shop.
- 30 CFR § 56.14100(b) - The 20 ton #5 overhead crane located in the mechanics shop had the wire ropes threaded as to where they contacted one another in the way they were lain on the device. This citation was further investigated and upon documentation was found to be correctly assembled and the citation was recommended for the operator to request it be vacated

Training Plan

The company training plan was in order, current, and had been reviewed and approved by MSHA.

Audit Results (Issues Requiring Attention)

Inspections Reports

1. Issues regarding E01 Event for the 4th Quarter of FY 2007 include: (See Attachment D
 - a. Inadequate inspection time on evening and midnight shifts.
 - b. Level of enforcement did not appear commensurate with citations and documentation.
 - c. Gravity and negligence factors were not adequately documented with consistency.

2. Issues regarding E01 Event for the 2nd Quarter of FY 2007 include: (See Attachment E
 - a. Gravity and negligence factors were inadequately documented.

Enforcement

1. The overall enforcement levels reviewed in comparison to the mine conditions appear to be accurate and in line with policies. Documentation on the MSHA form 4000-49e for justification on gravity likelihood and negligence in some notes were not detailed to indicate thorough interviewing was completed to justify the level of enforcement was accurate. Several citations were selected as examples, and are discussed in the attachments covering their respective inspection quarters.

Recommendation – The audit team recommends that MNM adopt a policy when practical requiring inspection personnel to issue all citations, orders, etc. prior to leaving the mine site each day. MSHA computers, printers, power converters, and other peripherals are provided for this purpose and can be used in an office setting or in the inspector’s vehicle. This policy will ensure that miners, mine operators, and others are adequately and accurately informed regarding the enforcement actions taken each day of the inspection. During the closeout conference, supervisors and managers indicated this would not pose any additional burdens on the inspectors at this particular property.

Field Activity Reviews (FARs)/Accompanied inspections

Field Activity Reviews were conducted during the 2007 fiscal year. FAR’s were included as part of the accompanied field inspections. The field office supervisor conducted 11 FAR’s in 2007 and 7 in 2008. These field activity reviews conducted in 2007 were completed on [REDACTED]

[REDACTED] All were conducted during E-01 inspections, most accompanied were only one day of a multiple day inspection. In each case, the supervisor accompanied the inspector the entire day of the inspection. Documentation was completed by the Field office supervisor identifying positive feedback, as well as areas for improvement in inspection process. The field office supervisor identified two inspectors received only one accompanied inspection during 2007 . This was due to the one inspector being off duty [REDACTED]

[REDACTED] The other inspector was a participant in [REDACTED]

Peer Reviews

No district level peer reviews were completed for this field office or mine operator during the fiscal year 2007. In addition, there were no headquarters reviews conducted during 2007 in the South Central District. This is consistent with previous PEER review program whereas not every field office received a review on a yearly basis)

(Handbook AH04-III-10, pp 3 & 4)

Attention Required – Peer Reviews should be conducted as per the current handbook, and the process should not be considered complete until an action plan with timelines and methods for measurement are implemented by the District Manager.

Attachments

- A. Lock-out/Tag-out documents (Mobile equipment policies)
- B. Citations issued during this audit
- C. Tech Support report on [REDACTED] highwall ground hazards
- D. Review of E01 inspection report for 4th quarter of FY 2007
- E. Review of E01 inspection report for 2nd quarter of FY 2007

LOTOTO for Trucks & Support Equipment

LOTOTO Policy for Trucks and Support Equipment

The purpose of the LOTOTO policy for Trucks and Support Equipment is to prevent inadvertent release of energy while performing work on mobile equipment. All employees will follow the general rule of “one lock-one tag-one person”. A person working on, getting on, or under equipment will require LOTOTO. The only exception is when chocking the equipment.

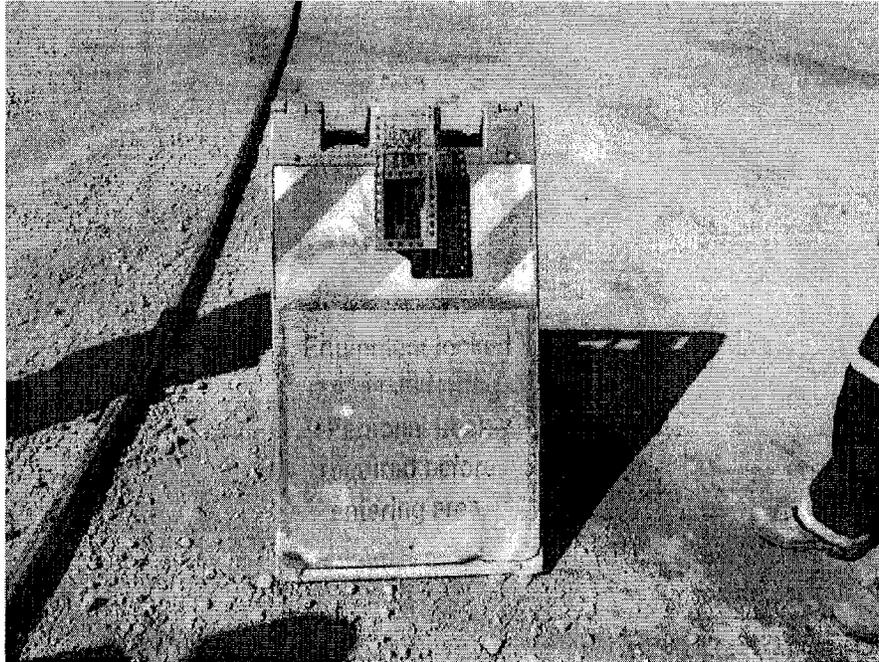
There are three possible types of lock out used:

LOTOTO for Trucks & Support Equipment

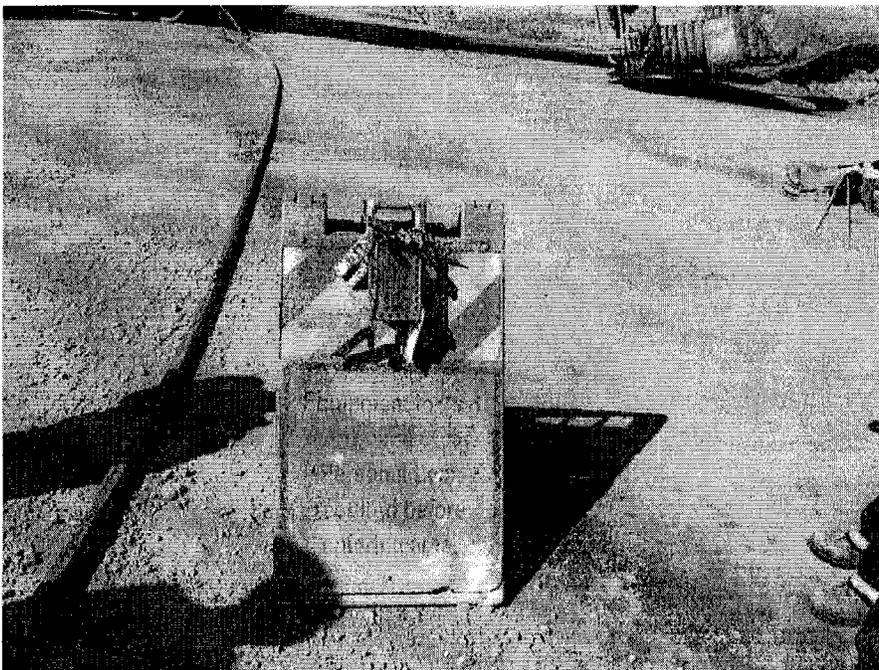
- 1) Complete lock out** at the master switch for work that does not require any sort of power to accomplish work. For this process one must lock out at the master switch, try out the effectiveness of the lock out and hang his/her tag on the lock.
- 2) Starting circuit lock out** which disables the starting circuit, for work requiring electrical power for trouble shooting or repairs. For this process lock out will be at the lock out point that disables the starting system, (i.e., either an air valve on air starts or solenoid circuit lock out switch). Test the lock out by trying out and tagging out.
- 3) Running check lock out:** This work requires the engine to run for certain tests. In the event the truck needs to remain running, a safety cable or gate, with "Danger Hazard Area" sign will be placed across the boarding ladder access with the LOTOTO lock in the middle of the tag to prevent access to the operator's cab during adjustments, checks, sampling, or tests.
- 4) Knowing and willing violation of this policy is viewed as a zero tolerance violation.**

Supplement: Trucks & Support Equipment

- **Flagging:** When equipment is down for maintenance in the field, an orange vinyl flag will be displayed. Equipment will not be moved while the flag is displayed. An 18" X 18" orange vinyl safety flag will be kept in the cab and placed on the handrail by the operator or mechanic to identify down equipment.
- An "Out of Service" Tag will be used to prevent startup when a maintenance employee is not working on the equipment but there is a maintenance issue that prevents operation. **The use of a maintenance tag IS NOT a substitute for LOTOTO process.**
- **Haul Truck Pre-Operation Inspection:** a safety cable or gate, with "Danger Hazard Area" sign will be placed across the boarding ladder access with the LOTO lock and tag installed in the middle of the sign to prevent access to the operator's cab during Pre -Operation inspection.
- **Support Equipment Pre-Operational Inspection:** When visibility of operators cab is restricted during Pre-Operational inspection a safety cable or gate with a "Danger Hazard Area" sign will be placed across the boarding ladder(s) access, a lock and tag will be installed in the middle of the sign or when a ground lockout point is available use lockout tagout process to prevent equipment from being started.



This LTO board is maintained on the shovel. When the shovel is to be locked out, the master lockout key is placed in the box and, as viewed in the next photo, every individual accessing this equipment places their own lock on this lock-out box.



After employee locks are in place, the LTO board is placed at a safe distance from the equipment and company policy specifies that no person is allowed to travel past the board unless they have placed a lock on this lock-out box.

Attachment B - Citations issued during audit

Mine Citation/Order U.S. Department of Labor
Mine Safety and Health Administration

Section I - Violation Data	
1. Date Mo Da Yr	2. Time (24 Hr. Clock)
3. Citation/Order Number	
4. Signed To	5. Operator
6. Mine	7. Mine ID
(Contractor)	

8. Condition of Practice B.a. Written Notice (103g)

The latch on the # 34 P&H shovel man hoist would not function the way it was designed to latch as it would not latch into the proper hole. The employees use this access to get up and down off the shovel. This hazard could have caused serious injury to employees using the man hoist.

See Continuation Form (MSHA Form 7000-3a)

9. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR	56.14100b
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Section II - Inspector's Evaluation

10. Gravity				
A. Injury or illness (has) (is): No Likelihood <input type="checkbox"/> Unlikely <input checked="" type="checkbox"/> Reasonably Likely <input type="checkbox"/> Highly Likely <input type="checkbox"/> Occurred <input type="checkbox"/>				
B. Injury or illness could reasonably be expected to be: No Lost Workdays <input type="checkbox"/> Lost Workdays Or Restricted Duty <input type="checkbox"/> Permanently Disabling <input checked="" type="checkbox"/> Fatal <input type="checkbox"/>				
C. Significant and Substantial: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				D. Number of Persons Affected: 001
11. Negligence (check one) A. None <input type="checkbox"/> B. Low <input type="checkbox"/> C. Moderate <input checked="" type="checkbox"/> D. High <input type="checkbox"/> E. Reckless Disregard <input type="checkbox"/>				
12. Type of Action: [0-8a]		13. Type of Issuance (check one) Citation <input checked="" type="checkbox"/> Order <input type="checkbox"/> Safeguard <input type="checkbox"/>		
14. Initial Action: A. Citation <input type="checkbox"/> B. Order <input type="checkbox"/> C. Safeguard <input type="checkbox"/> D. Written Notice <input type="checkbox"/>				E. Citation/Order Number
F. Dated Mo Da Yr				

15. Area or Equipment	
16. Termination Due	
A. Date Mo Da Yr	B. Time (24 Hr. Clock)

Section III - Termination Action

17. Action to Terminate	
18. Terminated	
A. Date Mo Da Yr	B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code): E16	20. Event Number	21. Primary or Mill P
22. Signature		23. AR Number

MSHA Form 7000-3, Mar 05 (rev 06/05) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-REG-FAIR (1-888-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 409 3rd Street SW, NW 2120, Washington, DC 20416. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

Attachment B - Citations issued during audit (cont.)

Mine Citation/Order		U.S. Department of Labor Mine Safety and Health Administration	
Section I - Violation Data			
1. Date Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/Order Number	
4. Served To		5. Operator	
6. Mine		7. Mine (Contractor)	
8. Condition or Practice		8a. Written Notice (103g)	
<p>A safe means of access was not provided and maintained to the saddle block of the # 34 P&H shovel as the weld had broken off in three sections. This hazard could have caused serious injury to employees using the access ladder.</p>			
See Continuation Form (MSHA Form 7000-3a)			
9. Violations	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR 56.11001
Section II - Inspector's Evaluation			
10. Gravity:			
A. Injury or illness (has) (is): No Likelihood <input type="checkbox"/> Unlikely <input checked="" type="checkbox"/> Reasonably Likely <input type="checkbox"/> Highly Likely <input type="checkbox"/> Occurred <input type="checkbox"/>			
B. Injury or illness could reasonably be expected to be: No Lost Workdays <input type="checkbox"/> Lost Workdays Or Restricted Duty <input type="checkbox"/> Permanently Disabling <input checked="" type="checkbox"/> Fatal <input type="checkbox"/>			
C. Significant and Substantial: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			D. Number of Persons Affected: 001
11. Negligence (check one): A. None <input type="checkbox"/> B. Low <input type="checkbox"/> C. Moderate <input checked="" type="checkbox"/> D. High <input type="checkbox"/> E. Reckless Disregard <input type="checkbox"/>			
12. Type of Action: I (04a)		13. Type of Issuance (check one): Citation <input checked="" type="checkbox"/> Order <input type="checkbox"/> Safeguard <input type="checkbox"/>	
14. Initial Action: A. Citation <input type="checkbox"/> B. Order <input type="checkbox"/> C. Safeguard <input type="checkbox"/> D. Written Notice <input type="checkbox"/>		E. Citation/Order Number	F. Dated: Mo Da Yr
15. Area or Equipment			
16. Termination Due: A. Date: Mo Da Yr B. Time (24 Hr. Clock)			
Section III - Termination Action			
17. Action to Terminate			
18. Terminated: A. Date: Mo Da Yr B. Time (24 Hr. Clock)			
Section IV - Automated System Data			
19. Type of Inspection (activity code): E16	20. Event Number	21. Primary or MIP: P	
22. Signature			23. AR Number
<small>MSHA Form 7000-3, Mar 85 (revised) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-REG-FAIR (1-888-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 409 3rd Street, SW, MC 2120, Washington, DC 20416. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.</small>			

Attachment B - Citations issued during audit (cont.)

Mine Citation/Order		U.S. Department of Labor Mine Safety and Health Administration	
Section I - Violation Data			
1. Date	Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/Order Number
4. Served To	5. Operator		
6. Mine	7. Mine ID (Contractor)		
8. Condition or Practice		8a. Written Notice (103g)	
<p>The latch on the # 43 P&H shovel man hoist would not function the way it was designed, in that the latch was binding up and hard to release if need to escape in an emergency. The employees use this access to get up and down off the shovel on each shift. This hazard could have caused serious injury to employees using the man hoist.</p>			
See Continuation Form (MSHA Form 7000-0a)			
9. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR
			56.14100b
Section II - Inspector's Evaluation			
10. Gravity:			
A. Injury or illness (has) (is) No Likelihood <input type="checkbox"/> Unlikely <input checked="" type="checkbox"/> Reasonably Likely <input type="checkbox"/> Highly Likely <input type="checkbox"/> Occurred <input type="checkbox"/>			
B. Injury or illness could reasonably be expected to be: No Lost Workdays <input type="checkbox"/> Lost Workdays Or Restricted Duty <input type="checkbox"/> Permanently Disabling <input checked="" type="checkbox"/> Fatal <input type="checkbox"/>			
C. Significant and Substantial: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			D. Number of Persons Affected: 001
11. Negligence (check one) A. None <input type="checkbox"/> B. Low <input type="checkbox"/> C. Moderate <input checked="" type="checkbox"/> D. High <input type="checkbox"/> E. Reckless Disregard <input type="checkbox"/>			
12. Type of Action 104a		13. Type of Issuance (check one) Citation <input checked="" type="checkbox"/> Order <input type="checkbox"/> Safeguard <input type="checkbox"/>	
14. Initial Action A. Citation <input type="checkbox"/> B. Order <input type="checkbox"/> C. Safeguard <input type="checkbox"/> D. Written Notice <input type="checkbox"/>			E. Citation/Order Number
			F. Dated Mo Da Yr
15. Area or Equipment			
16. Termination Due A. Date Mo Da Yr B. Time (24 Hr. Clock)			
Section III - Termination Action			
17. Action to Terminate			
18. Terminated A. Date Mo Da Yr B. Time (24 Hr. Clock)			
Section IV - Automated System Data			
19. Type of Inspection (Activity Code) E16		20. Event Number	21. Primary or MH P
22. Signature			23. AR Number
<p>MSHA Form 7000-3, May 65 (rev. 6-83) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-REG-FAIR (1-888-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 400 3rd Street, SW, MC 2120, Washington, DC 20418. Please note, however, that your right to file a comment with the Ombudsman is, in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.</p>			

Attachment B - Citations issued during audit (cont.)

Mine Citation/Order

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



Section I - Violation Data

1. Date Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/Order Number
4. Served To	5. Operator	
6. Mine	7. Mine ID	(Contractor)
8. Condition or Practice		8a. Written Notice (105g)

The ground condition in the Lee Hill pit area that created a hazard to persons shall be taken down or supported before other work or travel is permitted in the affected area. The benches in various areas were full of material where it did not provide a catch berm and a dozer # 394 was working in parallel to the high wall in the affected area. The area also had other equipment in the area. Lee Hill pit area had some material coming down off the high wall. The pit had some large rocks on the edge of a bench about 600 feet when using a range finder.

See Continuation Form (MSHA Form 7000-3a)

9. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR
			56.3200

Section II - Inspector's Evaluation

10. Gravity:						
A. Injury or illness (has) (s):	No Likelihood	Unlikely	Reasonably Likely	Highly Likely	Occurred	
B. Injury or illness could reasonably be expected to be:	No Lost Workdays	Lost Workdays Or Restricted Duty	Permanently disabling	Fatal		
C. Significant and Substantial:	Yes	No	D. Number of Persons Affected: (0)			
11. Negligence (check one)	A. None	B. Low	C. Moderate	D. High	E. Reckless Disregard	
12. Type of Action	104a	13. Type of Issuance (check one)		Citation	Order	Safeguard
14. Initial Action	A. Citation	B. Order	C. Safeguard	D. Written Notice	E. Citation/Order Number	F. Dated Mo Da Yr
15. Area or Equipment						

16. Termination Due	A. Date Mo Da Yr	B. Time (24 Hr. Clock)
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Section III - Termination Action

17. Action to Terminate		
18. Terminated	A. Date Mo Da Yr	B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code)	E16	20. Event Number	21. Primary or MII	P	23. AR Number
22. Signature					

MSHA Form 7000-3, use 9/20/2009. In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Farmers Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-REG-FAIR (1-888-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 409 3rd Street, SW, MC 2120, Washington, DC 20410. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

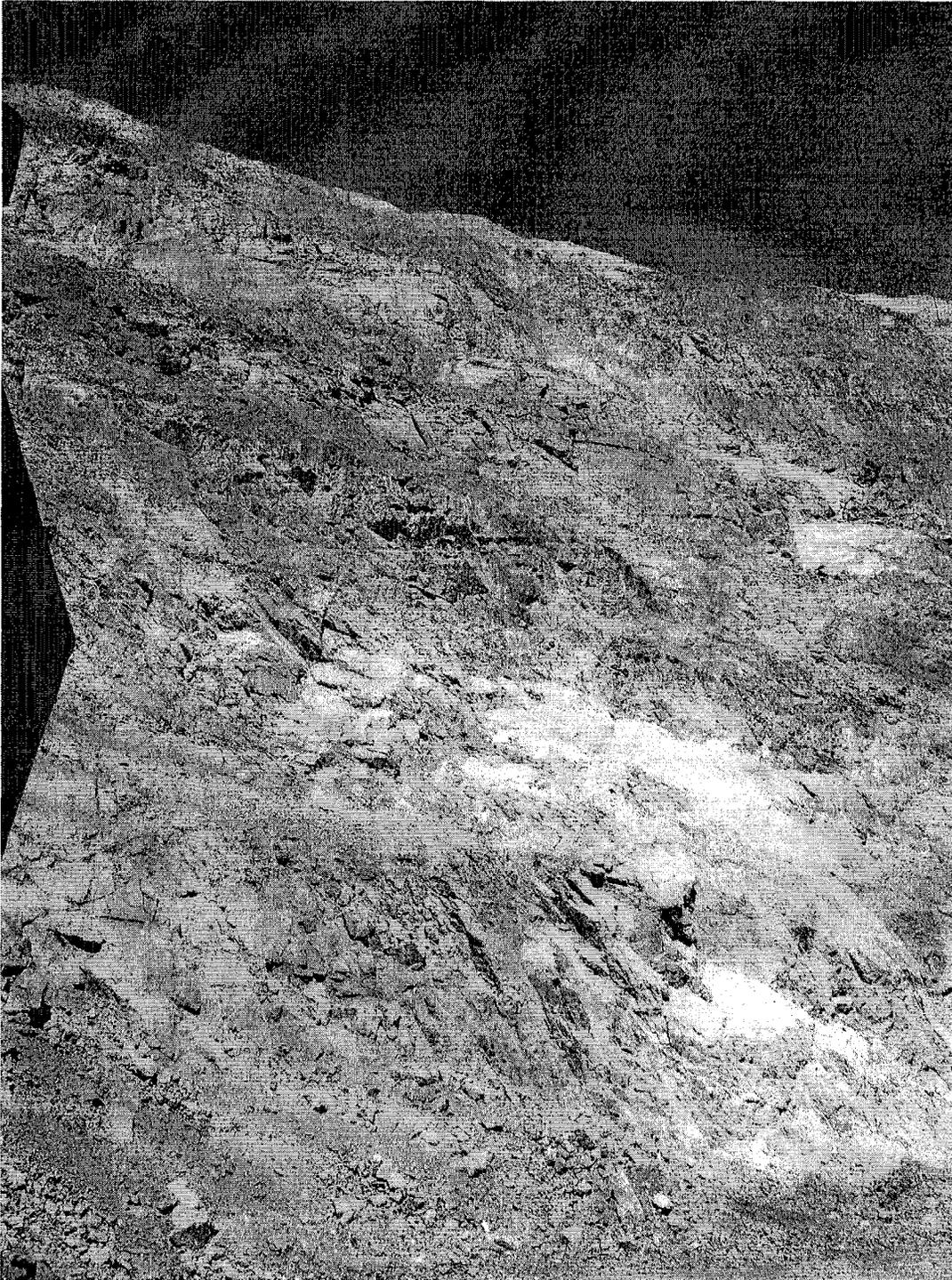


Photo of cited highwall area. There are from 18 to 20 benches in this area, with each bench averaging approximately 40 feet. Total high wall height between 720-800 feet high above the working pit.



Photo of falling materials observed at the time a citation was issued. Note the evidence of work activity around the toe of the highwall.

Attachment B - Citations issued during audit (cont.)

Mine Citation/Order

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



Section I - Violation Data

1. Date Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/ Order Number
4. Served To	5. Operator	
6. Mine ID	(Contractor)	
9. Condition or Practice		10. Written Notice (103g)

The 480 VAC 6/4 type SOOW electrical cable had pulled out of the fitting from the miller welder exposing the inner conductors to mechanical damage. The hazard was located inside the mechanic shop bay.

See Continuation Form (MSHA Form 7000-3a)

8. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR
			56.12004

Section II - Inspector's Evaluation

10. Gravity:	A. Injury or illness (has) (is):	No Likelihood	Unlikely	Reasonably Likely	Highly Likely	Occurred	
	B. Injury or illness could reasonably be expected to be:	No Lost Workdays	Lost Workdays Or Restricted Duty	Permanently disabling	Fatal		
	C. Significant and Substantial:	Yes	No	D. Number of Persons Affected: 001			
11. Negligence (check one)	A. None	B. Low	C. Moderate	D. High	E. Reckless Disregard		
12. Type of Action	104a		13. Type of Issuance (check one)		Citation	Order	Safeguard
14. Initial Action	A. Citation	B. Order	C. Safeguard	D. Written Notice	E. Citation/ Order Number		F. Dated Mo Da Yr

15. Area or Equipment

16. Termination Due	A. Date Mo Da Yr	B. Time (24 Hr. Clock)
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Section III - Termination Action

17. Action to Terminate The company had the electrician install the electrical cable back into the fitting and tightened the fitting.

18. Terminated	A. Date Mo Da Yr	B. Time (24 Hr. Clock)
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Section IV - Automated System Data

19. Type of Inspection (activity code)	20. Event Number	21. Primary or Mit
I:16		P
22. Signature	23. AR Number	

MSHA Form 7000-3, Mar. 85 (revised) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-FRG-FAIR (1-888-734-3347), or write the Ombudsman of Small Business Administration, Office of the National Ombudsman, 406 3rd Street, SW, MC 2120, Washington, DC 20416. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

Attachment B - Citations issued during audit (cont.) This citation was vacated after additional information was provided by the crane company.

Mine Citation/Order U.S. Department of Labor
Mine Safety and Health Administration 

Section I - Violation Data

1. Date Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/ Order Number
4. Served To	5. Operator	6. Mine ID
		(Contractor)
8. Condition of Place		9a. Written Notice (103g)

The # 5 overhead crane located in the north side of the shop had the 20 lb hoist that had the wire rope crossed to a point that they were rubbing. This hazard could have caused the wire rope to wear which could cause a failure in the future, allowing the load to fall onto the ground.

See Continuation Form (MSHA Form 7000-3a)

9. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR	56.14100b
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Section II - Inspector's Evaluation

10. Gravity:

A. Injury or illness (has) (is): No Likelihood Unlikely Reasonably Likely Highly Likely Occurred

B. Injury or illness could reasonably be expected to be: No Lost Workdays Lost Workdays Or Restricted Duty Permanently Disabling Fatal

C. Significant and Substantial: Yes No

D. Number of Persons Affected: 001

11. Negligence (check one): A. None B. Low C. Moderate D. High E. Reckless Disregard

12. Type of Action: 104a

13. Type of Issuance (check one): Citation Order Safeguard

14. Initial Action: A. Citation B. Order C. Safeguard D. Written Notice

E. Citation/Order Number

F. Dated: Mo Da Yr

15. Area or Equipment

16. Termination Due: A. Date Mo Da Yr B. Time (24 Hr. Clock)

Section III - Termination Action

17. Action to Terminate

18. Terminated: A. Date Mo Da Yr B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code): E.16

20. Event Number

21. Primary or Mif: p

22. Signature

23. AR Number

MSHA Form 7000-3, Mar 85 (revised). In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive complaints from small businesses about Federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-REG-FAIR (1-888-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 404 3rd Street, SW, MC 2120, Washington, DC 20416. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

Attachment C - Tech Support Report
[REDACTED] Highwall Report

U.S. Department of Labor

Mine Safety and Health Administration
Pittsburgh Safety & Health Technology Center
P.O. Box 18233
Pittsburgh, PA 15236



Mine Waste and Geotechnical Engineering Division

April 29, 2008

MEMORANDUM FOR CHARLES J. THOMAS
Director, Office of Accountability

THROUGH:

M. Terry Hoch
M. TERRY HOCH

Chief, Pittsburgh Safety and Health Technology Center

FROM:

Stanley J. Michalek
STANLEY J. MICHALEK

Chief, Mine Waste and Geotechnical Engineering Division

SUBJECT:

Field Investigation and Evaluation of Highwall Condition at

[REDACTED]

At your request, we have completed a field evaluation of the highwall conditions in two areas -

[REDACTED] which is attached, states that the proposed rockfall protection measures appear to be acceptable. Therefore, it is recommended that the company be permitted to continue to mine beneath the [REDACTED] staying back of the 12-foot-high berm placed approximately 80 feet from the base of the highwall. It is also recommended that the locations of the berms, placed across various three haul roads approaching the base of the highwall restricting access beneath the [REDACTED] are adequate. Please contact this office if there are any questions regarding this review.

Attachment

cc: M. Skiles - Director, TS
B. Wilson - Chief, Safety Div., MNM
E. Lopez - District Manager, SC District, MNM

UNITED STATES DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

PITTSBURGH SAFETY AND HEALTH TECHNOLOGY CENTER
MINE WASTE AND GEOTECHNICAL ENGINEERING DIVISION
COCHRANS MILL ROAD
P.O. BOX 18233
PITTSBURGH, PENNSYLVANIA 15236

REPORT NO. [REDACTED]

FIELD INVESTIGATION AND HIGHWALL EVALUATION
[REDACTED]

[REDACTED]

BY

DONALD T. KIRKWOOD, P.E.
CIVIL ENGINEER

LOCATION AND OWNERSHIP

[REDACTED]

BACKGROUND

On Wednesday, [REDACTED] we were requested by the Office of Accountability to visit the [REDACTED] and evaluate the adequacy of rockfall hazard remediation measures beneath the [REDACTED] highwall and the [REDACTED]. We were told that in both areas the highwall has failed and that although it appears unlikely that exposure to mass stability hazards is an issue, exposure to falling and rolling rocks from these areas should be evaluated. On [REDACTED] I visited the [REDACTED] viewed the highwall areas in question, talked to mine officials and engineers and gathered information in order to evaluate the rockfall characteristics in these two areas.

Prior to my mine visit on [REDACTED] I received from Freeport-McMoRan, a compact disc (CD) and a copy of a mine map showing the overall pit geometry, the locations of the two automatic survey robots, and the prisms which served as their targets. The two areas in question - [REDACTED] and the [REDACTED] - were identified with hand-drawn circles. This drawing was also contained, in digital form, on the CD and included elevations at 25-foot intervals. The CD also contained an Excel file with measurements of movement between [REDACTED] for five prisms.

MINE VISIT

I was accompanied to the [REDACTED] by [REDACTED] from the South Central MNM Albuquerque, New Mexico, Field Office. We were met at the mine by the following persons:

[REDACTED]

Pre-Inspection Meeting at the Mine Office

Prior to going into the pit, a meeting was held at the mine office to discuss the various issues related to ground control and rockfall hazards. In general, benches are placed every 50 feet in vertical height of the highwall at this mine with occasional double benches. The upper benches are older and tend to have more debris filling them. The highwall in the [REDACTED] is also older than the highwall in the [REDACTED]. Several small failures have occurred and they were determined to have been controlled by geological structure in those areas. Two of these small areas are present in the [REDACTED]. These failures have resulted in the debris cone and loose material for which the rockfall analyses were done. Other geologic structure controlled failures can be seen along the south highwall adjacent to the [REDACTED]. These failures have covered the closed haul road with slide debris.

A larger failure area is located within the [REDACTED]. This is the area referred to as the "large slide" or "large failure area" later in this report. This area reportedly has markedly different geology than the rest of the pit walls. In this area, an ancient geological valley (paleo-valley) filled with boulders was encountered. This was a weak area in the highwall. Previously, surface water flowed into this area, partially saturating this weak deposit, resulting in mass stability problems. The top of the pit in this area has since been reworked, preventing this infiltration of water and the area has subsequently stabilized.

Two robotic total stations constantly sweep the pit measuring displacement at prisms placed around the highwalls. Each robot covers roughly half of the pit. A large number of prisms are continually monitored by the robots. The highest density of these monitored prisms is just north of the [REDACTED]. Few prisms are within the [REDACTED] itself, probably because of the marginal stability of the area. A few prisms are located near the top of the zone. Few prisms can be found along the highwall in the northwest portion of the mine near the [REDACTED]. Again, this is reportedly an older section of the highwall and may predate the installation of the robotic monitoring stations. There are a few prisms just east and just west of the [REDACTED] but none within the area where the rockfall hazards are being evaluated.

For the last several years, the mine has employed a GroundProbe mobile slope stability radar monitoring unit. This slope stability radar monitor has more limited range than the robotic total stations but since it is mobile, it can be moved closer to an area to be monitored. Preset limits can be set such that any movement beyond these limits triggers an alarm. This radar unit had been monitoring the [REDACTED] highwall for about 1 week prior to this visit. The alarm limits are reportedly set at 1-inch-per-hour over 10 pixels. If this limit is exceeded, the alarm notifies the mine dispatch who then alerts the slope engineer. For scale, the 10- to 15-foot loose rock depicted in the close-up photo of the [REDACTED] debris cone (figure 4), is reportedly covered by 1.5 pixels of the radar unit in its current location.

The monitoring from the robotic total stations and from the slope stability radar unit has only detected negligible movements in the highwall above the [REDACTED]. The [REDACTED] is the only location that mining is being done in the pit bottom. Currently, the area at the top of the [REDACTED] is also being mined. It is expected that the mining at the base of the [REDACTED] will be completed quickly in about two months. At that point, mining will move to the top of the highwall in the [REDACTED] moving the pit toward the north and west. No mining will be done beneath the [REDACTED] until that highwall is mined from the top down to the pit bottom level.

Examination of the [REDACTED] Highwall

The pit is approximately 1.5 miles long along its long axis which is roughly northwest to southeast, and 1 mile wide along its short axis which is roughly northeast to southwest (figure 1). The [REDACTED] of the pit is on the northwest side. The base of the pit in this area and the current mining level are at approximate elevation of 5,300 feet. A berm had been placed across the pit floor at this 5,300-foot level (figures 2 and 3). Although we did not get close enough to verify the measurements, we were told that the berm was approximately 12 feet high and was 80 feet from the base of the highwall. The upper haul road ramp, above this area, is approximately at elevation 6,325 feet. There are two areas where the highwall has failed approximately between elevations 6,025 feet and 6,250 feet (figures 2 and 3). Much of the loose material and debris from these two slide areas came to rest on the benches above elevation 5,900 feet. However, some of the debris filled the benches immediately below the 5,900-foot elevation. It was the loose rocks in the area of the slide material, near the 5,900-foot contour, which was the primary concern for protection from rockfall hazards.

The slope stability radar monitoring unit was located along a haul road, at approximate elevation 5,560 feet about 1,000 feet southeast of the highwall. The radar unit was actively scanning the entire width and height of the [REDACTED] highwall. The data was being radioed back to the mine office.

The highwall in the [REDACTED] was viewed from four vantage points: the location of the Robot 2 total station on a point south of the highwall at approximate elevation 6,375 feet; the location of the slope stability radar monitoring unit described above; the waste rock dump location approximately 1,700 feet east of the highwall at approximate elevation 6,150 feet; and along the upper ramp haul road southwest of the highwall at approximate elevation 6,300 feet.

Examination of the [REDACTED] Highwall

The [REDACTED] is on the southeast side of the pit. There is a large failure area roughly between elevations 5,750 feet and 6,500 feet with a width of approximately 800 feet (figures 5 and 6). A smaller area of slides, southwest of this large slide area, extends from the closed haul road at approximate elevation of 5,725 feet up to approximate elevation 6,150 feet. Debris from this area has covered the closed haul road beneath.

Berms have been placed across three haul roads limiting access beneath these slide areas in the [REDACTED] (figures 5 and 6). There is no active mining beneath the [REDACTED] highwall, so the closest exposure would be at the berms blocking access to the haul roads. Two of these berms are relatively high up and to the side of the slide area. The more exposed berm is directly beneath the closed haul road beneath the slide area (figure 5). This berm was estimated to be in excess of 500 feet away from the base of the highwall beneath the closed haul road and over 1,000 feet away from this highwall above the closed haul road.

Post-Inspection Meeting at the Mine Office

After leaving the pit, a meeting was held in the mine office. In addition to those listed above, the meeting was attended by [REDACTED] and [REDACTED] both from [REDACTED]. The company stated that they feel that the mitigation measures taken in the [REDACTED] are adequate, that is the 12-foot-high berm placed 80 feet out from the base of the highwall. They also restated the fact that they expect to be in that area only a short time, perhaps a month or two at the most. Then the mining will move up to near the top of the pit in this area. They also stated that the following precautions would be taken while they are mining at the base of the [REDACTED] highwall:

- The Slope Stability Radar unit will continue to monitor the highwall 24 hours a day and 7 days a week.
- The alarms will be set for movements exceeding the preset limits, 1-inch-per-hour over 10 pixels. If this limit is exceeded, mine dispatch will be notified who will then alert the slope engineer.
- When working in the area at night, a spotter will be used and a light plant will illuminate the work area.
- People will not be permitted on foot or in small vehicles near the base of the highwall.
- The berm will be maintained at 12 feet high and 80 feet out from the base of the highwall.
- No work will be done near the base of the [REDACTED] highwall; no one needs access inside of the current berm locations.

ANALYSIS AND EVALUATION

On [REDACTED] after returning to the office, I received from [REDACTED] the operator's data files for rockfall analyses for the [REDACTED] highwall. These analyses were run by the company's consultant, [REDACTED]. These analyses evaluated the effectiveness of 12- and 15-foot-high berms placed various distances from the base of the highwall as rock catchers. This distance from the base of the highwall

was measured to the outer toe of the berm. The results from seven rockfall analyses using the Colorado Rockfall Simulation program were submitted. The results of the submitted rockfall analyses are summarized in the following table.

Submitted [REDACTED] Highwall Rockfall Analyses		
Berm Height	Distance Out of Berm Crest	Rocks Passing Berm Crest
No Berm		6% of rocks rolled 60 feet out or more, 2% reaching 80 feet out
12'	42'	9%; 1% reached 80 feet out
12'	52'	2%
12'	57'	None
12'	62'	None
15'	37'	6%; 3% passing 80 feet out
15'	47'	None

The submitted analyses used a highwall cross section derived from the mine contour map, a copy of which I had received on the CD on [REDACTED]. As mentioned earlier, this contour map had elevation contours every 25 vertical feet and did not accurately show most of the bench locations and bench widths in the highwall. The highwall was modeled between elevations 5,300 feet at its base and 6,500 feet above the upper haul road ramp. The analyses assumed that 15-foot-diameter, spherical rocks fell from the highwall between elevations 5,900 feet, the base of the debris cone, and 5,920 feet, the location of the 10- to 15-foot loose rock depicted in the close-up photo of the [REDACTED] debris cone (figure 4).

I obtained highwall configuration measurements for the [REDACTED] highwall using a Laser Technology, handheld Impulse 200 LR laser rangefinder. This device has a range of 1,800 feet and an accuracy of between 0.1 and 0.5 feet. This range was not sufficient to measure the entire highwall profile. However, using the measurements obtained, the contour map and estimates from observations and photographs, a highwall configuration including benches was estimated. This configuration was used to evaluate rockfall potential. In these analyses, rocks were dropped from a zone extending from the bottom of the debris cone described above, up to near the upper haul road ramp level.

The data showing measurements of movement between [REDACTED] for five prisms, was submitted on the CD received on [REDACTED]. All five of these prisms were on the same side of the pit as the [REDACTED] highwall, northwest. Two prisms, JM_11 and JU_12, were in excess of 5,600 feet and 3,700 feet respectively, along the highwall, away from the area where the rockfall analyses were done. One prism, LU_01, is at a higher elevation and southwest of the rockfall area. The other two

prisms, MU_102 and MU_107, are at a higher elevation and east of the rockfall area. There are no prisms in the area of the [REDACTED] highwall where the rockfall analyses were done. The prism monitoring data covers less than 1 month and is not of sufficient duration to determine any movement trends. However, the submitted data does not show any significant movement. No rockfall analyses nor prism movement data were submitted for the [REDACTED]

CONCLUSION AND RECOMMENDATION

We were requested to verify that the proposed rockfall remediation measures for both the [REDACTED] Area highwall and the [REDACTED] highwall are adequate. These included a 12-foot-high berm placed 80 feet out from the base of the [REDACTED] highwall and smaller berms placed on various haul roads approaching the base of the [REDACTED] highwall.

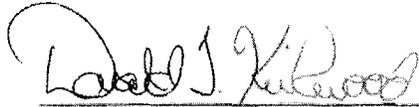
Although a detailed evaluation of mass stability of the [REDACTED] highwall and the [REDACTED] highwall was not done, [REDACTED] officials were questioned about their efforts and observations related to mass stability. The [REDACTED] has had small, apparently geologic structure controlled, failures in the upper portion of the highwall. This area is being monitored with only a few prisms near the top of the highwall. However, the GroundProbe Slope Stability Radar monitoring unit has been moved into the [REDACTED] and is continually monitoring the highwall. Reportedly, there has been no significant movement detected in this area. There doesn't appear to be any reason to suspect, at this time, a mass stability concern above the active mining in the [REDACTED]

The mass stability of the [REDACTED] highwall is more in question, however. A large area has been involved in a previous slide. There is no monitoring directly being done of this area, although prisms above and around this area are being monitored. However, the closest berm beneath this slide area was estimated to be in excess of 500 feet away from the base of the highwall beneath the closed haul road and over 1,000 feet away from this highwall above the closed haul road where the movement had taken place. Since no one will be working or traveling closer to this area than this, it is not felt that these slides should pose a hazard to miners. Likewise, since there will be no access close to the base of the [REDACTED] highwall, there should be no exposure to rockfall hazards from that area.

The more important evaluation is of the exposure of miners to rockfall hazards while working or traveling beneath the [REDACTED] highwall. The submitted analyses indicate that the existing 12-foot-high berm placed 80 feet out from the base of the highwall is adequate protection from rockfalls. The analyses done based on the information collected verified this. In addition, the company is taking extra precautions including continual monitoring, using lighting and spotters at night, and restricting

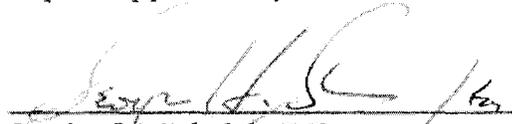
access to miners on foot or in small vehicles. The 12-foot-high berm placed 80 feet out from the base of the highwall is felt to be adequate protection from rockfalls in the [REDACTED] highwall.

Report Prepared by:



Donald T. Kirkwood, P.E.
Civil Engineer

Report Approved by:



Stanley J. Michalek, P.E.
Chief, Mine Waste and Geotechnical Engineering Division

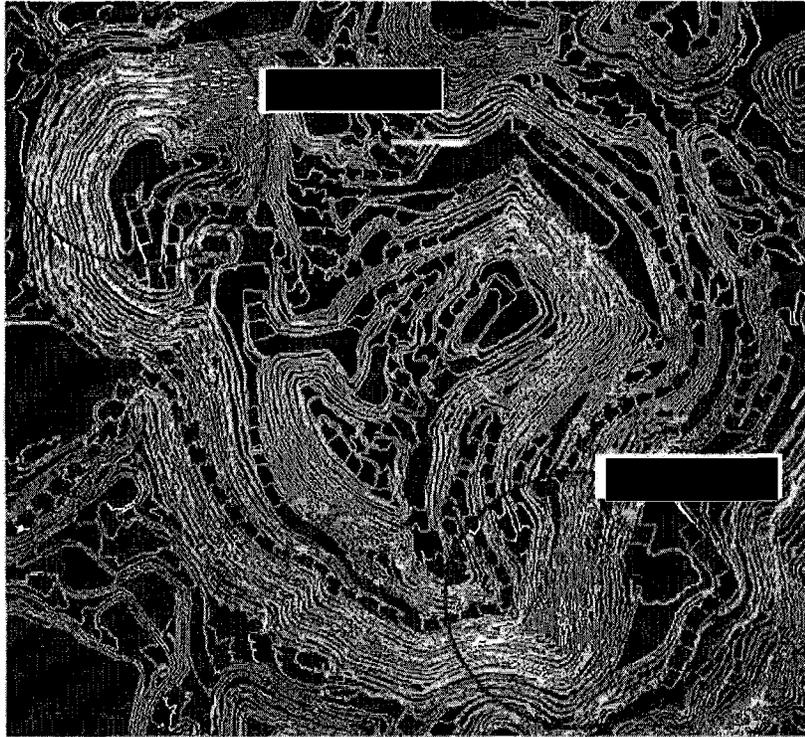


Figure 1 - Overview of [redacted] with Highwall Areas



Figure 2 - Overview of [redacted] Highwall

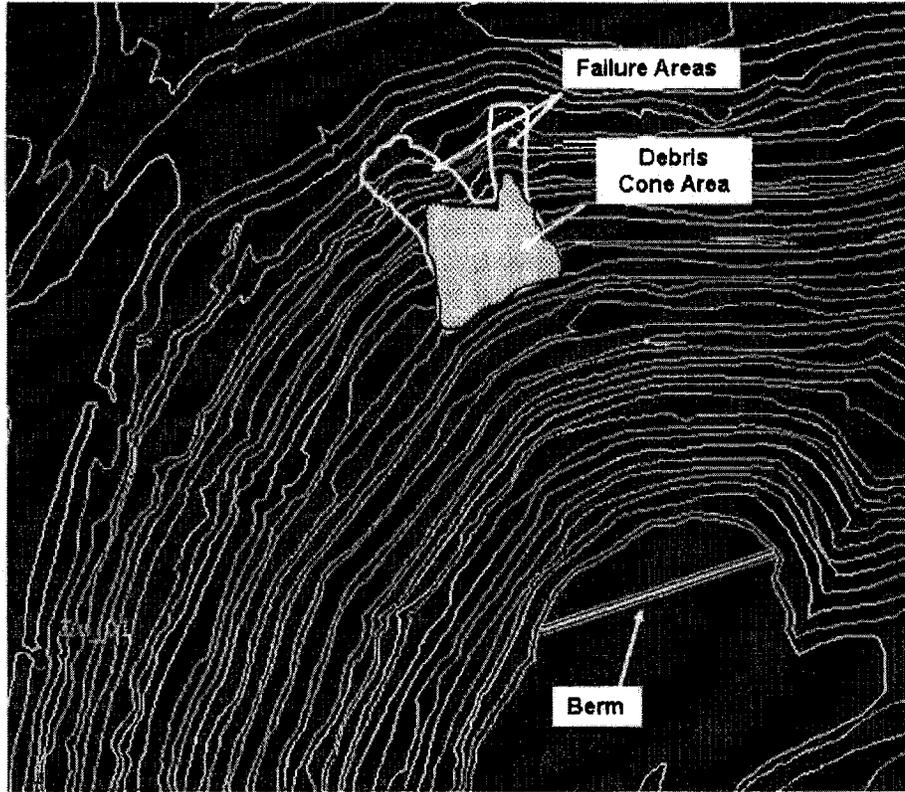


Figure 3 - [redacted] Highwall Area

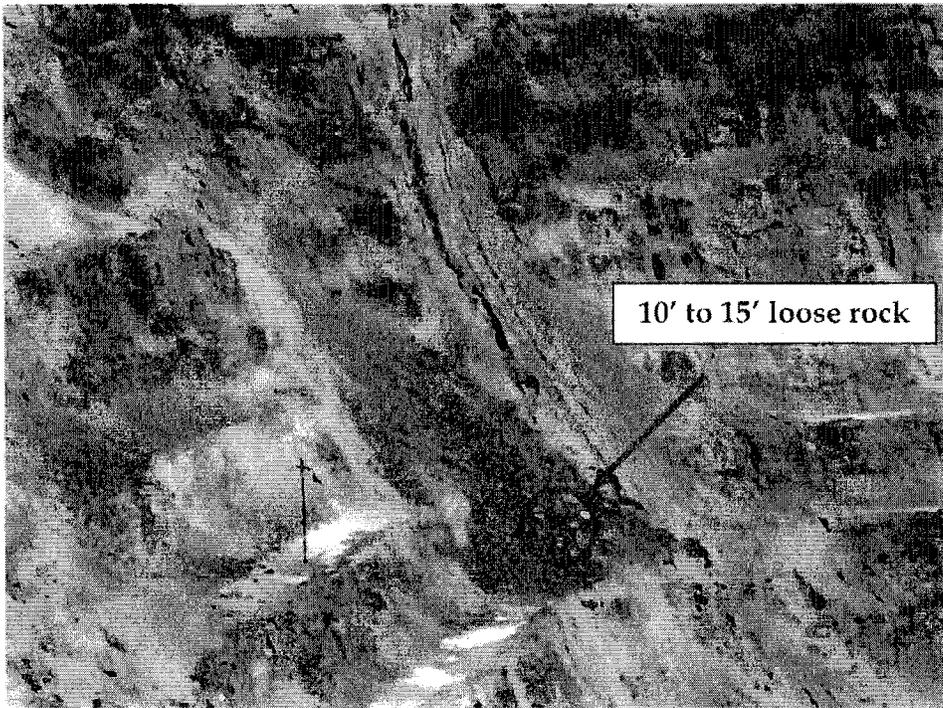


Figure 4 - Closeup of Debris Cone ([redacted] Highwall)

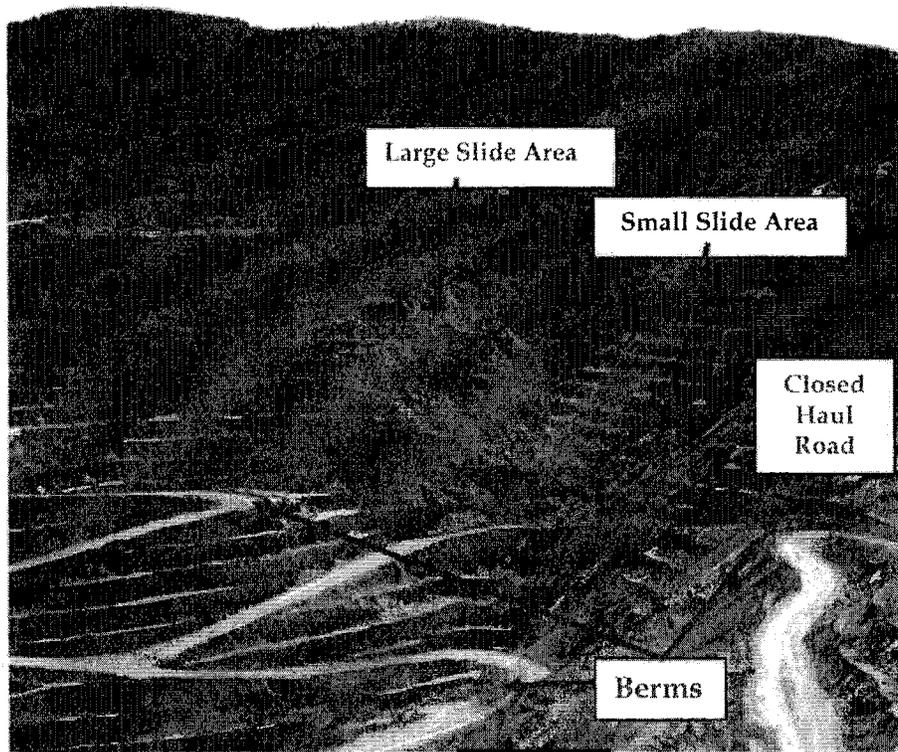


Figure 5 - Overview of [redacted] Highwall

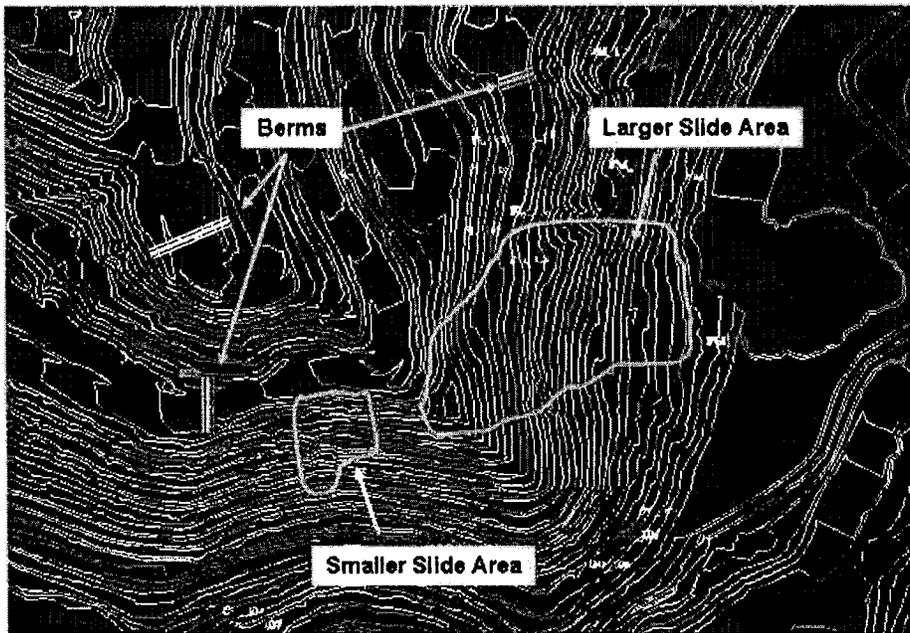


Figure 6 - [redacted] Highwall Area

Attachment D

South Central District, Albuquerque, NM FO Audit of the [REDACTED]
[REDACTED]

FY 2007 4th Quarter inspection report review

Positive Comments

1. Field notes indicate the inspectors assigned to the mine conducted a complete and thorough inspection of the entire mine;
2. Safety talks on various subjects were documented. In addition, discussions regarding Health were conducted;
3. Every citation was reviewed, including root cause analysis, in the close-out conference with the operator.
4. Field notes indicated SPL readings taken throughout the inspection in area's suspect to exposure.

Recommendations Requiring Attention

Only [REDACTED] inspection hours on the [REDACTED] shift, with no inspection time between [REDACTED] and [REDACTED] for this event to observe the work practices. An inspector began his inspection on [REDACTED] departing the mine site at [REDACTED] hours. No other off-shift or week-end inspection activity was documented for this inspection. This mine operates 24 hours-a-day, 7 days a week, year round. (The M/NM General Inspections Procedure Handbook states: "The inspector shall make sufficient inspections in multi-shift operations to determine that safe conditions exist and that proper work procedures and practices are applied on all shifts.") It appears to be very minimal time spent on off shifts observing work practices and mine conditions with no weekend inspection time.)

Recommendation – Evening and midnight operation, haulage, dispatching, shift examinations, and general work practices can not adequately be observed in a single or partial inspection shift. Time spent on off shift and weekend inspections should be determined on a mine-by-mine basis by the type of work being done on those shifts.

1. Gravity and negligence determinations did not always appear consistent with the narrative of the citation and the supporting field notes. The facts relative to conditions or practices cited were not always recorded in the inspector's field notes as required by the M/NM General Inspection Procedures

Handbook. Specifically, the questions regarding "Who knew the violation existed?" and "How long has the violation existed?" were not answered. (example: Citation [REDACTED] indicates this was a responsibility of a vendor. The operator does their own blasting and the blast supervisor indicated he visited the magazines daily as part of his work routine; Citation [REDACTED] the negligence description failed to identify the operators opportunity to observe the condition, only that there were other similar items in the area that met the regulatory requirements indicating the operator had reason to know the requirements and failed to take appropriate action.; Citation [REDACTED] the documentation indicates the operator failed to "notice absence of grounding straps". This is similarly stated on citation [REDACTED] which indicates a possible violation for inadequate examinations as well.

Recommendation – Inspectors should always check company examination records to assist them in determining negligence and the proper level of enforcement to be applied. Verify who traveled the area to determine if examination of company records would have allowed the inspector to answer both questions accurately. In each case, the field notes should support and justify the inspector's evaluations.

2. The supporting documentation in the field notes for some citations was inadequate to support the inspectors reasoning for determining exposure, or likelihood.

Attention Required – Conditions or practices that constitute a violation should be evaluated and documented properly for negligence, likelihood, gravity, and S&S, and the proper level of enforcement applied. The time allowed for abatement should be reasonable and determined by the seriousness of the violation, not by convenience for the mine operator.

Citation [REDACTED]

Mine Citation/Order

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



Section I - Violation Data

1. Date Mo Da Yr [REDACTED]	2. Time (24 Hr. Clock) [REDACTED]	3. Citation/ Order Number [REDACTED]
4. Served To [REDACTED]		5. Operator [REDACTED]
6. Mine [REDACTED]		7. Mine ID [REDACTED] (Contractor)

8. Condition or Practice 9a. Written Notice (102g)

The nut securing the electrical bonding connection from the access door to the booster magazine was not tightened to assure the same electrical potential for the entire structure. Employees are exposed to possible serious injury resulting from premature detonation of stored explosives caused by sparking. No electrical type explosives are presently stored in this structure.

PHOTOS TAKEN

See Continuation Form (MSHA Form 7000-2a)

9. Violation	A. Health Safety Other <input type="checkbox"/>	B. Section of Act	C. Part/Section of Title 30 CFR	56.6132b
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Section II - Inspector's Evaluation

10. Gravity:

A. Injury or illness (has) (is): No Likelihood Unlikely Reasonably Likely Highly Likely Occurred

B. Injury or illness could reasonably be expected to be: No Lost Workdays Lost Workdays Or Restricted Duty Permanently Disabling Fatal

C. Significant and Substantial: Yes No D. Number of Persons Affected: 001

11. Negligence (check one) A. None B. Low C. Moderate D. High E. Reckless Disregard

12. Type of Action 104a 13. Type of Issuance (check one) Citation Order Safeguard

14. Initial Action A. Citation B. Order C. Safeguard D. Written Notice E. Citation/Order Number F. Dated Mo Da Yr

15. Area or Equipment

16. Termination Due A. Date Mo Da Yr B. Time (24 Hr. Clock)

Section III - Termination Action

17. Action to Terminate: The nut was tightened securing the grounding strap.

18. Terminated A. Date Mo Da Yr B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code) H01	20. Event Number [REDACTED]	21. Primary or Mill P	23. AR Number [REDACTED]
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MSHA Form 7000-5, Mar 85 (revised) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-866-REG-FAIR (1-866-754-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 409 3rd Street, SW, MC 3120, Washington, DC 20410. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

CITATION/ORDER DOCUMENTATION

DATE [REDACTED] CIT/ORD No. [REDACTED] EVENT No. [REDACTED]
TIME [REDACTED] CONTRACTOR ID No. [REDACTED]

DESCRIPTION

DESCRIBE: CONDITION/PRACTICE/HAZARD/LOCATION
CND - BATTERY MACHINE NOT PROPERLY
SECURED
GROUNDING STRAP ON DOOR NOT
PROPERLY SECURED -
ATTACHMENT POINT NOT
SECURED. NOT NOT TIGHTENED
7252 BENCH
CONTRACTOR USES

LICENSED
EXPIRE

56.61226 PHOTO TAKEN.

LIKELIHOOD

No Likelihood () Unlikely (x) Reasonably Likely () Highly Likely () Occurred ()
Justification: ACCESSED ONLY 1-2 TIMES PER WEEK
RECENTLY MOVED FROM ANOTHER LOCATION NEARBY

No Lost Workdays () Lost Workdays or Restricted Duty () Permanently disabling () Fatal (x)
Justification: SPARKS INSTANTLY CAUSED BY STRAY ELECT.
NO STANDARD EQUIPMENT

Persons affected: 1

SEVERITY

None () Low () Moderate (x) High () Reckless Disregard ()
Justification: MACHINES RECENTLY SUPPLIED
BY VENDOR. CONDITIONS SHOULD HAVE BEEN NOTED
WHEN DELIVERED.

Area/Equipment (Orders):

Citation



Mine Citation/Order

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



Section I - Violation Data

1. Date Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/ Order Number
4. Served To	5. Operator	
6. Mine	7. Mine ID	(Contractor)

8. Condition or Practice 8a. Written Notice (103g)

No electrical bonding connection was provided from the access door to the metal structure of the presplit magazine to assure the same electrical potential for the entire structure. Employees are exposed to possible serious injury resulting from premature detonation of stored explosives caused by sparking. No electrical type explosives are presently stored in this structure.

PHOTOS TAKEN

See Continuation Form (MSHA Form 7000-3a)

9. Violation	A. Health Safety <input type="checkbox"/> Other <input type="checkbox"/>	B. Section of Act	C. Part/Section of Title 30 CFR	E. Citation/Order Number
				56.6132b

Section II - Inspector's Evaluation

10. Gravity:

A. Injury or illness (has) (is): No Likelihood Unlikely Reasonably Likely Highly Likely Occurred

B. Injury or illness could reasonably be expected to be: No Lost Workdays Lost Workdays Or Restricted Duty Permanently disabling Fatal

C. Significant and Substantial: Yes No D. Number of Persons Affected: 001

11. Negligence (check one) A. None B. Low C. Moderate D. High E. Reckless Disregard

12. Type of Action 104a 13. Type of issuance (check one) Citation Order Safeguard

14. Initial Action A. Citation B. Order C. Safeguard D. Written Notice E. Citation/Order Number F. Dated Mo Da Yr

15. Area of Equipment

16. Termination Due A. Date Mo Da Yr B. Time (24 Hr. Clock)

Section III - Termination Action

17. Action to Terminate

18. Terminated A. Date Mo Da Yr B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code) E01 20. Event Number 21. Primary or MR P 23. AR Number

MSHA Form 7000-3, Mar 85 (rev) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. The Ombudsman annually evaluates enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-888-REG-FAIR (1-888-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 400 3rd Street, SW, MC 2120, Washington, DC 20416. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

CITATION/ORDER DOCUMENTATION

DATE [REDACTED] CITY/ORD No. [REDACTED] EVENT No. [REDACTED]
TIME [REDACTED] CONTRACTOR ID No. [REDACTED]

DESCRIPTION

DESCRIBE: CONDITION/PRACTICE/HAZARD/LOCATION
COND: ARRESTED MAGAZINE
NO GROUNDING STRAP WAS INSTALLED
ON MAGAZINE

PRACTICE: MAG. RELEASLY BROUGHT ONTO
PROPERTY - INSPECTED BY ATF

HAZARD: STANDARD REQUIREMENT VIOLATED
SERIOUS - PERMANENT DEFORMATION
OF STRAPING.

LOCATION: 7250 HENCO - GOVERNMENT AREA

SG. 6132 b

No Likelihood () Unlikely () Reasonably Likely () Highly Likely () Occurred ()
Justification: NO OCCURRENCE EXPLAINED
COMPANIES STATE -

No Lost Workdays () Lost Workdays or Restricted Duty () Permanently disabling () Fatally ()
Justification: SERIOUS INJURY OCCURRENCE OF
EXCESSIVE STRAP SPALL -

Persons affected: 1

None () Low () Moderate () High () Reckless Disregard ()
Justification: ARRESTED MAGAZINE - EXTRACTION
OPEN FAILED TO NOTIFY PRESENCE OF GROUNDING
STRAP.

Area/Equipment (Orders): _____

Citation

Mine Citation/Order

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



Section I - Violation Data

1. Date Mo Da Yr	2. Time (24 Hr. Clock)	3. Citation/ Order Number
4. Served To	5. Operator	
6. Mine	7. Mine ID	(Contractor)

8. Condition or Practice

8a. Written Notice (103g)

One of the two 55 gallon drum utilized to store used oil was not labeled as to its contents. The drums were stored on the north side of the contractor's service shop. Employees were subject to possible health hazards if unaware of the containers contents.

PHOTO'S TAKEN

See Continuation Form (MSHA Form 7000-3a)

9. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR
			47.41a

Section II - Inspector's Evaluation

10. Gravity:	A. Injury or illness (has) (is): No Likelihood <input type="checkbox"/> Unlikely <input checked="" type="checkbox"/> Reasonably Likely <input type="checkbox"/> Highly Likely <input type="checkbox"/> Occurred <input type="checkbox"/>
	B. Injury or illness could reasonably be expected to be: No Lost Workdays <input type="checkbox"/> Lost Workdays Or Restricted Duty <input checked="" type="checkbox"/> Permanently Disabling <input type="checkbox"/> Fatal <input type="checkbox"/>
	C. Significant and Substantial: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	D. Number of Persons Affected: 001
11. Negligence (check one)	A. None <input type="checkbox"/> B. Low <input type="checkbox"/> C. Moderate <input checked="" type="checkbox"/> D. High <input type="checkbox"/> E. Reckless Disregard <input type="checkbox"/>
12. Type of Action	104a
13. Type of Issuance (check one)	Citation <input checked="" type="checkbox"/> Order <input type="checkbox"/> Safeguard <input type="checkbox"/>
14. Initial Action	A. Citation <input type="checkbox"/> B. Order <input type="checkbox"/> C. Safeguard <input type="checkbox"/> D. Written Notice <input type="checkbox"/>
	E. Citation/ Order Number
	F. Dated Mo Da Yr
15. Area or Equipment	

16. Termination Due	A. Date Mo Da Yr	B. Time (24 Hr. Clock)

Section III - Termination Action

17. Action to Terminate A label were attached to the containers.

18. Terminated	A. Date Mo Da Yr	B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code)	20. Event Number	21. Primary or Mill
E01		p
		23. AR Number

MSHA Form 7000-3, MAR 85 (revised) In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established a National Small Business and Agriculture Regulatory Ombudsman and 10 Regional Fairness Boards to receive complaints from small businesses about federal agency enforcement actions. The Ombudsman actively evaluates enforcement activities and apes each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-800-FED-FAIR (1-800-734-3247), or write the Ombudsman at Small Business Administration, Office of the National Ombudsman, 409 3rd Street, SW, MC 2120, Washington, DC 20416. Please note, however, that your right to file a comment with the Ombudsman is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.

CITATION/ORDER DOCUMENTATION

DATE [REDACTED] CIT/ORD No. [REDACTED] EVENT No. [REDACTED]

TIME [REDACTED] CONTRACTOR ID No. [REDACTED]

DESCRIBE: CONDITION/PRACTICE/HAZARD/LOCATION

CONDITION - 35 GAL DRUM NOT LABELED AS TO CONTENT - USED OIL

PRACTICE - LABELS HAD BEEN OFFICED - HAD FALLEN OFF - DETRIMENTAL CASES - USED OIL, ELEMENTS - STORAGE OF BARREL OUTDOOR -

HAZARD - SKIN, EYE IRRITATION CONTACT WITH CONTAMINATED WORK AREA.

LOCATION - NORTH SIDE OF CONTRACTOR SHOP.

No Likelihood () Unlikely (X) Reasonably Likely () Highly Likely () Occurred ()

Justification: MINE PERSONNEL UTILIZE

No Lost Workdays () Lost Workdays or Restricted Duty (X) Permanently Disabling () Fatal ()

Justification: SKIN, EYE IRRITATION

Persons affected: 1

None () Low () Moderate (X) High () Reckless Disregard ()

Justification: 55 GALLON DRUM ADJACENT HAD LABEL OFFICED.

Area/Equipment (Orders):

Page 24 of 25

Attachment E

South Central District, Albuquerque, NM FO Audit of the [REDACTED]
[REDACTED]

FY 2007 2nd Quarter inspection report review

Positive Comments

- ❖ Field notes indicate the inspectors assigned to the mine conducted a complete inspection of the entire mine for this inspection
- ❖ Safety talks on various subjects were documented. In addition, discussions regarding Health were conducted;
- ❖ Every citation was reviewed, including root cause analysis, in the close-out conference.
- ❖ Field notes indicated SPL readings taken throughout the inspection in area's suspect to exposure.
- ❖ Documentation justifying negligence, gravity, likelihood, appeared to be adequate and complete.

Issues Requiring Attention

No off-shift or week-end inspection activity was documented for this inspection. This mine operates 24 hours-a-day, 7 days a week, year round. (The M/NM General Inspections Procedure Handbook states: *"The inspector shall make sufficient inspections in multi-shift operations to determine that safe conditions exist and that proper work procedures and practices are applied on all shifts."*)

Recommendation – Evening and midnight operation, haulage, dispatching, shift examinations, and general work practices can not adequately be observed in a single or partial inspection shift. Time spent on off shift and weekend inspections should be determined on a mine-by-mine basis by the type of work being done on those shifts.

Highwall evaluation should be high priority and well documented. Information concerning the company's inspection process and highwall maintenance should be reviewed during every inspection. If there are questions on the highwalls tech support should be called in to assist with the evaluation and appropriate actions, to correct the hazard or to ensure the safety of the miners.

Penmanship for some inspectors appears to be hurried, making it difficult to read the notes they have documented.