

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

Logo



Investigation Summary
 Fri Aug 27, 2004 3:08pm

Reporting ID	Investigation Summary Number	OSHA-OIG Number	OSHA-36 Establishment Name
0830500	201572716	101573269	Wolverine Drilling Inc.
Date	08/13/04	Event Time	03:30 pm
Event Description	Rig collapse		

OSHA-OIG Number	307524439
Establishment Name	Wolverine Drilling Inc.
Employer/Employee Name	
Address	
City	
State	
Zip	
Industry	A. Fatality
Name	22 Miner - 21 other
Race/Ethnicity	04 Body system
Source of Injury	43 Other
Event Type	01 Struck by
Equipment/Category	18 Other
Primary Cause	04 Malfunction of procedure for securing operation or warning of hazardous situation
Task	A Regularly Assigned
Substance/Code	
Occupational Code	

Abstract:

On August 13, 2004 at approximately 3:15 PM employees #1, #2, #3, #4, and #5 began "tripping out" (removing drill string) from a well bore approximately 8400 feet deep. While picking up a section of drill string weighing approximately 270,000 pounds, the crown block fell through the derrick crushing employee #2.

NARRATIVE OF WOLVERINE DRILLING INC. ACCIDENT INVESTIGATION

This inspection was the result of a workplace accident fatality called into the DAO by Chris Williams with EnCana on the afternoon of 8/13/2004. Area Director with the DAO assigned this investigation to me while instructing me to leave first thing in the morning, 8/14/2004.

I arrived on site at about 1:00 PM on Saturday, 8/14/2004.

I conducted an opening conference with the following:

Larry Bloms:	Drilling Superintendent with Wolverine
Robert Blackford:	President of Wolverine
Kirsten Kurath:	Attorney for EnCana
Chris R. Williams:	Safety/Health rep for EnCana

I presented everyone with my credentials while explaining the purpose, nature and scope that this inspection would entail. I would be attempting to determine the cause of the incident, what if anything may have contributed to this accident, and whether any violations were found that could result in a citation to one or both companies on site. I gave everyone my condolences on behalf of the Department of Labor and myself. After much discussion and request for documents from Wolverine at a latter time, we prepared for a general walkaround of the rig.

While video taping, I noted the rig, conditions, and obvious rigging that was found primarily on the rig floor. The tool pusher, explained as best could as to what understood happened understanding that was not on site when this accident happened.

After gathering general information, I was told by the president of Wolverine, that the rig would be laid over on Sunday, August 15th, 2004. I told everyone that I would return on that date to better look at the equipment as it was apparent that the crown block had fallen from the top of the mast to the rig floor below.

I next interviewed the employees of Wolverine who were on site and in the derrick when this accident happened.

After interviewing all the above employees of Wolverine, I submit the following to have occurred to the best of my ability.

On August 13, 2004 at approximately 3:15 PM, the day crew of Wolverine was beginning to "trip out" of the third and final hole drilled on behalf of EnCana Oil. The crew began by removing drill string from a depth of approximately 8500 feet. After removing one section of drill string, the crew rigged to remove the next section. While

the driller was beginning to lift the entire drill string, directed all personnel to move away from the drilling floor as approximately 270,000 pounds of weight was indicated on the load indicator on the rig floor. This rig is designed and certified to lift up to 350,000 pounds of weight maximum.

For reasons unknown, the crown block and all associated rigging in the derrick began to break apart and fall to the drilling floor below. was struck by falling equipment and died as a result.

During the course of this inspection, a secondary weight indicator printout called a "Pason" was obtained to verify approximate similar weights. The printout Pason indicates very similar weights were being lifted when the crown block fell from the top of the derrick.

After video taping and interviewing employees, I thanked everyone for their time and said I would return on the 15th.

On Sunday, August 15th, 2004, I returned to the rig to video tape the top part of the derrick while attempting to determine what might have lead to the crown block to fall. The Wolverine tool pusher, appeared to be very knowledgeable about drill rigs having spent most of lift working on them. was obviously very distraught over the death of. gave me opinion as to what may have happened.

Prior to leaving, I spoke to the President of Wolverine, Robert Blackford who said he was going to hire an engineering company to attempt to determine what caused this failure. Over the next several weeks I had discussions with and Mr. Blackford with Wolverine.

On November 1, 2004, I received a final report from Wolverine to include the opinion as to what happened on Rig #33 from Kodiak Engineering LTD.

Kodiak Engineering was also involved in the certification of the new mast that was installed on this platform approximately 18 months earlier. This rig was approved for use by Kodiak and certified as such in February of 2003.

As a result of this investigation, no citations are recommended relating to this accident however, four citations are recommended for other exposures prior to this incident.

A closing conference over the phone was held on 1/21/2005 with the former president and owner of Wolverine. Mr. Blackford told me Wolverine was bought by Pioneer Drilling. Additionally, Mr. Blackford told me was fatality injured in a car accident a couple of months ago.

Mr. Blackford now is classified as a "district" manager on behalf of Pioneer Drilling controlling approximately 53 rigs in total.

Supplemental Narrative for Fatalities:**Case # 307524439 Wolverine Drilling Inc.****Prepared by _____, CSHO, Denver Area OSHA Office****Initiated on 8/14/2004 and Completed on 1/21/2005**

Introduction: On August 13, 2004, at approximately 3:15 PM 5 employees were involved in "tripping" out of well bore approximately 8400 feet deep. While picking up a section of drill string weighing approximately 270,000 pounds, the crown block fell through the derrick fatality injuring an employee.

The following information is provided per CPL 2.113 (Fatality Inspection Procedures):

1. Personal Data - Victim**2. Accident Date:**

- a. How and why did accident occur: Crown block/tackle/rigging fell from the derrick above. Engineering report conducted after fatality stated that The crown frame was not constructed properly.**
- b. Physical Layout: See enclosed engineering report provided by Kodiak. See exhibit 1.**
- c. Sketches and drawings: See exhibit 1 by Kodiak Engineering.**

- d. Measurements: Mast height 131 feet.
- e. Video/Photos: See enclosed DVD's

3. Equipment Involved in Process

- a. Machine Type: Mast Model: Rig Structures and Supply Co.
- b. Manufacturer Rig Structure and Supply Co.
- c. Model: Serial number 2212
- d. Manufacturer's Instructions; NA
- e. Kind of Process: Oil/gas drilling
- f. Condition: NA
- g. Misuse: NA
- h. Maintenance Program: Yes
- i. Equipment Inspection (logs, reports): Enclosed
- j. Warning Devices: Weight indicators (2)
Martin Decker Hydraulic visual weight indicator.
Pason system which indicated approximately 270,000 lbs.
- k. Tasks Performed: Tripping out of hole.
- l. How often is equipment used? Daily
- m. Energy sources and disconnecting means identified- Adequate
- n. Supervision/instruction provided to employees involved in accident- Adequate

4. Witnesses

- a. Public: No.
- b. Fellow Employees- No.
- c. Management- No.

5. Safety and Health Program

- a. Does employer have a safety and health program?
Yes
- b. Does the program address the type of hazard which resulted in the fatality?- Yes, rig inspections.

Potential Criminal Investigations

1. Section 17 (e) of the Act provides for criminal prosecution of an employer who is convicted of having willfully violated an OSHA standard, rule or order when the violation caused the death of an employee.
2. Early in investigations the Area Director shall make an initial determination whether there is potential for criminal violation, based on the following criteria.
 - a. A fatality has occurred.

b. There is evidence that an OSHA standard has been violated and that the violation contributed to the death.

c. There is reason to believe that the employer was aware of the requirements of the standard and knew it was in violation of the standard.

(Analysis and response to potential criminal investigations to be placed here)

U.S. DEPARTMENT OF LABOR RECEIVED
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

2005 FEB 15 A 11: 54

In the Matter of: Wolverine Drilling
OSHA Inspection Number: 307524439

DENVER AREA OFFICE

INFORMAL SETTLEMENT AGREEMENT

The undersigned Employer and the undersigned Occupational Safety and Health Administration (OSHA), in settlement of the above citation(s) and penalties which were issued on January 31, 2005, hereby agree as follows:

1. The Employer agrees to correct the violations as cited in the above citations or as amended below.
2. The Employer agrees to pay the proposed penalties, if any, as issued with the above citation(s), or, if amended by this agreement, as amended below.
3. The Employer further agrees to pay any penalties due by February 28, 2005. If not paid by this date, the full penalty as originally assessed shall become due and payable.
4. The Employer and OSHA agree that the following citations and penalties, if any, are not being amended:

Citation 3 Item 1

5. OSHA agrees that the following citations and penalties are being amended as shown on the attached citation:

Citation 1 Item 1 – The penalty was reduced to \$720.

Citation 1 Item 2 – The penalty was reduced to \$1,200 and the abatement date was extended to March 31, 2005.

Citation 1 Item 3 – The penalty was reduced to \$960.

Citation 2 Item 1 – The classification was changed to Serious and the penalty was reduced to \$1680.

6. The employer agrees to continue to comply with the applicable provisions of the Occupational Safety and Health Act of 1970, and the applicable safety and health standards promulgated pursuant to the Act.
7. The employer agrees to establish a safety and health program which includes audits to assure compliance with OSHA regulations, and safety and health training to reduce hazards in the workplace.

- 8. The employer, by signing this informal settlement agreement, hereby waives its rights to contest the above citation(s) and penalties, as amended in paragraph 4 and 5 of this agreement.
- 9. The employer agrees to immediately post a copy of this Settlement Agreement in a prominent place at or near the location of the violation(s) referred to in paragraphs 4 and 5 above. This Settlement Agreement must remain posted until the violations cited have been corrected, or for 3 working days (excluding weekends and Federal Holidays), whichever is longer.
- 10. By entering into this agreement, the employer does not admit that it has violated the cited standards for any litigation or purpose other than a subsequent proceeding under the Occupational Safety and Health Act.
- 11. Each party to this proceeding agrees to bear its own costs, fees, and expenses incurred at each and every stage of this proceeding.
- 12. The employer agrees to provide annual safety and health training to all of their employees which will be completed within 60 days of this agreement.

Herb Gibson 2/8/05

 For Occupational Safety
 And Health Administration
 HERB GIBSON, Area Director
 February 9, 2005

Raul B. [Signature]

 For The Employer
 February 9, 2005

NOTICE TO EMPLOYEES

The law gives you or your representative the opportunity to object to any abatement date set for a violation if you believe the date to be unreasonable. Any contest to the abatement dates of the citations amended in paragraph 4 of this Settlement Agreement must be mailed to the U.S. Department of Labor Area Office at the Denver Area Office, 1391 Speer Blvd., Suite 210, Denver, CO 80204, within 15 working days (excluding weekends and Federal Holidays) of the receipt by the Employer of this Settlement Agreement. You or your representative also have the right to object to any of the abatement dates set for violations, which were not amended, provided that the objection is mailed to the office shown above within the 15-working-day period established by the original citation.

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

Inspection Number: 307524439
Inspection Dates: 08/14/2004-01/21/2005
Issuance Date: 01/31/2005



Citation and Notification of Penalty

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twshp 7S Range 93W, Rifle, CO 81650

Citation 1 Item 1 Type of Violation: **Serious**

29 CFR 1910.22(c): Cover(s) and/or guardrail(s) were not provided to protect personnel from the hazards of unguarded cellar pits:

- a) **Wolverine Drilling Inc., Rig 33, Rifle, CO:** The previous 5 well bore cellar pits were not adequately covered to prevent employees from inadvertently falling into them.

Abatement Note: Abatement certification is required for this item (See enclosed "Sample Abatement-Certification Letter").

Date By Which Violation Must be Abated:
Proposed Penalty:

02/08/2005
\$ ~~1200.00~~
\$ 720.00 *mz*

See pages 1 through 5 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 307524439
Inspection Dates: 08/14/2004-01/21/2005
Issuance Date: 01/31/2005



Citation and Notification of Penalty

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twshp 7S Range 93W, Rifle, CO 81650

Citation 1 Item 2 Type of Violation: **Serious**

29 CFR 1910.151(c): Where employees were exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body were not provided within the work area for immediate emergency use:

- a) Wolverine Drilling Inc, Rig 33, Rifle, CO: Located near the mixing area, a suitable eye/face washing station was not available to employees who use hazardous chemicals including but not limited to Caustic Soda.

Abatement Note: Abatement certification is required for this item (See enclosed "Sample Abatement-Certification Letter").

Abatement Note: To aid the employer in evaluating what equipment is "suitable" for use, refer to ANSI Z358.1 for guidance. With respect to the proximity to which suitable facilities must be located, refer to section E7.4.4. The unit should be located as close to the hazard as possible, and on the same level. The maximum time required to reach the eye/face wash should be determined by the potential effect of the chemical. For a strong acid or strong caustic, the eye/face wash should be immediately adjacent to or within 10 feet of the hazard. It is recommended that a consulting physician or appropriate professional be contracted for advice on the proper distance of eye/face washing equipment.

Abatement Note: Emergency eye/face wash equipment must be capable of delivering flushing fluid to the eyes and face not less than 3.0 gallons per minute for 15 minutes per ANSI Z358.1 1990, section 7 titled, "Performance of Eye/Face Wash Units."

Date By Which Violation Must be Abated:
Proposed Penalty:

03/31/05
~~03/05/2005~~
\$ ~~2000.00~~
\$ 1,200.00 pm

See pages 1 through 5 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 307524439
Inspection Dates: 08/14/2004-01/21/2005
Issuance Date: 01/31/2005



Citation and Notification of Penalty

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twshp 7S Range 93W, Rifle, CO 81650

Citation 1 Item 3 Type of Violation: **Serious**

29 CFR 1910.212(a)(1): Machine guarding was not provided to protect operator(s) and other employees from hazard(s) created by rotating parts:

a) **Wolverine Drilling Inc, Rig 33, Rifle, CO:** The rotating auger assembly located on the Swaco Brand shale shaker was not covered to prevent employees from inadvertently contacting it. Condition exposed employees to the hazard of amputation should exposure occur.

b) Located on the DB 550 mud pump manufactured by Continental-Emsco, covers to prevent contact with the horizontal pistons were missing. Condition exposed employees to the hazard of amputation should exposure occur.

Abatement Note: Abatement certification is required for this item (See enclosed "Sample Abatement-Certification Letter").

Date By Which Violation Must be Abated:
Proposed Penalty:

02/18/2005
\$ ~~1600.00~~
\$ 960.00 MM

See pages 1 through 5 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 307524439
Inspection Dates: 08/14/2004-01/21/2005
Issuance Date: 01/31/2005



Citation and Notification of Penalty

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twshp 7S Range 93W, Rifle, CO 81650

Citation 2 Item 1 Type of Violation: ~~Repeat~~ *Serious MD*

29 CFR 1910.23(a)(8): Floor hole(s), into which persons could accidentally walk, were not guarded by standard railings with standard toeboards on all exposed sides or by floor hole covers of standard strength and construction:

- a) Wolverine Drilling Inc., Rig 33, Rifle, CO: Located next to the shale shaker over the mud tank, a floor opening measuring 24" X 6" was not covered to guard against stepping into it. Condition exposed employees to the hazard of scrapes, cuts, and/or lacerations should an employee accidentally step into the opening.

Abatement Note: Abatement certification is required for this item (See enclosed "Sample Abatement-Certification Letter").

WOLVERINE DRILLING INC., WAS PREVIOUSLY CITED FOR A VIOLATION OF THIS OCCUPATIONAL SAFETY AND HEALTH STANDARD OR ITS EQUIVALENT STANDARD 29 CFR 1910.23(A)(9) WHICH WAS CONTAINED IN OSHA INSPECTION NUMBER 307521534, CITATION NUMBER 1, ITEM NUMBER 1, ISSUED ON 6/1/2004, WITH RESPECT TO A WORKPLACE LOCATED AT WOLVERINE DRILLING, RIG 33, BENZEL 35-15, RIFLE, CO 81650.

Date By Which Violation Must be Abated:
Proposed Penalty:

02/08/2005
\$ ~~2400.00~~
\$1680.00 MD

See pages 1 through 5 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 307524439
Inspection Dates: 08/14/2004 - 01/21/2005
Issuance Date: 01/31/2005



Citation and Notification of Penalty

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twpshp 7S Range 93W, Rifle, CO 81650

Citation 3 Item 1 Type of Violation: **Other**

29 CFR 1910.134(c)(2): Where the employer has determined that voluntary respirator use is permissible, the employer did not provide the respirator users with the information contained in Appendix "D" to this section ("Information for Employees Using Respirators When Not Required Under the Standard"):

- a) **Wolverine Drilling Inc., Rig 33, Rifle, CO:** Employees provided with filtering facepiece respirators on a voluntary basis were not given the information contained in Appendix "D" of this section.

Abatement Note: Abatement certification is required for this item (See enclosed "Sample Abatement-Certification Letter").

Abatement Note: To assist the employer in complying with the above requirement, the following language was taken from Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard.

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

See pages 1 through 5 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 307524439
Inspection Dates: 08/14/2004-01/21/2005
Issuance Date: 01/31/2005



Citation and Notification of Penalty

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twshp 7S Range 93W, Rifle, CO 81650

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Date By Which Violation Must be Abated: 02/18/2005
Proposed Penalty: \$ 0.00

HERB GIBSON
Area Director

See pages 1 through 5 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 DENVER AREA OFFICE
 1391 SPEER BLVD., SUITE 210
 DENVER, CO 80204
 Phone: (303)844-5285 FAX: 303-844-6676



**INVOICE/
 DEBT COLLECTION NOTICE**

Company Name: Wolverine Drilling Inc.
Inspection Site: SW 1/4 NE 1/4 Sec 14 Twshp 7S Range 93W, Rifle, CO 81650
Issuance Date: 01/31/2005

Summary of Penalties for Inspection Number 307524439

Citation 1, Serious	= \$	4800.00	\$ 7,880.00 m
Citation 2, Repeat	= \$	2400.00	\$ 1,680.00 m
Citation 3, Other	= \$	0.00	
TOTAL PROPOSED PENALTIES	= \$	7200.00	\$ 4,560.00 m

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance.

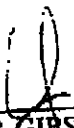
OSHA does not agree to any restrictions or conditions or endorsements put on any check or money order for less than full amount due, and will cash the check or money order as if these restrictions, conditions, or endorsements do not exist.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest. Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is 2%. Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

Delinquent Charges. A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs. Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.



HERB GIBSON
Area Director

1/31/05

Date